PRELIMINARY ENVIRONMENTAL ASSESSMENT

PROPOSED REDEVELOPMENT OF HUNTER SPORTS HIGH SCHOOL
2 PACIFIC HIGHWAY, GATESHEAD

LOT 1540 DP 755233, LOT 1410 DP 755233 AND LOT 92 DP 1192138

Prepared on behalf of:
NSW PUBLIC WORKS

Prepared for Submission to:
PLANNING & ENVIRONMENT

Prepared by:

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1. INTRODUCTION

1.1 Introduction

This Preliminary Environmental Assessment (PEA) has been prepared on behalf of NSW Public Works to accompany a development application (DA) for redevelopment of Hunter Sports High School at 2 Pacific Highway, Gateshead. The majority of the high school is located within Lot 1540 DP 755233; however, the high school also occupies a small section of Lot 1410 DP 755233 and Lot 92 DP 1192138 which is part of Wiripaang Public School. Location of the site is provided in Appendix 1 and 2.

While certain development may occur as complying development under Clause 31A of State Environmental Planning Policy (Infrastructure) 2007 the NSW Department of Education has made the decision for the project to occur through the development application process. The capital investment value for the proposed development is $30,671,743 (Appendix 4) and as such is identified as State significant development under the State Environmental Planning Policy (State and Regional Development) 2011. The statutory planning framework is further outlined in Sections 4.2 and 4.3 of this PEA.

1.2 Project Overview

The DA relates to demolition of a number of existing buildings and construction of new buildings including:

- hall
- canteens
- classrooms
- workshops
- library
- administration and staff facilities
- external landscaping and driveway
- associated infrastructure and services.

The PEA outlines potential environmental impacts of the proposed development and how these will be considered and assessed. Construction is planned to be staged over two years to allow continued operation of the school and it is envisaged that due to this methodology no temporary buildings will be required during construction.

1.3 Integrated Development Provisions

The proposed development is Integrated Development pursuant to the provisions of Section 91 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The following approvals should be considered consistently with provisions of State significant development:

- approval pursuant to Section 15 of the *Mine Subsidence Compensation Act 1961*, as the proposal involves development of land within a mine subsidence district (refer Appendix 8)
- approval pursuant to Section 100B of the *Rural Fires Act 1997*, as the proposal is for a Special Fire Protection Purpose on bushfire prone land (subject to Section 89J of the EP&A Act)
- approval pursuant to Section 138 of the *Roads Act 1993*, as the proposal involves connection to a classified road (subject to Section 89K of the EP&A Act).

1.4 Consultation

Lake Macquarie City Council

A meeting was held with Council on 27 November 2015 to discuss the proposed development (Appendix 6). A number of key issues were discussed at the meeting including:

- JRPP
- zoning and permissibility
- building height
- staging
- referrals
- onsite parking
- vehicular access
- non-discriminatory access
- visual impact
- lighting
- crime prevention.

Each of the items discussed in the pre-lodgement meeting have been considered throughout the design and will be addressed as part of the application.

Roads and Maritime Services

RMS have advised "there are numerous constraints at this location, and as the development does not include any increase in student or staff numbers, a formal deceleration will not be required. Roads and Maritime considers that the removal of parking on approach to the proposed driveway (that is designed with appropriate splays and width) will be sufficient to ensure the safety and efficiency of the Pacific Highway is not compromised. The amount of parking to be removed will be subject to further investigation" (Appendix 7).

Mine Subsidence Board

The site is located within a Mine Subsidence District and conditional approval has been granted by the Mine Subsidence Board (Appendix 8).

2. PROPOSED DEVELOPMENT

2.1 Existing Development

Hunter Sports High School is a partially selective high school that balances academic excellence with sporting achievement. Located on the Pacific Highway in Gateshead, Hunter Sports High School has forged close ties with its community and offers local students and students selected to participate in the Talented Sports Program with a safe, caring and highly supportive environment in which to complete their secondary education.

Local students are drawn from Gateshead, Gateshead West, Windale and Mt Hutton while selected students come from as far as the Central Coast, Hunter Valley and the Port Stephens area, to take part in the widely recognised sports programs the school offers.

Buildings and facilities at the school include the following:

- Block A – Administration
- Block B – Canteen and class rooms
- Blocks C, D & E – Class rooms
- Block F – Workshops
- Block J – Science laboratories and Arts class rooms
- Block L – Library
- Block Q – Gym
- Physical Education Courts
- Covered Outdoor Learning Area.

The site is approximately 91,055m^2 and contains a number of assets that are nearing the end of their life cycle and require significant upgrade or replacement.

