



Health
Infrastructure

State Significant Infrastructure Application Report

New Maitland Hospital

January 2018

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Introduction and need

The existing Maitland Hospital facility cannot support the growth and change in the type of services needed to provide contemporary health care to the Hunter Valley Region. The proposed New Maitland Hospital (NMH) at Metford provides opportunities to develop contemporary health facilities that will meet the needs of the Region well into the future.

The Hunter Valley Health Services Planning Project (HVSPP), a collaborative effort between Hunter New England Local Health District (HNELHD), Health Infrastructure NSW (HI) and NSW Ministry of Health was established in 2012 to review infrastructure of current health facilities in the Hunter Valley, and delivered the Hunter Valley Clinical Services Plan 2013 (HVCSP). The major recommendation from the HVCSP was that the existing hospital in Maitland has reached capacity with little or no scope for expansion development, and a new rural referral hospital would be required to replace the current Maitland Hospital and provide increased service capacity and complexity. As a result, the decision was made to identify a suitable site for a new facility on a larger site.

Following from the HVCSP recommendations, and an Expression of Interest process, 35 sites were identified in the Maitland area as being potential new sites for the NMH. In August 2013, a site at Metford was identified as the preferred Hospital site. The preferred site best met the extensive list of more than 50 selection criteria, including:

- Proximity to population centres and areas of population growth and density.
- The proximity of the site to major transport links and support services.
- Able to be serviced by existing utilities and infrastructure.
- Land characteristics.
- Not subject to significant flooding or known mine subsidence.

In March 2015 the NSW Government announced more than \$400 million for the NMH project. The Government's announcement included that the new hospital will be both the rural referral hospital for the Hunter Valley and the major district hospital for local residents of the Lower Hunter.

In July 2017, it was confirmed that the delivery of the New Maitland Hospital would be a partnership approach with the not-for-profit sector. Under this arrangement, the NSW Government's \$450 million investment for the NMH would be combined with funds from the successful not-for-profit provider.

The range of services at the proposed new hospital include emergency care, critical care, surgical care, acute care, maternity services, paediatric care, inpatient medical and surgical beds, rehabilitation, mental health, palliative care, chemotherapy and ambulatory care.

The Site

The site for the New Maitland Hospital (NMH) forms part of the land known locally as the Metford Triangle. The Metford Triangle consists of four separate lots Lot 7314 in DP 1162607, Part Lot 3 in DP 1091727, and Lots 266 and 401 in DP 755237. The Metford Triangle was the old brickworks and quarry formally leased and operated by CSR.

The NMH will be located on the south-western portion of the Metford Triangle within Lot 7314 and part of Lot 401 and is 'the site' referred to throughout this report.

Project benefits

The new hospital will result in the implementation of contemporary and improved models of care, the relocation and an expansion of some clinical services which will increase outputs and enhance health services to meet the service needs of the Region.

The proposed NMH is consistent with key State Government priorities in several strategic planning documents including:

- NSW Making it Happen
- NSW State Infrastructure Strategy
- The NSW State Health Plan: Towards 2021
- Hunter New England Local Health District Strategic Directions Towards 2018
- Hunter New England Local Health District Operational Plan 2015/16
- Hunter Regional Plan 2036 (Oct 2016)

Planning and assessment process

Through the effect of Order 2017 No. 673, dated 28 November 2017, made under Section 115U(4) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), an amendment has been made to Schedule 4 of *State Environmental Planning Policy (State and Regional Development) 2011* (S&RD SEPP). This designates development for the purposes of a health services facility and associated car park that has a capital investment value of more than \$100 million on land identified as being within the New Maitland Hospital Site on the State Infrastructure Sites Map (being Lot 7314, DP 1162607 and part of Lot 401, DP 755237), to be State Significant Infrastructure (SSI). As the NMH meets these criteria, it therefore falls under Part 5.1 of the EP&A Act.

Division 3 of Part 5.1 of the EP&A Act provides for a staged infrastructure application at Section 115ZD(1). HI has determined to proceed with a staged infrastructure application for the NMH under Section 115ZD(1) of the EP&A Act as follows:

- Concept Design and Stage 1: Site clearance and preparatory works
- Stage 2: Detailed design, construction and operation of the hospital.

Purpose of this report

The purpose of this application report is to comply with section 115X of the EP&A Act and to assist the formulation of environmental assessment requirements by the Secretary under section 115Y of the EP&A Act, which would inform the preparation of the Environmental Impact Statement. In particular, SEARs are currently being sought for:

- Staged infrastructure application that sets out the concept proposal for the site; and
- Stage 1 - Site clearance and preparatory works.

Key environmental issues

A preliminary environmental risk analysis for the project has identified the following 'key' environmental issues:

- Traffic, transport and access
- Aboriginal heritage
- Soils, geology and contamination
- Biodiversity
- Hydrology, flooding and water quality
- Noise and vibration
- Air quality
- Social and economic impacts
- Urban design, landscape and visual amenity
- Cumulative Impacts

Detailed assessments of these issues, with the other environmental issues identified will be undertaken as part of the Stage 1 Environmental Impact Statement.

This application report and the Secretary's Environmental Assessment Requirements will inform the preparation of an Environmental Impact Statement for the NMH.

1 INTRODUCTION

This report supports NSW Health Infrastructure's State Significant Infrastructure Application (SSIA) to the Department of Planning and Environment (DP&E) for the proposed NMH under Part 5.1 of the EP&A Act. The report has been prepared to:

- Provide relevant government agencies, other stakeholders and the community with an overview of the proposed NMH, including a preliminary high level assessment of its likely impacts on the environment, and the proposed approach to the detailed environmental impact assessment required for the purposes of planning approval.
- Seek Secretary's environmental assessment requirement's (SEARs) for the proposal under Section 115Y of the EP&A Act to confirm the required scope of the Environmental Impact Statement (EIS) for the proposal.

The structure and content of this report is as follows:

- Section 1 – Introduction: Outlines the purpose of this report and the background, location and key elements of the proposal.
- Section 2 – Project Need: Provides an outline of why the proposal is required, and the selection of the preferred site, the project benefits and consistency of the project with the strategic planning framework.
- Section 3 – The site and locality: Provides a detailed description of the site and its context and the site considerations.
- Section 4 – Proposal description: Provides an outline of the proposal.
- Section 5 – Planning and assessment process: Provides an outline of the statutory approvals framework for the proposal, including applicable legislation and planning policies.
- Section 6 – Preliminary assessment of environmental impacts: Provides a preliminary assessment of the potential impacts of the proposal on the environment.
- Section 7 – Proposed scope of the EIS: Outlines the proposed scope of the EIS for each of the key and other environmental impacts.
- Section 8 – Consultation: Outlines the consultation strategy.
- Section 9 – Justification: Outlines the justification for the proposal.
- Section 10 – Conclusion: Outlines the key conclusions of this report.

1.1 PROJECT OVERVIEW

The existing Maitland Hospital facility cannot support the growth and change in the type of services needed to provide contemporary health care to the Region due to:

- A growing and ageing population in the Hunter Valley.
- The facility is already operating at 97% capacity, well beyond the state benchmark of 85%.
- The number of residents living with chronic disease is on the rise.

- A number of issues relating to age, asset condition, compliance with current facility guidelines and ability to meet contemporary service delivery and models of care.

The proposed NMH will resolve these constraints and provide opportunities to develop contemporary health facilities that will meet the needs of the Region well into the future.

HI is seeking approval for the NMH through a Staged Infrastructure Application in accordance with section 115ZD of the Act.

The Staged Infrastructure Applications are likely to be as follows:

Stage 1

The first stage will include site clearance and preparatory works and a concept design of NMH.

Stage 2

The second stage (which will be subject to a separate application following Stage 1 approval) will include detailed design, construction and operation of the NMH.

1.2 STATUTORY PROCESS

Part 5.1 of the EP&A Act provides for an approval pathway for SSI. It applies only to development declared to be SSI by a State Environmental Planning Policy (SEPP) as per section 115U of the EP&A Act. Under section 115U(4) development may be declared to be State Significant Infrastructure if it is:

(4) Specified development on specified land is State significant infrastructure despite anything to the contrary in this section if it is specifically declared to be State significant infrastructure. Any such declaration may be made by a State environmental planning policy or by an order of the Minister (published on the NSW legislation website) that amends a State environmental planning policy for that purpose.

Through the effect of Order 2017 No. 673, dated 28 November 2017, made under Section 115U(4) of the EP&A Act, an amendment has been made to Schedule 4 of *State Environmental Planning Policy (State and Regional Development) 2011* (S&RD SEPP). This designates development, for the purposes of a health services facility and associated car park, that has a capital investment value of more than \$100 million, on land identified as being within the New Maitland Hospital Site on the State Infrastructure Sites Map (being Lot 7314, DP 1162607 and part of Lot 401, DP 755237, Maitland), to be State Significant Infrastructure (SSI). As the NMH meets these criteria, it therefore falls under Part 5.1 of the EP&A Act.

Division 3 of Part 5.1 of the EP&A Act provides for a staged infrastructure application at Section 115ZD(1): *For the purposes of this Part, a staged infrastructure application is an application for approval of State significant infrastructure under this Part that sets out concept proposals for the proposed infrastructure, and for which detailed proposals for separate parts of the infrastructure are to be the subject of subsequent applications for approval. The application may set out detailed proposals for the first stage.*

As outlined in **Section 1.1** above, HI has determined to proceed with a staged infrastructure application for the NMH under Section 115ZD(1)

1.3 PURPOSE OF THIS REPORT

The purpose of this application report is to assist the formulation of environmental assessment requirements by the Secretary under section 115Y of the EP&A Act.

The application report does the following:

- Describes the proposed project.
- Outlines the key statutory matters and approvals pathway
- Considers the potential environmental issues for the project.
- Summarises the proposed environmental assessment methodology.

The application report and Secretary's environmental assessment requirements will inform the preparation of an Environmental Impact Statement for the project. The form and content of the Environmental Impact Statement will be in accordance with clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

2 BACKGROUND

This chapter describes why the project is needed, and the consistency of the project against the strategic planning framework.

2.1 PROJECT NEED

The existing Maitland Hospital is the rural referral hospital for the Hunter Valley and is the district hospital for greater Maitland residents. Maitland Hospital is facing considerable challenges to meet the health demands driven by a growing and ageing population. As the population ages, the number of people with chronic conditions and co-morbidities is expected to rise and this will place a strong projected demand on HNELHD services.

The current services are at 97% capacity resulting in a high percentage of patients attending or being referred to hospitals in Newcastle or Sydney to meet demand. There are limited ambulatory care services to assist in reducing hospital admissions and length of stay.

The Hunter Valley Health Services Planning Project was established in 2012 to identify the future needs of the community, which included broad consultation with clinicians and other stakeholder groups and analysis of demand trends. The project delivered the Hunter Valley Health Services Clinical Services Plan (CSP) in 2013 and reviewed infrastructure of current health facilities in the Hunter Valley. The major recommendation of the CSP was the development of a new rural referral hospital on a greenfield site to replace the current Maitland Hospital and provide increased service capacity and complexity.

2.2 CONSISTENCY WITH STRATEGIC PLANNING FRAMEWORK

The project will be consistent with the strategic planning framework, as documented in the following reports:

NSW: Making it Happen was released in September 2015. This overarching Strategic Framework document outlines that the NSW Government is working to achieve 12 Premier's priorities and 18 State priorities to grow the economy, deliver infrastructure, protect the vulnerable, and improve health, education and public services across NSW.

NSW Making it Happen also includes priorities for the Regions, such as building infrastructure in the Hunter Region. The proposed development of NMH is identified as a priority infrastructure project for the Region.

Development of these services in regional areas, in particular, is a significant capital investment and results in employment opportunities. Projects will also contribute to achievement of:

- jobs closer to home,
- increased business investment in rural and regional NSW, and
- increased business investment.

State Infrastructure Strategy - The 'State Infrastructure Strategy Update 2014' was prepared by Infrastructure NSW at the direction of the Premier to guide how proceeds from the Rebuilding NSW initiative could be spent. The 30 major projects and programs have been identified as strategically important and economically sound. The recommendations are for infrastructure projects and programs valued at \$18.9 billion—priorities that will reduce congestion, support population growth and stimulate productivity across Sydney and regional NSW.

The Strategy focuses on the strategic investments and reforms that Infrastructure NSW has assessed as being likely to have most impact over the 20 year period to 2032. In relation to NSW Health, the government will invest millions into:

- Delivering health facilities in regional areas and western Sydney.
- Considering opportunities for partnerships with the not-for-profit and private sectors to deliver health care more efficiently and effectively.
- Greater contestability in service provision and more efficient asset management. NSW will also continue to invest in eHealth technology, particularly for patients in regional communities.
- Prioritise configurations in health facilities that provide best practice clinical redesign and reduce operating costs.
- Accelerate the modernisation of metropolitan, regional and rural health, delivering improvements progressively over the next 20 years.

The report indicates that the NSW health system faces growing demand from an ageing population, lifestyle diseases and new care technologies. This will require new models of care, including more beds in smaller, specialist medical facilities and community health centres.

The NMH will deliver health facilities in a regional area, is proposed to involve a partnership with the not-for-profit sector and replace the current Maitland Hospital to provide increased service capacity and complexity.

NSW State Health Plan: Towards 2021, released in 2014, the Plan guides the development of the NSW public health system to 2021 and beyond, with a commitment by the NSW Government to make the most productive use of the finite resources available for health care. The NSW State Health Plan: Towards 2021 provides a strategic framework which brings together NSW Health's existing plans, programs and policies and sets priorities across the system for the delivery of 'the right care, in the right place, at the right time'. The growth and ageing of the population is a major factor in driving up health costs, and this will continue to place increasing demands on health services and other human services in general and radiotherapy services in particular.

The development of NMH directly aligns with the directions and strategies of the NSW State Health Plan, specifically:

- **Direction Two: Providing World-Class Clinical Care.** The NMH will assist with streamlining Emergency Department processes, reducing re-admission rates and supporting new service models to meet emerging health issues.
- **Direction Three: Delivering Truly Integrated Care.** The NMH will support the delivery of seamless integrated care and avoid unplanned hospitalisations.
- **Strategy One: Supporting and Developing our Workforce.** The NMH will enable the HNELHD workforce to deliver first class, patient-centred care.
- **Strategy Three: Enabling eHealth.** The NMH will improve digital connectivity in line with the Blueprint for eHealth in NSW.
- **Strategy Four: Designing and Building Future-Focused Infrastructure.** The NMH will deliver improved facilities and equipment to support the required delivery of care.

NSW Rural Health Plan: Towards 2021, also released in 2014, aims to strengthen the capacity of NSW rural health services to provide connected and seamless care. The NSW Rural Health Plan aligns with the NSW State Health Plan: Towards 2021.

The NSW Rural Health Plan builds on the NSW State Health Plan priorities by focusing on key issues for rural health which have been identified through extensive consultation with rural clinicians, service providers and communities as well as state and local government representatives. Strengthening rural health infrastructure, research and innovation is a key strategy under the NSW Rural Health Plan.

The three key Directions under the Plan include:

- Direction one: Healthy rural communities
- Direction two: Access to high quality care for rural populations
- Direction three: Integrated rural health services

The three key Strategies under the Plan are:

- Strategy one: Enhance the rural health workforce
- Strategy two: Strengthen rural health infrastructure, research and innovation
- Strategy three: Improve rural eHealth

Hunter Valley Service Planning 2013-2017, prepared by NSW Health – Hunter and New England Local Health District. The planning considers the health service requirements of people living within the Hunter Valley, which comprises six local government areas: Cessnock, Dungog, Maitland, Muswellbrook, Singleton and Upper Hunter Shire. The Planning outlines what services the region will need in coming years and provides a guide for how services could be structured and delivered into the future.

Hunter New England Local Health District Strategic Directions Towards 2018 - Flowing from the **NSW State Health Plan: Towards 2021** is the Hunter New England Local Health District: Strategic Plan Towards 2018, which provides an endorsed blueprint for the provision of safe, high quality care to the Hunter New England population in the most efficient and effective manner possible.

Hunter New England Local Health District 2016-2017 - Hunter New England Local Health District (HNE Health) provides a range of public health services to the Hunter, New England and Mid North Coast regions. The NMH will align with the overarching vision for NSW Health and the Hunter New England Local Health District vision of 'Healthy People – Now and into the Future', with the aim of providing health services that:

- Keep people healthy.
- Provide world-class clinical care.
- Deliver truly integrated care.

Hunter Regional Plan - The Hunter Regional Plan (DP&E, Oct 2016) (HRP) outlines the NSW Government's vision, goals and actions for the sustainable growth of this Region to 2036.

The HRP projects that by 2036, an additional 129,850 people are expected to be living in the Hunter Region, with 25% of the population aged over 65 years. The aims of the HRP is to guide the delivery of homes, jobs, infrastructure and services to support the growing and changing needs of the Hunter.

The HRP includes that the Hunter has the largest share of both regional population and regional employment and is located in the State's fastest growing corridor – from the northern edge of Sydney to Newcastle. The HRP forecasts that the population of Maitland will increase by 26,650 people over the next 20 years and a projected increase of 6,476 jobs.

The proposal is consistent with the overarching vision for the Region in the HRP, including:

- *Beyond Greater Newcastle are vibrant centres, towns and villages, many of which have benefited from emerging job opportunities in the health, agriculture, tourism, defence, energy and transport sectors.*
- *Infrastructure investment is the linchpin of economic development across the Hunter. It supports freight, health and education services, and agribusiness and tourism, as well as building resilience to global economic cycles and climate change.*

Specifically, the Proposal is consistent with Action 8.5 of the HRP which contemplates a health precinct and hospital within the Metford Triangle site and Action 26.2 which supports the enabling of health facilities in the Region.

