

# **Statement of Environmental Effects**

## **Proposed Earthworks and Drainage Works**

Lot 37 DP 2474

## **Stephenson St Crookwell**

Issue B December 2022

Ref – 2124 Lot37

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## 1. *Introduction*

This report and accompanying development application have been prepared on behalf of Johanna Investment Group Pty Limited for submission to Upper Lachlan Shire Council in accordance with the requirements of the Environmental Planning and Assessment Act 1979.

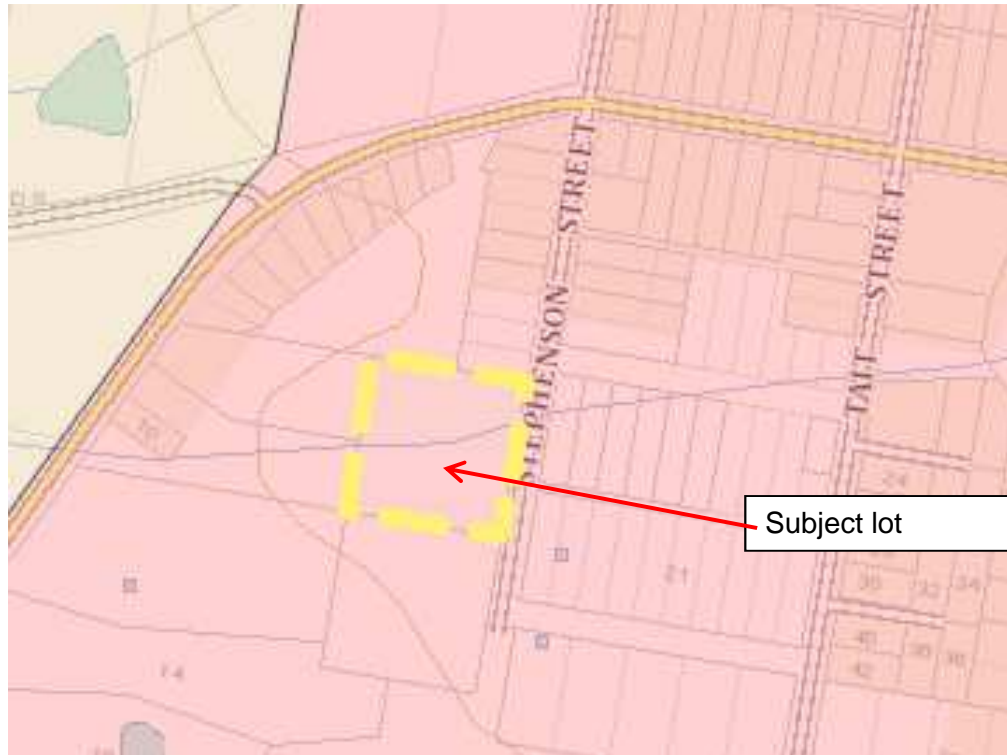
This report addresses issues relevant to the proposed development including the statutory context within which the proposal is to be assessed and any potential environmental impacts.

The application relates to land described as Lot 37 DP 2474 located on the western side of Stephenson St, Crookwell. The proposal is for the carrying out of earthworks and drainage works on the subject land.

The site is located in a residential area of Crookwell. Under Upper Lachlan Local Environmental Plan 2010 the site is located in the R2 Residential Zone with a minimum lot size of 800 sqm.

The site has been substantially excavated many years ago to obtain clay for brick manufacture and the proposal is to undertake earthworks to fill and regrade the site and formalise drainage through the site so as to remediate the excavation works and to then allow for future residential development of the site in accordance with the relevant zone objectives

Refer Civil Development Solutions drawing 2124 CF02 Issue A for the proposed earthworks and drainage arrangements



**Figure 1:** Upper Lachlan LEP 2010 Zoning – R2 Low Density Residential.

## 2. Location and Setting

The site is approximately 1.22 Ha and located on the western side of Stephenson St. Under *Upper Lachlan Local Environmental Plan 2010* the site is located in the R2 Low Density Residential Zone with a minimum lot size of 800m<sup>2</sup>.