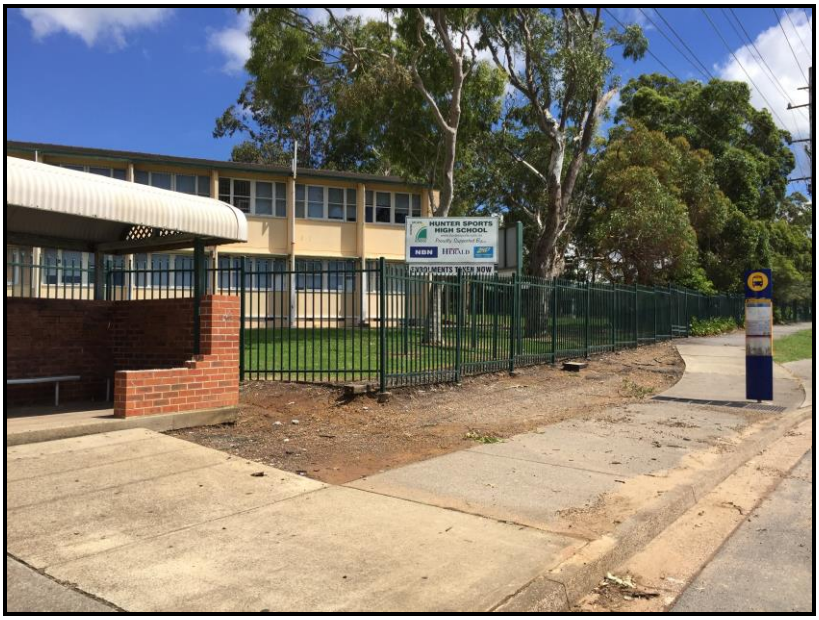

Photo 1 – Existing Hunter Sports High (looking north east)

2.2 Proposed Development

NSW Public Works wish to replace most of the existing buildings and facilities at the site. The buildings currently house up to 850 students in a variety of educational settings that are nearing or have passed their economic life. The project has the following objectives:

- provide a long term financially viable solution for ongoing operation of the school
- comply with relevant codes (National Construction Code and Australian Standard)
- erect buildings that provide contemporary educational facilities that meets community expectations
- provide facilities that allow for modern delivery of education to students
- external car parking, driveway and access
- external landscaping
- associated infrastructure and services.

The proposed development provides for long-term education for residents of Lake Macquarie and broader population. The subject DA relates to the following works:

- demolition of a number of existing buildings (Block Q and covered ball courts are to be retained)
- construction of new buildings including:
    - classrooms and other learning spaces
    - library
    - hall
    - canteen
    - administration and other staff facilities
- construction of new driveway
- external landscaping
- associated infrastructure and services.

Attributes of the site to be considered as part of the development include mine subsidence, bushfire and connection to a classified road.

2.3 Project Justification

Hunter Sports High School, the only designated sports high school north of Sydney and the proposed development will provide the school with state of the art facilities, including new classrooms, administration buildings and training facilities. Location of the site is provided in Appendix 1 and 2.

The proposed redevelopment of the existing school will provide long-term benefit to students in the region. Additionally, the school provides a focus on sports that will assist sports people achieve a higher potential through a modern purpose built facility.

3. THE SITE AND SURROUNDING AREA

3.1 Location

The site comprises Lot 540 DP 755233 at 2 Pacific Highway, Gateshead. Development in the area includes residential and commercial. As shown on the location and aerial plans (Appendix 1 and 2) the site is adjacent to the Pacific Highway and commercial property to the east, Wiripaang Public School to the north and recreation to the south and west.

3.2 Site Area

The site has a total area of around 91,055m^2. Site area will not change as a result of the development.

3.3 Physical Features

3.3.1 Topography

Locally the geography is generally flat with a slight decline towards drainage west of the site.

3.3.2 Geotechnical

The site is underlain by carbonaceous clays (completely weathered coal). Site classification ranges from M to P due to 2 metre depth of filling encountered in one bore. A geotechnical reports is provided in Appendix 10 with conditional approval from the Mine Subsidence Board in Appendix 8.

3.3.3 Flooding

The site is considered a flood control lot – low hazard. The south western part of the site is adjacent to Johnsons Creek. A Preliminary Stormwater and Flood Study is provided in Appendix 11.

3.3.4 Vegetation and Trees

The site is predominantly clear in the area of proposed development. The area around the existing car park and eastern boundary generally consists of remnant trees that are growing in relatively close proximity to each other. As can be expected in this situation many of the trees exhibit less than perfect form with crown asymmetry, suppression and poor branch structure being the predominant problem caused by phototropism. A number of trees along the eastern boundary have also been pruned significantly due to nearby overhead powerlines.

In other areas of the school the majority of trees have been planted and consist of locally occurring native species, non-local native species and exotics. An Arborist Report is provided in Appendix 13.

3.3.5 Traffic and Access

Access from the Pacific Highway is the main vehicular entry that provides access to the administration building, carpark and school. A new entrance is proposed south of the existing entrance to serve as the main driveway. A Traffic Impact Assessment is provided in Appendix 14.

3.3.6 Bushfire Prone Land

The site is considered bushfire prone land. A Bushfire Protection Assessment is provided in Appendix 12.

3.3.7 Coastal Zone

The site is not located within the coastal zone.

3.4 Aboriginal Heritage

A search of the Aboriginal Heritage Information System identifies one Aboriginal recorded in or near the site (Appendix 9). OEH has advised that this site was recorded incorrectly and may be discounted. Aboriginal heritage will be further considered in the assessment process.

3.5 Non-Aboriginal Heritage

The site is not located in a heritage precinct and does not contain a known heritage item.

3.6 Mine Subsidence

The site is located within a Mine Subsidence District and conditional approval has been granted by the Mine Subsidence Board (Appendix 8).

3.7 Surrounding Area

3.7.1 Land to the North

Wiripaang Public School is located immediately north of the site. A number of commercial premises are located further north on Hughes Street and Pacific Highway.

Photo 2 – Wiripaang School (looking north)

3.7.2 Land to the East

Commercial premises are located east of the site on the Pacific Highway. Commercial uses include car sales and car part sales.

