

## COUNCIL ASSESSMENT PANEL MEETING

14 April 2021

### AGENDA – 8.5

<b>Applicant:</b> W Murdoch & J Murdoch	<b>Landowner:</b> W D Murdoch & J T Murdoch
<b>Agent:</b> Kieron Barnes- Planning Studio	<b>Originating Officer:</b> Doug Samardzija
<b>Development Application:</b>	20/714/473 (20/D031/473)
<b>Application Description:</b> Boundary realignment (3 into 3)	
<b>Subject Land:</b> Lot:11 Sec: P22 FP:106541 CT:6161/134 Lot:64 Sec: P5149 FP:156799 CT:5509/458 Lot:65 Sec: P5149 FP:156800 CT:5724/523	<b>General Location:</b> 792, 832 & Lot 65 Swamp Road, Lenswood SA 5240  <b>Attachment – Locality Plan</b>
<b>Development Plan Consolidated :</b> 08 August 2019 <b>Map</b> AdHi/1, 3 & 53	<b>Zone/Policy Area:</b> Watershed (Primary Production) Zone - Lenswood Policy Area
<b>Form of Development:</b> Merit	<b>Site Area:</b> 7.367 hectares (combined size of the 3 allotments)
<b>Public Notice Category:</b> Category 1 Merit	<b>Representations Received:</b> N/A  <b>Representations to be Heard:</b> N/A

#### 1. EXECUTIVE SUMMARY

The purpose of this application is realign the boundaries of three allotments.

The subject land is located within the Watershed (Primary Production) Zone - Lenswood Policy Area.

The proposal is a merit, Category 1 form of development.

As per the CAP delegations, the CAP is the relevant authority because the allotments are in the Watershed (Primary Production) Zone, and the realignment involves three allotments with two of the proposed resulting allotments to have an area less than 2 hectares, and the other remaining allotment to have an area of 6.81 hectares.

The proposal is to realign the allotment boundaries to relocate existing allotment 65 containing a historic disused packing shed further north to create a rural living allotment of 2065m<sup>2</sup>. The boundaries between existing allotment 64 and 11 will also be realigned to consolidate the entire orchard within a singular proposed allotment 1 and consolidate allotments 65 and 64 into a smaller rural living allotment of 3505m<sup>2</sup> for the existing dwelling.

The main issues relating to the proposal are impacts on the primary production land, creation of a rural living allotment, development potential of existing allotments and site contamination for the area nominated for proposed allotment 1.

In consideration of all the information presented, and following an assessment against the relevant zone and Council Wide provisions within the Development Plan, staff are recommending that the proposal be **GRANTED** Development Plan Consent, subject to conditions:

## 2. DESCRIPTION OF THE PROPOSAL

The proposal is for boundary realignment involving three allotments.

### Existing Allotments

Allotment	Area (ha)	Currently containing
11	6.78ha	Dwelling, orchard and associated outbuilding and horticulture buildings
64	5000m <sup>2</sup>	Dwelling, associated outbuildings and small portion of an orchard
65	800m <sup>2</sup>	Historic packing shed

### Proposed Allotments

Allotment	Area (ha)	Containing
1	2065sqm	Orchard
3	3505sqm	Dwelling and associated outbuildings
11	6.81ha	Dwelling, orchard and associated outbuilding and horticulture buildings

The plan of division includes:

- The outline of existing and proposed allotment boundaries, existing structures on the subject properties as well as other natural land features.

The proposed plans are included as **Attachment – Proposal Plans** with other information included as **Attachment – Application Information** and **Attachment – Applicant’s Professional Reports**.

## 3. BACKGROUND AND HISTORY

APPROVAL DATE	APPLICATION NUMBER	DESCRIPTION OF PROPOSAL
13/02/2001	01/56/473	Freestanding Shed

## 4. REFERRAL RESPONSES

- **SCAP**  
Standard response was provided by SCAP requiring a final survey plan (refer to SCAP condition 1).
- **CFS**  
The CFS have no objection to the proposal and have provided conditions in relation to access, water supply and vegetation management, these condition are normally imposed on the land use applications rather than land division application. No comments were made in relation to existing dwellings.



The above responses are included as **Attachment – Referral Responses**.

- **SA WATER**

In response to the abovementioned proposal, I advise that this Corporation has no requirements pursuant to Section 33 of the Development Act. Boundary realignment only.  
Primary Production

- **AHC EHU**

Council's Environmental Health Unit (EHU) has advised that the generally accepted SA Health guideline of a minimum 1,000sqm site area including reserve area enables sufficient area for a wastewater system associated with a residential property. As this is only a guide, Council's EHU have further advised that as the reserve area is not legislated then 800sqm is acceptable (given it is existing) to enable an on-site wastewater system, provided all planning and building requirements can still be met. Therefore 250sqm is required to site a waste system and 100sqm recreation area, leaving 550sqm as the remaining area to site a dwelling plus access and all other planning/building requirements.

Based on this and the additional site plan provided by RFE Consulting showing an indicative building envelope, effluent soakage area and recreation area for existing lot 65, the site is considered to be developable.

- **AHC RATES**

Proposed Lot 1 - vacant land - RPA number will be allocated upon driveway approval  
Proposed Lot 2 - remains 832 Swamp Road  
Proposed Lot 3 - remains 792 Swamp Road

- **AHC ENGINEERING DEPARTMENT**

Council's Engineering Department have reviewed the proposed realignment and have advised the following:

Engineering Department have no objections to an additional access if the right of way arrangement currently proposed is not supported by the Planning Department. In general, the preference is for as few interaction points with the road as possible, however this location on Swamp Road is acceptable for an additional access point.

Stormwater will need some consideration as the swale drain on the road has limited capacity to take additional water and the Cock Wash feeds into the Onkaparinga so future dwelling construction will require detention requirements.

## 5. **CONSULTATION**

The application was categorised as a Category 1 form of development not requiring formal public notification.

The applicant or his representative – Kieron Barnes, may be in attendance.

## 6. PLANNING & TECHNICAL CONSIDERATIONS

This application has been evaluated in accordance with the following matters:

i. Environmental Food Production Area

The subject land is located within the Environmental Food Production Area (EFPA) as defined by General Registry Office Map G17/2015. The boundary realignment is not proposing any additional allotments to be used for residential purposes but maintaining the status quo of existing allotments which might include future residential use.

ii. The Site's Physical Characteristics

The subject land is comprised of three allotments with a combined area of 7.367 hectares. Existing lot 11 is an irregular shaped primary production allotment of approximately 6.78 hectares with direct access to Swamp Road. This allotment is predominantly a primary production allotment containing an orchard with other site improvements including a single storey dwelling, associated domestic structure, and horticulture buildings. All of the buildings on site are clustered together in approximately a central location on the allotment. Other site features include a dam north east of the dwelling as well as water courses traversing the allotment.

Existing lot 64 is a relatively regular shade allotment with an area of 0.5 hectares and similar to proposed lot 1 which contains a single storey dwelling and associated domestic structures. Other site features include a small area of an orchard to the rear of the property. This allotment has a direct frontage and access to Swamp Road.

Existing lot 65 is a regular shaped allotment and the smallest of the three allotments with an approximate area of 800m<sup>2</sup>. Similar to the other two allotments, this allotment also has direct access to Swamp Road. This allotment only contains a historic packing shed along the front of the property whilst the remainder of the allotment is vacant.

The Surrounding Area

The locality is characterised by a mixture of allotment sizes and uses. Allotments in the immediate locality vary in size from as large as 28 hectares to as small as 800m<sup>2</sup>. Larger allotments are predominantly used for primary production purposes and the smaller allotments are used for rural living purposes.

Properties immediately adjacent to the subject land are used predominantly for primary production purposes or were in the past used for such purposes. Further east of the subject land are even larger primary production allotments with a large majority of these properties containing permanent environmental covers that are associated with the primary production use of the land. Immediately south of the subject allotment along Swamp Road are also examples of small rural living allotments similar in shape and size as proposed lot 1.

iii. Development Plan Policy considerations

a) *Policy Area/Zone Provisions*

The subject land lies within the Watershed (Primary Production) Zone - Lenswood Policy Area and these provisions seek:

Policy Area

- *The retention of orchards and bushland as predominant uses*
- *Retention of the present village character and size of Lenswood and Forrest Range*
- *No further provision of small rural living allotments.*

The following are considered to be the relevant Policy Area provisions:

*Objectives: 1, 2 and 3*

Objective 1 seeks that orchards and bushland are retained as the prominent use. As part of the assessment process, the applicant was asked to provide an agronomist report which considered the impacts of the proposed realignment of boundaries on the primary production use of the land. An Agricultural Viability Assessment Report was prepared by Pinion Advisory which concluded that:

1. *Approximately 0.19 Ha of apple trees is planted on the existing Lot 64, and is not considered to be a viable enterprise if this Lot is sold separately from Lot 11. The creation of Lot 3 will shift these apple trees to the same title as the remainder of the orchard, which provides certainty to the orchard owner and operator.*
2. *The creation of Lot 1 for a potential dwelling development will result in the removal of approximately 0.20 Ha orchard area. The area in question is planted to the variety Sundowner, which is earmarked for removal in 2021 due to changing consumer preferences, irrespective of the outcome of this application. Whilst the creation of Lot 1 will reduce the plantable area of this land by 0.20 Ha, from 2021 there will be 1.63 Ha of land which can be replanted to in-demand varieties; increasing current production by over 25%.*

Please refer to pages 41 and 42 of the attachments.

The assessment concluded that *"the creation of proposed Lot 1 for a potential dwelling reduces the land available for additional planting to 1.63 Ha. The distribution of current fixed costs across the proposed Lot 2 when fully developed reduces the overall cost by 14.1%. This difference of 1.1% will not have a significant impact on the viability of this orchard enterprise."* Please refer to page 42 of the attachments. The proposal is therefore considered to accord with Objective 1 of the Policy Area.

Objective 2 seeks the retention of the village character of Lenswood whilst Objective 3 seeks that no further rural living allotments are created. The proposal will not result in a creation of a new rural living allotment as it is simply moving existing lot 65 of approximately 800m<sup>2</sup> further north to create a new rural living allotment. The outcome of the realignment is a rural living allotment of 2,065m<sup>2</sup> which is an increase of 1265m<sup>2</sup> in land size from the current rural living allotment. This sized allotment is more consistent in size with other existing rural living allotments within the locality. The proposal is therefore considered to be consistent with Objective 3. Considering the above it can therefore also be argued that the realignment of the boundaries as

proposed is going to retain the village character of Lenswood and is therefore consistent with Objective 2.

#### Watershed (Primary Production) Zone

- *The enhancement of the Mount Lofty Ranges Watershed as a source of high quality waters*
- *The long-term sustainability of rural production in the south Mount Lofty Ranges*
- *The preservation and restoration of remnant native vegetation in the south Mount Lofty Ranges*

The following are considered to be the relevant Zone provisions:

*Objectives: 2, 3 & 4*

*PDCs: 16, 17, 18, 19, 20, 21, 22, 31, 33, 34, 42, 44 & 70*

#### Form of Development

PDCs 16 and 17 as well as Objective 3 seek to ensure that primary production is not prejudiced, and that land that is particularly suitable for primary production remains available for this purpose. It is considered that the proposed realignment of the boundaries is not going to have minimal impacts on the use of available primary production land for such purposes. As mentioned earlier in the report, an Agricultural Viability Assessment was undertaken which concluded that proposed boundary realignment will support economically viable and sustainable apple production on proposed Lot 2. As such it is considered that the proposal is consistent with the PDCs 16 and 17 as well as Objective 3.

#### Land Division

PDC 70 is procedural relating to the non-complying development triggers in the zone. Land division in Watershed (Primary Production) Zone is considered to be non-complying application unless it is able to meet the following exemptions:

- Land Division where no additional allotments are created, either partly or wholly, within the Watershed (Primary Production) Zone, and where the development of the proposed allotments does not result in a greater risk of pollution of surface or underground waters than would the development of the existing allotments, and provided a suitable site for a detached dwelling is available such that the site and the dwelling would comply with the criteria in Table AdHi/5.

The proposed boundary realignment is considered to be a merit form of development because it does not result in the creation of an additional allotment. In addition the proposed realignment of boundaries will not result in a greater risk of pollution of surface or underground water. It is also considered that proposed lot 1, the only vacant allotment, is a suitable size which would be able to meet Table AdHi/5 requirements for any future dwelling.

Upon establishing the procedural matters of the application, PDCs 18, 19, 20, 21 & 22 relate directly to the circumstances under which land divisions in the zone would be considered.

PDC 18 provides that land division should only occur where a site for a detached dwelling which complies with the criteria detailed in Table AdHi/5 is available. Failure to meet the criteria of Table AdHi/5 is a non-complying development trigger in the Zone. The aim of PDC 18 is therefore to ensure that resulting allotments are able to be developed with detached dwellings that are not non-complying in nature. At the same time PDCs 19 and 21 are similar in that they both seek that land division proposals do not result in an increased pollution risk to water resources or cause the loss of productive primary production land.

The Table AdHi/5 criteria sets out that detached dwellings must be:

- Sited at least 25m away from watercourses; and
- Connected to an approved wastewater system that is at least 50m from the watercourse, on the slope gradient of no more than 1 in 5 and no less than 1.2m depth to bedrock

Currently, proposed lots 2 and 3 contain a residential dwelling with the dwellings connected to the existing on site waste systems with all of the elements contained within the proposed allotment boundaries. Proposed lot 1 is the only vacant allotment and as part of the assessment process, the applicant was asked to demonstrate that proposed lot 1 had potential to establish an onsite waste system to service any future dwelling and also to confirm that existing lot 65 had development potential and was able to accommodate a dwelling and an on-site waste system. The Wastewater Feasibility Assessment by RFE Consulting concluded that existing lot 65 and proposed lot 1 had development potential. The assessment confirmed that the realignment of the boundaries was not increasing development potential in the Watershed (Primary Production) Zone.

The proposal is therefore considered to be consistent with PDCs 18, 19 and 21.

PDC 20 provides guidance as to the circumstances where land division proposals are appropriate in the zone. This PDC states that land division may be undertaken provided no additional allotments are created and the purpose of the plan of division is to provide a re-adjustment of boundaries to correct anomalies in the placement of those boundaries with respect to the location of existing buildings. Alternatively minor readjustment could be undertaken if it is facilitating improved management of the land for primary production purposes and/or conservation of natural features.

The proposal is not considered to be a minor re-adjustment of allotment boundaries nor is its purpose to correct any anomalies in the form of boundary encroachments. The proposal is therefore not considered to be consistent with PDC 20 (a).

Realignment of the boundary between existing lots 64 and 11 consolidates a section of orchard into one large primary production allotment. The creation of proposed Lot 1 for a potential dwelling development will result in the removal of approximately 0.20 hectares of orchard area which will reduce the land available for additional planting to 1.63 hectares. This equates to a 1.1% difference which will not have a significant impact on the viability of the orchard. Therefore it can be argued that the realignment is consistent with the intent of PDC 20 (b). The realignment of allotments will not impact on any native vegetation and is therefore consistent with Objective 4 of the zone which seeks preservation and restoration of remnant native vegetation.

PDC 22 states that re-arrangement of allotment boundaries should produce allotments of a size consistent with that of the locality. As mentioned earlier in the report, allotments in the locality range from as large as 28 hectares to allotments as small as 800m<sup>2</sup>. The proposal is removing one 800m<sup>2</sup> allotment, creating a 2065m<sup>2</sup> allotment and reducing the size of a 5000m<sup>2</sup> to a 3505m<sup>2</sup> allotment. The outcome is still two rural living allotments both of which are of size more consistent to the other rural living allotments in the locality. With the exception of this 800m<sup>2</sup> allotment there are only two other allotments in the immediate locality under 1000m<sup>2</sup>. The proposal is therefore considered to be consistent with PDC 22.

#### Conservation

PDC 31 seeks that land use does not change in or near native vegetation. PDC 33 seeks that realignment of boundaries does not result in an increased number of allotments adjoining an allotment with native vegetation. At the same time PDC 34 seeks that boundary realignment does not occur where it will increase the number of allotments over areas covered by native vegetation. The proposed boundary realignment does not impact or occur in the areas or adjacent to areas covered by native vegetation and as such accords with PDCs 31, 33 and 34.

#### Rural Development

PDC 42 states that rural areas should be retained for primary production purposes and other uses compatible with maintaining rural productivity. PDC 44 states that development which would remove productive land from primary production or diminish its overall productivity for primary production should not be undertaken unless the land is required for essential public purposes. The proposed realignment of boundaries is considered to maintain primary production and is not considered to diminish the overall productivity of the land for primary production. The Agricultural Viability Assessment has concluded that there will be a total of 1.1% reduction in the primary production area of the orchard which is not considered to be significant and will therefore not impact on the viability of the orchard. The proposal is therefore considered to be consistent with PDCs 42 and 44.

#### *b) Council Wide provisions*

The Council Wide provisions of relevance to this proposal seek (in summary):

- *The retention of rural land in primary production especially land suitable for high rates of fruit and vegetable production*
- *Development located to minimise the treat and impact of bushfires on life and property while protecting natural and rural character*
- *Land division restricted in rural areas to ensure that efficient use of rural land for primary production*
- *Retention, protection and restoration of the natural resources and environment*
- *Orderly and economic development that creates a safe, convenient and pleasant environment in which to live in*

The following are considered to be the relevant Council Wide provisions:

Animal Keeping & Rural Development

*Objectives: 1 & 2*

*PDCs: 1*

Objectives 1 and 2 as well as PDC 1 seek that rural land should be retained for either primary production and/or native vegetation conservation and retention purposes. The proposed realignment is considered to achieve both of these requirements. Proposed lot 1 whilst being proposed in the area currently being used for primary production purposes is not considered to be prejudicing primary production land based on the analysis done by Pinion Advisory which concludes that the proposed realignment of boundaries is going to support viable and sustainable apple production on proposed lot 2. In relation to native vegetation, as discussed earlier in the report, there will be no impacts on any native vegetation. The existing dwelling and associated outbuildings will remain and any future development on this site would be able to occur without any additional loss of vegetation. Proposed lot 1 is clear of any native vegetation and as such any future building work will not impact on any native vegetation. Proposed lot 2 is of sufficient size to be retained for primary production use and the realignment of boundaries will consolidate the entire orchard area within a singular allotment. The proposal is therefore considered to accord with Objectives 1 and 2 and PDC 1.

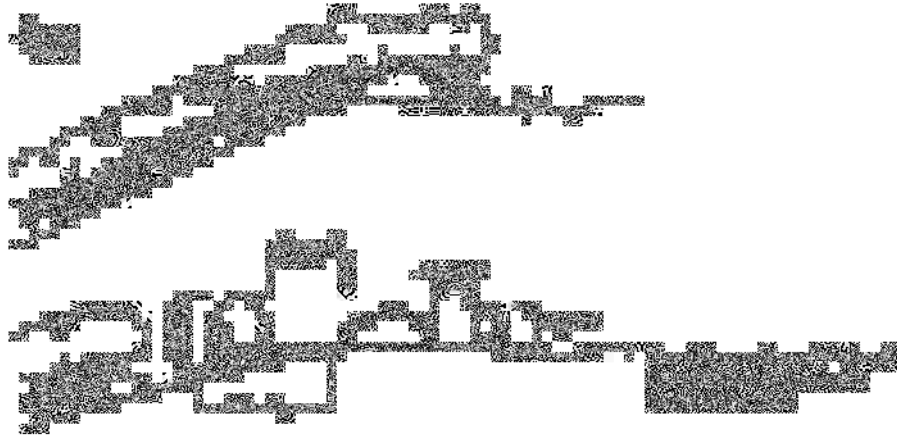
Hazards

*Objectives: 5, 8 & 9*

*PDCs: 1, 6, 7, 13 & 22*

Objective 5 seeks that development be located to minimise the threat and impact of bushfire on life and property and this is reinforced by PDC 1. PDCs 6, 7 and 13 on the other hand refer specifically to the Ministers Code: Undertaking Development in Bushfire Protection Areas and seek that the measure in the Code can be met to ensure any future habitable building is adequately protected in the event of the bushfire. Whilst the proposed development does not include construction of habitable buildings, the Development Plan still seeks that proposed land division is able to satisfy the necessary bushfire requirements for any potential future developments. The CFS has undertaken the necessary assessment of the proposed land division as mentioned earlier in the report. The focus of the CFS assessment was solely on proposed lot 2 as it is the only vacant allotment. The CFS has advised that they have no objections to the proposed application and they have not identified any concerns with the allotment being able to satisfy any of the Ministers Code requirements. As such it is considered that the proposed development is consistent with Objective 5 and PDCs 1, 6, 7 and 13. The Applicant was also asked to consider any future conflict relating to the need for a vegetated buffer area for proposed lot 1 and CFS requirements. The Applicant has advised that a:

*"future dwelling on proposed lot 1 can be located away from existing vegetation an equivalent distance to the mature height of the trees (see image from the Minister's Code below). Therefore, a future dwelling on proposed lot 1 should be sited at least 6.75 metres away from the vegetated buffer. Given that the vegetated buffer is likely to be approximately 3 metres wide, a distance of 7 metres will be provided between the vegetated buffer and the indicative building envelope shown in our letter dated 18 February 2021. This distance is consistent with the requirements of the Minister's Code".*



Further discussion relating to the vegetated buffer requirements is discussed later in the report.

Objective 8 seeks protection of human health and the environment wherever site contamination has been identified or suspected to have occurred whilst, Objective 9 seeks appropriate assessment and remediation of site contamination. This is further enforced by PDC 22 which states that developments including land division should not occur where the site contamination has occurred unless the site has been assessed and remediated to ensure that it is suitable and safe for the proposed use. Considering that existing lot 65 has been used for primary production purposes and the area identified for the allotment 1 is currently being used for primary production purposes, applicant was requested to demonstrate that these areas are suitable for residential use and do not require remediation. A preliminary site investigation (PSI) report was prepared following a detailed investigative process which, amongst other things, involved a site inspection, a review of a raft of historical information and the analysis of a number of soil samples taken from the land. The PSI identified that:

- The existing and historic use of the land for horticultural purposes (orchard), represents a potentially contaminating activity;
- Laboratory testing of soil samples taken from the land indicate that there are no contaminants which exceed the adopted health investigation levels for residential land use;
- There are no offsite potentially contaminating activities relevant to the subject land; and
- The existing and previous use of the land as an orchard is considered to have a negligible risk to the proposed boundary realignment.

Based on the findings contained within the PSI, RFE Consulting conclude that there are no environmental considerations which would preclude the use of the site for residential use. Furthermore, it is considered based on the results of this assessment that no further environmental assessment is necessary at the site to confirm the suitability of the site for future residential use, which is a change to a 'move sensitive use'.

Considering the result of the Preliminary Site Investigation it is considered that the proposed application accords with Objectives 8 and 9 and PDC 22.



Interface Between Land Uses

*Objectives: 1 & 3*

*PDCs: 1, 2, 4, 5, 11, 13, 14 16,*

Objective 1 seeks that development is designed and located to minimise the adverse impacts and conflict between land uses whilst, Objective 3 seeks the protection of desired uses from incompatible uses. These objectives are further enforced by relevant PDCs which refers to specific interfaces between residential and primary production uses and impacts from dust and other airborne pollutants, in particular spray drift associated with primary production. The proposed realignment of boundaries is intending creation of lot 1 within the area adjacent to an existing orchard as well as an access track used as primary access to proposed lot 2. The Applicant has provided an indicative building envelope plan which demonstrates that a future dwelling could be established on the proposed lot 1 with a minimum 10m setback from the southern boundary with proposed lot 2 which would provide sufficient space for a fence and planting of a vegetation buffer to minimise the potential impacts of chemical spray drift and other impacts associated with primary production. Based on the Adelaide Hills Council Buffer Policy spray application may be up to 4.5m in height whilst wind-tunnel tests on spray drift have shown that the minimum height of a barrier should be 1.5 times the release height of the spray (see barrier height) for a vegetated buffer with 50% porosity. This means that a buffer for the proposed allotment would need to be at least 6.75m in height. The Applicant has advised that based on this that an appropriate species for a vegetated buffer would be *Acmena smithii* (Lilly Pilly) a species which is able to grow above 5m in height and is also listed as a fire retardant species. The proposal is therefore considered to accord with Objectives 1 and 3 and PDCs 1, 2, 4, 5, 11, 13, 14 and 16 by demonstrating that an effective vegetated buffer can be established on proposed lot 1 which would alleviate dust and spray drift concerns from adjoining primary production use. The only concern with proposed lot 1 and the creation of the vegetation buffer is the time required in order to establish an effective buffer. As such and in accordance with Councils Buffers Policy a condition requiring the establishment of the vegetated buffer prior to Section 138 Clearance has been attached along with a condition requiring maintenance and replacement of vegetation. (Refer Recommended Land Division Condition 2 and Development Plan Consent Condition 2).

Land Division

*Objectives: 2 & 5*

*PDCs: 1, 2, 5, 6, 7, 11, 21 & 22*

The proposed land division does not restrict existing rural living properties from continued use as such, nor does it prevent the allotment from being redeveloped for such purposes in the future. Each of the allotments has a direct access to a public road; existing dwellings are connected to an existing on site waste system whilst proposed lot 1 has ample space to accommodate a future waste system should the future land use be for purposes other than primary production. As such it is considered the proposal adequately satisfies Objective 2 and PDCs 1, 2, 6(c), and 7.

PDCs 5 and 11 seek that land division be designed and configured so that it does not impact on native vegetation. As mentioned earlier in the report the proposed realignment will not impact on any native vegetation. As such the proposal is considered to be consistent with PDCs 5 and 11.

Objective 5 seeks retention of the efficient use of rural land for primary production purposes and this is further enforced by PDCs 21 and 22 which seek that allotments be retained for primary production purposes and that the natural resources are protected. The proposed realignment of boundaries is not considered to impact on the primary production use of the land as discussed earlier in the report. The consolidation of the entire orchard into a single allotment and the loss of a small section of existing primary production land for proposed lot 1 is deemed to be minor based on the Agricultural Feasibility Assessment. This will not impact on the viability of proposed lot 2 being used for productive primary production. As such the proposal is considered to satisfy the intent of Objective 5 and PDCs 21 and 22.

#### Natural Resources

Objectives: 1

PDCs: 1, 37, 38 & 39

Objective 1 and PDC 1 seek retention, protection and restoration of natural resources and environment including water quality, land, soil and biodiversity. The proposed realignment of boundaries achieves the requirements set out in Objective 1 and PDC 1. It will not result in an increase in development potential given that existing lot 65 with the historic packing shed has been identified as having development potential and proposed lot 1 will retain the status quo and as such the proposed realignment of the boundaries does not alter this situation.

Similar to some of the other PDCs discussed earlier in the report, PDCs 37, 38 and 39 place an emphasis on protecting native vegetation and locally indigenous plant species. Existing allotments and the realignment of the boundaries is not proposed in the area or adjacent to an area covered by native vegetation and as such the proposal satisfies PDCs 37, 38 and 39.

## **7. SUMMARY & CONCLUSION**

The proposal seeks consent to realign the boundaries of three allotments in the Watershed (Primary Production) Zone and Lenswood Policy Area.

The purpose of the proposal is to realign the allotment boundaries to relocate existing allotment 65 containing a historic packing shed further north and create a rural living allotment of 2,065m<sup>2</sup>. The proposal also proposes to realign the boundaries between existing allotments 64 and 11 to consolidate the entire orchard within a singular proposed allotment 1 and consolidate allotments 65 and 64 into a smaller rural living allotment of 3,505m<sup>2</sup>.

Whilst it is acknowledged that a small section of the primary production land will be impacted by the proposed realignment, the Agricultural Feasibility Assessment has concluded that this will not impact on the viability of the primary production allotment and the growing of apples. Furthermore the proposal improves the management of the land for primary production by consolidating the orchard into one single proposed allotment 2.

The development of the proposed allotments does not result in a greater risk to water quality in the watershed area than the existing allotments. Existing dwellings will be retained on individual allotments with an existing approved waste systems whilst the status quo for the vacant allotment will remain. Preliminary Site Investigation report has also determined that there are no environmental considerations which would preclude the boundary realignment from proceeding.

The proposal is sufficiently consistent with the relevant provisions of the Development Plan, and it is considered the proposal is not seriously at variance with the Development Plan. In the view of staff, the proposal has sufficient merit to warrant consent. Staff therefore recommend that Development Plan Consent be **GRANTED**, subject to conditions.

## 8. RECOMMENDATION

**That the Council Assessment Panel considers that the proposal is not seriously at variance with the relevant provisions of the Adelaide Hills Council Development Plan, and GRANTS Development Plan Consent and Land Division Consent to Development Application 20/714/473 (20/D031/473) by W Murdoch & J Murdoch for Boundary realignment (3 into 3) at 792 Swamp Road, 832 Swamp Road, and Lot 65 Swamp Road Lenswood subject to the following conditions:**

### Planning Conditions

#### (1) Development In Accordance With The Plans

The development herein approved shall be undertaken in accordance with the following plans, details and written submission accompanying the application, unless varied by a separate condition:

- Amended plan of division prepared by Richard Retallack, plan number R20034MUR-01B date stamped by Council 18/02/2021
- Amended Land Application Area Layout Plan with vegetated buffer location and dimensions date stamped by Council 01/04/2021

#### (2) Maintenance of Vegetated Buffer

The vegetated buffer established on proposed allotment 1 shall be maintained in good health and condition at all times with any vegetation replaced in the next planting season should they become diseased or die.

### Notes

#### (1) Land Division Development Approval Expiry

This development approval is valid for a period of three (3) years from the date of the decision notification. This time period may be further extended beyond the 3 year period by written request to, and approval by, Council prior to the approval lapsing. Application for an extension is subject to payment of the relevant fee. Please note that in all circumstances a fresh development application will be required if the above conditions cannot be met within the respective time frames.

**(2) Department of Environment and Water (DEW) - Native Vegetation Council**

The applicant is advised that any proposal to clear, remove limbs or trim native vegetation on the land, unless the proposed clearance is subject to an exemption under the Regulations of the Native Vegetation Act 1991, requires the approval of the Native Vegetation Council. For further information visit:

[www.environment.sa.gov.au/Conservation/Native\\_Vegetation/Managing\\_native\\_vegetation](http://www.environment.sa.gov.au/Conservation/Native_Vegetation/Managing_native_vegetation)

Any queries regarding the clearance of native vegetation should be directed to the Native Vegetation Council Secretariat on 8303 9777. This must be sought prior to Full Development Approval being granted by Council.

**(3) Property Identifiers**

The property identifiers for these properties are now:

Proposed Lot 1 - vacant land - RPA number will be allocated upon driveway approval

Proposed Lot 2 - remains 832 Swamp Road

Proposed Lot 3 - remains 792 Swamp Road

**Land Division Conditions**

**Council Land Division Statement of Requirements**

**(1) Prior To Section 138 Clearance- Removal of the Orchard on Allotment 1**

Prior to Section 138 clearance, the orchard on proposed allotment 1 shall be removed.

**(2) Prior to Section 138 Clearance - Separation Buffer**

Prior to Section 138 clearance, a 10 metre separation buffer shall be established on proposed allotment 1 to the satisfaction of Council. The separation buffer shall comprise a vegetated area with a minimum width of 3 metres and a 7 metre firebreak on either side of the vegetated area. The vegetated area shall contain random plantings of a variety of fast growing and hardy tree and shrub species of differing growth habits, including at least one row of semi-mature trees. Such vegetated areas shall be in accordance with Appendix 3 of the Council's Buffers Policy dated 14 November 2017. The vegetated areas shall not include species listed in Appendix 2 of the Council's Buffers Policy (Bushland Invasive Plants).

For further information on Council's Buffers Policy refer to:

[COUNCIL-POLICY-Buffers-2017.pdf](http://COUNCIL-POLICY-Buffers-2017.pdf) ([ahc.sa.gov.au](http://ahc.sa.gov.au))

**SCAP Land Division Statement of Requirements**

**(1) Requirement For Certified Survey Plan**

A final plan complying with the requirements for plans as set out in the Manual of Survey Practice Volume 1 (Plan Presentation and Guidelines) issued by the Registrar General to be lodged with the State Commission Assessment Panel for Land Division Certificate purposes.

