

Statement of
Environmental Effects

45 Bell Street,
Thirlmere

Lot 91
DP 751270



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1.0 INTRODUCTION

Property: Lot 91 DP751270

Location: No.45 Bell Street,
Thirlmere

Proposal: Torrens Title Subdivision creating Sixteen (16) Additional Allotments, Construction of Bioretention Basin, Dam Filling, New Road Construction and Ancillary Works in Three (3) Stages as follows:

- **Stage 1** – Torrens Title Subdivision, Construction of On-site Detention Basin, Construction of Bioretention Basin and Ancillary Works;
- **Stage 2** – Torrens Title Subdivision, Dam Filling, Partial Construction of New Road and Ancillary Works;
- **Stage 3** – Torrens Title Subdivision, Partial Construction of New Road and Ancillary Works.

Owner: Bradley Hayden Carpenter and Seung Hee Carpenter

Zone: The subject land is contained within both the R2 Low Density Residential zone pursuant to Wollondilly LEP 2011.

This Statement of Environmental Effects ('SEE') has been prepared by Rein Warry & Co. to support a Development Application ('DA') to Wollondilly Shire Council (WSC) in respect to No.45 Bell Street, Thirlmere (the 'subject site'). The application seeks approval for Torrens Title subdivision of the subject site to create sixteen (16) additional allotments, construction of a new on-site detention basin and bioretention basin, dam filling, partial construction of a new road and ancillary works.

This Statement of Environmental Effects seeks to demonstrate due consideration of environmental issues and addresses those matter considered to be of relevance to this proposal under Section 4.15 of the Environmental Planning and Assessment Act 1979 (EP&A Act 1979). The report details the statutory requirements relevant to this proposal, along with the general merits and impacts of the proposal.

Any environmental concerns not directly covered in this document or which arise during the development will be handled in an appropriate fashion, so as to minimise environmental concerns.

This report should be read in conjunction with the following documents submitted with the DA:

- Plans of the proposed development prepared by Rein Warry & Co. (in 6 sheets (ref.no.7342 dated 25th January 2018);
- Approval for subdivision from Subsidence Advisory NSW;
- Current Certificate of Property Title for Lot 91 DP751270;
- Concept Stormwater and Water Quality Management Report prepared by SEEC (ref.no.170000055-SWM-01 REV00 – dated 29th June 2017);
- Salinity Assessment and Salinity Management Plan prepared by Harvest Scientific Services Pty Ltd (ref.no.201445-3 – dated 22nd June 2015).
- Relevant excerpts from the *Final Traffic Assessment* prepared by Cardno (ref. no. FR110052 dated 21st September 2011) on behalf of WSC for the PTT rezoning application;
- Relevant excerpts from the *Initial Contamination Assessment* prepared by Cardno (ref. no.110052 – LJ2780 dated July 2012) for WSC as part of the PTT rezoning application;
- Relevant excerpts from the *Infrastructure Investigations* prepared by TCG Planning (dated 10th January 2007) on behalf of WSC for the PTT rezoning application.

2.0 DESCRIPTION OF SITE & LOCALITY AND DEVELOPMENT

2.1 The Site



Figure 1: Aerial Image of No.45 Bell Street, Thirlmere (highlighted in yellow) - Taken from Six Viewer online 2018.

The subject site is known as No.45 Bell Street, Thirlmere being Lot 91 in DP751270. It is located on the south-western side of Bell Street, and comprises the south-eastern corner allotment to the intersection of Bell Street and Thirlmere Way. The site contains a total area of 1.292ha, with a frontage of 161.354m to the south-western side of Bell Street, and 111.82m to the eastern side of Thirlmere Way.

The subject site is contained within the South Thirlmere Residential Precinct (STP), which comprises part of the Picton, Thirlmere and Tahmoor (PTT) Urban Release Area previously subject to a successful rezoning application. Prior to the PTT Rezoning the subject site was contained in the RU4 Rural Small Holdings Zone, however is now included within the R2 Low Density Residential Zone pursuant to current WLEP2011 Land Zoning Maps.

Current improvements at the site comprise a single-storey residential dwelling located towards the eastern corner of the site, as well as two dilapidated shed structures located in the southern corner (see figure 2 and 3). An earth dam is also located on-site towards the south-western corner of the property. Scattered vegetation exists on the north-eastern property boundary along the site frontage to Bell Street. Small areas of vegetation are also found along the southern boundary, in the south western corner of the site, along parts of the western boundary and to the rear of the existing dwelling.

The site contains an identified “Blue Line” indicating a watercourse (see Figure 4), however in practical terms this “Blue Line” only comprises a minor depression in the contours of the land with no continual flow of water or definable natural banks. This

watercourse is however identified on Council's *Natural Resources – Water* mapping under WLEP2011 as having a 10m buffer for development.



Figure 2: Enhanced aerial image of No.45 Bell Street, Thirlmere (highlighted yellow). Taken from Six Viewer online 2018.



Figure 3: Further enhanced aerial image of No.45 Bell Street, Thirlmere (highlighted yellow). Taken from Six Viewer online 2018.

Access to the site is from the south-western side of Bell Street via an unsealed driveway. Bell Street is a two-way bitumen-sealed road with a relatively low traffic-volume. Kerb and gutter is only constructed along the north-eastern side of Bell Street, with no kerb and gutter infrastructure constructed along the frontage of the subject site. Sight distance from the current access driveway exceeds 140m to the north-west towards the intersection of Bell Street and Thirlmere Way. Sight distance to the south-east exceeds 250m towards the intersection of Bell Street and Dennis Street. Considering that Bell Street has a speed limit of 50km/h and relevant traffic environment and conditions, it is considered that the subject site has adequate sight distance for the safe ingress/egress of vehicles.

The subject site is relatively flat with a gentle fall of between 0-5% towards the north-western corner.

The site is located within the Bargo Mine Subsidence District.



Figure 4: Topographic Image of No.45 Bell Street, Thirlmere (highlighted in yellow) - Taken from Six Viewer online 2018.

2.2 Locality & Surrounding Development

The site is located within an area of Thirlmere in Wollondilly Shire which largely exhibits both rural and low-density residential development. However as the site is located within the South Thirlmere PTT Precinct and also in close proximity to the PTTAG rezoning area, it is anticipated that both large lot residential and low-density residential development will increase. As a result of the PTTAG and the PTT rezoning, the surrounding area will undergo a transformation into a mostly residential area.

Current adjoining land uses to the subject site are as follows:

| Direction | Address | Development |
|-------------------------|--|--|
| Opposite to north | Multiple low-density residential allotments. | Established residential area |
| Adjoining to South East | 25 Bell Street Lot 92 DP751270 | Residential Use. Also part of South Thirlmere PTT Precinct. |
| Adjoining to South | 50 Jarvis Street Lot 110 DP751270 | Residential Use. Also part of South Thirlmere PTT Precinct. |
| Opposite to West | 296 Thirlmere Way Lot 88 DP751270 | Residential Use. Also part of South Thirlmere PTT Precinct. |

All essential services including electricity, underground telephone connection, reticulated water and sewage services will be required to be extended and augmented for the subject development. Appropriate arrangements and associated certification will be undertaken to ensure connection to all of these essential services, as will be required in order to obtain a Subdivision Certificate for this proposal. Appropriate arrangements and measures will be implemented during any physical works relating to essential utility services connection to avoid adverse impacts, with specific details regarding this to be dealt with as part of later stages of development pending Council approval of this DA.

The surrounding road network is well established and will have the capacity to accommodate anticipated traffic movement resulting from this proposal. It is noted however that this proposal will include infrastructure upgrades to relevant sections of Bell Street and Thirlmere Way, and includes the part construction of a new connection road between Dennis Street and Antill Street (described in Section 3 below). This will help further accommodate traffic from this proposal and provide additional linkages within the surrounding road network. Please refer to Part 5.1 of this SEE for further comments regarding road network infrastructure for this development.

The subject site is located approximately 1km travelling distance to the south west of Thirlmere Town Centre which offers some essential services and facilities to meet the requirements of local residents. The site is also located only 2.7km travelling distance to the north west of Tahmoor Town Centre which offers a wider range of social, commercial and recreational services and facilities for the surrounding community.

3.0 PROPOSED DEVELOPMENT

The application seeks approval for the seventeen (17) lot Torrens Title subdivision of the subject site to be undertaken across three (3) stages, resulting in the creation of sixteen (16) additional residential allotments. The proposal will also include the construction of a new on-site detention basin and bioretention basin, dam filling, partial construction of new road and ancillary works. Details of the subject proposal are provided as follows:

Stage 1:

- ❖ Seven (7) Lot Torrens Title Subdivision;
- ❖ Construction of On-site Detention Basin;
- ❖ Construction of Bioretention Basin; and
- ❖ Ancillary Works.

Stage 2:

- ❖ Seven (7) Lot Torrens Title Subdivision;
- ❖ Dam Filling;
- ❖ Partial Construction of New Road; and
- ❖ Ancillary Works.

Stage 3:

- ❖ Five (5) Lot Torrens Title Subdivision;
- ❖ Partial Construction of New Road; and
- ❖ Ancillary Works.

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Stage 1

❖ **Seven (7) Lot Torrens Title Subdivision**

Stage 1 will include the subdivision of the subject site to create six (6) residential allotments and one (1) residue allotment, to create a total of seven (7) additional allotments.