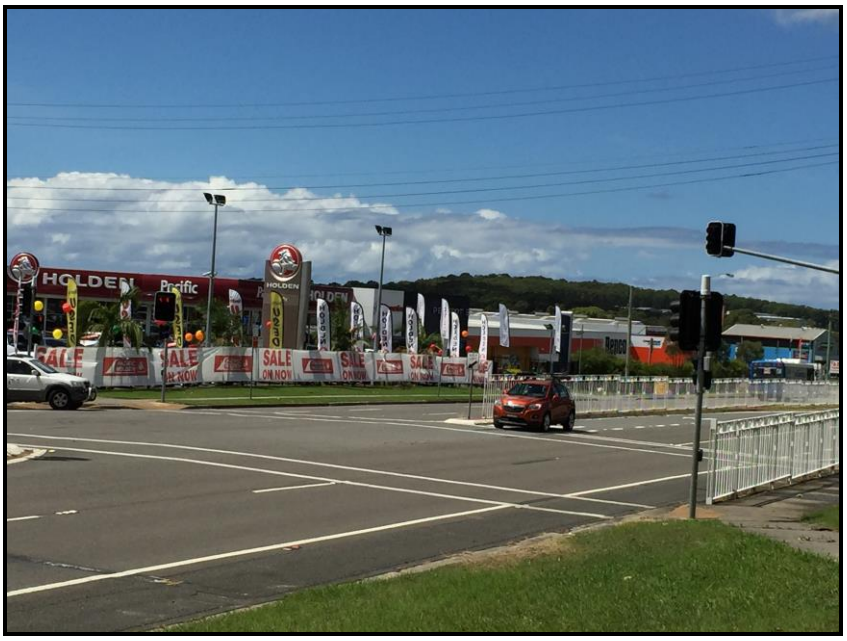

Photo 3 – Commercial Premises on Pacific Highway (looking south east)

3.7.3 Land to the South

As shown in Appendix 2 recreation ovals and Johnsons Creek are located south of the site. The Newcastle Inner City Bypass is located further south.

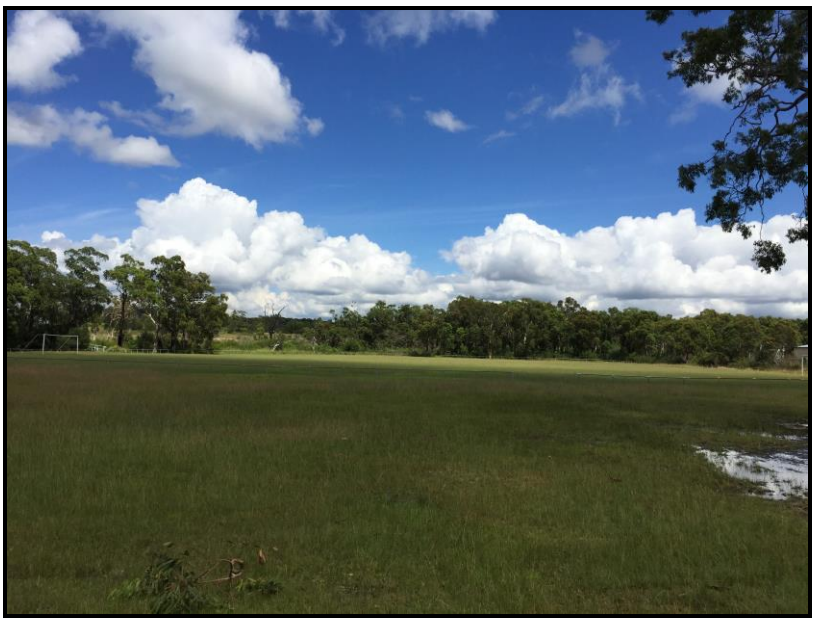

Photo 4 – Recreation Oval and Johnsons Creek south of the site (looking south)

3.7.4 Land to the West

Johnsons Creek and recreation ovals are located west of the school. Residences are located west of the ovals.

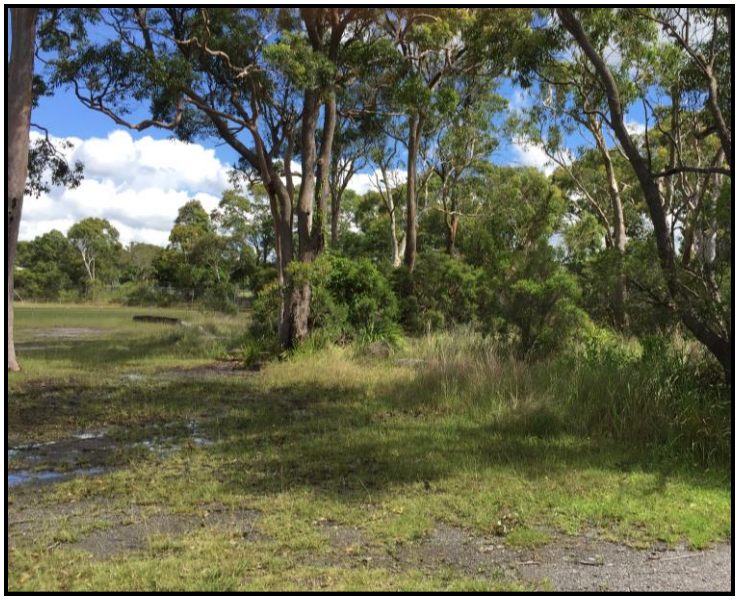

Photo 5 – Vegetation, Recreation Oval and Johnsons Creek (looking west)

4. STATUTORY PLANNING CONTROLS

4.1 Lake Macquarie Local Environmental Plan 2014

The Lake Macquarie Local Environmental Plan 2014 (LEP) provides a planning framework to facilitate development in an appropriate manner with due consideration to ecologically sustainable development. Relevant Clauses of the LEP are discussed in Table 4.1.