2.3 SELECTION OF PREFERRED SITE

The subject site was identified following a comprehensive site selection process and based on the findings of the research carried out during the preparation of the Hunter Valley Clinical Services Plan 2013.

Following the Expression of Interest phase, which included assessment of more than 35 sites, each site was assessed against over 50 selection criteria which are summarised as follows:

- Accessibility to existing communications, transport links and support services.
- Proximity to population centres and areas of population growth and density.
- Travel time to other major public and private health facilities.
- Access to a skilled and specialist health workforce.
- Environmental and geotechnical factors.
- Consideration of flood prone areas and the implications for access and operation during flooding.
- Land characteristics such as slope, elevation and orientation.
- Potential cost to develop, including connection to utilities.
- Heritage and cultural aspects.

The assessment concluded that the Metford site best meets the future needs of the rapidly growing Maitland community, and the broader Hunter region. The site has the potential to offer:

- Good connectivity to existing and future urban areas.
- Good connectivity to public transport.
- An on-site helipad.
- A buffer zone to residential areas.
- Space for other healthcare providers and future education facilities.

- Space for accommodation for patients and carers.
- Space for future expansion as the population of the Region grows.

2.4 PROJECT BENEFITS

The new hospital will result in the implementation of contemporary and improved models of care, the relocation and an expansion of some clinical services which will increase outputs and enhance health services to meet the service needs of the Region. The NMH will result in the following benefits for the State and the Region:

- Contribute to the fulfilment of the objectives for employment and health services in the State, Regional and Local Plans and Strategies.
- Improved service access and patient flow for Maitland Hospital catchment.
- Assist in closing the Gap between Aboriginal and non-Aboriginal health.
- Improved access to ambulatory care services (including specialist outpatient services) to minimise hospital stay and readmission.
- Grow and support a skilled, competent and capable workforce.
- Assist in the rationalisation and consolidation of services.
- Enhanced delivery of current evidence – based care models and clinical redesign to achieve better health outcomes, reduce length of stay and unplanned admissions.
- Improved patient safety and reduced clinical errors.
- Building partnerships and service integration across health and non-government sectors to increase sustainability and reduce duplication while maintaining and increasing the level of service to the community.
- Improved workplace health and safety.

To provide a greater mix of services a partnership with the not-for-profit sector is being pursued. Potential partners for the procurement model were decided through an expressions of interest (EoI) process and are to be followed by a request for proposal and evaluation.

3 THE SITE AND LOCALITY

3.1 SITE CONTEXT AND DESCRIPTION

Metford is a suburb of Maitland in the lower Hunter Valley and is approximately 2 hours north of Sydney. The NMH is located approximately 5km south-east from the centre of Maitland.

Refer to **Figures 1** and **2** for the location of the proposed NMH site.

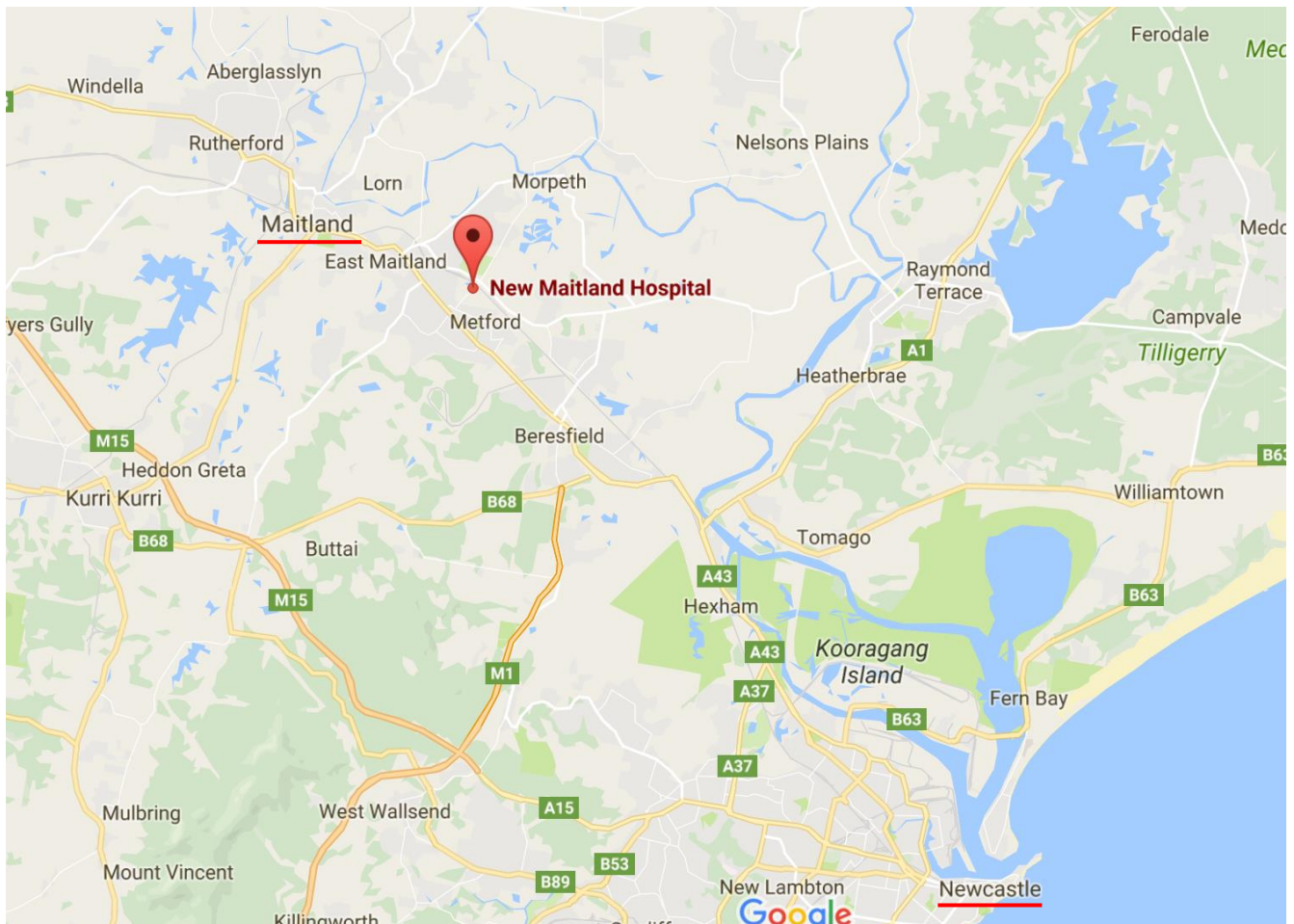


Figure 1: Location of the NMH in relation to Maitland and Newcastle
Source: Google Maps

Health Infrastructure proposes to deliver the NMH on Lot 7314 in DP 1162607 and part of Lot 401 in DP 755237 within the land locally known as the “Metford Triangle” (**Figure 2**). The Metford Triangle is generally comprised of mined, heavily modified or forested areas. Sections of the “triangle” are relatively flat however, these flat areas are separated in benches as a result of mining activities. Steep ridges, being the old mining pit escarpments, form the interfaces.

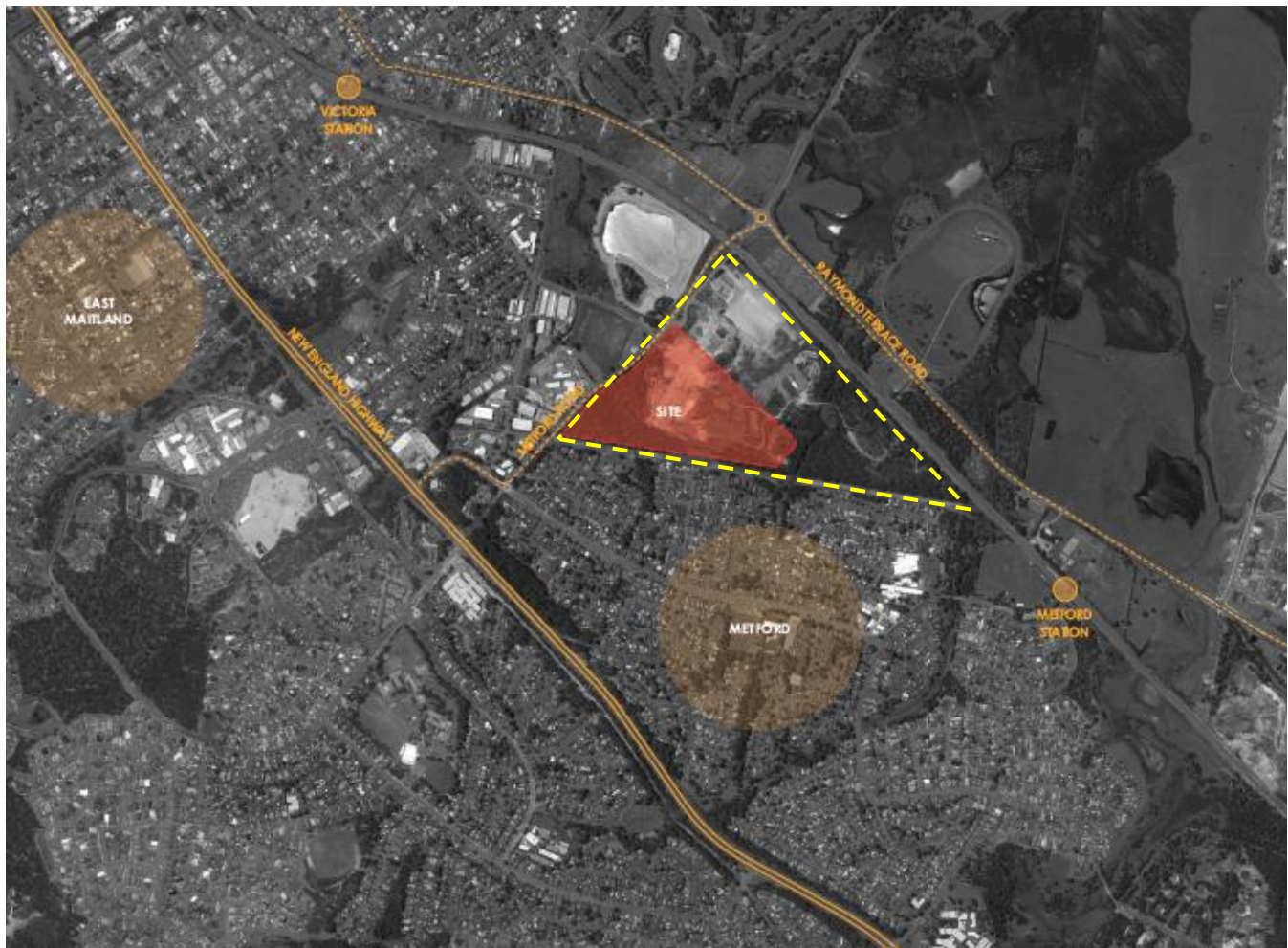


Figure 2: The NMH site (shaded in red) located within the Metford Triangle

Source: Fitzpatrick + Partners

The site is bound to the northwest by Metford Road, to the northeast by the remainder of Lot 401, Lot 266 and the Great Northern rail line and Raymond Terrace Road beyond, and to the south by a high voltage electricity easement. Surrounding areas include residential area of Metford to the south, East Maitland to the west, some light industrial uses immediately to the west, and community lands in the north including the East Maitland Cemetery and a model plane flying club (**Figure 3**).

The NMH site is generally cleared and disturbed land (**Figure 3**). Key characteristics of the site have been identified as:

- Divergent topography varying from RL 26 to RL 10 over the site with the prominent level being RL 18-19 with the primary slope running south to east through the site.
- Remnant natural bushland to the south-western sector of the site primarily comprising of iron bark and spotted gum species – this sector of the site will form a natural buffer between the future Hospital and the existing residential precinct to the south of the site.
- Sections of the site still exhibit symptoms of the previous quarrying activity.
- Notable views to the east over natural bushland and to the Hunter Valley environs beyond.
- An established residential development to the south of the site and open recreational fields to the north and east.



Figure 3: The NMH site and surrounding land uses

Source: Fitzpatrick + Partners

3.2 LAND TITLE, OWNERSHIP AND ACQUISITION

The owner of Lot 7314, DP1162607 is the NSW Health Administration Corporation (HAC). The other Lots associated with the Metford Triangle (Part Lot 3 in DP 1091727, Lot 401 and Lot 266 in DP 755237). Refer to **Figure 4**.

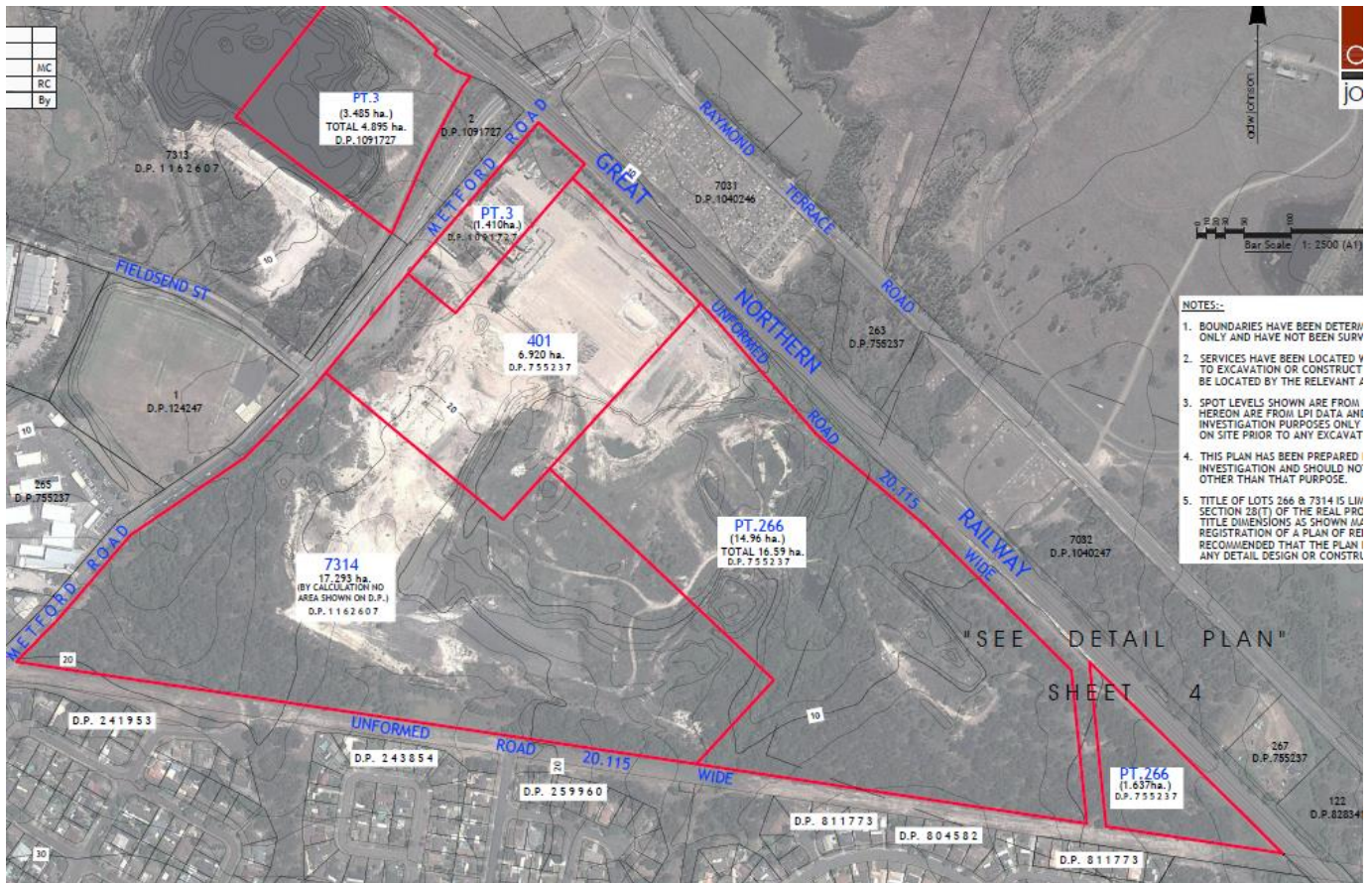


Figure 4: The Metford Triangle and its internal Lots.
Source: Survey Plan (ADW Johnson, 2014)

3.3 SITE HISTORY

The Metford Triangle contains the former brickworks operated by PGH/CSR. CSR currently holds some remaining mining leases over the Crown land site although has ceased clay mining, brick manufacturing and commercial operations. Former operations included extraction of raw materials (sandstone, siltstone and clay) for brick making and numerous product stockpiles and shallow open pits remain around the site. The main brick processing area was located in the far northern corner and comprised brick presses, kilns and storage areas. Much of the infrastructure associated with brick making has now been removed.

Approval to demolish the existing factory buildings on Lot 401, was granted by Maitland City Council in 2012 (Development Consent DA 11-1875).

With regards to the site, CSR have restored it to a stable condition that is suitable for its intended future use as a health services facility.

3.4 SITE CONSIDERATIONS

3.4.1.1 Land Use and Zoning

The site is zoned RU2 Rural Landscape under the Maitland Local Environmental Plan 2011 (MLEP 2011). “Health Services Facilities”, which includes “Hospitals” are prohibited in the zone under the MLEP 2011. In addition, RU2 is not a prescribed zone under the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP).

New Maitland Hospital

Consequently, the ISEPP does not apply and the proposed use is prohibited under the current planning framework.

The declaration of development on the site, with a CIV of \$100 million or more for a health services facility, as SSI overcomes the existing land use prohibition and facilitates the orderly development of the land for the NMH.

