



**Drayton South Coal Project:**  
*Response to the Department of Planning and Environment's  
Final Assessment Report for Drayton South Coal Project*

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REGISTERED LANDSCAPE ARCHITECT

FOR

**COOLMORE AUSTRALIA & GODOLPHIN AUSTRALIA**

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# EXECUTIVE SUMMARY

## INTRODUCTION

This report has been prepared for Coolmore Australia (Coolmore) and Godolphin Australia (formerly Darley Australia) in response to the Department of Planning & Environment's Final Assessment Report (2016) for proposed Drayton South Coal project, a new open cut coal mine proposed by Anglo American (Anglo). The Coolmore and Woodlands Thoroughbred breeding studs are located between Jerrys Plains and Denman on the Golden Highway in the Upper Hunter Valley. The Drayton South project is proposed to be located across the Golden Highway less than 1km directly north of the studs.

## IMPORTANCE OF LANDSCAPE

The significance of the Upper Hunter landscapes are well recognised and have been acknowledged by the 3 previous Planning Assessment Commission reports. These values include agricultural, cultural, scenic and visual landscapes. Each of these landscapes are highly valued and indeed fundamental to the locations of the two Thoroughbred breeding studs of Coolmore and Woodlands. To emphasise the significance of these landscapes, they have been classified as Equine and Viticulture Critical Industry Clusters (CICs) for their agricultural value and identified as a Landscape Conservation Area by the National Trust in recognition of the cultural value and the area.

## LANDSCAPE BUFFER

The studs rely on the current landscape buffer from the existing open cut coal mines to the north and east of their boundaries. Over the last 25 years these mines have expanded in a north westerly and south easterly direction, parallel to the studs' boundaries retaining the landscape buffer. The proposed location of the Drayton South projects completely destroys this landscape buffer, being located less than 1km from the studs' boundaries.

## PROXIMITY TO THE PROPOSED MINE

The distance between the Woodlands stud boundary and the mine footprint at 850m, has not changed since the first mine plan. The existing mines are currently located in the background of the studs' field of view, however the proposed Drayton South mine would be in the immediate foreground.

## DIRECT VISUAL IMPACTS

There are a range of Direct Visual Impacts on the studs' land and on the two public roads in the area, the Golden Highway and Edderton Road. The 200 hectares of elevated land which includes the Trig Hill lookout on Woodlands, will be exposed to the mining operations for the full life of the mine with no prospect of screening to mitigate the visual impacts.

The 600m elevated section of Golden Highway which overlooks the site, will be partially exposed to mining activity depending on the condition of the tree screen which has been planted along the boundary. Edderton Road will be in a similar condition for the first 4 years of the project as the proponent is now proposing to screen the mine activities. The realigned Edderton Road will also be exposed to the mine activity with approximately 2.2km of the road length remaining without any screening for the full extent of the mine life.

The proponent is relying on tree screening to obscure views of the mining activity and yet the existing mature tree screens at Drayton South along the Golden Highway and Edderton Road, remain very transparent. The photomontages in the EIS are excessively optimistic and therefore misleading. The tree screens on Thomas Mitchell Drive at the Drayton Mine are also totally inadequate as they contain a series of large gaps despite a Special Environmental Condition being set in 2008 for the mine operator to plant additional trees within 2 years.

These situations clearly indicate that tree screens can not be relied upon to obscure the Direct Visual Impacts of the mining activity.

## INDIRECT VISUAL IMPACTS

The past 3 PACs have all recognised the significant risk of Indirect Visual Impacts to the image, reputation and brand of the studs. Gas emissions from uncontrolled blasts and dust from the open pit, overburden areas and haul roads will impact over large areas, well beyond the boundaries of the mine and potentially over the studs. The Mt Arthur Mine blast in 2014 which was widely reported in the local and state press is a disturbing example of the kind of Indirect Visual Impacts that these events could cause.

Light pollution will be a significant and daily Indirect Visual Impact on the studs. Open cut mining generates light pollution equivalent to suburban and urban areas, whereas the studs of Coolmore and Woodlands are located in a dark rural sky. The light pollution from the proposed mine will be likely to be clearly evident from most areas on the studs.

## DYNAMIC VISUAL IMPACTS

Dynamic Visual Impacts are experienced in a wide range of forms including travelling through the area, viewing the effects of the mining activity on social or conventional media and through the observation of aerial and/or satellite image mapping platforms on either hand held or desktop computers. These kinds of impacts are impossible to mitigate against as this information is generated from multiple sources and in a variety of forms.

## CONCLUSION

Open cut coal mining has the largest impact of any land use in a rural setting. The sheer scale and footprint of these mines are very difficult, if not impossible to conceal from the public view. By contrast, Thoroughbred breeding studs have the highest standards of landscape visual quality and presentation which relates directly to their reputation and image

These 2 rural land uses are polar opposites in terms of scenic and visual values and to suggest that they can coexist within less than 1km of each other is to ignore the reality of their differences and most importantly the sensitivity of the studs to these kinds of impacts. Once the damage is done to a reputation such as that of these two studs, it will difficult, if not impossible, to recover in this location.

At such close proximity, these impacts cannot be mitigated sufficiently to protect the studs and no conditions can be devised that would ensure that these impacts could not occur. Coolmore and Woodlands studs are just too sensitive and important to the Thoroughbred industry in NSW to risk jeopardising their future in this unique valley.

The Department has failed to recognise the significance of the landscape of the area, nor the critical connection between these landscapes and the studs. It also fails to recognise the significance of the impacts of this proposed mine on the studs and in doing so does not address the concerns raised by the PACs.



# I. INTRODUCTION

The following report has been prepared for Coolmore Australia (Coolmore) and Godolphin Australia (Woodlands) in response to the Department of Planning and Environment's (the Department) Final Assessment Report (2016) for the proposed Drayton South Coal Project (the project).

The Drayton South project boundary is located across the Golden Highway and north of the Coolmore and Woodlands studs, as illustrated in Figure 1. The Drayton South Exploration Licence (EL) boundary extends over the Golden Highway and into the land of both studs. The existing Drayton Mine is however located approximately 10km north of the studs.

This report provides a response to the key visual impact issues that have not been addressed by the Department and need to be taken into account when making a determination about this project.

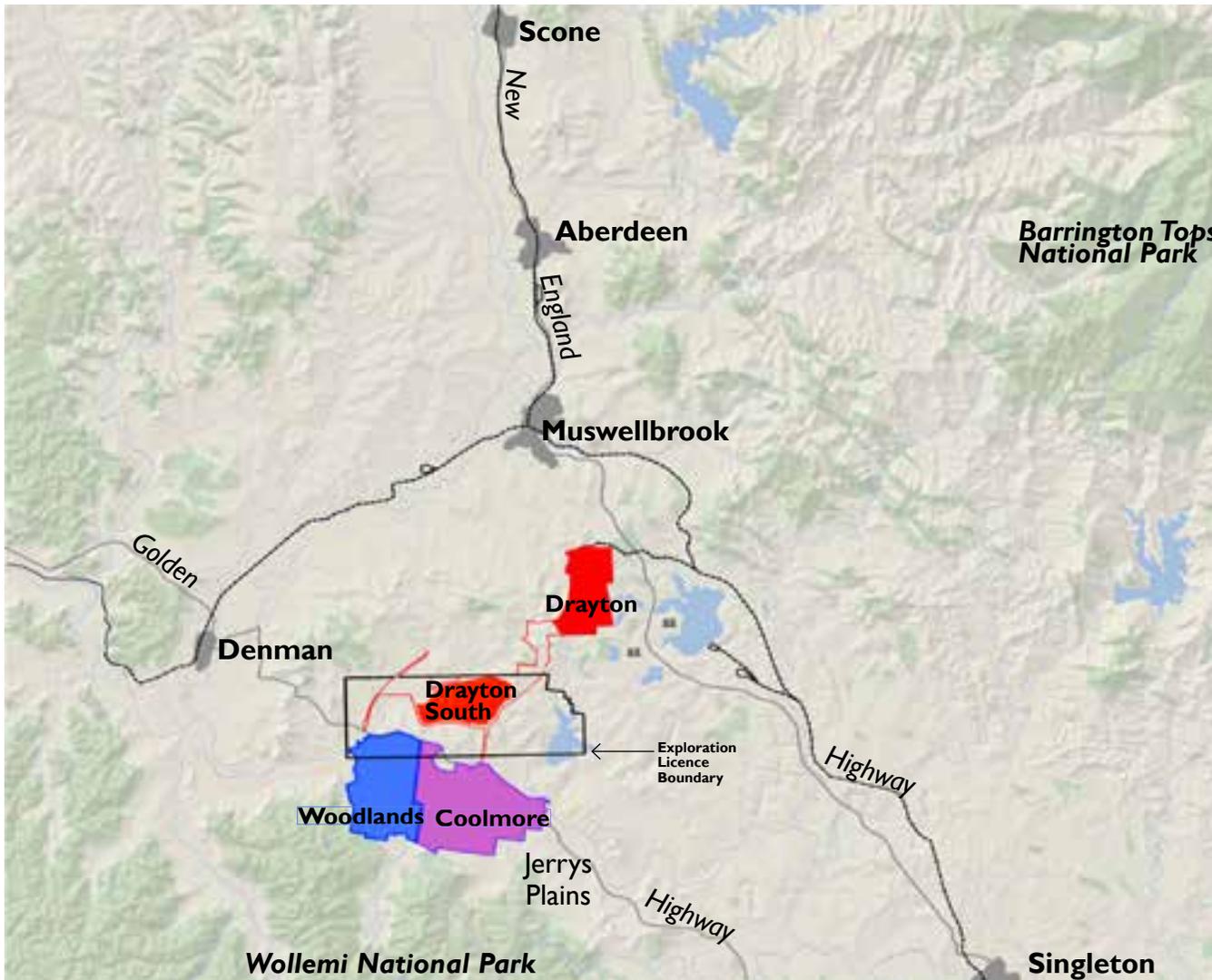


Figure 1: Regional location plan of the proposed Drayton South mine and the existing Drayton mine in relation to the Coolmore and Woodlands studs

## PREVIOUS REPORTS

In addition to this report, there are four previous reports which were prepared in response to earlier Drayton South application reports by Anglo. The first report, as mentioned as above *Response to the State Significant Development Assessment of Drayton South Coal Project* (October 2015) was prepared in response to a review of the key visual impact issues as presented in the EIS and the SEAR and highlighted a range of shortcomings.