- 9. ATTACHMENTS**  
Locality Plan  
Proposal Plans  
Application Information  
Applicant's Professional Reports  
Referral Responses

Respectfully submitted

Concurrence

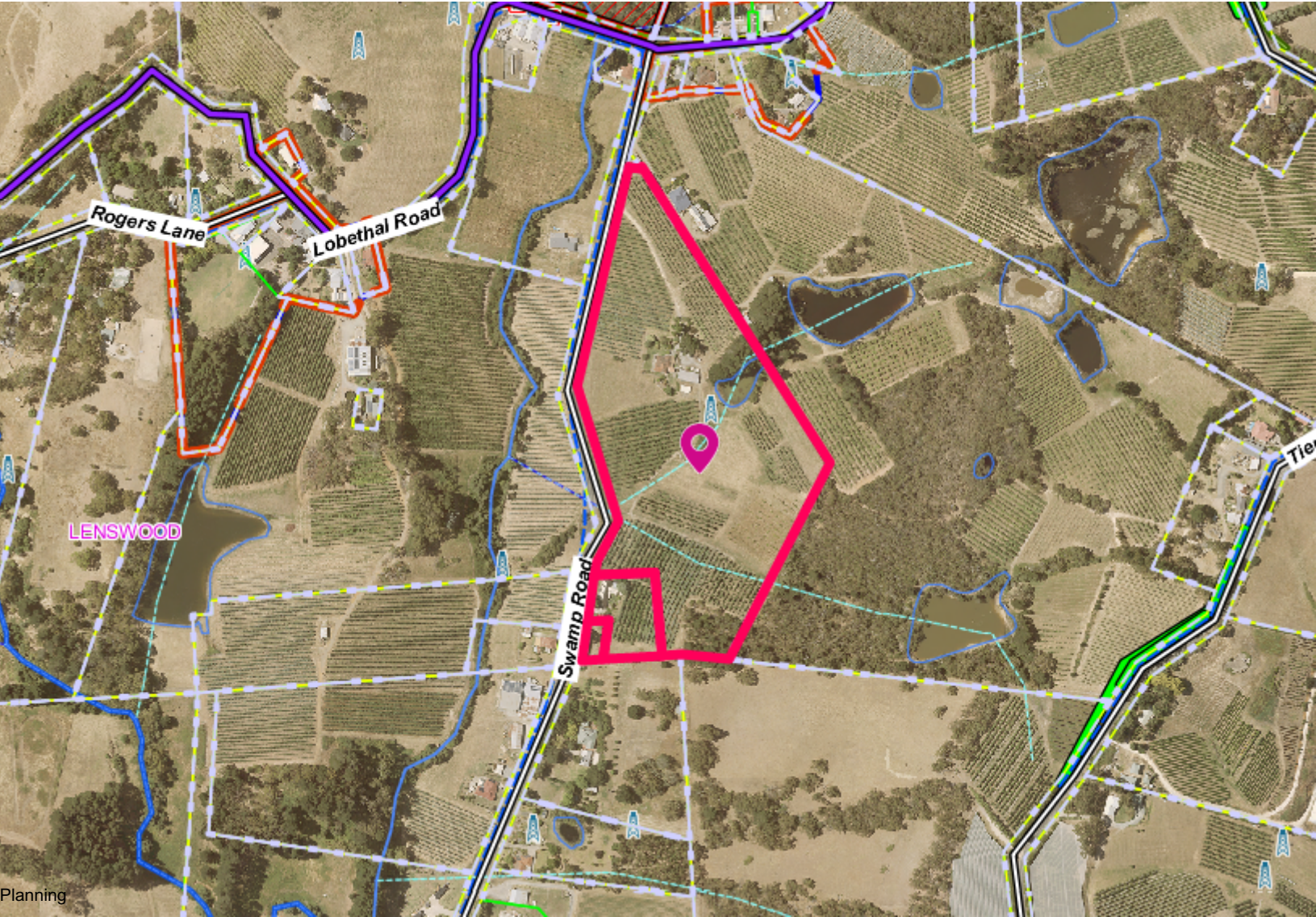
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**Doug Samardzija**  
**Statutory Planner**

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**Deryn Atkinson**  
**Assessment Manager**



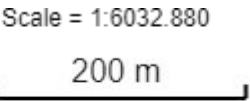


- Annotations**
-  Subject land lot 65
  -  Subject land lot 64
  -  Subject Land lot 11

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AMENDED PLAN  
473/D031/20

PLAN FOR DEVELOPMENT APPROVAL - LAND DIVISION (BOUNDARY RE-ALIGNMENT)

PLAN NUMBER - R20034MUR-01B

LEGAL IDENTIFIER

LOT 11 IN F106541, LOT 64 IN F156799  
AND LOT 65 IN F156800  
HUNDRED OF ONKAPARINGA  
C'sT 6161/134, 5509/458 AND 5724/523

ADDRESS

792 SWAMP ROAD  
LENSWOOD

COUNCIL

ADELAIDE HILLS

APPLICANTS

W & J MURDOCH

OWNERS

W & J MURDOCH

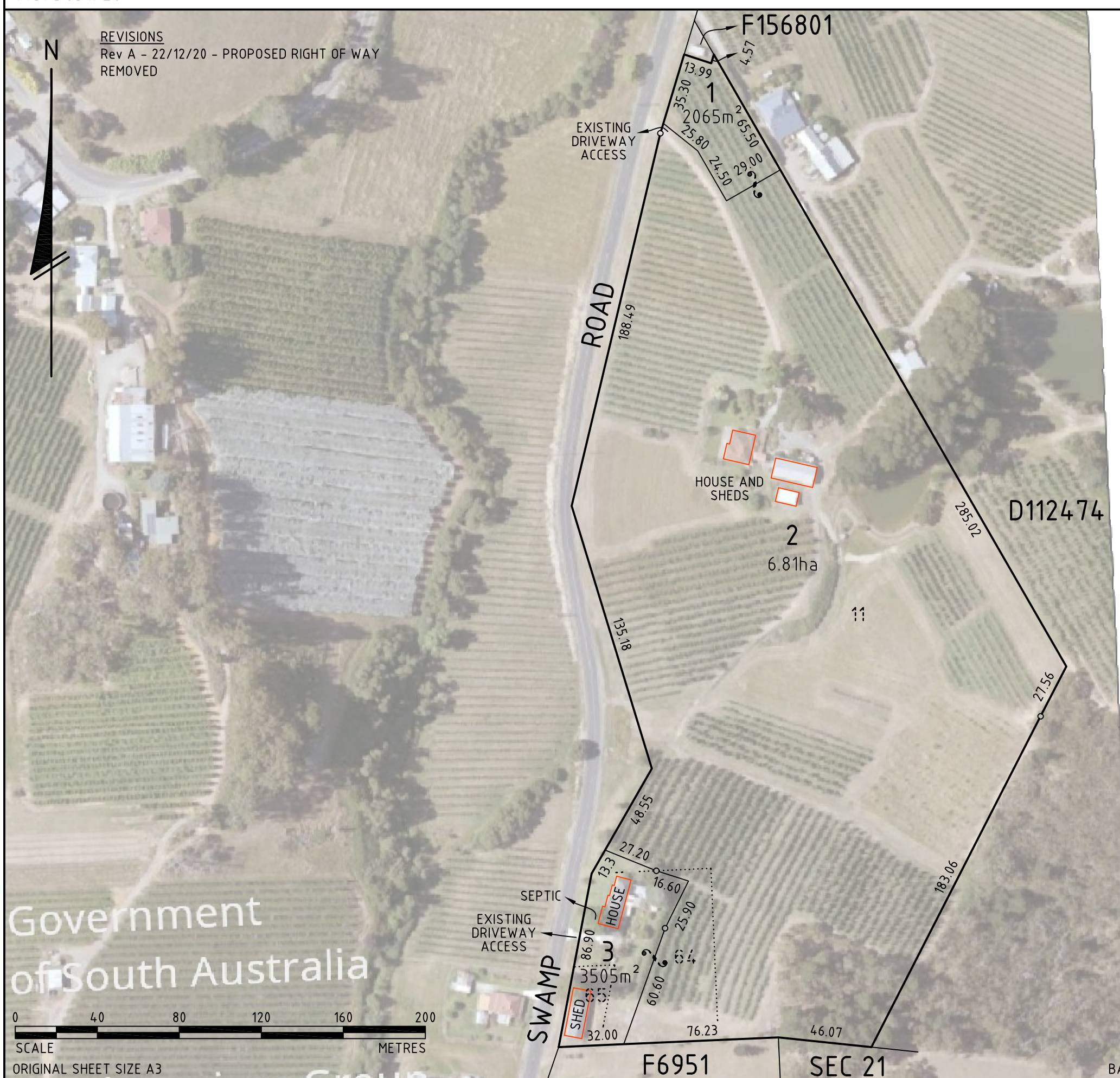
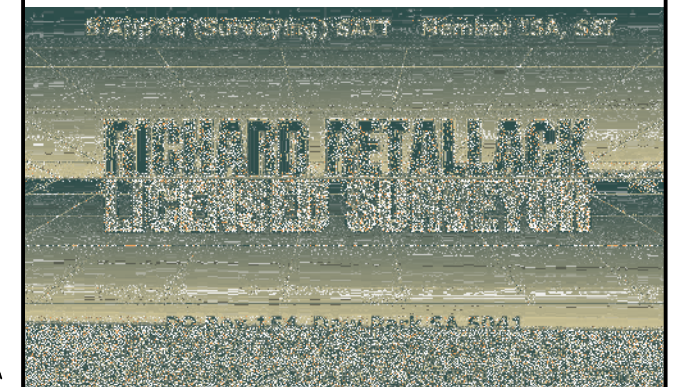
AGENT

RICHARD RETALLACK

EASEMENTS

NIL

DIMENSIONS AND AREAS  
SUBJECT TO SURVEY

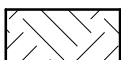




## LEGEND



BORE LOCATION



INDICATIVE BUILDING LOCATIONS



INDICATIVE LAND APPLICATION AREA

## GENERAL NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SITE AND SOIL REPORT
2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THESE DRAWINGS. DIGITAL AND CONVERTED DATA USED TO COMPILE THESE DRAWINGS. ANY DISCREPANCIES ARE TO BE DIRECTED TO THE AUTHOR OF THE REPORT.
3. DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS INDICATED OTHERWISE.
4. IRRIGATION SETBACK TO BE 50.0M MINIMUM FROM WATER SOURCES INCLUDING WELLS, BORES, DAMS, OR NATURAL WATER COURSE LIKELY TO BE USED FOR HUMAN OR DOMESTIC PURPOSES IN ACCORDANCE WITH ON-SITE WASTEWATER SYSTEMS CODE.
5. ALL SITE WASTEWATER TO BE DIRECTED TO THE PROPOSED WASTEWATER MANAGEMENT SYSTEM.
6. ALL STORMWATER TO BE DIVERTED AWAY FROM THE PROPOSED IRRIGATION AREAS.
7. CONTRACTOR TO ENSURE ALL MINIMUM SETBACK DISTANCES ARE MAINTAINED. LOCATIONS ARE SHOWN INDICATIVELY, ACTUAL LOCATIONS WILL BE CONFIRMED ON SITE BASED ON SITE CONDITIONS, MAINTAINING THE MINIMUM SETBACK DISTANCES.

## AEROBIC WASTEWATER TREATMENT SYSTEMS (AWTS)

1. LOCATION OF AWTS SHOWN IS INDICATIVE ONLY .AWTS TO BE SA HEALTH APPROVED
2. MINIMUM SETBACK DISTANCES = 3.0M FROM BUILDINGS AND BOUNDARIES. 1.5M FROM IRRIGATION AREA
3. ALL PLUMBING TO BE IN ACCORDANCE WITH AS 3500
4. DESIGN FOR 6 EQUIVALENT PERSONS OCCUPANCY WITH NO FOOD WASTE DISPOSAL.
5. WORK ON THE AWTS INSTALLATION SHALL NOT COMMENCE UNTIL THE COPIES OF THE "APPLICANT PLAN & CONDITIONS" HAVE BEEN RECEIVED BY THE APPLICANT.

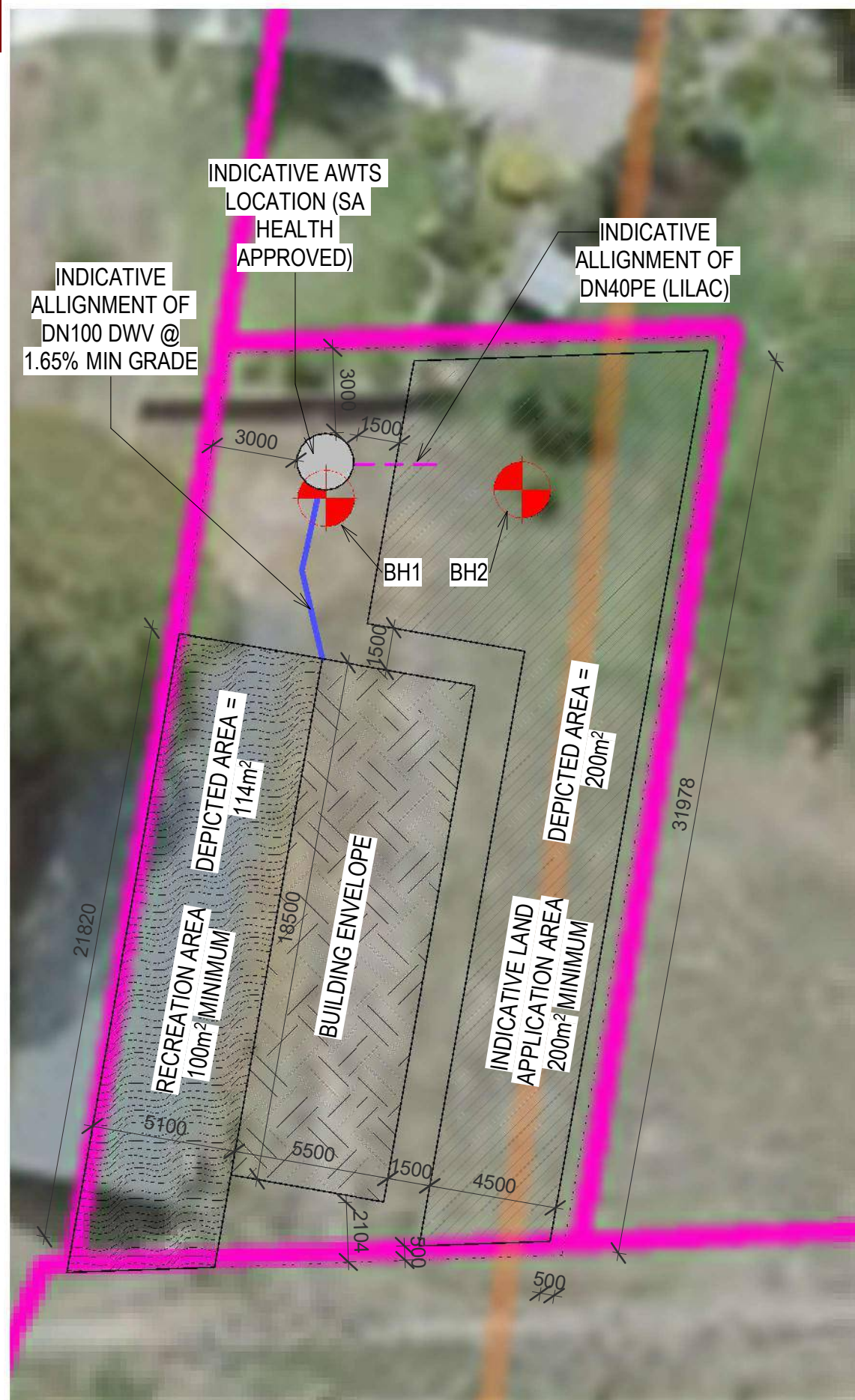
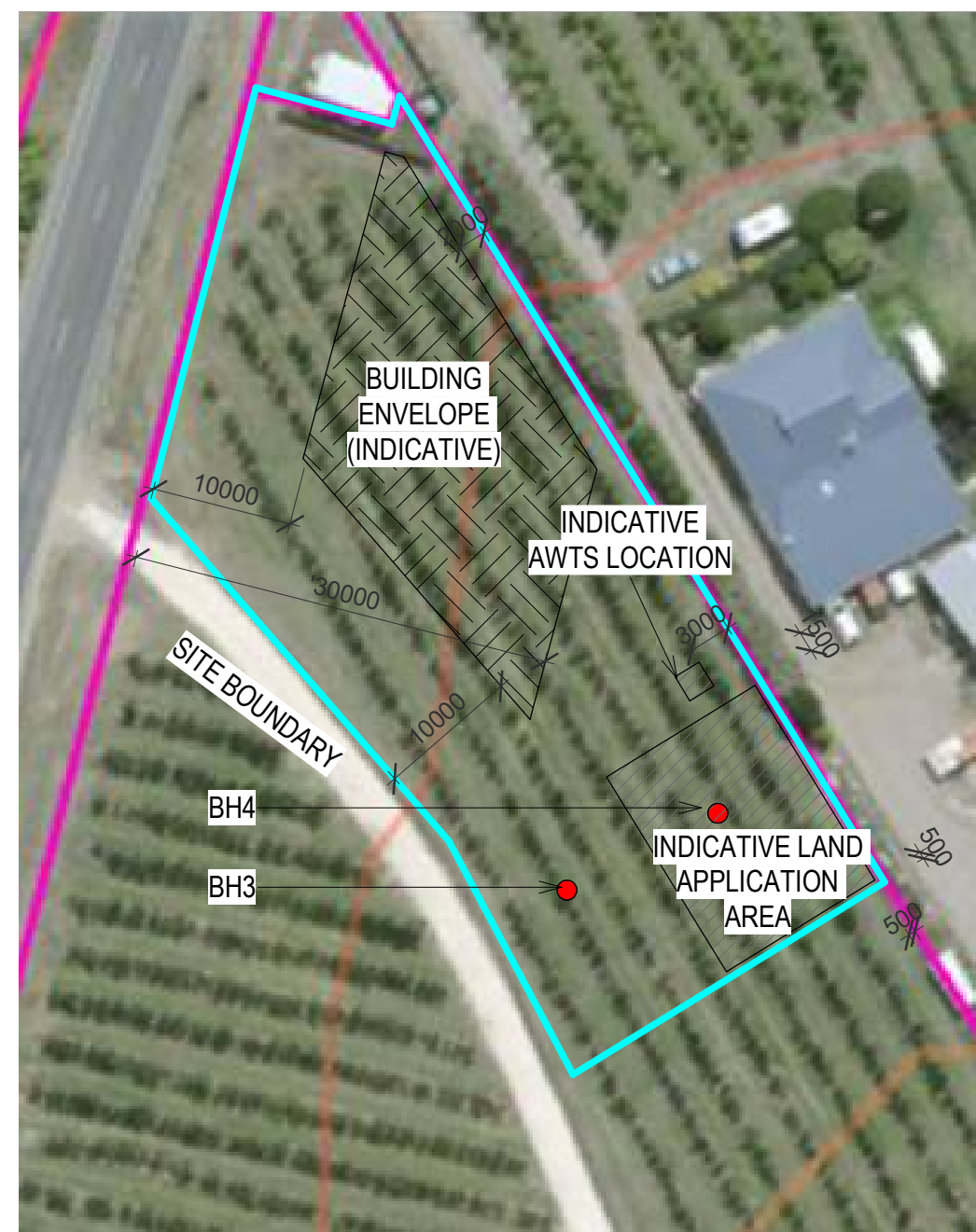
## SPRINKLERS

1. SPRINKLER SETBACKS 0.5M FROM ALLOTMENT BOUNDARY, 1.5M FROM BUILDINGS AND DOWN-SLOPE BOUNDARIES.
2. SPRINKLERS TO BE "ANTELCO RE-UZIT" OR SIMILAR APPROVED PRODUCT AND CONTROLLED SURFACE TO SPRAY DIAMETERS NOTED ON DRAWING.

## SURFACE IRRIGATION AREA

1. SOIL IMPROVEMENT THROUGH RIPPING TO A MINIMUM OF 150MM AND ADDING A SURFACE LAYER OF MULCH ACROSS THE DESIGNATED IRRIGATION AREA.
2. WARNING SIGNS MUST BE POSITIONED WITHIN THE LAND APPLICATION AREA TO INDICATE THAT RECYCLED WATER IS BEING USED FOR IRRIGATION. THE SIGNS MUST BE ON A WHITE BACKGROUND WITH RED LETTERING OF AT LEAST 20MM IN HEIGHT. THE SIGNS MUST BE CLEARLY VISIBLE FROM ALL SIDES AND MUST CONTAIN A WARNING SUCH AS: RECYCLED WATER - AVOID CONTACT/CONSUMPTION (AS PER ON-SITE WASTEWATER SYSTEMS CODE).
3. IRRIGATION ROWS TERRACED TO PROVIDE <5% GRADIENT

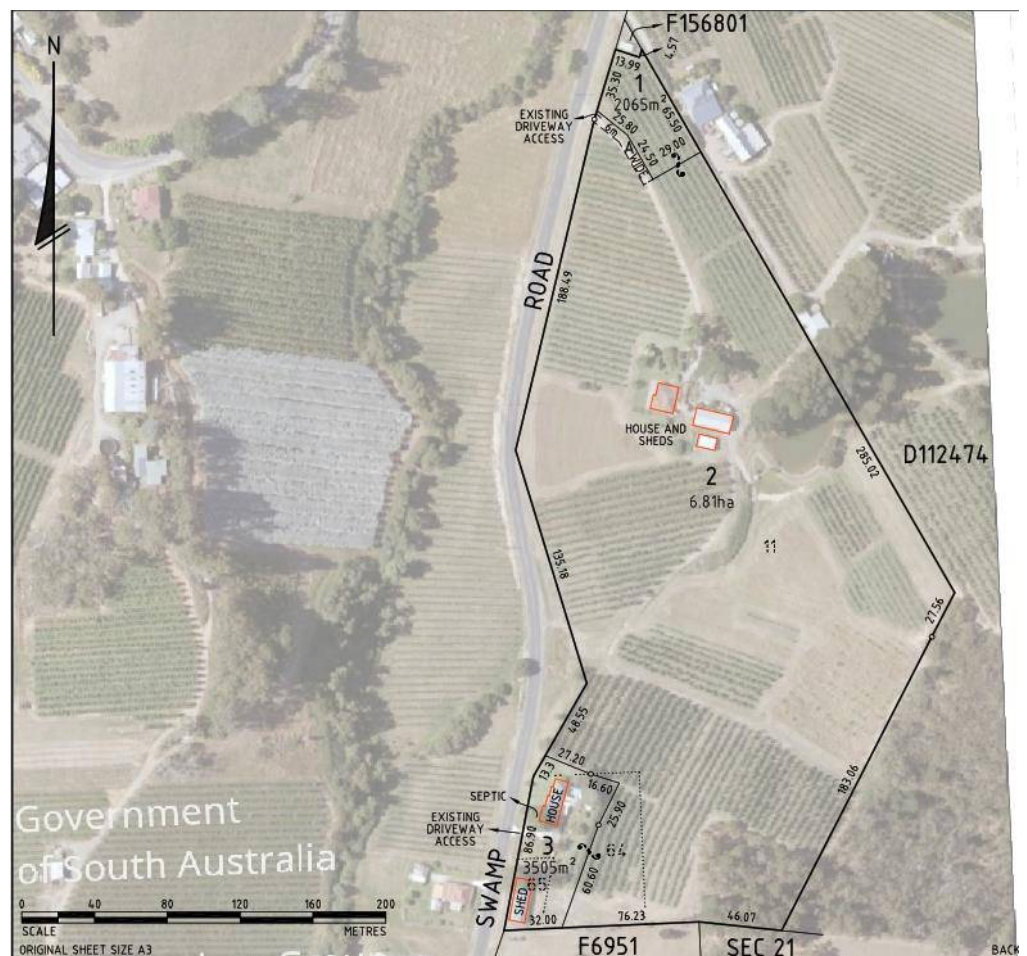
AMENDED 01/04/2021

PARCEL 1  
1 : 500PARCEL 3  
1 : 200

SCALES:			
DESIGNED:	KB		
CHECKED:	RF		
DRAWN:	MB		
CHECKED:	RF		
DATE:	18/01/21		
REV	ISSUED FOR REVIEW	18/01/21	RF
	AMENDMENTS	DATE	BY



## PLANNING STATEMENT



### BOUNDARY REALIGNMENT

LOTS 11, 64 & 65 SWAMP ROAD, LENSWOOD

Prepared for:  
**W & J Murdoch**

Date:  
2 July 2020



### Proprietary Information Statement

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### Document Control

Revision	Author	Review	Date
Draft V1	KB	Client	29 June 2020
Final	KB	Client	2 July 2020

Approved:

Date: 2 July 2020



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4.0	THE PROPOSED DEVELOPMENT	6
5.0	PLANNING ASSESSMENT	8
6.0	CONCLUSION	15

## APPENDICES

A	Plan of Division
B	Certificates of Title



## 1.0 SUMMARY OF PROPOSED DEVELOPMENT

Category	Details
PROJECT	W & J Murdoch Boundary Realignment
ADDRESS	Lots 11, 64 and 65 Swamp Road, Lenswood
CERTIFICATES OF TITLE	— Lot 11: CT 6161/134 — Lot 64: CT 4139/458 — Lot 65: CT 5724/523
SITE AREAS	— Lot 11: 6.772 ha — Lot 64: 4,950m <sup>2</sup> (approx.) — Lot 65: 800m <sup>2</sup> (approx.)
LOCAL GOVERNMENT	Adelaide Hills Council
RELEVANT AUTHORITY	Adelaide Hills Council
DEVELOPMENT PLAN	Adelaide Hills Council Development Plan Consolidated 8 August 2019
ZONING	Watershed (Primary Production) Zone
POLICY AREA	13 Lenswood
D. PLAN MAPS	AdHi/3 & AdHi/53
EXISTING USE	Orchard (Horticulture) and Dwellings
PROPOSAL DESCRIPTION	Land Division (Boundary Realignment)
AGENCY REFERRALS	Nil
PUBLIC NOTIFICATION	Category 1
APPLICANT	W & J Murdoch
SURVEYOR	Richard Retallack Licensed Surveyor

## 2.0 INTRODUCTION

Planning Studio has been engaged by Warren and Joan Murdoch who own three adjoining allotments on Swamp Road in Lenswood which are used predominantly for horticultural and residential purposes. Mr and Mrs Murdoch wish to undertake a boundary realignment to better manage the property and protect the historic apple packing shed (which currently sits on its own title) by creating:

- A large lot of 6.81ha in area which will contain the entire orchard on a single allotment as well as an existing dwelling, sheds and dam;
- A lot of 3,505m<sup>2</sup> in area which will contain the existing dwelling and historic packing shed near Swamp Road which are currently on separate titles; and

- A Lot of 2,065m<sup>2</sup> in area which will provide a site for a new dwelling close to the Lenswood town centre with a shared access arrangement with the 'orchard' lot.

The Planning Statement has been prepared based on:

- An inspection of the subject land and locality;
- A detailed review of the Adelaide Hills Council Development Plan, consolidated 8 August 2019;
- A review of the *Development Act 1993* and *Development Regulations 2008*;
- A review of the proposed plan of division prepared by Richard Retallack Licensed Surveyor (Appendix 1); and
- A review of the Certificates of Title (Appendix 2).

For the reasons outlined within this report, the proposal demonstrates substantial merit and accords with the relevant provisions of the Adelaide Hills Council Development Plan. For these reasons, the proposal warrants approval.

## 3.0 THE SUBJECT LAND AND LOCALITY

### 3.1 The Subject Land

The subject land is located on Swamp Road just south of the settlement of Lenswood (Figure 1).

The subject land is comprised of three allotments as follows:

- **Lot 11** (6.772 ha) which currently contains an orchard, a dam, a dwelling and sheds;
- **Lot 64** (approximately 4,950m<sup>2</sup>) which currently contains a dwelling and a small portion of the orchard; and
- **Lot 65** (approximately 800m<sup>2</sup>) which currently contains a relatively large historic packing shed sited close to Swamp Road.

Currently, the orchard is located on both Lot 11 and Lot 64. While this arrangement currently works given the common ownership of the subject land, it is likely to become problematic should Lot 64 be sold at some point in the future. More specifically, the potential sale of Lot 64 (as it currently stands) could result in the removal of a significant number of apple trees and may cause other management issues that could impact on the viability of the main orchard.

Lot 65 only contains the historic packing shed fronting Swamp Road. We understand that, although not listed as a Local Heritage Place, this packing shed has significant historic value to the settlement and economic development of the Lenswood area. The history of the packing shed is recorded in the book "*Stringy Barks to Orchards: A History of Lenswood and Forest Range*". More specifically, the packing shed was built in 1908 and represents the first co-operative packing shed in the district. The packing shed was used by the Co-op until 1950 when operations shifted to the current cold store on Lobethal Road.

There are no easements, right-of-ways, or other encumbrances noted on the titles.

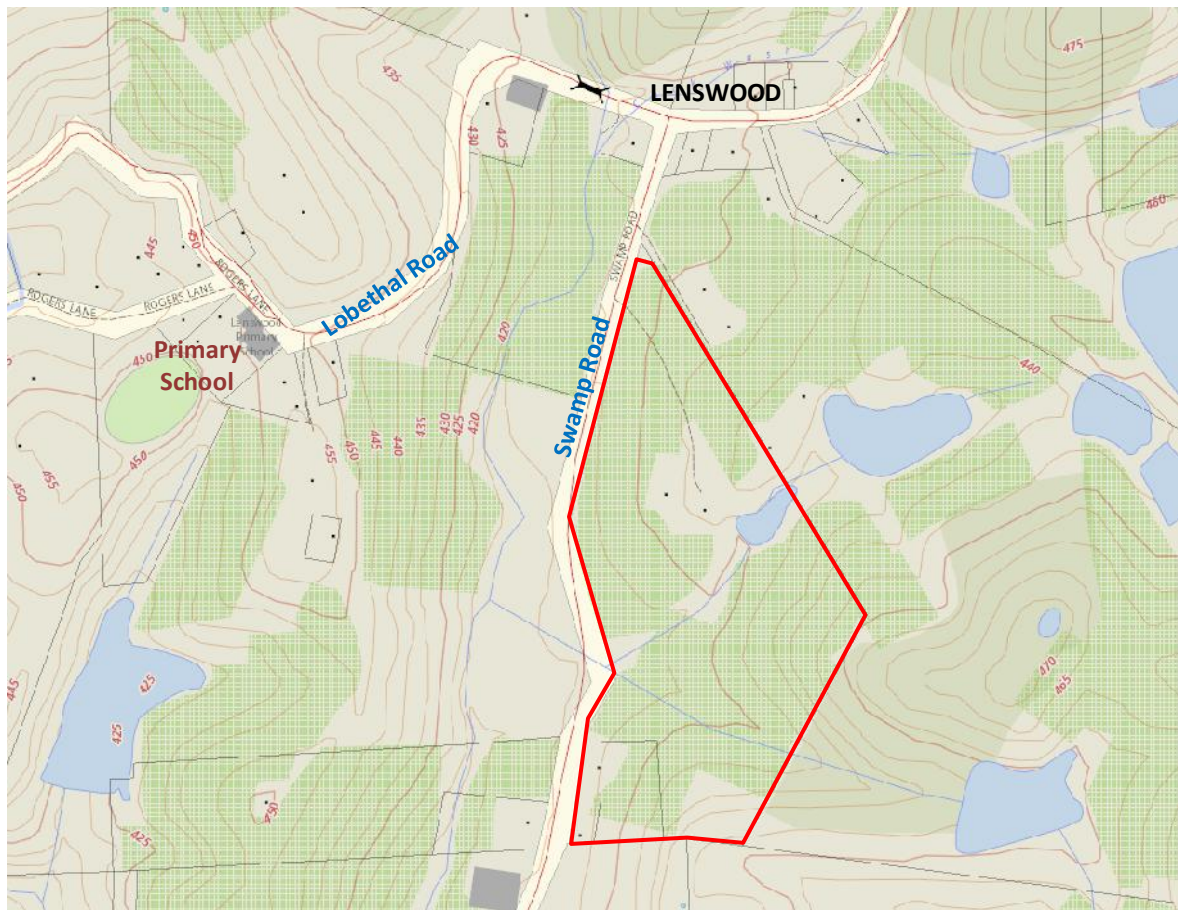


The subject land generally slopes down from east to west towards Swamp Road. It contains a dam and two watercourses which drain towards Cock Wash Creek on the western side of Swamp Road. A relatively small stand of native vegetation is located in the south-eastern corner of the land while additional native vegetation is located around the dam.

Safe and convenient vehicular access is provided to Swamp Road via a gravel driveway to the dwelling on existing Lot 11 and a cement crossover to the existing dwelling on existing Lot 64. Formal vehicular access is currently not available to the packing shed on existing Lot 65. The road reserve is heavily vegetated with mature remnant native vegetation.

The boundary realignment does not propose any additional vehicular access points to Swamp Road. Rather, shared access to both Lot 1 and Lot will be provided over the existing gravel driveway.

**Figure 1:** Location of Subject Land (Source: SA Planning and Property Atlas)



Images of the subject land are provided in the following figures.

**Figure 2:** Dwelling on Existing Lot 11



**Figure 3:** Dwelling on Existing Lot 64 (looking north)





**Figure 4:** Historic Packing Shed on Existing Lot 65



**Figure 5:** Driveway on Existing Lot 11



### 3.2 The Locality

The character of the locality is dominated by a significant number of orchards and associated buildings which are located on both sides of Swamp Road. However, the locality also includes the settlement of Lenswood which is located approximately 70m to the north of the subject land. Within Lenswood near the end of Swamp Road, development includes a number of dwellings as well as a Church and a general store/post office. Slightly further to the west, along Lobethal Road, is the Lenswood



Gas Centre and Hills Irrigation Service followed by the Lenswood Primary School which is located approximately 650m by road from the subject land. To the east, along Lobethal Road, is the Lenswood Cold-store, a rural supply business and a lawn bowls facility. A Telstra equipment facility adjoins the subject site to the north.

