

# Cultural and Scenic Landscape Assessment

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Maldon Employment Lands  
Maldon  
Wollondilly Shire



Prepared for Wollondilly Shire Council

7 September 2011

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## 1 Executive Summary

TCG Planning has been engaged by Wollondilly Shire Council to prepare a Cultural and Scenic Landscape Assessment to accompany other specialist studies for proposed employment lands at Maldon, located in the Wollondilly Shire. There are a total of nine (9) properties which have been identified for rezoning for employment lands which is currently in the ownership of Allied Mills and a number of other landholders.

On 17 March 2008, Council resolved to prepare a draft Local Environmental Plan to rezone the land from a 1(a3) Rural zone under Wollondilly Local Environmental Plan 1991 (now an RU2 Rural Landscape zone under WLEP 2011) to an IN1 General Industrial zone and an E3 Environmental Management zone (which has since been recommended to be zoned as E2 Environmental Conservation) pursuant to Wollondilly Local Environmental Plan 2011. Advice pursuant to Section 54 of the Environmental Planning and Assessment Act, 1979 was forwarded to the Department of Planning, with the Department indicating that the draft plan could proceed to Section 62 Consultations. These consultations revealed that a number of specialist investigations would be required, including a Cultural and Scenic Landscape Assessment, required by the Heritage Branch of the Department of Planning.

This Assessment has therefore been prepared to investigate the suitability of the subject sites for rezoning, specifically considering the scenic and visual impacts of future development.

This report incorporates a desktop study and visual inspection carried out within the area on 4<sup>th</sup> November 2010. Photographs were taken of the area which particularly focused on short, medium and long distance site views as a result of landform and development within the area. Aerial photographs have been used to demonstrate the visual impacts of potential development on the surrounding landscape. Recommendations from various specialist consultant reports including the bushfire assessment and flora and fauna assessments were incorporated into this cultural and scenic landscape assessment to identify relevant issues pertaining to site layout and site constraints. Further, the findings of the draft 'Aboriginal and Non-Aboriginal Heritage Assessment' prepared by Biosis Research was reviewed, to determine the siting of Aboriginal and non- Aboriginal heritage items, together with significant existing and potential cultural landscapes.

A review of 'Sydney Regional Environmental Plan No 20 – Hawkesbury Nepean River Hawkesbury' and the 'Nepean Scenic Quality Study' prepared by the (then) Department of Urban Affairs and Planning was also undertaken to determine the impact of development on the scenic qualities of the riverine corridor. This study identifies that the Nepean Gorge – Maldon Weir is an area with high scenic quality of state significance and recommends that vegetative corridors adjacent to the gorge be preserved and structures on gorge edges not be permitted. The suggested response of the study is to prevent further clearing or construction of buildings close to the gorge/plateau edges and to provide buffer between the gorges and adjacent plateau land, through restrictive zoning.

The assessment identified short and long distant views were particularly dependent upon the topography of the area. Views to the site are also highly impacted by existing industrial development present on adjacent sites in the form of the Blue Circle Southern Cement and the Allied Mills Flour Mill. This construction

significantly impacts upon the scenic landscape of the area, where a number of higher ridgelines surround the site.

Portions of this construction are of a significant height, which actually limit medium and long views to the subject site from certain ridgelines. While short distance views, particularly from Picton Road, remain to the site and which will be impacted by future development, it is considered that these views are already highly impacted by the large scale industrial development present in the area.

From this cultural and scenic landscape assessment, which considers various long and short site views from the surrounding area, it can be determined that the possible rezoning of land to permit additional industrial development can achieve consistency with adjacent industrial development to allow for a clustering of land uses within an area which has been highly impacted and the landscape highly altered due to previous construction.

This report has been prepared based upon the anticipated scale and form of future development, where industrial warehousing and lighter scale industrial developments are anticipated. This scale of construction would be evident from short distance site views, however, is not anticipated to be significantly evident from long distance site views. Scale and clustering will be important factors for further limiting the impact on the landscape. The scale and siting of future development will be important in minimising additional visual impacts upon the landscape. It is recommended that industrial uses such as warehousing and distribution and other light industrial uses be carried out on the sites. The incorporation of light industry rather than heavy industrial will be important in limiting the visual impact of structures and associated storage areas. Provisions should also be incorporated within Wollondilly Development Control Plan 2010 to prevent external storage of materials which may result in adverse visual impacts.

Other mitigation measures which are recommended include the retention of vegetation fronting the Nepean and Carriage Creek tributaries, which will be important in providing a vegetated backdrop for the industrial precinct. An E2 Environmental Conservation zone is recommended adjacent to the Nepean and Carriage Creek Tributaries, where existing riparian corridors are present. The use of muted colour tones and non reflective materials within future development on the sites will also be important in limiting reflectivity of construction from long distance views from surrounding ridgelines. Natural colours and muted tones are recommended for future buildings on the site.

Wollondilly DCP No. 2010 (Volume 5) - Industrial and Infrastructure Uses requires the provision of a 30m setback to arterial roads, including Picton Road and 10m to all other roads. It is recommended that a 20m landscape buffer be incorporated into this setback to Picton Road, consistent with the current landscape buffer area to the Allied Mills development, and a 10m landscape buffer to the proposed smaller allotments. It is also recommended that a fully integrated landscape master plan be prepared for future development proposals, incorporating 4 rows of large trees, on a mound of approximately 1m in height to the Picton Road frontage of the sites. Buffer areas between the road boundary are highly important in softening the visual impact of industrial development. Subject to the above recommendations being incorporated into future planning controls it is concluded that the impact of the development on the scenic and cultural landscape will be acceptable and that rezoning of the land for industrial purposes may proceed.

## 2 Introduction

### 2.1 Background

TCG Planning was engaged by Wollondilly Shire Council in 2007 to prepare the Maldon Industrial Lands Investigation to assess a number of applications for rezoning in Maldon. A number of sites were investigated across a range of criteria, however, following these investigations and upon Council's review, only a select number of the sites were recommended for rezoning for industrial land. On 17<sup>th</sup> March 2008, Council resolved to prepare a draft Local Environmental Plan to rezone the land from 1(a3) Rural under Wollondilly LEP 1991 to 4(a) Light Industrial under LEP 1991 or IN1 General Industrial pursuant to Draft Wollondilly LEP 2011.

The conclusion to Council's report for the meeting held Monday 17<sup>th</sup> March 2008 outlining the resolution stated:

"The Maldon Industrial Lands Investigation confirms that Maldon has the potential to contribute to the Sydney Metropolitan region's future need for industrial land, due the availability of large and affordable sites, as well as the area's exceptional access to transport routes in the form of current road and future rail links.