The Second report, *Response to Anglo American's Response to the Scenic and Visual Issues Raised in the Planning Assessment Commission* (March 2014) was prepared in response to Anglo's report entitled Justification (February 2014). The third report, *Commentary on the Drayton South Retracted Mine Plan* (May 2014) was prepared in response to Anglo's report entitled Consequential Environmental Impact Assessment for Retracted Mine Plan (March 2014). The fourth report, *Response to the Secretary's Environmental Assessment Report for the Drayton South Coal Project* (September 2014) in response the SEAR (July 2014).

These four reports should be read in conjunction with this report in order to gain a more complete understanding of importance of the scenic and visual values of the Upper Hunter Valley area to the two studs of Coolmore and Woodlands. These reports which highlight the deficiencies in the visual assessments undertaken in the reports prepared by Anglo and the Department, are attached as appendices to this report.

## SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The following statement sets out the Secretary's Environmental Assessment Requirements (SEARs) in relation to the assessment of the visual impacts which would occur as a result of the development and operation of the proposed mine:

*Visual – including a detailed assessment of the likely visual impacts of the development (including dust, blasting and night lighting) on surrounding private landowners and key vantage points in the public domain, paying particular attention to impacts on the nearby Thoroughbred breeding operations, Hollydene Estate Winery, private residences, tourists and road users.*

The SEARs are formulated by the Department to define the range of potential impacts and to direct the extent of the assessment to be carried out by the proponent.

## REPORT STRUCTURE

This report is structured in the following chapters:

*Chapter 1 - Introduction*

*Chapter 2 - Importance of landscape*

*Chapter 3 - Visual impacts*

*Chapter 4 - Conclusion*

*References*

*Appendices*

## STUDY AREA CONTEXT

The land to the south of the proposed Drayton South Coal Mine is highly scenic; comprising the Hunter River and the adjoining irrigated floodplain meandering through undulating hills and ridges, with a forested mountain range, Wollemi National Park, to the south which creates a prominent and attractive backdrop to the area. The high scenic quality of this landscape contrasts with the landscapes to the north and east which consists primarily of moderately undulating foothills of cleared, open grazing paddocks, with limited tree cover.

The presentation of the Coolmore and Woodlands studs is commensurate with their standing as two of the premier Thoroughbred breeders in the world. The selection of the site on the Hunter River is the result of careful research to identify a location with all of the attributes necessary to ensure the establishment of a successful and enduring Thoroughbred breeding business.

The presence of rich alluvial soils, ample water, clean unpolluted air, broad river flats, undulating topography and a mild climate which is ideal for breeding horses, combines with a highly scenic setting of the river valley with a magnificent backdrop of the forested ranges of the Wollemi National Park, the largest wilderness area in NSW which forms part of the Greater Blue Mountains World Heritage Area refer to Figure 2.

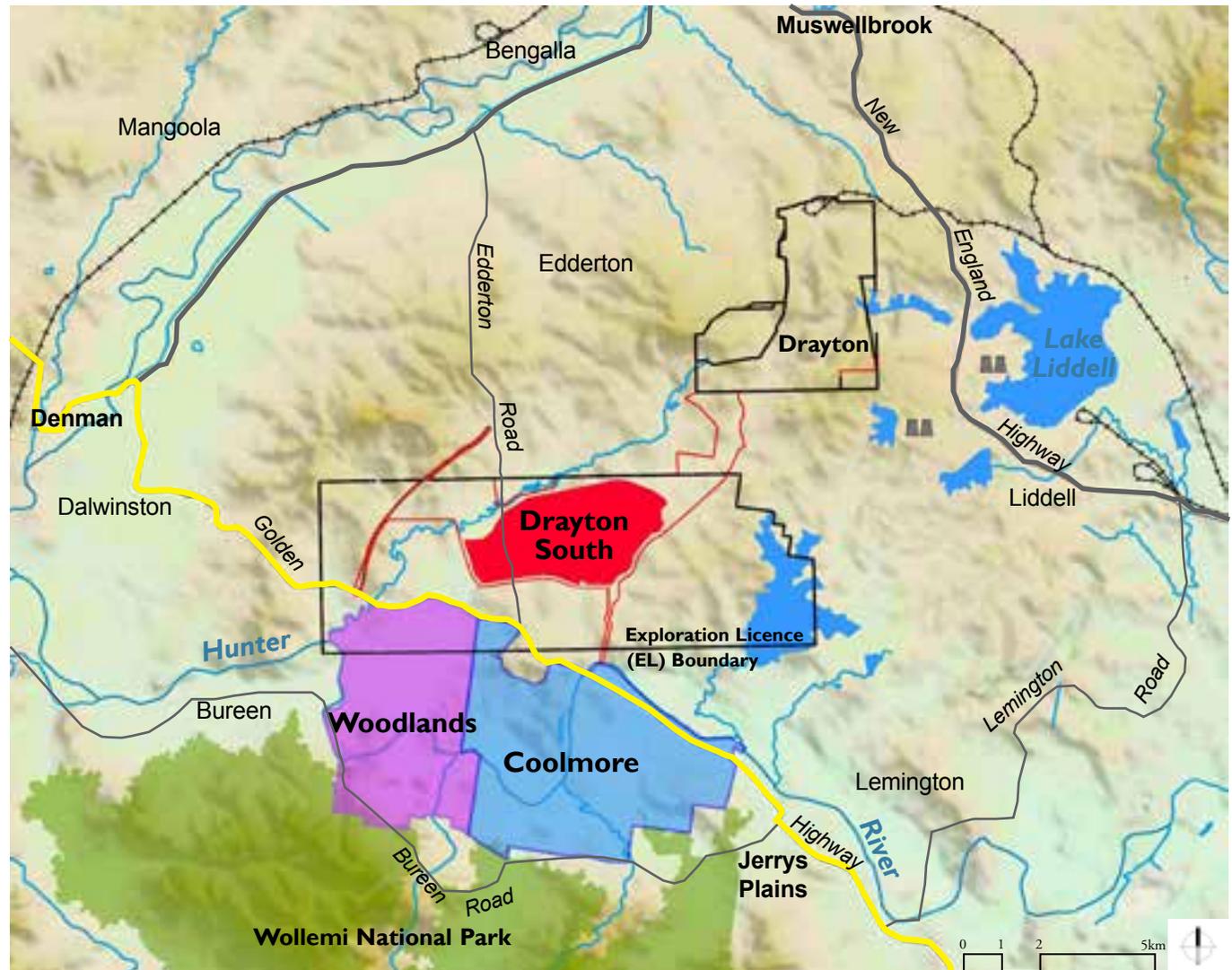


Figure 2: Location plan of the proposed Drayton South Mine in relation to Coolmore and Woodlands

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## 2. IMPORTANCE OF LANDSCAPE



Figure 3: Views of Coolmore and Woodlands within their Hunter River valley landscape

The importance of the Hunter River landscape that include and surrounding Coolmore and Woodlands is internationally acknowledged as an area of unique agricultural, cultural, scenic and visual importance. As a result, the New South Wales Government has designated important areas to protect under the Equine and Viticulture Critical Industry Cluster (CICs).

It is also designated as a Landscape Conservation Area by the listed National Trust as a landscape that is important to Australia's cultural heritage. The Review PAC (2015) also share this assessment when it stated:

*“These natural elements within the landscape are of cultural significance for their aesthetic, historical, social and scientific values and create a unique and sensitive landscape character.”* (p58)

The Hunter River Valley has an long and vital connection to the pastoral industry and its surrounding Thoroughbred Studs which formed over 200 years ago. This ‘connection’ has been recognised by Review PAC (2013):

*“The combination of high quality soils, access to water, balance of river flats and undulating hills, favourable and connections to the broader equine industry is critical to the success of the studs ”* (p38)

Not only did the previous Review PAC (2013), the Gateway Panel (2013) and the Determination PAC (2014) and recognise the fundamental relationship of these highly scenic landscapes within the studs and in the surrounding areas to Thoroughbred breeding enterprises, the Review PAC (2015) also stated that: *“Open cut mining in the Hunter Valley has had significant impacts on the wider landscape and associated Aboriginal cultural heritage values of the valley”* (p60)

The Upper Hunter River is well recognised for its agricultural, cultural, scenic and visual values. These four values are discussed in the following section.