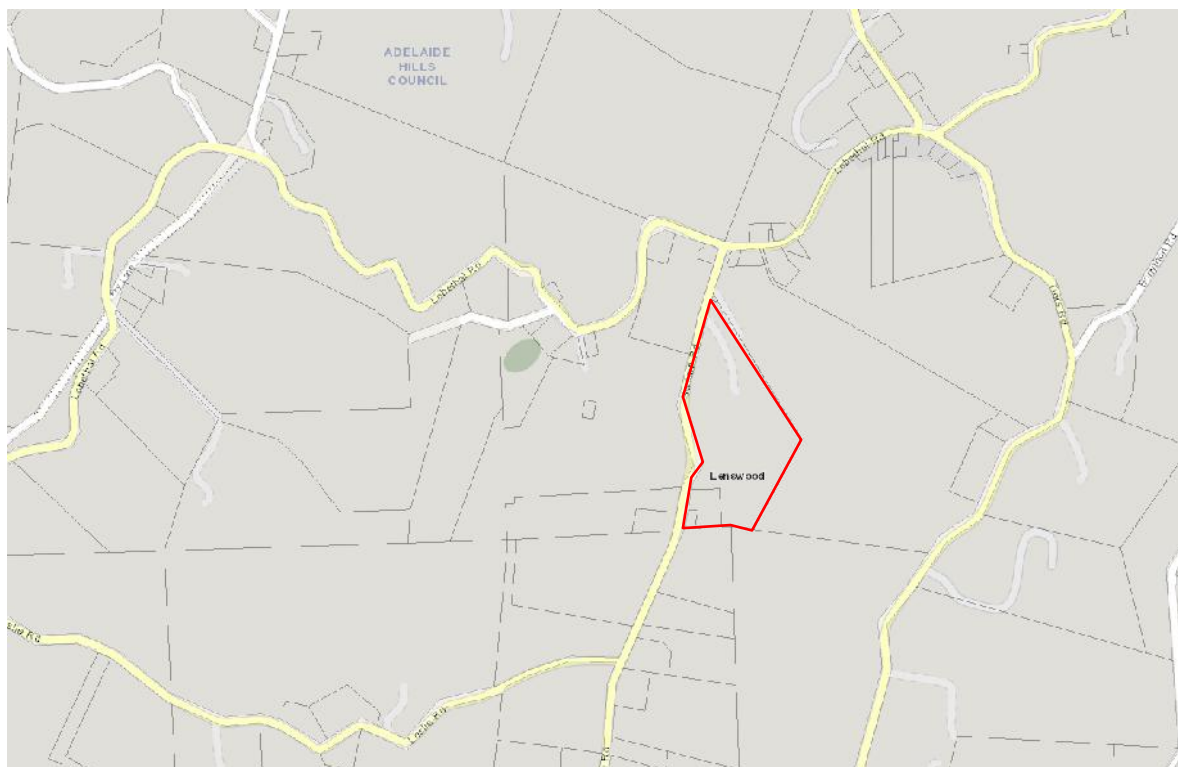
Allotments in the locality vary considerably in terms of their size and shape. This includes the subject land which comprises three allotments ranging from 2,065m<sup>2</sup>, to 6.81ha in area.

To the south of the subject land, along Swamp Road, allotment sizes range considerably with larger allotments generally containing orchards and smaller allotments generally containing detached dwellings.

There are also a number of smaller allotments to the north of the subject land – particularly within the settlement of Lenswood.

Figure 6 illustrates the wide range of allotment sizes and shapes in the locality.

**Figure 6:** Allotment Sizes in the Locality (Source: SA Planning and Property Atlas)



## 4.0 THE PROPOSED DEVELOPMENT

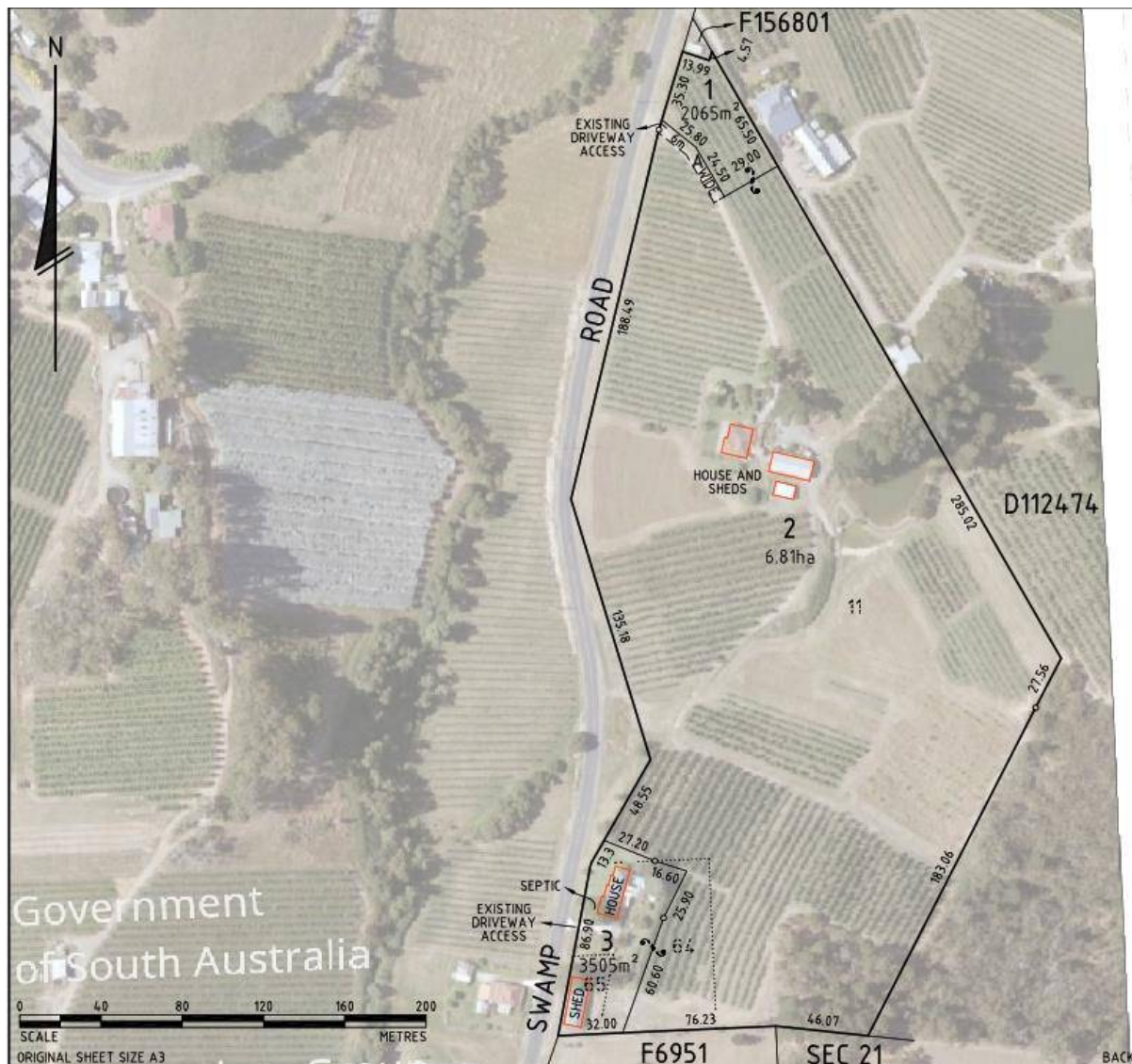
The proposed land division (boundary realignment) is illustrated on the Plan of Division prepared by Richard Retallack Licensed Surveyor. The plan identifies that the existing boundary separating the historic packing shed and the adjacent dwelling (existing Lots 64 and 65) will be removed so that the two buildings will sit on the same allotment which is a more logical arrangement. This new allotment (proposed Lot 3) will have an area of 3,505m<sup>2</sup>, a frontage of 100.2m to Swamp Road and a depth ranging from 32m to 43.8m. In addition, the northern and eastern boundaries of Lot 3 will follow the

orchard plantings rather than the current situation where the boundaries cut through the orchard.

The allotment on which the historic packing shed is currently located (Lot 65) will be 'moved' up to the northern part of the subject land close to the Lenswood settlement to create proposed Lot 1. This Lot will have an area of 2,065m<sup>2</sup>, a frontage to Swamp Road of 35.3m and a depth of 50.3m. A right of way will be created over a portion of the existing driveway to provide shared access to proposed Lot 1. In this way, no additional access points will be required to Swamp Road.

The balance of the land will be contained within proposed Lot 2 which will have an area of 6.81ha and a frontage of 372.22m to Swamp Road. Lot 2 will contain the orchard as well as the existing dwelling, sheds and dam.

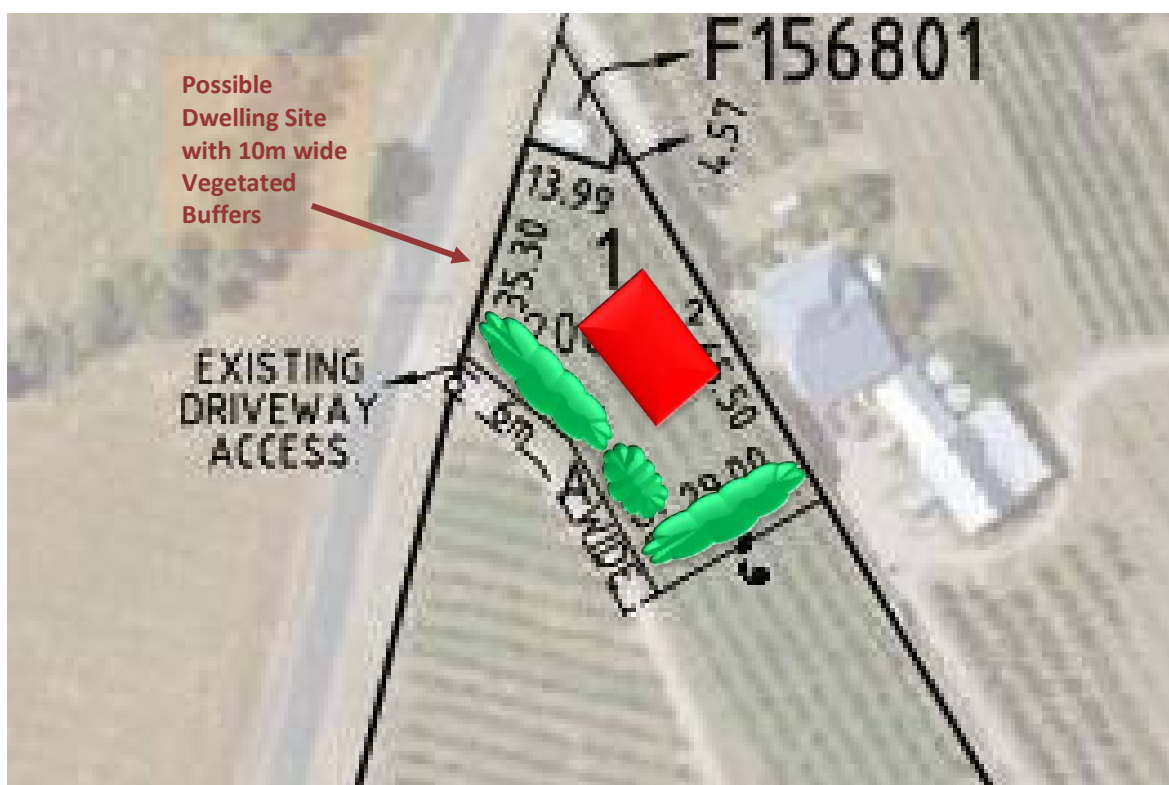
**Figure 7: Proposed Boundary Realignment** (Source: Richard Retallack)



Given the size, width and depth of proposed Lot 1, ample opportunities will be available to provide for an appropriate site a future dwelling while still achieving a suitable separation distance from the orchard on proposed Lot 2. This is illustrated by the Concept Plan provided in Figure 8 which identifies a potential dwelling site on proposed Lot 1.

The Concept Plan also demonstrates that 10m wide vegetated buffers could be provided along the northern and western boundary of Lot 10 to complement the existing vegetated buffer along the southern boundary. These buffers could be established as part of a future application for a dwelling on the site. Safe vehicular access to the site can also be achieved via a right-of-way over a portion of the existing gravel driveway.

**Figure 8:** Concept Plan – Potential Dwelling Site



## 5.0 PLANNING ASSESSMENT

### 5.1 Zone

The site is located within the Watershed (Primary Production) Zone and the Lenswood Policy Area of the Adelaide Hills Council Development Plan, consolidated 8 August 2019.

The land is also within an area of land identified as the 'Environment and Food Production ('EFP') Area' introduced as part of the *Planning, Development and Infrastructure Act 2016*. Given that the proposed development is not seeking to create an additional allotment, it does not offend the requirements of the EFP Area.



## 5.2 Nature of Development

Section 4 of the *Development Act 1993* states that the division of land includes “the alteration of the boundaries of an allotment”. Further to this, Principle of Development Control (PDC) 70 of the Zone states that all kinds of development are *non-complying* apart from a number of listed exemptions. Relevantly, the following exemption applies to land division:

*Land Division where no additional allotments are created, either partly or wholly, within the Watershed (Primary Production) Zone, and where the development of the proposed allotments does not result in a greater risk of pollution of surface or underground waters than would the development of the existing allotments, and provided a suitable site for a detached dwelling is available such that the site and the dwelling would comply with the criteria in Table AdHi/5*

Given that the proposal does not create an additional allotment in the Zone and will not result in a greater risk of pollution of surface or underground waters, it is necessary to refer to the following criteria contained in Table AdHi/5:

**TABLE AdHi/5 – Non-complying Exemptions**

- (a) *Is not located on land subject to flooding as shown on Figures AdHiFPA/1 to 19 or other areas subject to flooding or inundation by a 1 in 100 year average return interval flood event or situated on land fill which would interfere with the flow of flood waters.*
- (b) *Is connected to an approved sewerage or common effluent disposal scheme or has an existing, or approved, on-site waste water treatment and disposal method which complies with the Standard for the Installation and Operation of Septic Tank Systems in South Australia (including Supplements A & B) as prepared by the South Australian Health Commission;*
- (c) *Does not have any part of a septic tank effluent drainage field or any other waste water disposal area (eg irrigation area) located within 50 metres of a watercourse identified on a current series 1:50 000 Government standard topographic map and when locating tourist accommodation for eleven guests or more any effluent generated is not disposed onto land:*
  - (i) *In a high rainfall zone (>900 mm/year);*
  - (ii) *Within 200 metres of a major watercourse (3rd or higher order);*
- (d) *Does not have a waste water disposal area located on any land with a slope greater than 20 percent (1 in 5), or depth to bedrock or seasonal or permanent watertable less than 1.2 metres;*
- (e) *Does not have a septic tank or any other waste water treatment facility located on land likely to be inundated by a 10 year return period flood event;*
- (f) *Is sited at least 25 metres from any watercourse identified on a current series 1:50 000 Government standard topographic map;*

In response to the criteria in Table AdHi/5, it is noted that:

- The existing dwellings on proposed Lots 2 and 3:
  - Are not located on land subject to flooding or within 25m of a defined watercourse;
  - Are connected to an approved wastewater treatment system;
- Proposed Lot 1 provides a suitable site for a detached dwelling which:
  - Is not subject to flooding or inundation;



- Is able to be serviced by an on-site wastewater treatment system which is not located within 50m of a watercourse, or on land prone to flooding or on land with a slope greater than 20 percent; and
- Will ensure that a future dwelling is located further than 25m from a watercourse.

For the reasons outlined above, the proposed boundary realignment satisfies the exemption in PDC 70 of the Zone. Therefore, it is a 'consent' form of development within the Zone to be assessed on its merits against the relevant provisions of the Development Plan.

### 5.3 Public Notification

In accordance with Schedule 9(2)(f) of the *Development Regulations 2008*, the proposal is a Category 1 form of development for the purposes of public notification. Therefore, public notification is not required.

### 5.4 Government Agency Referrals

The proposed boundary realignment does not trigger any formal referrals under Schedule 8 of the *Development Regulations 2008*.

### 5.5 Development Plan Assessment

#### 5.5.1 Overview

The following section provides an assessment of the proposal against the Adelaide Hills Council Development Plan. While all provisions of the Development Plan have been reviewed, we consider that the most relevant provisions relate to land use, land division and impact on primary production. For this reason, our assessment has been grouped under these particular Development Plan 'themes'.

#### 5.5.2 Land Use

Objective 3 of the Watershed (Primary Production) Zone (the 'Zone') seeks the retention of primary production:

**Obj 3**     *The long-term sustainability of rural production in the south Mount Lofty Ranges.*

In addition, PDCs 23 to 26 anticipate that residential development is appropriate in the Zone under certain circumstances. This is reinforced by PDC 70 of the Zone which exempts a detached dwelling from being a non-complying form of development where certain environmental criteria can be satisfied.

Objective 1 of the Lenswood Policy Area provides further high-level guidance in relation to desired land use and seeks the "... *retention of orchards and bushland as the dominant uses*". Given that the proposed boundary realignment retains the predominant use of the land as an orchard, the proposal satisfies this Objective.

In addition, the proposed boundary realignment provides a suitable site for a detached dwelling within easy walking distance of the Lenswood settlement. For these reasons, the proposed land uses are consistent with the intent of the Zone.

### 5.5.3 Land Division

The Zone contains the following key provisions relating to land division:

- PDC 18** *Land Division should only occur where a suitable site for a detached dwelling is available which complies with the criteria detailed in Table AdHi/5.*
- PDC 19** *Land division in rural areas should not occur where the proposed or potential use is liable to:*
- (a) result in the pollution of water resources; or*
  - (b) cause the loss of productive primary production land.*
- PDC 20** *Land division may be undertaken where no additional allotment or allotments are created and the purpose of the plan of division is to:*
- (a) provide for a minor readjustment of allotment boundaries to correct an anomaly in the placement of those boundaries with respect to the location of existing buildings; and*
  - (b) provide for a minor readjustment of allotment boundaries to improve the management of the land for the purpose of primary production and/or the conservation of its natural features.*
- PDC 21** *Land division may be undertaken provided that the development of the resulting allotments would not result in a loss of primary production land or in a greater risk of pollution of surface or underground waters than would occur through development of the existing allotments.*
- PDC 22** *Re-arrangement of allotment boundaries should produce allotments of a size consistent with that in the locality.*

The proposed development aligns with these key land division provisions for the following reasons:

- The proposed 2,065m<sup>2</sup> allotment can provide a suitable site for a dwelling which complies with the criteria within Table AdHi/5 given that the land:
  - is not subject to flooding or inundation;
  - is able to be serviced by an on-site wastewater treatment system which is not located within 50m of a watercourse, or on land prone to flooding or on land with a slope greater than 20 percent;
  - will ensure that a future dwelling is located further than 25m from a watercourse;
- The proposal will not result in the pollution of water resources;
- The proposal will assist to improve the management of the land by retaining the orchard and by ensuring that the boundary of proposed Lot 3 follows the rows of trees rather than cutting through the orchard as is currently the case for Lot 64;
- The proposal will not provide additional development opportunities on the land more than currently exists; and
- There are a range of allotment sizes in the locality – a number of which are similar in size to proposed Lots 1 and 3.

Further to the above, it is noted that existing Lot 65, which contains the historic packing shed, could potentially be developed for a dwelling. However, this site is relatively small in the context of the locality, would result in a dwelling being sited quite close to Swamp Road and would require the provision of another vehicular access point along an 80km/h section of the road. In addition, the demolition of the packing shed to make way for a dwelling would represent a significant loss of a building of historic value to the settlement and economic development of the Lenswood area.

In contrast, proposed Lot 1 offers a number of benefits over the potential development of existing Lot 65. These include:

- It creates a development site within easy walking distance of the Lenswood settlement;
- The development site is within the 50km/h section of Swamp Road where vehicle speeds will be considerably lower than along other portion of the subject land;
- The depth of the development site allows for the future dwelling to be setback an appropriate distance from Swamp Road which is more consistent with the character of the locality;
- No additional vehicular access points to Swamp Road will be required;
- The development site is large enough to enable the provision of vegetated buffers which will minimise potential interface issues from the adjoining orchard; and
- The size of the development site provides more flexibility in terms of the siting of a wastewater treatment system.

In addition to the above, proposed Lot 1 will be located close to Swamp Road and close to the Lenswood settlement which will assist with access for CFS trucks in the event of a fire.

The Zone land division provisions are reinforced by a number of Council Wide provisions relating to land division including the following Objective and PDCs which specifically relate to land division in rural areas:

**Obj 5** *Land division restricted in rural areas to ensure the efficient use of rural land for primary production and avoidance of uneconomic infrastructure provision.*

**PDC 21** *Rural land should not be divided if the resulting allotments would be of a size and configuration likely to impede the efficient use of rural land for any of the following:*

- (a) *primary production*
- (b) *value adding industries related to primary production*
- (c) *protection of natural resources.*

**PDC 22** *Rural land should not be divided where new allotments would result in any of the following:*

- (a) *fragmentation of productive primary production land*
- (b) *strip development along roads or water mains*
- (c) *prejudice against the proper and orderly development of townships*

(d) *removal of native vegetation for allotment boundaries, access roads, infrastructure, dwellings and other buildings or firebreaks*

(e) *uneconomic costs to the community for the provision of services.*

**PDC 23** *No land division should take place where the subsequent development of the land may lead to or result in the exploitation or pollution of a water resource.*

The proposed boundary realignment appropriately responds to the Council Wide provisions listed above for the following reasons:

- It will ensure that rural land is used efficiently for primary production while avoiding the need to provide uneconomic infrastructure to service the allotments;
- It will reduce the fragmentation of productive primary production land by retaining the orchard as the predominant use of the land;
- It will not result in strip development along roads or water mains and won't prejudice the orderly development of townships;
- It will not require the removal of native vegetation for allotment boundaries, roads, dwellings and other buildings or firebreaks; and
- It will not result in the exploitation or pollution of a water resource.

The Council Wide section of the Development Plan also contains a number of other 'land division' provisions which seek (in summary):

- The appropriate provision of services such as stormwater, water supply and for the disposal of wastewater;
- That the allotments are suitable for the intended use in terms of their size, shape, location and slope;
- That each allotment has a frontage to an existing road; and
- That the intended use of the land does not require excessive cut and/or fill.

The proposed boundary realignment appropriately responds to these additional Council Wide provisions for the following reasons:

- Proposed Lot 1 will be of a sufficient size and location to ensure that a suitable water supply and wastewater treatment system can be provided for a future dwelling;
- Consistent with most development in rural areas, stormwater will be captured within rainwater tanks for reuse;
- Proposed Lot 1 will be of a suitable size, shape and location to accommodate a future dwelling and associated buildings;
- All three allotments will continue to front Swamp Road where convenient and safe access for vehicles will continue to be provided without having to create another access point; and
- The land features a gentle slope meaning that a future dwelling will not require excessive cut or fill.

#### 5.5.4 Impact on Primary Production

As noted previously, the proposed development retains the predominant use of the land as an orchard as sought by Objective 1 of the Policy Area. In addition, the



adjustment around the existing dwelling and historic packing shed to create proposed Lot 3 will assist with the management of the orchard by ensuring that the boundary follows the rows of trees rather than 'cutting' through them. This will assist with the retention of the orchard in the event that proposed Lot 3 is sold in the future.

While it is noted that the creation of Lot 1 will involve the removal of a portion of the orchard, the landowners have advised that these trees produce Sundowner apples which are near the end of their productive life and do not meet current customer preferences. For this reason, the trees in this area are scheduled to be removed after the next season or two.

It is further noted that a substantial area on proposed Lot 2 could be planted with apple trees to compensate for the loss of trees on proposed Lot 1 (see Figure 9). When combined with the improvement achieved by altering the boundary around the dwelling and the historic packing shed, the proposed boundary realignment is likely to have an overall beneficial outcome in terms of the agricultural productivity of the land. At the very least, the proposed boundary realignment will have a neutral impact on the agricultural productivity of the subject land.

**Figure 9:** Area of subject land that is available for replacement apple trees





### 5.5.5 Potential Site Contamination

Given that proposed Lot 1 currently forms part of the orchard, there is a possibility that potentially contaminating activities may have occurred on the land. On this basis, and given that a more sensitive land use is proposed, a Preliminary Site Investigation (PSI) should be prepared in accordance with the EPA's draft *Practice Direction for Site Contamination Assessment (2019)*. Therefore, the landowners have engaged a Site Contamination Consultant to prepare a PSI which will be provided to the Council. In this way, the applicant will demonstrate that the land is suitable for the proposed use as required by PDC 22 of the Council wide section of the Development Plan:

**PDC 22** *Development, including land division, should not occur where site contamination has occurred unless the site has been assessed and remediated as necessary to ensure that it is suitable and safe for the proposed use.*

## 6.0 CONCLUSION

As outlined in this Planning Statement, Mr and Mrs Murdoch are seeking to undertake a boundary realignment to better manage the property and protect the historic apple packing shed (which currently sits on its own title). Importantly, given that the historic packing shed could potentially be demolished to make way for a dwelling, the proposed boundary realignment will not increase the development potential of the land. Rather, the 'relocation' of existing Lot 65 to the northern portion of the subject land will create an allotment that is better suited for a dwelling which is conveniently located closer to the Lenswood settlement and where interface issues associated with the existing orchard can be addressed minimised.

Following an assessment of the proposal against the Adelaide Hills Council Development Plan, the boundary realignment is consistent with the key relevant provisions for the following reasons:

- Proposed Lot 1 can provide a suitable site for a dwelling which:
  - is not subject to flooding or inundation;
  - is able to be serviced by an on-site wastewater treatment system which is not located within 50m of a watercourse, or on land prone to flooding or on land with a slope greater than 20 percent;
  - will ensure that a future dwelling is located further than 25m from a watercourse;
  - minimises the potential for interface issues associated with the existing orchard by ensuring that a future dwelling will be located close to Swamp Road with sufficient room for appropriate vegetated buffers around the boundaries;
  - will allow safe and convenient vehicular access (including CFS trucks) from Swamp Road via a right-of-way over the existing gravel driveway;
- The proposal will not result in the pollution of water resources;
- The proposal will improve the management of the land by retaining the predominate orchard use of the land and by altering the boundary around the existing dwelling and historic packing shed so that it follows the rows of tree rather than 'cutting' through them;



- While a portion of the orchard will be removed on proposed Lot 1, these trees are at the end of their productive life and replacement trees can be planted on proposed Lot 2 to ensure that there is not net loss of apple trees;
- The proposal will not provide additional development opportunities on the land more than currently exists; and
- The proposal is consistent with the character of the locality which includes a range of allotment sizes – a number of which are smaller or similar in size to proposed Lots 1 and 3.

With the above in mind, the proposed boundary realignment appropriately addresses the relevant provisions of the Development Plan and warrants Development Plan Consent.



## Appendix A

### Plan of Division



## PLAN FOR DEVELOPMENT APPROVAL – LAND DIVISION (BOUNDARY RE-ALIGNMENT)

PLAN NUMBER - R20034MUR-01A

LEGAL IDENTIFIER

LOT 11 IN F106541, LOT 64 IN F156799  
AND LOT 65 IN F156800  
HUNDRED OF ONKAPARINGA  
C'ST 6161/134, 5509/458 AND 5724/523

## ADDRESS

792 SWAMP ROAD  
LENSWOOD

## COUNCIL

ADELAIDE HILLS

## APPLICANTS

W &amp; J MURDOCH

## OWNERS

W &amp; J MURDOCH

## AGENT

RICHARD RETALLACK

## EASEMENTS

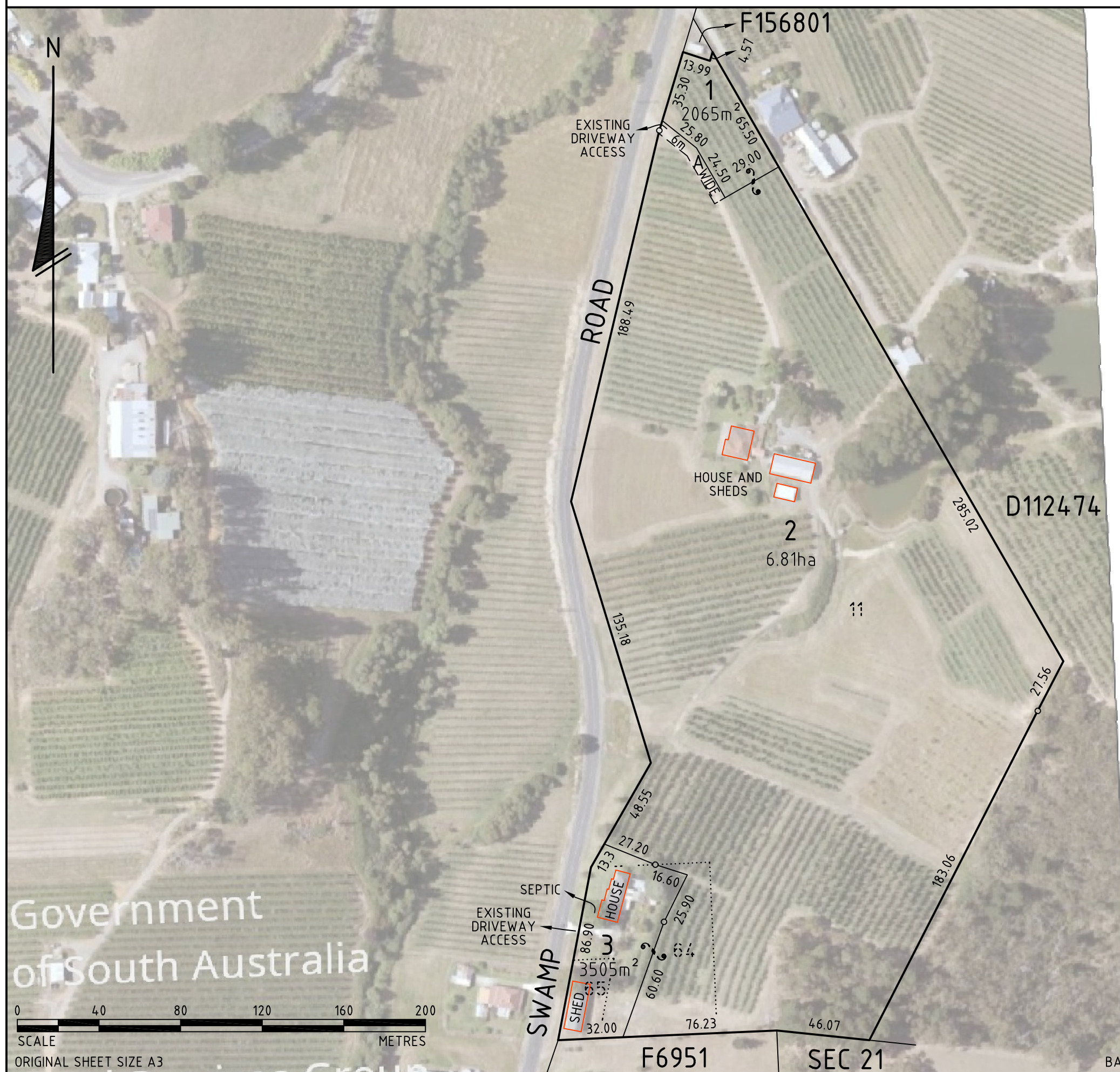
PORTION OF ALLOTMENT 2 MARKED A IS TO  
BE SUBJECT TO A FREE AND UNRESTRICTED  
RIGHT OF WAY IN FAVOUR OF ALLOTMENT 1

## DIMENSIONS AND AREAS SUBJECT TO SURVEY

8 Apr 1996 (overviewing) SAIT Member ISA 35

# RICHARD RETALLACK

NO. 8-96-150 Date Book SA 5047



BACKGROUND IMAGE : SAPPA



## Appendix B

### Certificates of Title



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5509 Folio 458

**Parent Title(s)** CT 4139/181  
**Creating Dealing(s)** CONVERTED TITLE  
**Title Issued** 03/03/1998      **Edition** 2      **Edition Issued** 11/03/1998