While the landscape of Maldon has already been affected by industrial development, further industrial development must be strategically located to minimise additional significant impact upon the landscape character. Future industrial development should therefore be limited to areas which have a lower level of visibility, when considering near and long distance views, and should be restricted from ridgelines."

Following Council's resolution, advice pursuant to Section 54 of the Environmental Planning and Assessment Act, 1979 was forwarded to the Department of Planning, with the Department advising that the draft plan could proceed to Section 62 Consultations. These consultations revealed that a number of specialist investigations would be required, including a Cultural and Scenic Landscape Assessment, required by the Heritage Branch of the Department of Planning.

As stated above in the conclusion to Council's report, issues relating to the scenic landscape are recognised to be a significant factor contributing to the rezoning of the land. This assessment has therefore been prepared to assess the impact of future development on the sites selected as suitable for rezoning.

### 2.2 Methodology

This Assessment utilises a visual analysis where the existing landscape character and scenic quality of a study area is assessed against the future visual effects of a proposed development.

This Assessment incorporates a desktop study and a visual inspection of the site, conducted on Thursday 4<sup>th</sup> November 2010. Photographs were taken during an inspection of the site and surrounding area, with a particular focus on short and long distant site views. Photographs taken by TCG Planning for previous investigations of the Maldon Industrial Lands proposals in 2007 and 2008 were also used. Aerial photographs were utilised, combined with site and surrounding area photographs, to create two pictorial visual analysis' on the effects of future employment and industrial development on the cultural and scenic landscape of the area.

Council's contour maps for the Maldon and surrounding area were utilised together with information obtained through site area inspections photo evidence to create a viewshed map of short, medium and long distance views anticipated toward the subject locality.

Recommendations from various specialist consultant reports including bushfire assessments and flora and fauna assessments were incorporated into this cultural and scenic landscape assessment to identify relevant issues pertaining to site layout and site constraints. Further, the findings of the 'Aboriginal and Non-Aboriginal Heritage Assessment' prepared by Biosis Research were also given close consideration in the preparation of this assessment, to determine the siting of Aboriginal and non- Aboriginal heritage items, together with significant existing and potential cultural landscapes.

A review of 'Sydney Regional Environmental Plan No 20 – Hawkesbury Nepean River Hawkesbury' and the 'Nepean Scenic Quality Study' prepared by the (then) Department of Urban Affairs and Planning was also undertaken to determine the impact of development on the scenic qualities of the riverine corridor. The outcomes of such investigations have been incorporated into this cultural and scenic landscape assessment, to provide a recommendation for rezoning, based upon the impact of future development on the landscape of Maldon and surrounds.

## 2.3 Report objectives

The key considerations to be addressed within this Assessment are as follows:

- Assessment of key short, medium and long distance viewsheds identifying key landscape features, transport corridors and existing built forms;
- Identification of the implications of future development on key view corridors and identification of the level of significance of the visual impact;
- Identification of any potential land use constraints based upon the visual impact of future development; and
- The identification of any building envelope, buffers, lot configuration and design controls which may be needed to ensure effective integration of the future development on the land.

The Heritage Branch of the Department of Planning identified the need to address the following:

- Undertake a survey of significant existing or potential cultural landscapes, conservation areas, views and vistas, including consideration of all major historical land uses and themes;
- Provide appropriate boundary definition and identification of zone boundaries to conserve significant land uses and land corridors;
- Provide recommendations, if appropriate, regarding the suitable lot sizes, retention of agricultural land, future land uses and development in the vicinity of and heritage items;
- Identify possible land use conflicts, mitigation strategies, recommended zone boundaries and other controls to protect cultural landscapes, view and vistas.

These items will therefore be addressed where appropriate in this assessment.

### 3 Site Context

#### 3.1 The Site

The land which is the subject of this Assessment comprises nine (9) allotments which are known as:

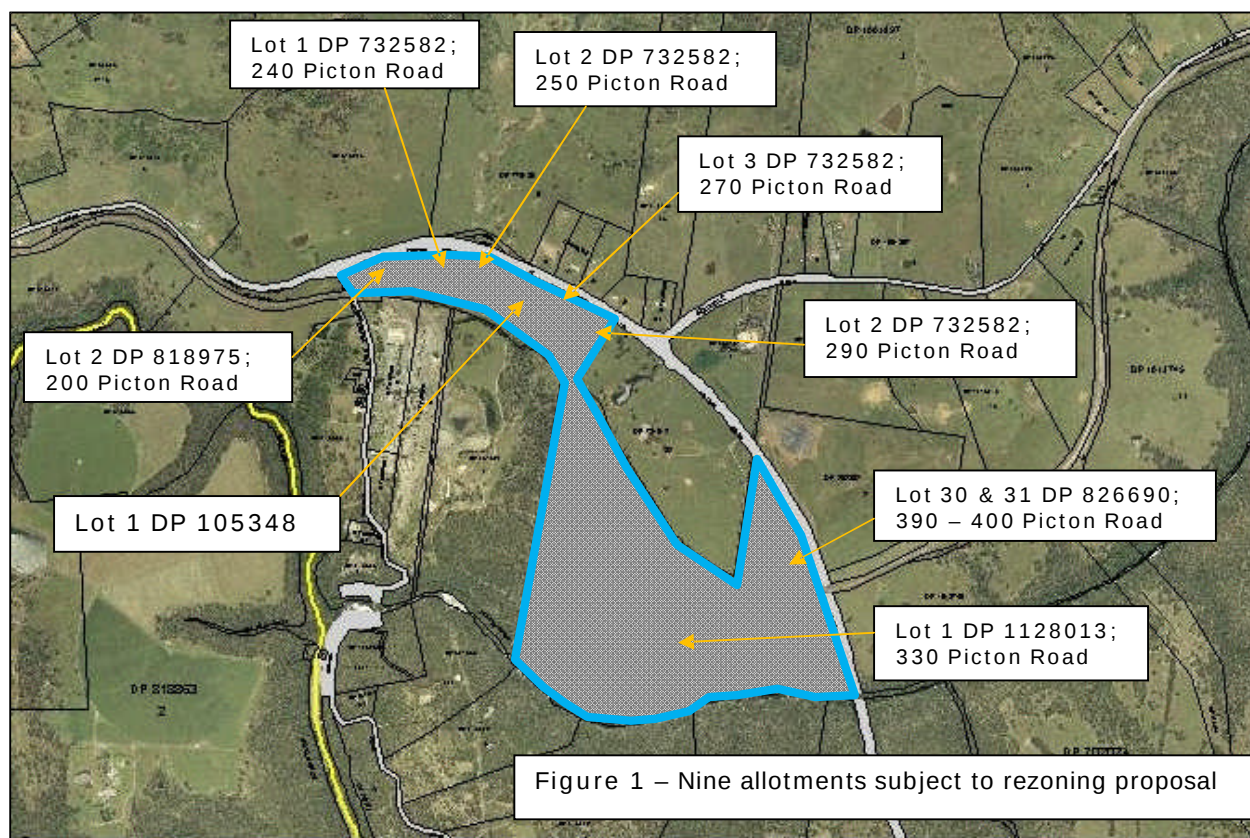
| Lot                      | Area                                                      | Use or proposed use                                  |
|--------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Lot 2 DP 818975          | 3.188 Ha                                                  | Go Kart Track                                        |
| Lot 1 DP 732582          | 2.615 Ha                                                  | Earthmoving establishment for road reconstruction    |
| Lot 2 DP 732582          | 2.427 Ha                                                  | Vacant - agistment                                   |
| Lot 3 DP 732582          | 5.230 Ha                                                  | Rural residential                                    |
| Lot 1 DP 105348          |                                                           | Integral Energy Substation                           |
| Lot 31 DP 731012         | 2.835 Ha                                                  | Rural Residential                                    |
| Lot 30 & 31 DP 826690    | 8.943 Ha                                                  | Rural Residential, proposed waste recycling facility |
| Part of Lot 1 DP 1128013 | 110 Ha total site area, only 87 Ha proposed to be rezoned | Vacant                                               |