## AGRICULTURAL VALUES

The agricultural importance of this area of the Upper Hunter is recognised by its designation as an Equine and Viticulture CIC as shown in yellow on Figure 4, is the Equine and Viticulture CICs. This combination of water, soil, landform and climate make is ideal for breeding high performance horses. As such, the Hunter River has had pastoral activities continuously for over 200 years and open cut mining has only occurred in the Hunter Valley near Muswellbrook since the mid 1940's. This mining occurred approximately 20km away to the north of the Jerrys Plains and Denman valley, and in an entirely separate visual catchment.

The CICs are concentrations of highly productive industries within a region that are related to each other, contribute to the identity of that region and provide significant employment opportunities. It is recognised that Coolmore and Woodlands play a key role as part of the CIC and the Review PAC(2015) highlight their importance when stating:

*“It is widely accepted these two studs stand many of the best sires in the Hunter and Australia, are cornerstones of the Equine Critical Industry Cluster, and are a significant part of the reason for the Hunter’s Thoroughbred breeding industry being known as one the top three internationally.”*

The Department (2015) recognise the sensitivity of the CIC and their vulnerability to mining when stating:

*“The creation of these industry clusters aims to protect this high quality agricultural land from the impacts of coal seam gas (CSG) and mining activities.”*

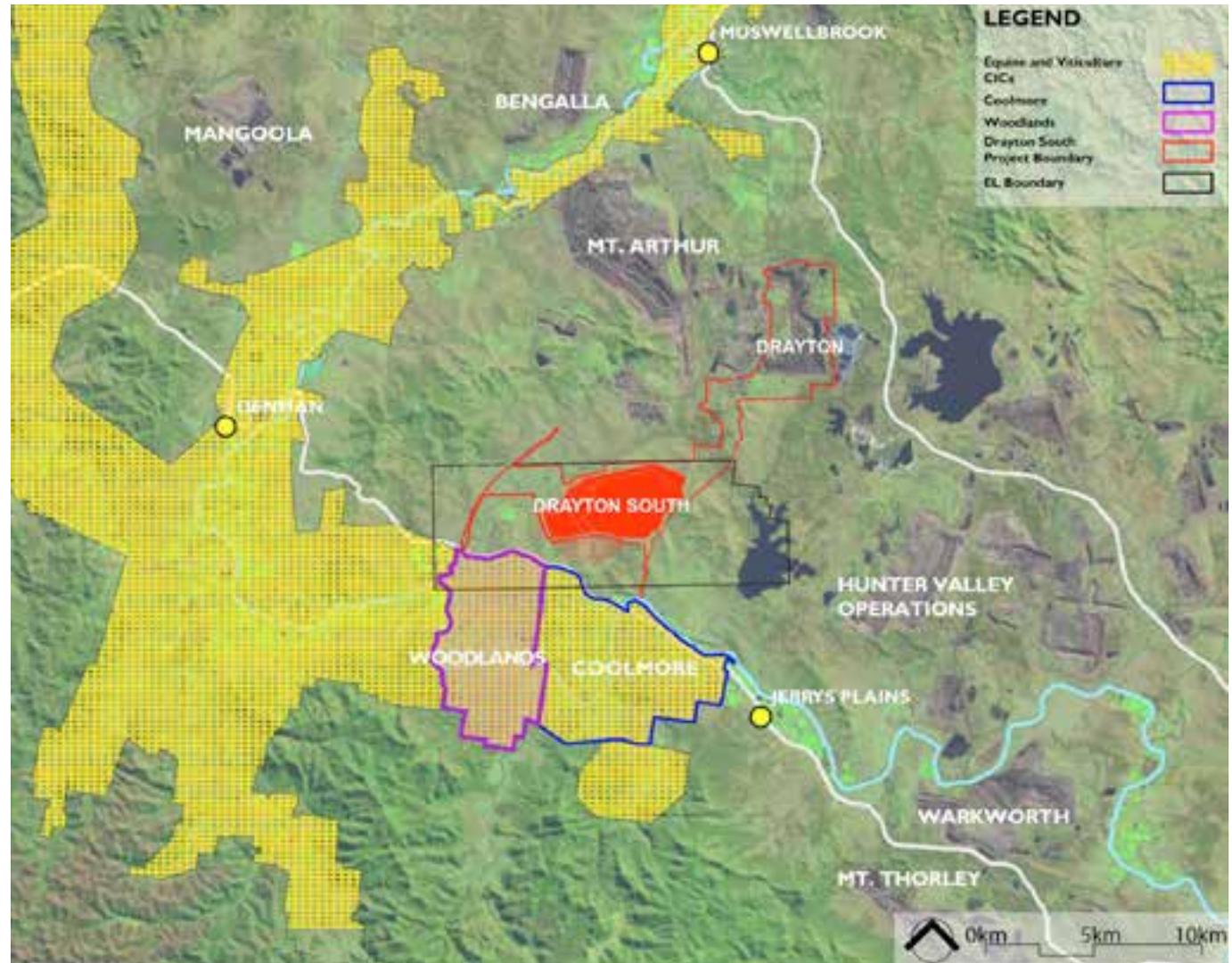


Figure 4: Plan illustrating the Equine and Viticulture CICs in the vicinity of the proposed coal mine

Anglo have stated numerously that both the open cut coal industries and pastoral activities can coexist in close proximity. However, this is contradictory to the Department's statement that:

*"There are unavoidable consequences of co-existence of these two important industries in the valley."*

This is also the opinion of the Review PAC(2015) when they reiterated that co-existence is not viable in close proximity;

*"The Commission also acknowledges the importance of the mining industry for the region. However, the Commission considers that for some agricultural land uses in close proximity of an open cut coal mine cannot be considered to be viable co-existence where both land uses can prosper." (p52)*



Figure 5: View of the fertile Hunter River floodplain and adjoining foothills at Woodlands stud

## CULTURAL VALUES

As mentioned, Coolmore and Woodlands and their surrounding land is recognised as one of seventeen Landscape Conservation Areas listed on the National Trust Register for their scenic, agricultural, historic and nature conservation significance (shown in green on Figure 6). See also the National Trust's response to this project in Appendix E.

The project is located within Wonnarua LALC and this cultural landscape has been recognised by all PACs. This is a landscape that has been occupied for at least 40,000 years (EIS 2015, Appendix O p42). The EIS (2015) shares this opinion when it states:

*“The project identified a rich landscape of Aboriginal activity as evidence from the high counts of stone artefacts recorded”* (Appendix O, p77).

The Review PAC (2015) determined that;

*“The Aboriginal people have a special connection to the land and that the Wonnarua people would experience significant loss if Aboriginal sites and artefacts within the project area are relocated or destroyed.”* (p59)

The Review PAC (2015) recommended that;

*“The Commission found that there are some significant broader cultural landscape values (both Aboriginal and historic) associated with the area, these would warrant further assessment should the project proceed any further.”* (p66)