The surrounding land is residential to the south and west, with a cluster of commercial uses surrounding the intersection of the New England Highway and Mitchell Drive to the south west. Zoning to the north is primarily a mixture of public space, rural, and other greenfield uses. A cemetery exists on the land between the Great North rail line and Raymond Terrace Road.

An extract of the land use zoning map applying to the site and surrounding land is provided at **Figure 5**, and the land subject to Order 2017 No.673, dated 28 November 2017 made under Section 115U(4) of the EP&A Act (i.e the land that is subject to the State Significant Infrastructure Declaration) is provided at **Figure 6**.

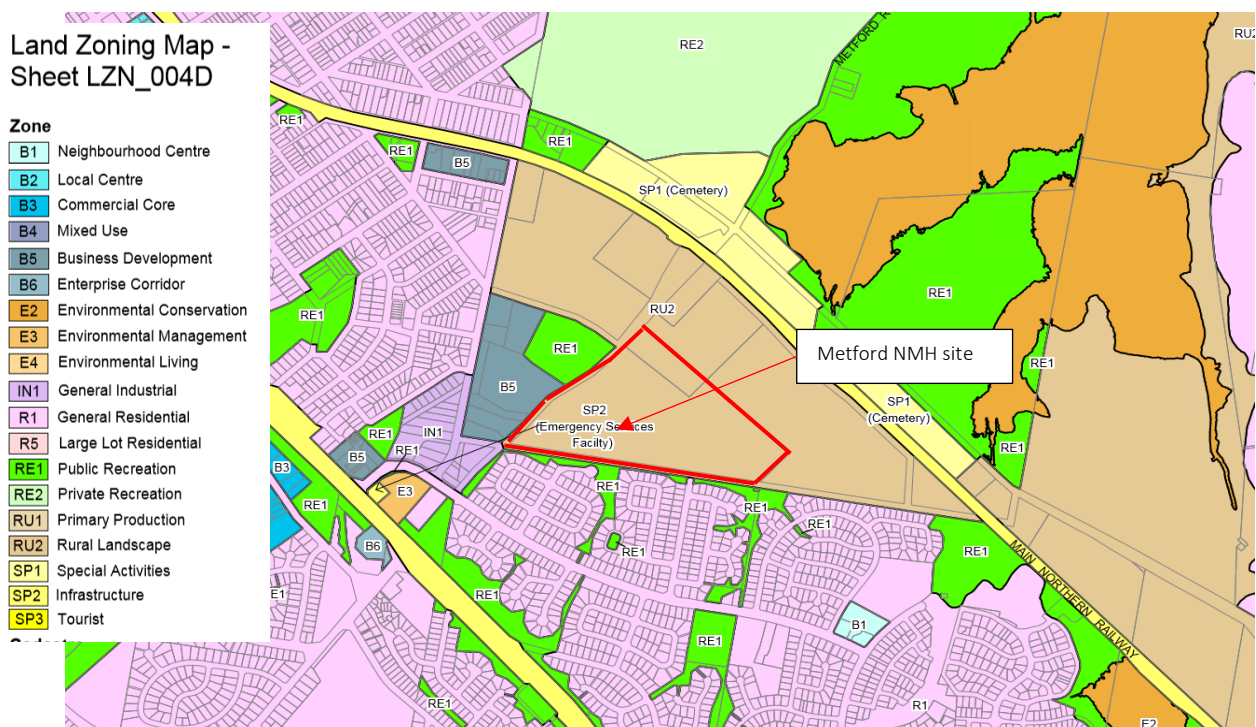


Figure 5: Zoning Map
Source: Maitland LEP 2011



Figure 6: Extent of land subject to Order No 673, dated 28/11/2017 i.e. the SSI Declaration and site boundary is dashed in black. The Metford Triangle is outlined in red.

Many of the surrounding areas are subject to a flood risk zone. The flood risk zone does not impact the Metford NMH site directly (refer to **Figure 7**). The land to the south is established residential land uses, interspersed with green reserve land that track watercourses and overland flow routes.

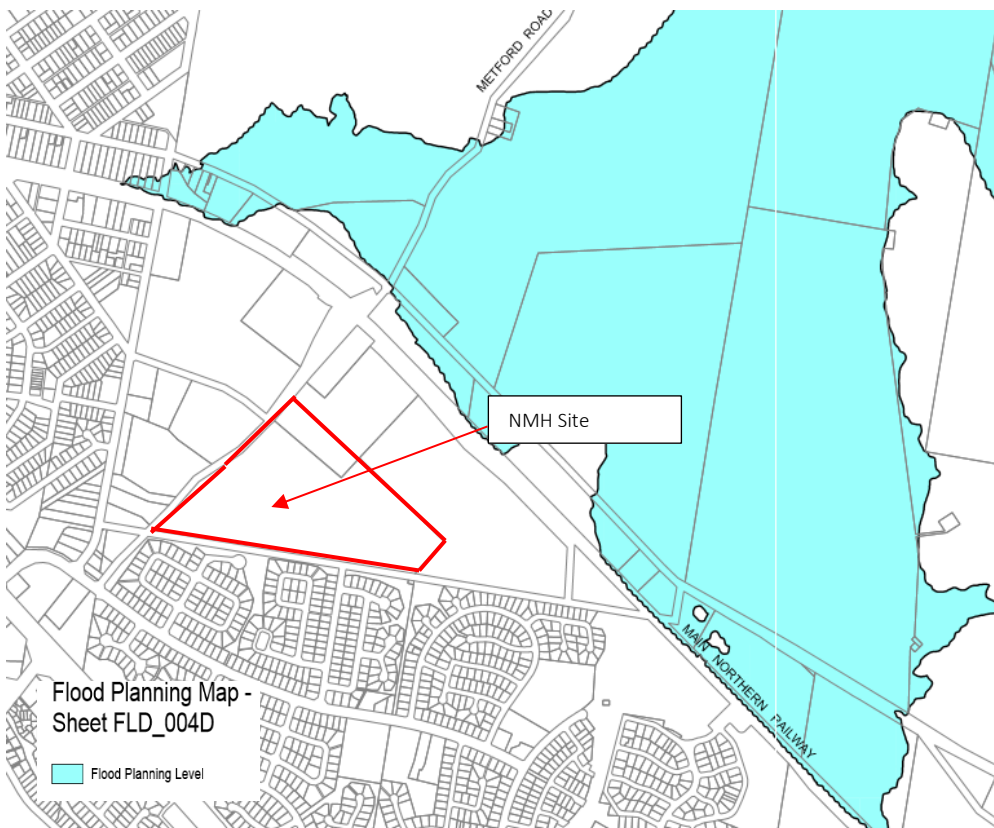


Figure 7: Flood Planning Map
Source: Maitland LEP 2011

3.4.2 TOPOGRAPHY

A full suite of site topography and supporting underground services surveys have been undertaken for the site. The site has been heavily modified by previous mining activities with stockpiles, pit escarpments, batters and unsealed access tracks. CSR have stabilised the site and transferred possession to HAC.

The site generally displays a rolling topography. Significant escarpments with heights over 10m are located along the southern boundary and through the middle of the site.

Survey level information shows that the western boundary, closest to Metford Road, ranges in elevation from RL12m to RL22m. The low point of the site is centrally located at the north-east boundary, with an RL of approximately RL4m.

3.4.3 BUSHFIRE

A large part of the site is identified as bushfire buffer area and bush fire prone land Vegetation Category 1 on the Bush Fire Prone Land Map on the Maitland City Council website (refer **Figure 8**). A preliminary Bushfire Assessment Report has been prepared by Ecological Australia. The recommendations of the bushfire assessment include the provision of Asset Protection Zones, adequate access, water supply for firefighting, the safe installation of utilities, and building construction standards as required by Planning for Bush Fire Protection 2006 (PBP).

A detailed Bushfire Assessment Report will be prepared and lodged with the Environmental Impact Statement (EIS).

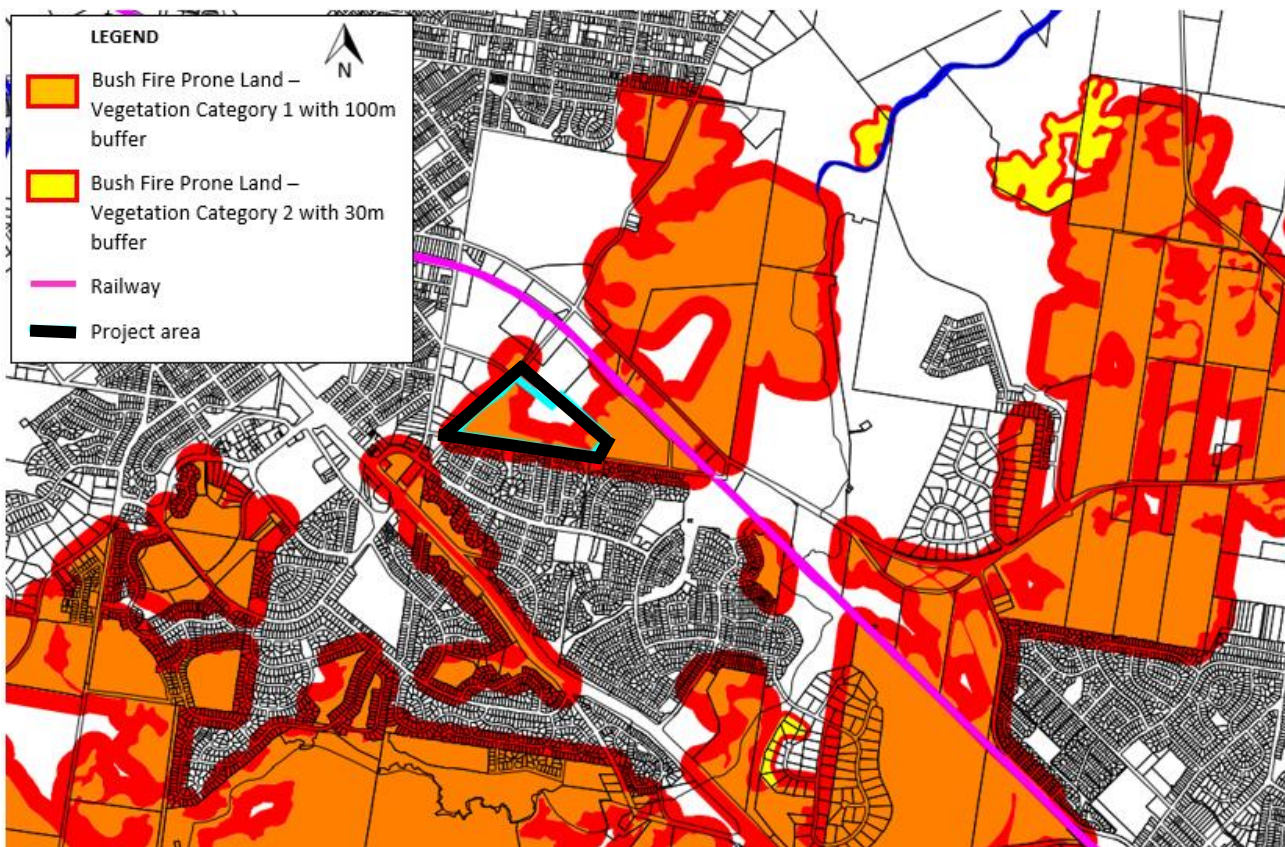


Figure 8: Excerpt from Bushfire Prone Land map

Source: Maitland City Council website

3.4.4 BIODIVERSITY, SOILS AND HYDROLOGY

The site supports remnants of native forest vegetation in the east portion and south-west corner of the site. Vegetation remnants on the site are isolated from extensive areas of native vegetation to the north and only tenuously connected by broken corridors to areas of native vegetation to the south. Previous ecological investigations on the former PHG/CSR quarry and brickworks site (ie. across the whole Metford triangle) undertaken by GHD (2013) and General Flora and Fauna (2014) and recent ecological investigations undertaken by pitt&sherry (July 2017) on the site (Lot 7314) will be relied upon to prepare the Biodiversity Assessment Report for the EIS.

The study area is mapped as being underlain with the Beresfield soil landscape group, comprising Permian-aged siltstone, mudstone and sandstone-derived silts, clays and sands. This regional mapping is generally consistent with site observations of topsoils and rock outcropping.

The western portion of the study area drains to the west to Two Mile Creek whilst the central and eastern portion drains to the east to an unnamed tributary of Three Mile Gully, which, in turn, all flow northward to the Morpeth and Tenambit wetlands on the northern side of the main northern railway line, ultimately discharging into the Hunter River.

3.4.5 SITE CONNECTIVITY

The site is bound by the remainder of Lot 401 and Lot 266 to the north, and Metford Road to the west. Raymond Terrace Road and Great Northern Railway Line bisects Metford Road further north of the site. Raymond Terrace Road will provide a key linkage in the future to development areas located in Thornton North and Port Stephens. It is a two lane sub-arterial road with a posted speed limit of 60km/h in the vicinity of the site. Metford Road is a local road which connects Morpeth and Metford. It is a two lane sub-arterial road with a posted speed limit of 60km/h to the south and 80km/h to the north of Raymond Terrace Road. It connects with Chelmsford Drive, which in turn connects to the New England Highway.

The main access at a sub-regional level is likely to be predominantly from the New England Highway to the south of the site, linking to the Pacific Motorway and Hunter Expressway.

Access to Victoria Street train station, is approximately a 15 - 20 minute walk. Access options diminish towards the east of the site as it narrows towards the corner, however an existing pedestrian and cycle path connect from here to Metford Station, skirting the edge of the Metford Playing Fields and stormwater retention ponds.

The area surrounding the site is served by a number of bus routes operated by Hunter Valley Buses.

A detailed Traffic, Transport and Parking Assessment is being prepared by GTA Traffic Consultants and will be lodged with the EIS submission.

3.4.6 MINE SUBSIDENCE

Subsidence or the sinking of the ground because of underground material movement caused by the extraction of minerals has the potential to cause hazardous conditions. The subject site is not within a proclaimed Mines Subsidence District and is therefore not subject to any building restrictions imposed by the Board.

3.4.7 SERVICES

Warren Smith + Partners are preparing an Infrastructure Management Plan for the EIS, which will outline the availability of supply for the proposed NMH with respect to electrical, telecommunications, hydraulics and fire services. Preliminary discussions have been held with the relevant authorities to determine the following:

Water

The site is currently serviced by a 100mm diameter Hunter Water main at the northwest corner of the site, which requires upgrading to service the new Hospital. This is being achieved by extending a new 250mm diameter main to the existing 300mm diameter main in Turton Street and along Fieldsman Street. The private water supply will connect to the new Hunter Water Corporation water main.

Sewer

The existing 300mm Hunter Water Corporation sewer main that crosses the site has capacity for the new NMH.

The private sewer service will extend using gravity from the 300mm Hunter Water Corporation sewer main to the new building. It is envisaged that the current built form above RL18 will be able to gravity drain, with a small pump station for the lower ground level.

Gas

High pressure gas is available from the north of the site, with a connection and trunk possible on the northern section of Metford Road.

Electricity

The site is located adjacent existing 11kV & 33kV overhead power lines, which are reticulated along the northern side of Raymond Terrace Road the western side of Metford Road and along the southern boundary between the site and the neighbouring residential area.

The intersection of Metford and Raymond Terrace Roads has two sources of supply from two separate zone substations - Thornton zone and East Maitland zone substations.

Ausgrid has been consulted in regards to the electrical supply options for the proposed site. Ausgrid provided preliminary indications of supply reliability, loads and capacities, and locations.

Telecommunications

Preliminary correspondence with Telstra has confirmed that the proposed site is serviced by existing Telstra and Optus underground fibre optic cables along Metford and Raymond Terrace Roads, as well as underground copper cable installed along Metford Road up to the intersection of Raymond Terrace Road.

The mobile phone coverage servicing the proposed site is considered adequate comprising Next G voice services, and 3G and 4G coverage (Telstra and Optus).

4 THE PROPOSAL

4.1 PROJECT DETAILS

The hospital development will deliver around 61,000m² of hospital floor space and proposes to include emergency care, critical care, surgical care, acute care, maternity services, paediatric care, inpatient medical and surgical beds, rehabilitation, mental health, palliative care, chemotherapy and ambulatory care along with ancillary uses such as retail and car parking.

Preliminary concept plans have been prepared by Fitzpatrick + Partners Architects for the NMH (refer to **Figures 9 – 14**).