Table 4.1 – Consistency with LEP 2014

Clause	Consistency
1.2 Aims	The LEP provides for appropriate development within the LGA. The proposal has given due consideration to the site and surrounds and is in keeping with the aims of the LEP.
2.1 Land use zones	The site is zoned R2 Low Density Residential (Appendix 3).
2.3 Zone objectives	Objectives of the R2 zone are as follows: ➢ To provide for the housing needs of the community within a low density residential environment. ➢ To enable other land uses that provide facilities or services to meet the day to day needs of residents. ➢ To encourage development that is sympathetic to the scenic, aesthetic and cultural heritage qualities of the built and natural environment. The proposal provides for development of an existing site that has been used for educational purposes for many years. It provides a service that meets the day to day needs of residents and the wider community. The proposed development is permissible with consent under State Environmental Planning Policy (Infrastructure) 2007 (see Section 4.2).
4.3 Height of buildings	The maximum building height for the site is 8.5 metres.
4.4 Floor space ratio	Council has not adopted a floor space ratio in the LEP.
4.6 Exceptions to development standards	Flexibility is provided in the LEP for certain development standards for particular development.
5.9 Preservation of trees or vegetation	A number of trees will be removed or pruned. As stated in the Arborist report (Appendix 13) approximately 80 trees will require removal, however trees will be retained where possible.
5.10 Heritage conservation	The site is not located in heritage precinct. One Aboriginal site is recorded in or near the site.
6.2 Public utility infrastructure	Services are available to the site and will be augmented as required for the proposed development.
7.1 Acid sulfate soils	The site is not mapped by Council as containing acid sulfate soils.

7.3 Flood planning	Council has identified the site as a Flood Control Lot – Low Hazard.
7.4 Coastal risk planning	The site is not identified as a coastal risk.
7.21 Essential services	Essential services will be provided to the proposed development.

4.2 State Environmental Planning Policy (Infrastructure) 2007

Clause 28 of SEPP (Infrastructure) states development for the purpose of educational establishments may be carried out by any person with consent on land in a prescribed zone. An educational establishment includes a school and R2 Low Density Residential is a prescribed zone, as such the proposed development is permitted with consent.

While certain development may occur as complying development under Clause 31A of SEPP (Infrastructure) the NSW Department of Education has made the decision for the project to occur through the development application process. Clause 32 of SEPP (Infrastructure) states:

> *Before determining a development application for development for the purposes of a school, the consent authority must take into consideration all relevant standards in the following State government publications (as in force on the commencement of this Policy):*
>
> *(a) School Facilities Standards—Landscape Standard—Version 22 (March 2002)*
>
> *(b) Schools Facilities Standards—Design Standard (Version 1/09/2006)*
>
> *(c) Schools Facilities Standards—Specification Standard (Version 01/11/2008).*

Schedule 3 of SEPP (Infrastructure) states educational establishments that have a capacity of 50 or more students is considered a Traffic Generating Development that needs to be referred to RMS.

RMS have advised (Appendix 7) "there are numerous constraints at this location, and as the development does not include any increase in student or staff numbers, a formal deceleration will not be required. Roads and Maritime considers that the removal of parking on approach to the proposed driveway (that is designed with appropriate splays and width) will be sufficient to ensure the safety and efficiency of the Pacific Highway is not compromised. The amount of parking to be removed will be subject to further investigation". Further consultation will occur with RMS during the detailed environmental assessment.

4.3 State Environmental Planning Policy (State and Regional Development) 2011

Schedule 1 of SEPP (State and Regional Development) 2011 identifies State Significant Development as follows:

> *"15 Educational establishments*
>
> *Development for the purpose of educational establishments (including associated research facilities) that has a capital investment value of more than $30 million."*

The capital investment value for the proposed development is $30,671,743 (Attachment 4) and as such is identified as State significant development under the SEPP. This PEA forms part of our application to have the project registered as State significant and request the Secretary's Environmental Assessment Requirements (SEARs).

5. POTENTIAL ENVIRONMENTAL IMPACTS

5.1 Land Use

5.1.1 Existing Environment

Land use in the study area includes the high school, recreation, commercial and residential. Johnsons Creek is located to the south west of the school with recreation land to the west (refer to Appendix 2).

5.1.2 Potential Impacts

The proposal is for ongoing land use relating to education and is principally replacement and improvement of existing buildings with minor increase in footprint.

5.1.3 Proposed Environmental Assessment

Consideration will be given to adjacent land uses and potential impact such as hours of operation, access or limiting options for their site. As the proposed development is principally to replace existing buildings potential impact on land use is likely to be negligible.

5.2 Traffic and Access

5.2.1 Existing Environment

The site has two existing carparks with a bus drop off area that facilitates a one-way system. Existing vehicular access is provided from the Pacific Highway.