Details of proposed allotments are provided as follows:

| LOT | AREA (SQM.) |
|------------------------|--|
| 911 | 1092m ² *Will contain the existing dwelling. |
| 912 | 681.3m ² |
| 913 | 681.2m ² |
| 914 | 681.0m ² |
| 915 | 680.9m ² |
| 916 | 964.9m ² *Will contain the on-site detention basin/ bioretention basin as described below. |
| <i>Residue Lot 910</i> | 8144m ² |

Additional Stage 1 Subdivision Notes:

- All proposed residential allotments in Stage 1 will be relatively regular in shape;
- All proposed allotments in Stage 1 will have vehicle access from the southern side of Bell Street;
- A 1.5m wide Easement to Drain Water will be created along the southern boundary of proposed Lots 912 – 915 within Residue Lot 910 as part of an interallotment drainage system, which will connect to a 3m wide Easement to Drain Water linking to the proposed On-site Detention Basin/Bioretention Basin to be contained in proposed Lot 916.

Please refer to Sheets 2 and 3 in the accompanying plans prepared by Rein Warry & Co. for further details of proposed subdivision development in Stage 1 of this DA.

Proposed Title

Torrens Title.

❖ Construction of On-site Detention Basin (OSD)

Stage 1 of this proposal will include the construction of an above ground On-site Detention Basin (OSD), which will comprise an area of approximately 400m² and will be contained within proposed Lot 916 to be created in Stage 1. The OSD is being proposed as part of measures to be implemented to ensure that post-development stormwater flows do not exceed pre-development flow levels. This measure is included as one of the recommendations included in the accompanying Concept Stormwater and Water Quality Management Report prepared by SEEC (ref.no170000055-SWM-01 REV00 – see Section 6.2.5 and Appendix C to the SEEC report). It will be constructed using a combination of an earth berm and block retaining wall. Discharge from the OSD will be controlled via a discharge control pit fitted with an orifice plate.

The proposed OSD will involve works taking place within 40m of a “Blue Line” (indicating a watercourse) identified by NSW Office of Water, this being the on-site watercourse also identified on Council’s *Natural Resources – Water* mapping under WLEP2011 as having a 10m buffer for development. As such, a Controlled Activity Approval (CAA) will be required from the NSW Department of Primary Industries (Water) in accordance with the Water Management Act 2000.

Please see further details provided in the accompanying Concept Stormwater and Water Quality Management Report prepared by SEEC (ref.no170000055-SWM-01 REV00) and plans for this DA prepared by Rein Warry & Co.

Further specific engineering details for these works will be dealt with as part of later stages of development pending Council approval of this DA.

❖ Construction of Bioretention Basin

Stage 1 of this proposal will also include the construction of a new bioretention basin, which will be contained within the above described OSD within proposed Lot 916 created in Stage 1. This is again being proposed as part of measures to help manage post-development stormwater flows, and is also one of the recommendations provided in the accompanying Concept Stormwater and Water Quality Management Report prepared by SEEC (ref.no170000055-SWM-01 REV00 – see Section 6.2.6 and Appendix C to the SEEC report). The proposed bioretention basin will also involve works requiring a Controlled Activity Approval (CAA) from the NSW Department of Primary Industries (Water) in accordance with the Water Management Act 2000.

Please see further details provided in the accompanying Concept Stormwater and Water Quality Management Report prepared by SEEC (ref.no170000055-SWM-01 REV00) and plans for this DA prepared by Rein Warry & Co.

Ancillary Works – Stage 1:

○ Civil Road Infrastructure Works

Stage 1 will include road infrastructure upgrade works for the frontage of proposed Lots 911-916 to the southern side of Bell Street. This will include the construction of kerb and guttering, drainage infrastructure as well as footpath/pathway infrastructure where appropriate and necessary.

It is noted that these works will require the removal of existing vegetation along the southern side of Bell Street. This is in-line with the expected residential development of the subject site and surrounding area and is necessary to allow the future residential use of the site and the necessary provision of utility and road infrastructure. Part of this vegetation to be removed is identified of Council's Biodiversity mapping under WLEP2011. Please refer to the comments provided in relation to WLEP2011 Clause 7.2 *Biodiversity protection* in Section 4.2 of this SEE, for further details.

Civil infrastructure works in Stage 1 will involve works within 10m and 40m of the identified "Blue Line" (indicating a watercourse) on site and so will require Controlled Activity Approval (CAA) from the NSW Department of Primary Industries (Water) in accordance with the Water Management Act 2000.

Please refer to Sheet 6 in the accompanying plans prepared by Rein Warry & Co. for initial details of proposed road infrastructure works across the three (3) stages of this DA. Specific design and appropriate management measures for these works will be detailed at the Construction Certificate ('CC') Stage of development pending Council approval of this DA.

- Removal of Old Sheds

Stage 1 will include the removal of old shed structures located in the southern corner of the subject site. These sheds comprise timber and metal structures, and are not known to contain hazardous materials. Despite this, appropriate measures will be implemented prior, during and post demolition works to ensure adverse impacts do not result regarding waste, dust, etc. All demolition materials are to be removed off-site for appropriate disposal. Please refer to the Waste Management Plan (WMP) provided at **Annexure A** for further details.

Stage 2

❖ Seven (7) Lot Torrens Title Subdivision

Stage 2 will include the subdivision of Residue Lot 910 created in Stage 1 to create a further six (6) residential allotments and one (1) residue allotment, to create a total of seven (7) additional allotments in this Stage.

Details of proposed allotments are provided as follows:

| LOT | AREA (SQM.) |
|-----------------|--|
| 917 | 528.7m ² *South-eastern corner allotment to the intersection of Bell Street and Thirlmere Way. *Will have dedicated 4x4m splay to this intersection. *Contains 1.5m wide Easement to Drain Water – see accompanying plans by Rein Warry & Co. |
| 918 | 500.6m ² |
| 919 | 849.5m ² |
| 920 | 731.8m ² |
| 921 | 596.3m ² |
| 922 | 475.4m ² *North-eastern corner allotment to the intersection of Thirlmere Way and the new connection road between Antill Street and Dennis Street to be partially constructed in Stage 3 (further described below). *Will have dedicated 4x4m splay to this new intersection. |
| Residue Lot 923 | 4412m ² |

Additional Stage 2 Subdivision Notes:

- All proposed allotments in Stage 2 will be relatively regular in shape;
- All proposed allotments in Stage 2 will have vehicle access from the eastern side of Thirlmere Way;
- A 3m wide Easement to Drain Water linking to the proposed On-site Detention Basin and Bioretention Basin (to be contained in proposed Lot 916 created in Stage 1) will be provided along the eastern boundary of proposed Lot 919-921, forming part of an interallotment drainage system.

Please refer to Sheets 2 and 4 in the accompanying plans prepared by Rein Warry & Co. for further details of proposed subdivision development in Stage 2 of this DA.

Proposed Title

Torrens Title.

❖ Dam Filling

As mentioned in Section 2.1 of this SEE the subject land contains an earth dam located in the western corner of the site. The dam currently sits in the location of proposed Lot 922 (created in Stage 2), Lot 924 (created in Stage 3) and the proposed partial new road to be constructed as part of this DA. As such, the dam will be required to be removed in order to allow this proposed subdivision development to take place. The dam will be filled using either appropriate on-site material or imported classified VENM, and re-established to its original surface. There will be no imported fill used in these activities, with the dam area to be appropriately compacted. The location of the filled dam area will not be used for future dwelling construction unless appropriately certified.

Dam filling works in Stage 2 will involve works within 10m and 40m of the identified "Blue Line" (indicating a watercourse) on site and so will require Controlled Activity Approval (CAA) from the NSW Department of Primary Industries (Water) in accordance with the Water Management Act 2000.

❖ Partial Construction of New Road

Stage 2 will include the proposed partial construction of the new connecting road between Antill Street and Dennis Street. This will comprise the half width construction of the new road for the length of the southern boundary frontage of proposed Lot 922 created in this Stage. The remaining part of the new road fronting the southern boundary of the subject site will be constructed in Stage 3 (see description below). Please refer to accompanying plans by Rein Warry & Co. (Sheet 6) for further details. Specific design and appropriate measures for works will be detailed in the Construction Certificate ('CC') Stage of development pending Council approval of this DA.

Ancillary Works – Stage 2:

- Civil Road Infrastructure Works

Stage 2 will include road infrastructure upgrade works for the full length of the frontage of the subject site to Thirlmere Way, and also the corner and frontage of proposed Lot 917 to Bell Street and the corner and frontage of proposed Lot 922 to the new connection road between Antill Street and Dennis Street. This will include the construction of kerb and guttering, drainage infrastructure as well as footpath/pathway infrastructure where appropriate and necessary.

It is noted that these works will also require removal of existing vegetation along the site frontage to Thirlmere Way. This vegetation to be removed is identified of Council's Biodiversity mapping under WLEP2011. Please refer to the comments provided in relation to WLEP2011 Clause 7.2 *Biodiversity Protection* in Section 4.2 of this SEE for further details.

Please also refer to Sheet 6 in the accompanying plans prepared by Rein Warry & Co. for initial details of proposed road infrastructure works across the three (3) stages of this DA. Specific design and appropriate management measures for these works will be detailed at the Construction Certificate ('CC') Stage of development pending Council approval of this DA.

- Landscaping

Landscaping will be undertaken as appropriate and necessary in the form of Street Tree Planting for that part of the new road to be constructed in Stage 2. Specific design details for landscaping in Stage 2 will be dealt with at the Construction Certificate ('CC') Stage of development pending Council approval of this DA.

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Stage 3

❖ Five (5) Lot Torrens Title Subdivision

Stage 3 will include the subdivision of Residue Lot 923 created in Stage 2 to create five (5) residential allotments.