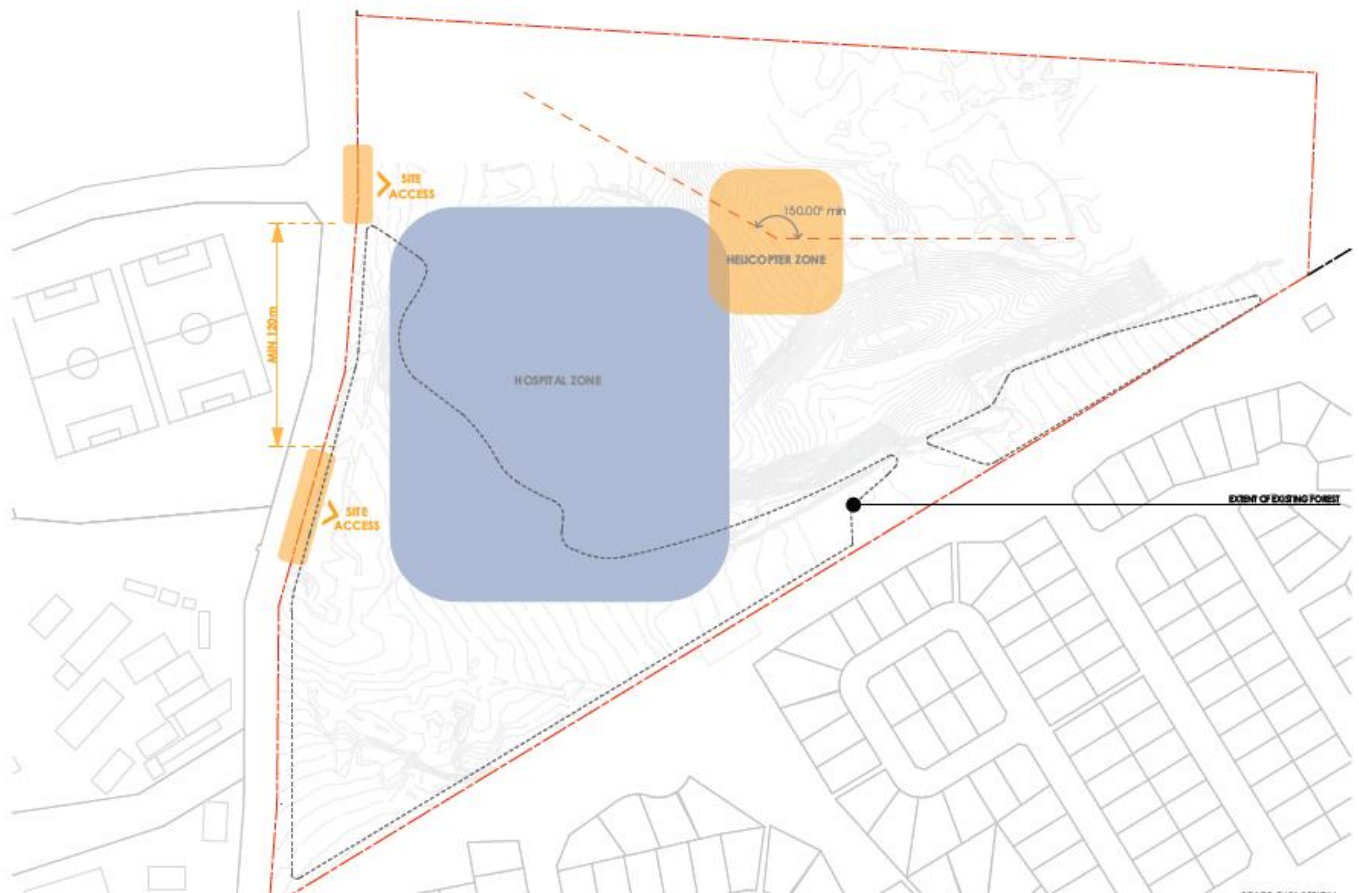


Figure 9: Proposed location of NMH building

Source: Fitzpatrick + Partners (December 2017)



Figure 10: Proposed Site Plan

Source: Fitzpatrick + Partners (December 2017)

New Maitland Hospital

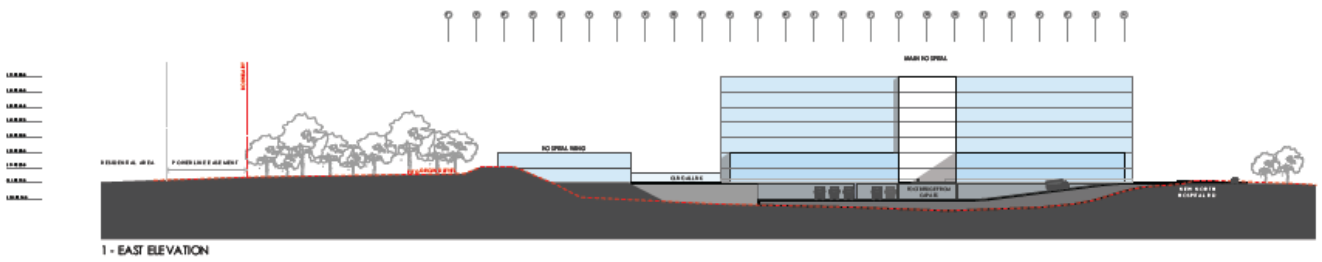


Figure 11: Proposed East Elevation
Source: Fitzpatrick + Partners (December 2017)

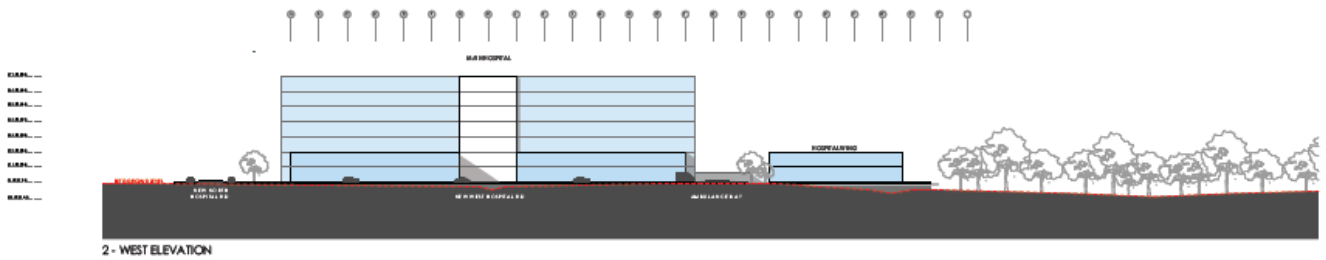


Figure 12: Proposed West Elevation
Source: Fitzpatrick + Partners (December 2017)

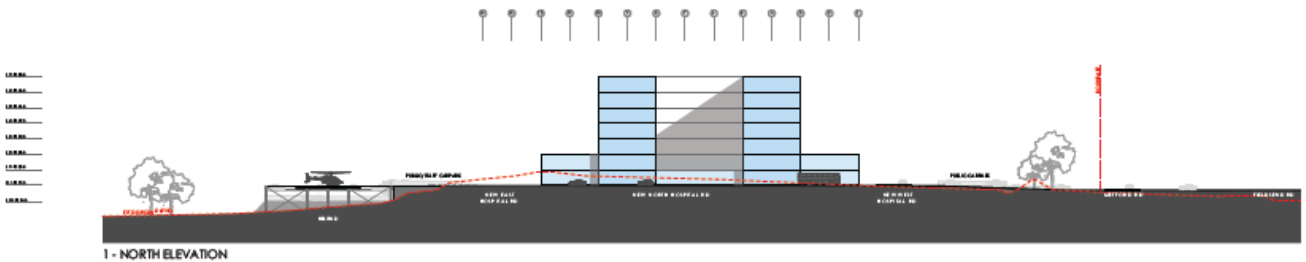


Figure 13: Proposed North Elevation
Source: Fitzpatrick + Partners (December 2017)

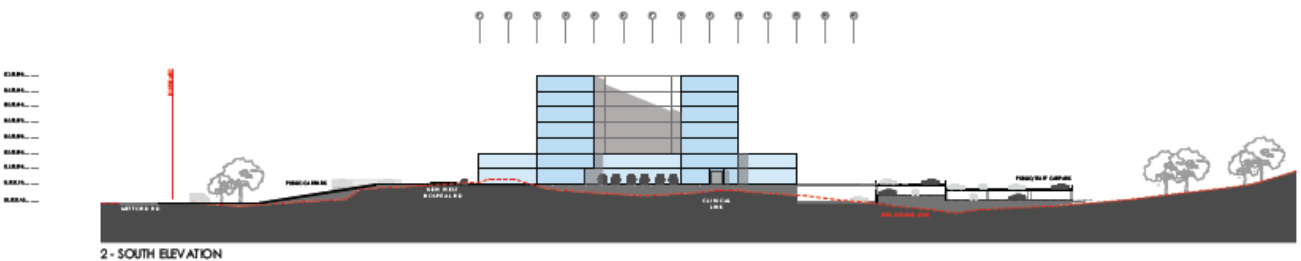


Figure 14: Proposed South Elevation
Source: Fitzpatrick + Partners (December 2017)

The purpose of this report is to provide preliminary environmental assessment to allow for the SEARs to be issued under section 115Y(1) of the Act, in relation to Stage 1 works being site clearance and preparatory works and concept design.

Stage 1 includes:

- Site clearance and preparatory works generally comprising:
 - Site office and construction compound, including connection of compound to services;
 - Connection of temporary and permanent services for the new facility (water, sewer, power, gas);
 - Removal of existing temporary fencing and installation of construction fencing and signage;
 - General clearance of site vegetation within the footprint of hospital construction works including tree stumps, but with retention of the majority of native vegetation around the site's perimeter in areas less impacted by historical mining activities. Asset Protection Zones (APZs) would be established for bushfire protection;
 - Chipping of cleared vegetation (excluding weed species) to use on site for ground stabilisation/erosion control in the period prior to commencement of Stage 2;
 - Offsite disposal of surplus cleared vegetation and weeds to green waste recycling facility or another beneficial reuse;
 - Bulk earthworks to establish the required site levels and create a stable landform in preparation for hospital construction. Associated in-ground infrastructure and works may include formation of building foundations, drainage works and excavation of sub-level structures;
 - Site stabilisation (such as establishment of erosion and sediment controls) in preparation for Stage 2;
 - Site management
 - Construction of internal un-sealed road ways for use during construction and in preparation for final road formation in Stage 2; and
 - Construction of a hard, un-sealed sub-base for temporary construction parking spaces and in preparation for final carpark formation in Stage 2.
- Concept design (hospital buildings anticipated to be eight storeys in height with hospital floor space of approximately 60,000m²)

Stage 2 is likely to include:

- Detailed design of NMH;
- Construction of NMH;
- Utility and services connection / amplification works;
- Internal roadways and car parking for staff, patients and visitors;
- External site works such as landscaping, pathways, etc; and
- Hospital operation.

An EIS will be prepared to assess impacts associated with Stage 2 which will be the subject of a separate planning approval application.

External works associated with the provision of utilities and roadworks are required to be undertaken. These works include the construction of a roundabout at the Metford Road/ Fieldsend Street intersection on Metford Road. HI are coordinating these works in consultation with the various utility owners and Maitland City Council.

These works are being delivered outside of the SSI project and have been assessed under Part 5 of the EP&A Act and the provisions of *State Environmental Planning Policy (Infrastructure) 2007*.

4.2 PROJECT VALUE AND JOB CREATION

The estimated project value for the project is \$450 million.

The NMH will result in the following job creation:

- Approximately 1,000 full time equivalent operational staff; and
- Approximately 1,250 full time equivalent construction jobs during the construction period.

5 STATUTORY PLANNING FRAMEWORK

5.1 THE PLANNING APPROVAL PATHWAY

Through the effect of Order 2017 No. 673, dated 28 November 2017, made under Section 115U(4) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), an amendment was made to Schedule 4 of *State Environmental Planning Policy (State and Regional Development) 2011* (S&RD SEPP). This designates development for the purposes of a health services facility and associated car park that has a capital investment value of more than \$100 million on land identified as being within the New Maitland Hospital Site on the State Infrastructure Sites Map (being Lot 7314, DP 1162607 and part of Lot 401, DP 755237, Maitland), to be State Significant Infrastructure (SSI). As the NMH meets these criteria, it therefore falls under Part 5.1 of the EP&A Act.

Division 3 of Part 5.1 of the EP&A Act provides for a staged infrastructure application at Section 115ZD(1): *For the purposes of this Part, a staged infrastructure application is an application for approval of State significant infrastructure under this Part that sets out concept proposals for the proposed infrastructure, and for which detailed proposals for separate parts of the infrastructure are to be the subject of subsequent applications for approval. The application may set out detailed proposals for the first stage.*

An EIS is intended to support the Stage 1 planning approval application for the site clearance and related preparatory works and concept proposal. A separate EIS will be prepared to assess impacts associated with Stage 2, which will be the subject of a separate planning approval application.

Division 2, Part 5.1 of the EP&A Act designates the Minister for Planning and Infrastructure as the approval authority for SSI and that the Department Secretary is to provide the environmental assessment requirements in respect of the proposed infrastructure. In terms of assessment, Section 115Y(2) states that the environmental assessment requirements must require an EIS to be prepared in accordance with the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

Section 115ZG Clause 1 of the EP&A Act includes approvals not that are not required for State Significant Infrastructure. Under this Section of the EP&A Act, the following authorisations are not required:

- an approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977* – EP&A Act Section 115ZG 1(c),
- an Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974* – EP&A Act Section 115ZG 1(d),
- a bush fire safety authority under section 100B of the *Rural Fires Act 1997* – EP&A Act Section 115ZG 1(f),
- a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the *Water Management Act 2000* – EP&A Act Section 115ZG 1(g).

In addition, Section 115ZG (2) includes that Division 8 of Part 6 of the *Heritage Act 1977* does not apply to prevent or interfere with the carrying out of approved State significant infrastructure. Section 115ZF(2) of the EP&A Act provides that environmental planning instruments do not apply to or in respect of State Significant Infrastructure, except where they apply to the declaration of infrastructure as SSI.

5.2 PART 5.1 OF THE EP&A ACT PLANNING APPROVALS PROCESS

Under Part 5.1 of the EP&A Act, the planning approvals process includes the following key steps:

- Submission of an SSIA with the accompanying supporting document (this document) to the Secretary of DP&E under Section 115X of the EP&A Act, to seek SEARs for the proposal (Section 115Y).
- Preparation and submission of an EIS under Section 115Y(2), addressing the matters outlined in the SEARs.
- Public exhibition of the EIS for a minimum of 30 days.
- Preparation of response to issues raised in submissions and Preferred Infrastructure Report, if required under Section 115Z(6).
- Assessment of the application by the DP&E and preparation of the Secretary's environmental assessment report (Section 115ZA).
- Determination of the proposal by the Minister for Planning or their delegate (Section 115ZB).

5.3 STATE ENVIRONMENTAL PLANNING INSTRUMENTS

5.3.1 STATE ENVIRONMENTAL PLANNING POLICY (STATE AND REGIONAL DEVELOPMENT) 2011

This SEPP identifies development that is State significant development, State significant infrastructure and critical State significant infrastructure. The S&RD SEPP is the prevailing Environmental Planning Instrument applying to the NMH project. Clause 15 states that development specified in Schedule 4 is declared to be SSI for the purposes of development assessment. Schedule 4 (5) of the S&RD SEPP includes:

New Maitland Hospital project

Development for the purposes of a health services facility and associated car park that has a capital investment value of more than \$100 million on land identified as being within the New Maitland Hospital Site on the State Significant Infrastructure Sites Map (being Lot 7314, DP 1162607 and part of Lot 401, DP 755237, Maitland).

5.3.2 STATE ENVIRONMENTAL PLANNING POLICY NO. 44 – KOALA HABITAT PROTECTION

This Policy aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.

- (a) *by requiring the preparation of plans of management before development consent can be granted in relation to areas of core koala habitat, and*
- (b) *by encouraging the identification of areas of core koala habitat, and*
- (c) *by encouraging the inclusion of areas of core koala habitat in environment protection zones.*

The former PGH/CSR brickworks site (Metford Triangle) has been subject to ecological investigations in 2013 (GHD) and 2014 (General Flora and Fauna). No Koalas were observed during the site survey, however two koala

feed tree species are found on the site, including Forest Red Gum and Grey Gum therefore, the site is potential Koala habitat.

The steps in State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44) were followed to determine if the site is “potential” or “core” Koala habitat. The site was found not to be a core Koala habitat.

The abovementioned koala habitat investigations, as well as an assessment of the proposal against the provisions of SEPP 44, would form part of the EIS.

5.3.3 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 – REMEDIATION OF LAND

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) was enacted to provide a State-wide approach to the remediation of contaminated land for the purpose of minimising the risk of harm to the health of humans and the environment. In accordance with clause 7(1) of SEPP 55, a consent authority must not consent to the carrying out of any development on land unless:

- a) It has considered whether the land is contaminated.
- b) If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or would be suitable, after remediation) for the purpose for which the development is proposed to be carried out.
- c) If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land would be remediated before the land is used for that purpose.

A Site Audit Report has been issued for the site. The site is not the subject of a declaration, order, agreement, proposal or notice under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.

The Site Audit Report confirms that the Site can be made suitable for health care facilities, including hospitals if the site is remediated in accordance with the following Remedial Action Plan / Contamination Management Plan, New Maitland Hospital Stage 1 Development Area, Metford Road Metford, prepared GHD Pty Ltd 4 July 2016.

Contamination Reports and the Remediation Action Plan, as well as an assessment of the proposal against the provisions of SEPP 55, will form part of the EIS.

5.3.4 STATE ENVIRONMENTAL PLANNING POLICY (MINING, PETROLEUM, PRODUCTION AND EXTRACTIVE INDUSTRIES) 2007

The site is described as “identified resource” pursuant to Clause 7.5 of the MLEP 2011, meaning that it is land to which Clause 13 of State Environmental Planning Policy (Mining, Petroleum, Production and Extractive Industries) 2007 applies. Clause 13 requires that the consent authority consider whether or not the development is likely to have a significant impact on current or future extraction or recovery of materials.

The site ceased to operate as a clay mine and brickworks in 2006. There is no intention to recommence extraction related activities, nor are there any extraction related activities on surrounding land which will be affected.

5.3.5 LOCAL ENVIRONMENTAL PLANNING INSTRUMENTS

The proposed NMH is located on land which is subject to the MLEP 2011. Relevant provisions of the MLEP will be considered during the preparation of the EIS. However, as the proposed NMH is to be assessed under Part 5.1 of the EP&A Act, the permissibility and consent provisions do not apply.

5.4 OTHER NSW LEGISLATION

Table 1 discusses other NSW legislation that may be applicable to the project. This will be confirmed in the EIS.