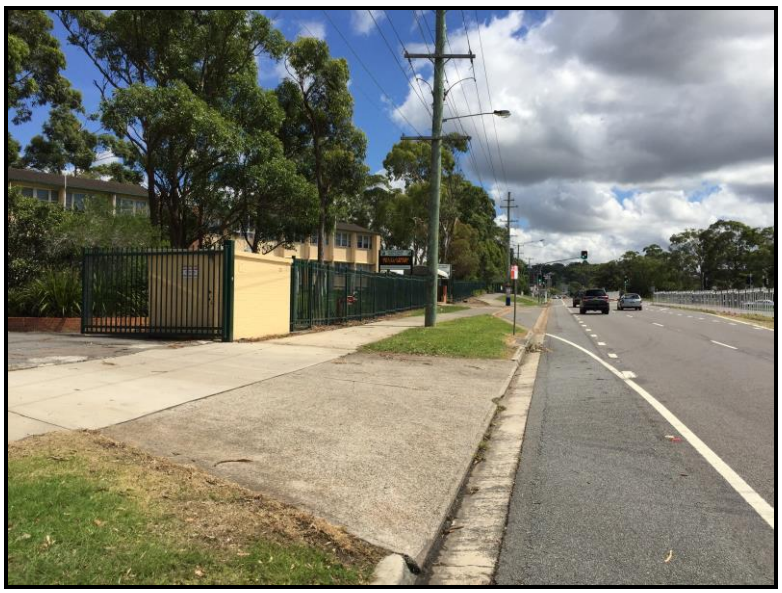

Photo 6 –Existing access from Pacific Highway (looking north)

5.2.2 Potential Impacts

There will be a slight increase in traffic during construction. Construction vehicles will generally be light weight with some rigid trucks for deliveries and potentially a crane for lifting construction materials and equipment into position.

Parking demand will remain the same and parking provision will be similarly provided on site with approximately 50 formal spaces. The proposal includes separation of parking areas such that the southern carpark is intended for teaching staff, service vehicles and school shuttle buses while the northern carpark is for other staff and occasional school time visitors. The new driveway will operate as a Left IN/Left OUT vehicular access and there is a minimum of 150m sight distance to approaching vehicles.

5.2.3 Proposed Environmental Assessment

A Traffic Impact Assessment has been prepared (Appendix 14) to consider impact of vehicles on the local road network. The assessment found the proposed development sufficiently caters for the safe and efficient operation of the high school in regards to traffic and parking.

5.3 Noise and Vibration Impacts

5.3.1 Existing Environment

Hunter Sports High has been at the site for many years without noise affecting neighbouring properties. The school is located on a busy road with commercial properties and another school as adjacent land uses.

5.3.2 Potential Impacts

Construction noise and operational noise will be considered, however the proposal is unlikely to increase noise in the locality during operation. Construction noise has potential to impact on neighbouring premises as the proposal involves a redevelopment of approximately 90% of buildings and will likely take place over two years (staged to allow continued operation of the school). Wiripaang Public School is located north of the site and is a sensitive receiver for noise.

5.3.3 Proposed Environmental Assessment

A Noise Impact Assessment will be prepared to consider existing and potential future noise as a result of the development. The assessment will consider:

- Environment Protection Authority (EPA) 2000, Industrial Noise Policy (INP);
- Department of Environment and Climate Change (DECC) 2009, Interim Construction Noise Guideline (ICNG);
- Australian Standard AS 2436-2010 Guide to Noise Control on Construction, Maintenance and Demolition Sites;
- Department of Environment and Climate Change and Water (DECCW) 2009, Assessing Vibration: A Technical Guideline.

5.4 Soils, Geology and Contamination

5.4.1 Existing Environment

According to Douglas Partners (Appendix 10) the site is underlain by carbonaceous clays (completely weathered coal). Based on previous geotechnical investigations the geotechnical conditions are:

- variable depth to rock

- presence of coal seams
- presence of carbonaceous clay layers
- groundwater.

5.4.2 Potential Impacts

Construction has potential to result in erosion and subsequent loss of topsoil. Excess soil from construction will need to be managed on site or disposed off-site. Excess soil will need to be managed to ensure it is not lost into previously undisturbed areas or into adjacent land. A designated stockpile location will be required at the construction compound. It is proposed to reuse excavated material within the site.

Founding conditions are expected to range from bedrock to generally stiff to very stiff clay and silty clay. The Geotechnical Investigation (Appendix 10) provides comment on excavation and batters, retaining walls, pavement design and subgrade preparation.

There is potential the site is contaminated by previous activities or includes buildings that may contain asbestos. A Preliminary Site Investigation was prepared by Douglas Partners (Appendix 15). The report found that potential for gross contamination at the site is low with some occurrence of Potential Asbestos Containing Materials, minor quantities of fuels and chemicals and potential PCB contamination associated with the former substation.

5.4.3 Proposed Environmental Assessment

A Geotechnical Investigation has been prepared by Douglas Partners (Appendix 16). The report found based on current and previous geotechnical investigations the geotechnical conditions are:

- variable depth to rock
- presence of coal seams
- presence of carbonaceous clay layers
- groundwater.

Site classification is generally Class M, with the exception of bore 105 that is Class P due to 2 metres of fill. Founding conditions are expected to range from bedrock to generally stiff to very stiff clay and silty clay. The report also provides comment on excavation and batters, retaining walls, pavement design and subgrade preparation.