Details of proposed allotments are provided as follows:

| LOT | AREA (SQM.) |
|-----|---------------------|
| 924 | 681.3m ² |
| 925 | 681.3m ² |
| 926 | 681.3m ² |
| 927 | 681.3m ² |
| 928 | 818.2m ² |

Additional Stage 3 Subdivision Notes:

- All proposed allotments in Stage 3 will be relatively regular in shape;
- All proposed allotments in Stage 3 will have vehicle access from the northern side of the new connection road between Antill Street and Dennis Street which will be partially constructed as part of proposed Stage 3 works (see below);
- A 1.5m wide Easement to Drain Water linking to the proposed On-site Detention Basin and Bioretention Basin (to be contained in proposed Lot 916 created in Stage 1) via an interallotment drainage system will be created along the northern boundary of proposed Lot 924-927

Please refer to Sheets 2 and 5 in the accompanying plans prepared by Rein Warry & Co. for further details of proposed subdivision development in Stage 2 of this DA.

Proposed Title

Torrens Title.

❖ Partial Construction of New Road

Stage 3 will include the proposed partial construction of the new connecting road between Antill Street and Dennis Street for the length of the southern boundary frontage of allotments created in this Stage. This will comprise the half width construction of the new road for this frontage length. Construction of the remaining part of the new road will be carried out by other landowners in the STP with land facing onto this new connecting road. This half width road will be constructed to service all allotments created in Stage 3 with vehicular access and necessary utility

services to be provided. Partial road construction works in Stage 3 will also include the construction of kerb and guttering, drainage infrastructure as well as footpath/pathway infrastructure where appropriate and necessary.

Please refer to Sheet 6 in the accompanying plans prepared by Rein Warry & Co. for initial details of proposed road infrastructure works across the three (3) stages of this DA. Specific design and appropriate management measures for these works will be detailed at the Construction Certificate ('CC') Stage of development pending Council approval of this DA.

Ancillary Works – Stage 3:

- Landscaping

Landscaping will be undertaken as appropriate and necessary in the form of Street Tree Planting for that part of the new road to be constructed in Stage 3. Specific design details for landscaping in Stage 3 will be dealt with at the Construction Certificate ('CC') Stage of development pending Council approval of this DA.

Encumbrances on Title

The encumbrances, if any, are shown on the Title of the subject land, a copy of which accompanies this application.

4.0 RELEVANT PLANNING CONTROLS AND POLICIES

4.1 Integrated Development Provisions of EP&A Act 1979

MINE SUBSIDENCE

The subject land has also been identified as being included within Bargo Mine Subsidence district. An approval for subdivision has been granted from the Subsidence Advisory NSW and accompanies this application.

WATER PROTECTION

This proposal will involve works taking place within 40m of a "Blue Line" (indicating a watercourse) identified by NSW Office of Water. As such, a Controlled Activity Approval (CAA) will be required from the NSW Department of Primary Industries (Water) in accordance with the Water Management Act 2000.

4.2 Wollondilly Local Environmental Plan 2011 (WLEP 2011)

The relevant aims and objectives of WLEP2011 to the subject proposal are provided under Clause 1.2 of this plan, and are as follows:

1.2 Aims of Plan

(2) The particular aims of this Plan are as follows:

- a) to provide for the management of natural resources and the protection of the natural landscape character,*
- b) to protect, conserve and enhance the built, landscape and Aboriginal cultural heritage,*
- c) to protect water quality in land that is situated within water supply catchments,*
- d) to encourage development that provides for an integrated transport and infrastructure system and adequate facilities and service provision for future growth,*
- f) to maintain the separation between towns and villages to retain their unique character and rural and natural settings.*

It is considered that the subject proposal is consistent with the above relevant aims of WLEP2011. This proposal seeks to create sixteen (16) additional residential allotments within an Urban Release Area in a manner which is consistent and compatible with the expected use of the subject land and surrounding area both now and into the future. This is also supported by the recent rezoning of the subject land for the specific purpose of providing increased residential accommodation within this location of the Shire.

The subject land is not attributed to any significant landscape or heritage values, and is not located within a physical catchment for any water supply dam operated by Sydney Water. The site is acknowledged to contain minor areas of vegetation value which will be affected by this subdivision proposal. However vegetation removal in this DA will only essentially be undertaken for the provision of civil and road infrastructure as required for subdivision development undertaken within the South Thirlmere PTT. This DA will also involve works within 10m and 40m of the identified "Blue Line" (indicating a watercourse) on site and so will require Controlled Activity Approval (CAA) from the NSW Department of Primary Industries (Water) in

accordance with the Water Management Act 2000. It is again noted that in practical terms in the on-site watercourse better resembles an intermittent drainage line with no continual flow or defined riverbanks.

This proposal is considered to be the most appropriate and efficient use of this now available residential land resource given its location within a PTT residential precinct, and will reduce the future need to expand residential development into non-residential areas of other value within the Shire. Of the varying options for development of the subject land, the type proposed in this application is considered to achieve the most logical, practical and efficient outcome, both for the natural and social environment of the locality. It is also within the expectations for this rezoned residential land and will act as a significant contribution to the future housing needs of the shire.

This proposal also includes the part construction of a new connecting road between Dennis Street and Antill Street which will help provide additional road infrastructure to support the transport needs of future development within the South Thirlmere PTT Precinct. It will also include upgrades to road infrastructure along Thirlmere Way and Bell Street for those sections fronting the subject site.

This proposal does not directly provide for improved public transport, however significant developments such as this and those to take place within the STP and other precincts within the PTT and PTTAG will further warrant the validity and justification for such improvements in the local area and Shire in the future.

Therefore we submit that subject proposal is generally consistent with, and in no way hinders the attainment of, the aims and objectives of Wollondilly LEP 2011.

Zone Objectives

The subject land is contained within both the *R2 Low Density Residential Zone* pursuant to WLEP2011.

The proposal is consistent with the relevant objectives for both relevant zones, which are as follows:

- ***R2 Low Density Residential Zone***
 - *To provide for the housing needs of the community within a low density residential environment.*

Comment: This residential development will result in the creation of sixteen (16) additional allotments within a low-density residential environment of Thirlmere in the STP, which will make a significant positive contribution to the housing needs of the local community.

- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*

Comment: This development is not for “other land uses”.

Other Relevant Clauses

2.6 Subdivision

(1) Land to which this Plan applies may be subdivided, but only with development consent.

Comment: The subject proposal seeks development consent for subdivision.

4.1 Minimum subdivision lot size

- 1) *The objectives of this clause are as follows:
 - a) to provide for suitable lot sizes,
 - b) to ensure that the subdivision of land is compatible with the landscape and environmental constraints of the land.*
- 2) *This clause applies to a subdivision of any land shown on the Lot Size Map that requires development consent and that is carried out after the commencement of this Plan.*
- 3) *The size of any lot resulting from a subdivision of land to which this clause applies is not to be less than the minimum size shown on the Lot Size Map in relation to that land.*
- 4) *This clause does not apply in relation to the subdivision of individual lots in a strata plan or community title scheme.*
- 5) *Despite subclause (3), the size of any lot resulting from a subdivision of land in Zone R2 Low Density Residential or Zone R3 Medium Density Residential that is not serviced by a reticulated sewerage scheme must not be less than 975 square metres*

Comment: The Lot Size Maps under WLEP2011 indicates the subject land has a minimum area requirement of 450m² (Category 'G'). All new residential allotments created in this proposal will be in accordance with this applicable minimum lot size requirement.

6.1 Arrangements for designated State public infrastructure

- 2) *Development consent must not be granted for the subdivision of land in an urban release area if the subdivision would create a lot smaller than the minimum lot size permitted on the land immediately before:
 - a) in relation to land shown as "Silverdale" on the Urban Release Area Map—16 September 2005, or
 - b) in relation to land shown as "Wilton" on the Urban Release Area Map—23 February 2007, or
 - c) in relation to any other land—the land became, or became part of, an urban release area,*

unless the Director-General has certified in writing to the consent authority that satisfactory arrangements have been made to contribute to the provision of designated State public infrastructure in relation to that lot.
- 3) *Subclause (2) does not apply to:
 - a) any lot identified in the certificate as a residue lot, or*

- b) *any lot to be created by a subdivision of land that was the subject of a previous development consent granted in accordance with this clause, or*
 - c) *any lot that is proposed in the development application to be reserved or dedicated for public open space, public roads, public utility undertakings, educational facilities or any other public purpose, or*
 - d) *a subdivision for the purpose only of rectifying an encroachment on any existing lot.*
- 4) *This clause does not apply to land in an urban release area if all or any part of the land is in a special contributions area (as defined by section 93C of the Act).*

Comment: An agreement will be entered into with the State Government and relevant department(s) to prepare a Voluntary Planning Agreement ('VPA') to ensure that satisfactory arrangements are made regarding the provision of designated State public infrastructure for allotments proposed to be created in this DA.

6.2 Public utility infrastructure

- 1) *Development consent must not be granted for development on land in an urban release area unless the Council is satisfied that any public utility infrastructure that is essential for the proposed development is available or that adequate arrangements have been made to make that infrastructure available when it is required.*
- 2) *This clause does not apply to development for the purpose of providing, extending, augmenting, maintaining or repairing any public utility infrastructure.*

Comment: The subject land forms part of an Urban Release Area designated for future low-density residential subdivision and subsequently low-density residential development. It is considered that Council in allowing the rezoning for residential purposes must have been satisfied that necessary and appropriate public utility infrastructure will be able to be made available to these sites. Specific connection design details for required utility infrastructure to proposed allotments in this DA will be dealt with as required in obtaining a future Subdivision Certificate.