Table 1: Other typical planning related legislation of potential relevance to the project

Legislation	Requirement
Biodiversity Conservation Act 2016	<p>The <i>Biodiversity Conservation Act 2016</i> (BC Act) aims to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development. The BC Act replaces the <i>Threatened Species Conservation Act 1995</i> (TSC Act) as the key piece of legislation that identifies and protects threatened species, populations and ecological communities in NSW.</p> <p>There are several obligations placed on HI under the BC Act in relation to the Proposal. HI must consider threatened species, populations, ecological communities, habitat, key threatening processes, offsets and recovery plans in fulfilling its statutory responsibilities.</p>
Roads Act 1993	<p>The objectives of the <i>Roads Act 1993</i> are to set out the rights of the public to access and use public roads, to establish procedures for opening and closing public roads, to provide for the classification of roads, to confer function of carrying out road work on Roads and Maritime Services (RMS) and on other roads authorities and to regulate the carrying out of various activities on public roads.</p>
National Parks and Wildlife Act 1974	<p>The <i>National Parks and Wildlife Act 1974</i> (NPW Act) provides the basis for the legal protection and management of Aboriginal sites within NSW. Sections 84 and 90 of the NPW Act provide statutory protection for any physical/ material evidence of Aboriginal occupation of NSW and places of cultural significance to the Aboriginal community. The key principles of the Act in relation to Aboriginal heritage are the prevention of unnecessary or unwarranted destruction of Aboriginal objects, and the active protection and conservation of objects which are of high cultural significance. It is an offence to knowingly disturb an Aboriginal object, irrespective of its nature or significance, without the prior consent of the Director-General of the NSW OEH.</p> <p>On the basis that the project is SSI, this approval will not be required in accordance with Clauses 115ZG 1(d) of the EP&A Act.</p>
Water Management Act 2000	<p>The objectives of the <i>Water Management Act 2000</i> (WM Act) are to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations.</p> <p>Clause 38 of the Water Management (General) Regulation 2011 specifies that a public authority does not need to obtain a controlled activity approval for any controlled activities that it carries out in, on or under waterfront land.</p> <p>The Proposal is within the area applicable to the Water Sharing Plan (WSP) for the Hunter Unregulated and Alluvial Water Sources 2009, prepared in accordance with the provisions of the WM Act. The WSP regulates the interception and extraction of unregulated and alluvial water sources within the defined area. Therefore, any interference and extraction of water within the proposal site generally requires a water access licence (WAL) under the Water Management Act 2000.</p> <p>Section 115ZG of the EP&A Act states that approved SSI projects are exempt from various authorisations under the WM Act including a water use approval under section 89, a water management work approval under section 90 and an activity approval (other than an aquifer interference approval) under section 91.</p>

Legislation	Requirement
Heritage Act 1977	<p>The <i>Heritage Act 1977</i> (Heritage Act) provides for the conservation of items of environmental heritage in NSW. The Act defines heritage as items or places that are of state and/ or local heritage significance and include: places, buildings, works, relics, moveable objects and precincts. The Heritage Act establishes a register including an inventory and list of protected heritage items.</p>
Protection of the Environment Operations Act 1997	<p>The <i>Protection of the Environment Operations Act 1997</i> (POEO Act) includes provisions relating to the protection of the environment. One of the objectives of the Act is to protect, restore and enhance the quality of the environment in NSW, having regard to the need to maintain ecologically sustainable development. There are serious offences under this Act for causing pollution of air, noise, water or land. NSW Health and the appointed contractor are required to meet the waste licensing obligations of Clauses 39 to 42 of Schedule 1 of the POEO Act in relation to the proposed works.</p> <p>The Contractor and NSW Health are obliged to notify OEH when a “pollution incident” occurs that causes or threatens “material harm” to the environment.</p>
Rural Fires Act 1997	<p>The requirement to obtain a Bushfire Safety Authority under s100B of the <i>Rural Fires Act 1997</i> is triggered by works that involve the subdivision of land or a special fire protection purposes.</p> <p>On the basis that the project is SSI, this approval will not be required in accordance with Clause 115ZG 1(f) of the EP&A Act.</p>
Local Land Services Amendment Act 2016	<p>The <i>Local Land Services Amendment Act 2016</i> replaces the <i>Native Vegetation Act 2003</i> and creates new rules for rural land clearing. Under the Local Land Services Act 2013 (LLS), the Local Land Services statutory corporation is responsible for the management and delivery of local land services in the social, economic and environmental interests of the State.</p> <p>The Local Land Services Amendment Act No 64, Division 3 prescribes the regulation of clearing of native vegetation in regulated rural areas. In Section 600 of the Act clearing of native vegetation in a regulated rural area is authorised if the clearing is authorised by a SSI approval under Part 5.1 of the EP&A Act.</p>
Fisheries Management Act 1994	<p>The <i>Fisheries Management Act 1994</i> (FM Act) includes provisions to list threatened species of fish and marine vegetation, including endangered populations, ecological communities and key threatening processes. If the proposal is likely to significantly impact on the threatened species, populations or ecological communities, then a species impact statement is required.</p> <p>Under Part 7 of the FM Act, a permit is required for dredging and reclamation, obstruction of fish passage, harm to marine vegetation and use of electrical or explosive devices in a waterway. None of these activities would be undertaken for the proposed works and as such a permit is not required.</p>

5.5 COMMONWEALTH LEGISLATION

5.5.1 ENVIRONMENTAL PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

The provisions of the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) come into effect where the proposed works is development that takes place on or affects Commonwealth land or waters where the development is carried out by Commonwealth agencies. In addition, where the development is a matter considered to be of National environmental significance; the provisions of the Act come into force.

The findings of environmental investigations carried out to date indicate that the proposed development is unlikely to significantly impact Matters of National Environmental Significance under the EPBC Act that may potentially be found on the site.

HI's consultants have carried out an updated EPBC assessment for the current proposal. The assessment has been undertaken in accordance with the Commonwealth Significant Impact Assessment Guidelines (DoE 2013) which lists a suite of significant impact criteria to assist in determining whether there is likely to be a significant impact on Matters of National Environmental Significance (MNES) and thus whether a referral to the Commonwealth Department of Environment and Energy is required.

An EPBC Act Protected Matters report was generated using the EPBC Protected Matters Search Tool on the Commonwealth Department of the Environment and Energy (DoEE) website (<http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf>) based on a 10km buffer search centred on Lot 7314. Based on the search results, it is not expected that the proposal will impact upon any world heritage properties, national heritage places, Commonwealth marine areas nor the Great Barrier Reef Marine Park given their absence in the vicinity of the subject site.

Subject to further assessments undertaken for the EIS, if required a referral will be prepared and submitted to the DoEE to determine whether the proposal will need formal assessment and approval under the EPBC Act (that is, whether it would be a controlled action). Once submitted, HI will wait for formal advice from the DoEE in response to the referral.

6 PRELIMINARY ENVIRONMENTAL ASSESSMENT

This section provides a preliminary assessment of the potential environmental impacts associated with the proposed NMH. The potential impacts identified in this section are preliminary and based on the current level of design available for the proposal.

Sections 6.1 to 6.11 provide a summary of the potential environmental issues associated with the NMH, and the proposed scope of the EIS specialist assessments. If unforeseen issues arise based on these investigations, the issues will be further investigated in the EIS.

6.1 TRAFFIC AND TRANSPORT

Traffic impacts

The development of the NMH has the potential to impact on the existing local traffic in Metford. GTA Consultants (GTA) were commissioned to undertake a preliminary transport impact assessment of the Metford Road corridor to provide advice on traffic, access and parking impacts and mitigation measures associated with the proposed NMH.

GTA examined the anticipated transport implications of the proposed Stage 1 works for the NMH. As the works include proposed road improvements to access the proposed NMH in the future, this preliminary transport assessment has considered the transport conditions on Metford Road at the proposed year of opening and ten-year horizon to ensure the proposed works on Metford Road can accommodate the operation of the NMH.

Following consultation with Roads and Maritime Services (RMS), GTA has extended their analysis to include the intersection of New England Highway and Chelmsford Drive, and to take the Greenhills Shopping Centre development into consideration. RMS has also requested that new residential development to the north of the proposed hospital also be considered. GTA advised that, the local and regional road network is capable of accommodating the proposed NMH and potential complementary uses that could be developed (subject to separate planning approval) in the future, with select upgrades to accommodate future traffic growth. Further traffic assessment, in consultation with RMS is required to refine the detailed future traffic scenarios, however there is no indication that any intersection upgrades cannot be geometrically accommodated.

The Preliminary traffic assessment concludes that the site is suitable for a hospital in terms of its impact on the surrounding road network, subject to mitigation measures.

Walking and Cycling

There are limited pedestrian facilities available near the site, with no footpaths located along Metford Road or Fieldsend Street. Maitland City Council is currently constructing a shared pedestrian and cycle pathway along Fieldsend Street.

Public Transport

Bus services provide local connections to the outer areas of Metford, including East Maitland and Thornton. Currently the only bus services using Metford Road is the 189 bus service, private operators and school bus services.

Victoria Street Railway Station is the most proximate heavy rail station and is located around one and a half kilometres from the NMH site. It is part of the Hunter Line, with services alternately running from Newcastle to Telarah, Dungong and Scone. Services at Victoria Street Railway Station are generally provided every 30 minutes.

Traffic and Transport - EIS further considerations

Walking and Cycling Network - The pedestrian connections within the NMH site should be designed to connect with Council's pedestrian and bicycle shared path along Fieldsend Street that is currently under construction. By providing a connection to Fieldsend Street, the NMH site will be maximising the opportunity for cyclists to connect to the Victoria Street Railway Station.

Public Transport - The site is accessible by public transport with a bus stop within 650 metres for local connections. The Victoria Street train station is around 1.5 kilometres from the site.

The proposed NMH should include an on-site bus stop for incorporation into Hunter Valley bus routes. Internal roads and roundabouts should be designed to accommodate bus movements. Providing a bus stop within the development site will encourage public transport use and remove any safety concerns that could occur to implement a bus stop location within the Metford Road corridor.

It is also recommended that bus services provide connection between the NMH and Victoria Street train station.

Traffic and Parking - Comprehensive traffic modelling will be carried out to assess the impacts of the project. This will be undertaken using a combination of network modelling as well as intersection analysis (SIDRA) for existing and future year scenarios. Consultation will be continued to be carried out with RMS and Maitland Council as part of the traffic and transport impact assessment.

The traffic study will assess the traffic and parking requirements for the concept proposal, the feasibility and impacts of the proposed circulation and parking changes on the surrounding road network, as well as nearby intersections. The traffic and parking study will also assess the impacts of construction traffic.

A green travel plan will also be included to provide a range of options to increase walking, cycling, public transport and car share for staff, visitors and patients.

6.2 SURFACE WATER, GROUNDWATER AND FLOODING

Existing Environment

Drainage - External

The site has two external stormwater catchments, one in the north from Lot 401 and one from the residential development in the south. Discharged water from the north runs along the western boundary into an open swale towards the existing creek located in the south-western corner of the Site and then discharged under Metford Road. The Northern catchment has been calculated as 2.3 hectares.

Discharged water from the residential land to the south discharges into the Site from two main drainage channels, east and west. The Western section of the southern upstream catchment discharges directly into the existing creek; this Catchment has been calculated as approximately 16 hectares. The Eastern section of the southern upstream catchment discharges to the East of the site towards the wetlands to the North. This catchment has been calculated as approximately 12.7 hectares. Both southern catchments can be described as urban residential in nature.

Drainage - Internal

The site also has two external stormwater catchments, the east catchment and the west catchment. The central drainage channel located in the eastern portion of the Site discharges to the wetlands north of the site beyond the rail corridor. This catchment has been calculated as 96,730m². The other drainage channel located in the western portion of the Site discharges into the existing creek which runs under Metford Road and discharges to a culvert passing under the Great Northern Railway Line. This catchment has been calculated as 76,790m².

At present, there is no in-ground stormwater drainage network through the site. Any rainfall runoff from the development sites will discharge as overland flow to either the existing creek or the wetland to the North of the site.

Existing watercourses

There is an existing creek that runs through the south-western corner of the site in the western catchment. This creek conveys flows from the southern upstream catchment and the western internal catchment and discharges under Metford Road to the wetlands north of the site.

Flooding

A flood study (the Hunter River Floodplain Risk Management Study and Plan) was undertaken for Maitland City Council by WMA in 2015. This study was used to determine the flood risk to NMH as the Site is within the Hunter River catchment however the study shows that the Site is not impacted by flooding of the Hunter River as it is protected by the rail embankment to the north (**Figure 15**).

The proposed development extent will not be impacted by either Regional or Local flooding. The modelled maximum local flood level has been calculated as FL7.8m AHD. The minimum level of the proposed development will be approximately RL14.0m AHD meaning the development will be considerably higher than the flood levels. As a result, it can be confirmed that the development will not impact on any existing floodplain nor will flooding impact on the development.

In the event of a flood, access to the site can be achieved from the New England Highway to the south without travelling through flood waters. However, access from the North via Metford Road will be impacted by flood waters.

The Hunter River Floodplain Risk Management Study and Plan indicates that the development site is not subject to any flood planning restrictions.

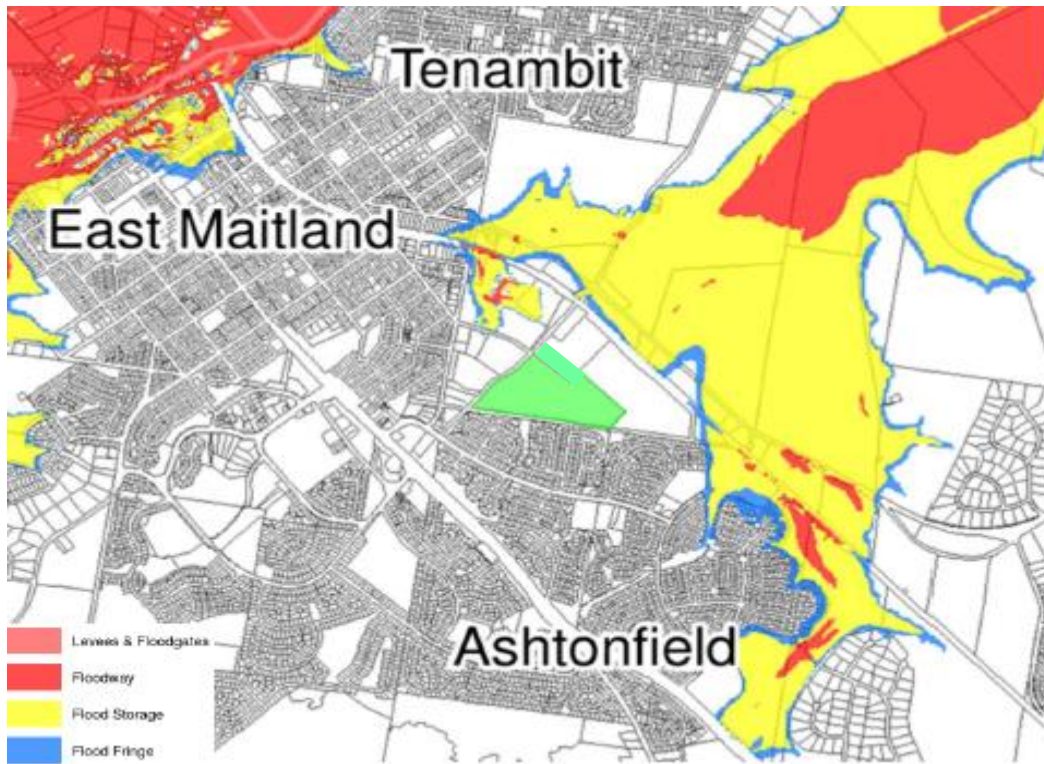


Figure 15: Hydraulic Categorisation: PMF

Source: Hunter River Floodplain Risk Management Study and Plan, 2015

Water Sharing Plan

The Project is located within the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009. The plan includes rules for protecting the environment, water extractions, managing licence holders' water accounts, and water trading in the plan area.

The plan applies to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters. Alluvial groundwater that are not highly connected to surface waters are excluded from this plan and are covered under the *Water Act 1912*.

There are no proposed takes of groundwater, and harvesting of water on-site will be limited to sediment basins and installation of rainwater tanks for reuse on site for irrigation and grey water purposes.

Hydrology - EIS further considerations

Wood & Grieve has been commissioned to prepare an Integrated Water Management Plan for the NMH EIS. GHD Pty Ltd (GHD) have been commissioned to assess the current groundwater conditions of the site prior to construction associated with Stage 1 of the NMH works. The following assessments will be undertaken for the EIS:

Surface Water

- Outline drainage strategy and integrated water management plan focusing on stormwater management and reuse options, WSUD.
- Describe and map existing hydrological regimes, streams, wetlands. Identify upstream catchment and downstream receiving waters. Assess magnitude of flows into the site.

- Assess potential water quality and quantity impacts and measures to manage/mitigate impacts. Assess onsite stormwater detention (OSD) requirements and permanent water quality control. Outline options including OSD ponds, GPTs, treatment wetlands etc.
- Identify upstream catchment flows and how these will be diverted around the development site. Identify “flood proofing” controls for the development.
- Identify water demand (intake) and discharge locations. Prepare water balance for Phase 1 construction, identifying potential pollutants and water quality protection measures.
- Address water quality management.
- Preparation of a Conceptual Soil and Water Management Plan in accordance with Managing Urban Stormwater: Soils and Construction (Landcom 2004; the "Blue Book") identifying how potential soil and water impacts (including erosion and sediment control) would be managed during construction.

Flooding

- Stormwater engineer to undertake flood study commensurate with the risk.
- Identify existing flood regime, flood affectation.
- Assess impact on flood behaviour during construction and operation.
- Assess impacts on site and to downstream properties/catchments.
- Consideration of climate change adaptation.