A Preliminary Site Investigation has been prepared to consider potential contamination and how that contamination can be managed. Section 9 of Appendix 15 recommends additional investigation including subsurface investigation, site specific construction environmental management and remedial action if required. The site is considered suitable for the secondary school development from a soil contamination perspective, provided recommendations of the report (Appendix 15) are addressed prior to and during development.

5.5 Air quality

5.5.1 Existing Environment

The site has been used for education for many years and there is no history of issues in relation to air quality. No ongoing activities are proposed that will impact on local air quality.

5.5.2 Potential Impacts

Construction of the proposal has potential to generate wind borne dust from exposed soil. Dry and windy conditions will generate additional dust from exposed soil and movement of vehicles and wind conditions should be monitored. Exhaust from heavy machinery and other vehicles may also impact on local air quality.

Operation of the school is unlikely to result in air impacts, however this will be confirmed through detailed environmental assessment.

5.5.3 Proposed Environmental Assessment

Future environmental assessment will consider existing climatic conditions of the site. Potential air quality impacts such as vehicle and dust emissions will be identified with appropriate mitigation measures proposed. Environmental management measures are likely to only be required during construction.

5.6 Water Quality and Hydrology

5.6.1 Existing Environment

Council's mapping indicates that the proposal is located in a flood control lot – low hazard. Existing stormwater on the site generally drains to Johnsons Creek. The proposed works are located more than 40 metres from the top of bank of Johnsons Creek. Johnsons Creek feeds into a State Environmental Planning Policy 14 – Coastal Wetlands (SEPP 14) wetland no.861 referred to as Jewells Swamp. Depth to groundwater is unknown.

5.6.2 Potential Impacts

Changes to extent of building and paved areas may impact on surface flows. Additional or changed stormwater flows have potential to impact on drainage regimes and downstream properties. If stormwater is not adequately managed it may cause drainage issues on site. Additional flow of stormwater has potential to erode soil, divert water to new areas or impact Johnsons Creek through additional volume or localised energy. Poor stormwater management has potential to impact water quality of the nearby SEPP 14 wetland.

5.6.3 Proposed Environmental Assessment

Construction and development in flood prone land will be avoided, where practicable, refer to Preliminary Stormwater and Flood Study Report (Appendix 11). A stormwater management plan has been prepared (Appendix 16). The plan includes piped minor drainage to accommodate the 1 in 20 year flows from roof downpipes and landscaped and paved surfaces. Major stormwater flows from rainfall events up to a 100 year ARI will be conveyed on the surface via overland flow along the line of the below ground system. A volume of detention storage will be provided appropriate to store peak flows from the proposed new development and limit discharges such that post developed flows will be limited to pre-developed flow for all storm events. Stormwater quality improvement and reuse will involve EnviroPod 200 micron filter inserts to remove contaminants through direct screening (Appendix 16).

5.7 Flora, Fauna and Bushfire

5.7.1 Existing Environment

According to Terras Landscape Architects (Appendix 13) the site currently comprises of remnant native trees, planted native and exotic trees. The main remnant species consist of *Angophora costata*, *Corymbia gumiffera* and *Eucalytpus capitellata*. There is no connectivity to surrounding bushland. Understorey varies from turf, shrubs in garden beds and gravel within informal car parking areas.

The site is considered bushfire prone land.

5.7.2 Potential Impacts

Based on the proposed development footprint and level changes 80 trees will require removal. Removal of trees has potential to impact on threatened flora and fauna and their habitats.

Bushfire has potential to be a risk to the safety of occupants of the school. Bushfire risks can include smoke inhalation and direct exposure to radiant heat.

5.7.3 Proposed Environmental Assessment

An Ecological Impact Assessment will be provided to present existing ecological conditions. The ecological assessment will consider potential effect on threatened species, populations or ecological communities, or their habitats. The environmental assessment will address the *Threatened Species Conservation Act 1995* and *Environment Protection and Biodiversity Conservation Act 1999*.

The Arborist Report (Appendix 13) identifies and records relevant data pertaining to trees located within the nominated site. Applying Tree AZ ratings to the subject trees, there are 32 Z trees and 90 A trees. A trees are considered suitable for retention for more than 10 years and are worthy of being a material constraint. Z trees are considered unimportant and not worthy of retention.

As can be seen by the AZ ratings the majority of trees are A trees and are healthy with an anticipated life expectancy of greater than 15 years (i.e. ULE ratings of 1 & 2) some with minor defects and problems that could be treated with proper tree management should it be desired. A number of trees are not protected under Lake Macquarie City Council's DCP 2014 due to them not being a native of NSW. These have not necessarily been designated as Z trees.

Based on the proposed development footprint and level changes 80 trees will require removal. Of these 80 trees 56 are rated as A trees, this includes tree 38 which consists of a clump of 19 semi-mature trees. 24 Z trees will also require removal. A further 7 trees with a Z rating should be removed due to their low ULE rating and the potential risk they pose. These trees are 4, 6, 33, 36, 46, 75 and 78.

One A rated tree not affected by proposed works, tree 69 (*Eucalyptus robusta*) is proposed for removal. Currently tree 69 forms part of a group planting, however all the other trees in the group are shown to be removed. Tree 69 does not have a very attractive form which will be magnified by the removal of the other trees. New plantings are proposed in this area to compensate.

With the proposed retention of the existing informal car park a greater number of trees can now be retained, however pruning out dead wood and other poorly structured branches should be undertaken on retained trees to reduce the risk of injury or damage.