This DA is not specifically for the purpose of providing extending, augmenting, maintaining or repairing public utility infrastructure.

7.1 Essential services

- 1) *Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the proposed development are available or that adequate arrangements have been made to make them available when required:*
 - a) *the supply of water,*
 - b) *the supply of electricity,*
 - c) *the disposal and management of sewage.*

Comment: The provision of these services will be made by the developer of the subject site. However, in actively pursuing the rezoning of the subject site and adjoining land Council had to form the view that such services if not available could

be made available. Therefore, Council can grant consent to this development knowing that these essential services can be provided. Furthermore, during the PTT rezoning process, consultation was carried out with the relevant service authorities that confirmed that these services could be extended generally to the South Thirlmere Precinct. As such, all services listed above will be required to be extended and augmented for the subject development. Appropriate arrangements will be made to ensure connection to these essential services as would be required to obtain a Subdivision Certificate.

7.2 Biodiversity protection

- 1) *The objective of this clause is to maintain terrestrial and aquatic biodiversity including:*
 - a) *protecting native fauna and flora, and*
 - b) *protecting the ecological processes necessary for their continued existence, and*
 - c) *encouraging the recovery of native fauna and flora and their habitats, and*
 - d) *protecting water quality within drinking water catchments.*
- 2) *This clause applies to land identified as “sensitive land” on the Natural Resources—Biodiversity Map.*
- 3) *Before determining a development application for land to which this clause applies, the consent authority must consider any adverse impact of the proposed development on the following:*
 - a) *native ecological communities,*
 - b) *the habitat of any threatened species, populations or ecological community,*
 - c) *regionally significant species of fauna and flora or habitat,*
 - d) *habitat elements providing connectivity,*
 - e) *water quality within drinking water catchments.*
- 4) *Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:*
 - a) *the development is designed, sited and will be managed to avoid any adverse environmental impact, or*
 - b) *if that impact cannot be avoided—the development is designed, sited and will be managed to minimise that impact, or*
 - c) *if that impact cannot be minimised—the development will be managed to mitigate that impact.*

Comment: The subject land is identified on Council's *Natural Resources – Biodiversity* mapping under WLEP2011. This mapping affects the northern and western boundaries of the subject (see Figure 5) and covers the vegetation currently located along these site boundaries. In order to provide necessary road and utility infrastructure to the proposed subdivision development, this identified vegetation will require removal as part of this DA.

Despite being identified on Council's biodiversity mapping, in practical terms this vegetation only represents minor, disturbed and isolated biodiversity values (see Figures 6-8). This is particularly the case when taking into account the amount of vegetation clearing (including vegetation identified on Council's biodiversity mapping)

which has taken place on surrounding land to the subject site for residential subdivision development in recent times.



Figure 5: Excerpt from *Natural Resources – Biodiversity* mapping under WLEP2011 showing the subject site (outlined red) as containing environmentally sensitive vegetation (shaded green). This vegetation is however in reality very scattered, disturbed and isolated and at the time of submission of this DA does not comprise significant biodiversity or other environmental value. It is these areas of identified vegetation which will require removal for the provision of road and civil infrastructure as part of this proposal. Image edited by VWarry 2018.



Figure 6: Image looking at vegetation located in the northern corner of the subject site in proximity to the intersection of Thirlmere Way (indicated purple arrow) and Bell Street (indicated red arrow). Again, this vegetation is very disturbed and isolated, and with the removal the majority of vegetation on surrounding land and particularly on the opposing side of Thirlmere Way; it now represents little environmental value. This vegetation requires removal in order to provide road and civil infrastructure to residential development in the South Thirlmere PTT Precinct which is allowable under relevant controls included in DCP2016. Image taken from *Google Street online* 2018 – edited by VWarry 2018.



Figure 7: Image looking at vegetation located on the western boundary of the subject site along the frontage to Thirlmere Way (indicated purple arrow) which is all identified on Council's *Natural Resources – Biodiversity* mapping under WLEP2011. Again, this vegetation is very disturbed and isolated, with some biodiversity mapped areas along this boundary not even including any actual vegetation (see area circled red). With significant clearing already undertaken on surrounding land and particularly on the opposing side of Thirlmere Way, this vegetation along the western site boundary now comprises little environmental value. This vegetation requires removal in order to provide road and civil infrastructure to residential development in the South Thirlmere PTT Precinct which is allowable under relevant controls included in DCP2016. Image taken from *Google Street online* 2018 – edited by VWarry 2018.



Figure 8: Image looking at vegetation located on the northern boundary of the subject site along the frontage to Bell Street which is also identified on Council's *Natural Resources – Biodiversity* mapping under WLEP2011. Again, this vegetation is disturbed and isolated, and requires removal in order to provide road and civil infrastructure to residential development in the South Thirlmere PTT Precinct, which is allowable under relevant controls included in DCP2016. Image taken from *Google Street online* 2018 – edited by VWarry 2018.

Given the rezoning of the subject site and its inclusion within the PTT, it is the nature of works and impact proposed in this DA which are already anticipated and expected in the location of the Shire. It is still however considered that the environmental impact of this DA will be comparatively minor to that felt on surrounding land contained in the PTT.

Again, vegetation removal in this proposal will essentially only be undertaken for the provision of residential utility and roadway infrastructure as required for subdivision development within the South Thirlmere PTT precinct. This form of vegetation removal is stated as permitted under DCP2016 (see DCP2016 Volume 1, Part 9 – Environmental Protection, Control 6).

It is noted that a Flora and Fauna Constraints Survey (ref. no.s5823 dated November 2011) was prepared by Biosis Research for Cardno Rigby Forbes on behalf of WSC as part of the PTT rezoning application. The Flora and Fauna Constraints Survey identifies a total of 116 plant species, 49 of which are introduced species, within the STP. It also however notes that the vast majority of these species occur to the western side of Thirlmere Way – which also comprises land which has been recently largely cleared of vegetation for residential development purposes. This has resulted in the increased isolation of vegetation within the subject site and has significantly diminished the biodiversity connectivity which previously existed in the area. As a stand-alone area of identified biodiversity value, existing vegetation along the northern and western boundaries of the subject site does not hold great environmental significance under current conditions.

The Flora and Fauna Constraints Survey identifies the majority of the STP, including the subject site, as “cleared and disturbed” (see Figure 9) with this being a result of previous clearing practices and subsequent horse agistment and agricultural activities. It is only a small area along the northern and western property boundaries which is identified as *Upper Georges River Sandstone Woodland* (see Figure 9), with this area coinciding with on-site vegetation mapped as environmentally sensitive land under WLEP2011 (see Figure 5).



Figure 9: Excerpt from the PTT *Flora and Fauna Constraints Survey* showing the subject site (boundary shown green) within the STP as being largely “cleared and disturbed”, however also containing minor areas of *Upper Georges River Sandstone Woodland* along the northern and western site boundaries. Edited by VWarry 2018.

The Flora and Fauna Constraints Survey noted that any potential for threatened species of flora or fauna to occur within the STP was likely to be in vegetated areas located west of Thirlmere Way. This potential however was noted as being low. No native mammals were identified across the STP site.

It is noted in the Flora and Fauna Constraints Survey that landscaped areas do provide some foraging for a small number of common bird species, however this will not be adversely impacted by this proposal for subdivision which includes street tree planting and driveway landscaping.

The Flora and Fauna Constraints Survey does identify some threatened flora and fauna species in areas in the vicinity of the STP; however as shown in Figures 4 and 5 in the Flora and Fauna Constraints Survey these species locations are not in close proximity to the subject site.

The Flora and Fauna Constraints Survey also mentions the potential of migratory bird species within the locality of the PTT precincts, however does not note any of the precincts themselves as providing significant habitat.

The Flora and Fauna Constraints Survey provides a range of recommendations with regards to the protection and management of flora and fauna species which will be appropriately considered where relevant during the detailed design process of proposed subdivision, infrastructure and road works and which will be required for consideration as part of any future application for residential development upon allotments created in this proposal. However, given the amount of tree clearance and development which is taking place in those areas identified in these recommendations as being worthy of consideration regarding vegetation maintenance; it is considered that much of the recommendations provided in the Flora and Fauna Constraints Survey are no longer relevant for the STP. The subject site was also only ever identified as having very minor areas of vegetation value and so unlikely to have a significant impact in any case whether the included recommendations were applicable or not.

It is noted that one of the recommendations included in the Flora and Fauna Constraints Survey relates to the provision of stormwater management features such as open drainage, retention or detention basins and permanent ponds designed to include habitat features. This proposal is considered to be in accordance with this specific and still applicable recommendation.

Considering the above, this proposal is not deemed to pose risk of significant biodiversity impacts when taking into account the minor area of biodiversity mapped land contained within the boundaries of the subject site, the amount of vegetation clearance which has already occurred in the surrounding area, and also given that vegetation removal in this DA will be undertaken in order to provide road and civil infrastructure within a PTT precinct rezoned for residential development as proposed.

A copy of the Flora and Fauna Constraints Survey (ref. no.s5823 dated November 2011) prepared by Biosis Research can be provided to Council on request, however it is noted that Council should already be in possession of this document due to the PTT rezoning and previous DA's lodged within the STP.