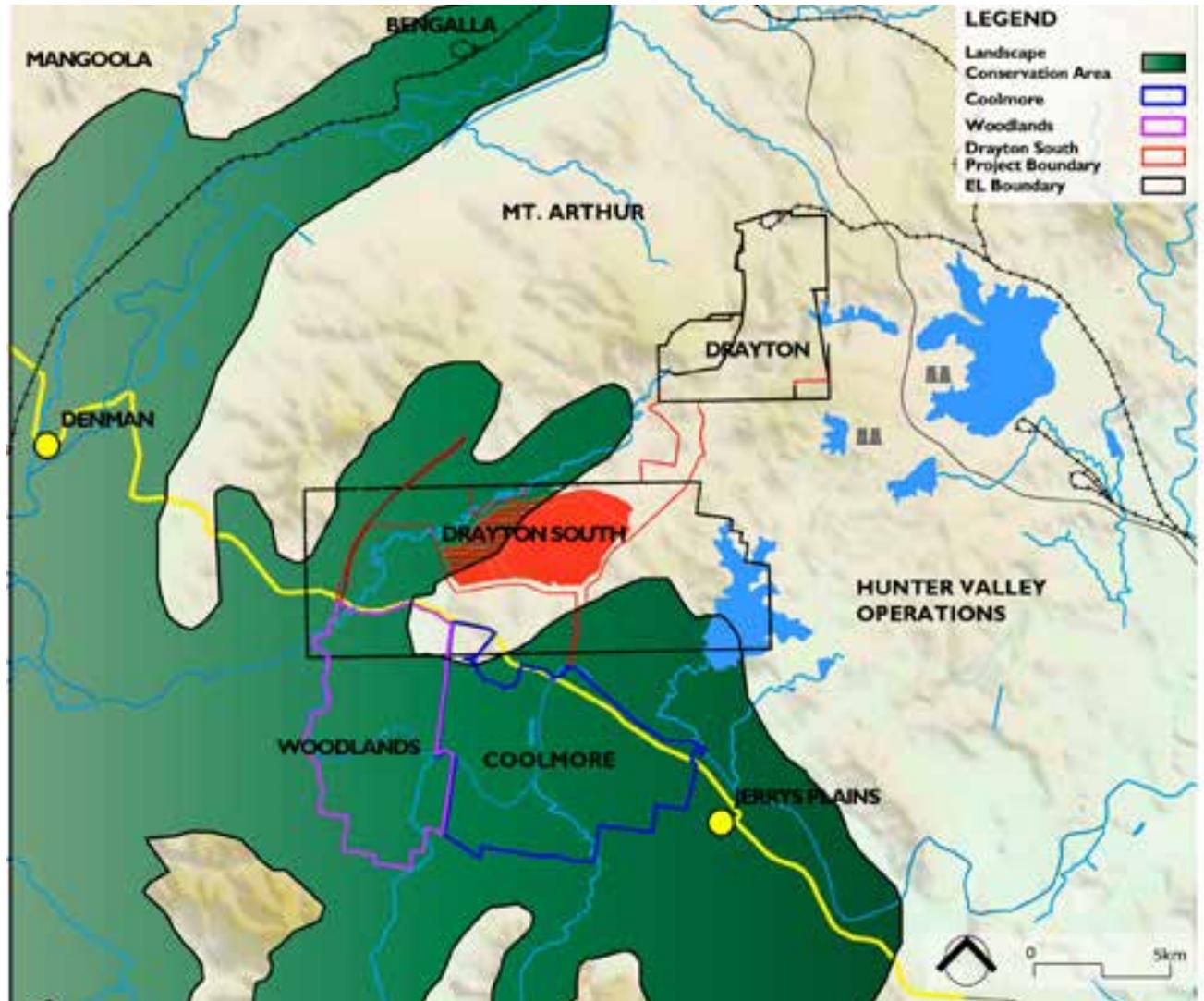


Figure 6: The National Trust Landscape Conservation Area

## SCENIC VALUES

Tourism is a major industry for the Hunter Valley. Scenic qualities are a key component of the Hunter's vital tourism industry. The SRLUP (2012) states that:

*“The identity of a rural landscape and its scenic qualities are intrinsic to tourism.”* (p22)

Thoroughbred studs and wineries both present a scenically attractive landscape and rely on the scenic qualities of the surrounding landscape as a core component of their business model. The Review PAC (2015) recognised the importance of this unique landscape to the importance of the studs and wineries and vice versa when stating:

*“The properties have a unique combination of scenic, historic and agricultural qualities which lend themselves to the equine and tourism industries, but could also be argued to have a significant heritage value of their own. As noted by the horse studs, this combination of attributes is extremely difficult, if not impossible to find elsewhere.”* (p12)

The PAC (2015) reiterated the importance of this relationship of the Studs on these scenic landscapes when stating:

*“The importance of this landscape and its similarities to other premier breeding centres is central to the studs .”* (ii)



Figure 7: Photos illustrating the scenic values of the Hunter Valley which contribute to the area's uniqueness and high tourism values

## VISUAL VALUES

Visual presentation is a key element of the stud farms' business model which is equal to the best in the world (Refer Figure 8). Visual quality of the studs and the surrounding landscape are critical to their image, brand and reputation.

The Review PAC (2013) recognised this stating:

*“The image presented at the farm is highly important to the brand, reputation and ultimately the success of the business”*

Thoroughbred breeding studs have the highest standards of landscape visual quality and presentation which relates directly to their reputation and image, sometimes referred to as ‘Brandscapes’.

Thoroughbred studs and wineries are some of the most sensitive rural land uses (image, brand and reputation are directly related to viability) while mining is the most visually impacting land use in the Hunter Valley. The Review PAC (2014) stated on page 27 of its report that;

*“Open cut coal mining and an international-scale Thoroughbred breeding enterprise are incompatible land uses”*

The Review PAC (2015) recognised the significance of the image and reputation to the studs when it stated:

*“Even if all of these obstacles could somehow be overcome, there is still a risk to the image and reputation of the studs .” (p42)*



Figure 8: The visual values of the Thoroughbred studs at Coolmore and Woodlands

### 3. VISUAL IMPACTS



*Figure 9: High scenic qualities of the Upper Hunter landscape increase the sensitivity to visual impacts of open cut coal mining*

Three forms of visual impacts have been identified in previous reports (refer attached documents) as being relevant to this project: Direct, Indirect and Dynamic Visual Impacts.

The visual impacts of this proposed open cut mine are influenced by a number of factors including the distance separating the proposed mine and the studs, as well as the public roads which service them.

Landform is also a key factor in determining the extent of visual impacts and the effectiveness of mitigation measures overtime.

## LANDSCAPE BUFFER

Open cut coal mining has the largest impact of any land use in a rural setting. The sheer scale and footprint of these mines are very difficult, if not impossible to conceal from the public view. By contrast, Thoroughbred breeding studs have the highest standards of landscape visual quality and presentation which relates directly to their reputation and image.

Coolmore and Woodlands rely upon the current landscape buffer which separates the studs and the mines to the north and east. This project would completely destroy this landscape buffer (as shown on Figure 10) and the impacts of open cut coal mining cannot be mitigated sufficiently to protect the studs and no conditions can be devised that would ensure that these impacts could not occur. This opinion is reflected by the Review PAC (2015) when recommending:

*The importance of the Upper Hunter Equine Industry Cluster, its sensitivities to intensive development and the landscape character of its central operators, including the Coolmore and Woodlands studs, needs to be acknowledged with the development and enforcement of appropriate buffers, exclusionary zones or preservation measures to safeguard this important industry.*