A visual description of these sites is provided in the Aerial Map of Figure 1 and zoning map of Figure 2.

The sites are located within the locality of Maldon, situated east of the Picton township and north west of the Southern Freeway/Hume Highway. The sites are located between the natural boundary of the Nepean River to the south and the man made boundary of Picton Road to the north. Carriage Creek intersects a portion of Lot 1 DP 1128013 owned by Allied Mills. Land to the north of the Main Southern Railway Line is predominately cleared of significant extents of vegetation, while the land to the south of the railway line adjacent to the Nepean River remains densely vegetated.

Currently land uses include rural residential, semi industrial purposes and outdoor recreation in the form of the go kart track.

Figure 2 displays the current land zoning within Maldon. Currently the allotments containing the Allied Mills flour mill and Blue Circle cement works are zoned IN3 Heavy Industrial pursuant to Wollondilly Local Environmental Plan 2011 (WLEP 2011). The allotments which are the subject of this rezoning proposal are zoned RU2 Rural Landscape under this LEP. The majority of the land area surrounding Maldon is also zoned RU2 Rural Landscape, with a small portion of E2 Environmental Conservation located along the Nepean River. The closest urban and commercial areas are situated within the Picton and Tahmoor townships.



### 3.2 Surrounding Development

Rural residential properties are located on the northern side of Picton Road which forms the northern boundary of the site. A poultry farm is situated to the north west of the subject area. Other industrial land is located immediately within the vicinity of the site area, where the Blue Circle Cement works and Allied Mills flour mill is situated adjacent to the subject area. Council has recently received an application for a rail terminal to be located within the adjacent site of Blue Circle Cement.

The Nepean River bounds the site to the south where a large extent of forested land lines the banks and ridgelines of the river, predominately to the west towards the township of Picton. Picton is situated approximately 4km from the Maldon locality.

Rural residential properties are situated to the north east of the site fronting Menangle Road.

Maldon is situated just 3km from the major intersection of Picton Road and the South Western Freeway Highway and also approximately 3km southeast of the Shire's administration centre of Picton. The area has emerged as an industrial centre with the operation of the Blue Circle Southern Concrete facility and the recently constructed Allied Mills flourmill. This site possess direct access to the Main Southern Rail Line.

The land is currently zoned RU2 Rural Landscape and is adjacent to IN3 Heavy Industrial, other RU2 Rural Landscape, SP2 Infrastructure as well as portions of E2 Environmental Conservation zoned land.

The attributes of the Maldon location are detailed in Table 1 below:

Table 1: Attributes of Maldon Precinct

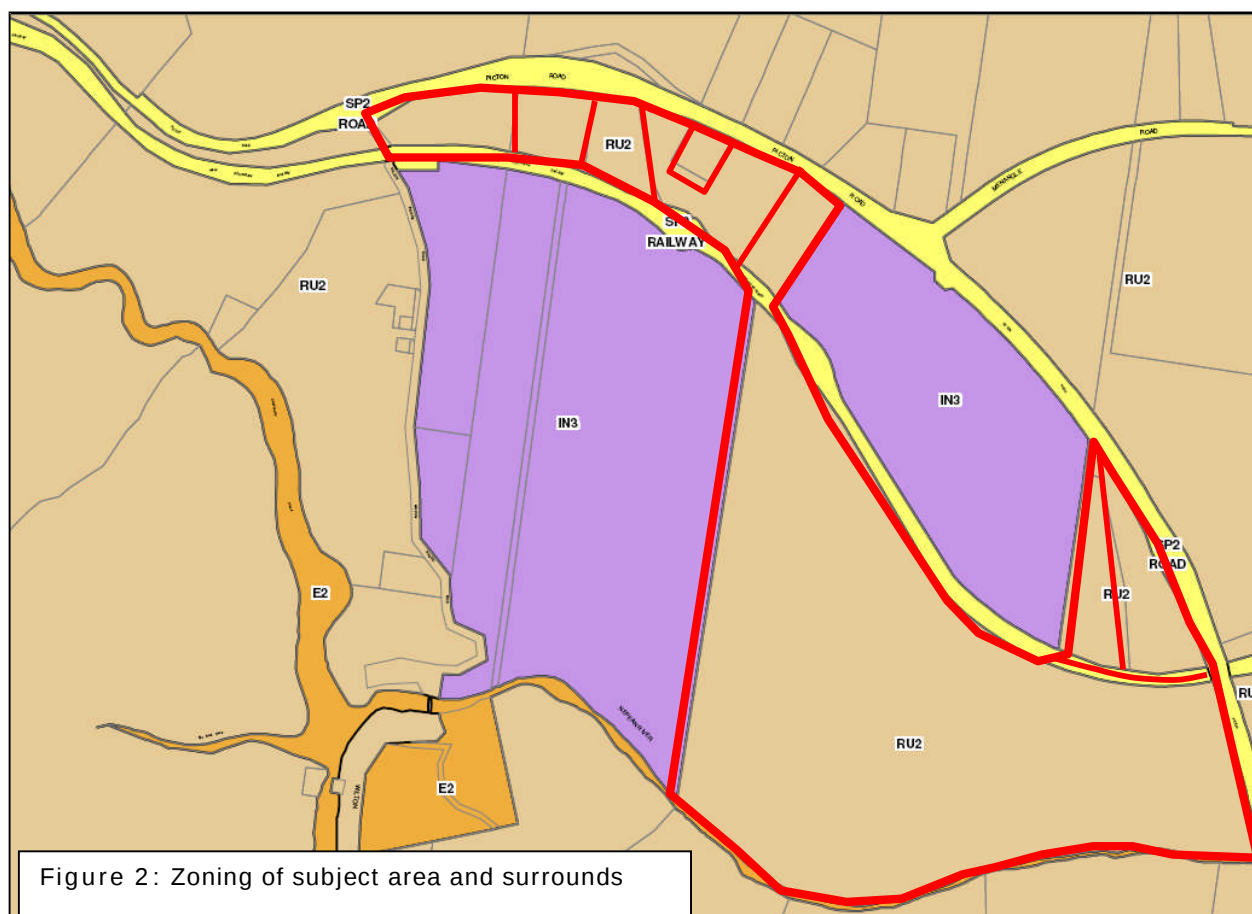
| Criteria                                                    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land use Characteristics                                    | The majority of land within the Maldon precinct is currently utilised for industrial, agricultural or rural residential purposes. The predominant agricultural use is low intensity grazing                                                                                                                                                                                                                                                                                                                                                   |
| Ownership details                                           | There are a limited number of owners within the Maldon area, and hence larger landholdings, which facilitate broader future development options. The size of landholdings range from sites of approximately 1ha adjacent to Picton Road, through to larger landholdings of in excess of 100-142ha.                                                                                                                                                                                                                                            |
| Transport Linkages and Proximity to Residential Development | The Maldon precinct is located:<br>6km from the junction of the South Western Freeway leading north to the Sydney metropolitan region and the major urban centres of Campbelltown and Liverpool.<br>3km from the existing commercial centre of Picton and approximately 5km from the township of Tahmoor, 30km from Campbelltown and 75km from the Sydney CBD.<br>The Maldon precinct is also located in adjacent to the Main Southern Railway. Railway siding has been constructed specifically to service existing industrial uses.         |
| Landform and Topography                                     | The land within the Maldon precinct is relatively level in topography. The precinct is then surrounded by higher ridgelines to the south beyond the Nepean River and to the north of Picton Road. Higher ridgelines are also present further to the west beyond the Picton township. To the east and south east, the topography is relatively level towards the South Western Freeway. Sheer cliff faces and steep gully's line the Nepean River.<br><br>Carriage Creek runs through the Allied Mills property in the a north-south direction |
| Vegetation                                                  | The site is predominately cleared towards Picton Road due to industrial or agricultural activities, while dense vegetation is present on the southern extents of the site lining the Nepean River.                                                                                                                                                                                                                                                                                                                                            |
| Drainage System                                             | The site features drainage to two waterways – Carriage Creek and the larger Nepean River                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Focal Attractions                                           | The existing industrial developments in the form of the Allied Mills flour mill and cement works dominate the landscape of Maldon. The Nepean river and the vegetated banks also form a visual focal point where Picton Road crosses over the river and the gorge is visible from the southern extent of the Picton township and rural dwellings along Remembrance Drive between Picton and Tahmoor.                                                                                                                                          |
| Existing Land Use & Built Environment                       | The flour mill and cement works are the prominent land uses within the precinct. The go kart track is also evident from Picton Road, as is rural agricultural uses.                                                                                                                                                                                                                                                                                                                                                                           |

The Maldon area has generally been highly disturbed adjacent to Picton Road for the purposes of rural residential and agricultural uses as well as industrial development. Native forest vegetation remains on some portions of the site lining the Nepean River (refer to Figure 1 for site overview). The topography of the area creates a natural basin for the Maldon locality where the site is evident from higher ridgelines to the north, west and south.

## 4 Local Planning Provisions

### 4.1 Wollondilly Local Environmental Plan 2011

Wollondilly Local Environmental Plan 2011 was gazetted on 25<sup>th</sup> February 2011. The site is currently zoned RU2 Rural Landscape pursuant to WLEP 2011 as demonstrated in Figure 2 below.



#### 4.1.1 Heritage

Biosis Research has conducted an archaeological assessment of the subject site for both Aboriginal and Non Aboriginal heritage significance. There are three items of heritage within the area of which are the Maldon Weir, Maldon Suspension Bridge and Wilton Park. These items are listed as local significant items within WLEP 2011. Biosis Research confirmed that no new items of Aboriginal Archaeological significance were found. There is one previously registered Aboriginal archaeological site is located within the current Study Area comprising a sandstone shelter with art. Section 6.2 of this Assessment provides recommendations regarding heritage items within the subject area. There were no items found within the undulating plains or foot slopes of the site.