The area is an established residential area of Crookwell that is seeing further infill development as a result of subdivision and construction of dwelling on existing lots. It is located approx. 2km from Crookwell's main street shopping and commercial area. Refer Figure 2

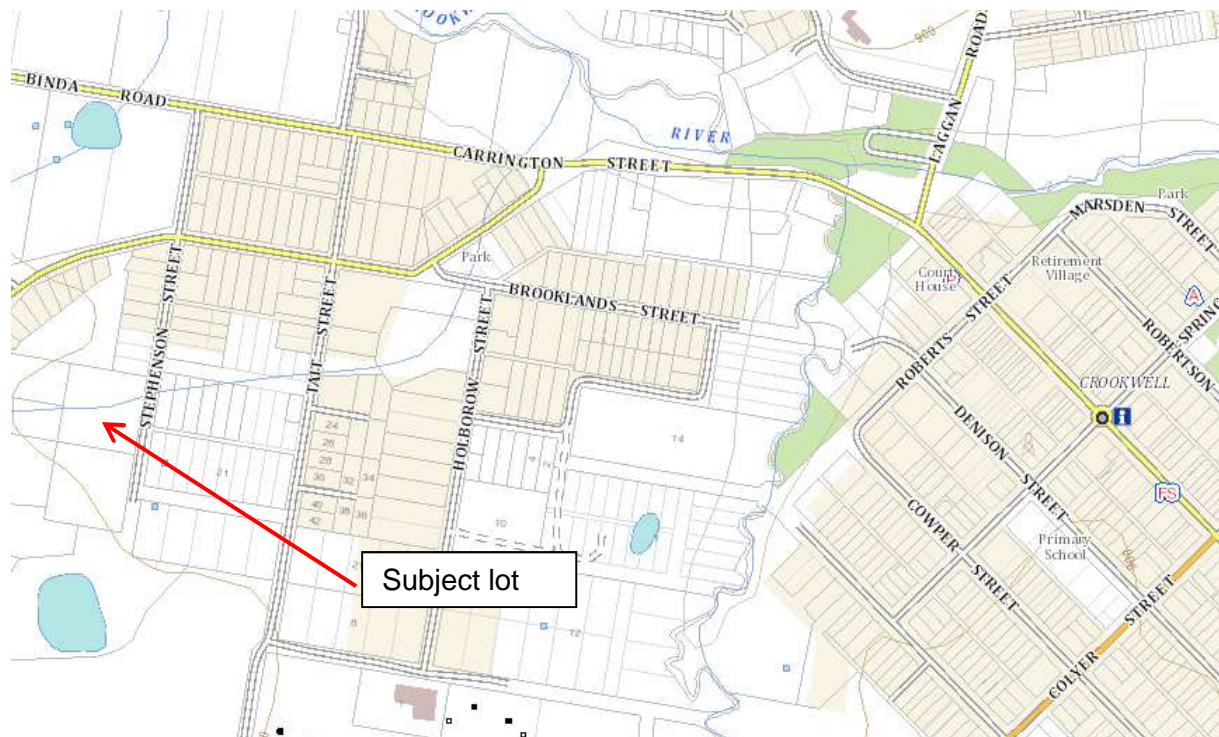


Figure 2 – Sixmaps Topographic

The property is surrounded by a mix of residential lot sizes. Some of the lots are vacant and in consolidated holdings and in use as small lot agricultural.

The site has direct frontage to Stephenson St which is currently an unsealed public road providing access to approximately 10 dwellings and ends approximately 60m to the south of the subject lot.