Groundwater

- Review and summarise existing groundwater conditions based on sufficient baseline information.
- Assess likelihood of groundwater interception based on maximum predicted groundwater levels.
- Provide groundwater impact assessment that considers groundwater quality and quantity, in accordance with relevant guidelines and expected requirements from Water NSW.
- Groundwater modelling may be required if there is a risk of groundwater interception
- Identify any external approvals/licensing that may be required.

6.3 AIR QUALITY

A Preliminary Air Quality Impact Assessment (AQIA) has been prepared by Todoroski Air Sciences (2014) and further assessment undertaken in 2016, to assess the potential air quality and odour impacts associated with the construction and operation of the NMH.

Todoroski has identified that the main sources of local air emission sources would include emissions from activities such as motor vehicle exhaust, locomotive emissions, domestic wood heaters, general urban activity, and various commercial and industrial activities. Locomotive emissions include those from the adjacent railway line and motor vehicle emissions from nearby roads including the New England Highway. Regional air emission sources include distant mining, extractive and agricultural activities and power generation including the Liddell, Bayswater and Redbank power stations.

Potential Construction Impact

The main potential air quality impacts during construction of the proposed NMH would be associated with the generation of dust from material handling, vehicle movements, land preparation and windblown dust generated from exposed areas. Particulate emissions would also be generated from the exhaust of construction vehicles and plant. The construction phase is not anticipated to generate any odour.

Without the implementation of adequate management measures, dust emissions from the above activities could result in reduced local air quality and dust deposition at the nearest potentially affected receivers.

The volume of dust generated during a typical work day would vary depending on the types of activities occurring at each work site and prevailing weather conditions (for example, dry windy conditions increase potential for wind erosion). These sources of dust are temporary in nature and will only occur during the construction period.

Overall, the total amount of dust generated from the construction process is unlikely to be significant given the nature of the activities proposed (that is activities would occur for a limited period), and therefore no significant or prolonged effect at any off-site receiver is predicted. It is expected that impacts can be readily mitigated through standard environmental management measures, such as wetting stockpiles and exposed surfaces and minimising dust-generating works during adverse weather conditions. Therefore dust emissions are not considered to be a key issue during construction.

Operation - Concept Todoroski advise that air emissions that can arise from the proposed hospital must be considered.

Less tangible issues to consider relate to good ventilation design, such as prioritising air movement from “clean” areas into “dirty” areas, but avoiding ventilation air moving in the opposite direction. Todoroski advise that these potential issues can be managed through good building alignment and placement relative to external air emissions sources and the internal building design, functional layout, and positioning of plant and facilities in the final design of the hospital.

Todoroski conclude that on the basis of their preliminary investigations, that the subject site is suitable for the proposed development as a hospital providing that:

- 1. An appropriate buffer is established between the future hospital buildings and the adjacent rail line; and*
- 2. The final detailed design of the precinct considers air emissions (nth external and internal to the precinct), in order to best locate sensitive patient, visitor and worker areas at suitable distances away from potential air pollution sources such as power plant, sterilizing equipment and bio-hazardous materials and the external rail corridor.*

EIS further considerations

- Maximise the buffer between the hospital building and rail line. As a guide, distances in approximate range of 50m (less sensitive uses) to 150m (more sensitive uses, e.g. respiratory wards, etc.) may be required.
- Use the future main building to screen sensitive uses from rail and road, for optimum air quality and noise conditions.
- Position hospital activities in order of sensitivity, relative to the proximity of external environmental factors (Rail and road corridors). For Example place services like any boilers or gas fired heat and power plant, or Commercial/ Retail operations, nearest the rail corridor. Place facilities for intensive care or overnight patients further from the rail corridor.

6.4 BIODIVERSITY

The site supports remnants of native forest vegetation in the east portion and south-west corner of the site. These remnants of vegetation have had a history of disturbance including partial clearing.

The project will require the removal of vegetation however, the landscape of the subject site has been heavily modified. Comprehensive ecological investigations were undertaken during 2013 (by GHD), in 2014 (by General Flora and Fauna) and in 2017 by pitt&sherry. Pitt&sherry undertook biodiversity offsetting work (8 Biobank plots/ transects) in July 2017 across the site. A summary of the methods and key survey results of these previous ecological investigations (2013 and 2014) are provided below.

GHD (2013)

A suite of terrestrial flora and fauna surveys were undertaken across the entire Metford Triangle and adjoining lands to the west of Metford Road by GHD in August 2013, these being:

- 5 full floristic botanical plots;
- Fauna habitat assessment;
- Anabat microbat detection;
- Call playbacks;
- Spotlighting;
- Camera trapping; and
- Active searching for reptiles.

GHD (2013) recorded a total of 4 vegetation types across the Metford Triangle, these being:

- Lower Hunter Spotted Gum-Ironbark Forest (far south-eastern and far south-western corners);
- Hunter Lowland Redgum Forest (central northern boundary);
- Acacia regrowth; and
- Artificial wetlands.

GHD (2013) noted that vegetation types 1 and 2 were analogous to the Lower Hunter Spotted Gum Ironbark Forest and Hunter Lowlands Redgum Woodland EECs listed under the NSW Threatened Species Conservation Act 1995 (TSC Act).

No Threatened flora species were recorded by GHD (2013).

A total of 2 Threatened fauna species listed under the TSC Act were recorded by GHD (2013), these being:

- Little Bentwing Bat; and
- Grey headed Flying Fox.

GHD (2013) note that these 2 species utilise site habitats for foraging activity.

General Flora and Fauna (2014)

A suite of terrestrial flora and fauna surveys were undertaken across the entire Metford Triangle by General Flora and Fauna (GFF) in September, October, November and December 2014, these being:

- 9 full floristic botanical plots;
- 8 straight line transects targeting Threatened flora species;
- Small mammal trapping (4 trap lines with each trap line comprising Elliott A/Bs, cage traps and hair tubes);
- Anabat microbat detection;
- Spotlighting;
- Diurnal bird surveys;
- Call playbacks;
- Active searching for reptiles; and
- Targeted call playbacks for the Green and Golden Bell Frog.

GFF (2014) recorded a total of 4 vegetation types across the Metford Triangle, these being:

- Spotted Gum-Ironbark Forest (far south-eastern and far south-western corners);
- Redgum Forest (central northern boundary);
- Rehabilitation Plantings over disturbed land; and
- Man-made ponds associated with stormwater management and access track construction.

GFF (2014) noted that vegetation types 1 and 2 were analogous to the Lower Hunter Spotted Gum Ironbark Forest and Hunter Lowlands Redgum Woodland EECs listed under the NSW Threatened Species Conservation Act 1995 (TSC Act).

No Threatened flora species were recorded by GFF (2013) as part of their study.

A total of 7 Threatened fauna species listed under the TSC Act were recorded by GFF within the Metford Triangle (2014), these being:

- Little Lorikeet;
- Squirrel Glider;
- Little Bentwing Bat;
- Large Bentwing Bat;
- Greater Broad nosed Bat;
- Large footed Myotis; and
- Grey headed Flying Fox.

A total of 2 of these 7 species (Little Lorikeet, Squirrel Glider) were recorded within the site area, in particular within an area of Spotted Gum - Ironbark Forest remnant in the far south-western corner. The remaining threatened species were recorded outside the current site area.

Pitt&sherry prepared a BAR based on the 2013, 2014 and their own July 2017 survey (which was undertaken to assist with the completion of the biobank assessment and to validate previous vegetation mapping). Pitt&sherry have undertaken an assessment of direct and potential indirect impacts on flora and fauna species, populations and communities (with a particular focus on Threatened species and ecological communities listed under the BC Act).

Targeted flora surveys undertaken by GHD (2012), General Flora and Fauna (2014) as well as traverses undertaken by the Biobank assessment (pitt&sherry July 2017) failed to record any Threatened flora species on the site.

A detailed impact assessment of the threatened fauna species will be completed for the EIS.

Potential construction impacts

The key ecological impacts identified would be:

- Loss of fauna habitat due to vegetation clearing during construction
- Removal of trees that have habitat value
- Habitat isolation and potential impact on fauna movement
- Potential injury to fauna during clearing
- Potential importation of pathogens
- Altered hydrology
- Noise, light spill and vibration

Potential operational impacts

Ecological impacts during operation of the project would primarily be restricted to:

- Disturbance of fauna species due to indirect impacts such as noise, light spill and vibration
- Impacts to habitat due to changes in hydrological regimes.

Investigations and assessment for the Environmental Impact Statement

There are several obligations placed on HI under the BC Act in relation to the project. HI must consider threatened species, populations, ecological communities, habitat, key threatening processes, offsets and recovery plans in fulfilling its statutory responsibilities.

Under Division 2, Section 7.9 (2) an SSI Proposal must be accompanied by a 'biodiversity development assessment report' (BDAR). The BDAR must include a detailed impact assessment and a biobank assessment to be undertaken on the proposed development site to determine the type and amount of biodiversity credits needed to offset the loss of biodiversity.

The project has a number of options available to meet their offsetting obligations as determined by the biobank assessment. The amount of money required to pay into the Biodiversity Conservation Fund (BCF) in order to offset the loss of biodiversity on the proposed development site will be calculated using an offsets payment calculator currently being developed by the Office of Environment and Heritage (OEH).

The BC Act came into force on 25 August 2017. The Biodiversity Assessment prepared by pitt&sherry was substantially commenced prior to 25 August 2017 and has been prepared under the previous legislation as this

was applicable at the time that surveys, and the majority of the assessment was undertaken. In accordance with Clause 29 of *Biodiversity Conservation (Savings and Transitional) Regulation 2017* it is requested that the former planning provisions continue to apply to the site, based on:

- The biobank assessment field surveys were completed in mid-July 2017 using Biobanking Assessment Methodology (BBAM) 2014 (10 plots/transects completed).
- The biobank field survey data has been compiled and run through the BBAM/ Framework of Biodiversity Assessment (FBA) 2014 credit calculator to generate a credit report to determine TNMH offset requirements.
- The BBAM/FBA 2014 survey methodology and results have been detailed in a Draft Biodiversity Assessment Report (BAR).
- A biodiversity offset strategy (BOS) is being developed based on the results of the BBAM 2014 methodology.

HI with their consultant's pitt&sherry, outlined the above assessment method with the Office of Environment and Heritage at a meeting on 17 August 2017.

A biodiversity assessment is being undertaken as part of the EIS in accordance with the Framework for Biodiversity Assessment (FBA).

The assessments will:

- Identify and describe the flora and fauna species, habitat, populations and ecological communities (including groundwater dependent ecosystems) that occur or are considered likely to occur
- Assess the direct and indirect impacts of the project on terrestrial and aquatic flora and fauna species, populations, ecological communities and their habitats, and groundwater dependent ecosystems.
- Assess the significance of the impacts of the project on species, ecological communities and populations, and groundwater dependent ecosystems listed under the EPBC Act, the BC Act and FM Act that occur or are considered likely to occur
- Provide an assessment of significance for Matters of National Environmental Significance (MNES) in accordance with the EPBC Act Significant Impact Guidelines 1.1. The assessment would be required to determine if a significant impact is likely on a MNES and whether a referral to the Commonwealth Department of Environment and Energy is required.
- Identify and describe mitigation measures using the principles of 'avoid, minimise, mitigate', and propose offsets where residual impacts occur. Offsets would be determined in accordance with the NSW Biodiversity Offsets Policy for Major Projects (Office and Environment and Heritage, 2014). A detailed offset strategy will be prepared for submission alongside the Environmental Impact Statement.

6.5 BUSHFIRE

A large part of the site is identified as bushfire buffer area and bush fire prone land Vegetation Category 1 on the Bush Fire Prone Land Map on the Maitland City Council website (Figure 8).

A Preliminary Bushfire Assessment Report has been prepared by Ecological. A final report will be submitted with the Environmental Impact Statement (EIS).

The recommendations of the bushfire assessment include the provision of Asset Protection Zones, adequate access, water supply for firefighting, the safe installation of utilities, and building construction standards as required by Planning for Bush Fire Protection 2006 (PBP).

The bushfire assessment demonstrates that the study area is capable of accommodating a Hospital and commercial development with the appropriate bushfire protection measures.

EIS further considerations

Ecological provided Bush Fire Management Measures to inform the detailed design of future development applications on the site which may include:

Asset Protection Zones

- There is adequate space inside the site to accommodate the proposed APZ setbacks for the hospital (Special Fire Protection Purposes (SFPP))

Vegetation Management

- No tree canopy is to occur within 2 – 5m of development rooflines.
- The presence of a few shrubs or trees in the APZ is acceptable provided that they are well spread out, do not form a continuous canopy, and are located far enough away from future buildings so that they will not ignite the buildings by direct flame contact or radiant heat emission.
- Any landscaping or plantings should be low flammability species such as local rainforest species.
- In Inner Protection Area (IPA), the ground fuel is to be maintained to less than 4 tonnes per hectare of fine fuel (4t/ha is equivalent to a 1cm thick layer of leaf litter and fine fuel means any dead or living vegetation of less than 6mm in diameter, e.g. twigs less than a pencil thickness).
- In the Outer Protection Area (OPA), the ground fuel may have up to 8 tonnes per hectare of fine fuel.

Vehicular Access

- All bushfire prone areas should have an alternate access or egress options.

Water Supply & Hydrants

- Future buildings are to be serviced by reticulated water infrastructure suitable for firefighting purposes. The furthest point from any building to a hydrant must be less than 90m (with tanker parked in line) in accordance with AS 2419.1 – 2005 Fire Hydrant Installations – System Design, Installation and Commissioning (Standards Australia 2005).
- The reticulated water supply is to comply with acceptable solutions within Section 4.1.3 of Planning for Bushfire Protection.

Building Construction Standards

- The application of building construction standards for bushfire protection under AS 3959-2009 Construction of buildings in bushfire-prone areas (Standards Australia 2009) is to be considered at the development application stage for individual buildings.

6.6 HERITAGE

6.6.1 ABORIGINAL HERITAGE

A Preliminary Aboriginal Heritage Impact Study has been prepared by Umwelt. An assessment of the potential impact of the future NMH on areas or items of aboriginal archaeological value was carried out by Umwelt, heritage consultants. This assessment involved extensive on site investigations and consultation with Aboriginal representatives.

Umwelt report that in relation to the existing environment, whilst the regional environment provided resources, including water, flora and fauna and raw stone materials, the project area itself appears to have limited water resources and it is likely that areas bordering nearby swamps would have been more attractive to Aboriginal people. Previous studies identified three possible sources of silcrete which was commonly used by Aboriginal people in the manufacture of flaked stone artefacts.

The project area has been subject to significant modifications and land disturbance as a result of past land use as a clay quarry and brick making site which has significantly reduced the potential for Aboriginal objects to remain present and intact in this area.

Proposed investigations and assessment for the Environmental Impact Statement

An Aboriginal cultural heritage assessment is being prepared as part of the Environmental Impact Statement. This assesses the presence, and archaeological potential, of any sites affected by the project. It will also document environmental management measures that will be implemented to minimise the risk of impacting on previously unrecorded items of Aboriginal heritage significance and / or areas of Aboriginal cultural sensitivity during construction. The Aboriginal cultural heritage assessment will:

- Identify the potential for the project to disturb Aboriginal heritage (sites, objects, remains, values, features or places) and, where this is the case, to:
 - Determine, in consultation with relevant stakeholders, the significance of the heritage resources to the Aboriginal community
 - Determine the extent and significance of impact to those resources as a result of construction and / or operation of the project
- Identify any requirements for in situ conservation of items and / or areas (as appropriate), the need for further archaeological testing and / or detailed archaeological excavations
- Identify appropriate measures to avoid, minimise and / or mitigate potential impacts.

6.6.2 NON-ABORIGINAL HERITAGE

Umwelt was also commissioned to provide a preliminary Heritage Assessment Report to determine the heritage significance of the site.

NSW has an extensive legislative framework that relates to the protection and management of historical non-aboriginal heritage. There is a range of statutory provisions in NSW legislation that address the management and conservation of historical items, relics, archaeological sites and places.

Umwelt advise that there are no heritage listed buildings or items on the site. Approval to demolish the existing factory buildings on Lot 401, was granted by Maitland City Council in 2012 (Development Consent DA 11-1875). No other buildings exist on the subject site.

6.7 SOILS, GEOLOGY AND CONTAMINATION

A preliminary Geotechnical Investigation was prepared by Douglas Partners to assess the geotechnical conditions of the site and the potential construction and operational impacts to soils and geology associated with Stage 1 of the works. The report is based on the review of previous geotechnical reports and findings of field works which include supplementary subsurface investigation completed in July 2017.

6.7.1 EXISTING ENVIRONMENT

6.7.1.1 Soil Landscapes

The Newcastle Coalfields 1:100,000 Geology map indicates that the site is underlain by the Tomago Coal and there is a residual landscape, containing soils formed from in-situ weathering of Permian sedimentary rocks (geology code Pt), including laminated sandstone, claystone, siltstone, tuff and coal.

The Newcastle 1:100,000 Soil landscape Sheet indicated that much of the surrounding land comprises the Beresfield Soil Landscape and the Site includes two soil landscape types Beresfield (geology code Be) and disturbed terrain (DP&E, 1975). Soil profiles commonly comprise loam and sandy loam topsoils overlying medium to heavy clay subsoils. Beresfield Soil Landscape constraints include high foundation hazard, water erosion hazard, Mine Subsidence District, seasonal waterlogging and highly acid soils of low fertility. Soil materials in the western part of site are extensively disturbed and would comprise a heterogeneous mix of soil materials, potentially including materials imported from offsite for use in brick making.