## Estate Type

FEE SIMPLE

## Registered Proprietor

JOAN THERESE MURDOCH  
OF SWAMP ROAD LENSWOOD SA 5240

## Description of Land

ALLOTMENT 64 FILED PLAN 156799  
IN THE AREA NAMED LENSWOOD  
HUNDRED OF ONKAPARINGA

## Easements

NIL

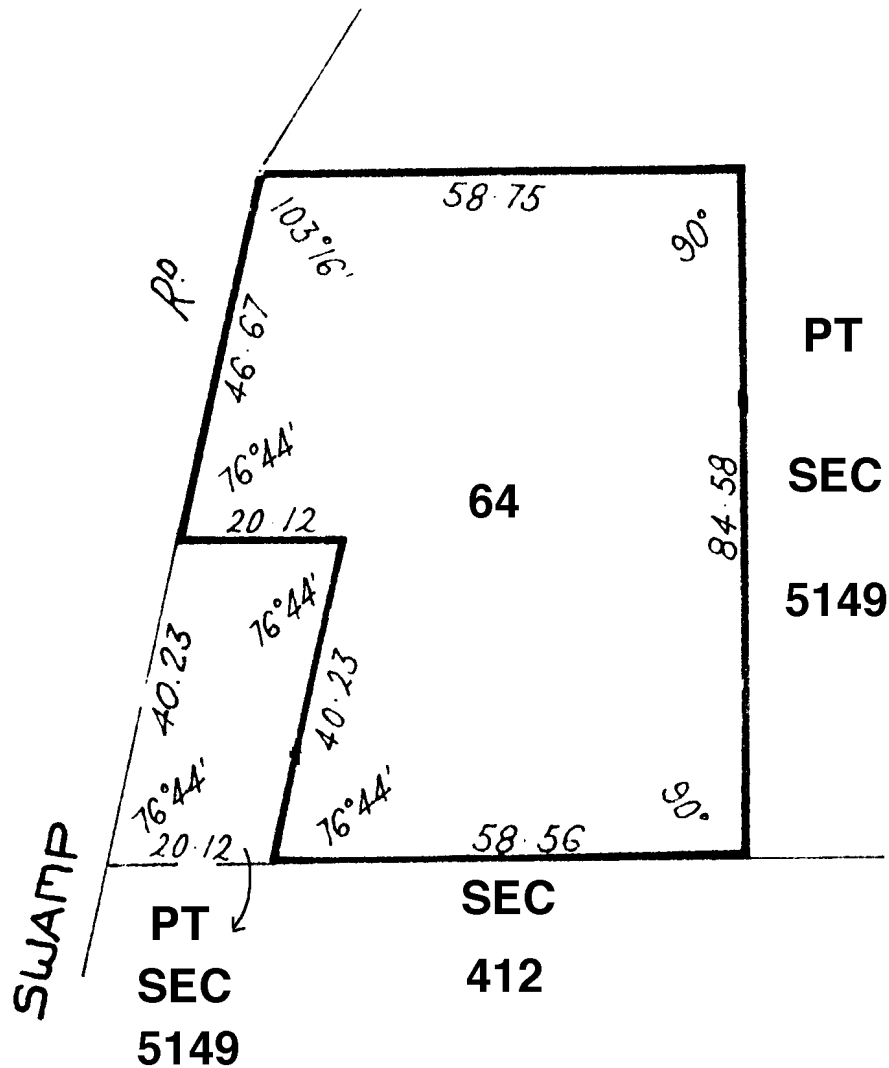
## Schedule of Dealings

NIL

## Notations

<b>Dealings Affecting Title</b>	NIL
<b>Priority Notices</b>	NIL
<b>Notations on Plan</b>	NIL
<b>Registrar-General's Notes</b>	NIL
<b>Administrative Interests</b>	NIL

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 4139/181



NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 5724 Folio 523

**Parent Title(s)** CT 1808/198  
**Creating Dealing(s)** CONVERTED TITLE  
**Title Issued** 12/01/2000      **Edition** 1      **Edition Issued** 12/01/2000

## Estate Type

FEE SIMPLE

## Registered Proprietor

WARREN DUDLEY MURDOCH  
JOAN THERESE MURDOCH  
OF SWAMP ROAD LENSWOOD SA 5240  
AS JOINT TENANTS

## Description of Land

ALLOTMENT 65 FILED PLAN 156800  
IN THE AREA NAMED LENSWOOD  
HUNDRED OF ONKAPARINGA

## Easements

NIL

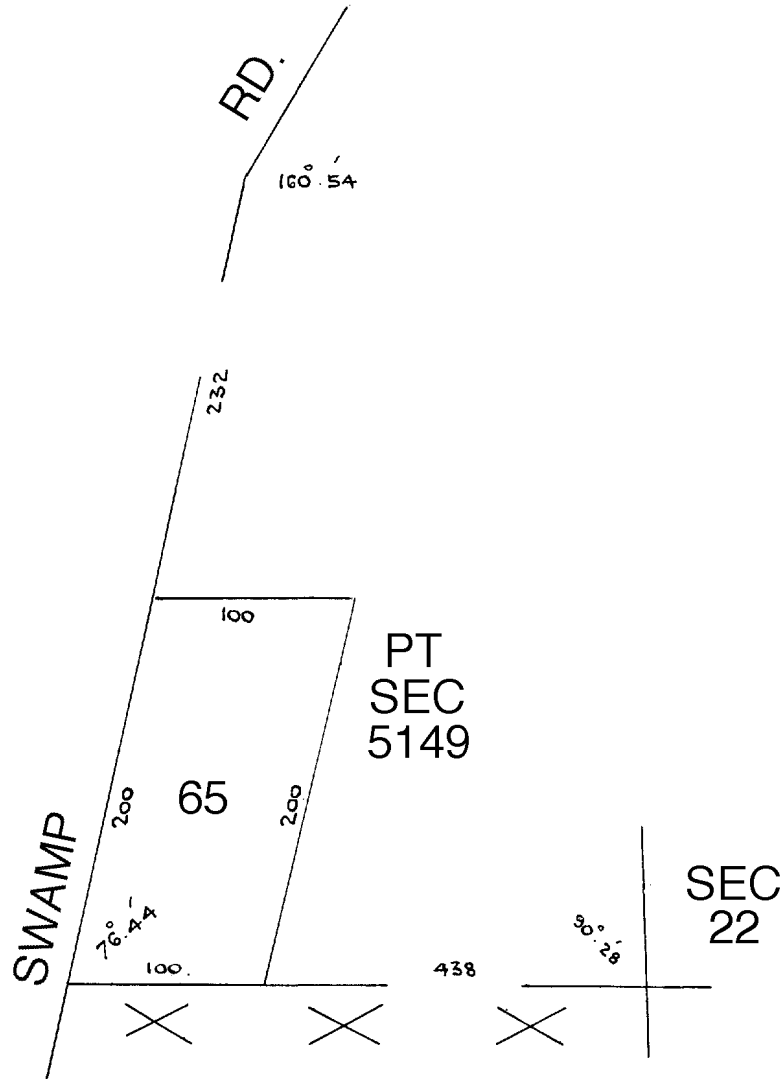
## Schedule of Dealings

NIL

## Notations

<b>Dealings Affecting Title</b>	NIL
<b>Priority Notices</b>	NIL
<b>Notations on Plan</b>	NIL
<b>Registrar-General's Notes</b>	NIL
<b>Administrative Interests</b>	NIL

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 1808/198



100 50 0 100 LKS

DISTANCES ARE IN LINKS  
FOR METRIC CONVERSION  
1 LINK = 0.201168 METRES  
1 CHAIN = 100 LINKS

NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 6161 Folio 134

Parent Title(s) CT 6136/247

Creating Dealing(s) SC 12357562

Title Issued 12/08/2015

Edition 2

Edition Issued

05/01/2018

## Estate Type

FEE SIMPLE

## Registered Proprietor

WARREN DUDLEY MURDOCH  
JOAN THERESE MURDOCH  
OF MAIN ROAD LENSWOOD SA 5240  
AS JOINT TENANTS

## Description of Land

ALLOTMENT 11 FILED PLAN 106541  
IN THE AREA NAMED LENSWOOD  
HUNDRED OF ONKAPARINGA

## Easements

NIL

## Schedule of Dealings

NIL

## Notations

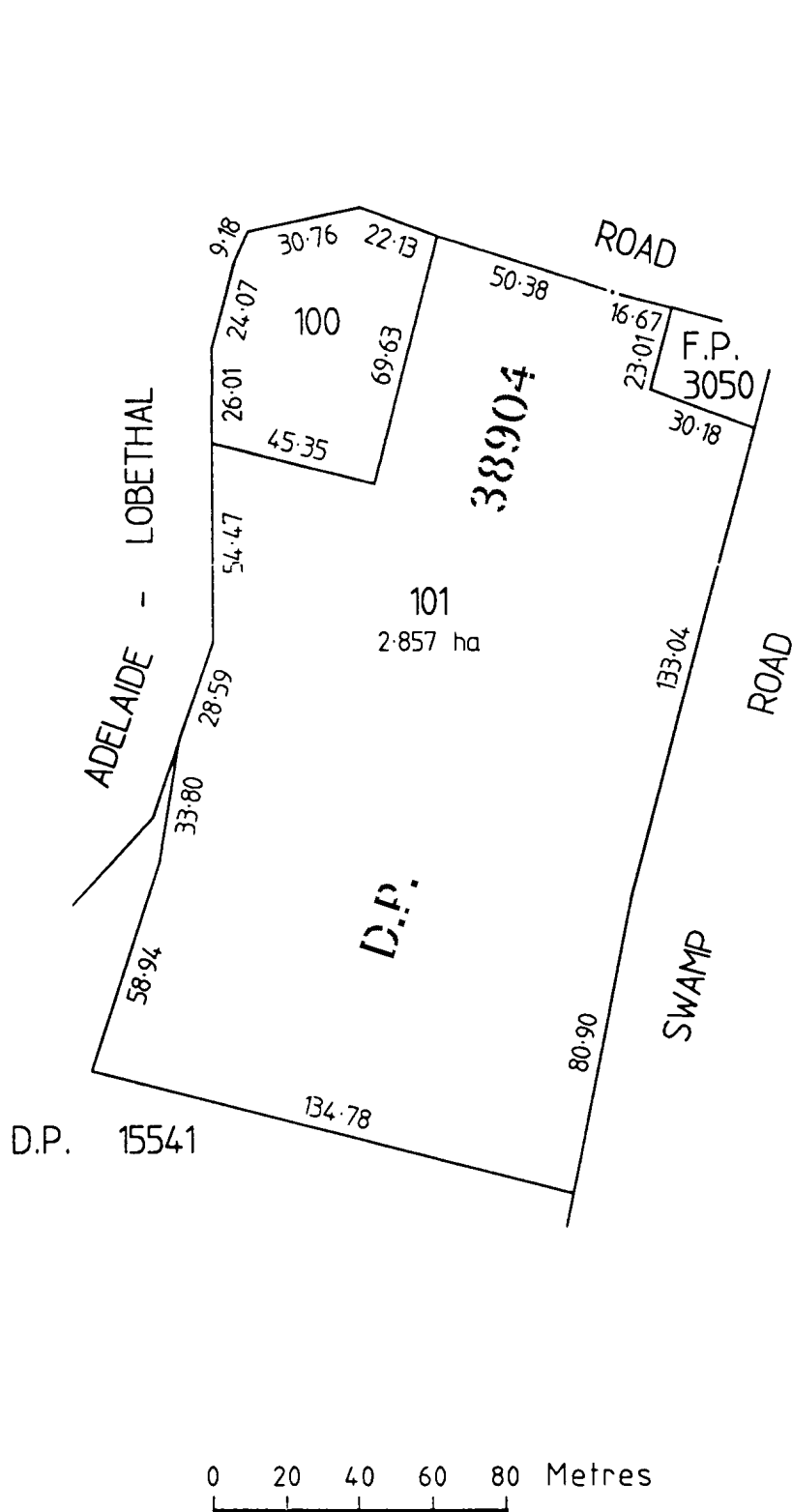
Dealings Affecting Title NIL

Priority Notices NIL

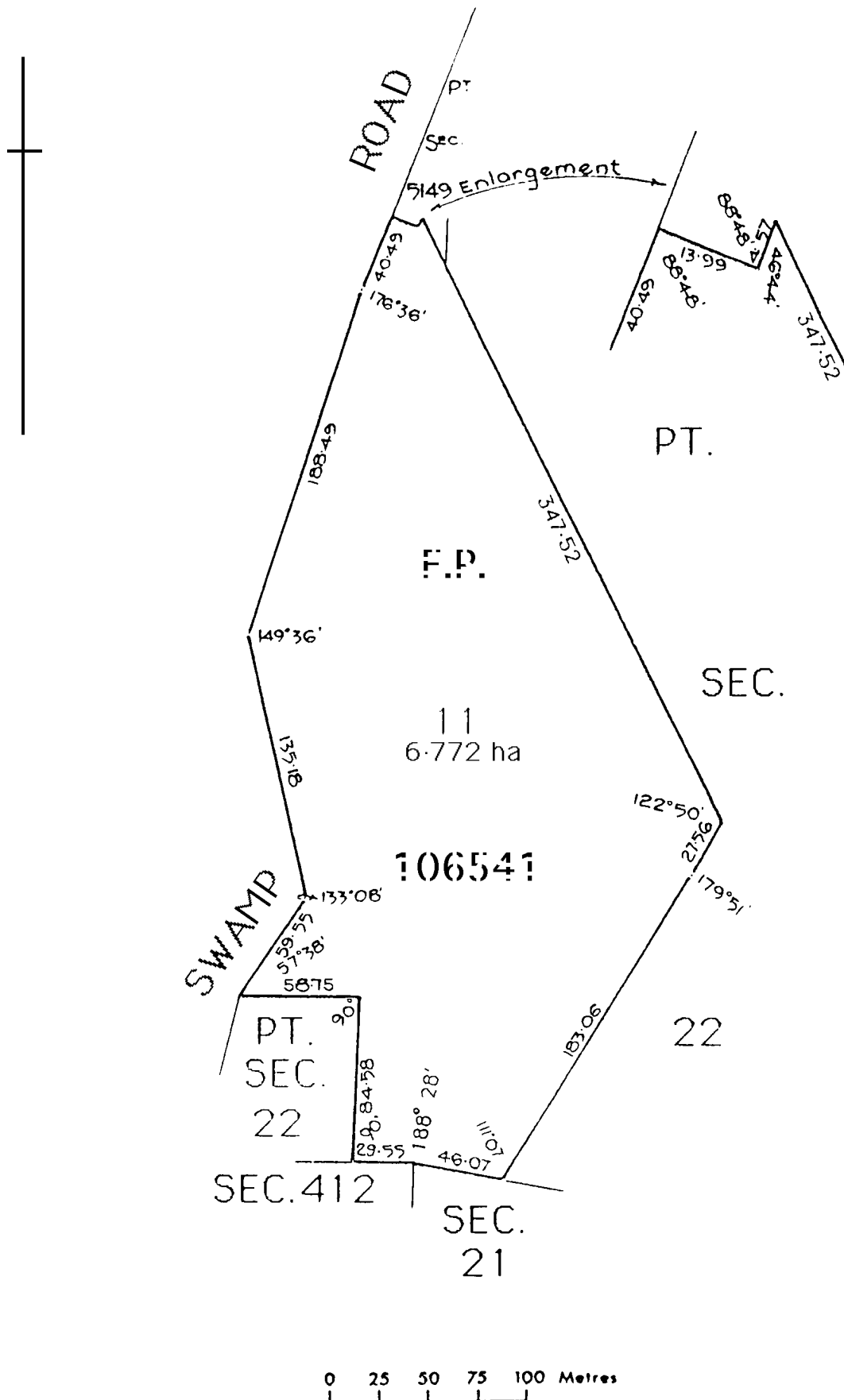
Notations on Plan NIL

Registrar-General's Notes NIL

Administrative Interests NIL







18 February 2021

Our ref: P0206

Mr Doug Samardzija  
Statutory Planner  
Adelaide Hills Council  
PO Box 44  
WOODSIDE SA 5244

Via email: [dsamardzija@ahc.sa.gov.au](mailto:dsamardzija@ahc.sa.gov.au)

Dear Doug,

**RE: DEVELOPMENT APPLICATION FOR A BOUNDARY REALIGNMENT (DA 20/714/473) AT 792 SWAMP ROAD, LENSWOOD – RESPONSE TO FURTHER INFORMATION REQUEST**

We write further to your letter dated 17 August 2020 in which you requested additional information in relation to the proposed boundary realignment at 792 Swamp Road, Lenswood. As you know, Planning Studio has been engaged by Warren and Joan Murdoch to provide planning advice in relation to the proposed boundary realignment.

Following receipt of your request for further information, Warren and Joan Murdoch have engaged:

- RFE Consulting to prepare a Preliminary Site Investigation Report;
- RFE Consulting to undertake a Wastewater Feasibility Assessment; and
- Pinion Advisory to undertake an Agricultural Viability Assessment.

These reports, which are appended to this letter, confirm that the proposed boundary realignment will create allotments which are suited for their intended use and will support the continuation of an economically viable horticultural operation on the land. In this way, the proposed boundary realignment satisfies the relevant provisions of the Adelaide Hills Development Plan.

We have provided a summary of the key findings of the reports below.

***Preliminary Site Investigation Report***

In accordance with the Council's request, a Preliminary Site Investigation (PSI) Report was prepared by an Environmental Consultant. The purpose of the report was to determine whether any potentially contaminating activities had occurred on proposed Lot 1 and existing Lot 65 which might prevent or restrict the establishment of a more sensitive use (residential) on the land. Following a detailed investigative process which, amongst other things, involved a site inspection, a review of a raft of historical information and the analysis of a number of soil samples taken from the land, the PSI identified that:

- The existing and historic use of the land for horticultural purposes (orchard), represents a potentially contaminating activity;
- Laboratory testing of soil samples taken from the land indicate that there are no contaminants which exceed the adopted health investigation levels for residential land use;



- There are no offsite potentially contaminating activities relevant to the subject land; and
- The existing and previous use of the land as an orchard is considered to have a negligible risk to the proposed boundary realignment.

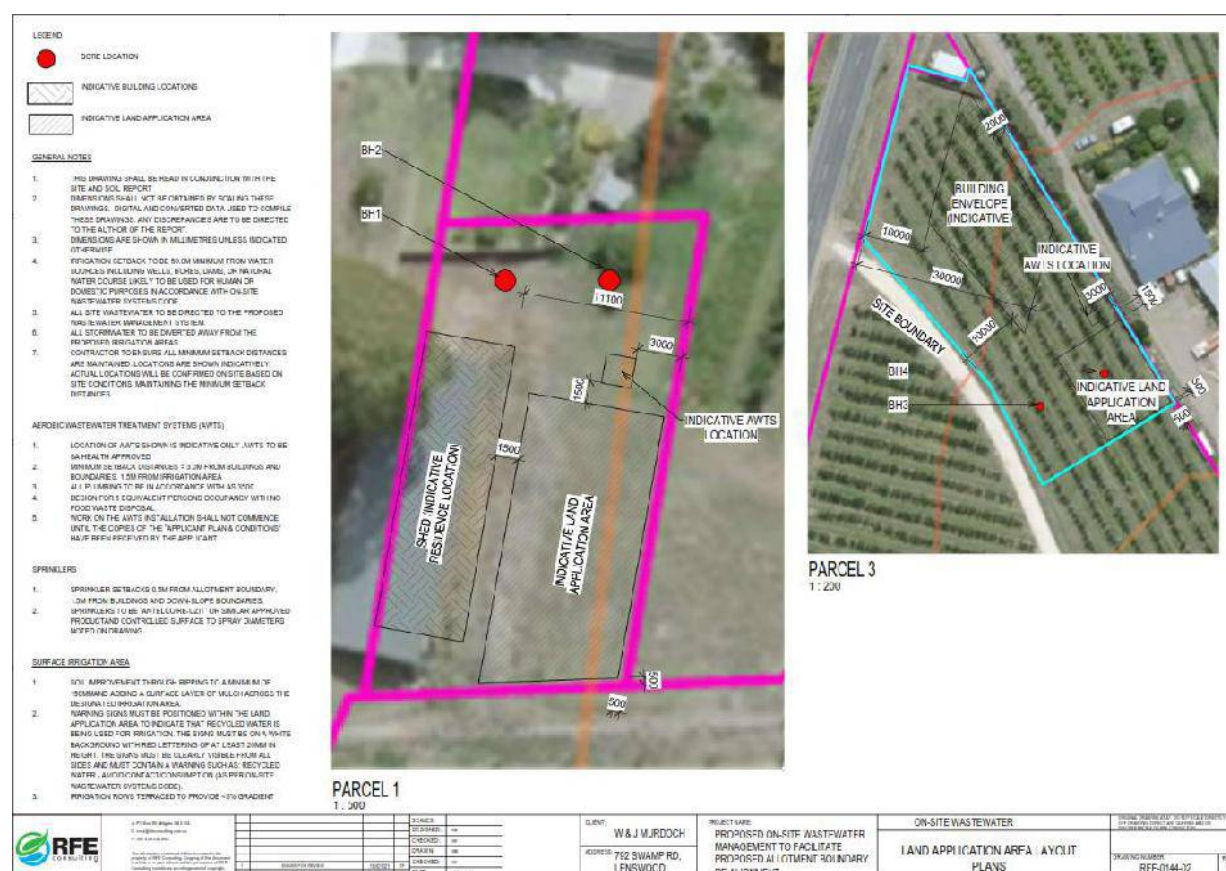
Based on the findings contained within the PSI, RFE Consulting conclude that there are no environmental considerations which would preclude the boundary realignment from proceeding.

### Wastewater Feasibility Assessment

RFE Consulting also undertook an assessment to determine whether a wastewater management system could be established on proposed Lot 1 to service a potential future dwelling. In addition, existing Lot 65 (upon which the historic apple packing shed is located), was investigated to determine whether a wastewater system could be established in the event that this allotment was sold in its current configuration.

Following detailed investigations, RFE Consulting has concluded that on-site wastewater management systems which are compliant with relevant legislative requirements could be established on proposed Lot 1 and existing Lot 65. Further, indicative designs for wastewater systems were prepared for each allotment to demonstrate how such a system could be located on both allotments (see Figure 1).

**Figure 1 | Indicative Wastewater Management System Design (Source: RFE Consulting)**





### **Agricultural Viability Assessment**

As per the Council's request, the applicants engaged the services of Pinion Advisory (formerly Rural Directions) to prepare an Agricultural Viability Assessment which reviews the impact that the proposed boundary realignment will have on the primary production potential of the land. Pinion Advisory has noted that the proposed boundary realignment will have the following two impacts on the existing orchard business:

1. *Approximately 0.19 Ha of apple trees is planted on the existing Lot 64, and is not considered to be a viable enterprise if this Lot is sold separately from Lot 11.*

*The creation of Lot 3 will shift these apple trees to the same title as the remainder of the orchard, which provides certainty to the orchard owner and operator.*

2. *The creation of Lot 1 for a potential dwelling development will result in the removal of approximately 0.20 Ha orchard area. The area in question is planted to the variety Sundowner, which is earmarked for removal in 2021 due to changing consumer preferences, irrespective of the outcome of this application.*

*Whilst the creation of Lot 1 will reduce the plantable area of this land by 0.20 Ha, from 2021 there will be 1.63 Ha of land which can be replanted to in-demand varieties; increasing current production by over 25%.*

Based on the impacts outlined above, Pinion Advisory conclude that:

*It is our opinion that this proposed boundary realignment will support economically viable and sustainable apple production on newly created Lot 2.*

*Under normal growing conditions in the Lenswood area, the proposed reduction in apple orchard area will have a negligible impact on the profitability of this enterprise, as there are significant gains that can be made by replanting areas that have (or will be) removed for variety change reasons.*

Further to the advice provided by Pinion Advisory, we also note that the proposed boundary realignment will improve the management of the land by retaining the predominate orchard use of the land on proposed Lot 2 and by altering the boundary around the existing dwelling and historic packing shed so that it follows the rows of apple trees rather than 'cutting' through them. We also note that, while a relatively small portion of the orchard will be removed on proposed Lot 1, these trees are at the end of their productive life and replacement trees can be planted on proposed Lot 2 to ensure that there is no net loss of apple trees.

### **Indicative Building Envelope Plan**

As requested, an indicative Building Envelope Plan has been prepared which demonstrates how a future dwelling may be located on proposed Lot 1 in accordance with the intent and provisions of the Council's Development Plan (see Figure 2 on the following page).

Specifically, the Building Envelope Plan indicates that a dwelling could be developed:

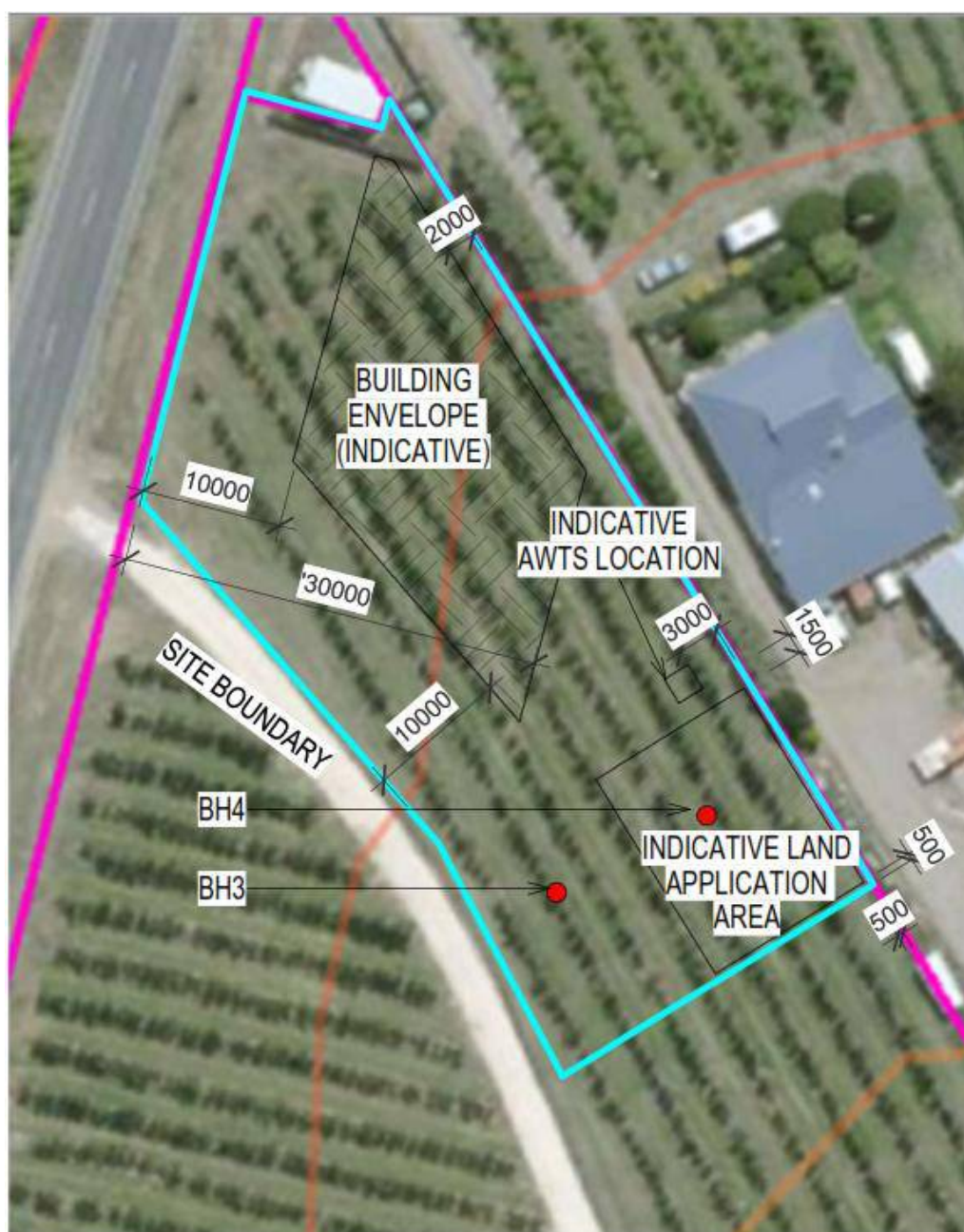
- Within 30 metres of Swamp Road to enable a CFS hose to reach the furthest point of the dwelling for fire fighting vehicles parked on the road;
- With a minimum distance of 10 metres to the existing orchard on proposed Lot 2 which would allow for the erection of an appropriately designed fence as well as the planting of a vegetated buffer to minimise the risk of negative impacts associated with activities occurring within the orchard;



- With an appropriate area set aside for a wastewater management system and associated irrigation area; and
- With a minimum setback of 2 metres to the northern boundary to ensure that any visual impact on the adjoining dwelling is minimised.

We also note that a future dwelling would be located on land that is the same level (or slightly lower) than the existing dwelling the north. On this basis, we do not consider that a future dwelling would have an unreasonable impact on the adjoining dwelling. In any event, these are matters that are more appropriately considered during the assessment of a future dwelling application.

**Figure 2** | Indicative building envelope





In response to the Council's request for further analysis of the existing allotments in the locality, we note that there are numerous allotments of a similar or smaller size to proposed Lot 1 in close proximity to the subject land (see Figure 3). These smaller allotments are generally located along Lobethal road within the settlement of Lenswood. On this basis, we consider that the size of Proposed Lot 1 is consistent with the existing character of allotments in the locality.

Further, we also note that proposed Lot 1 will be located within an easy walking distance (approximately 70 metres) of the settlement of Lenswood which includes a number of facilities and services including a General Store/Post Office, Primary School and a Church. For this reason, the proposed development will complement the character of the locality and will ensure that future residents of proposed Lot 1 will be in close proximity to a range of services and facilities.

**Figure 3** | Allotment Pattern in the locality



### Conclusion

Following the provision of a Preliminary Site Investigation Report, a Wastewater Feasibility Assessment Report and an Agricultural Viability Assessment, we remain of the view that the proposed boundary realignment will create allotments which are suitable for their intended use and will allow for appropriate development in accordance with the provisions of the Council's Development Plan.

The proposed boundary realignment represents a logical alteration of the existing boundaries which will improve the management of the property while also protecting the historic apple packing shed (which currently sits on its own title). Importantly, given that the historic packing shed could potentially be demolished to make way for a dwelling, the proposed boundary realignment will not increase the development potential of the land. Rather, the 'relocation' of existing Lot 65 to the northern portion of the subject land will create an allotment that is better suited for a dwelling which is conveniently located within easy walking distance of existing facilities and services within the settlement of Lenswood and where interface issues associated with the existing orchard can be minimised.





We trust that sufficient information has now been provided to enable you to finalise your assessment of the boundary realignment.

If additional information is required, please do not hesitate to contact the undersigned on 0438 741 747 or [kieron@planningstudio.com.au](mailto:kieron@planningstudio.com.au).

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Kieron Barnes'.

**Kieron Barnes** | MPA | **Director**

*Cc Warren and Joan Murdoch (by email)*



**Appendix A**

Amended Plan of Division



## Appendix B

Agricultural Viability Assessment – Pinion Advisory

## Doug Samardzija

---

**From:** Kieron Barnes <kieron@planningstudio.com.au>  
**Sent:** Monday, 22 March 2021 5:02 PM  
**To:** Doug Samardzija  
**Cc:** Ross Fitzgerald (ross@rfeconsulting.com.au); 'kym'  
**Subject:** RE: Land division application 473/714/20 at 792 and 832 Swamp Road, Lenswood  
**Attachments:** RFE0144 Swamp Rd, Lenswood layout plans ADDED RECREATION.pdf

Hi Doug,

Further to my email of last Friday afternoon, please find attached an amended Land Application Area Layout Plan which demonstrates that existing Lot 65 can potentially accommodate an on-site wastewater system with a building envelope and recreation area with all required setbacks.

We note that the final design of the wastewater system could take many different forms depending on the design and size of the potential dwelling. However, for the purposes of this exercise, the attached amended plan demonstrates that a wastewater system **could** be accommodated on Lot 65 in the event that the proposed boundary realignment does not proceed.

Please contact me if any additional information is required.

Kind regards

Kieron



**Kieron Barnes | Director**

kieron@planningstudio.com.au | 0438 741 747 | [www.planningstudio.com.au](http://www.planningstudio.com.au) | PO Box 32 Bridgewater SA 5155

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**From:** Kieron Barnes  
**Sent:** Friday, 19 March 2021 5:01 PM  
**To:** Doug Samardzija <dsamardzija@ahc.sa.gov.au>  
**Cc:** Ross Fitzgerald (ross@rfeconsulting.com.au) <ross@rfeconsulting.com.au>  
**Subject:** RE: Land division application 473/714/20 at 792 and 832 Swamp Road, Lenswood

Hi Doug,

Thanks for your email and for the phone call this morning where you provided further clarification in relation to the verbal comments from the Council's Environmental Health Officer. Following this discussion, we understand that the proposed boundary realignment will be acceptable to the Council on the basis that Lot 65 can provide:

- A 250m<sup>2</sup> area for a wastewater system and associated irrigation area;
- A 100m<sup>2</sup> area for 'recreation'; and
- The usual setbacks required for wastewater systems (e.g. between boundaries and buildings).

I have spoken with Ross Fitzgerald of RFE Consulting who has confirmed that the above parameters can be achieved on Lot 65. Accordingly, RFE will amend the 'Land Application Area Layout Plan' that was provided in their

'Preliminary Site Investigation & On-Site Wastewater Feasibility Assessment' to confirm that a wastewater treatment system can (hypothetically) be provided on Lot 65 along with a building envelope to accommodate a potential dwelling which achieves an appropriate setback from Swamp Road.

The amended 'Land Application Area Layout Plan' will be provided to the Council by Monday 22<sup>nd</sup> of March. Please note that Ross tried ringing Alexis Black, but was told that she was not in the office and wouldn't be returning until Tuesday 23<sup>rd</sup> of March. However, based on our conversation this morning, we understand that Alexis will be comfortable with the proposed boundary realignment given that the parameters listed above can be achieved.

With the above in mind, we remain of the view that existing Lot 65 has development potential. For this reason, the 'relocation' of Lot 65 will not increase development potential in the Watershed (Primary Production) Zone. Rather, it will result in the creation of an allotment that is much better suited for the construction of a dwelling and will assist in the protection of the historic apple packing shed by incorporating it with the adjoining dwelling directly to the north.

For these reasons, we request that the proposed boundary realignment be presented to the April CAP meeting.