The site is predominantly cleared and has been highly disturbed many years ago as we understand it was used as a pit to obtain clay for the manufacture of bricks. Steep batters exist along the northern boundary and it also slopes down from the western and southern boundaries. The site is generally lower than Stephenson St along the Eastern Frontage as a result of the excavation – Refer Figure 4

A minor water course traverses the site from West to East however this water course has no defined bed and bank within the site. A secondary excavated channel enters the site from the southern boundary and they converge at the eastern boundary at a low point of Stephenson St. A pipe crossing exists at this location in Stephen St. A further pipe crossing of Stephen St exits at the northern boundary of the site





**Figure 3:** SixMaps Aerial Photo



**Figure 4 –** Photo of the site from Stephenson St – Note the excavated batter along the Northern boundary

### **3. Scope of Development**

The proposal is to undertake earthworks and drainage works to enable the site to be made suitable for future residential development. As a result of the previous excavation of the site it has been left below natural ground level and without areas that cannot be drained properly and are not suitable for future development.

The proposed regrading and drainage arrangement is depicted in CDS drawing 2124CF02 Issue A (refer fig 5). It is intended to fill the majority of the site with natural material so as it grades from west to east and meets the existing level of the road reserve at Stephenson St. this will also allow for the land to match back to the pre-existing natural ground level along the northern boundary

The proposed works will involve earthworks and regrading of the existing site to form an elevated pad that is free from inundation during the 1%AEP flood and allows an expanded use of the site in the future. The proposed works include:

- Fill across the majority of the site, ranging from 0.5 metres near the site boundaries, to 3 metres within the centre portion of the site to form a gently sloping surface towards Stephenson Street
- The construction of swales along the western, southern, northern, and part of the eastern boundary to convey flow entering the site from the west and south to discharge to the culverts under Stephenson Street
- Upgrading of the culvert under Stephenson Street near the south-east corner of the site to a single barrel 0.6m diameter reinforced concrete pipe.

All imported fill material from the site would need to be classified and comply with the requirements for VENM or ENM or otherwise suitable for residential fill under the NSW EPA requirements for material classification.

All fill would need to be placed in accordance with the requirements for controlled fill in AS2870 – Residential Slabs and Footings Standard under supervision of an appropriately qualified geotechnical engineer.

Prior to works commencing detailed drawings should be prepared in conjunction with the engineering design drawings to comply with “Landcom (2004), Managing Urban Stormwater, Soils and Construction Volume 1, 4th Edition”.

The following general measures are to be implemented to prevent erosion and transport of sediment from the site as a result of construction works:

- Upslope earth bank runoff diversion bunds for diversion of clean stormwater around disturbed / construction areas.
- Sediment fences downslope of disturbed areas
- Construction of sediment basins
- Temporary soil stockpiling in nominated stockpiling areas with sediment fences located downhill of all stockpiles.
- Temporary stabilised access constructed at the entrance to the site
- Progressive stabilisation following completion of each work area.