The Site has been significantly disturbed for the purposes of mining works and now contains a heterogeneous mix of soils. Mining of raw materials for brick making has lowered the natural surface level and created several sediment ponds to control runoff.

6.7.1.2 Geotechnical Conditions

The geotechnical investigations included:

- A general walkover and observation of the Site conditions.
- An initial investigation conducted between 12 October 2015 and 5 November 2015 which involved the excavation of seven boreholes, 20 test pits and two groundwater wells.
- A supplementary investigation conducted from 11 August 2017 and 12 August 2017 which involved drilling three additional boreholes and installation of an additional groundwater well.

The results of the excavations identified that the subsurface profile of the site consists of moderately reactive clay soils overlying extremely low strength to medium strength sandstone bedrock.

The principal geotechnical conditions of the site comprise sequences of four main elements: fills above general ground level (stockpiles), filled depressions/ voids, residual clays and bedrock.

No free groundwater was observed in the test pits with the exception of Pit 318 which encountered groundwater at 0.3m and Pit 319 which encountered groundwater at the surface. Sandpipe monitoring located groundwater at Bore 605 at a depth of 7.2m (RL 17.1 m AHD). The groundwater investigation by GHD recorded groundwater levels ranging from 6.5m AHD to 8m AHD in the north-western and eastern areas of the site and RL 16 to 17m AHD in the western corner of the site. However, groundwater levels are affected by climatic conditions and soil permeability and will vary with time.

Existing clay and silty clay soils are of medium to high plasticity and laboratory testing has indicated that the clay has a moderate propensity to change in volume with changes in moisture content and moderate potential to soften on exposure to moisture.

6.7.1.3 Acid Sulfate Soils

Acid Sulfate Soils (ASS) are soils containing highly acidic horizons or layers resulting from the aeration and oxidation of soil materials that are rich in iron sulphides. The oxidation produces hydrogen ions in excess of the capability of the soil to neutralise the acidity, resulting in acidic discharges to the environment. These discharges can have a detrimental impact on vegetation, receiving waterways, groundwater and aquatic ecosystems.

Potential Acid Sulfate Soils (PASS) are soil materials containing iron sulfides or sulfidic material that has not yet been exposed to air and oxidised, usually because they are below the water table. They pose a considerable environmental risk when disturbed, as they have the potential to become very acidic when exposed to air and oxidised. PASS and ASS are most commonly found in low lying coastal environments, where soils have formed under the influence of seawater. They occur extensively throughout the Hunter River floodplain in areas containing soils of estuarine origin.

The NSW Acid Sulphate Soils Risk map indicates no risk of actual or potential acid sulfate soils. The Maitland LEP Acid Sulfate Soils mapping indicates that the Site is located on land shown as Class 5 Acid sulfate soils (ASS). The planning requirements relevant to Class 5 land focus not on preventing PASS impacts within the Class 5 land (given that PASS do not occur on Class 5 land) but rather on ensuring development works do not cause inadvertent offsite impacts on lands potentially containing PASS (ie Class 1, 2, 3 and 4 lands).

The site has historically been highly disturbed and excavated for mining and quarry works additionally the lowest ground elevations are approximately 7m AHD, which is much higher than the levels at which PASS typically occur locally, which is below 2m AHD. It is therefore unlikely that any undisturbed PASS exist on the site. Furthermore, some soils on the Site returned high pH values, up to 9, which is inconsistent with ASS.

6.7.1.4 Contamination

The site is located within the former CSR/PGH Metford clay mine and brickworks site which was formerly used for quarrying, stockpiling, brickmaking and other associated activities. As the site will be for a health facility, appropriate measures must be taken in order to confirm that the land is suitable for this new land use.

A search of the NSW EPA Contaminated Land Record was completed on 1 September 2017 which identified no records of contaminated land within the suburb of Metford. However, the site has a long history of industrial uses associated with mining and brick making and is known to contain some areas of soil contamination. The Contaminants of concern on the site were Polycyclic Aromatic Hydrocarbons (PAHs) including Benzo a Pyrene (BaP) and B(a)P TEQ, Total Petroleum Hydrocarbons (TPH) and Asbestos.

Previous investigations

Numerous previous investigations have been prepared for the site to determine the level of contamination and the suitability of the site for health-based land use.

The reports did not find levels of the identified contaminants of potential concern in groundwater which are considered not to require remediation or management under the proposed uses. There was no evidence of potential or actual migration of contaminants from the site which may result in unacceptable risks to surrounding human or ecological receptors.

The site investigation activities reported the presence of potentially combustible materials located in these materials however, are considered suitable for re-use on site. Placement of any combustible material on-site will be recorded on the Long-Term Site Management Plan (LTSMP) to be prepared for the site.

Remediation and Validation Requirements

The Remediation Action Plan (RAP) prepared was prepared by GHD for CSR/PGH by DLA Environmental in May 2014, was created considering that the site would be redeveloped as a health care facility comprising: long term care (hospitals, child care, aged facilities and hospices); commercial/ industrial land use (training facilities, administration and ancillary buildings); and open spaces (gardens, play areas).

The RAP aims to provide procedures and standards which will be followed during the course of the project, to ensure the successful remediation or management of contamination at the site and consequently the protection of the environment so that the site can be made suitable for the nominated health care land use through the implementation of the RAP.

The RAP provided the following preferred options for remediation and/or management of contaminated land, in order of preference:

- Re-use of uncontaminated materials for bulk fill.
- On-site treatment of the contaminated material so that it is destroyed or the associated risk is reduced to an acceptable level.
- Off-site treatment of excavated soil, so that the contamination is destroyed or the associated risk is reduced to an acceptable level, after which soil is returned to the site.
- Consolidation and isolation of the soil on site by containment with a properly designed barrier.
- Removal of contaminated material to an approved site or facility, followed, where necessary, by replacement with appropriate material.
- Where the assessment indicates remediation would have no net environmental benefit or would have a net adverse environmental effect, implementation of an appropriate management strategy.

There was also an option to leaving contaminated material in-situ providing there was no immediate danger to the environment or community and the site has appropriate management controls in place. Implementing the RAP will ensure that when remediated, the site will be stable, safe and meet the requirements of CSR's Mine Closure Plan.

A Long-Term Site Management Plan (LTSMP) will be prepared. The purpose of the LTSMP is to document the location of any remaining contaminated and combustible material. The LTSMP will include the following:

- Nature and location of contamination remaining on-site.
- The objectives of the plan.
- Method of management of contaminants.
- Individual responsibilities for the plan's implementation.
- Time frames that actions specified in the plan will take place.
- Procedures to be used in the event that this should be disturbed.

Site Suitability

An updated Site Audit Report was undertaken by JBS&G in October 2017 (an accredited NSW EPA site auditor) to review investigation, remediation and validation work conducted by contaminated land consultants and to check that these are consistent with current EPA regulations and guidelines and to determine if the land can be made suitable for the proposed land use as a health care facility. Expert review of a consultant's work also helps to determine the reliance that can be placed on their assessment and/or remediation.

The Audit Report determined that site assessment activities undertaken by GHD and proposed remediation and validation works are considered to have met the requirements of the Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd Edition) (DEC 2006).

The Audit Report and supplementary Site Audit Statement determined that the RAP addressed the identified contamination issues as they relate to the proposed uses of the site. The remediation approach documented in the RAP was checked by the auditor and was found to be technically feasible to make the site suitable for the final land use, environmentally justifiable and consistent with relevant laws, policies and guidelines.

A contamination report will be prepared to inform the EIS. The report will summarise the previous investigations, review the existing contamination risk of the site and its surrounds and provides an assessment of the potential contamination impacts associated with the Stage 1 Proposal.

A Validation Report will be prepared summarising the works performed and the validation results demonstrating compliance with the objectives of the RAP.

Potential construction impacts

Soil erosion

Construction of the Stage 1 works will include a number of soil disturbance activities including:

- Vegetation removal and land clearing.
- Cut and fill activities.
- Bulk cut and fill works to level the site. It is expected that excavations of up to 6m and 8m of filling may be required.
- Re-compaction of existing fill materials and the placement and compaction of relocated or imported fill materials.
- Excavation and trenching for inground infrastructure and utility works.
- Stockpiling.
- Use of temporary access roads.

During construction, these activities have the potential to increase the erosion of soil on site and generate sediment laden runoff. This has the potential to impact the surrounding environment.

The overall site erosion hazard is expected to be low to moderate as the disturbance area is relatively large, slopes within the site are gentle overall but steep in localised areas and the erodibility is also very low to moderate due to presence of clay. Given this, soil erosion is expected to be adequately managed through the implementation of a standard suite of erosion and sediment controls during construction.

Acid Sulfate Soils

Construction activities can cause the oxidation of PASS material through excavation and exposure of PASS material, which in turn can result in environmental impacts including:

- Release of nutrients and heavy metals (particularly arsenic) stored within the soil matrix.
- Death or stunted growth of vegetation.
- Loss of habitat.
- Damage to infrastructure, e.g. corrosion of concrete.

The NSW Acid Sulphate Soils Risk map indicates no risk of actual or potential acid sulfate soils and the Maitland LEP Acid Sulfate Soils mapping indicates that the Site is located on land shown as Class 5 Acid sulfate soils (ASS).

Works on the subject site are not expected to cause impacts to PASS on adjacent Class 2 lands by dewatering and lowering the groundwater table, or otherwise. Project works may cause minor changes to surface water drainage patterns due to land reshaping, installation of formalised drainage and an increase in impervious areas. Management measures will be developed to identify, contain and monitor acid sulfate soils (if encountered) throughout construction.

Contamination

The key contamination risks from the proposal have been identified as:

- Disturbance of historical land contamination.
- Storage and handling of dangerous goods, vehicle and plant refuelling (spill or leak) and future contamination through fuel and hydrocarbon storage.

Based on the historical use of the site, there could be residual sources of contamination. During excavation, there is a possibility for the unexpected discovery of contaminated materials. If disturbed, contaminants may pose a risk to human health and the environment. The risk of encountering unknown contaminants during excavation is considered low given the extensive remediation work conducted by CSR.

Construction also has the potential to result in contamination of soils and / or groundwater due to spills and leaks of fuel, oils and other hazardous materials. These impacts are anticipated to be readily manageable through standard environmental management measures.

Proposed investigations and assessment for the Environmental Impact Statement

A soils, geology and contamination assessment will be undertaken as part of the Environmental Impact Statement. The soils, geology and contamination assessment would include:

- A review of previous contamination assessments
- A review of historical aerial photography of the project area (to identify potential contamination sources along and / or adjacent to the project)
- A review of publicly available data (web-based information searches)
- A site inspection to identify potential contamination sources and verify those potential areas of concern identified in the review of historical and available information

- Recommendations for additional investigations and / or management of potentially contaminated sites which could be encountered during construction

The Environmental Impact Statement will also consider the potential impacts associated with erosion and sedimentation.

6.8 NOISE AND VIBRATION

Wood & Grieve have prepared a preliminary assessment of the potential noise (including rail and road) and vibration impacts associated with the operation of the proposed NMH as well as potential noise and vibration caused by the proposed Hospital development, including during construction.

Their assessment concludes that the proposed NMH development provides safe setbacks between the railway line and proposed 'sensitive receiver' uses and also included noise and vibration monitoring of existing situation.

The report also addresses the best location and flight path for the helipad to minimise the need for double glazing of 'sensitive receiver' areas of the hospital and to avoid impacts on residential areas.

Proposed investigations and assessment for the Environmental Impact Statement

A construction and operational noise and vibration impact assessment will be undertaken as part of the Environmental Impact Statement to determine the potential for the project to adversely affect surrounding sensitive receivers and land uses. The construction noise and vibration assessment, will consider:

- The proximity and nature of potentially affected sensitive receivers
- Construction staging, timing (including duration of key activities) and proposed equipment
- The extent and duration of noise and vibration impacts
- Impacts associated with any works proposed to be undertaken within and outside standard daytime construction hours (if required)
- The need to balance potential impacts on sensitive receivers and the mitigation of these impacts considering the overall project delivery program
- Feasible and reasonable mitigation and management measures to address identified construction noise impacts. This includes the need to balance potential impacts on sensitive receivers, mitigation of these impacts and the overall project delivery program.

In relation to operational noise and vibration, the assessment will consider:

- Airborne noise, ground-borne noise and any potential vibration impacts
- Impacts on sensitive receivers (such as educational facilities and residential dwellings)
- Appropriate mitigation and management measures to address identified operational noise impacts.

However, detailed operational noise assessments will be undertaken as part of the Stage 2 detailed design EIS for NMH.

6.9 LANDSCAPE AND VISUAL AMENITY

The existing site character is dominated by the disturbed landscape associated with the former mining and brickworks. This character is particularly noticeable when viewed from the north, which provides open viewpoints from the Main Northern Railway, Raymond Terrace Road and community lands.

The southern boundary of the site is separated from the adjacent residences by a high voltage electricity transmission easement. Native vegetation generally provides a screen to the industrial activities of the site, when viewed from the residential areas to the south, south east and the west.

The proposed built form of the hospital building is anticipated to be eight stories (from ground level) and will be a noticeable built form compared to the predominantly low scale built up areas to the south (low density residential) and west (typical warehouse light industrial uses and low density residential beyond), and rural land uses north of the Main North Railway.

The proposed scale of the development reflects the need to accommodate the various functions of a rural referral hospital for the Hunter Valley and the major district hospital for the residents of the Lower Hunter region.

Potential Construction Impacts

The majority of visual impacts to viewpoints and existing roads during construction will include:

- Civil works.
- Plant and equipment.
- Construction facilities, including portable structures, temporary fencing, temporary signage and laydown areas.
- Excavations and earthworks.
- Vegetation removal.

Some of the elements mentioned above will be temporary and limited to the construction period.

However, Stage 1 will require permanent works including the removal of some vegetation within the boundaries of the site. This will include clearing of some remnant native trees and shrubs as well as understorey vegetation. Some of this vegetation contributes to the amenity and character of the local area, and screens views of the NMH from properties and the road. Overall it is considered that the visual impact during Stage 1 works will be relatively minor.

Potential operational impacts

The main component of the NMH is an eight-level concept hospital plus a lower ground floor, with a hospital wing to the south and car parking facilities either side of the main building. It is acknowledged that due to the height of the proposed new building it will be visually prominent when viewed as part of the existing landscape.

Some of the key visual issues of the proposed NMH are: solar access; light spillage; privacy;

Solar access

Shadow studies prepared based on the Concept Plans demonstrate that shadows cast by the proposed hospital envelope during the winter solstice (21 June), fall within the site boundaries. The extent of the site and the setbacks of the hospital buildings from the site boundaries mean that there is not expected to be overshadowing

impact on any neighbouring properties including the existing residential development to the south of the proposed hospital or the recreational fields to the east of Metford Road.

Light Spillage

Operation of the hospital will require lighting to ensure safe use and effective surveillance of the space after hours. Lighting will be designed to ensure any impact to surrounding houses and roads will be minimised. The effects of light spillage on residential land will also be minimised by vegetation screening and the nature of urban areas (existing presence of street lighting).

Privacy

There will be negligible impact on visual and acoustic privacy on neighbouring properties.

The existing Iron Bark forest on the south-western corner of the site will be largely maintained both as a natural feature and also a buffer between the new hospital development and the residential area to the south. This established forest combined with a distance of over 95m from the hospital to the nearest residential property boundaries precludes any overlooking of the hospital onto neighbouring residences and conceals the bulk of the hospital.

Views and Vistas

Views from the site to the north and east of the site take in predominantly open recreation areas including the east Maitland Common and the Morpeth floodplains. Views for the south and west of the site take in predominantly residential and industrial areas.

The streetscape will be affected as the vegetation bordering Metford Road will need to be thinned to accommodate the asset protection zone (APZ) and the building massing is likely to be seen from Fieldsend Street, Metford Road and Stradbroke Avenue.

Proposed investigations and assessment for Environmental Impact Statement

A landscape and visual impact assessment will be undertaken as part of the Environmental Impact Statement. The assessment will:

- Describe the landscape character and unique qualities of the area
- Assess the impact of the project to the landscape character
- Identify the visual impacts of the project during daytime and night-time conditions (including lighting), and during construction and operation
- Identify measures to avoid, minimise and / or mitigate potential impacts.

6.10 SOCIOECONOMIC, LAND USE AND PROPERTY

The proposed NMH is located in the Maitland LGA and will create health and economic benefits for the region by:

- Providing better health care facilities for the local and regional community.
- Providing for future growth and aging populations.
- Creating employment opportunities during construction and operation.

The existing Maitland Hospital facility cannot support the growth and change in the type of services needed to provide contemporary health care. The NMH will be able to provide the appropriate level of care with the ability to expand in the future additionally it will improve health care facilities for the region and reduce the need to redirect excess demand from local catchment population to referral hospitals.

Local economy

The operation of the NMH will have positive economic impacts including:

- Direct and indirect employment opportunities locally and regionally during construction and operation. The NMH is expected to create:
 - Approximately 1,000 full time equivalent operational staff
 - Approximately 1,250 full time equivalent construction jobs during the construction period
- Wider economic benefits for regional Maitland areas in terms of attracting new potential business to the Health Precinct.
- Potential travel time savings for users.
- Productivity gains from patients who receive early treatment and return to the workforce sooner.

Social benefits

The operation of the NMH will have positive social impacts including:

- Regeneration of a site previously used for mining into a precinct delivering positive outcomes directly to the community.
- Improved accessibility for patients and carers.
- An increase in the equitable access to a range of public health services.
- Improved access for Aboriginal communities.
- Reduced distress and disability associated with illness and having to travel long distances to other hospitals.
- Enhanced social cohesion due to the improved accessibility of health services in regional and rural areas.