The arborist report provides the following recommendations:

- undertake appropriate replacement plantings on site to replace lost canopy cover and amenity trees. Refer to landscape DA documentation by Terras Landscape Architects for proposed planting locations and species.
- that trees earmarked for removal to be dismantled and mulched with the mulch being utilised in the proposed landscape works. Any residual mulch to be disposed of in an appropriate manner offsite. Refer to Appendices 1 and 2 (of Appendix 13) for proposed tree removal.
- that all tree removal work be carried out by or supervised by a qualified tree worker (AQF Level 3 or equivalent) in accordance with the NSW WorkCover Code of Practice for the Amenity Tree Industry, 1998.
- that trees to be retained are to be protected in accordance with AS4970-2009 Protection of trees on development sites. This is to include but not limited to the erection of self-supporting temporary protective fencing.

A Bushfire Protection Assessment has been prepared to consider bushfire risk (Appendix 12). The assessment made the following recommendations and conclusion:

The proposal consists of the redevelopment of existing school buildings on bushfire prone land and as such is defined as Special Fire Protection Purpose (SFPP) development. The building will have a managed separation distance to the bushfire hazard that exceeds the minimum requirements. With the application of BAL-12.5 construction standard, this assessment has found the development can achieve all the acceptable solutions of PBP required for SFPP development, hence achieving the aim and objectives of PBP.

The following recommendations were made:

1. the new development is to be constructed to BAL-12.5 under Australian Standard AS 3959-2009 Construction of buildings in bushfire-prone areas with consideration of the AS 3959 NSW variation as outlined in PBP (2010) Appendix 3 Addendum (of Appendix 10);

2. tree branches and leaves should not be closer to a powerline than the distance specified in 'ISSC 3 Guideline for Managing Vegetation Near Power Lines' (Industry Safety Steering Committee, 2005).

3. any gas service to be installed is to be in accordance with AS/NZS 1596:2008 The storage and handling of LP gas (Standards Australia, 2008).

In the author's professional opinion (of Appendix 12) the proposed development can comply with 'Planning for Bush Fire Protection' (NSWRFS 2006).

5.8 Heritage – Aboriginal

5.8.1 Existing Environment

A search of the Aboriginal Heritage Information Management System (AHIMS) found one Aboriginal site recorded in or near the study area (50 metre buffer) (Appendix 9). OEH has advised that this site was recorded incorrectly and may be discounted.

5.8.2 Potential Impacts

The proposal is unlikely to impact on an item of Aboriginal heritage. Aboriginal heritage is protected under the *National Parks and Wildlife Act 1974*.

5.8.3 Proposed Environmental Assessment

An assessment will be carried in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW, 2010). Where the assessment considers the proposed development may impact on Aboriginal heritage then specialist advice will be sought from an archaeologist.

5.9 Heritage – non-Aboriginal

5.9.1 Existing Environment

The site does not contain a known item of non-Aboriginal heritage.

5.9.2 Potential Impacts

There are no State and Local heritage items located on the site or in close proximity.

5.9.3 Proposed Environmental Assessment

The environmental assessment will present potential impact on non-Aboriginal heritage and likely include an environmental management measure relating to unexpected finds.

5.10 Visual impacts

5.10.1 Existing environment

The study area involves a typical low density environment with a mix of education, residential and commercial land uses. The existing school is adjacent to the Pacific Highway and is a mix of one and two storey buildings.

5.10.2 Potential impacts

The proposal is redevelopment of an existing school and as such is likely to create negligible negative visual impact. One of the main drivers for the redevelopment is to provide modern purpose built educational facilities. The proposed development is high quality and is likely to provide a positive visual impact to the site and locality, particularly in comparison to the state of the existing buildings and the high quality architectural design of the proposed building.

5.10.3 Proposed Environmental Assessment

Future environmental assessment will consider development in the locality, adjacent to the site and within the school grounds. Architectural plans (Appendix 5) include 3D representations, elevations and materials and colours to indicate likely visual aspect of the final built form.

5.11 Social and Economic

5.11.1 Existing Environment

According to the Australian Bureau of Statistics (ABS, accessed 25 February January 2016) approximately 19% of Gateshead are 5-19 years of age. Approximately 19% of the Newcastle and Lake Macquarie statistical area are also 5-19 years of age. While the school will assist students from the broader area, the Census data highlights that a significant portion of the local population are of school age.

5.11.2 Potential Impact

There is ongoing need for quality education in Lake Macquarie and the Hunter generally. Replacement of aging building stock with new purpose built education facilities will provide long term facilities for the community with a focus on 21st century learning, including new classrooms, administration buildings and training facilities. The proposal will result in positive social impacts through a redeveloped educational facility.

Economic impact of the development is likely to be positive. Up to 150 construction jobs will be generated by the proposed development. The school is an integral part of the community and the redevelopment will ensure ongoing employment for staff and suppliers

5.11.3 Proposed Environmental Assessment

Future environmental assessment will discuss the existing social and economic conditions and potential impacts of the proposed development. Assessment of social and economic impacts of the proposed development may be informed by consultation with stakeholders including teaching staff.

5.12 Waste

5.12.1 Existing Environment

Existing waste facilities are located on the school grounds. Similar provision of waste facilities including small bins and central collection will be provided to the proposed development.