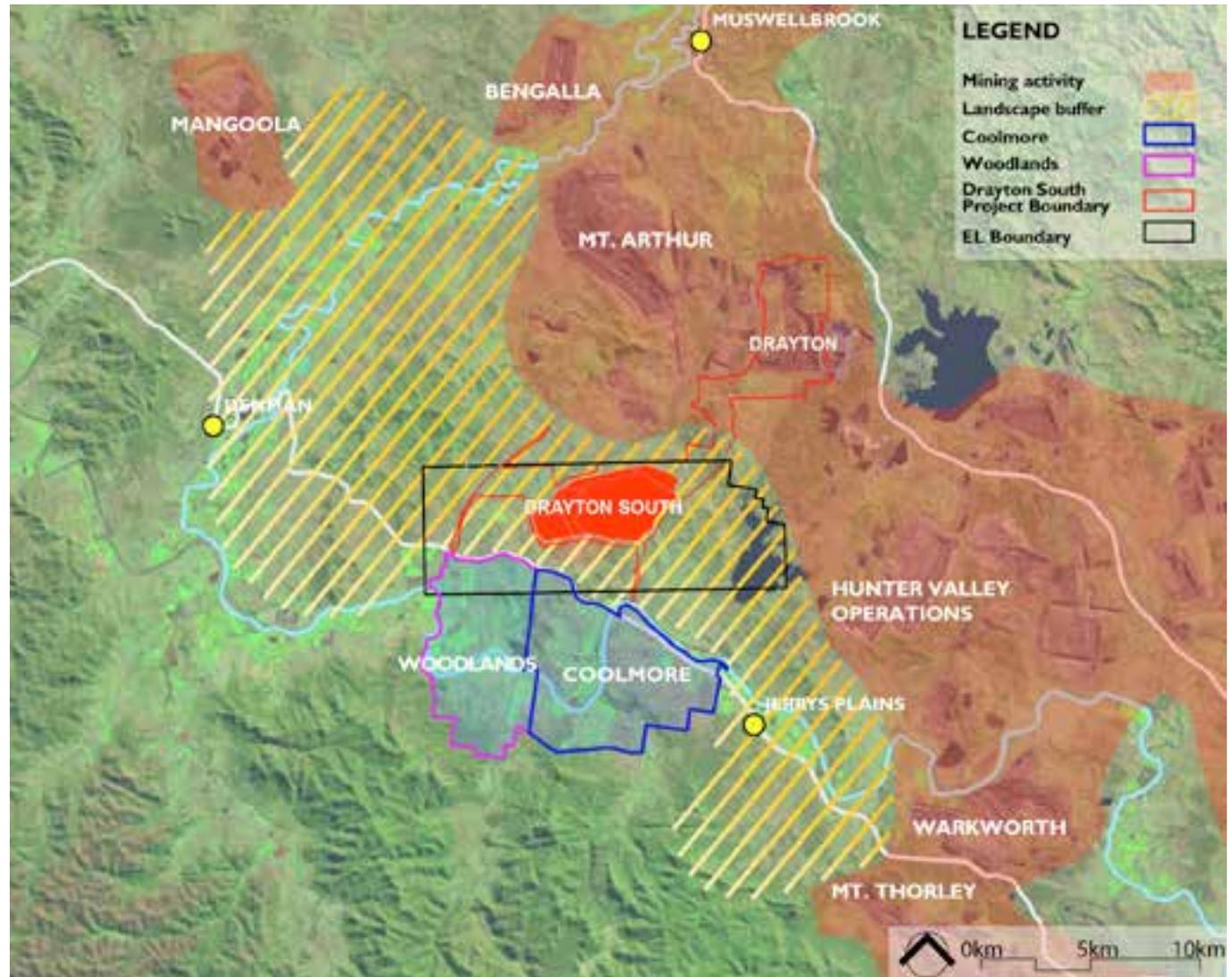
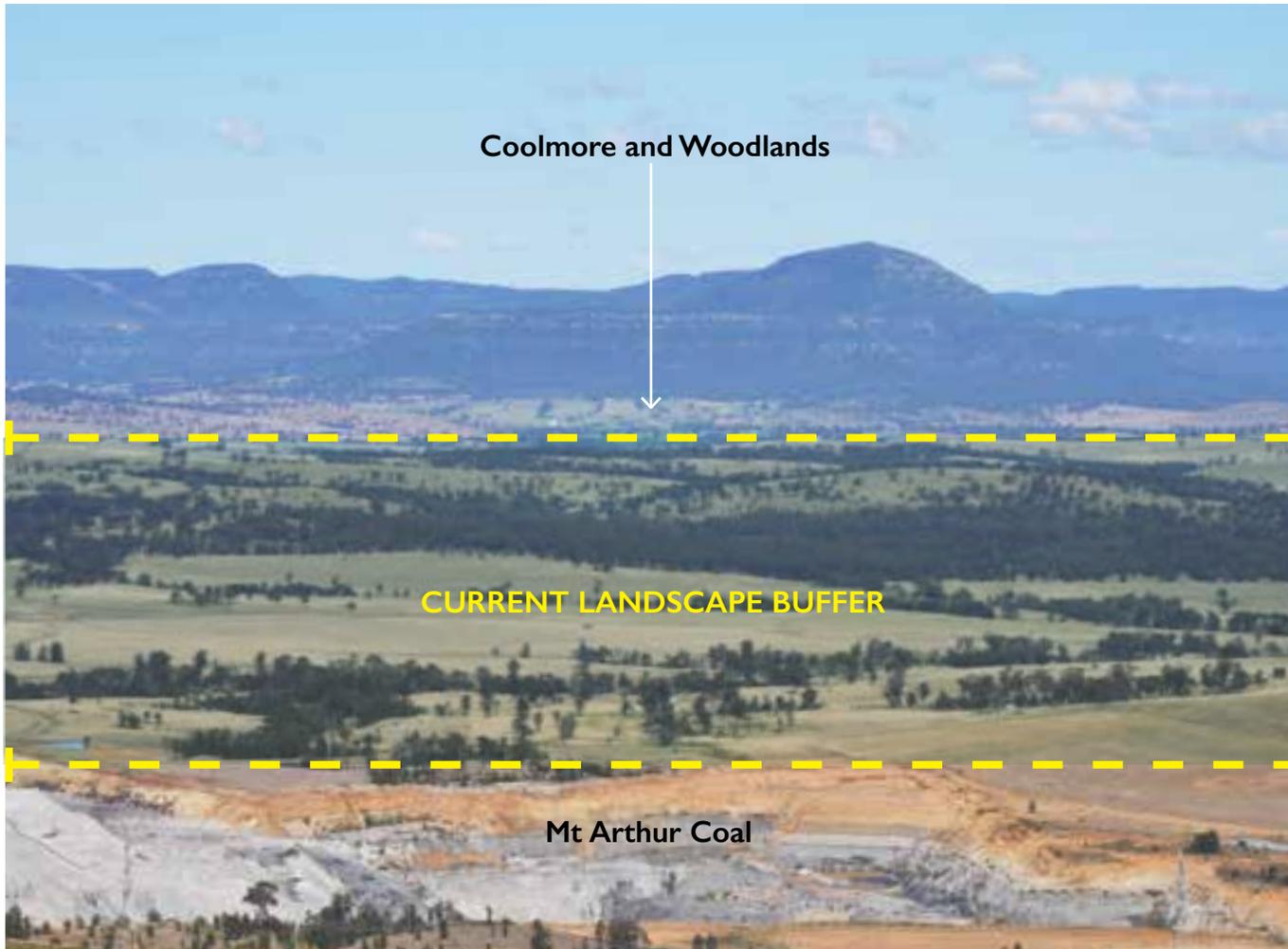


Figure 10: The landscape buffer which separates the two studs from current mining areas.



The image in Figure 11 illustrates the extent of the current landscape buffer, viewed from the summit of Mt. Arthur looking south towards Coolmore and Woodlands, with the Wollemi National Park in the background. The EL for the Drayton South Coal Project covers most of the landscape buffer in this view.

Figure 11: View from Mt Arthur of the buffer between mines and the studs.

## HUNTER VALLEY MINE EXPANSION

Open cut coal mining has expanded in this part of the Upper Hunter River valley over the past 3 decades, particularly the Mt Arthur Coal and Bengalla mines, as illustrated in Figure 12.

As shown by Figure 13, open cut coal mining has historically been located to the north-east and east of the studs. Since 1991, the majority of coal mining operations have moved in a north west and south east direction parallel to the studs' boundary. Over this 25 year period, the landscape buffer has remained intact providing adequate separation for the sustained growth of Thoroughbred breeding operations at Coolmore and Woodlands. The proposed Drayton South Coal Project completely destroys this landscape buffer.

The Review PAC (2015) state that;

*"Extending mining operations into the existing pastoral area presents an increased reputational risk to the horse studs, which depend on reputational excellence and visual presentation, and may also adversely impact on the scenic and historical characteristics of the agricultural district. The Commission also acknowledges the importance of the mining industry for the region. However, the Commission considers that for some agricultural land uses close proximity of an open cut coal mine cannot be considered to be viable co-existence where both land uses can prosper." (p52)*



Figure 12: View of the more recent areas of mining at Mt Arthur Coal (in the foreground) and the Bengalla Mine on the western side of the Hunter River.

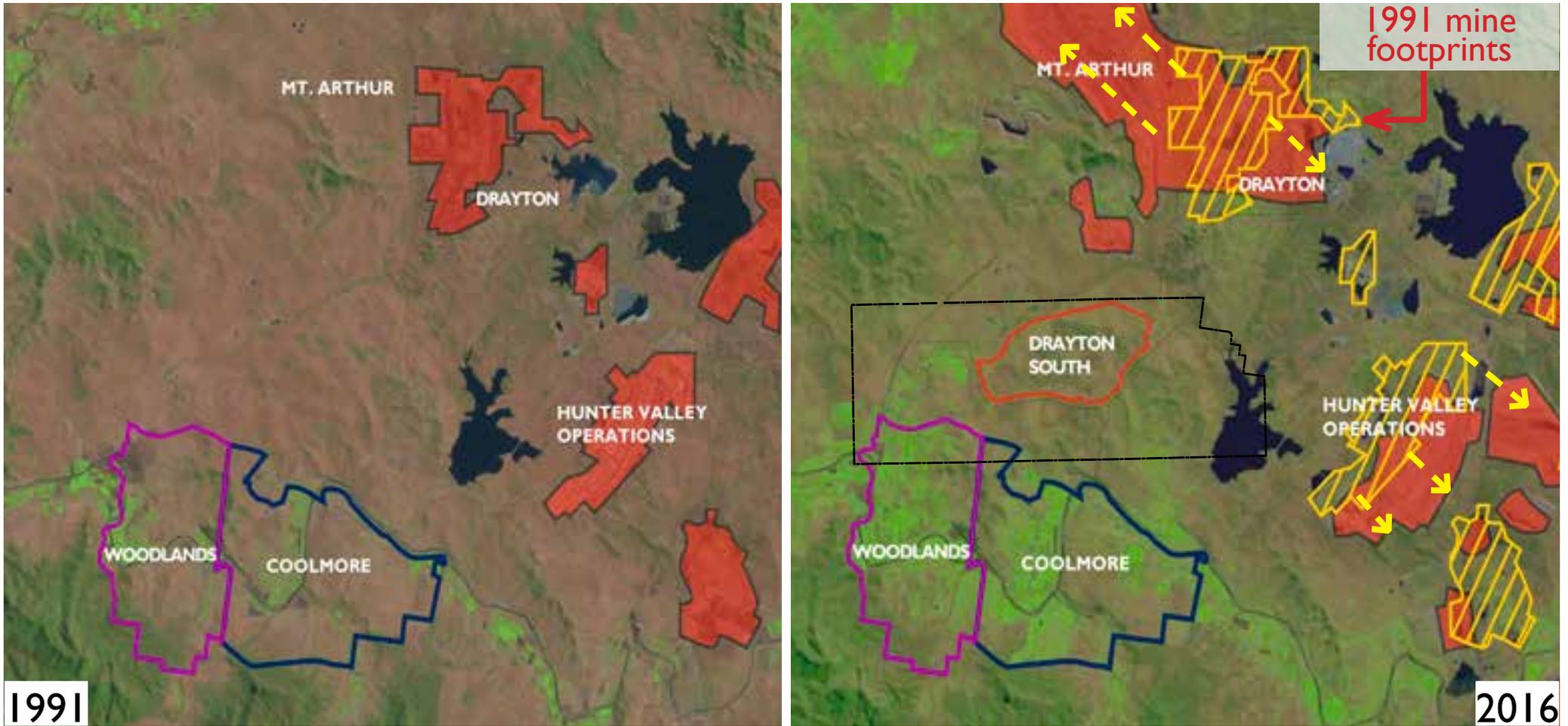


Figure 13: Mine expansion in the Upper Hunter Valley over the past 25 years.