Local amenity

The potential adverse social impacts associated with the proposed NMH relate to amenity aspects including, visual amenity, traffic, noise and air quality. These potential impacts will be assessed in detail in detail the EIS, including relevant mitigation measures to reduce and manage these impacts.

During operation, social impacts will be further mitigated through design. Additionally, the site is situated with buffer distances of over 100m to neighbouring residences which will significantly reduce the risk of impacts from operation of the facility.

6.11 ENVIRONMENTAL SUSTAINABLE DESIGN

NSW Health has a comprehensive set of Engineering Services Guidelines (ESGs) which are intended as a handbook to be used during the briefing and design process. These guidelines have been issued to the design team as part of their brief to ensure a fully compliant design is produced. The key sustainable development objectives outlined in (ESGs) are:

- comfortable and healthy indoor environment (in terms of thermal comfort, visual comfort and indoor air quality)
- minimised non-renewable resource consumption (e.g. energy, water) and environmental impacts (e.g. greenhouse, other air and water emissions, solid waste), and
- cost-effectiveness over its whole life cycle.

These principles are underpinned by the following sustainable development drivers:

- Government Energy Management Policy (GEMP) objectives of the NSW Government's Sustainability Advisory Council NSW Water Conservation Strategy, and
- NSW Government's Waste Reduction and Purchasing Policy (WRAPP). These principles are endorsed by NSW Health and are to form part of the design development process.

The project will consider the following initiatives for implementation:

- Energy efficiency generally
- Harvesting of rainwater for watering of adjoining landscaped areas
- Minimisation of non-renewable resource consumption
- Minimisation of solar gain in summer and maximisation in winter by careful design
- Use of sun shading and insulation as well as technological options such as
- Solar-efficient glass
- Opportunities for day lighting where viable and where the opportunity exists to assist in improving patient well-being
- Use of renewable energy systems
- Use of environmentally sound materials

The plans are being developed with the basic principles of good environmental design recognising Maitland's climate. The project will be certified to conform to the BCA requirements (under Part J) for energy management, as well as the specific energy requirements laid down in the health engineering guidelines.

7 PROPOSED EIS SCOPE

The proposed scope for the Stage 1 EIS has been developed with a focus on undertaking the investigations necessary to address any gaps in the preliminary assessments undertaken to date for the ‘key’ environmental impacts. Should any of the ‘other’ environmental impacts be identified as potentially having significant environmental impacts, the likely impacts will be adequately assessed and documented in the EIS.

The scope outlined in Table 2 will be refined (as required) following receipt of the SEARs.

Table 2: Proposed Scope of EIS

Impact	Scope
General	<ul style="list-style-type: none"> • The EIS will be prepared in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000. • The EIS will provide the following information: <ul style="list-style-type: none"> – objectives of the proposed NMH and the strategic need and justification of the statutory planning context and compliance with relevant Commonwealth, State and Regional strategic planning and transport policies; – a detailed description of the proposal; – an analysis of any feasible alternatives or options considered; – an assessment of the likely environmental impacts of the proposal, with a focus on the key issues identified in this report; – a description of measures proposed to mitigate any adverse environmental impacts; – a list of any other approvals that must be obtained before the works can be carried out; and – how the principles of ecologically sustainable development will be incorporated into all stages of the proposal, including design, construction and operation.
Consultation	<ul style="list-style-type: none"> • The EIS will provide information on the consultation activities that have been undertaken prior to, and during, the preparation of the EIS, as well as details on the key issues raised during this consultation, and how these issues have been addressed through the EIS and design development.
Key Environmental Impacts	
Concept Proposal Built Form and Urban Design	<ul style="list-style-type: none"> • Integration of the development with existing built form through the establishment of appropriate development controls including: <ul style="list-style-type: none"> – Gross floor area – Building footprints – Height and massing/ building envelopes – Landscaping and tree planting. • Indicative plans and elevations for the concept proposal to detail design, height, density, bulk and scale, setbacks of the proposal in relation to the surrounding development, topography and streetscape. • Consideration of the overall layout, axis, vistas and connectivity, open spaces and edges, interface with the public domain, primary elements and gateways. • Explore the use of Crime Prevention through Environmental Design (CTED) principles during the design development process, including natural surveillance, lighting, walkways, signage and landscape. • Identify urban design strategies and opportunities to enhance healthy, cohesive and inclusive communities.

Impact	Scope
Visual Amenity	<ul style="list-style-type: none"> • Assessment of the visual impact of the project and any ancillary infrastructure on: <ol style="list-style-type: none"> (a) Views and vistas (b) Streetscapes, key sites and buildings (c) Heritage items including Aboriginal places and environmental heritage; and (d) The local community
Environmental Amenity	<ul style="list-style-type: none"> • Preliminary analysis of perceived amenity impacts including noise and vibration, solar access, privacy and analysis of significant views and vistas that will be impacted by the concept proposal.
Transport and Accessibility	<ul style="list-style-type: none"> • Undertake an assessment of the traffic impact of the concept proposal, with particular regard to: <ul style="list-style-type: none"> – Existing road capacity, traffic conditions, expected impacts. – Road and intersection upgrade requirements, including options to offset the impact of the future hospital development on the road network. – Determine the adequacy of the development to meet the future demand for increased public transport services. – Daily and peak vehicle, public transport, pedestrian and bicycle movements to be generated by the development and impacts on intersections. – Assessment of the impacts on above intersections and the transport network and any measures to mitigate the impacts, having regard to local planning controls; – Access arrangements to and within the site, including the appropriateness of the location of the main access point – Delivery, servicing and loading arrangements, including details of service vehicle movements; – The existing and proposed pedestrian and bicycle routes and facilities within the vicinity of and surrounding the site and to public transport facilities as well as measures to maintain road and personal safety in line with CPTED principles – Access to emergency vehicles.
Biodiversity	<ul style="list-style-type: none"> • Assess the biodiversity impacts in accordance with the current guidelines including the Framework for Biodiversity Assessment (FBA). • Assess any impacts on biodiversity values not covered by the FBA. • Assess impacts on the following [EECs, threatened species and/or populations] and provide the information specified in s9.2 of the FBA. • Identify whether the project as a whole, or any component of the project, will be classified as a Key Threatening Process (KTP) in accordance with the listings in the Threatened Species Conservation Act 1997 (TSC Act), Fisheries Management Act 1994 (FM Act) and Environmental Protection and Biodiversity Conservation Act 2000 (EPBC Act).
Ecologically Sustainable Development	<ul style="list-style-type: none"> • Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design and ongoing operation phases of the development. • Demonstrate that the development has been assessed against a suitably accredited rating scheme to meet industry best practice. • Include a description of the measures that will be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.

Impact	Scope
Bushfire	<ul style="list-style-type: none"> The EIS will include a detailed bushfire hazard assessment and address the requirements of clause 44 of the NSW Rural Fires Regulation 2013 and the requirements for Special Fire Protection Purposes as detailed in Planning for Bushfire 2006 Guidelines.
Noise and Vibration	<ul style="list-style-type: none"> Identify and provide a quantitative assessment of the main noise and vibration generating sources during construction and operation. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land. Assessment of noise impacts in accordance with 'Development Near Rail Corridors and Busy Roads – Interim Guidelines', including details of noise mitigation measures.
Contamination	<ul style="list-style-type: none"> The EIS will provide a desktop soils and geology assessment based on existing information and previous studies. Management and mitigation measures will be proposed, where appropriate. A desk top review of any previous relevant contamination investigations will be undertaken and management and mitigation measures will be proposed to address potential impacts, where appropriate.
Aboriginal Heritage	<ul style="list-style-type: none"> An Aboriginal cultural heritage due diligence assessment will be undertaken, in accordance with the Office of Environment and Heritage's Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (2010). The assessment will include: <ul style="list-style-type: none"> a review of relevant database searches (AHIMS and the NSW Atlas of Aboriginal Places) and any relevant Aboriginal heritage reports to determine the presence of known Aboriginal sites and places within, or proximate to, the site an assessment of the Aboriginal archaeological potential in the site an assessment of the potential impacts of the works on known or potential Aboriginal archaeological sites Recommendations to mitigate any impacts on Aboriginal sites and areas of Aboriginal archaeological potential, where appropriate.
Cumulative Impacts	<ul style="list-style-type: none"> The EIS will include details of the NMH interaction with other known developments in the area. Potential cumulative impacts arising from the interaction of these projects will be identified and assessed in a qualitative manner. Management and mitigation measures will be proposed, where appropriate.
Other environmental impacts	
Utilities	<ul style="list-style-type: none"> Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure. Prepare an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.
Built and non-indigenous heritage	<ul style="list-style-type: none"> It is not anticipated that a detailed Historic heritage impact assessment investigation will be required. A desktop assessment will be undertaken to identify any heritage items, and any areas of archaeological potential, make an assessment of the proposal's impacts on the heritage significance on listed heritage items and areas of archaeological potential and provide recommendations to mitigate any impacts.

Impact	Scope
Hazards and risks	<ul style="list-style-type: none">• It is not anticipated that a detailed hazards and risk assessment will be required.• The EIS will include a desktop hazard and risks assessment evaluating the potential safety issues and impacts during construction and operation of the proposal. Management and mitigation measures will be proposed, where appropriate
Waste and resource use	<ul style="list-style-type: none">• It is not anticipated that a detailed waste and resources assessment will be required.• The EIS will include a desktop waste and resources assessment considering the following aspects:<ul style="list-style-type: none">– likely waste streams and volumes from construction and operation of the proposal including spoil, waste water and demolition materials– likely resources required for construction and operation of the proposal, including energy, fuel, steel etc.

8 CONSULTATION

The NMH Stakeholder and Community Engagement Strategy is linked to key planning, design and construction milestones to ensure timely and proactive communication of important information to stakeholders, the community and the media. The strategy also identifies opportunities for further community consultation to help develop the proposal. Stage specific community engagement plans will support the strategy through each phase of project delivery.

The objectives of the stakeholder and community engagement strategy are to:

- Identify and engage a wide range of stakeholders and interested parties
- Increase community and stakeholder understanding of the project, its objectives and benefits
- Keep people informed about the project phases and ensure that project information is communicated to the community and stakeholders in an effective and timely manner
- Provide the community and stakeholders with an opportunity to participate in the development of the project through feedback and input
- Record, review and comment on project responses to feedback
- Identify concerns and address them where practical and appropriate
- Ensure that community and stakeholder enquiries regarding the project are managed and resolved effectively.

8.1 OVERVIEW OF CONSULTATION UNDERTAKEN TO DATE

8.1.1 CONSULTATION APPROACH

Since the announcement of the Metford site as the location of the NMH, consultation with stakeholders and the community has been undertaken progressively, throughout the development of the proposal and has been supported by public consultation activities. The consultation approach has been designed to inform key stakeholders about the proposal and encourage participation to allow the development of the proposal to benefit from stakeholder knowledge and understanding of specific needs. Consultation activities will continue as the proposal progresses to detailed design and construction.

Following the announcement of the NMH Project in 2013, a website was established for the project and is still active. The project email address is HNELHD-NewMH@hnehealth.nsw.gov.au and the project web address is www.newmaitlandhospital.health.nsw.gov.au. The email address and website were publicised and made available to enable stakeholders and community members to provide feedback on the proposal and ask questions of the project team.

8.1.2 OVERVIEW OF STAKEHOLDER AND COMMUNITY GROUPS

Community groups and stakeholders who are potentially impacted by, or have an interest in the proposal have been identified. These include HNE Health staff, members of the local community, local Aboriginal groups, special interest groups and organisations, businesses, government agencies and other authorities. Stakeholders have been categorised under the following headings:

- Elected representatives
- Government agencies and departments
- HNE Health staff
- HNE Health patients
- Local property owners and tenants
- Transport operators
- Community bodies and associations
- Utility companies and service providers
- Media
- Other

Stakeholders

Consultation has occurred throughout the strategic planning phase of the proposal with a number of organisations associated with the NMH project, including Maitland City Council, OEH, NSW Environment Protection Authority (EPA), Air Services Australia, Hunter Water, Jemena, Transport for NSW, Australian Rail Track Corporation, Ausgrid, Telstra, RMS, Mines Subsidence Board, Crown Lands, DNSW Department of Primary Industries (DPI) Resources and Energy, NSW Rural Fire Service and Local Aboriginal Land Council.

Community

Consultation relating specifically to the proposal has been undertaken over the last few years by Hunter New England (HNE) Health. This included consultation with the HNE Health Board, key clinical staff, the District's peak committees, Directorates and services. Broader staff input on the project was also sought via news articles in the District's Chief Executive News with community and stakeholder forums held during 2013 and 2014.

In addition to these groups, a range of stakeholders will be engaged as part of the ongoing consultation and communication activities associated with the implementation phases of the project.

Specific stakeholder consultation that was undertaken during preparation of the Final Business Case for the new hospital included:

- Consultation with local clinical staff and management from February to April, 2013 and substantial input from community representatives during this time.
- Consultation to inform the Project Vision and Brand with key clinical staff, community representatives and HNE Health Executive in May 2014.
- Consultation with over 280 key clinical staff, stakeholders and Executive between June and July 2014.
- A Community and Stakeholder Forum event in March 2014 with a follow up scheduled for November.

Following on from the Final Business Case, specific consultation was undertaken and included the following:

- Consultation with over 280 key clinical staff, stakeholders and Executive in September 2016, March 2017 and July 2017.
- Community Drop In Session on 19 October, 2016.
- Numerous letter box drops and flyers to community members since November 2016.

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- Presentations to Country Women's Associations, Lions Club, Maitland Mercury, Maitland Local Health Committee, Local Member for Maitland, Maitland City Council Mayor and local schools during the months of November 2016 and December 2016.
- Ongoing consultation and meetings with key government agencies including RMS, OEH, DPI and Resources and Maitland City Council.
- Community forum in May 2017.

Community and stakeholder consultation will continue to be undertaken during the preparation of the EIS and then following the public exhibition of the EIS.

9 JUSTIFICATION

The existing Maitland Hospital facility cannot support the growth and change in the type of services needed to provide contemporary health care due to:

- A growing and ageing population in the Hunter Valley.
- The facility is already operating at 97% capacity, well beyond the state benchmark of 85%.
- The number of residents living with chronic disease is on the rise.
- A number of issues relating to age, asset condition, compliance with current facility guidelines and ability to meet contemporary service delivery and models of care.

The New Maitland Hospital (NMH) will resolve these constraints and provide opportunities to develop a health facility that will meet the needs of the Region well into the future. The NMH will meet the aims of the S&RD SEPP as it will:

- Facilitate the redevelopment of an important regional site to facilitate the orderly use and development of the site for the benefit of the State: and
- Facilitate the delivery of important State and Regional health services for the regional and local community.

Specifically, the project will result in the following benefits for the State and Region:

- Contributing to the fulfilment of the objectives for employment and health services in the Regional and sub-Regional Strategies;
- Enabling the appropriate reuse of a disused quarry and brickworks for an 'essential public purpose';
- Facilitating improved health access and equity outcomes for a NSW regional community;
- Assisting in closing the gap between Aboriginal and non-Aboriginal Health outcomes;
- Facilitating the growth and support of a skilled, competent and capable health related workforce in the Region;
- Contributing to better realignment and integration of health service delivery across the Region through appropriate referral of patient flows and improved networking of services;
- Improving patient centred integrated care including consolidated delivery of Mental Health Services;
- Facilitating the delivery of best practice care models and clinical design to achieve better health outcomes, reduce length of stay and unplanned admissions;
- Improving patient and healthcare worker safety;
- Wider economic benefits for Maitland and the surrounding area in terms of attracting new potential business to the area; and
- Enabling the establishment of stronger partnerships and service integration across government and nongovernment health providers to increase sustainability and reduce duplication.

The proposed new hospital and associated development will:

- be both the rural referral hospital for the Hunter Valley and the major district hospital for local residents of the Lower Hunter and bordering residents of Newcastle, Lake Macquarie and Port Stephens LGAs and will facilitate enhanced service provision closer to home where possible;
- provide appropriate and contemporary infrastructure that will assist in the provision of up to date and integrated models of mental health care and service delivery;
- enable the development of models of care with other partners such as Hunter Medicare Local, Aboriginal health services and other health and non-health providers to improve the health of the community and manage chronic disease in the home and community; and include complementary health related land use activities.

10 CONCLUSION

This report provides an overview of the proposed Stage 1 scope of works for the New Maitland Hospital at Metford, and sets the strategic context and justification for the project.

The report also provides a preliminary assessment of the potential environmental impacts associated with the project. Health Infrastructure expects the impacts of the project to significantly affect the environment and that it will require preparation of an environmental impact statement under the EP&A Act. The proposed NMH is specified development on specified land to be State Significant Infrastructure, the project is State Significant Infrastructure under Part 5.1 of the EP&A Act. Approval from the Minister for Planning is therefore required for the project.

The key environmental issues identified for the project include:

- Traffic, transport and access
- Aboriginal heritage
- Soils, geology and contamination
- Biodiversity
- Hydrology, flooding and water quality
- Noise and vibration
- Air quality
- Social and economic impacts
- Urban design, landscape and visual amenity
- Cumulative Impacts

The environmental impact statement will include the following:

- A detailed description of the project including its components and potential staging
- A comprehensive assessment of the potential impacts on the key issues including a description of the existing environment, assessment of potential direct and indirect and construction, operation and staging impacts
- Description of measures to be implemented to avoid, minimise, manage, mitigate, offset and/or monitor the potential impacts
- Identify and address issues raised by stakeholders.

An indicative scope for the EIS has been provided in Section 7 of this report. It is expected that this report will assist the Secretary of DP&E to formulate environmental assessment requirements for the project.

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