Kind regards

Kieron



**Kieron Barnes | Director**

[kieron@planningstudio.com.au](mailto:kieron@planningstudio.com.au) | 0438 741 747 | [www.planningstudio.com.au](http://www.planningstudio.com.au) | PO Box 32 Bridgewater SA 5155

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**From:** Doug Samardzija <[dsamardzija@ahc.sa.gov.au](mailto:dsamardzija@ahc.sa.gov.au)>

**Sent:** Thursday, 18 March 2021 4:28 PM

**To:** Kieron Barnes <[kieron@planningstudio.com.au](mailto:kieron@planningstudio.com.au)>

**Subject:** Land division application 473/714/20 at 792 and 832 Swamp Road, Lenswood

Hi Kieron

As per our discussion before, Alexis has reviewed the wastewater feasibility assessment and has advised that the report does not provide enough information relating to existing allotment 65 and its ability to be development. There is not enough information provided in relation to the potential location of the house and the waste system and if appropriate setback can be achieved. It also appears that there is an error relating to the comment that the site is not connected to mains water which also has an impact on the size of the waste system required for the site. Furthermore Alexis has advised that Council does not support on-site waste systems on allotments smaller than 1000m<sup>2</sup> which the current allotment 65 is.

As such there are two options going forward. You can speak to Ross to see if it is possible for all of the additional information to be provided tomorrow for Alexis to review. It might be worth them to speaking directly about the sorts of information that would be required.

Second option is to pull the application from next month's panel meeting and put it back to the May meeting after all of the wastewater matters have been addressed?

If you could let me know either by close of business tomorrow or First thing Monday morning which way you want to proceed.



Regards

**Doug Samardzija**  
**Statutory Planner– Development & Regulatory Services**

Adelaide Hills Council

t: 08 8408 0596

f: 08 8389 7440

e: [dsamardzija@ahc.sa.gov.au](mailto:dsamardzija@ahc.sa.gov.au)

w: [www.ahc.sa.gov.au](http://www.ahc.sa.gov.au)

p: PO Box 44 Woodside SA 5244

**SOUTH AUSTRALIA'S PLANNING  
SYSTEM IS CHANGING  
- 19 MARCH 2021**



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LEGEND

BORE LOCATION

INDICATIVE BUILDING LOCATIONS

INDICATIVE LAND APPLICATION AREA

GENERAL NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SITE AND SOIL REPORT
2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THESE DRAWINGS. DIGITAL AND CONVERTED DATA USED TO COMPILE THESE DRAWINGS. ANY DISCREPANCIES ARE TO BE DIRECTED TO THE AUTHOR OF THE REPORT.
3. DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS INDICATED OTHERWISE.
4. IRRIGATION SETBACK TO BE 50.0M MINIMUM FROM WATER SOURCES INCLUDING WELLS, BORES, DAMS, OR NATURAL WATER COURSE LIKELY TO BE USED FOR HUMAN OR DOMESTIC PURPOSES IN ACCORDANCE WITH ON-SITE WASTEWATER SYSTEMS CODE.
5. ALL SITE WASTEWATER TO BE DIRECTED TO THE PROPOSED WASTEWATER MANAGEMENT SYSTEM.
6. ALL STORMWATER TO BE DIVERTED AWAY FROM THE PROPOSED IRRIGATION AREAS.
7. CONTRACTOR TO ENSURE ALL MINIMUM SETBACK DISTANCES ARE MAINTAINED. LOCATIONS ARE SHOWN INDICATIVELY, ACTUAL LOCATIONS WILL BE CONFIRMED ON SITE BASED ON SITE CONDITIONS, MAINTAINING THE MINIMUM SETBACK DISTANCES.

AEROBIC WASTEWATER TREATMENT SYSTEMS (AWTS)

1. LOCATION OF AWTS SHOWN IS INDICATIVE ONLY .AWTS TO BE SA HEALTH APPROVED
2. MINIMUM SETBACK DISTANCES = 3.0M FROM BUILDINGS AND BOUNDARIES. 1.5M FROM IRRIGATION AREA
3. ALL PLUMBING TO BE IN ACCORDANCE WITH AS 3500
4. DESIGN FOR 6 EQUIVALENT PERSONS OCCUPANCY WITH NO FOOD WASTE DISPOSAL.
5. WORK ON THE AWTS INSTALLATION SHALL NOT COMMENCE UNTIL THE COPIES OF THE "APPLICANT PLAN & CONDITIONS" HAVE BEEN RECEIVED BY THE APPLICANT.

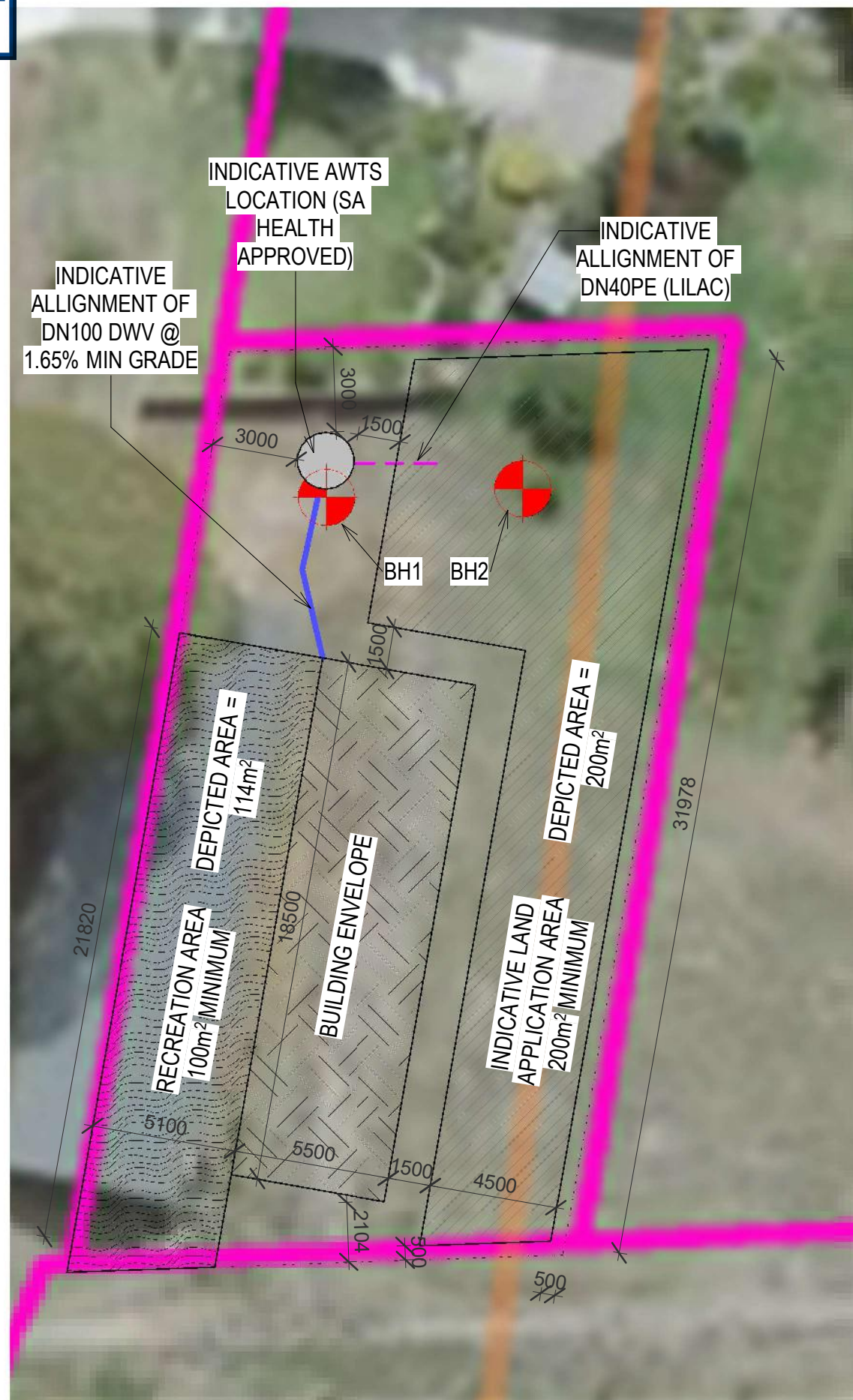
SPRINKLERS

1. SPRINKLER SETBACKS 0.5M FROM ALLOTMENT BOUNDARY, 1.5M FROM BUILDINGS AND DOWN-SLOPE BOUNDARIES.
2. SPRINKLERS TO BE "ANTELCO RE-UZIT" OR SIMILAR APPROVED PRODUCT AND CONTROLLED SURFACE TO SPRAY DIAMETERS NOTED ON DRAWING.

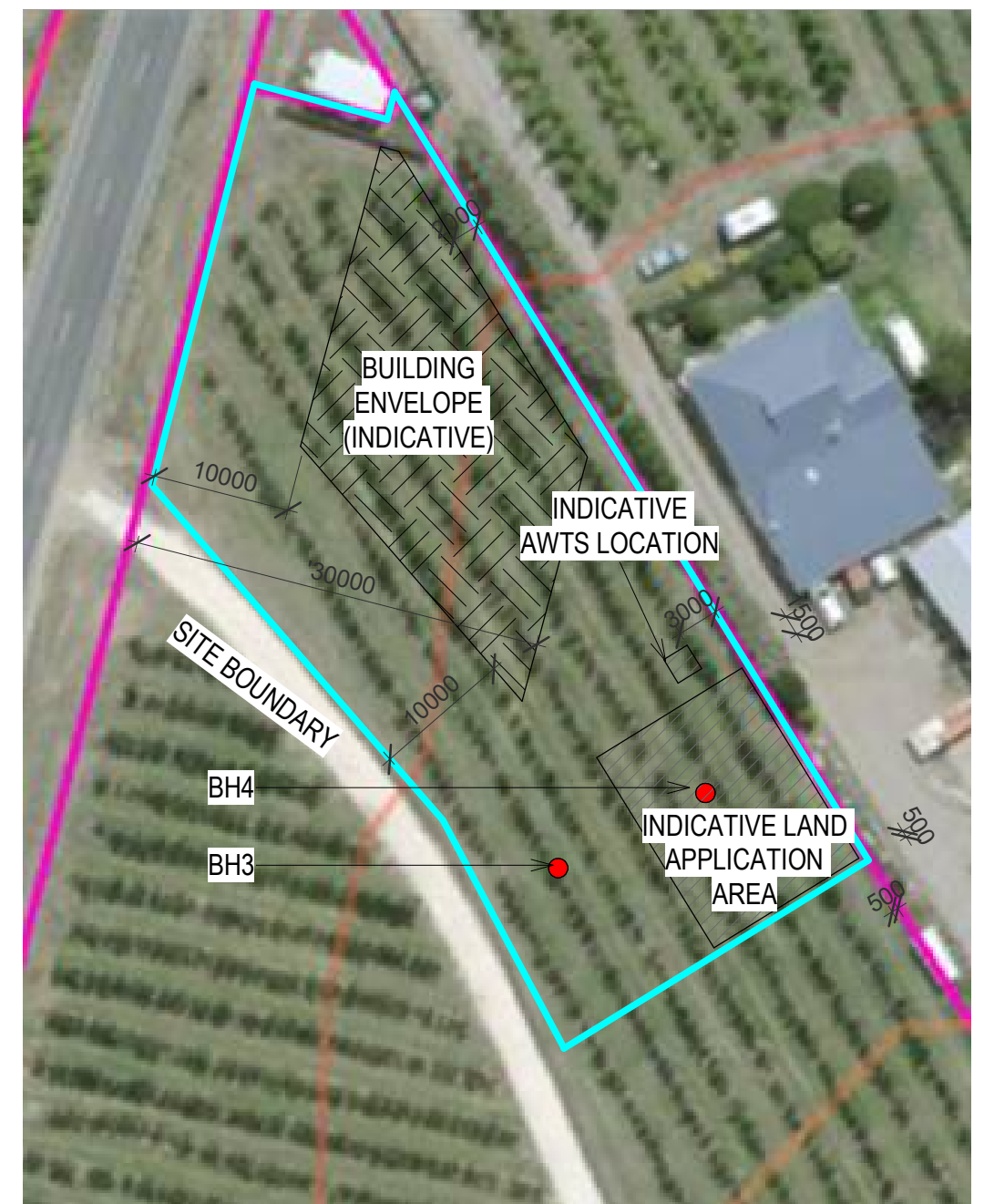
SURFACE IRRIGATION AREA

1. SOIL IMPROVEMENT THROUGH RIPPING TO A MINIMUM OF 150MM AND ADDING A SURFACE LAYER OF MULCH ACROSS THE DESIGNATED IRRIGATION AREA.
2. WARNING SIGNS MUST BE POSITIONED WITHIN THE LAND APPLICATION AREA TO INDICATE THAT RECYCLED WATER IS BEING USED FOR IRRIGATION. THE SIGNS MUST BE ON A WHITE BACKGROUND WITH RED LETTERING OF AT LEAST 20MM IN HEIGHT. THE SIGNS MUST BE CLEARLY VISIBLE FROM ALL SIDES AND MUST CONTAIN A WARNING SUCH AS: RECYCLED WATER - AVOID CONTACT/CONSUMPTION (AS PER ON-SITE WASTEWATER SYSTEMS CODE).
3. IRRIGATION ROWS TERRACED TO PROVIDE <5% GRADIENT

ADELAIDE HILLS COUNCIL  
RECEIVED 22/03/2021



PARCEL 1  
1 : 500



PARCEL 3  
1 : 200

18 September 2020

Kieron Barnes  
Planning Studio  
PO Box 32  
BRIDGEWATER SA 5155

Dear Kieron,

**Re: - agricultural viability assessment of proposed boundary  
realignment**

Pinion Advisory (formerly Rural Directions) have delivered valued outcomes to help farmers, regional business and industry groups grow and prosper since 1997. I personally have over 25 years' experience in primary production and farm management; and began as an independent Agribusiness Consultant in July 2019.

We have considered the proposed boundary realignment of the existing Lots 11, 64 and 65 Swamp Road, Lenswood, to create proposed Lots 1, 2 and 3. We have taken into account the plans and documentation provided by Planning Studio and have conducted a site inspection and interview with the applicants, Mr & Mrs Murdoch.

Background

The agricultural land in question currently comprises three allotments which are currently managed as a single orchard for premium apple production. There is an existing dam and bore, which is licenced and equipped to provide ample water for irrigated horticulture at this site. One-third of the total land holding is non-plantable for horticulture; consisting of dwellings, vegetation, headlands, watercourses and dams.

In recent years, the property owners have begun the process of renewing the orchard by removing non-profitable varieties. Currently 75% of the plantable area of the property is planted with seven varieties of apple trees. The area which is currently unplanted has irrigation infrastructure in-place, such that re-establishment of new trees can occur rapidly.

Due to changing consumer preferences and falling commercial demand, the trees located on proposed Lot 1 (Sundowner variety) have been earmarked for removal in 2021, irrespective of the outcome of the boundary realignment application. This will reduce the orchard to 62% of total plantable area.



Table 1 below shows the distribution of land use between the three current titles, and the proposed distribution following boundary realignment.

Table 1: Distribution of land use between current and proposed allotments.

Land Use (Hectares)	Current Situation			Proposed Situation		
	Lot 11	Lot 64	Lot 65	Lot 1	Lot 2	Lot 3
Total Area <sup>1</sup>	6.772	0.495	0.080	0.207	6.810	0.351
Existing Orchard <sup>2</sup>	3.356	0.190		0.200	3.346	
Planned Removal 2021 <sup>3</sup>	0.564			0.200	0.364	
Projected Orchard <sup>4</sup>	2.792	0.190	0.000	0.000	2.982	0.000
Future Planting <sup>5</sup>	1.833				1.633	
Dwellings, vegetation, headlands, watercourse and dams	2.147	0.305	0.080	0.207	2.195	0.351

<sup>1</sup> The total area of each allotment as supplied by Planning Studio

<sup>2</sup> Land area occupied by existing orchard as at September 2020

<sup>3</sup> Land area of Sundowner variety planned for removal in 2021

<sup>4</sup> Land area of existing orchard *minus* planned removal

<sup>5</sup> Land area available for replanting to orchard following removal of Sundowner Variety

### Impact on Primary Production

The proposed boundary realignment will have two impacts on the existing apple orchard enterprise.

1. Approximately 0.19 Ha of apple trees is planted on the existing Lot 64, and is not considered to be a viable enterprise if this Lot is sold separately from Lot 11.

The creation of Lot 3 will shift these apple trees to the same title as the remainder of the orchard, which provides certainty to the orchard owner and operator.

2. The creation of Lot 1 for a potential dwelling development will result in the removal of approximately 0.20 Ha orchard area. The area in question is planted to the variety Sundowner, which is earmarked for removal in 2021 due to changing consumer preferences, irrespective of the outcome of this application.

Whilst the creation of Lot 1 will reduce the plantable area of this land by 0.20 Ha, from 2021 there will be 1.63 Ha of land which can be replanted to in-demand varieties; increasing current production by over 25%.

#### Impact on Financial Viability

Published industry benchmarks for apple and pear production indicate that 60% of the annual cost of production is due to variable costs, such as labour, inputs and packaging. When evaluating the financial performance of individual areas of the orchard, the remaining 40% of fixed costs are allocated within the orchard on a per-hectare basis.

The projected orchard area post-2021 will be 2.98 Ha, with 1.83 Ha available for additional planting. The distribution of current fixed costs across the property (Lots 11, 64 and 65) when fully developed reduces the overall cost by 15.2%.

The creation of proposed Lot 1 for a potential dwelling reduces the land available for additional planting to 1.63 Ha. The distribution of current fixed costs across the proposed Lot 2 when fully developed reduces the overall cost by 14.1%. This difference of 1.1% will not have a significant impact of the viability of this orchard enterprise.



Conclusion

It is our opinion that this proposed boundary realignment will support economically viable and sustainable apple production on newly created Lot 2.

Under normal growing conditions in the Lenswood area, the proposed reduction in apple orchard area will have a negligible impact on the profitability of this enterprise, as there are significant gains that can be made by replanting areas that have (or will be) removed for variety change reasons.

Regards



Colin Hinze  
Senior Agribusiness Consultant  
Pinion Advisory



## Appendix C

Preliminary Site Investigation & On-site Wastewater Feasibility Assessment – RFE Consulting

**PRELIMINARY SITE INVESTIGATION & ON-SITE  
WASTEWATER FEASIBILITY ASSESSMENT**

**792 SWAMP ROAD, LENSWOOD, SA 5240**

**FINAL**

**CLIENT:** W & J MURDOCH

**PREPARED BY:** RFE CONSULTING PTY LTD

**ABN:** 34 859 329 766

**CONTACT:** ROSS FITZGERALD, PRINCIPAL ENVIRONMENTAL ENGINEER / DIRECTOR

**TELEPHONE:** 0439 034 900

**EMAIL:** ross@rfeconsulting.com.au

**DATE:** 28 January 2021

**REFERENCE:** RFE0144 FINAL

Revision	Revision Status	Date
A	DRAFT	18 January 2021
B	DRAFT	21 January 2021
0	FINAL DRAFT	26 January 2021
1	FINAL	28 January 2021

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## EXECUTIVE SUMMARY

RFE Consulting Pty Ltd ('RFE') was commissioned to undertake a Preliminary Site Investigation (PSI) and two Site and Soil assessments for a proposed boundary realignment at 792 Swamp Road, Lenswood, South Australia 5240 (the site).

It is understood the site is currently used for a mixture of residential and horticultural (commercial) purposes. The proposed boundary realignment does not seek to alter the overall use of the site, but will allow for the development of an additional dwelling on proposed Lot 1.

The objectives of the PSI were to:

- identify whether potentially contaminating activities (PCAs) have occurred on or near site, including chemicals of potential concern (COPC) if any, relating to the identified PCAs
- provide a desktop review of the potential risk to human health for the identified PCAs with regard to a sensitive land use (residential redevelopment), particularly where proposed residential boundary alignments extend into land which was previously used for horticultural activities.
- provide advice if additional assessment is required to assess the contamination status of site.

The scope of work completed as part of this PSI included a desktop site history, a site inspection and a targeted soil assessment.

Based on the results of the PSI, one on-site PCA (horticulture – Apple orchard) was identified as having occurred onsite. The site has been used as an apple orchard for more than 70 years and the following related COPCs have been identified: Metals, organochlorine pesticides and organophosphate pesticides.

To classify the risk of the identified COPCs, six boreholes were installed with a hand auger and soils were sampled at the surface, subsurface and at depth and tested for the relevant chemical concentrations. The soils were collected using a fresh pair of nitrile gloves for each soil sample and sent to a NATA accredited laboratory. The lab results indicated that there were no contaminants exceeding the adopted health investigation levels for residential land use for any of the samples tested. Based on this assessment, the identified on-site PCA is considered to have negligible risk to the proposed property boundary realignment.

No off-site PCAs were identified relevant to the site.

In addition to the PSI, two site and soil assessments were carried out for the site to support the boundary realignment proposal by ensuring the viability of the properties for on-site wastewater treatment. The outcome of the site and soil assessments showed that there is adequate space for suitable aerated wastewater treatment to land application systems which have been sized based on the soil lithology.

Based on both the PSI and the site and soil assessments conducted at 792 Swamp Rd, Lenswood, RFE Consulting consider there are no environmental or on-site wastewater considerations to preclude the proposed property boundary realignment. Furthermore, it is considered based on the results of this assessment that no further environmental assessment is necessary at the site to confirm the suitability of the site for the proposed boundary realignment.

## **1. INTRODUCTION**

RFE Consulting Pty Ltd ('RFE') was commissioned to undertake a Preliminary Site Investigation (PSI) for a proposed boundary realignment at 792 Swamp Road, Lenswood, South Australia 5240 (the site).

It is understood the site is currently used for a mixture of residential and horticultural (commercial) purposes. The proposed boundary realignment does not seek to alter the overall use of the site, but will allow for the development of an additional dwelling on proposed Lot 1.

### **1.1 Objectives**

The objectives of the PSI were to:

- identify whether potentially contaminating activities (PCAs) have occurred on or near site, including chemicals of potential concern (COPC) if any, relating to the identified PCAs
- provide a desktop review of the potential risk to human health for the identified PCAs with regard to a sensitive land use (residential redevelopment), particularly where proposed residential boundary alignments extend into land which was previously used for horticultural activities.
- provide advice if additional assessment is required to assess the contamination status of site.

The scope of work completed as part of this PSI included a desktop site history, a site inspection and a targeted soil assessment.

In addition to the PSI, two site and soil assessments were carried out for the site to support the boundary realignment proposal by ensuring the viability of the properties for on-site wastewater treatment.

### **1.2 Scope of works**

The scope of works completed for the PSI is summarised below:

- Review of information provided for the site and surrounds from a Lotsearch Enviro Professional report, including but not limited to:
  - o Soil, geology and hydrogeology maps
  - o Topography and elevation contours
  - o Available groundwater information for beneath and surrounding the site within a 2km radius
  - o Universal Business Directory (UBD) and Sands & McDougall Directory records
  - o Lands Title Search
  - o EPA Public Register Directory Site Contamination Index and Library (SA EPA Section 7, Site Contamination Index for nearby Section 83A notifications, environmental protection and clean up orders, authorisations, applications and dangerous substance licences)
  - o PFAS investigation and management programs for air services and defence.
  - o Aerial photograph review records
- Local council enquiry
- Anecdotal information regarding historical uses of the site
- Inspection and description of the site
- Compilation of this PSI report to document the findings of the above listed scope of works and present a preliminary Conceptual Site Model.
- Site and soil assessment for the proposed residential allotment to the north of the site (refer Allotment 1 in the Site Layout drawing in Appendix B).
- Site and soil assessment for the original residential allotment to the south west of the site.

### 1.3 Guidance Documents

The PSI was undertaken with reference to guidance provided in:

- Edwards, J W., Van Alphen M and Langley A, 1994, Identification and Assessment of Contaminated Land: Improving Site History Appraisal, Contaminated Sites Monograph Series No. 3, SA Health Commission, Adelaide
- National Environment Protection Council 1999, National Environment Protection (Assessment of Site Contamination) Measure, as amended 2013 (ASC NEPM), schedules B(1) and B(4)
- Planning SA (2001) Site Contamination. Planning Advisory Notice 20 (PAN 20)

The site and soil assessments were completed in accordance with the Government of South Australia DHA *On-site Wastewater Management Systems Code (the Code)*.

### 1.4 Lotsearch Enviro Professional

Lotsearch were engaged to provide an Enviro Professional report for the site (Lotsearch report). This report provided an overview of some of the site history, environmental risk and planning information available for the site and surrounding site using a buffer distance specific to the datasets.

Information of the datasets used within the Lotsearch report are provided in a summary table on page 2 of the report, which is provided as **Appendix A**.

## 2. SITE IDENTIFICATION

Site identification details are provided in Table 1. .

*Table 1 Site summary information*

Item	Detail
Site name	792 Swamp Rd, Lenswood
Property description	Allotment 11, Filed Plan 106541 Allotment 64, Filed Plan 156799 Allotment 65, Filed Plan 156800
Certificate of title reference	Volume 6161 Folio 134 Volume 5509 Folio 458 Volume 5724 Folio 523
Postal address	792 Swamp Rd, Lenswood, South Australia, 5240
Current Land Use	Mixed use residential and horticultural (apple orchard)
Land Area	Approximately 7.364 ha

## 3. REGIONAL SETTING

### 3.1 Topography

Regional elevation contours obtained from the Lotsearch report indicates the site has an elevation of between 420m and 440m Australian Height Datum (mAHD) and is generally moderately sloped to the west. The surrounding area can be described as hilly with variable slopes in multiple directions.

### 3.2 Geology

The searches of the Department of Environment and Water (DEW) online database, and the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) 1:100,000 scale geological map of Adelaide, indicate that the main geological unit underlying the site is the Woolshed Flat Shale (Ndw). Woolshed Flat Shale is described as black shale with dolomitic siltstone, dolomite, grey laminated siltstone.

The Atlas of Australian soils and the SARIG online database, indicates the dominant soil type at and surrounding site is Kurosol (Tc1), described as Hilly to steep hilly, small valley plains: hard acidic yellow mottled soils with shallow grey-brown sandy soils and rock outcrops. Minor areas containing ironstone gravel and pockets of many other soils such as red friable earths through the hills. Soil types on the site include acidic gradational loam on rock and loam over brown or dark clay.

The Lotsearch report indicates soils at and surrounding site are categorised as having an extremely low (1-5 %) probability of occurrence of acid sulfate soils (Atlas of Australian Acid Sulfate Soils, CSIRO).

### 3.3 Hydrology

Several water courses run through or in close proximity to the property and the property incorporates a small dam. Cock Wash Creek runs north south and is located approximately 50m to the west of the site at its closest point.

### 3.4 Hydrogeology

The Lotsearch report indicated the shallow aquifer beneath site to be a fractured rock aquifer including Cambrian and Precambrian rocks - quartzite, sandstone, limestone, dolomite, slate, marble, siltstone, phyllite, schist and gneiss (Department for Environment and Water (DEW)). Maps produced from the online South Australian Resources Information Gateway (SARIG) database indicated expected shallow groundwater beneath site to be approximately 15 - 25 metres below ground level (mBGL). The expected salinity of the shallow groundwater is expected to be between 500 -1000 parts per million (ppm).

Regional groundwater in the uppermost quaternary aquifer is expected to generally be flowing in a westerly to north-westerly direction towards Gulf St Vincent (Gerges, N., Department of Water Land and Biodiversity Conservation, 2006, Report DWLBC 2006/10 – Overview of the Hydrogeology of the Adelaide Metropolitan Area, June 2006).

### 3.5 Registered Groundwater Bores

The Lotsearch report provides a summary of registered groundwater bores within a 2 km radius of site.

A total of 235 registered groundwater bores were identified within a 2 km radius of site. One registered groundwater bore was identified onsite (ID 6628-10958) which is listed as an operational bore for irrigation purposes. This was confirmed through anecdotal evidence onsite. This bore had a standing water level (SWL) of 21.9m below ground level (bgl) and a salinity of 77s ppm. The closest off-site registered operational groundwater bore was located 169 m to the south of site and its purpose was also recorded as being irrigation.

Of the 235 registered groundwater bores within a 2 km radius of site:

- 88 were operational
- 1 was equipped (e.g. for a windmill)
- 1 was listed as flowing
- 1 was rehabilitated
- 31 were abandoned
- 10 were backfilled
- 24 were not in use
- 1 was dry
- 4 had collapsed, and
- 33 were recorded as not known

The purpose and number of the 88 operational registered bores was exclusively irrigation and stock watering.

Additional information on the wells within the 2km radius of the site can be found in the Drillholes section of the Lotsearch report in **Appendix A**.

## 4. SURROUNDING LAND USE

The Lotsearch report in **Appendix A** provides a summary of land uses in the vicinity of site including land development zones, generalised land use, and national and state heritage. A summary of surrounding land use is provided below:

- Residential and horticulture at the site
- Residential, horticulture, livestock, rural residential and utilities or industrial immediately surrounding the site
- Vacant 15m north west of the site
- Public institution 73m north west of the site
- Retail commercial 124m north of the site
- Recreation 130m north of the site
- Education 268m west of the site
- Commercial 367m north of the site, and
- Agriculture 620m south east of the site.

Generally the site and surrounding area is comprised of residential, horticulture and livestock.

A search of the South Australian Heritage Places database found no listed Commonwealth, National or State heritage places.

The Lotsearch report indicated that no national liquid fuel facilities were within 1 km radius of the site.

## 5. SITE INSPECTION

A site inspection at 792 Swamp Road was completed on 17 December 2020. The site was irregular in shape, moderately sloped and used as residential and horticulture (apple orchard). The site comprised of existing allotments:

- Allotment 11, Filed Plan 106541
- Allotment 64, Filed Plan 156799
- Allotment 65, Filed Plan 156800

A Site Layout Plan is provided as Figure 1 **Appendix B**.

Site photographs from the inspection are provided in **Appendix C**.

### 5.1 Allotment 11

The majority of Allotment 11 comprised of apple orchard with a number of minor buildings including a house and 2 sheds with a Dam on the eastern boundary approximately central on the site in the north-south aspect. An operational bore was located in the centre of the site.

### 5.2 Allotment 64

Allotment 64 contained a house and recreational areas bordering the apple orchard, the house and front garden area appeared to be in good condition. The backyard consisted of paved walkways through to well maintained garden areas.

### 5.3 Allotment 65

Allotment 65 contained a historic apple sorting shed which was situated on approximately one quarter of the allotment. The remainder of the allotment was undeveloped.

## 6. SOIL ASSESSMENT

The boundary realignment proposes to change the use of the northern portion of the site from horticulture (apple orchard) to residential (as per the site layout plan in **Appendix B**). Due to the change in use of this portion of the site, six soil bores were installed with a hand auger targeting the potential contaminants of the historical activities of the site and surrounds (Metals and OCPs).

All surface samples from the boreholes were tested for Metals and OCPs with all laboratory results below the required residential health impact levels (HIL A) as derived from the National Environmental Protection Measure 1999 (NEPM) and subsequent amendments. Additionally, all results from the laboratory indicated that there were no exceedances for the targets in the NEPM Ecological Impact Levels (EIL). A summary table showing the soil sample data compared against the NEPM HIL A levels and EIL levels is contained in **Appendix D**.



The soil sampling data further supports that a change in land use for this portion of the site would not be precluded by soil contamination from the potentially contaminating activities identified in the preliminary site investigation. Soil logs have been appended to this report in **Appendix K**.

## 7. SITE HISTORY

### 7.1 Past and Current Certificate of Title History

The SAILIS online database search was completed for the past and current owners at site. The following provides a summary regarding historical site ownership.

Historical Certificate of Titles are provided in **Appendix F**.