## PROXIMITY

The Drayton South coal mine is now proposed to be less than 1km away from the boundary of the two studs, as stated in the EIS in table 1.1, page 1-2. The distance measures only 850m at its closest point as illustrated in Figure 14. The previous mine plan boundary at the edge of the Redbank Pit, was 450m at its closest point to Coolmore’s boundary. The removal of most of the Redbank Pit has increased the distance by an extra 400m which is not sufficient to mitigate the visual impacts of this mine (Refer to Figure 15).

An extra 400m buffer is inadequate and would be of no tangible benefit to the protection of the studs from direct, indirect and dynamic visual impacts of this mine over 15+years.

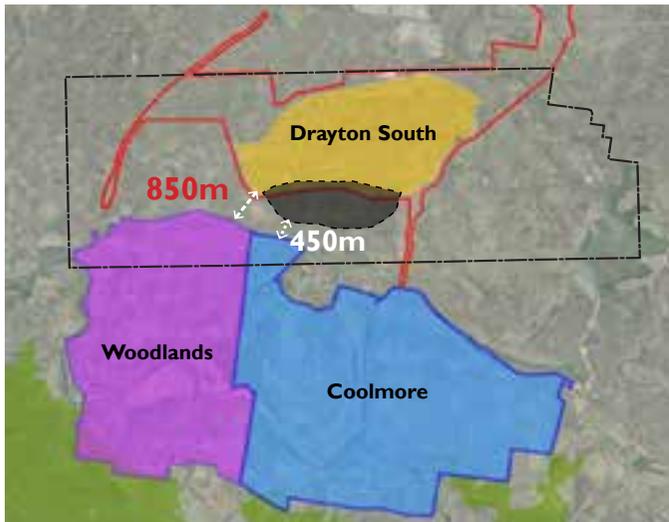


Figure 14: Distance from Coolmore to the proposed Drayton South Mine.



Figure 15: View proximity comparative distance showing the Coolmore/Darley boundary in yellow on the Sydney Harbour Bridge and the previous and proposed Drayton South boundaries in red (proposed) and white (previous).

Existing mines are located significantly further away from the two studs being up to eight times further away from the studs than the proposed Drayton South mine. Figure 16 illustrates a comparative distance between the boundary of Woodlands and the proposed Drayton South mine in comparison to the existing mines of Mt. Arthur and Hunter Valley Operations as well as the Bayswater Power Station.

This new proposal has moved the mine boundary slightly further away from Coolmore, however the proposed mine boundary has remained the same distance as the previous mine plan from the Woodlands boundary. Therefore the impacts of the proposed mine on the Woodlands stud remain unchanged.

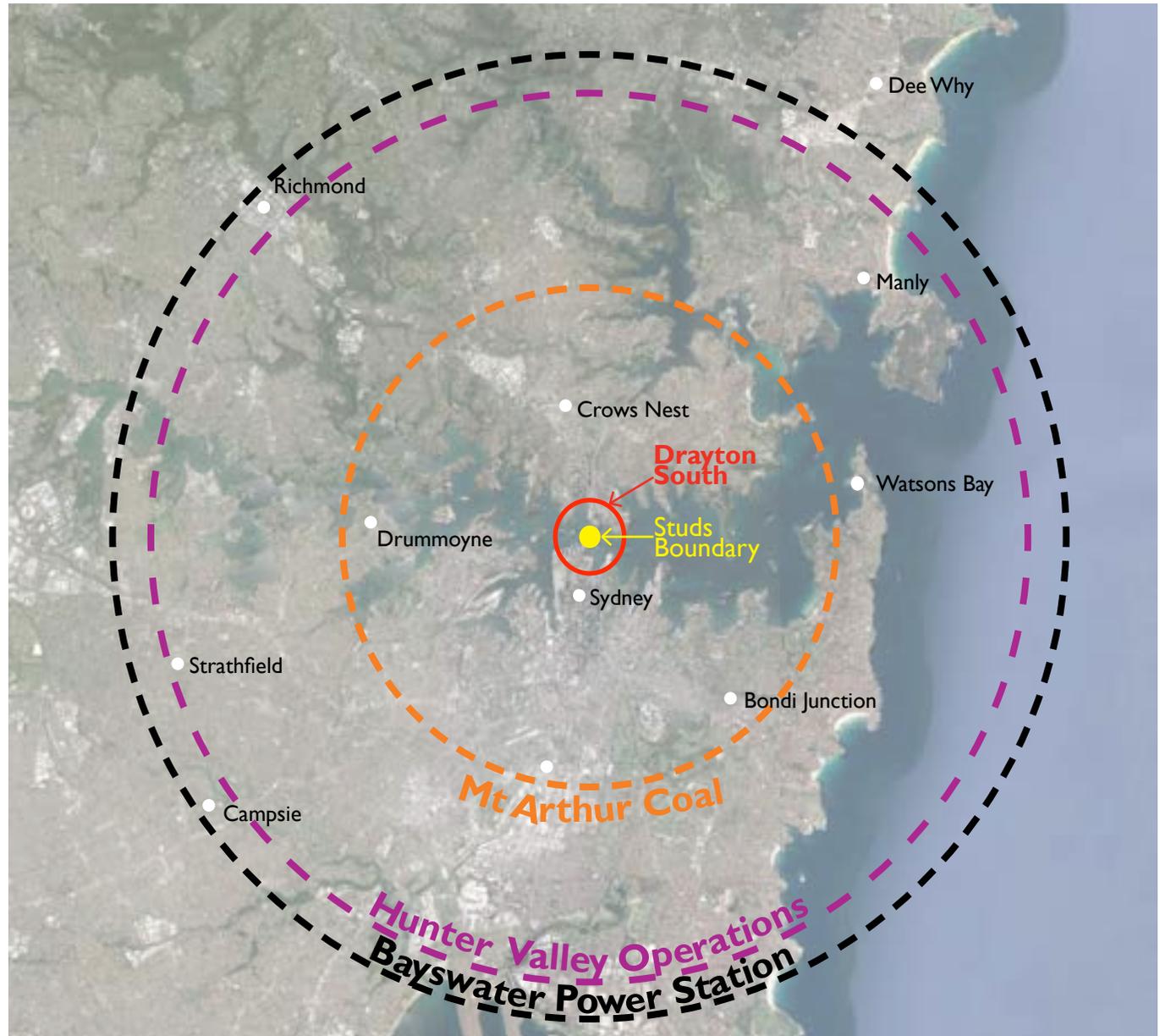


Figure 16: View proximity comparative distance showing the studs boundary on the Sydney Harbour Bridge and Drayton South in red

## DIRECT VISUAL IMPACTS

As acknowledged by all of the PACs there is a direct visual impact on the studs from the proposed project at Drayton South. As presented in my 2015 report (please see Appendix D), there are a range of direct visual impacts both on the studs and adjoining public roads.

The visually exposed areas as shown on Figure 17 is a combined area of 200ha positioned around two key viewpoints including Trig Hill covering both Coolmore and Woodlands.

These elevated viewpoints have not been addressed by Anglo throughout previous reports or the current Response Report (2016). These elevated areas within Coolmore and Woodlands will be sterilised in terms of being able to take visitors into these areas for the 15 year life of the mine. Anglo argue that mining is already visible from this location, however, current views of mining activities are in a background plane and the proposed mining will be directly in the foreground of the viewing plane from this vantage point.

The second area which is exposed to direct visual impact is a 600m section of the Golden Highway is identified in the Project EIS (2015). In their latest response date 23rd of October 2015 (p28) Anglo respond to comments from “views that would be available from an elevated section of the Golden Highway”.