5.12.2 Potential Impacts

Construction waste is likely to be extensive and will include building material, asbestos containing material, soil, concrete, asphalt, steel, piping and similar. Waste generated during operation of the school will be similar to the nature and volume of that currently produced at the school.

5.12.3 Proposed Environmental Assessment

An assessment of waste will include overview of waste streams including construction waste and waste generated during operation of the school. The assessment of waste will include likely volumes and disposal or management of waste generated, including reuse of demolished materials on site where possible.

5.13 Cumulative issues

Cumulative impact of the proposal will be considered. Consideration of cumulative impact will include synergistic from several environmental issues or as a result of other developments occurring at the same time as that proposed.

6. PRELIMINARY RISK ASSESSMENT

Key environmental planning issues to be considered in the proposed school redevelopment are presented in Table 6.1. Environmental issues have been rated as follows:

Low – simple and easy to adopt controls are sufficient to reduce risk to the environment, few or readily achievable approvals and licences with limited consultation.

Medium – controls are required to reduce risk to the environment, environmental impact would be noticeable and require additional investigation, licences and approvals may be required with consultation.

High – specialist investigations and controls are required and would need verification that they have been implemented correctly. Approvals and licences may be required and may cause time delays. Post-construction monitoring may be required.

Table 6.1 – Preliminary Environmental Risk Rating

Environmental Issue	Risk	Comment
Traffic and Access	Medium	Access to the site is provided from the Pacific Highway. Consultation with RMS has been positive and the school will continue to provide dedicated access and drop off / pick up points.
Noise & Vibration	Medium	Noise during construction may impact on Wiripaang Public School north of the site. It is unlikely that other sites will be impacted by noise, however this will be determined.
Flora, Fauna and Bushfire	Medium	Approximately 80 trees will require removal. An arborist report and ecological impact assessment present existing ecological conditions and consider potential effect on threatened species, populations or ecological communities, or their habitats. Bushfire poses a risk to occupants of the school as a special fire protection purpose.
Land Use	Low	Land use in the study area and immediate surrounds includes the high school, recreation, commercial and residential. The school has been on the site for many years and the redevelopment is unlikely to impact on land use.
Air Quality	Low	Environmental management measures are likely to only be required during construction.
Water Quality and Hydrology	Low	Environmental management measures are likely to only be required during construction.
Stormwater	Low	If stormwater is not adequately managed it may cause drainage issues on site. Additional flow of stormwater has potential to erode soil, divert water to new areas or impact Johnsons Creek through additional volume or localised energy.
Soils, Geology and Contamination	Low	There is potential the site is contaminated by previous activities or includes buildings that may contain asbestos. The geotechnical investigation and preliminary site assessment will consider nature of soils and potential for contamination.

Environmental Issue	Risk	Comment
Heritage – Aboriginal	Low	One Aboriginal site recorded in or near the study area. OEH has advised that this site was recorded incorrectly and may be discounted. Aboriginal heritage will be further considered in the assessment process. An assessment will be carried out in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW, 2010). Where the assessment considers the proposed development may impact on Aboriginal heritage then specialist advice will be sought from an archaeologist.
Heritage non-Aboriginal	Low	The site does not contain a known item of non-Aboriginal heritage.
Visual	Low	The proposal is redevelopment of an existing school and as such is likely to create negligible negative visual impact.
Social and Economic	Low	Replacement of aging building stock with new purpose built education facilities will provide long term facilities for the community with a focus on 21st century learning. Economic impact of the development is likely to be positive. The school is an integral part of the community and the redevelopment will ensure ongoing employment for staff and suppliers.
Waste	Low	Existing waste facilities are located on the school grounds. Similar provision of waste facilities including small bins and central collection will be provided to the proposed development.

7. CONCLUSION

The proposal is for redevelopment of Hunter Sports High School at 2 Pacific Highway, Gateshead. Hunter Sports High School is the only designated sports high school north of Sydney and the proposed development aims to provide the school with state of the art facilities, including new classrooms, administration buildings and training facilities.

The PEA outlines potential environmental impacts of the proposed development and how these have been or will be considered and assessed. The statutory framework and associated approvals required is also outlined.

Risks to the environment from the project based on information available at this time are presented and discussed. Future environmental assessment will consider matters that affect or may affect the environment in relation to the proposed development.

APPENDICES

APPENDIX 1

Location Plan

APPENDIX 2

Aerial Photo of Locality

APPENDIX 3

Zoning – Lake Macquarie Local Environmental Plan 2014

APPENDIX 4

CIV

APPENDIX 5

Architectural Drawings prepared by EJE Architects

APPENDIX 6

Minutes of Meeting with Council

APPENDIX 7

Consultation with RMS

APPENDIX 8

Conditional Approval from Mine Subsidence Board

APPENDIX 9

AHIMS search

APPENDIX 10

Report on Geotechnical Investigation prepared by Douglas Partners

APPENDIX 11

Preliminary Stormwater and Flood Study Report prepared by NSW Public Works

APPENDIX 12

Bushfire Protection Assessment prepared by EcoLogical Australia

APPENDIX 13

Arborist Report prepared by Terras Landscape Architects

APPENDIX 14

Traffic and Parking Impact Assessment prepared by McLaren Traffic Engineering

APPENDIX 15

Report on Preliminary Site Investigation (Contamination) prepared by Douglas Partners

APPENDIX 16

Stormwater Management Plan prepared by Aurecon