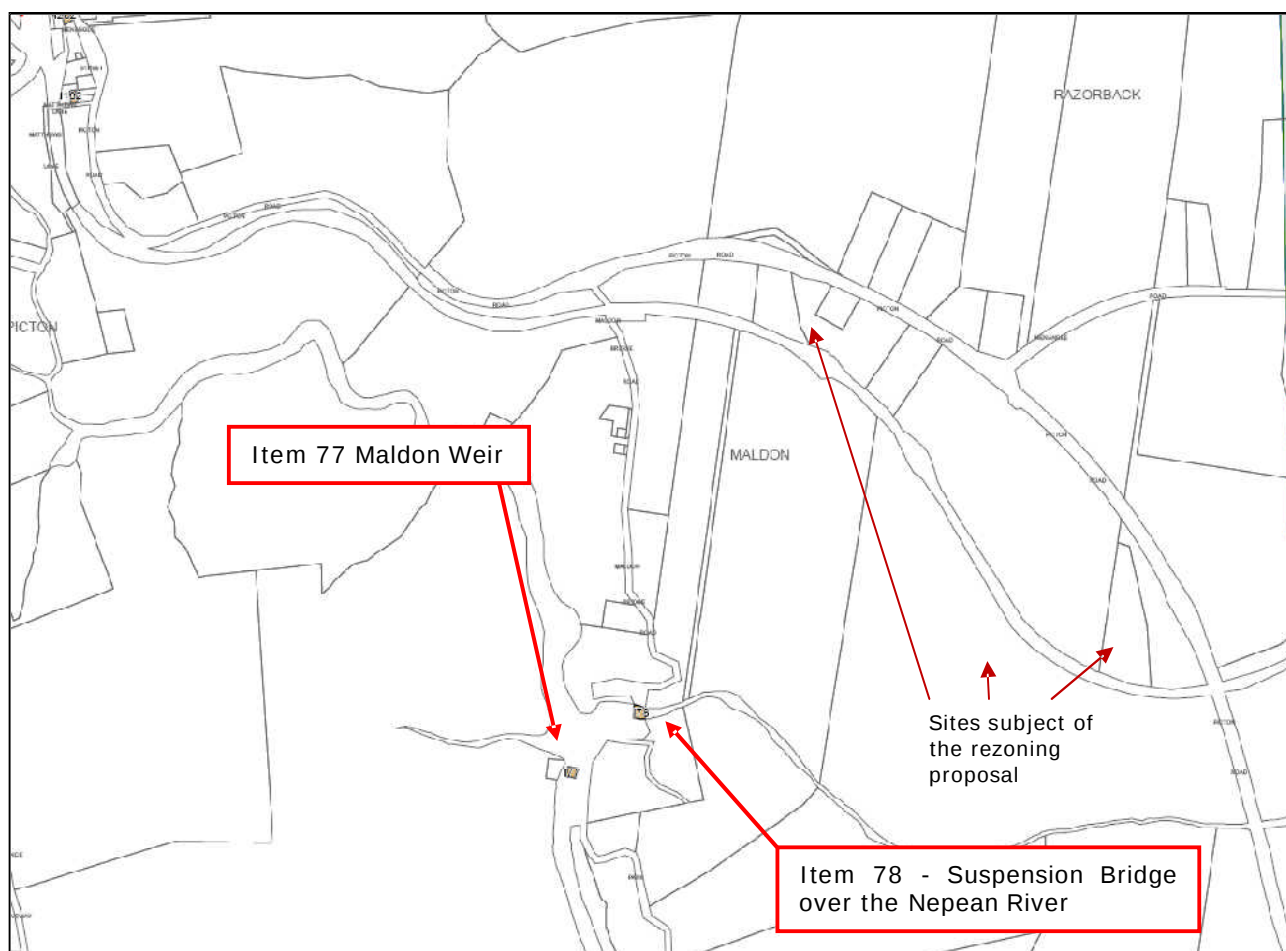


Figure 3: Locally significant heritage items within proximity of the site under WLEP 2011

#### 4.2 Sydney REP No. 20 – Hawkesbury Nepean River (No. 2-1997)

Sydney Region Environmental Plan No. 20 – Hawkesbury River (No. 2-1997) was prepared to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. The plan applies to a number of local government areas within the Greater Metropolitan region including the Wollondilly Shire.

Part 7 of the SREP, which relates to riverine scenic quality policy states “the scenic quality of the riverine corridor must be protected. Strategies:

- a) Maintain areas of extensive, prominent or significant vegetation to protect the character of the river.
- b) Ensure proposed development is consistent with the landscape character as described in the Scenic Quality Study.
- c) Consider the siting, setback, orientation, size, bulk and scale of and the use of unobtrusive, non reflective material on any proposed building or work, the need to retain existing vegetation, especially along the river banks, slopes visible from the river and its banks and along the skyline, and the need to carry out new planting of trees, and shrubs, particularly locally indigenous plants.

- d) Consider the need for a buffer between new development scenic areas of the riverine corridor show on the map as being of significance beyond the region (which area also scenic areas of significant for the region) or so shown as being of regional significance only.
- e) Consider the need for controls or conditions to protect those scenic areas.
- f) Consider opportunities to improve riverine scenic quality.

This regional plan requires that the scenic quality of the riverine corridor be protected, through the protection of significant areas of vegetation, to provide screening between the cleared development site and the gorge. With regard to the site which is the subject of this rezoning proposal, this reinforces the importance of retaining the extensive vegetation which currently exists adjacent to the riverine corridor and which will provide a buffer to protect the visual significance of the Maldon Weir catchment.

The regional plan also places emphasis on the importance of the building controls in relation to siting, scale and materials and the appropriate selection of landscaped species. The recommendations regarding such controls are further discussed in Section 7 of this assessment.

#### 4.3 Hawkesbury – Nepean Scenic Quality Study

This study forms part of a comprehensive review of Sydney REP No. 20 conducted by the Department of Urban Affairs and Planning in 1996, which included identification of areas of high scenic significance within the catchment. The 'Nepean Gorge – Maldon Weir to Douglas Park Weir' and 'Nepean Gorge – Pheasant Nest Weir to Maldon Weir' were identified as areas with high scenic quality of state significance and accordingly the study undertook an analysis of the character of the subject areas. With regard to the 'Maldon Park Weir to Douglas Park Weir', which is in closest proximity to the subject site, the study identified that view points and vistas from this area was predominately from bridges and plateau edges, and the visibility of the gorge was limited due to rugged terrain and dense bushland. The study further notes that 'the river is invisible from the surrounding landscape, being hidden deep in its gorges. Its presence is marked by lines of native vegetation'.

The scenic conservation issues identified by this study are summarized as follows:

'Absorption Capacity – the gorge has no capacity to absorb development.

Visual sensitivity – any human-built intrusion on the gorge would be immediately obvious. While weirs and bridges are visually acceptable, structures on gorge edges are not.

Detracting elements – a few escapes/agricultural weeds on valley slopes. Structures and clearing on gorge edges.'

The suggested response of the study is to prevent further clearing or construction of buildings close to the gorge/plateau edges and to provide buffer between the gorges and adjacent plateau land and facilitate public access thereto. Therefore, in consistency with this scenic quality assessment, further clearing of the plateau area is not to be permitted adjacent to the gorge due to the scenic significance of the locality. The provision of buffers through restrictive zoning is recommended, to ensure that significant vegetative corridors are maintained.

## 5 Maldon Cultural and Landscape Assessment

### 5.1 Visibility of Maldon – Visual Catchments

Overall, the visibility of the majority of the site from surrounding areas is dependent upon the surrounding topography, distance, vegetation and existing built form. Figure 4 demonstrates the dominant visual catchments toward the sites and area.