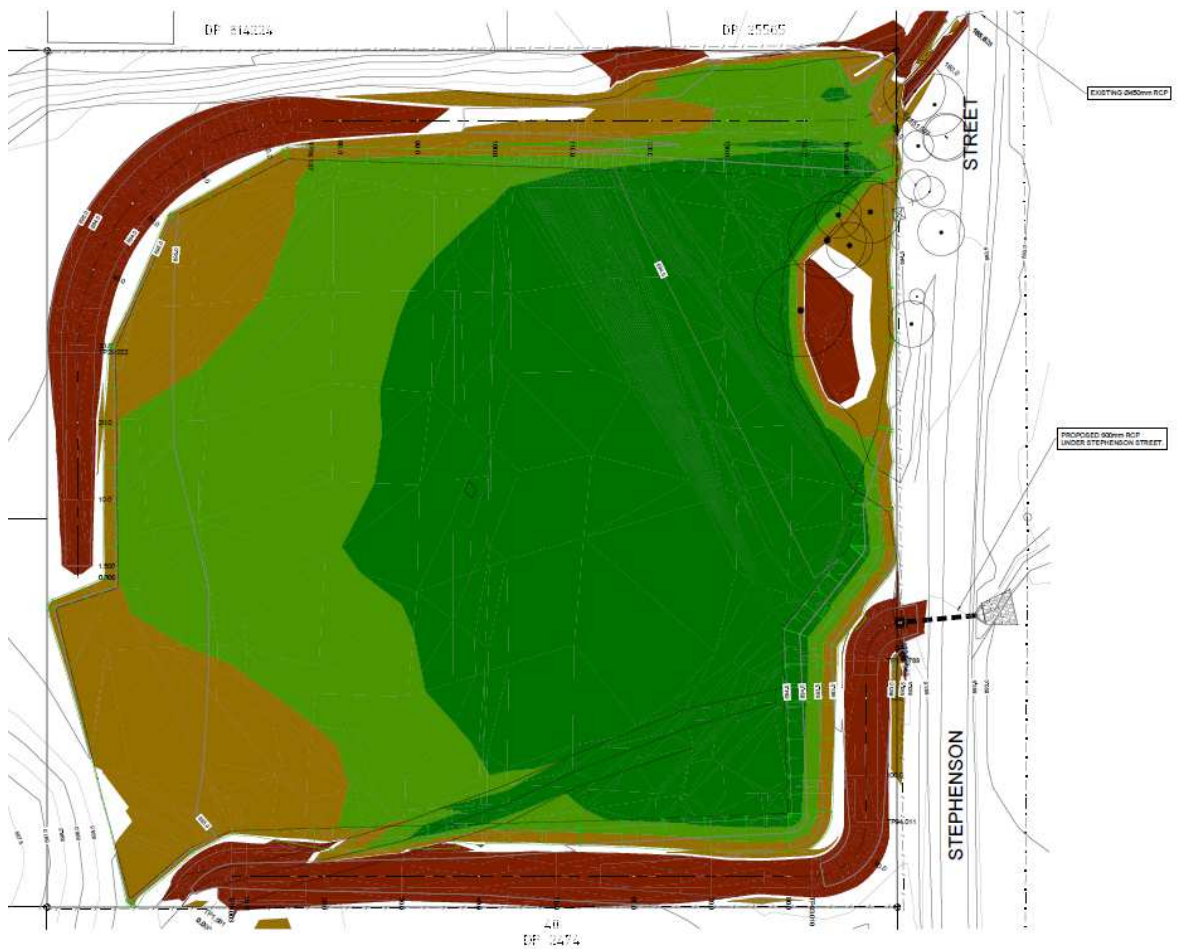


Figure 5 CDS drawing CF02 Iss A

## **4. Planning Controls**

### **Rural Fires Act**

The land is not identified as being within a designated bush fire prone area and it is therefore not subject to consideration under Section 4.46 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in combination with 100B of the Rural Fires Act,

### **Water Management Act 2000**

The WM Act defines waterfront land as the bed of any river, lake or estuary and any land within 40 meters of the river banks, lake shore or estuary mean high water mark. Under the WM Act a controlled activity includes - the erection of a building or the carrying out of a work (within the meaning of the Environmental Planning and Assessment Act 1979).

According to the topographic map the site is traversed by a first order water course and under the requirements of the act approval needs to be sought for the works. It is anticipated that the application will be referred to the Natural Resources Access Regulator (NRAR) for assessment who will determine if a controlled activity approval is required for this work.

### **Upper Lachlan LEP 2010**

The relevant local planning instrument is the Upper Lachlan Local Environmental Plan 2010 (ULLEP2010).

The following sections of LEP are applicable to this application:

#### **Part 2 Permitted or Prohibited Development**

Under the Land Use table the site is within the R2 Low Density Residential zone, which has the following objectives:

- *To provide for the housing needs of the community within a low density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To facilitate the orderly and economic development of land for residential purposes and associated urban activities.*
- *To facilitate and promote the effective provision of affordable and suitable housing for varying household needs and community preferences.*
- *To protect creeks and waterways associated with the immediate and surrounding area.*

With reference to the zone objectives and the likely future development of the lot, Council should be satisfied that the work on the site is in keeping with the zone objectives and will provide for a site that is capable of accommodating future residential development in an appropriate manner.