7.3 Water protection

- 2) *This clause applies to land identified as “sensitive land” on the Natural Resources Water Map.*
- 3) *Before determining a development application for development on land to which this clause applies, the consent authority must consider any adverse impact of the proposed development on the following:*
 - a) *the water quality of receiving waters,*
 - b) *the natural flow regime,*
 - c) *the natural flow paths of waterways,*
 - d) *the stability of the bed, shore and banks of waterways,*
 - e) *the flows, capacity and quality of groundwater systems.*
- 4) *Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:*
 - a) *the development is designed, sited and will be managed to avoid any adverse environmental impact, or*
 - b) *if that impact cannot be avoided—the development is designed, sited and will be managed to minimise that impact, or*
 - c) *if that impact cannot be minimised—the development will be managed to mitigate that impact.*

Comment: The subject site is identified on the Council's *Natural Resources – Water* mapping under WLEP2011 as containing a watercourse requiring a 10m buffer for development (see Figure 10). This relates to the existing “Blue Line” watercourse which transects the site and is identified as *Redbank Creek* (see Figures 11, 12).

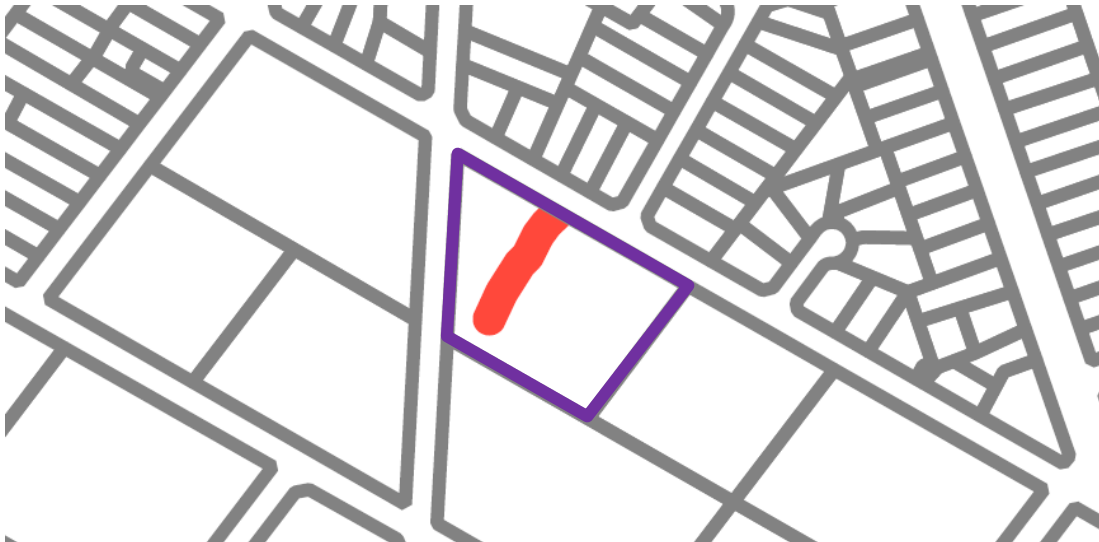


Figure 10: Excerpt from Council's *Natural Resources – Water* mapping under WLEP2011 showing the subject site (outlined purple) having a watercourse requiring a 10m buffer for development (indicated red line). Edited by VWarry 2018.

The identified watercourse in practical terms comprises a highly disturbed minor depression in the contours of the land with no definable natural banks. This depression connects to the on-site dam and drains to a low point in Bell Street.



Figure 11: Topographic Image of No.45 Bell Street, Thirlmere (boundary red/shaded yellow) which identifies the on-site “Blue Line” indicating a watercourse. As can be seen, this “Blue Line” is identified as part of Redbank Creek. Taken from Six Viewer online 2018.



Figure 12: Layered aerial/topographic image of No.45 Bell Street, Thirlmere (boundary red) which shows the on-site “Blue Line” indicating a watercourse. As can be seen, this “Blue Line” is identified as part of Redbank Creek. This image also begins to demonstrate that the “Blue Line” in reality does not represent an actual functioning watercourse, and simply goes through an open paddock area within the subject site. Taken from Six Viewer online 2018.

The watercourse does not have any surrounding vegetation or embankments, does not have continual flow and does not have any aesthetic qualities. This DA will involve the removal of the on-site dam, as well as the construction of an on-site detention/bioretention basin within proposed Lot 916 which includes that on-site area comprising the identified watercourse. As such, a Controlled Activity Approval (CAA) will be required for this DA from the NSW Department of Primary Industries (Water) in accordance with the Water Management Act 2000, pending Council approval of this DA.

Appropriate measures and design regarding proposed physical works at the subject site will be undertaken to ensure that permanent adverse impacts are avoided regarding water protection, as well as erosion and sediment control. Details relating to this (in particular relation to the on-site detention basin) are provided in the accompanying Concept Stormwater and Water Quality Management Report prepared by SEEC (ref.no170000055-SWM-01 REV00). Further details are also provided in accompanying plans prepared by Rein Warry & Co. Specific design and management details will be dealt with at a later stage of the development process pending Council approval of this DA.



Figure 13: Aerial image of No.45 Bell Street, Thirlmere (boundary red). As can be seen, the area identified in Figures 10-12 above as containing a “watercourse” in practical terms only represents a small depression in an open paddock area and does not comprise a functioning watercourse with continual flow or definable banks. Taken from Six Viewer online 2018 - edited by VWarry 2018.



Figure 14: Image looking at the subject site from Bell Street towards the on-site dam (identified red arrow) and the location of the on-site watercourse. Again, as can be seen the on-site area identified in Figures 10-12 above as containing a “watercourse” in practical terms only represents a small depression in an open paddock area and does not comprise a functioning watercourse with continual flow or definable banks. Taken from Six Viewer online 2018 - edited by VWarry 2018.

4.3 Regional Environmental Plans

- ***SREP N°20 – Hawkesbury-Nepean River (N°2) 1997***

Clause 2 Where this plan applies

- (1) *This plan applies to certain land in the Greater Metropolitan Region that is within the following local government areas:*
*Baulkham Hills, Blacktown, Blue Mountains, Camden, Campbelltown, Fairfield, Gosford, Hawkesbury, Hornsby, Ku-ring-gai, Liverpool, Penrith, Pittwater, Warringah, **Wollondilly**.*

Clause 3 Aim of this plan

The aim of this plan is 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.

Clause 5 General planning considerations

The general planning considerations relevant for this Part are:

- (a) the aim of this plan, and*
- (b) the strategies listed in the Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy, and*

- (c) *whether there are any feasible alternatives to the development or other proposal concerned, and*
- (d) *the relationship between the different impacts of the development or other proposal and the environment, and how those impacts will be addressed and monitored.*

Clause 6 Specific planning policies and recommended strategies

The specific planning policies and recommended strategies for this plan are as follows:

(1) Total catchment management

Policy: Total catchment management is to be integrated with environmental planning for the catchment.

Comment: The size of the land parcel of the subject site is too insignificant for any effect to be made on the surrounding catchment area.

(2) Environmentally sensitive areas

Policy: The environmental quality of environmentally sensitive areas must be protected and enhanced through careful control of future land use changes and through management and (where necessary) remediation of existing uses.

Comment: Noted. See comments provided in relation to WLEP2011 Clause 7.2 *Biodiversity Protection* in Section 4.2 of this SEE. This proposal will not impact upon environmentally sensitive areas along the river.

(3) Water quality

Policy: Future development must not prejudice the achievement of the goals of use of the river for primary contact recreation (being recreational activities involving direct water contact, such as swimming) and aquatic ecosystem protection in the river system. If the quality of the receiving waters does not currently allow these uses, the current water quality must be maintained, or improved, so as not to jeopardise the achievement of the goals in the future. When water quality goals are set by the Government these are to be the goals to be achieved under this policy.

Comment: The proposed development is not expected to adversely affect the quality of the water in the river for recreation purposes.

(4) Water quantity

Policy: Aquatic ecosystems must not be adversely affected by development which changes the flow characteristics of surface or groundwater in the catchment.

Comment: The proposed development is not expected to adversely affect the flow characteristics of surface or ground water. Please see comments provided in relation to WLEP2011 Clause 7.2 *Water Protection* in Section 4.2 of this SEE.

(5) Cultural heritage

Policy: The importance of the river in contributing to the significance of items and places of cultural heritage significance should be recognised, and these items and places should be protected and sensitively managed and, if appropriate, enhanced.

Comment: The subject land has no identified significant heritage value and this proposal will not impact upon items and places of cultural heritage significance with regards to the river.

(7) Flora and fauna

Policy: Manage flora and fauna communities so that the diversity of species and genetics within the catchment is conserved and enhanced.

Comment: Noted. See comments provided in relation to WLEP2011 Clause 7.2 Biodiversity Protection in Section 4.2 of this SEE. This proposal will not impact flora and fauna along the river.

8) Riverine scenic quality Policy: The scenic quality of the riverine corridor must be protected.

Comment: No development is to take place within this riparian buffer. No impact to be made upon the scenic quality of the riverine corridor.

9) Agriculture/aquaculture and fishing

Policy: Agriculture must be planned and managed to minimise adverse environmental impacts and be protected from adverse impacts of other forms of development.

Comment: This proposal is not for agriculture/aquaculture or fishing and as such this sub-clause is not relevant to this application.

10) Rural residential development

Policy: Rural residential development should not reduce agricultural sustainability, contribute to urban sprawl, or have adverse environmental impacts (particularly on the water cycle or on flora or fauna).

Comment: The subject proposal does not relate to rural residential development and so this sub-clause is not applicable.

11) Urban development

Policy: All potential adverse environmental impacts of urban development must be assessed and controlled.