The viewsheds toward the Maldon precinct are summarised below:

- Views from the south are hindered due to vegetation cover lining the Nepean River. As such, short distant views are predominant from the south and there are no long distant views;
- Views further to the south east are evident from the main transport routes of Picton Road and the South Western Freeway. These views are both short and long distant due to the large cleared area surrounding the Skydiving site on the north eastern corner of Picton Road and the South Western Freeway. Short distant views are present to the site from Picton Road once on the northern side of the Nepean River bridge. Short distance views are also available from the Main Southern Railway which extends centrally through the subject sites.
- To the north east, Maldon is visible from Menangle Road and rural dwellings fronting Menangle Road before being hindered by a ridgeline approximately 1.5km from the Menangle Road and Picton Road intersection. This ridgeline limits views further to the north east along Donalds Range Road and Stockade Road where rural residential dwellings are present.
- Directly to the north, residents fronting Picton Road have a high visibility of the subject sites. A ridgeline is situated immediately behind these rural residential dwellings and therefore medium and longer distant site views from the north are unlikely.
- The southern extent of the Picton township is situated at a higher elevation than that of Maldon, and therefore, some land areas near the Nepean River such as Wonga Road and Hill Street where the Council depot is present, possess medium distant views across the river to the Maldon precinct. There are few residents who possess this view, however Maldon is visible from the Council Works Depot and Glenrock Reserve.
- Remembrance Drive, which acts as the main transport route from Picton to Tahmoor is also located at a higher elevation, and it is at this location where rural residential properties experience distant site views toward Maldon and beyond.
- Maldon Bridge Road possesses short distant site views as this road directly abuts the cement works. However, the cement works act as a hindrance to views from Maldon Bridge Road to the northern area of the subject sites. Residents fronting Staff Road are limited in views toward Maldon due to the dense vegetation to the west of Maldon Bridge Road, however, higher buildings of the cement works are evident at some locations along Staff Road. The subject sites for rezoning are not visible from Staff Road.

As a result, the Maldon locality is generally identifiable from the following areas:

- Remembrance Drive where rural residential properties feature long distant views;
- Public areas of south east areas of Picton including Glenrock reserve and the Council works depot which possess medium to long distant views;
- A portion of the South Western Freeway due to open spaces across the Skydiving site where long distant views of Maldon are evident; and
- Picton Road features short distant views to the sites from the northern side of the Nepean River bridge for both motorists and residents within Maldon and medium distant views to Maldon also for residents and motorists from the north west where Picton Road and the rail line merge towards each other.
- Short and medium views from Menangle Road.

This is demonstrated in the two pictorial analyses of short and long distant view points contained in Appendix 1 and the Viewshed map of Figure 4.

## 5.2 Summary of General Visibility of Subject Sites

The Maldon Industrial Lands Investigation, prepared for Wollondilly Shire Council by TCG Planning in 2008 provided an assessment and subsequent recommendations for sites to be rezoned to industrial land within the Maldon locality. A major contributing issue to the recommendations in regard to the sites to be rezoned were the landscape character, visual and topographic issues of the locality. The sites which were recommended to be rezoned were the sites located immediately adjacent to the existing industrial development. These sites were chosen due to the immediate surrounding landscape being already irreversibly altered by the Blue Circle Cement Works and Allied Mills flour mill. While short distant site views will be impacted future development, the long distant site views will be clustered with existing development and will be partially screened by the existing industrial constructions.

## 5.3 Summary

At the current scale the existing development in Maldon significantly impacts upon the scenic landscape of the surrounding area where short, medium and long distant site views are present. The large scale of the cement works and the flour mill contribute to the significant visibility of Maldon to surrounding residents and transport routes. Future development on the nine subject sites are expected to be of a smaller scale and height and therefore is not anticipated to create a further impact on the landscape than the current extent, particularly in regard to long distant views.

Short, medium and long distant views have evidently been impacted by current land uses and therefore, while additional development will be evident from predominately shorter distant views, the scale of this additional development will only create a higher intensity and clustering of use on an already disturbed and visually impacted site area.

## 5.4 Figure 4: Viewshed Analysis

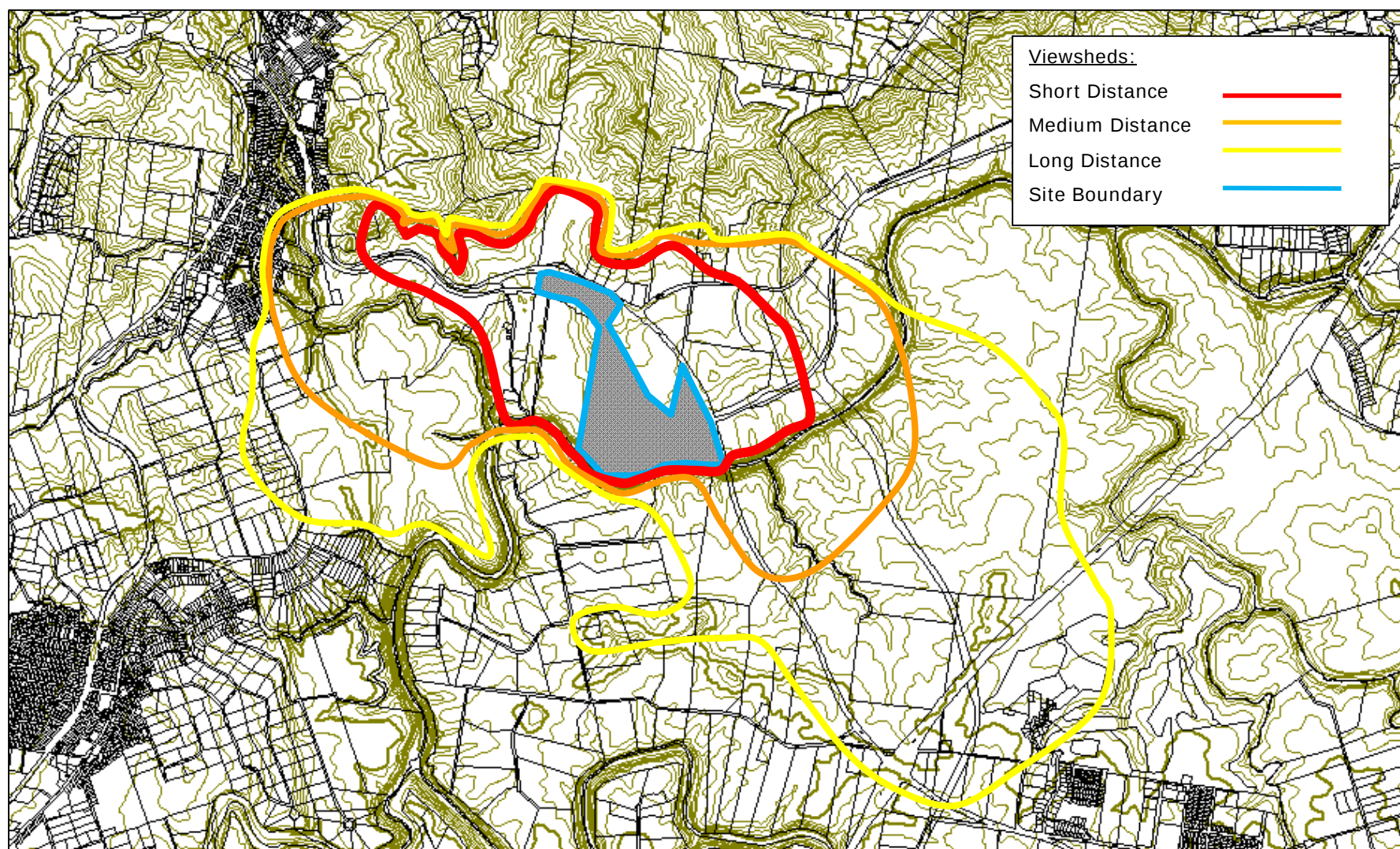


Figure 4: Topographic map of the sites and surrounding area showing ridgelines and resultant short, medium and long distance view sheds toward the subject sites.