The works are not prohibited under the zone requirements and council should be satisfied that they are allowable with appropriate development consent



## Part 6 Local Provisions

### 6.2 Biodiversity

- 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.*
- (2) *This clause applies to land identified as “sensitive land” on the Natural Resources Sensitivity—Biodiversity Map.*

According to the Biodiversity map the site is located within the area identified as sensitive land – refer figure 6. It is noted that the sensitive land mapping covers the entirety of Crookwell residential area.

In this location there is little natural vegetation in place and the site itself is highly modified and does not retain natural profile or vegetation as a result of previous excavation and clearing carried out this site and its most recent use as agricultural land. It is not anticipated that the proposed works would impact on native flora and fauna.



Figure 6 – ULLEP 2010 - Natural Resources Sensitivity—Biodiversity Map

### 6.4 Water

- (1) *The objective of this clause is to maintain the hydrological functions of riparian land waterways and aquifers, including protecting—*
  - (a) *water quality, and*
  - (b) *natural water flows, and*

- (c) *the stability of the bed and banks of waterways, and*
- (d) *groundwater systems.*

(2) *This clause applies to land identified as “sensitive land” on the Natural Resources Sensitivity—Water Map.*

According to the Water map the site is located within the area identified as sensitive land – refer figure 7.

Currently the flow of stormwater through the site is not formalized and has been severely impacted by the previous disturbance to the site. The existing constructed channel within the site has steep banks and subject to scouring and erosion and flat grades subject to ponding.

It is noted that:

- The proposed works will provide for an arrangement that will substantially reduce the potential for erosion and sedimentation of the water way with capacity for upstream flows and suitable batter slopes.
- The works will not have any ongoing impact to water quality in the vicinity of the area as there is no proposed increase to impervious surfaces and no polluting activities are being proposed
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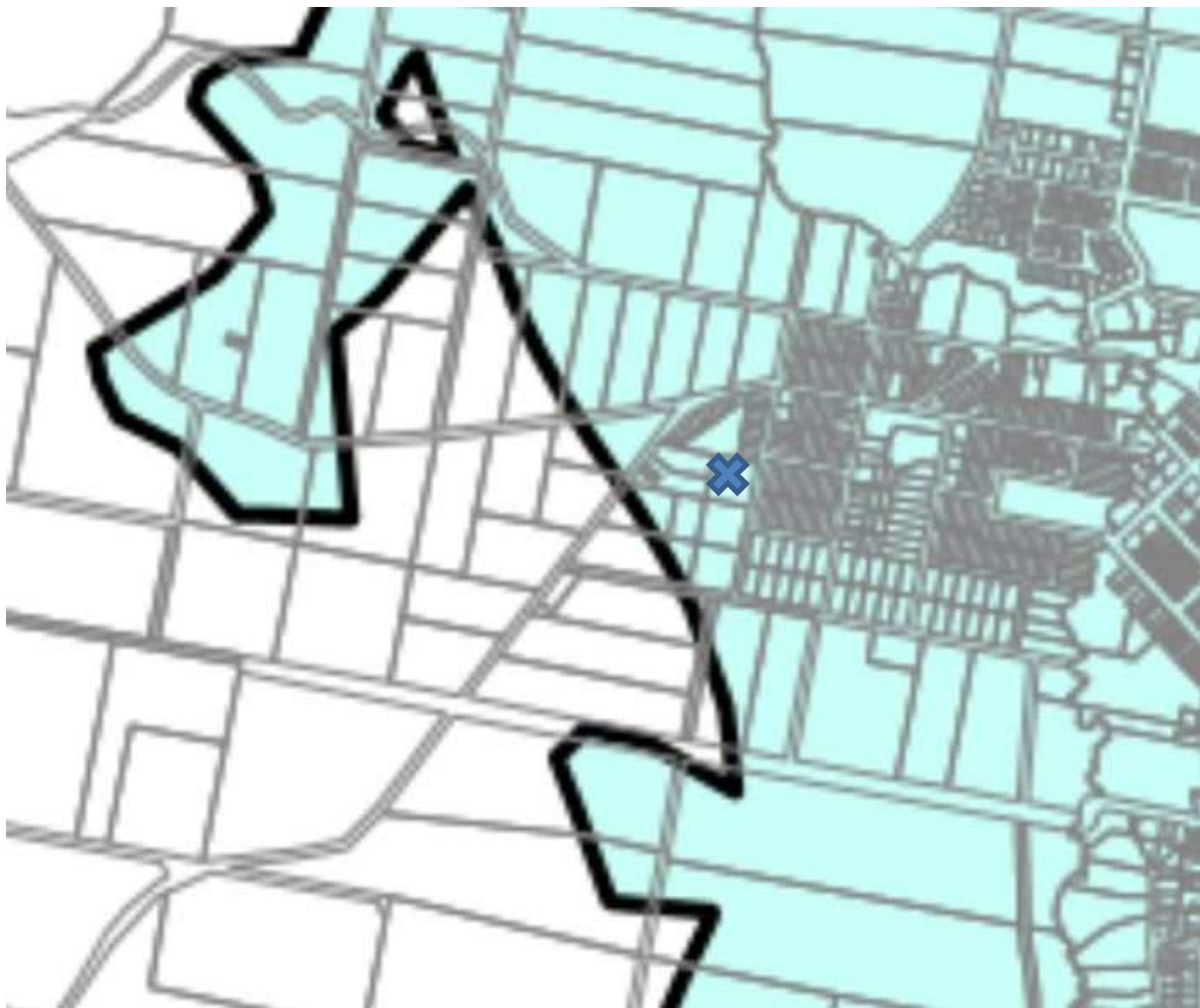