Comment: The proposed development relates to urban development. Appropriate arrangements will be made for the provision of appropriate sewage treatment services to all proposed allotments at the time of subdivision. Sediment migration will be controlled during involved physical works, with specific details relating to this to be dealt with as part of the Construction Certificate Stage of development pending development consent.

12) Recreation and tourism

Policy: The value of the riverine corridor as a significant recreational and tourist asset must be protected.

Comment: This proposal will not adversely affect the riverine corridor for recreational or tourist use.

13) Metropolitan strategy

Policy: Development should complement the vision, goal, key principles and action plan of the Metropolitan Strategy.

Comment: The subject proposal does not propose development which conflicts with the Metropolitan Strategy. The Infrastructure Investigation (dated 10th November 2007) undertaken by TCG Planning on behalf of WSC for the PTT rezoning application included assessment of the PTT and its future residential development in accordance with the Metropolitan Strategy, including relevant Sustainability Criteria which applies to new Greenfield land releases such as the subject proposal. The report states that the PTT areas will introduce new resident and working populations to Wollondilly and will require additional infrastructure, to which this proposal will contribute by way of road and civil infrastructure upgrades and part new road construction. The report however also acknowledges that PTT precincts are generally in proximity to established town centres where access to existing services is available. The report does not identify any significant environmental constraints which would render locations within the PTT precincts as unsuitable, and notes that PTT precincts are consistent with relevant Council strategic adopted plans for the locality. As such, sustainability criteria as identified in the Metropolitan Strategy is satisfied by developments such as that proposed in this application within the South Thirlmere PTT precinct.

- ***Sydney Drinking Water Catchments REP***

The provisions of this REP although they are applicable to Wollondilly Shire area are not considered applicable to this development as the land is not in the physical catchment for any water supply dam operated by Sydney Water.

4.4 Provisions of Wollondilly Development Control Plan 2016 – (DCP 2016)

DCP 2016 applies to development applications for subdivision, demolition, rural, residential, commercial and industrial development. The sections of relevance to this proposal are *Volume 1 – General*, *Volume 2 – Urban Release Areas*, and *Volume 3 – Subdivision of Land*. A table of the relevant provisions is included at **Annexure B**. As can be seen the proposal generally complies with the relevant provisions of DCP 2016.

5.0 ASSESSMENT OF IMPACTS

This development is not designated development pursuant to Schedule 3 Part 1 of EPA Act Regulation 2000 and does not require an Environmental Impact Statement.

5.1 Natural and Built Environment

Context and Setting

The proposed development is considered appropriate regarding the context and setting of the site, and to be in character with the pattern and scale future development in the surrounding locality. This proposed development takes place within the PTT New Urban Lands development area in the South Thirlmere Precinct. This and adjoining land was specifically rezoned from *RU4 Rural Small Holdings* to *R2 Low Density Residential Development* after a long rezoning application process. As such, the nature of low-density residential subdivision development proposed in this DA is in-line with the anticipated and expected nature of development of the site and locality.

The site is located in close proximity to established local centres of Thirlmere and Tahmoor, and contributes to the existing residential area of Thirlmere. These centres when combined offer a large range of services and facilities for the local community.

The subject land does contain areas identified on council's environmentally sensitive mapping under WLEP2011 which will be affected by this DA. However these areas in practical terms only represent minor, isolated and disturbed environmental values, or essentially no environmental value with regards to the on-site watercourse. This is particularly the case in the context of the surrounding area to the subject site being contained in the PTT, which has seen significant vegetation clearing and residential subdivision development works in recent times. Given the rezoning of the subject site and inclusion within the PTT, it is the nature of works and impact proposed which is already anticipated and expected in this location in the Shire, however the environmental impact of this DA will still only be comparatively minor to that already felt on surrounding land contained in the PTT. The subject site is also not attributed to any heritage values.

This form of development, in combination with other developments within the STP and other PTT precincts, will help further establish the residential areas of the shire and reduce the need for further residential expansion into non-residential areas of other value. The subject development is consistent with the relevant R2 Low-Density Residential Zone in that it seeks to create additional residential allotments in a low-density residential environment.

Any future dwellings on allotments created in this proposal will need to be assessed for bulk, height and scale and this can be dealt with as part of any such future development application for this form of development.

Of the varying options for development of the subject land, the type of development proposed in this application is considered to achieve the most logical, practical and efficient outcome. This is the highest and best use that is available for the subject land.

Considering the above, it is anticipated that the proposed development will have an acceptable impact regarding the context and setting of the site and locality.

Access, Transport and Traffic

Under the RMS's "Guidelines for Traffic Generating Developments", additional vehicle movements per day (vpd) are equated at 7.4vpd per new dwelling in regional areas. With the creation of sixteen (16) new allotments in this proposal, this will equate to an additional 118.4vpd. This is an increase which is already anticipated given the residential rezoning of the subject site and surrounding area, and an increase which will be accommodated appropriately into the local and surrounding road network.

Wollondilly Shire Council (WSC) commissioned Cardno to prepare a Final Traffic Assessment (dated September 2011 – relevant excerpts accompany this DA) to determine the impact of development within PTT precincts upon the existing road network in the Shire. The STP is dissected by Thirlmere Way, which is identified in the Final Traffic Assessment as a key route within the Wollondilly Shire major road network. Bell Street, as well as nearby Jarvis Street and Leonard Street to the south all have intersections to Thirlmere Way which will all likely be utilised by future residents of allotments created in this DA.

The Final Traffic Assessment was prepared based upon assumed projections of 17 dwellings being created in the STP by 2016, 111 dwellings by 2021, 303 dwellings by 2026 and continued projections until 2036. It is noted that the total STP lot yield will not exceed 300 allotments, and so will produce far less traffic volume than compared to assumed projections in the Final Traffic Assessment of 610 dwellings by 2036.

However, even based on assumed 2036 projections for the STP in the Final Traffic Assessment and subsequent findings – the relevant intersections to Thirlmere Way of Bell Street, Jarvis Street and Leonard Street are not identified as requiring additional upgrades as a result of future STP residential development, with no network deficiencies noted for any of these intersections (see Figure 15). This proposal only creates an additional sixteen (16) residential allotments and comprises only part of the STP – it is therefore not anticipated to have a significant or otherwise adverse impact on the surrounding road network in terms of vehicle volume or demand on road and traffic infrastructure and safety.

Proposed road and infrastructure upgrades to relevant sections of Bell Street and Thirlmere Way, as well as the partial construction of the new connection road between Antill Street and Dennis Street to be undertaken as part of this DA, will all significantly contribute to improving existing road network infrastructure in this location of the Shire.

Given the moderate traffic volume in the surrounding road network to the subject site, improved and additional road infrastructure works proposed in this DA, the sufficient straight line views available in both directions from frontages of all proposed allotments, as well as the applicable 50km/h speed limit to residential roads in the Shire; it is considered that all proposed allotments in this DA will have sufficient sight stopping distance to allow for safe future vehicle ingress/egress.

Given the above, it is not anticipated that this proposal will result in adverse impacts regarding access, transport and traffic.