## 5.5 Discussion of Visual Catchments

### 5.5.1 Short Distance (Appendix 1)

Short distance views of the subject site are found to the north for rail passengers travelling along the rail line which dissects the site, and for vehicles travelling along Picton Road and the rural residential allotments situated on the northern side of Picton Road, where a high level visibility is evident. However, vegetation and earth mounding have been introduced along Picton Road to assist in screening the flour mill development from the road corridor. This vegetation and mounding will assist in screening short distance views from Picton Road toward future development on the site. There is currently no vegetative buffer from the rail line and the introduction of a landscape buffer along this corridor is not considered appropriate due to the potential threat of bushfire as a result of the proximity to the forested area lining the Nepean River.

Vegetation to the south of the site fronting the Nepean River limits short distance views of the site from the south. Residential allotments fronting Staff Road are also limited in short distant views due to vegetation situated to the west of the Blue Circle Cement works, however, the highest points of the cement works structure can be seen at some vantage points along Staff Road. It is anticipated that the proposed land uses will be of a smaller scale than that of existing development. Future industrial development from this vantage point will be sited to the east of the Blue Circle development and therefore not evident from Staff Road, while the smaller allotments fronting Picton Road will be screened by vegetation and are also not expected to be visible from these residences.

The smaller allotments to the north of the Blue Circle site are anticipated to be lighter industrial uses, and as such, future development will create a step up effect from Picton Road, where smaller constructions will be situated on these smaller allotments while the Blue Circle structure will create a backdrop to the future development fronting Picton Road. This effect will also be expected to occur from other vantage points along Picton Road when viewing the Allied Mills site to the west. The flour mill and cement works structures will both act as a backdrop to future development from this perspective.

### 5.5.2 Medium Distance (Appendix 1 & 2)

Medium distance site views (red outline on the view shed map – Figure 4) are also predominately to the north, extending along Menangle Road to the north east and Picton Road to the north-west. Rural residential dwellings front Menangle Road to the north east and these residences possess views both to the existing industrial development, and to the vacant Allied Mills land area which is subject to rezoning. Due to the location of the Blue Circle structures situated within the central area of Maldon, these large scale structures will act as a backdrop for future development on the surrounding sites. Clustering of development will be vital for limiting the impact upon medium distant site views.

Picton Road rises in elevation toward the town centre, and as a result, motorists travelling along Picton Road from Picton toward Maldon possess clear site lines to the locality. The existing industrial development is of high visibility from this vantage point, as demonstrated by Appendix 2. Future development on the Allied Mills and Aarts and Falls land will be hindered in sight due to its siting beyond the Blue Circle development (from this sight line).

### 5.5.3 Long Distance (Appendix 2)

Long distant site views extend to the south west towards the South Western Freeway and skydiving establishment where there is a significant extent of clear land, which enables visibility toward Maldon. Only constructed buildings are evident from this south western long distance view, as illustrated by Appendix 2.

Higher ridgelines toward the west allow for long distance views toward the constructed industrial buildings and portions of vacant land subject to the proposed rezoning. Rural residents along Remembrance Drive have a particularly prominent vantage point toward Maldon, as does public land on the south eastern boundaries of the Picton township near the Nepean River gorge. As discussed previously, the long distance site views have been disturbed by the presence of the existing industrial development. Further, the sites recommended for rezoning are appropriately located to allow for a clustering of construction adjacent to existing structures. This will assist in limiting any further impact upon the scenic landscape, particularly the long distant views from surrounding higher vantage points.

## 6 Implications for Future Development

The previous pages of this report provide:

- A description of the factors contributing to visual catchments;
- A topographical map demonstrating surrounding ridgelines and the resultant view sheds;
- A pictorial 'Visual Analysis' (Figure 4) of the Subject Site, showing the areas that the site is visible from both from short and long site distances;

The following section discusses the impact of the future development from a scenic landscape and cultural aspect, including the proposed land uses and constraints on the site.

### 6.1 Proposed Land Uses

The land under the ownership of Allied Mills is identified as Lot 1 DP 128013 (330 Picton Road). Allied Mills propose to utilise the land for vertically integrated uses in conjunction with the existing flour mill. Potential uses include food manufacture of products provided by the flour mill. Other potential land uses include warehousing and distribution industries which are not detrimental to the existing flour mill. Detrimental uses such as poultry or pig farms, hazardous and offensive development and any uses which omit heavy metals or bacteria will not be permissible on the subject sites due to the proximity of the flour mill.

The proposed subdivision layout for the Allied Mills property will incorporate approximately six (6) large allotments situated on the southern extent of the rail line. While the north eastern portion of the allotment fronting Picton Road is proposed to be divided into a number of smaller allotments. The smallest properties fronting Picton Road are considered to be more suited to light industrial type uses.

### 6.2 Site Constraints – buffers/access/heritage/flora & fauna etc

The following comments are based on a review of draft reports prepared by specialist subconsultants, which had been prepared concurrently with this assessment:

#### Bushfire

Australian Bushfire Protection Planners have conducted a bushfire risk analysis for the subject area to accompany other specialist consultant reports for investigations across the site area. This bushfire investigation recommends a 50m buffer zone from Carriage Creek and a 100m buffer zone from the Nepean River. Currently much of this buffer area features existing vegetation lining the tributaries and extends beyond this minimum buffer area in some areas. Due to much of this vegetation being sited to the rear of the sites when viewed from a short distant from Picton Road, this vegetation does not significantly act as a visual screen from vantage points, however, this vegetation does serve significant ecological functions and will maintain vital riparian corridors.

WLEP 2011 provides a 100m environmental buffer from the Nepean River, a 30m buffer from Carriage Creek and a 10m buffer form a smaller tributary, identified within a 'mapping layer' (Natural Resources Biodiversity – Water). It is recommended that this area be incorporated within an EN2 Environmental

Conservation zone to provide greater protection of the vegetated area adjacent to Carriage Creek and the Nepean River. It is further recommended that the width of the required EN2 zone be informed by the outcomes of the completed flora and fauna, aquatic ecology and bushfire reports to ensure that the width of this buffer adequately reflects the extent of vegetation which currently exists and the necessary development exclusion areas.