Figure 7 – ULLEP 2010 - *the Natural Resources Sensitivity—Water Map.*

## 6.5 Earthworks

*(1) The objectives of this clause are as follows—*

- (a) to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land,*
- (b) to allow earthworks of a minor nature without separate development consent.*

*(2) Development consent is required for earthworks unless—*

- (a) the work does not alter the ground level (existing) by more than 600 millimetres, or*
- (b) the work is exempt development under this Plan or another applicable environmental planning instrument, or*
- (c) the work is ancillary to other development for which development consent has been given.*

In the case of this proposal development approval is required from council due to the level of works proposed. Council should be satisfied that the work does not have a detrimental impact on environmental functions and processes, neighbouring uses. There are no heritage items or features on or in the vicinity of the site

### **Upper Lachlan Development Control Plan 2010 – Amendment No 5**

The site is within the area covered by the Upper Lachlan Development Control Plan 2010 – Amendment No 5.

The proposal is not for the development of buildings or subdivision of land however we note that Under section 2.1 of the DCP, one of the key objectives is to improve stormwater management

This proposal seeks to improve stormwater management within this site to allow for residential development and is in keeping with this objective

Section 4 deals with General Development control and specifically sections 4.5.2 and 4.5.4 deal with stormwater management and overland flow paths.

In this case the proposed works meet the requirements of the DCP in that the point of discharge for the site remains the low point on Stephenson St and the downstream flows are not altered by the proposed works. It is also the case that a defined overland flow path has been provided which caters for the 1% AEP event

Section 5.1 of the DCP refers to the requirements for subdivision design for residential development. Although not specifically applicable to this proposal the proposed works will facilitate a subdivision opportunity for this site that can be in keeping with these controls once the works are carried out.

**UPPER LACHLAN SHIRE COUNCIL  
THE VILLAGES OF CROOKWELL, GUNNING, COLLECTOR AND TARALGA  
FLOODPLAIN RISK MANAGEMENT - STUDY AND DRAFT PLAN  
JUNE 2017**

Council have adopted a floodplain risk management study and draft plan dated June 2017. This document includes a flood study report by Lyell and Associates dated Feb 2014 for the village of Cromwell.