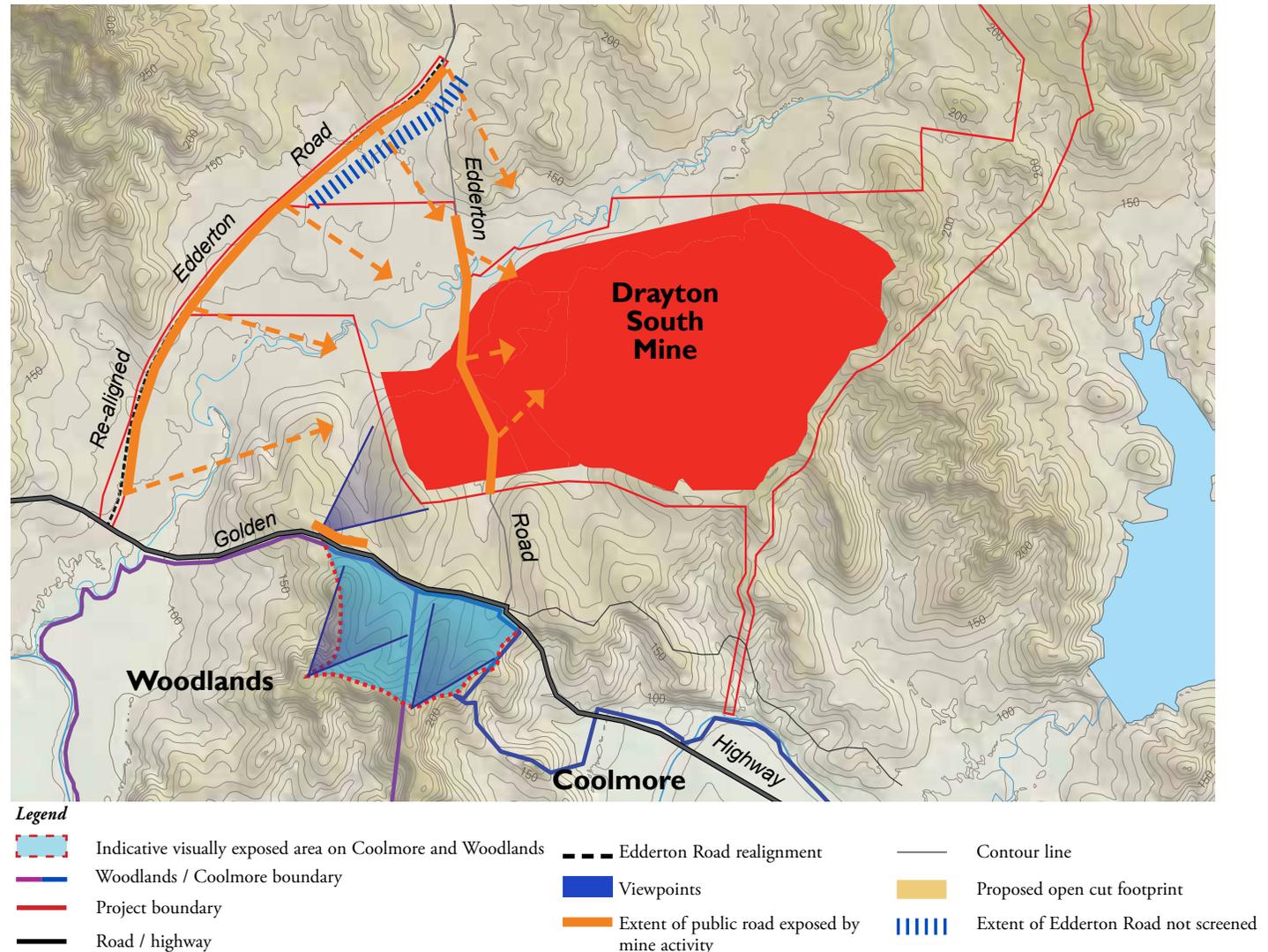


Figure 17: Viewpoints from Edderton Road and the re-aligned Edderton Road which are potentially visually exposed to the Drayton South mine

However as shown on Figure 18, Anglo show tree growth from a location below the Golden Highway which is not a representation of a driver's eye view and also makes the tree growth look more substantial from this lower viewpoint. This tree screening is not being maintained and currently has large gaps as a result of plant deaths during establishment. Anglo's photomontage of this viewpoint, included in the Department's Report (2016), show shrubs in the foreground which have not been planted in this area.

Edderton Road is the primary route for the stud's clients, staff and their families to access Muswellbrook and the Thoroughbred studs and facilities to the north around Scone. Anglo propose to realign the southern section of Edderton Road by the end of the first 4 years of the project to an alignment west of Saddlers Creek.

However, motorists will continue to use Edderton Road during these first 4 years of development of the mine which will have the potential to expose these travellers to close range views of the open cut mine activities for at least 2.5km adjacent the open cut coal mine as shown on Figure 17.

The realigned Edderton Road also fails to fully screen the open cut coal mining on 2.2km on this newly aligned road as Anglo do not own the adjacent land and have no plans to attempt any tree screens.



DS51 Golden Highway (West) photo taken 2011 (Anglo, 2015)



DS51 Golden Highway (West) photo taken 2015 (Anglo, 2015)

*Figure 18: Golden Highway photos clearly demonstrating Anglo's photograph taken in 2015 is from a location well below the Golden Highway compared to their 2011 photo. [Note the location of the gate to compare height difference]*

## TREE SCREENING

The applicant is relying on trees to screen visual impacts of the project. However, as shown in Figure 19 the existing tree screens at the Project boundary are completely transparent and highlight how the photomontages provided by the applicant in Figure 20 is completely inaccurate and misleading in representing how a screen may grow over a 12 year period.

The Review PAC (2015) recognise that such tree screens are very difficult to achieve, stating on page 40:

*“The Commission is not satisfied that this vegetation screening along the Golden Highway would provide sufficient protection to three highly sensitive business operations. The Commission notes that there are both time delays and other uncertainties that could impede the success of any vegetation planting, plant growth rates and associated screening provided. Other limitations of tree planting or other screens or bunds include that the plantings will not block views of blast plumes that would be evidence above any tree line plantings, nor will they be able to screen night lighting glow impacts from the pit. Plantings have no influence on views from the air, or from satellite imagery, nor to potential social media coverage of any mishaps at the mine.”*

It is clear that the photomontages are overly optimistic and therefore misleading. If such levels of tree management were met the Review PAC (2015) still recognised that tree screening cannot completely screen the mine for some years they state:

*“It would take many years to reach a height that would shield the view completely ...even at year 9, views would still be apparent.”*



Drayton South screening on Edderton Road (2016)



Drayton South screening on Edderton Road (2016)

Figure 19: Photos of the existing transparent tree screening on Edderton Road.

Existing



Year 4



Year 6



Year 12



Figure 20: Photomontage of proposed tree screening on Edderton Road. (Page 81; VIA).

As the applicant has a significant dependence on tree screens as a form of visual mitigation it is relevant to compare tree screening at the Drayton Mine. The existing tree screens on the Drayton Mine boundary at Thomas Mitchell Drive which were the subject of Special Environmental Conditions in 2008 are still inadequate. These conditions directed the applicant to;

*“Plant additional tree screens within 2 years”*

However, these tree screens clearly have large gaps and the mine is still clearly visible from a number of locations on Thomas Mitchell Drive as illustrated in Figure 21.

The images in Figure 21 also illustrate that there has been no change to the condition of these tree screens or the exposure of the mine to Thomas Mitchell Drive between 2014 and 2016.

It was however noted on a recent inspection of the site that the applicant has recently planted some tubestock trees in some of the gaps 8 years after the Special Environmental Conditions were established and at the end of the mine’s life.



Figure 21: Views of Drayton Mine from Thomas Mitchell Drive through the gaps in the boundary screen plantings.

## INDIRECT VISUAL IMPACTS

Indirect visual impacts manifest in a number of different forms including: dust from blasting, excavation, overburden emplacement and vehicles on haul roads; gas plumes from blasting; lighting operations at night and a range of mining vehicles on public roads.

Indirect visual impacts are a very significant risk to the operations and viability of the two studs particularly an event such as the Mt Arthur botched blast in February 2014 in which highly visible clouds of orange gas was observed across a wide area. The two photographs in Figure 22 illustrate the scale of the event and the alarming orange colour that seemed to fill the sky.

Another similar but smaller event was recorded at Anglo's Drayton mine which was the subject of a 4 Corners program in 2010. The resultant outcomes of these kinds of events are not only visual impact but also a potential health risk, all of which would seriously affect the stud's reputation, image and potentially their viability.

The fire at the Hazelwood Mine in Morwell, Victoria, illustrated in the images in Figure 23, would create significant and multidimensional impacts on the studs, particularly as this fire burnt out of control for 45 days in February and March of 2014. These kinds of events are not unique in open cut mining and represent a serious threat to the Coolmore and Woodlands studs.



Source: Muswellbrook Chronicle 21/02/14



Source: Sydney Morning Herald 21/02/14

Figure 22: Media photos of highly visible gases emanating from the botched Mt Arthur Blast in 2014.



Source: The Guardian 27/02/14



Source: Skynews 04/03/14

Figure 23: Media photos of highly visible smoke from the Hazelwood Coal Mine fire at Morwell in Victoria, which burned for 45 days in 2014.

The potential indirect visual impacts of wind borne dust from the extensive areas of exposed earth and rock in the pit and overburden areas which could be visually significant in dry and windy conditions particularly as the prevailing north westerly winds would be likely to drive this dust over the studs. Dust suppression measures will focus mostly on the haul roads which will leave extensive areas of exposed earth and rock in these pit and overburden areas vulnerable to wind borne erosions.

Light pollution will be another significant and daily indirect visual impact. The light pollution map shown on Figure 24, demonstrates the extent of the light pollution from existing mining and urban areas in this part of the Upper Hunter. Open cut mining generates light pollution equivalent to suburban and urban areas. As a result, the dark rural sky that currently exists over the studs, and adjoining buffer, will be impacted by the light pollution from Drayton South.