It is noted that in addition to this buffer, Australian Protection Planners have noted that a 50m defensible space area is also required from the edge of vegetation to any construction on the site. This defensible space is in addition to the vegetative buffers from Carriage Creek and the Nepean River.

Due to the high visibility of this site from Picton Road, particularly from the Picton Road Bridge over the Main Southern Railway and also from the Main Southern Railway, the preparation of a fully integrated landscape plan incorporating landscape buffers is recommended for any future development. Due to this area currently containing vacant land and scattered vegetation, landscaping buffers will allow for visual softening of industrial development from short distance site views from Picton Road.

#### Flora and Fauna

Based on initial advice from Biosis Research, there have been no major issues identified in relation to Flora and Fauna issues or aquatic ecology. As recommended above, the width of the required EN2 zone should be informed by the outcomes of the flora and fauna assessment, upon completion.

#### Cultural Heritage

Biosis Research has conducted an archaeological assessment of the subject site for both Aboriginal and Non Aboriginal heritage significance. There are three items of heritage within the area of which are the Maldon Weir, Maldon Suspension Bridge and Wilton Park. These items are listed as \*local significant items within WLEP 2011. Biosis Research also identified a number of new items of Aboriginal Archaeological significance within a 6km x 5km radius of the site. The items of high sensitivity were found within the river and creek valleys and river and creek banks. These areas of local heritage significance are situated within densely vegetated areas of the site adjacent to the Nepean River and Carriage Creek and will be located within areas recommended for E2 and E3 zoning for environmental protection and management. These items form a locally significant element of the cultural landscape. Biosis Research recommends the area maintain a rural industrial landscape where elements of landscaping and open space will form a vital role in maintaining the rural industrial nature of future development.

## 7 Conclusion and Recommendations

### 7.1 Outcomes of Visual Analysis

From this visual impact assessment it can be determined that the possible rezoning of land to permit industrial development can achieve consistency with adjacent industrial development and create a clustering of industrial development which has already highly impacted the scenic landscape of the area. Visually, the site will be evident predominately from short distance views to the north, and long distance views from surrounding higher ridgelines and transport corridors.

Scale and clustering will be important factors for further limiting the impact on the landscape. The recommendations of this report, which should be incorporated into the final Design Concept Plan and into a future Development Control Plan or conditions of approval for the subdivision, are summarised below:

#### Building Type and Scale:

The scale and siting of future development will be important in minimising additional visual impacts upon the landscape. It is recommended that industrial uses such as warehousing and distribution and other light industrial uses be carried out on the sites. Wollondilly LEP 2011 defines light industry as:

light industry “means an industry, not being a hazardous or offensive industry or involving use of a hazardous or offensive storage establishment, in which the processes carried on, the transportation involved or the machinery or materials used do not interfere with the amenity of the neighbourhood by reason of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil, or otherwise”

The incorporation of light industry rather than heavy industrial uses is important in limiting the impact upon the existing industrial uses. Limiting the scale of development to light industry and associated uses will aid in clustering development. Where smaller lot sizes will be located in proximity to Picton Road, and the larger lot sizes located behind these smaller sites, there is potential to allow for the a graduation in scale and bulk of development from the road. A range of lot sizes will allow for more gradual grading of industrial uses from the road which will assist in the transition from the current rural landscape, to a clustered industrial landscape. Furthermore, due to the high level of short distance views from Picton Road, smaller scale uses associated with lighter industry will limit the impact on these short distance views. Smaller scale construction will sit in the foreground of the existing larger scale industrial construction creating a stepped clustering effect.

There is currently a 10m height limit on light industrial land within the Shire and there are no height limits for the existing industrial sites of Maldon, pursuant to Wollondilly LEP 2011. A 10m height restriction is recommended for lots on the northern side of the Main Southern Railway due to the size of the lots and proximity to Picton Road.

Due to the significant size of Lot 1 DP 1128013 (Allied Mills), a larger building scale can be accommodated, however, this height is not recommended to be that which exceeds the existing height scale (maximum 45m high silos) within the area and is recommended to be of a reduced scale closer to the main transport route of Picton Road.

Due to the presence of industrial development on adjacent sites, smaller scale industrial development will have limited impact on long and medium distance views, however clustering and reduced scaling of future industrial development will be important in reducing further detrimental impact on the landscape. Retention of vegetation fronting the Nepean and Carriage Creek tributaries will be important in providing a vegetated backdrop for the industrial precinct.

Muted colour tones of further development will also be important in limiting reflectivity of construction from long distance views from surrounding ridgelines. Natural colours and muted tones are recommended. Restrictions should be incorporated within Council's planning controls to minimise external storage of materials.

#### Landform Change and Construction Disturbance

Landform change is likely to be limited to the existing relatively level topography. It is not anticipated that significant land form change will occur on the site which would increase visibility of the area.

#### Vegetation

An E2 Environmental Conservation zone is recommended for the Nepean and Carriage Creek Tributaries, where existing riparian corridors are present. This vegetation protects the scenic quality of the Nepean Gorge and provides a buffer between the gorge and the cleared plateau areas to the north east. Construction is recommended to be limited to existing cleared areas to protect the scenic quality of the riverine corridor.

#### Landscaping

Wollondilly DCP No. 2010 (Volume 5) - Industrial and Infrastructure Uses requires the provision of a 30m setback to arterial roads, including Picton Road and 10m to all other roads. It is recommended that a 20m landscape buffer be provided within this setback to be consistent with the 20m landscape buffer to be consistent with that provided to the current Allied Mills development. It is recommended that a fully integrated landscape master plan be prepared for future development proposals, incorporating 4 rows of large trees, on a mound of approximately 1m in height to the Picton Road frontage of the sites. A 10m landscaping buffer is recommended for the proposed smaller allotments. Buffer areas between the road boundary are highly important in softening the visual impact of industrial development.

Heritage items and the scenic quality of the riverine corridor form a locally significant element of the cultural landscape and it is recommended that the subject site maintain a character where elements of landscaping and open space will form a vital role in maintaining the balance between the rural landscape and industrial development. Maintaining existing vegetated areas and limiting development to existing cleared areas will assist in protecting the scenic quality of the locality.

Appendix 1, Figure 1: Pictorial Visual Analysis - Short Distant Site Views

The following pictorial 'Visual Analysis' of the subject site identifies the surroundings areas from which the site is visible.

Appendix 2: Pictorial Visual Analysis - Long Distant Site Views

The following pictorial 'Visual Analysis' of the subject site identifies the surroundings areas from which the site is visible.