According to the flood study this subject site is affected by flooding. The extent of flooding of the site according to the 2014 flood study is depicted in Figure 8. A maximum depth of flood is approximately 0.8m in the NE corner of the site

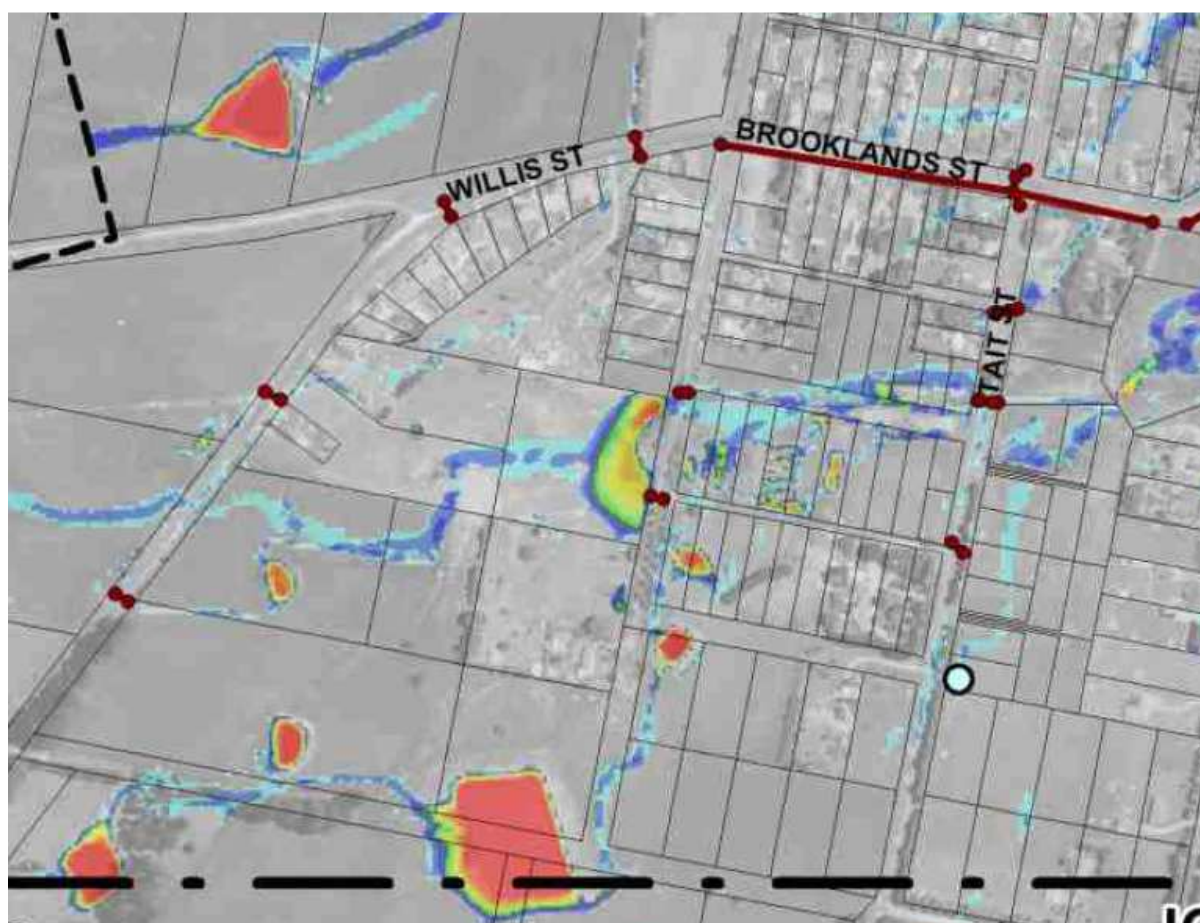


Figure 8 - 1%AEP flood depths in the vicinity of the development site, extracted from 'The Village of Crookwell Flood Study' (Lyall & Associates, 2014)

The impact of the proposed works on flooding in the 1% AEP event has been prepared by Catchment Simulation Solutions in order to confirm the filled area is free of inundation and that there is no upstream or downstream impact from the works - refer Lot 37 Stephenson Street, Crookwell - Flood Impact Assessment – Catchment Simulation Solutions Dated Dec 2022