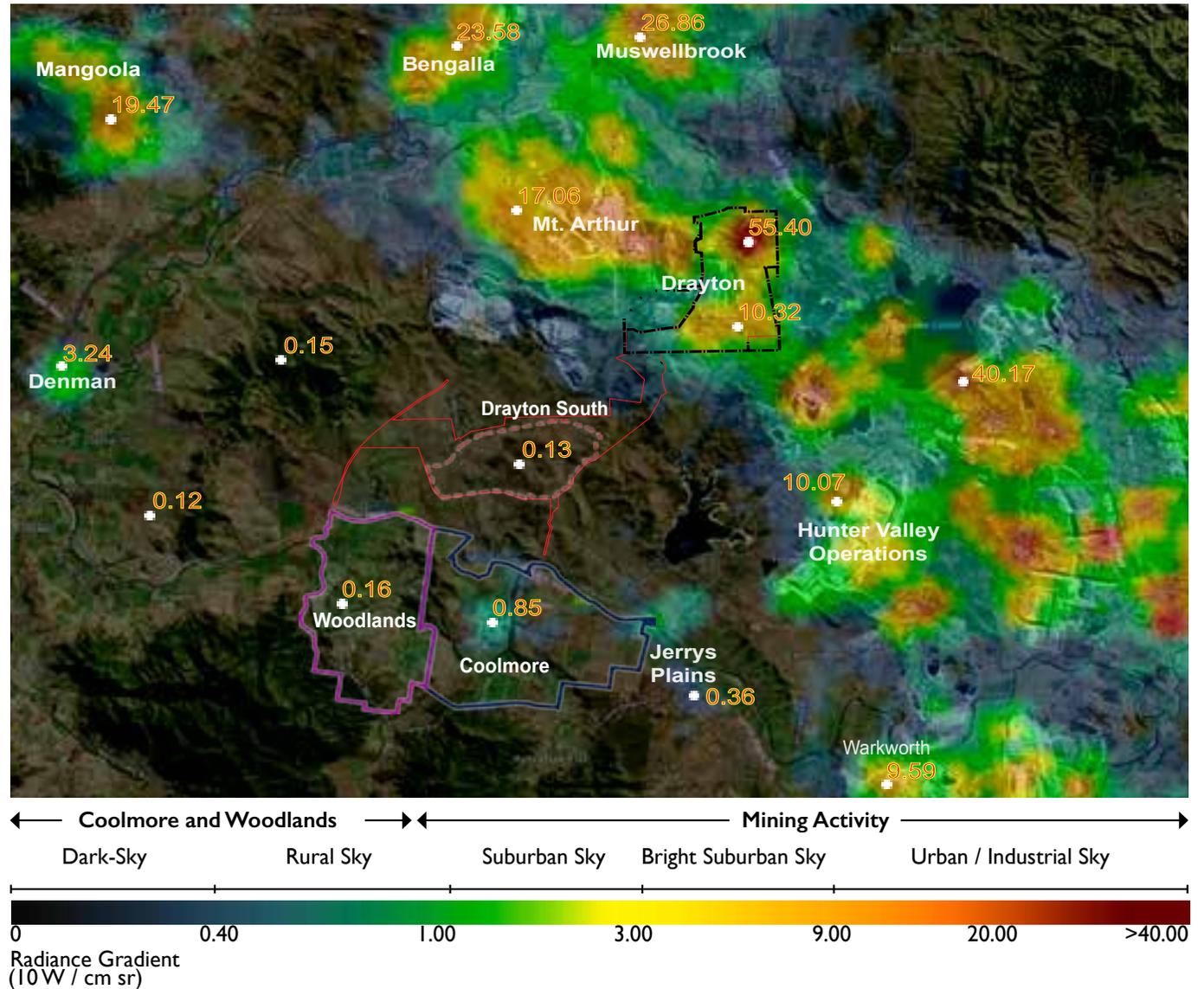


Figure 24: Light Pollution Levels in the Upper Hunter in 2015.  
 Source: [www.lightpollutionmap.info](http://www.lightpollutionmap.info), Earth Observation Group, NOAA National Geophysical Data Center.

## DYNAMIC VISUAL IMPACTS

Dynamic visual impacts have been discussed in all of the previous PAC Reports and these relate to travelling through or over a landscape in both space and time as well as information coverage on social and conventional media.

However, the Review PAC (2015) specifically cited

*“The potential for digital content to impact on the reputation and image presented by the studs.”* (p38)

The combination of social and conventional media reporting on incidents such as Mt. Arthur or Hazelwood would;

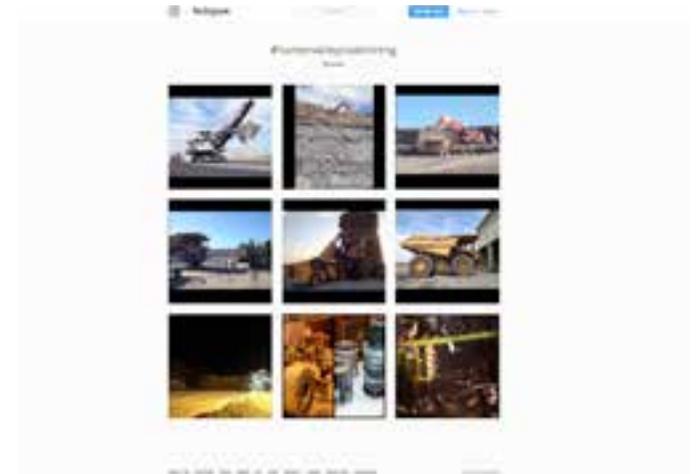
*“have the potential to represent a significant reputational risk for the studs”* (Review PAC 2015, p38).

The PAC also noted that digital content such as aerial or satellite images mapping platforms would make to proximity and visual impact of the mine, highly obvious to anyone accessing this material on a handheld or desktop computer.

With increasing access and accuracy to digital media, including aerial images on Google Maps, viewed on portable devices such as smart phones across the country and overseas, as well as social media sites such as Twitter and Facebook (refer to Figure 25), dynamic impacts are becoming increasingly relevant, particularly where reputation and image are paramount to businesses such as these two horse studs.



Source: Twitter user, 29/08/16



Source: Instagram hashtag search

Figure 25: Examples of digital mapping and social media images of mining in the Hunter Valley.

## 4. CONCLUSION

After many years of assessment of this project, Anglo have failed to complete a comprehensive and accurate visual impact assessment of this project and in particular its affect on the international Thoroughbred breeding operations of Coolmore and Godolphin at their Woodlands Stud.

Anglo American have presented 3 alternate proposals for the proposed Drayton South mine since the first in 2012. Each proposal has resulted in incremental changes to the southern margins of the proposed mine area. Due to shortcomings in the assessment of this proposal, the studs can have no confidence in the visual assessment and therefore the mine's impact on the future viability of the operations of the two studs .

The vital importance of the appearance and presentation of not only the landscape within the studs ' boundaries but also the surrounding landscape to the reputation and operational viability of each business can not be underestimated. Anglo has repeatedly not recognised or acknowledged the significance of these critical visual values to the studs when assessing its impacts.

The Department, in its Final Assessment Report, dated September 2016, has also failed to recognised the significance of the agricultural, cultural, scenic and visual values of the landscape in this area of the Upper Hunter. They have also failed to recognise the critical connection between these landscapes and the studs. The Department fails to recognise the significance of the impacts of this Project on both these landscapes and the studs and the significant risk to the stud's brand, image and reputation. In addition, the Department's report does not address the concerns raised by the previous PACs and fails to address its own SEARs.

Open cut coal mining has the largest visual impact of any land use in a rural setting. The sheer scale and footprint of these mines are very difficult, if not impossible to conceal from the public view. By contrast, Thoroughbred breeding studs have the highest standards of landscape visual quality and presentation which relates directly to their reputation and image, sometimes referred to as '*Brandscape*'.

These 2 rural land uses are polar opposites in terms of scenic and visual values and to suggest that they can coexist within less than 1km of each other is to ignore the reality of their differences and most importantly the sensitivity of the studs to these kinds of impacts. Once the damage is done to a reputation such as that of these two studs, it will difficult, if not impossible, to recover in this location.

The risks of impacting the stud's substantial and well established business operations is heightened by the relative close proximity of the proposed mine to the studs and the scale of the potential impacts.

At such close proximity, these impacts cannot be mitigated to protect the studs and no conditions can be devised that would ensure that these impacts could not occur. Coolmore and Woodlands studs are just too sensitive and important to the Thoroughbred industry in NSW to risk jeopardising their future in this unique valley.



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## APPENDICES

**Appendix A:** *Drayton South Coal Project Response to Anglo American's Response to the scenic and visual impact issues raised in the Planning Assessment Commission's Report.* Prepared by Michael Wright, registered landscape architect, for Coolmore Australia and Godolphin Australia. March 2014.

**Appendix B:** *Commentary on the Drayton South Retracted Mine Plan.* Prepared by Michael Wright, registered landscape architect, for Coolmore Australia and Godolphin Australia. May 2014.

**Appendix C:** *Response to the Secretary's Environmental Assessment Report for the Drayton South Coal Project.* Prepared by Michael Wright, registered landscape architect, for Coolmore Australia and Godolphin Australia. Sept. 2014.

**Appendix D:** *Response to the Environmental Impact Statement and the Secretary's Environmental Assessment Report Scenic and Visual Impacts.* Prepared by Michael Wright, registered landscape architect, for Coolmore Australia and Godolphin Australia. Oct. 2015.

**Appendix E:** *Drayton South Coal Project – Impacts on Muswellbrook-Jerrys Plains Landscape Conservation Area.* Prepared by National Trust of Australia (NSW). March 2014.