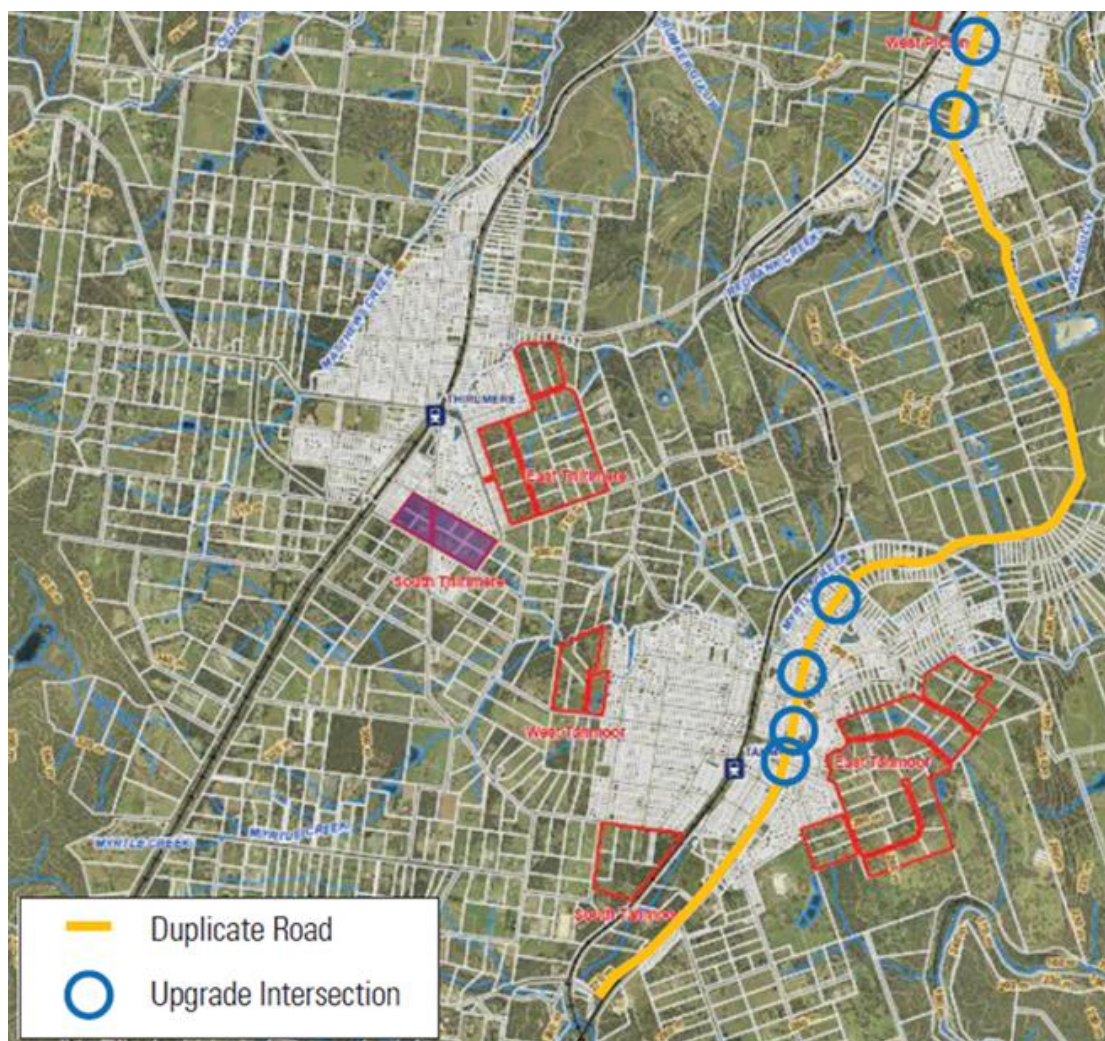


Figure 15: Excerpt from the accompanying Traffic Assessment prepared by Cardno (dated September 2011) showing required future road upgrades for future development in the PTT. The STP (shaded 'purple') containing the subject land is not identified as requiring intersection upgrades to Thirlmere Way as a result of its future residential development and use. Edited by V Warry 2018.

Public Domain

This proposal relates to subdivision, road construction and associated civil works. As such, there will be an impact on the public domain of Bell Street and Thirlmere Way. However given that the land is within an Urban Release Area, the nature of development proposed is that which is both expected and anticipated in the subject locality, as is the future residential development of allotments created in this area of Thirlmere. As such, with appropriate design and management, it is considered that the impact upon the public domain by this proposal is both acceptable and negligible when taking into account the likely future residential development and transformation of the site and surrounding area.

Section 7.11 Contributions under the EP&A Act 1979 will be levied for sixteen (16) residential allotments.

Infrastructure

TCG Planning, on behalf of WSC, prepared an Infrastructure Investigation (dated 10th November 2007) as part of the PTT rezoning application. This investigation assessed the need for expanded/additional infrastructure, as well as issues regarding infrastructure levies associated with the additional population increase and so demand on local infrastructure and services resulting from the PTT rezoning.

The report identifies the STP as being included in the Wollondilly Vision 2025 document at the time it was produced. This proposal is noted to be in-line with themes made specific to residential precincts in Thirlmere and contributes to the future vision of this area by enhancing the existing town character and structure through the provision of additional residential allotments on a site allocated for future residential development and within proximity to Thirlmere local centre. The report notes that development within the proposed precincts will not result in a loss of separation between Picton, Tahmoor and Thirlmere, and will instead likely emphasize the existing proximity between these existing centres.

The Infrastructure Investigation identifies that Wollondilly Shire is not specifically located within the South West Growth Centre and does not contain any “cities” or “centres” with regards to the Metropolitan Strategy. The Infrastructure Investigation does however state that development in the PTT precincts will still benefit from increased facilities and services to be provided for locations within the Metropolitan Strategy. Please see further comments regarding the Metropolitan Strategy under Section 4.3 of this SEE.

It is acknowledged that the Infrastructure Investigation was prepared based on the assumption of the STP having a lot yield of approximately 10-11 dwellings per hectare when developed if the minimum allotment size was 700 m². The subject land was mapped within the 450 m² area and has an expected density of approximately thirteen (13) dwellings per ha. However as a result of the Infrastructure Investigation, a special Infrastructure Levy of approximately \$9000 per new allotment will be payable in addition to the normal Section 7.11 (previously Section 94) Contributions, which will result in a significant infrastructure levy contribution from this subject proposal. These arrangements will be dealt with as part of a Voluntary Planning Agreement (VPA) entered into by the site owner with the NSW Department of Planning.

The Infrastructure Investigation notes that there are no identified significant environmental constraints that would render locations within precincts unsuitable regarding infrastructure provision and access.

It is noted that as part of the consultation process in preparing the Infrastructure Investigation, WSC forwarded correspondence to a range of government agencies and service providers regarding their service capacity, need for upgrades and associated levies relating to the development of the PTT precincts. Advice received at the time the Infrastructure Investigation was prepared indicated that all infrastructure services and facilities would be available to all proposed PTT allotments subject to some level of upgrading. The Infrastructure Investigation includes recommendations for a range of funding mechanisms for necessary upgrades for development within the PTT precincts.

Any additional or expanded infrastructure necessary for the subject proposal can be dealt with as part of the detailed design and application process after obtaining development consent for this DA. Funding arrangements for this proposal will be subject to relevant Section 7.11 (previously Section 94) Contributions and other relevant costs to be borne by the owner of the subject land and development.

Given the above, it is not considered that the subject proposal would have an adverse impact with regards to infrastructure demand and servicing. This is particularly so when considering the road and civil infrastructure upgrades and road construction works included in this proposal. Refer to the relevant excerpts from the PTT Infrastructure Investigation prepared by TCG Planning which accompany this DA.

Utilities

See comments above. All essential services including electricity, underground telephone connection, reticulated water and sewage services will be required to be extended and augmented for the subject development. Appropriate arrangements will be made to ensure connection to these essential services for proposed allotments, as will be required to obtain a Subdivision Certificate. Appropriate arrangements and measures would also be implemented during any related physical works to avoid adverse impacts, with specific details able to be dealt with as part of the Construction Certificate ('CC') Stage of development.

Aquatic Ecology

Please see comments provided in relation to WLEP 2011 *Clause 7.3 Water Protection* in Section 4.2 of this SEE for further details regarding aquatic ecology and this proposed subdivision development.

It is not anticipated that this proposal will result in significant adverse impacts upon aquatic ecology.

Flora and Fauna

Please see comments provided in relation to WLEP2011 *Clause 7.2 Biodiversity Protection* in Section 4.2 of this SEE for further details regarding impacts upon flora and fauna associated with this proposed subdivision development.

It is considered that the impact of the subject proposal regarding biodiversity is negligible in the context of the location and nature of development already taking place.

Contamination

WSC commissioned Cardno to prepare an Initial Contamination Assessment (CA) (ref. no.110052-LJ2780 dated July 2012 – provided at **Annexure H**) in accordance with *SEPP 55 – Remediation of land* for the PTT precincts.

The CA notes that 3 bores are located within a 500m radius of the STP which includes the subject land, with one of these bores included within the STP. This groundwater bore is contained within the subject site, and is also identified in the accompanying Salinity Assessment and Salinity Management Plan (ref.no.201445-3

dated 22nd June 2015) prepared by Harvest Scientific Services Pty Ltd. The Salinity Assessment and Salinity Management Plan however notes that a site specific groundwater investigation is not considered necessary in relation to the identified bore given the landscape of the subject site, its underlying geology and low risk of salinity impacts. Please refer to the accompanying Salinity Assessment and Salinity Management Plan for further comment.

The CA notes that upon undertaking a search of the NSW Office of Environment and Heritage (OEH) "contaminated land record notices", no sites were identified within the search radius of the STP. No identified contaminated sites were located within the search radius of the study area of the STP, with the nearest contaminated site identified by the OEH being the Thirlmere Rail Heritage Museum. However the report notes that given the distance to the study area of the STP, it would be unlikely that known contamination at the museum site would have an impact on development within this precinct or that this development would have an adverse impact on the contaminated site itself.

The CA notes that property searches undertaken show the majority of development applications over land within the PTT precincts largely relate to residential development, tree clearing, boundary adjustments, etc. The report does identify a number of properties in the PTT that may require further investigation as potential contamination sources; however the subject land was not identified in this list.

The CA identifies that the Section 149 Certificates for properties within the PTT precincts did not include significant affectation by contamination.

It is noted that the CA identifies adjoining No.50 Jarvis Street (Lot 110 DP751270) as a potential source of contamination due to agricultural land use, car bodies and potential construction debris. However issues relating to contamination over that property can be dealt with as part of future applications over that land. Appropriate measures will be implemented during all physical works proposed in this development to ensure there is no disturbance of adjoining No.50 Jarvis Street, which can be further specified during the detailed design process for the Construction Certificate application for this DA. The location of the subject site adjoining No.50 Jarvis Street should not be considered an impediment to this development as proposed.

The CA continues to note that upon review of information relating to individual sites within the PTT precincts, the potential for significant contamination appears to be low. The subject site does not generally include those activities or sites listed in the Contamination Assessment as having potential contamination concerns.

The CA provides recommendations including that prior to construction works commencing, or as part of the commencement of construction works, a detailed investigation of contamination in redevelopment areas should be undertaken in accordance with appropriate and relevant guidelines and requirements. The report however also provides recommendation that where risk of contamination is low; a Site Environmental Management Plan to manage unexpected finds (if any) during construction would suffice. It is considered that this second recommendation can be applied to the subject site and development as the land presents little potential for contamination hazard. Details of the Site Environmental Management Plan can be prepared during the Construction Certificate ('CC') stage of the development process.

Considering the above, it is not considered that the subject proposal will result in adverse impact relating to contamination. Please refer to relevant excerpts of the PTT Initial Contamination Assessment prepared by Cardno for further details.