## **5. Likely Impact of the Development**

The Environmental Planning and Assessment Act 1979 provides the legislative framework for all development within NSW. Section 79C of the Act establishes a set of assessment criteria that must be considered by the consent authority when assessing development subject to the provisions of Part 4 of the Act. The following assessment is provided to assist Council in undertaking its assessment under Section 79C:

### **5.1 Land Use and Public Amenity**

The proposed works are permissible within the R2 Zone and are consistent with the zone objectives. The proposal seeks to improve stormwater drainage and restore the site to a level that will allow for future development or subdivision consistent with council controls. The works are contained within the subject lot apart from a proposed culvert crossing on Stephenson St which would provide for a beneficial outcome for council and neighbours as a result.

### **5.2 Traffic and Access**

No permanent changes to traffic and access will result from this proposal. The lot will retain its own access to an existing public road.

There will be minor impact to one existing residence for the construction of the culvert crossing on Stephenson St. Access to this dwelling should be maintained unless prior arrangement is made with this owner for any disruption to access.

### **5.3 Drainage and Water Quality**

The site is located on a minor water course as indicated on the topographic map. The gradient of the site is very flat due to the excavation that has been carried out in the past.

Currently the flow of stormwater through the site is not formalized and has been severely impacted by the previous disturbance to the site. The existing constructed channel within the site has steep banks and subject to erosion and is also ponding due to the flat grade.

It is noted that:

- The proposed works will provide for an arrangement that will substantially reduce the potential for erosion and sedimentation of the water way with capacity for upstream flows and suitable batter slopes to prevent scouring.
- The works will not have any ongoing impact to water quality in the vicinity of the area as there is no proposed increase to impervious surfaces and no polluting activities are being proposed
- Improvement to drainage arrangements in Stephenson St are proposed with the works

## **5.4 Utilities**

There will be no alteration to existing utilities services as a consequence of this proposal

## **5.5 Flora and Fauna**

The site is disturbed land which has been most recently used for grazing livestock prior to use for excavation for clay for brick manufacture. There is a small number of native trees located on the frontage of Stephenson St which can be retained. The rest of the site is covered only in exotic grasses

On completion of the works the site should have topsoil respread and sowed with an appropriate grass seed mix in accordance with councils requirements

The proposed development will not have detrimental impact on flora and fauna.

## **5.6 Heritage and Archaeology**

There are no anticipated impacts on European or Aboriginal Heritage as a result of the proposed subdivision. There are no known items or areas of aboriginal heritage on the site.

## **5.7 Natural Hazards**

**Flooding** – The site is mapped as impacted by flooding according to the council flood plain risk management study. A Flood impact assessment has been prepared to accompany the application.

**Bushfire** – The site is not located on Bushfire prone land according the bushfire prone land map.

## **5.8 Land Contamination**

There is no visual evidence of soil contamination on the subject site. A contamination assessment has not been carried out the site. If evidence of contamination is encountered upon stripping of the site then appropriately qualified consultant should be contacted and assessment carried out of the affected area

All fill imported to the site needs to be classified in accordance with the requirements of EPA and be suitable for residential fill.

## **5.9 Social and Economic**

The proposed development will not have any adverse impacts on the surrounding area and seeks only to provide for rehabilitation and regrading of a site so as to improve the current stormwater arrangement and provide a suitable area for future residential development.

The proposed works would have a positive impact on the social and economic development of the area by providing a suitable site for future residential development.

## **6. Conclusion**

The development proposal complies with the relevant provisions and objectives of the applicable environmental planning instruments and the local development control plan.

This statement has considered the proposal with regard to the current development of the area, existing site constraints and the relevant statutory requirements.

The proposal is consistent with current development and council expectations for development of this area of Crookwell. We believe that approval of this application is appropriate under these circumstances.

## **7. Supporting Documentation**

- Civil Development Solutions Plan – 2124 CF02 Issue A
- Lot 37 Stephenson Street, Crookwell - Flood Impact Assessment – Catchment Simulation Solutions Dated Dec 2022