Soil and Water

A Concept Stormwater and Water Quality Management Report (ref.no.170000055-SWM-01 REV00 – dated 29th June 2017) has been prepared for this proposed subdivision development by SEEC and accompanies this DA. Please refer to this accompanying report for further details regarding soil and water management in this DA, as well as details provided on accompanying plans prepared by Rein Warry & Co. It is not anticipated that this proposal will result in adverse or otherwise significant impacts regarding soil and water management.

Salinity

A Salinity Assessment and Salinity Management Plan (ref.no.201445-3 dated 22nd June 2015) has been prepared for the subject proposal by Harvest Scientific Services Pty Ltd which accompanies this DA. This assessment found that the site was subject to low-moderate salinity risks, however with the implementation of modest management practices and precautions as outlined in the report salinity does not present an impediment to the subject development as proposed. Please refer to the accompanying Salinity Assessment and Salinity Management Plan for further details and discussion regarding salinity and this proposal.

Heritage

The subject site is not identified on Council's Heritage Mapping under WLEP2011. It is noted that an *Aboriginal and Historical Heritage Assessment* was previously prepared by Biosis Research (ref. no. s2656 updated July 2012) for Cardno Forbes Rigby on behalf of WSC for the PTT rezoning application, which covers the South Thirlmere PTT precinct containing the subject site. This previous assessment did not identify the subject site as having any aboriginal or European heritage value or significance. The subject site does not adjoin, and is not in close proximity to, any heritage item identified on Heritage Mapping under WLEP2011, which has been prepared and finalised after the completion of numerous heritage studies covering PTT land.

Given the above, it is not anticipated that this proposal will result in adverse or other impacts regarding heritage. A copy of the abovementioned *Aboriginal and Historical Heritage Assessment* can be provided to Council upon request, however it is noted that Council should already be in possession of this document in association with the PTT Rezoning.

Dust

There will be some minor dust generation from the subject development during proposed physical works relating to dam filling, as well as road infrastructure construction. These impacts will only take place during that time which these works are in progress, with appropriate measures relating to dust suppression management to be implemented. Specific details for such measures can be dealt with during the Construction Certificate Phase of development. It is not anticipated that this proposal will result in adverse impacts relating to dust.

Noise

There will also be some noise generation from the subject development during proposed dam filling, road construction, and other physical works associated with subdivision development. These will again be temporary in nature and only take place during that time which physical works are being undertaken at the site. Measures relating to noise generation during these works can be dealt with as part of conditions of consent for this DA pending Council approval, or otherwise dealt with during the Construction Certificate ('CC') stage of the development.

Waste

Appropriate measures will be in place during all proposed physical works to ensure there are no adverse impacts resulting from waste.

All proposed allotments and any future residential development to take place will be serviced by Council's waste collection contractors.

A Waste Management Plan is provided at **Annexure A** to this SEE.

Natural Hazards

Flooding: The site is subject to localised flooding with this assessed as part of the accompanying Concept Stormwater and Water Quality Management Report prepared by SEEC. With the implementation of appropriate measures regarding catchment and storm water flow management including the provision of the proposed on-site detention basin/bioretenention basin; it is not anticipated that this proposal will result in adverse impacts regarding flooding.

Subsidence: The land is contained within a proclaimed Mine Subsidence District. An approval for subdivision development has been obtained from Subsidence Advisory NSW accompanies this DA;

Slip: We are not aware of any problems associated with land slip at this property.

Bushfire: The subject land is not affected by bushfire prone land.

5.2 Social and Economic Impact

Social and economic impacts of this proposal are considered positive in the local area.

Social impact in the locality

The subject proposal will make available sixteen (16) additional allotments, with an overall expected population increase of sixteen (16) additional families.

This proposal will have a moderate social impact within the locality, this largely relating to an increase in traffic volume in the surrounding road network, and demand on services and facilities. In response however, this proposal includes the construction of road and civil infrastructure along Bell Street and Thirlmere Way, as well as the part construction of a new road, which will positively contribute to servicing the local road network and associated traffic volumes. This development will also include the payment of appropriate infrastructure levies and Section 7.11 (previously Section 94) Contributions as determined by Council.

It is noted that this proposal will also provide a number of positive social impacts. It provides a significant social contribution via facilitating additional residential accommodation opportunities and options. It adds to future housing and land availability, provides a lower cost opportunity for first home buyers and will assist in allowing those first home buyers to get their foot on the property ladder.

The land will have sufficient size and dimensions to allow for adequate separation between existing dwellings in the area and future development to take place on proposed allotments. The scale and nature of development proposed is consistent with the prescribed zoning and minimum lot size of the land, and will help to establish the low-density residential environment of this location.

The proposed development will also provide new students at local schools, with it noted in the Infrastructure Investigation prepared by TCG Planning (dated 10th November 2007) that the local schools now have significantly less enrolments than they did at their peak in the late 1990's. The development will therefore contribute to filling that spare capacity. Within the same Infrastructure Investigation, it is also noted that RailCorp advised that the Southern Highlands line was running under capacity. It is a positive social impact to have more commuters on public transport. This will be supported by this proposed development.

At the time the Infrastructure Investigation was carried out in 2007 the NSW Fire Brigade advised that the PTT study area was outside their jurisdiction as it was zoned rural and therefore came under the NSW RFS. They also suggested that the relocation of local fire services to Bridge Street, Picton would greatly enhance their staff, equipment and response times to all three (3) towns (Picton, Thirlmere and Tahmoor). That relocation has taken place and the Fire Brigade is now capable of handling the additional development. This is a positive social re-assurance that the Fire Brigade is able to meet social concerns. The subject development will have a positive social benefit of having access to an enhanced firefighting service.

In the context of the above, the proposed development is expected to have an overall positive social impact in the locality.

Economic impact in the locality

As previously stated this proposal will make available sixteen (16) additional allotments. This will have a large expenditure of approximately \$2 million during the construction phase, which will have a positive flow-on effect for local tradesman, equipment hire and materials suppliers. Each of the proposed allotments to be created will be capable of hosting a separate dwelling, which will result in a local expenditure of approximately sixteen (16) new dwellings at \$300,000 per dwelling - or over \$4.8million. This proposal will also provide Section 7.11 (previously Section 94) Contributions of approximately \$340,000 and an infrastructure levy of approximately \$150,000. Furthermore, once future dwellings on proposed allotments are constructed and occupied, Council will receive additional rates of approximately \$1500 per dwelling or approximately \$24,000 per annum.

In addition to the above, with the overall population increase of sixteen (16) families, the flow-on effect for nearby commercial centres and retailers in the area will have a weekly household spend of approximately \$500 per week per dwelling. This equates to 16x\$500x52weeks; or an increase in local expenditure of approximately \$416,000.

In the context of the above mentioned, the proposed development is expected to have a significant positive economic impact in the locality.

5.3 Site Design

The layout creates sixteen (16) additional residential allotments. This design will create lots:-

- ✓ Which provide dimensions which are generally consistent with Wollondilly DCP 2016;
- ✓ With lots areas generally in accordance with WLEP 2011 Lot Size requirements;
- ✓ Which are of adequate shape and size to take advantage of innovative solar access for future dwelling design;
- ✓ Which do not impose on the amenity of any existing dwelling or adjoining property;
- ✓ Which will not adversely affect any of the nearby rural residential land uses;
- ✓ Which are not affected by any significant or unmanageable constraint that would otherwise impact future residential land use to take place on allotments created.

5.4 S4.15(1)(c) - the suitability of the site for the development

- No area of the site to be developed exceeds 20% slope;
- The site is located within the South Thirlmere Residential Precinct of the PTT Rezoning area, and has been rezoned from *RU4 Rural Small Holdings* to *R2 Low Density Residential* zoning in order to promote residential development;

- There are no identified constraints which would be considered to prohibit the development as proposed;
- The scope of the development will not lead to unmanageable transport demands;
- The locality contains recreational and community facilities and Council is collecting developer contributions for the maintenance of such areas;
- Utility services will be made available and adequate for the development;
- The land is contained within a proclaimed Mine Subsidence District. An approval for subdivision development has been obtained from Subsidence Advisory NSW accompanies this DA;
- The site is not located within a hazard Bushfire Zone;
- The site is subject to localised flooding with this assessed as part of the accompanying Concept Stormwater and Water Quality Management Report prepared by SEEC;
- The site is not known to be subject to natural hazards including tidal inundation, slip and mass movement;
- There are no hazardous land uses or activities nearby.

5.5 S4.15(1)(d) - submissions

No submissions anticipated to be received in relation to the subject proposal. However, if any are received, we would like to be given the opportunity to address the concerns raised.

5.6 S4.15(1)(e) the public interest

The development of the site for the proposed use is seen as one which:

- Generally satisfies the objectives for the *R2 Low –Density Residential* zone and relevant aims and objectives of WLEP 2011 and REP 2;
- Does not offend the provisions/policy intent of Wollondilly DCP 2016; and
- Further contributes to the residential accommodation needs of the local community and surrounding region.

These provisions cover a wide spectrum of values and outcomes which relate to the public interest. The proposal is in harmony with the surrounding residential and rural setting, local area and environment, and with the achievement of the above values and outcomes will be considered to be in the public interest.

6.0 CONCLUSION

The proposed development (addressed in this Statement) complies with the aims, objectives and requirements of Wollondilly LEP 2011 and DCP2016. The proposal has been considered having regard to the issues listed under Section 4.15 and various other sections of the EPA Act 1979 and is considered satisfactory. The specific constraints of this site and its suitability for the proposed development have been examined and are again considered satisfactory. It is therefore considered that this proposal should be approved by Council.

Yours faithfully

REIN, WARRY AND CO.



Vaughan Warry