*Table 2 - Historical titles search Allotment 11*

Certificate of Title	Transfers / Date	Comments	Parent Title
6161/134 – current title	12/08/2015	Title issued to Warren Dudley Murdoch and Joan Therese Murdoch	CT 6136/247
CT 6136/247	23/04/2014	Title issued to Warren Dudley Murdoch and Joan Therese Murdoch	CT 5189/602
CT 5189/602	Parent title cancelled to computerise 25/05/1994	Title issued to Warren Dudley Murdoch and Joan Therese Murdoch	CT 4142/812
CT 4142/812	15/6/1979	Title issued to Warren Dudley Murdoch (Contractor) and Joan Therese Murdoch	CT4139/180
CT4139/180	06/04/1979	Title issued to Warren Dudley Murdoch (Contractor) and Joan Therese Murdoch	CT 4012/497 CT 3857/33
CT 4012/497	13/03/1974	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 3857/34
CT 3857/33	31/07/1972	Title issued to Joan Theresa Schultz	CT3676/49
CT 3875/34	31/07/1972	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 3676/49 <b>CT 1234/15</b>
CT 3676/49	12/01/1970	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 2137/5
CT 2137/5	13/04/1951	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 1808/199
CT1808/199	24/02/1943	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 1446/109

CT 1446/109	19/11/1926	Title issued to William Green (Gardiner)	CT 1299/51
	03/05/1929	Transfer to George Henry Green (Gardiner)	
	01/01/1935	14 month lease to William Green (Gardiner)	
	19/03/1936	Transfer to William Green (Gardiner) and Ada Mary Green	
CT 1299/51	27/09/1923	Title issued to William Green (Gardiner)	<b>CT 1234/90</b>
<b>CT 1234/15</b>	11/04/1922	Title issued to William Green (Gardiner)	
<b>CT 1234/90</b>	13/04/1922	Title issued to William Green (Gardiner)	

Table 3 - Historical titles search Allotment 64

Certificate of Title	Transfers / Date	Comments	Parent Title
CT 5509/458 – current title	Parent title cancelled to computerise 03/03/1998	Title issued to Warren Dudley Murdoch and Joan Therese Murdoch	CT 4139/181
CT 4139/181	06/04/1979	Title issued to Joan Therese Murdoch	CT 4012/497 CT 3857/33
CT 4012/497	13/03/1974	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 3857/34
CT 3857/33	31/07/1972	Title issued to Joan Theresa Schultz	CT3676/49
CT 3875/34	31/07/1972	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 3676/49 <b>CT 1234/15</b>
CT 3676/49	12/01/1970	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 2137/5
CT 2137/5	13/04/1951	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 1808/199
CT1808/199	24/02/1943	Title issued to George William Schultz (Gardiner) and Hazel Isobel Schultz	CT 1446/109

CT 1446/109	19/11/1926	Title issued to William Green (Gardiner)	CT 1299/51
	03/05/1929	Transfer to George Henry Green (Gardiner)	
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	19/03/1936	Transfer to Wiliam Green (Gardiner) and Ada Mary Green	
CT 1299/51	27/09/1923	Title issued to William Green (Gardiner)	<b>CT 1234/90</b>
<b>CT 1234/15</b>	11/04/1922	Title issued to William Green (Gardiner)	
<b>CT 1234/90</b>	13/04/1922	Title issued to William Green (Gardiner)	

Table 4 - Historical titles search Allotment 65

Certificate of Title	Transfers / Date	Comments	Parent Title
CT 5724/523 – current title	Parent title cancelled to computerise 12/01/2000	Title issued to Warren Dudley Murdoch and Joan Therese Murdoch	CT 1808/198
CT 1808/198	24/02/1943	Forest Range Fruitgrowers Co-operative Limited	CT 1446/109 <b>CT 1299/50</b>
	30/11/1981	Transfer to Warren Dudley Murdoch (Managing Director) and Joan Therese Murdoch	
CT 1446/109	19/11/1926	Title issued to William Green (Gardiner)	CT 1299/51
	03/05/1929	Transfer to George Henry Green (Gardiner)	
	01/01/1935	14 month lease to William Green (Gardiner)	
	19/03/1936	Transfer to Wiliam Green (Gardiner) and Ada Mary Green	
CT 1299/51	27/09/1923	Title issued to William Green (Gardiner)	<b>CT 1234/90</b>
<b>CT 1234/90</b>	13/04/1922	Title issued to William Green (Gardiner)	
<b>CT 1299/50</b>	27/09/1923	Forest Range Fruitgrowers Co-operative Limited	

## 7.2 SA EPA Section 7 Search

RFE requested a search of the Environment Protection Authority (EPA) Public Register under Section 7 of the Land and Business (Sales and Conveyancing) Act 1994. A copy of the documents is provided as **Appendix G**.

A summary of the search results is provided below as of 20 December 2020:

- There were no particulars of mortgages, charges and prescribed encumbrances affecting the land under the relevant section of the Environment Protection Act 1993
- There were no particulars relating to environment protection, licences and exemptions recorded by EPA in the public register to ever operate a waste depot on the land under the South Australian Waste Management Commission Act 1979 (repealed), the Waste Management Act 1987 (repealed) or the Environment Protection Act 1993
- There was no information on the EPA Public Register regarding pollution and site contamination on the land or portion of the land, including:
  - o Serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the Environment Protection Act 1993)
  - o Details of site contamination notified to EPA under section 83A of the Environment Protection Act 1993
  - o A copy of environmental assessment report (prepared by EPA or some other person or body) that forms part of the information required to be recorded on the public register
  - o A copy of a site contamination audit report
  - o Details of an agreement entered into with EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the Environment Protection Act 1993, other reports including commencement of site contamination audit, termination before completion of a site contamination audit, Health Commission Report or pre-1 July 2009 site audit report.

## 7.3 SA EPA Site Contamination Index

The Lotsearch report included a search of the EPA site contamination index for the suburb of Lenswood. A summary of the records are included in the Lotsearch report (**Appendix A**). There were no notifications for any properties within 1 km of site.

## 7.4 EPA Authorisations (Licences) Index

The Lotsearch report included a search of the EPA Authorisations records for the suburb of Lenswood. A summary of the records are included in the Lotsearch report (**Appendix A**). There were no notifications for any properties within 1 km of site.

## 7.5 Environment Protection and Clean Up Orders

The Lotsearch report searched EPA records for Environment Protection and Clean Up Order records. None were listed within the 1 km buffer distance of site.

## 7.6 Historical Business Directories

The Lotsearch report undertook a Universal Business Directory (UBD) and Sands & McDougall Directory records from years 1991, 1984, 1973, 1965, 1955, 1950, 1940, 1930, 1920 and 1910 and have mapped to a premise or road intersection within the 1 km dataset buffer. No historical business' were identified onsite or within the dataset buffer. A summary of the searches and the maps are provided in **Appendix A**.

## 7.7 Aerial Photography

Aerial photographs are provided in the Lotsearch report (**Appendix A**) from 1949 to 2020. A summary review of the aerial photography is provided in the table below.

In summary the majority of the site has been used as an apple orchard since 1949 and the homestead in the central portion of the site has also existed since before 1949 along with the apple sorting shed in the south of the site. The residential house in the southern portion of the site appears to have been erected between 1963 and 1979.

Table 5: Aerial Photography Review

Year	Description
1949	<b>On-site</b> <ul style="list-style-type: none"> <li>- The site appears to be partially orchard (western half of the site) and partially undeveloped (eastern part of the site). An apple sorting shed is located in the southern portion of the site and a homestead is existing in the centre of the site.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- Apple orchards are in existence to the north and west of the site.</li> </ul>
1950	<b>On-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul>
1963	<b>On-site</b> <ul style="list-style-type: none"> <li>- Eastern half of the site appears to have been cleared in preparation for orchard expansion.</li> <li>- A shed appears to have been erected in the central portion of the site.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- A small shed (possible chemical storage) has been erected to the north of the site.</li> <li>- Further site clearing for orchards appears to have occurred to the north east of the site.</li> </ul>
1979	<b>On-site</b> <ul style="list-style-type: none"> <li>- Residential dwelling has been erected in the southern portion of the site.</li> <li>- Orchard appears to be well established.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- The surrounding urbanised area appears to have had minor infill development</li> </ul>
1989	<b>On-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul>
1999	<b>On-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul>
2002	<b>On-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul>
2012	<b>On-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul>
2015	<b>On-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul>
2020	<b>On-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul> <b>Off-site</b> <ul style="list-style-type: none"> <li>- No notable changes.</li> </ul>



### Historical Maps

Review of the historical 1914, 1926, 1937, 1965 and 1982 maps show the area surrounding site becoming marginally more densely populated by an increase in roads and decreasing allotment sizes.

The 1926 historical map identifies the school to the west of the site which is still in operation. Limited additional information could be gained from a review of the historical maps.

### 7.8 Anecdotal Information

The Client was contacted requesting information to be provided for anecdotal evidence of the historical use of the site, a summary of the information provided is detailed below:

- House was built 46 years ago (approximately 1974).
- Orchard has been in operation since the house was built (George Schutz was the orchard manager, Warren Murdoch has been managing from 1980).
- Orchard has always been apples, all different types.
- A number of fertilisers and herbicides may have been used historically but Glyphosates are all that has been used for the last few years, twice a year, strip spraying underneath the trees.
- Chemical storage has been audited regularly – Some audit records are attached in **Appendix H**.

## 8. PRELIMINARY SITE INVESTIGATION CONCLUSIONS

Based on the results of the PSI, one on-site PCA (horticulture – Apple orchard) was identified as having occurred onsite. The site has been used as an apple orchard for more than 70 years and the following related COPCs have been identified: Metals, organochlorine pesticides and organophosphate pesticides.

To classify the risk of the identified COPCs, six boreholes were installed with a hand auger and soils were sampled at the surface, subsurface and at depth and tested for the relevant chemical concentrations. The soils were collected using a fresh pair of nitrile gloves for each sample and sent to a NATA accredited laboratory. The laboratory results indicated that there were no contaminants exceeding the adopted health investigation levels for residential land use in any of the samples tested. Based on this assessment, the identified on-site PCA is considered to have negligible risk to the proposed property boundary realignment.

No offsite PCAs were identified relevant to the site.

## 9. SITE AND SOIL ASSESSMENT

As a part of this assessment, a Site and Soil assessment was also undertaken for the original apple shed allotment (south west most allotment), and the proposed allotment in the northern portion of the site to facilitate the proposed allotment boundary realignment.

The assessment was completed in accordance with the Government of South Australia DHA *On-site Wastewater Management Systems Code (the Code)*.

### 9.1 Purpose

This assessment has been completed to support the boundary realignment through ensuring that an on-site wastewater system is achievable on the proposed new residential allotment in the northern portion of the site, and also on the original apple shed allotment in the south western portion of the site.

Site summary information is provided in the tables below:

*Table 6: Site summary information – New Allotment 1*

Item	Detail
Subject Land	Existing: CT6161/134 Deposited Plan 106541 Allotment 11 (Northern portion of the title labelled “1” in <b>Appendix B</b> )
Postal Address	792 Swamp Rd, Lenswood, South Australia, 5240
Municipality	Adelaide Hills Council
Current Land Use	Residential + Horticulture (apple orchard)
Proposed Land Use	Residential + Horticulture (apple orchard)
Design Flow	125 L/p/d
Anticipated Wastewater Load	750 L/p/d (based on a minimum of 6 persons in accordance with the Code)
Treatment System Required	Aerated Wastewater Treatment System (AWTS) – SA Health Approved
Disposal System Required	Surface irrigation land application

*Table 7: Site summary information – Existing Allotment 65*

Item	Detail
Subject Land	CT5724/523 Deposited Plan 156800 Allotment 65
Postal Address	792 Swamp Rd, Lenswood, South Australia, 5240
Municipality	Adelaide Hills Council
Current Land Use	Residential + Horticulture (apple orchard)
Proposed Land Use	Residential + Horticulture (apple orchard)
Design Flow	125 L/p/d
Anticipated Wastewater Load	750 L/p/d (based on a minimum of 6 persons in accordance with the Code)
Treatment System Required	Aerated Wastewater Treatment System (AWTS) – SA Health Approved
Disposal System Required	Surface irrigation land application

## 9.2 Methodology

RFE have assumed the locations for potential three-bedroom residences on the allotments for the purpose of this assessment.

The key features summarised in Table 6 are based on the desktop review of readily available information as well as an intrusive soil assessment.

The intrusive soil assessment was completed by JR Soil Sampling with portable push tube drilling equipment on 30 September 2020.

## 9.3 Site Features

A summary of the key site features is provided in Tables 6 and 7.

Table 8: Key site land features - New Allotment 1

Feature	Description	Recommendations
Landscape Elements		
Soil	<p>A total of two soil boreholes, BH3 and BH4 were drilled within, or immediately adjacent to, the proposed surface irrigation land application area for the potential residential building within the proposed allotment boundary realignment site (proposed allotment 1 in <b>Appendix B</b>).</p> <p>Representative soil core was retrieved with 63mm stainless steel push tubes. The representative soil core was logged in accordance with AS1726 <i>Geotechnical soil investigations</i>.</p> <p>The approximate locations of the soil boreholes are illustrated in <b>Appendix B</b>.</p> <p>The lithology encountered within the proposed subsurface land application area of the site can be summarised as:</p> <ul style="list-style-type: none"> <li>- Surficial soil horizon comprising a dark brown Silty SAND with trace tree roots (SM) to 0.1m l both boreholes.</li> <li>- Underlain by a brown Sandy CLAY / Clayey SAND (CL/SC) which extended to 0.2m bgl in both BH3 and BH4.</li> <li>- A low plasticity Silty Sandy CLAY soil horizon with trace fine gravel was encountered between 0.2 and 0.8m in both boreholes.</li> <li>- Underlain by a low plasticity Silty CLAY extending to 1.5m bgl in BH3 and 1.3m bgl in BH4.</li> <li>- Low liquid limit SILT was encountered between 1.5m bgl and 1.7m bgl in BH3 and between 1.3m bgl and 2.0m bgl in BH4.</li> <li>- This silt layer was underlain by a weathered siltstone to borehole termination at 2.1m bgl in both boreholes.</li> </ul> <p>Soil borehole logs are attached to this report (<b>Attachment I</b>).</p>	<p>The proposed surface irrigation land application system to facilitate the proposed residential boundary realignment is located within an area of Sandy CLAY / Clayey SAND (CL/SC).</p> <p>The following design improvements are recommended to increase the efficacy of system and permeability of the surface irrigation land application:</p> <ul style="list-style-type: none"> <li>- Rip the surface soils within the proposed irrigation land application area to a minimum of 150mm and reinstate with a friable topsoil.</li> <li>- Bench the proposed surface irrigation rows to ensure a gradient of less than 5%</li> <li>- Plant out the proposed designated irrigation area with a cover of vegetation.</li> </ul> <p>Based on the above treatment of the proposed surface irrigation area, a conservative Design Irrigation Rate (DIR) of 4.5 L/m<sup>2</sup>/day has been adopted.</p>

Feature	Description	Recommendations
Slope	The site has a moderate slope with a westerly aspect.	The proposed surface irrigation land application will be terraced to provide a gradient less than 5%.
Hydrogeology	Groundwater was not intercepted in any of the boreholes installed at the site to a maximum depth of 2.1m bgl.	The proposed surface irrigation land application is located greater than 50m to the nearest registered bore.  The registered bore on-site, unit number 6628-10958 and is used for irrigation purposes on the site.
Surface Water	The proposed surface irrigation land application areas are located greater than 50m from the nearest identified watercourse.	None
Water Table	The water table was not intersected within any of the boreholes installed to a maximum depth of 2.1m bgl.	None
Bedrock	Drilling extended to a depth of 2.0m bgl at BH4 and 1.7m bgl at BH3 prior to encountering rock at the site.	None - surface irrigation land application is proposed and deemed suitable for the site.
Rainfall	Annual rainfall of 1009.4 mm.	Based on data between 1967 to the present from the Bureau of Meteorology Lenswood weather station (ID: 23801).
Recommended Separation Distances	The location of the proposed aerated wastewater management device (AWTS) to surface irrigation land application area are indicated on the attached figure ( <b>Appendix B</b> ) and are in accordance with the principles of the Code.	None
Infrastructure		
Reticulated Water	This site is currently not serviced by any reticulated water, the design has been based on a proposed dwelling being serviced by roof capture and storage.	In accordance with the Code, a daily flow of 125 L/p/d has been adopted.

Table 9: Key site land features - Existing Allotment 65

Feature	Description	Recommendations
Landscape Elements		
Soil	A total of two soil boreholes, BH1 and BH2 were drilled within, or immediately adjacent to, the proposed surface irrigation land application area for a hypothetical residential building within the original allotment boundary for the property located at Deposited Plan 156800 Allotment 65 (currently incorporating an apple sorting shed).  Representative soil core was retrieved with 63mm stainless steel push tubes. The representative soil core was logged in accordance with AS1726 <i>Geotechnical soil investigations</i> .	The proposed surface irrigation land application system to facilitate the proposed residential boundary realignment is located within an area of Sandy CLAY / Clayey SAND (CL/SC).  The following design improvements are recommended to increase the efficacy of system and permeability of the surface irrigation land application:  - Rip the surface soils within the proposed irrigation land application area to a minimum of 150mm and reinstate with a friable topsoil.

Feature	Description	Recommendations
	<p>The approximate locations of the soil boreholes are illustrated in <b>Appendix B</b>.</p> <p>The lithology encountered within the proposed subsurface land application area of the site can be summarised as:</p> <ul style="list-style-type: none"> <li>- Surficial soil horizon comprising a dark brown Silty SAND with trace tree roots (SM) to 0.1m l both boreholes.</li> <li>- Underlain by a brown Sandy CLAY / Clayey SAND (CL/SC) which extended to 0.2m bgl in BH1 and to 0.4m bgl in BH2.</li> <li>- A high plasticity Silty Sandy CLAY soil horizon with trace fine sand was encountered between 0.2 and 0.8m in BH1 and between 0.4m and 1.2m bgl in BH2.</li> <li>- Underlain by a low plasticity Silty CLAY extending to 1.3m bgl in BH1 and 1.6m bgl in BH2.</li> <li>- Low liquid limit SILT was encountered between 1.3m bgl and 2.1m bgl in BH1 and between 1.6m bgl and 2.1m bgl in BH2.</li> </ul> <p>Soil borehole logs are attached to this report (<b>Appendix I</b>).</p>	<ul style="list-style-type: none"> <li>- Bench the proposed surface irrigation rows to ensure a gradient of less than 5%</li> <li>- Plant out the proposed designated irrigation area with a cover of vegetation.</li> </ul> <p>Based on the above treatment of the proposed surface irrigation area, a conservative Design Irrigation Rate (DIR) of 4.5 L/m<sup>2</sup>/day has been adopted.</p>
Slope	The site has a moderate slope with a westerly aspect.	The proposed surface irrigation land application will be terraced to provide a gradient less than 5%.
Hydrogeology	Groundwater was not intercepted in any of the boreholes installed at the site to a maximum depth of 2.1m bgl.	<p>The proposed surface irrigation land application is located greater than 50m to the nearest registered bore.</p> <p>The registered bore on-site, unit number 6628-10958 and is used for irrigation purposes on the site.</p>
Surface Water	The proposed surface irrigation land application areas are located greater than 50m from the nearest identified watercourse.	None
Water Table	The water table was not intersected within any of the boreholes installed to a maximum depth of 2.1m bgl.	None
Bedrock	Drilling extended to a depth of 2.1m bgl in both boreholes with no rock encountered.	None - surface irrigation land application is proposed and deemed suitable for the site.
Rainfall	Annual rainfall of 1009.4 mm.	Based on data between 1967 to the present from the Bureau of Meteorology Lenswood weather station (ID: 23801).
Recommended Separation Distances	The location of the proposed aerated wastewater management device (AWTS) to surface irrigation land application area are indicated on the attached figure ( <b>Appendix B</b> ) and are in accordance with the principles of the Code.	None
Infrastructure		



Feature	Description	Recommendations
Reticulated Water	This site is currently not serviced by any reticulated water, the design has been based on a proposed dwelling being serviced by roof capture and storage.	In accordance with the Code, a daily flow of 125 L/p/d has been adopted.

#### 9.4 System Sizing

The area proposed for the land application area has been calculated in accordance with *The Code*. The permeability class and corresponding Design Irrigation Rate (DIR) is based on the soil encountered during the field assessment and the proposed design of the surface irrigation land application.

The results are summarised in Table 8.

Table 10: Summary of DIR for soils at the site

Parameter	Rating	Reasoning
Design Irrigation Rate (DIR) for Surface Irrigation	4.5 L/m <sup>2</sup> /day	<p>The surface soil horizon comprising an organic Silty SAND extends to a depth of 0.1m at both sites and is underlain by a Sandy CLAY / Clayey SAND.</p> <p>The irrigation areas should be ripped to a minimum of 150mm, reinstated with a layer of friable topsoil, planted out with a cover of vegetation, and covered with a layer of mulch.</p> <p>A layer of mulch should be maintained across the proposed irrigation areas and retention bunding installed adjacent the down gradient boundary to retain secondary treated wastewater irrigation to within the designated irrigation area.</p>

### 9.5 Site and Soil Assessment Conclusions

This assessment has been completed to support the boundary realignments at 792 Swamp Rd Lenswood.

The proposed location of the on-site wastewater management systems is illustrated in the drawings appended to this report (**Appendix B**).

Boreholes were installed within or adjacent to the proposed land application areas and confirmed the suitability of the soils for surface irrigation land application of secondary treated wastewater. The installation of a SA Health approved Aerated Wastewater Treatment System (AWTS) would be necessary to facilitate surface irrigation land application.

Assuming a building envelope for three-bedroom residences on both allotments, this assessment demonstrates that on-site wastewater management systems compliant with relevant legislative requirements can be achieved.

For the proposed surface irrigation land application, a Design Irrigation Rate of 4.5 L/m<sup>2</sup>/day is recommended. Assuming a daily flow of 125 L/p/d for six equivalent persons (EP) based on a roof capture and storage water supply servicing the site, the minimum irrigation area required is 167m<sup>2</sup> for each allotment which can be comfortably achieved with additional outdoor recreational area. There is additional area available to increase the size of the land application area to facilitate a larger residence if required. Should the inputs to the system vary from that above, the minimum irrigation area of the proposed system should be adjusted accordingly in accordance with *The Code*.

To further improve the capacity and efficacy of the proposed surface irrigation land application, we recommend the following soil improvements and planting be undertaken:

- Rip the surface soils within the proposed irrigation land application areas to a minimum of 150mm and reinstate with a friable topsoil.
- Bench the proposed surface irrigation rows to ensure a gradient of less than 5%
- Plant out the proposed designated irrigation with a cover of vegetation.
- Earthen retention bunding should be provided adjacent the down-gradient boundary of the proposed surface irrigation land application areas to retain site flows of secondary treated wastewater to within the designated area.

Warning signs must be positioned within the land application areas to indicate recycled water is being used for irrigation. The signs must be on a white background with red lettering of at least 20mm in height. The signs must be clearly visible from all sides and must contain a warning such as "RECYCLED WATER – AVOID CONTACT".

All wastewater shall be directed to the AWTS systems at each site.

Based on the above site and soil assessment, we consider the proposed AWTS (SA Health approved AWTS) to surface irrigation land application areas to be suitable for the site.

The proposed on-site wastewater management system shall be installed by an appropriately qualified Plumber in accordance with legislative requirements (including AS3500, AS1547, the Code and the Plumbing Code of Australia).

## **10. RECOMMENDATIONS**

Based on the PSI and the site and soil assessment conducted at 792 Swamp Rd, Lenswood, RFE Consulting consider that there are no environmental or on-site wastewater considerations to preclude the proposed property boundary realignment. Furthermore, it is not recommended that any additional environmental investigation is required to confirm the suitability of the site for the proposed boundary realignment.

### **APPENDICES:**

APPENDIX A – LOTSEARCH REPORT

APPENDIX B – FIGURES

APPENDIX C – SITE INSPECTION PHOTOGRAPHS

APPENDIX D – SOIL SUMMARY TABLE

APPENDIX E – LABORATORY DATA AND CHAIN OF CUSTODY

APPENDIX F – CURRENT AND HISTORICAL CERTIFICATES OF TITLE

APPENDIX G – SA EPA SECTION 7 SEARCH

APPENDIX H – AUDIT RECORDS

APPENDIX I – SOIL LOGS

APPENDIX J – DRILLER LOGS

APPENDIX A – LOTSEARCH REPORT



**LOTSEARCH**  
LOTSEARCH ENVIRO PROFESSIONAL

**Address: 792 Swamp Road, Lenswood, SA 5240**

**Date: 16 Dec 2020 11:04:30**

**Reference: LS016848 EP**

**Disclaimer:**

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.



## Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	PSMA Australia Limited	24/11/2020	01/11/2020	Quarterly	-	-	-	-
EPA Site Contamination Index	EPA South Australia	14/12/2020	14/12/2020	Monthly	1000	0	0	0
EPA Environmental Protection Orders	EPA South Australia	14/12/2020	14/12/2020	Monthly	1000	0	0	0
EPA Environmental Authorisations	EPA South Australia	14/12/2020	14/12/2020	Monthly	1000	0	0	0
EPA Assessment Areas	EPA South Australia	07/12/2020	07/12/2020	Quarterly	1000	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	08/12/2020	08/12/2020	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	08/12/2020	08/12/2020	Monthly	2000	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	07/12/2020	07/12/2020	Monthly	2000	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	14/12/2020	14/12/2020	Monthly	2000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	12/11/2020	07/03/2017	Quarterly	1000	0	0	0
EPA Collection Depots	EPA South Australia	03/12/2020	03/12/2020	Quarterly	1000	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	12/11/2020	15/03/2012	Quarterly	1000	0	0	0
Historical Business Directories (Premise & Intersection Matches)	Hardie Grant, Sands & McDougall			Not required	150	0	0	0
Historical Business Directories (Road & Area Matches)	Hardie Grant, Sands & McDougall			Not required	150	-	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant, Sands & McDougall			Not required	500	0	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant, Sands & McDougall			Not required	500	-	0	0
Mines and Mineral Deposits	Department for Energy and Mining	14/10/2020	14/10/2020	Quarterly	1000	0	0	0
Groundwater Aquifers	Department for Environment and Water	09/04/2018	01/01/2008	As required	1000	1	1	1
Drillholes	Department for Environment and Water	14/10/2020	07/10/2020	Quarterly	2000	1	2	236
Surface Geology 1:100,000	Department for Energy and Mining	12/07/2018	01/07/2018	As required	1000	1	2	2
Geological Linear Structures 1:100,000	Department for Energy and Mining	12/07/2018	01/07/2018	As required	1000	0	0	1
Atlas of Australian Soils	ABARES	19/05/2017	17/02/2011	As required	1000	1	1	1
Soil Types	Department for Environment and Water	12/07/2018	01/07/2009	As required	1000	2	2	3
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	1
Acid Sulfate Soil Potential	Department for Environment and Water	09/04/2018	03/06/2016	As required	1000	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Soil Salinity - Watertable Induced	Department for Environment and Water	12/07/2018	01/07/2009	As required	1000	1	1	1
Soil Salinity - Non-watertable	Department for Environment and Water	12/07/2018	01/07/2009	As required	1000	1	1	1
Soil Salinity - Non-watertable (magnesia patches)	Department for Environment and Water	12/07/2018	01/07/2009	As required	1000	1	1	1
Land Development Zones	Department of Planning, Transport and Infrastructure	13/07/2020	13/07/2020	Quarterly	1000	1	2	5
Land Use Generalised 2018	Department of Planning, Transport and Infrastructure	06/04/2020	12/08/2020	Annually	1000	1	7	12
Commonwealth Heritage List	Australian Government Department of Agriculture, Water and the Environment	24/11/2020	20/11/2019	Quarterly	1000	0	0	0
National Heritage List	Australian Government Department of Agriculture, Water and the Environment	24/11/2020	20/11/2019	Quarterly	1000	0	0	0
State Heritage Areas	Department for Environment and Water	12/07/2018	10/11/2004	As required	1000	0	0	0
SA Heritage Places	Department for Environment and Water	14/10/2020	08/08/2019	Quarterly	1000	0	0	0
Aboriginal Land	Department for Energy and Mining	09/04/2018	08/04/2018	As required	1000	0	0	0
Bushfire Protection Areas	Department of Planning, Transport and Infrastructure	04/09/2018	20/02/2018	As required	1000	1	1	1
Bushfires and Prescribed Burns History	Department for Environment and Water	04/09/2018	26/05/2018	As required	1000	0	0	0
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	1	2	18
Ramsar Wetland Areas	Department for Environment and Water	30/01/2017	30/01/2013	As required	1000	0	0	0



**Site Diagram**

792 Swamp Road, Lenswood, SA 5240



**Legend**

- █ Site Boundary
- ▭ Internal Parcel Boundaries

**Total Area:** 68048m<sup>2</sup>

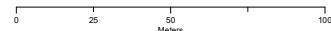
**Total Perimeter:** 1210m

**Disclaimers:**

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

**Scale:**



Data Sources: Aerial Imagery © Aerometrex Pty Ltd

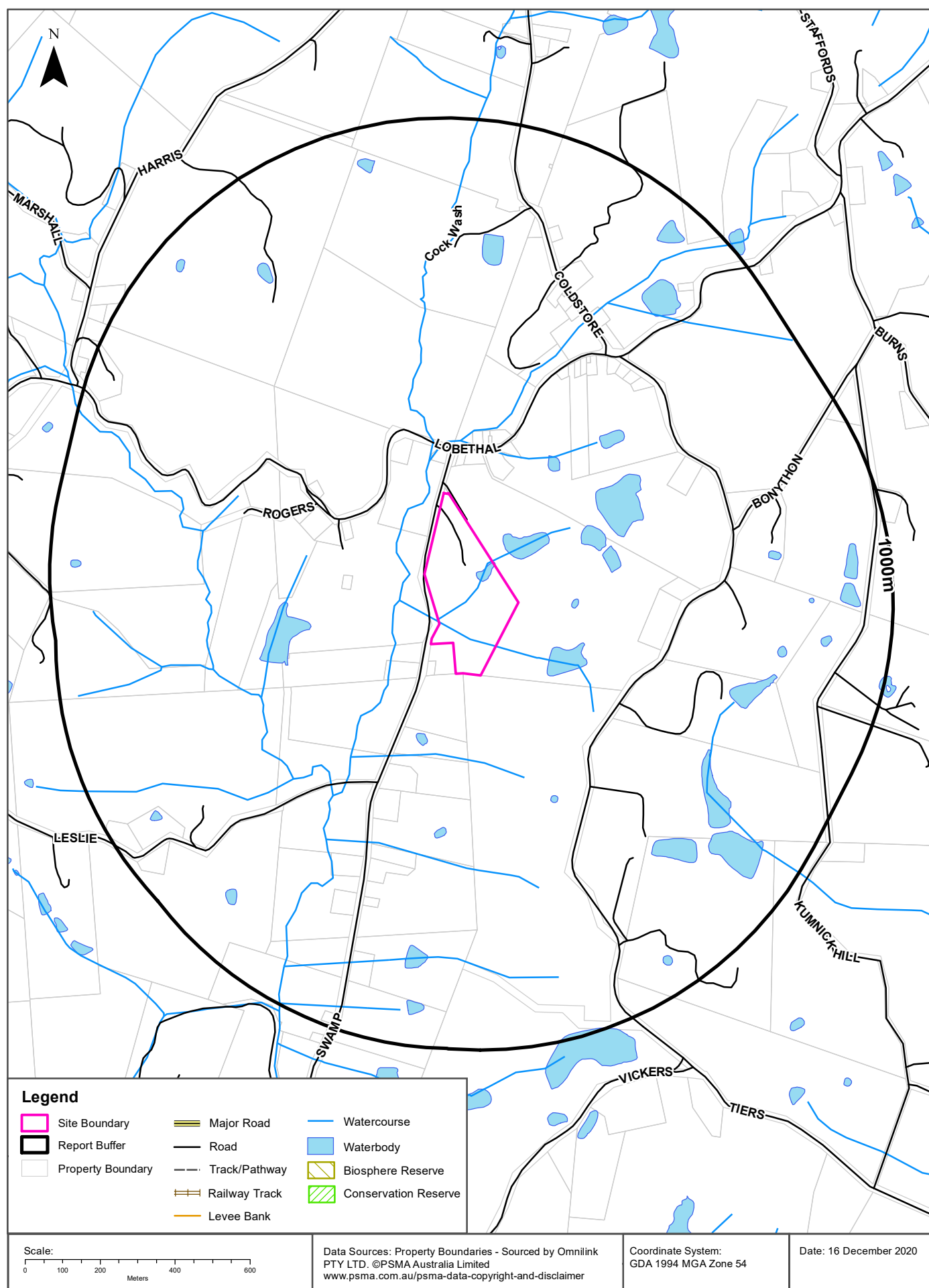
Coordinate System:  
GDA 1994 MGA Zone 54

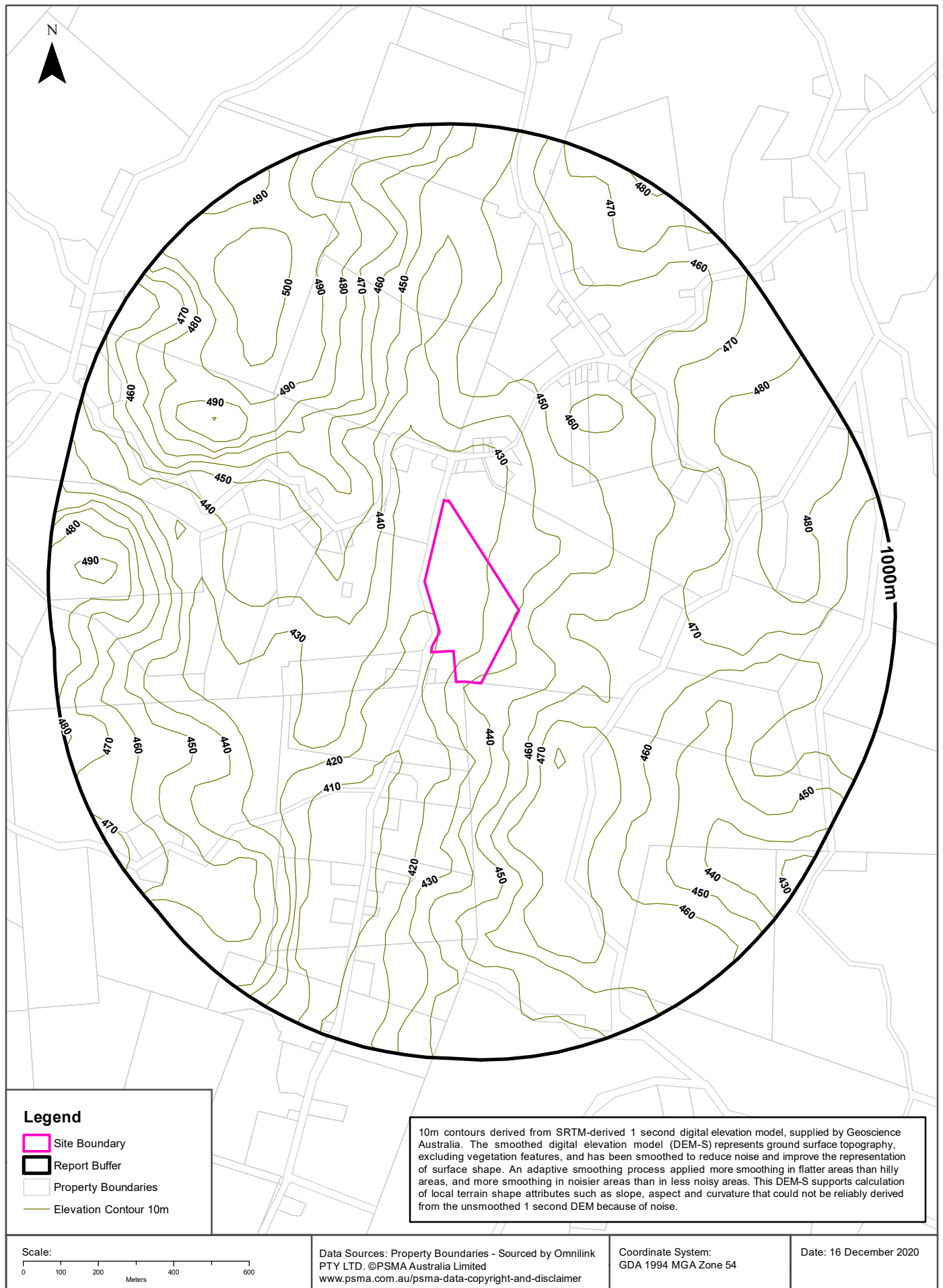
Date: 16 December 2020



# Topographic Features

792 Swamp Road, Lenswood, SA 5240





## EPA Contaminated Land

792 Swamp Road, Lenswood, SA 5240

## EPA Site Contamination Index

Sites on the EPA Contamination Index within the dataset buffer:

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
N/A	No records in buffer						

Site Contamination Index Data Source: EPA South Australia



## EPA Public Register

792 Swamp Road, Lenswood, SA 5240

## EPA Environment Protection and Clean Up Orders

EPA Environment Protection and Clean Up Orders, within the dataset buffer:

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
N/A	No records in buffer								

Authorisations Data Source: EPA South Australia

## EPA Public Register

792 Swamp Road, Lenswood, SA 5240

## EPA Authorisations and Applications

EPA Authorisations and Authorisation Applications within the dataset buffer:

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
N/A	No records in buffer								

Authorisations Data Source: EPA South Australia

## EPA Assessment Areas

792 Swamp Road, Lenswood, SA 5240

## EPA Assessment Areas

EPA Assessment Areas within the dataset buffer:

Map Id	Supplied Ref	Area Name	Map Link	Status	Location Confidence	Distance	Direction
N/A	No records in buffer						

Assessment Areas Data Source: EPA South Australia

## PFAS Investigation and Management Programs

792 Swamp Road, Lenswood, SA 5240

### Defence PFAS Investigation and Management Program Investigation Sites

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

Defence PFAS Investigation and Management Program Data Source: Department of Defence, Australian Government

### Defence PFAS Investigation and Management Program Management Sites

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

Defence PFAS Investigation and Management Program Data Source: Department of Defence, Australian Government

## Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Location Confidence	Distance	Direction
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

## Defence Sites

792 Swamp Road, Lenswood, SA 5240

### Defence 3 Year Regional Contamination Investigation Program

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government



## Waste Management and Liquid Fuel Facilities

792 Swamp Road, Lenswood, SA 5240

### National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Revised Date	Location Confidence	Distance	Direction
N/A	No records in buffer								

Waste Management Facilities Data Source: Australian Government Geoscience Australia  
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### EPA Approved Container Collection Depots

EPA approved container collection depots within the dataset buffer:

MapId	Name	Address	Suburb	Loc Conf	Distance	Direction
N/A	No records in buffer					

Collection Depot Data Source: EPA South Australia

### National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist (m)	Dir
N/A	No records in buffer										

National Liquid Fuel Facilities Data Source: Geoscience Australia  
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## Historical Business Directories

792 Swamp Road, Lenswood, SA 5240

### Business Directory Records 1910-1991 Premise or Road Intersection Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1973, 1965, 1955, 1950, 1940, 1930, 1920 & 1910, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection (m)	Direction
	No records in buffer						

Business Directory Content reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 and Sands & McDougall's Directory of South Australia

### Business Directory Records 1910-1991 Road or Area Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1973, 1965, 1955, 1950, 1940, 1930, 1920 & 1910, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area (m)
	No records in buffer					

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## Historical Business Directories

792 Swamp Road, Lenswood, SA 5240

### Dry Cleaners, Motor Garages & Service Stations 1930-1991 Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories and Sands & McDougall's Directories, from years 1991, 1973, 1965, 1955, 1950, 1940 & 1930, mapped to a premise or road intersection, within the dataset buffer.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection (m)	Direction
	No records in buffer						

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## Historical Business Directories

792 Swamp Road, Lenswood, SA 5240

### Dry Cleaners, Motor Garages & Service Stations 1930-1991 Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories and Sands & McDougall's Directories, from years 1991, 1973, 1965, 1955, 1950, 1940 & 1930, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area (m)
	No records in buffer					

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**Legend**

- Site Boundary
- Buffer 150m

Scale:

0 40 80 120 160  
Meters

Data Sources: Aerial Imagery © Aerometrex Pty Ltd

Coordinate System:  
GDA 1994 MGA Zone 54

Date: 16 December 2020







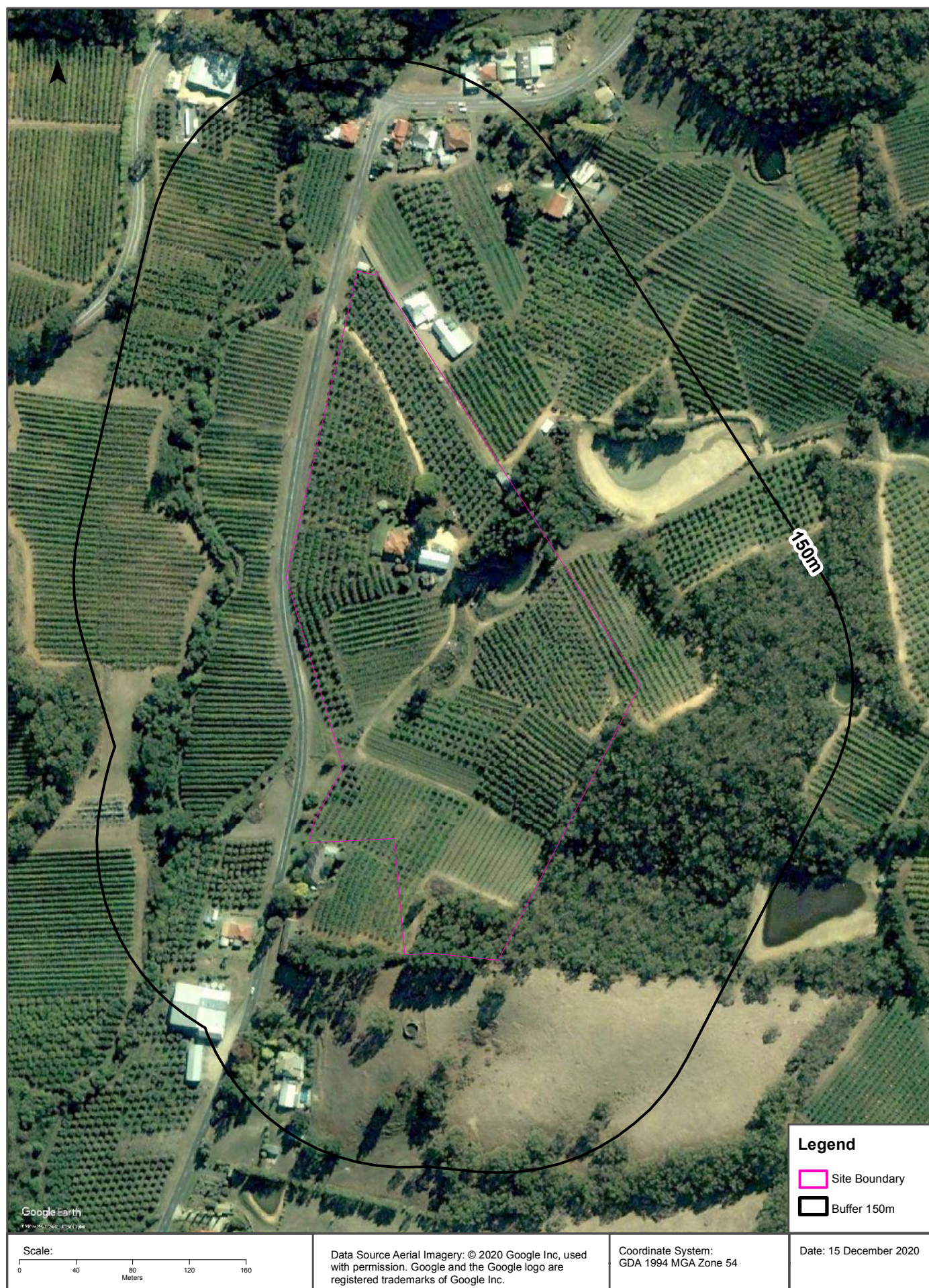
**Aerial Imagery 2012**

792 Swamp Road, Lenswood, SA 5240



<p>Scale:</p> <p>0 40 80 120 160 Meters</p>	<p>Data Source Aerial Imagery: © 2020 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.</p>	<p>Coordinate System: GDA 1994 MGA Zone 54</p>	<p>Date: 15 December 2020</p>
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**Aerial Imagery 1999**

792 Swamp Road, Lenswood, SA 5240





Aerial Imagery 1989

792 Swamp Road, Lenswood, SA 5240



Legend

- Site Boundary
- Buffer 150m

Scale:

0 40 80 120 160  
Meters

Data Sources Aerial Imagery: © South Australia  
Department for Environment & Water

Coordinate System:  
GDA 1994 MGA Zone 54

Date: 15 December 2020



Aerial Imagery 1979

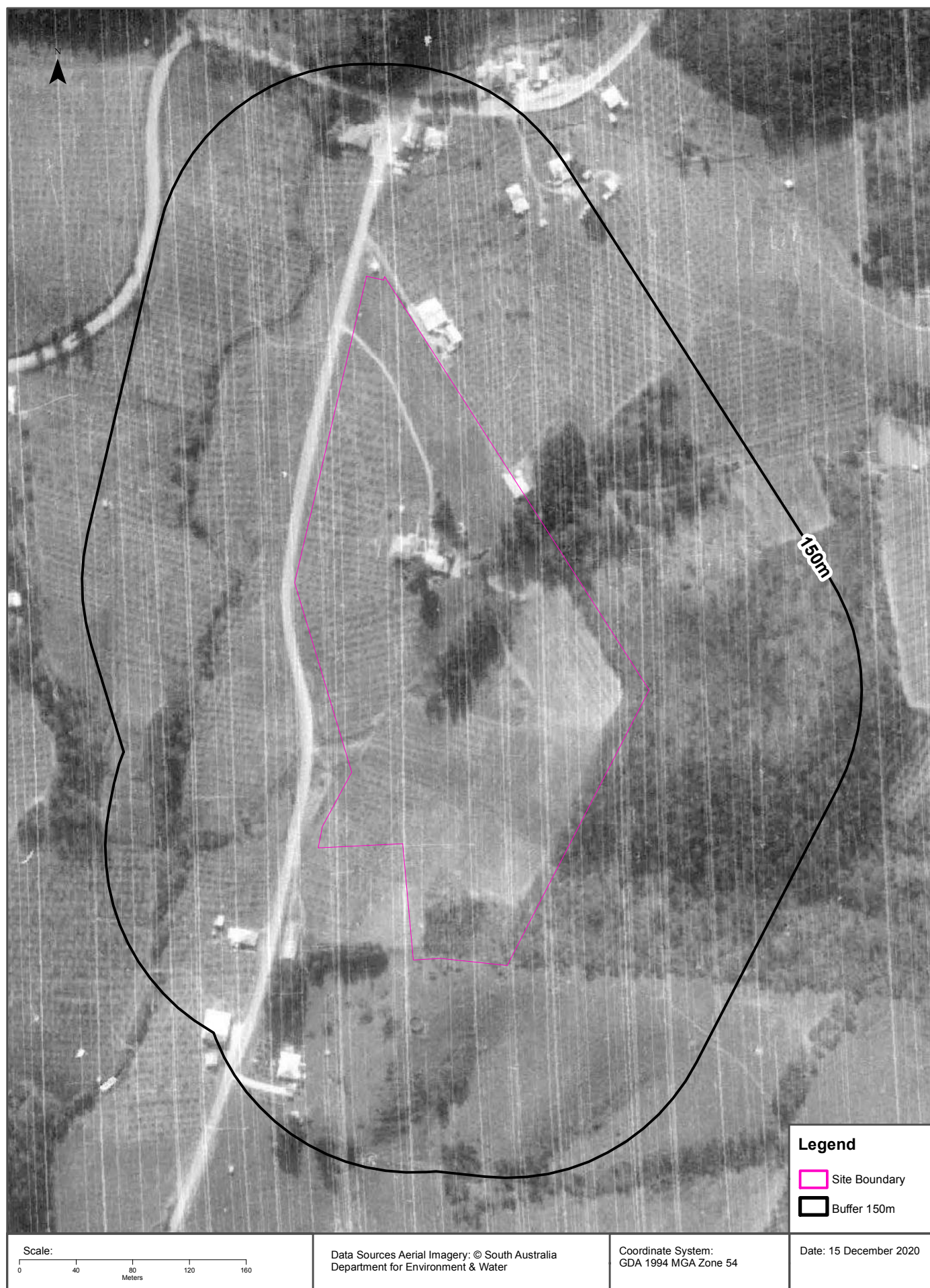
792 Swamp Road, Lenswood, SA 5240





**Aerial Imagery 1963**

792 Swamp Road, Lenswood, SA 5240





Aerial Imagery 1950

792 Swamp Road, Lenswood, SA 5240



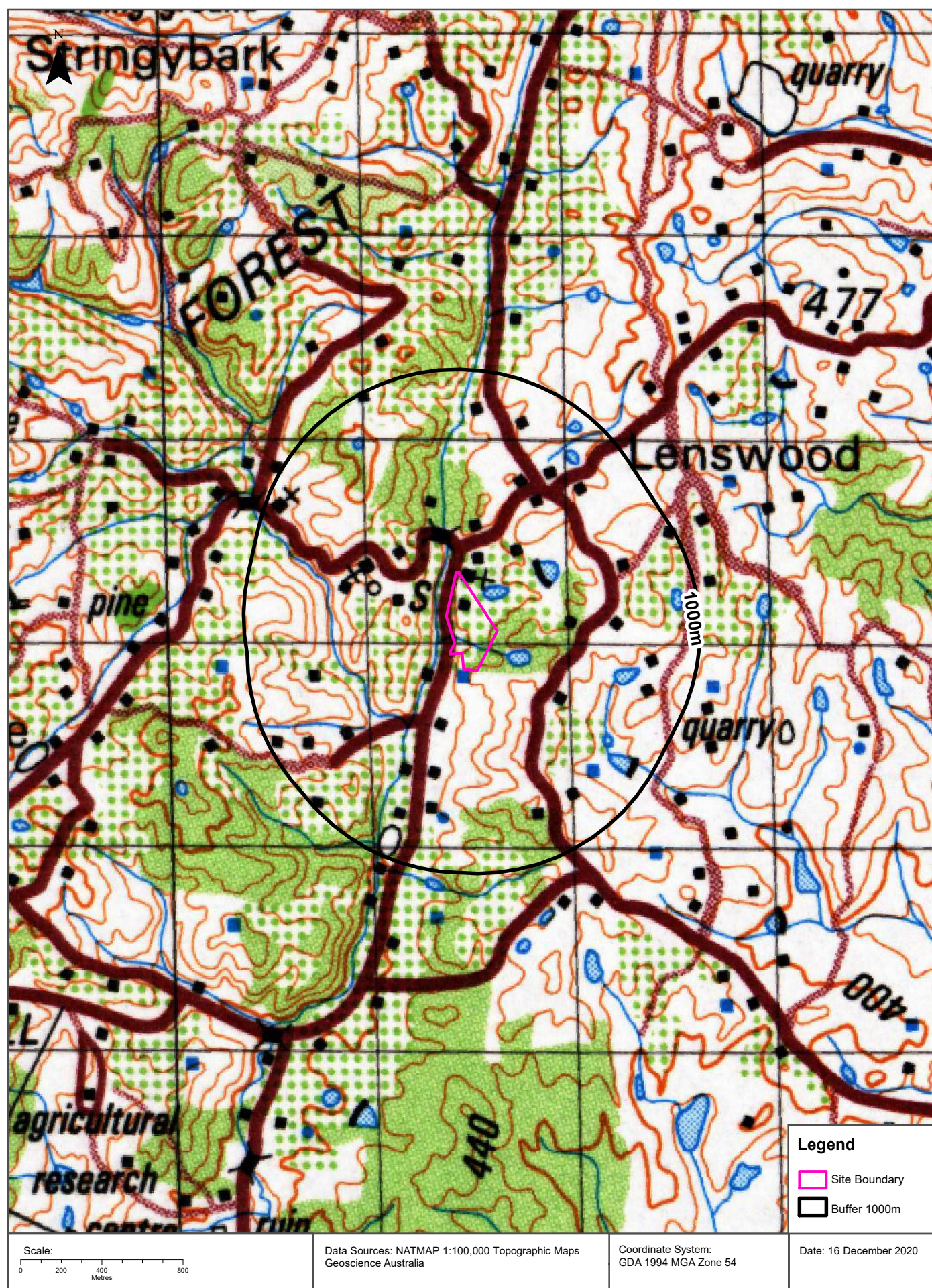


Aerial Imagery 1949

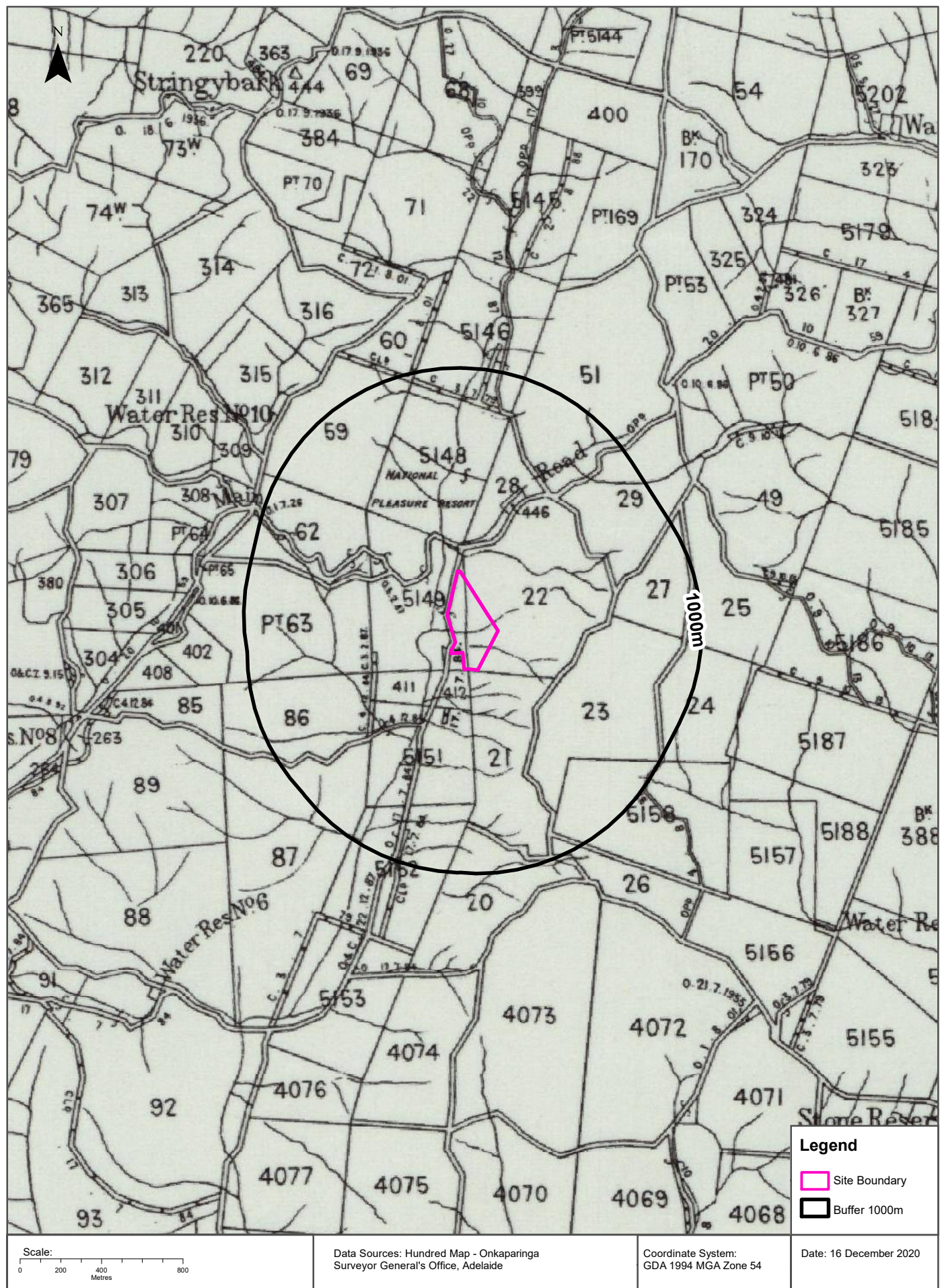
792 Swamp Road, Lenswood, SA 5240



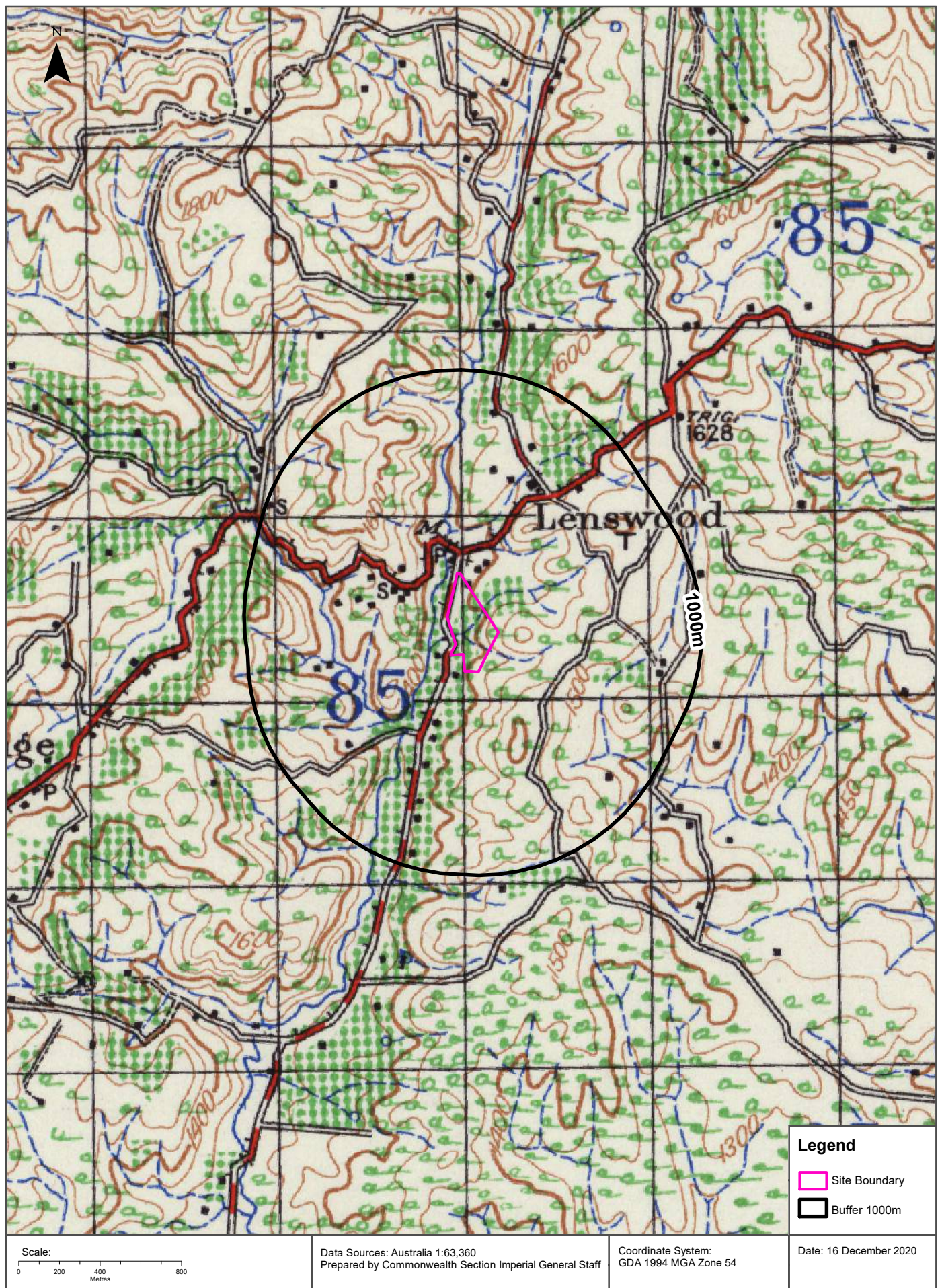




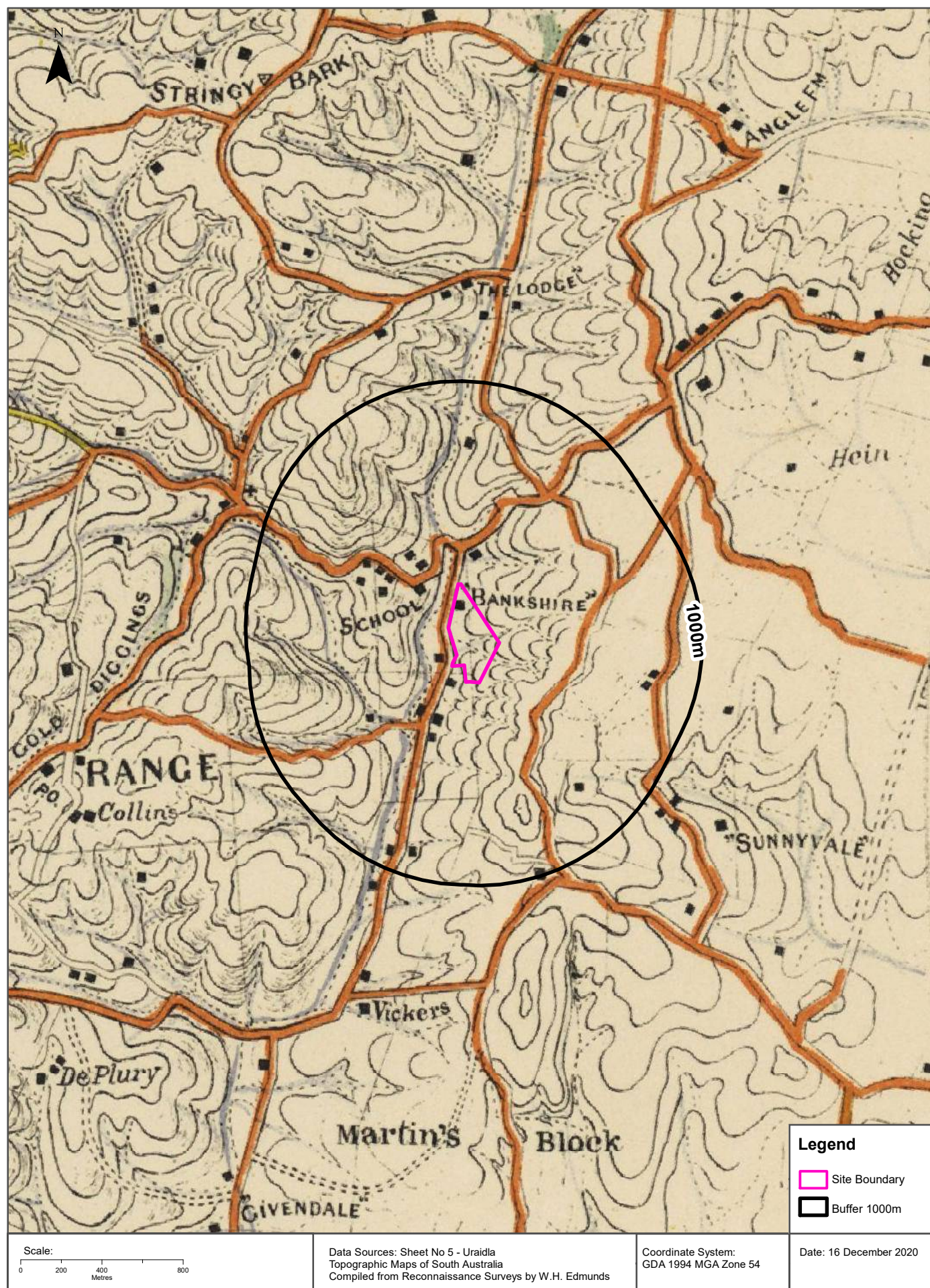




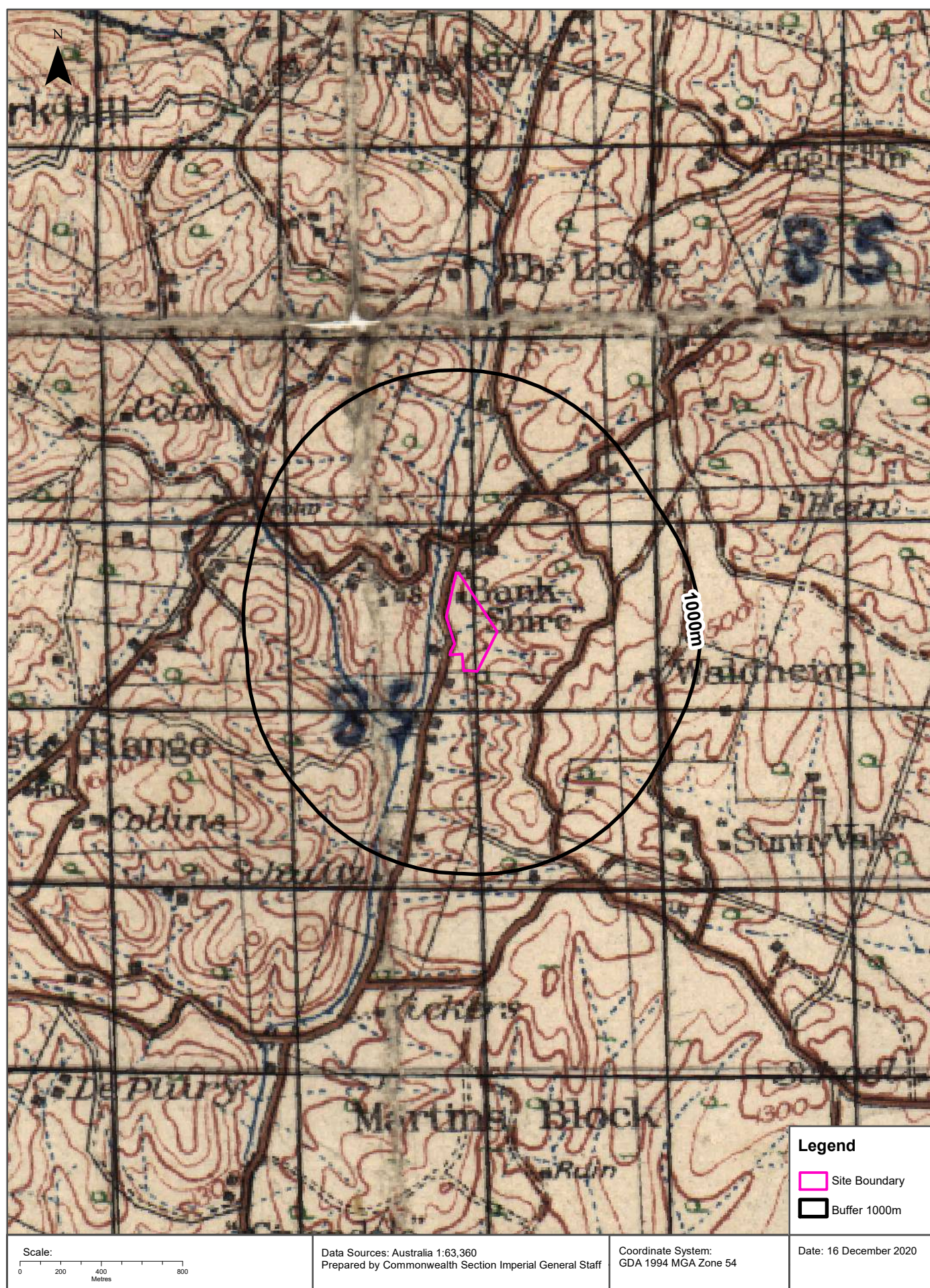














# Mining

792 Swamp Road, Lenswood, SA 5240

## Mines and Mineral Deposits

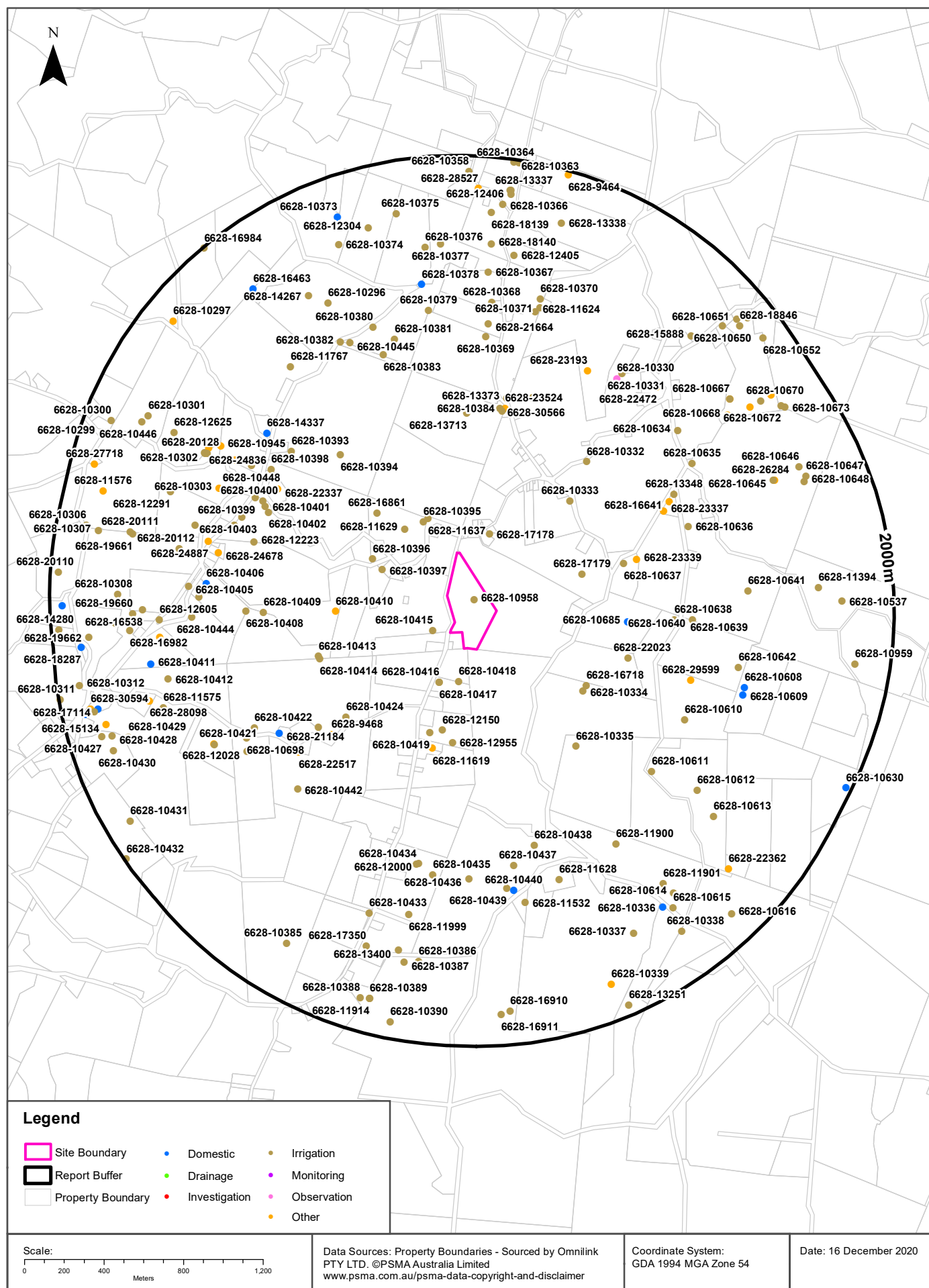
Mines and mineral deposits within the dataset buffer:

Deposit No.	Name	Class	Status	Commodity	Year	Description	Dist	Dir'n
N/A	No records in buffer							

All Mines and Mineral Deposits Data Source: Dept. of State Development, Resources and Energy - South Australia  
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## Drillholes

792 Swamp Road, Lenswood, SA 5240





## Groundwater and Drillholes

792 Swamp Road, Lenswood, SA 5240

### Groundwater Aquifers

Groundwater aquifers within the dataset buffer:

Aquifer Code	Description	Distance	Direction
30	Fractured Rocks - Cambrian and Precambrian rocks - quartzite, sandstone, limestone, dolomite, slate, marble, siltstone, phyllite, schist and gneiss	0m	Onsite

Groundwater Aquifers Data Source: Dept. of Environment, Water and Natural Resources - South Australia  
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### Drillholes

Drillholes within the dataset buffer:

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-10958	57927		Operational	Irrigation	1979-05-26	122.00		425.00		772	1400	22.5000	21.90	21.90	403.10	0m	Onsite
6628-10415	57384		Abandoned	Irrigation		109.73		410.47	7.80	462	840	3.1300	0.10	0.10	410.37	88m	South West
6628-10418	57387		Operational	Irrigation		160.00		420.65	7.00	882	1600	3.1200	58.50	58.50	362.15	169m	South
6628-17178	149783		Abandoned	Irrigation	1995-03-15	161.00		429.78	7.40	772	1400	1.0000	20.00	20.00	409.78	176m	North
6628-10417	57386		Abandoned	Irrigation		76.20		413.44				0.0600	4.25	4.25	409.19	210m	South
6628-10416	57385		Abandoned	Irrigation		76.20		413.44				0.0600	4.25	4.25	409.19	211m	South
6628-11637	58606			Irrigation	1981-05-20	160.00	426.49	426.20		175	319	4.5000	1.30	1.01	425.19	225m	North West
6628-10395	57364		Operational	Irrigation		60.96		429.76	7.40	594	1080	4.4000	6.44	6.44	423.32	228m	North West
6628-11629	58598		Abandoned	Irrigation	1981-01-15	159.00		448.78	7.40	341	620	0.1500				289m	North West
6628-10397	57366		Not In Use	Irrigation	1958-05-12	84.73		449.89	7.20	363	660	1.2700	11.14	11.14	438.75	346m	West
6628-10396	57365		Operational	Irrigation	1959-02-24	60.96		442.06	7.20	476	865	1.2700	2.62	2.62	439.44	406m	North West
6628-12150	59119		Operational	Irrigation	1982-11-19	161.00		420.53		783	1420	5.0000	45.73	45.73	374.80	426m	South
6628-16861	147120			Irrigation	1994-11-24	67.70		476.59	7.30	336	610	0.7500	14.80	14.80	461.79	448m	North West
6628-10419	57388		Operational	Irrigation		57.91		412.92				7.5600	6.10	6.10	406.82	457m	South
6628-17179	149784			Irrigation	1995-03-17	147.00		463.22	7.60	1210	2190	0.3750	20.00	20.00	443.22	468m	East
6628-12955	59924		Operational	Irrigation	1984-05-16	167.00		424.77		879	1595	15.0000	50.00	50.00	374.77	476m	South
6628-11619	58588				1979-03-28	83.00		415.36		938	1700	22.5000				527m	South
6628-10410	57379		Abandoned	Stock		35.00		415.54				1.2700				565m	West
6628-10334	57303		Operational	Irrigation	1968-04-04	59.44		443.88	7.60	905	1640	6.3700	-0.20	-0.20	444.08	572m	South East
6628-16718	145637			Irrigation	1994-10-12	147.00		441.13	7.50	827	1500	4.5000	20.00	20.00	421.13	573m	South East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-10333	57302		Equipped (pump, windmill, etc)	Irrigation		67.60	461.61		7.60	446	810	2.0300	9.14	9.14	452.47	608m	North East
6628-10685	57654			Domestic; Irrigation; Stock	1978-05-15	96.00		462.47	6.80	938	1700	3.1000	6.00	6.00	456.47	662m	East
6628-10414	57383		Operational	Irrigation	1962-04-09	67.97		428.79	7.00	605	1100	4.6724	5.50	5.50	423.29	669m	West
6628-10413	57382		Not In Use	Irrigation		67.06		425.16				1.9100				674m	West
6628-10424	57393		Operational	Irrigation	1959-07-08	70.10		420.30	6.40	810	1470	6.3140	21.34	21.34	398.96	676m	South West
6628-10637	57606		Collapsed	Irrigation		131.00		482.25				0.6400				682m	East
6628-10335	57304		Operational	Irrigation		42.67		439.20	7.20	1132	2050	1.9100				700m	South East
6628-13713	60682			Irrigation	1986-06-10	231.00		434.41		888	1610	1.5000	1.50	1.50	432.91	704m	North
6628-22023	203239			Irrigation	2004-12-23	119.00		448.99		967	1752	2.7500	15.00	15.00	433.99	704m	East
6628-10384	57353		Abandoned	Irrigation; Stock		70.10		449.54	7.20	694	1260	2.8200				743m	North
6628-23339	236188				2007-11-06	140.00		481.42		895	1622	1.1250	4.70	4.70	476.72	750m	East
6628-30566	333036			Irrigation	2020-01-15	85.00				657	1192	4.0000	15.00	15.00		752m	North
6628-23524	238597				2008-03-05	88.00		451.32		708	1285	1.7500	5.00	5.00	446.32	761m	North
6628-10394	57363		Operational	Irrigation		99.00		479.49	7.60	716	1300	4.4000	17.25	17.25	462.24	765m	North West
6628-10332	57301		Operational	Irrigation	1947-11-24	77.11		458.79	7.80	827	1500	2.5500				786m	North East
6628-9468	56437				1979-02-17	111.00		434.23		539	980	0.1800	12.20	12.20	422.03	788m	South West
6628-13373	60342		Operational	Irrigation	1985-06-27	161.00		459.13		89	161	8.7500	11.00	11.00	448.13	813m	North
6628-10423	57392			Irrigation		96.62		448.69				0.8900				816m	South West
6628-10443	57412		Operational	Irrigation		95.40		465.24	7.90	374	680	0.9300	4.27	4.27	460.97	862m	North
6628-10638	57607		Operational	Irrigation		61.00		456.69				2.0300				897m	East
6628-10409	57378		Operational	Irrigation		122.00		468.91				1.6400	3.24	3.24	465.67	928m	West
6628-10639	57608		Operational	Irrigation		70.10		456.95	6.50	585	1064	7.5768	9.40	9.40	447.55	942m	East
6628-22337	209647				2005-10-20	105.00		442.76		832	1510	1.2500	21.00	21.00	421.76	958m	North West
6628-10402	57371		Operational	Irrigation		73.15		424.52	7.00	694	1260	3.0200				969m	North West
6628-22517	214386				2006-03-09	70.00		465.33		625	1134	1.5000	20.50	20.50	444.83	971m	South West
6628-10393	57362		Not In Use	Irrigation		105.16		449.15				0.2500	0.60	0.60	448.55	977m	North West
6628-23337	236186				2007-11-14	224.00		488.55		604	1098	1.2500	20.00	20.00	468.55	980m	North East
6628-10640	57609		Operational	Irrigation	1977-01-27	85.60		458.53	7.50	628	1140	15.0000	6.00	6.00	452.53	988m	East
6628-10401	57370		Backfilled	Irrigation				425.16								992m	North West
6628-21184	196426			Domestic; Stock		60.00		475.99		722	1310	2.5000	45.00	45.00	430.99	997m	South West
6628-12223	59192		Operational	Irrigation	1983-02-07	155.40		440.54		605	1100	5.6250	17.00	17.00	423.54	1007m	West
6628-10400	57369			Irrigation	1979-01-04	132.00		425.92		705	1280	2.0000	3.70	3.70	422.22	1010m	North West
6628-10408	57377		Operational	Irrigation	1978-06-02	151.00		481.25		894	1620	6.2500	13.87	13.87	467.38	1015m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-10398	57367		Not In Use	Irrigation		99.06		439.49	7.00	694	1260	5.0900	10.25	10.25	429.24	1024 m	North West
6628-16641	142172			Stock	1994-04-23	147.00		485.23	7.00	729	1322	0.6000	16.00	16.00	469.23	1028 m	North East
6628-10438	57407		Abandoned	Irrigation		100.00		441.48								1031 m	South
6628-29599	310120				2018-01-02	96.00				649	1179	18.0000	25.00	25.00		1039 m	East
6628-10399	57368		Operational	Irrigation		84.13		426.77	7.00	594	1080	2.7800				1053 m	North West
6628-10636	57605		Operational	Irrigation		122.60		469.39	7.40	484	880	3.8200				1054 m	East
6628-10383	57352		Abandoned	Irrigation	1978-12-05	192.00		491.13		578	1050	0.1800	4.00	4.00	487.13	1062 m	North
6628-13348	60317		Abandoned	Irrigation	1985-04-27	152.00		484.86		699	1270	0.6000				1067 m	North East
6628-10611	57580		Operational	Irrigation; Stock		105.00		420.17	7.50	772	1400	4.5000	33.00	33.00	387.17	1075 m	South East
6628-10610	57579		Collapsed	Irrigation		91.44		434.56				1.2700	9.14	9.14	425.42	1094 m	South East
6628-10403	57372		Operational	Irrigation		62.48		441.15	6.80	446	810	1.2700	0.00	0.00	441.15	1094 m	West
6628-10369	57338		Operational	Irrigation		97.54		439.67	7.70	243	441	2.2600	6.09	6.09	433.58	1095 m	North
6628-10442	57411		Operational	Irrigation		91.00		438.98	6.90	396	720	3.1200	5.75	5.75	433.23	1096 m	South West
6628-10422	57391		Backfilled	Irrigation; Stock		36.38		476.61		543	987	0.8900	1.52	1.52	475.09	1096 m	South West
6628-12570	59539		Operational	Irrigation	1983-10-21	140.00		436.61		501	910	12.5000	3.00	3.00	433.61	1101 m	North West
6628-10437	57406		Operational	Irrigation		106.70		440.56				1.8800	0.00	0.00	440.56	1104 m	South
6628-12000	58969		Not In Use	Irrigation	1982-05-12	126.00		408.09	7.80	910	1650	8.0000				1105 m	South
6628-10434	57403		Not In Use	Irrigation		40.54		409.90	6.80	639	1160	6.3140	0.00	0.00	409.90	1113 m	South
6628-23193	235876				2007-11-24	203.00		482.86		648	1177	6.2500	32.00	32.00	450.86	1119 m	North East
6628-10381	57350		Operational	Irrigation	1978-12-08	117.70		495.36		407	740	22.5000	13.60	13.60	481.76	1120 m	North
6628-10404	57373		Backfilled	Irrigation				446.08								1122 m	West
6628-10448	57417		Operational	Irrigation		64.62		434.97	7.00	542	985	5.0900				1123 m	North West
6628-14337	61306		Operational	Domestic; Stock	1989-03-01	109.00		442.95		589	1070	1.1250	20.80	20.80	422.15	1128 m	North West
6628-10435	57404		Operational	Irrigation	1978-01-17	129.00	420.26	420.12	7.60	1208	2186	9.0000	35.62	35.48	384.64	1152 m	South
6628-10698	57667		Abandoned	Irrigation; Stock	1978-11-01	33.00		482.67					16.00	16.00	466.67	1154 m	South West
6628-10436	57405		Not In Use	Irrigation		89.65		424.76	6.60	927	1680	1.9200	4.55	4.55	420.21	1156 m	South
6628-21664	199672			Irrigation	2004-03-31	63.00		439.91		882	1600	3.1250	51.00	51.00	388.91	1161 m	North
6628-24678	246887				2008-12-04	154.00		457.88		500	909	0.6250	26.00	26.00	431.88	1170 m	West
6628-10330	57299			Observation	1975-11-28	20.00		488.65				0.3800	5.36	5.36	483.29	1180 m	North East
6628-10445	57414		Backfilled	Irrigation		91.44		494.54								1185 m	North West
6628-12028	58997			Irrigation	1979-03-26	60.00		471.46		440	800	0.0630	13.80	13.80	457.66	1185 m	South West
6628-11900	58869		Abandoned	Irrigation	1981-12-23	136.00		453.59								1206 m	South East
6628-24679	246888				2008-12-05	56.00		448.42		492	894	6.2500	20.00	20.00	428.42	1209 m	North West
6628-10380	57349		Operational	Irrigation		123.40		490.40		462	840	1.9100	15.86	15.86	474.54	1210 m	North



Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-10382	57351		Operational	Irrigation		182.90		489.77	7.20	495	900	2.2900				1210 m	North West
6628-10406	57375		Operational	Domestic		6.10		455.32				1.2700				1213 m	West
6628-10439	57408		Not In Use	Irrigation		91.40		433.69				1.9100	0.00	0.00	433.69	1214 m	South
6628-10331	57300		Operational	Irrigation	1967-10-05	96.01		484.91	7.30	694	1260	2.0000	5.19	5.19	479.72	1217 m	North East
6628-10379	57348		Operational	Irrigation		121.92		466.43	7.30	495	900	4.5800	0.00	0.00	466.43	1228 m	North
6628-10635	57604		Abandoned	Irrigation		155.40		485.31								1228 m	North East
6628-24887	252635				2009-05-13	77.00				549	998	1.8750	28.00	28.00		1230 m	West
6628-10440	57409		Operational	Domestic; Irrigation		182.88		438.66	7.50	331	601	1.9100				1230 m	South
6628-11628	58597			Irrigation	1981-05-16	111.00		451.29		799	1450	13.7500				1231 m	South
6628-10303	57272		Not In Use					431.93					7.00	7.00	424.93	1240 m	North West
6628-10407	57376		Not In Use	Irrigation		122.00		464.72	7.00	193	350	3.0600	13.44	13.44	451.28	1248 m	West
6628-10642	57611		Not In Use	Irrigation		99.06		429.78	6.50	512	930	5.0900	0.00	0.00	429.78	1251 m	East
6628-11767	58736			Irrigation	1980-07-21	196.70		466.65	8.00	407	740	4.3750				1255 m	North West
6628-10634	57603		Operational	Irrigation		110.00		491.03	7.60	705	1280	3.1800	17.20	17.20	473.83	1256 m	North East
6628-10641	57610		Abandoned	Irrigation	1977-01-21	61.00		447.81		435	791	1.0000	8.00	8.00	439.81	1268 m	East
6628-10368	57337		Operational	Irrigation; Stock	1939-03-02	33.53		441.80	7.40	374	680	1.1365	1.28	1.28	440.52	1271 m	North
6628-11624	58593			Irrigation	1980-07-10	100.00		455.98		838	1520	2.5000	4.50	4.50	451.48	1271 m	North
6628-10444	57413		Operational	Irrigation	1961-10-20	217.00	456.13	455.91	7.30	385	700	3.7500	17.30	17.08	438.83	1289 m	West
6628-22472	214223				2006-01-13	266.00		499.99		938	1700	0.1250	11.40	11.40	488.59	1297 m	North East
6628-10371	57340		Operational	Irrigation		36.38		454.80	7.20	938	1700	3.0800	2.90	2.90	451.90	1297 m	North
6628-11532	58501		Operational	Irrigation	1980-11-14	154.60		445.47		605	1100	5.6000	34.00	34.00	411.47	1298 m	South
6628-10405	57374		Not In Use	Irrigation		79.25		447.39		1045	1892	3.0307	0.00	0.00	447.39	1301 m	West
6628-10945	57914				1979-01-15	132.00		440.29		556	1010	13.7500	5.40	5.40	434.89	1304 m	North West
6628-10608	57577		Abandoned	Domestic; Irrigation; Stock	1977-12-27	129.20		440.32		650	1180	1.0000				1305 m	East
6628-10609	57578		Operational	Domestic; Irrigation; Stock	1977-12-30	53.20		432.70	6.80	639	1160	12.5000	0.00	0.00	432.70	1311 m	East
6628-10420	57389		Not In Use	Irrigation		24.38		479.10				5.0900				1313 m	South West
6628-10421	57390		Operational	General Usage		3.00		479.10	6.50	154	280	0.0500	0.00	0.00	479.10	1313 m	South West
6628-12292	59261			Irrigation	1983-02-23	112.00		448.39		650	1180	10.7500	3.00	3.00	445.39	1316 m	West
6628-10612	57581		Operational	Irrigation		121.92		412.82	7.80	650	1180	7.6400	0.00	0.00	412.82	1318 m	South East
6628-10370	57339		Operational	Irrigation		45.00		455.44	7.20	816	1480	2.0360	10.10	10.10	445.34	1338 m	North
6628-10128	57097		Operational	Irrigation	1977-11-25	136.00		334.51	7.90	594	1080	5.6800	0.60	0.60	333.91	1353 m	North West
6628-24836	247998				2009-03-23	154.00				547	994	11.2500	53.00	53.00		1355 m	North West
6628-10378	57347		Operational	Domestic		64.01		491.08	7.50	462	840	1.5300				1360 m	North

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-10302	57271		Operational	Irrigation		73.15		443.13	7.50	506	920	3.7800				1363 m	North West
6628-20128	179095			Irrigation	2000-02-05	245.00		441.92		611	1110	2.5000	54.00	54.00	387.92	1367 m	North West
6628-20112	178746		Flowing	Irrigation	1999-11-17	112.00		441.57		683	1240	5.6250	0.00	0.00	441.57	1367 m	West
6628-11999	58968			Irrigation	1982-04-29	126.00		424.75	7.40	1306	2360					1370 m	South
6628-10296	57265		Operational	Irrigation		73.15		478.34	7.70	550	1000	4.4000	43.00	43.00	435.34	1415 m	North West
6628-10433	57402		Collapsed	Irrigation		30.48	397.79	397.68		1373	2480		2.50	2.39	395.29	1415 m	South
6628-10367	57336		Operational	Irrigation		109.73		444.80	7.30	827	1500	2.2600	0.00	0.00	444.80	1421 m	North
6628-10412	57381		Operational	Irrigation		54.86		480.05	7.70	547	995	0.6400	0.00	0.00	480.05	1439 m	West
6628-12605	59574		Not In Use	Irrigation	1983-10-11	123.40		453.99		871	1580	6.2500	11.60	11.60	442.39	1452 m	West
6628-10613	57582		Abandoned	Irrigation	1936-06-10	49.38		409.66		671	1218		3.35	3.35	406.31	1459 m	South East
6628-22303	206581				2005-06-09	46.00		465.06		464	843	5.5000	10.00	10.00	455.06	1460 m	West
6628-12291	59260		Abandoned	Irrigation	1983-02-22	154.00		444.04		550	1000	0.9000				1472 m	West
6628-11575	58544			Irrigation	1980-01-25	75.00		514.14		440	800	0.6000	0.00	0.00	514.14	1492 m	West
6628-14267	61236		Operational	Irrigation	1988-06-03	113.40		484.28		578	1050	22.5000	1.70	1.70	482.58	1493 m	North West
6628-11901	58870			Irrigation	1982-01-15	103.00		424.60		490	890	12.6000	17.00	17.00	407.60	1509 m	South East
6628-10668	57637		Abandoned			152.50		449.98								1509 m	North East
6628-10411	57380		Operational	Domestic; Stock		20.42		466.99	8.00	264	480	0.6400	7.26	7.26	459.73	1516 m	West
6628-12405	59374		Abandoned	Irrigation	1983-06-21	122.60		454.24		561	1020	1.8000				1522 m	North
6628-16538	138693			Irrigation	1994-01-17	49.00		445.98	7.20	462	840	1.3750	0.00	0.00	445.98	1533 m	West
6628-10645	57614		Operational	Irrigation		91.50		459.08	8.00	650	1180	2.5500				1540 m	East
6628-26284	268991				2011-12-06	105.00				797	1445	3.7500	20.00	20.00		1545 m	East
6628-12625	59594		Operational	Irrigation	1983-10-22	90.00		466.21		425	772	25.0000	2.00	2.00	464.21	1547 m	North West
6628-10376	57345		Backfilled	Irrigation		91.44		469.42				1.0200				1547 m	North
6628-28098	288248		Backfilled		2015-12-03	141.00						0.2000				1551 m	West
6628-10377	57346		Backfilled	Irrigation				462.17				0.1300				1555 m	North
6628-13400	60369		Operational	Irrigation		252.00		411.54		972	1760	7.5000	80.00	80.00	331.54	1557 m	South
6628-18140	162820			Irrigation	1996-12-13	127.00		447.60		788	1430	3.7500	1.00	1.00	446.60	1561 m	North
6628-10667	57636		Abandoned			141.00		457.60								1562 m	North East
6628-10666	57635		Not In Use	Irrigation		138.00		457.60	6.20	484	880	1.6200				1562 m	North East
6628-17350	151227		Not In Use	Irrigation	1995-06-21	371.00		399.50	7.40	1121	2030	1.8750	1.50	1.50	398.00	1578 m	South
6628-10614	57583		Not In Use	Irrigation		47.55		420.12	6.50	555	1009	6.5000	15.24	15.24	404.88	1579 m	South East
6628-19660	176245		Abandoned	Irrigation	1999-04-28	108.80		447.91		336	610	2.5000	2.00	2.00	445.91	1584 m	West
6628-10386	57355		Operational	Irrigation	1977-01-24	92.00		422.24	7.20	871	1580	3.7500	12.00	12.00	410.24	1592 m	South
6628-15888	62857		Operational	Irrigation	1992-01-13	79.00		482.42		705	1280	3.7500	9.50	9.50	472.92	1595 m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-10336	57305		Operational	Domestic; Irrigation		60.96		423.23	7.70	722	1310	7.6400				1601 m	South East
6628-16982	147847		Rehabilitated	Irrigation	1995-02-17	182.00		449.17	7.30	793	1439	0.5000	0.50	0.50	448.67	1606 m	West
6628-10387	57356		Operational	Irrigation		100.59		421.06	7.00	910	1650	2.0400	16.64	16.64	404.42	1610 m	South
6628-19661	176246		Abandoned	Irrigation	1999-04-30	108.80		464.53		484	880	1.5000	25.00	25.00	439.53	1611 m	West
6628-11394	58363			Irrigation	1979-11-12	100.00		450.56		495	900	4.3000				1625 m	East
6628-20111	178745			Irrigation	1999-11-19	147.00		458.54		512	930	12.5000	28.00	28.00	430.54	1626 m	West
6628-10669	57638		Abandoned					444.63								1627 m	North East
6628-10615	57584		Operational	Irrigation		110.00		416.89	7.70	572	1040	3.8200				1634 m	South East
6628-10337	57306		Abandoned	Irrigation		54.86		421.21				1.2700	30.48	30.48	390.73	1636 m	South East
6628-10308	57277		Operational	Irrigation		51.82		485.31	6.50	381	692	3.1800				1657 m	West
6628-10374	57343		Backfilled	Irrigation		30.48		501.33	6.70	500	909	12.6281	4.72	4.72	496.61	1662 m	North
6628-16981	147842		Abandoned	Irrigation	1995-02-16	140.00		468.48	7.20	589	1070	0.3750				1673 m	West
6628-16463	135821			Domestic	1993-06-18	54.00		524.38		448	814	2.5000	4.50	4.50	519.88	1677 m	North West
6628-10648	57617		Abandoned	Irrigation		110.00		432.63				0.1200				1678 m	East
6628-22362	209830				2005-06-16	80.00		425.36		1390	2510	19.0000				1682 m	South East
6628-10646	57615		Not In Use	Irrigation		132.00		432.92	6.40	451	820	0.1200	0.00	0.00	432.92	1685 m	North East
6628-10670	57639		Backfilled	Irrigation				448.61				1.2700				1688 m	North East
6628-12304	59273			Irrigation	1983-05-10	76.00		496.76		347	630	1.5000				1693 m	North
6628-10647	57616		Abandoned	Irrigation		112.50		429.96								1697 m	East
6628-10301	57270		Operational	Irrigation	1978-01-18	86.90		456.56	6.80	380	690	12.5000	3.60	3.60	452.96	1699 m	North West
6628-10429	57398		Backfilled	Irrigation		143.23		480.33								1702 m	West
6628-10446	57415		Backfilled	Irrigation		85.40		456.56				10.0800	0.00	0.00	456.56	1716 m	North West
6628-18139	162819		Abandoned	Irrigation	1996-12-11	127.00		452.42		838	1520	0.7500	2.00	2.00	450.42	1720 m	North
6628-10385	57354		Not In Use	Irrigation		86.20		440.36	6.10	772	1400	0.6400	6.92	6.92	433.44	1733 m	South West
6628-10375	57344		Operational	Irrigation		83.51		489.20	6.60	750	1360	2.0800	11.91	11.91	477.29	1733 m	North
6628-13338	60307		Operational	Irrigation	1985-05-13	153.00		489.54		608	1104	4.5000	25.00	25.00	464.54	1737 m	North
6628-10537	57506		Abandoned	Irrigation		53.34		440.59				0.6900				1739 m	East
6628-10671	57640		Abandoned					445.35								1747 m	North East
6628-10650	57619		Not In Use	Irrigation		138.00		485.62				1.4000				1747 m	North East
6628-10338	57307		Operational	Irrigation		144.00		420.11	7.90	561	1020	6.3700	9.00	9.00	411.11	1755 m	South East
6628-10672	57641		Operational	Irrigation		63.00		440.20	7.00	622	1130	5.0900	15.40	15.40	424.80	1762 m	North East
6628-10366	57335		Operational	Irrigation		154.00		450.27	7.50	710	1290	1.2000	61.00	61.00	389.27	1765 m	North
6628-10673	57642		Not In Use	Irrigation		85.40		442.15	8.80	628	1140	1.2700				1774 m	North East
6628-10428	57397		Operational	Irrigation	1971-02-10	114.30		479.74				4.4198				1779 m	West

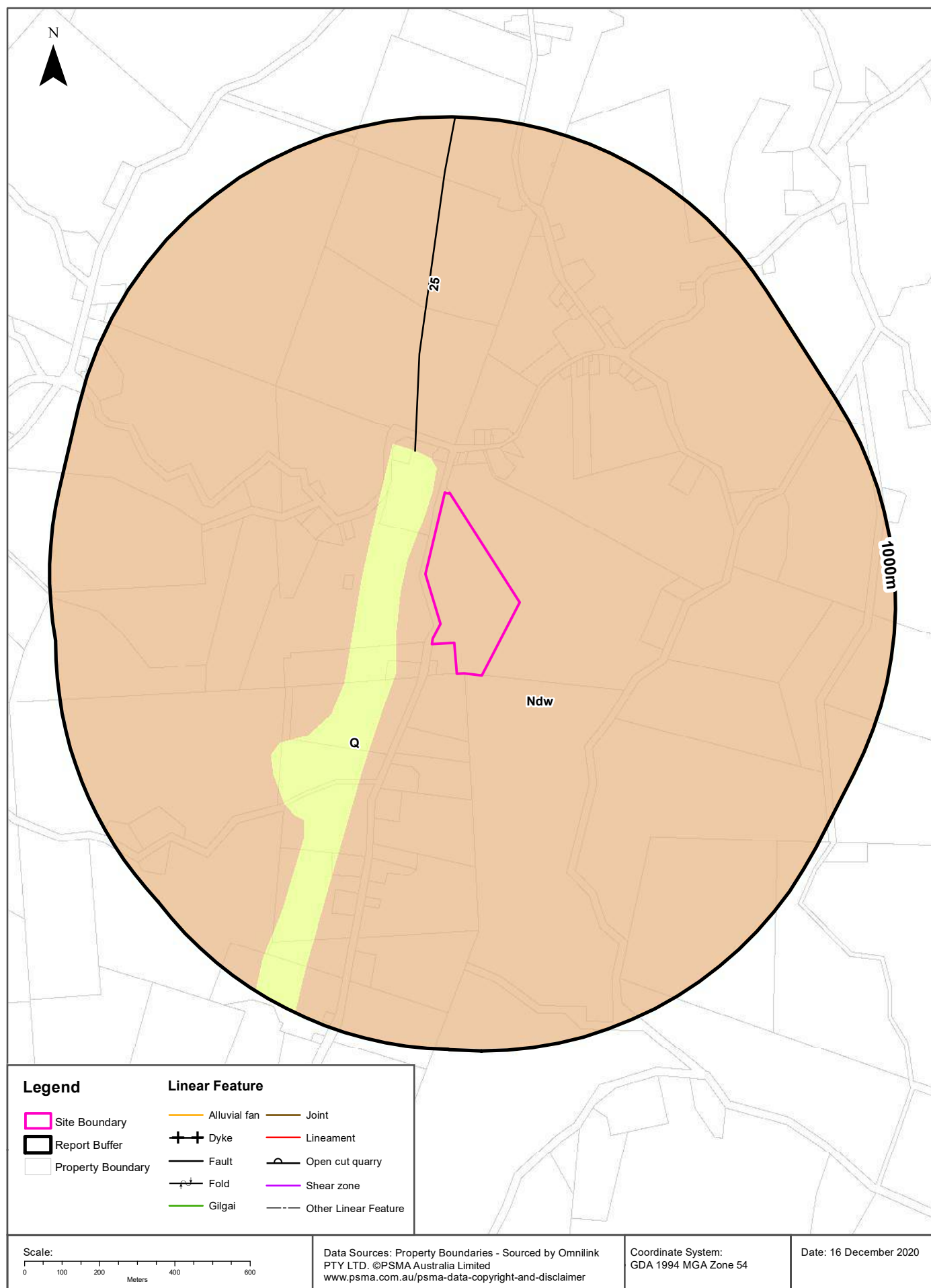


Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-10307	57276		Dry	Irrigation				457.64	6.60	386	701	3.8200				1783 m	West
6628-15134	62103					155.70		464.97		440	800	11.2500	5.00	5.00	459.97	1792 m	West
6628-10373	57342		Operational	Domestic; Irrigation		96.00		495.15	7.00	468	850	2.3100	0.00	0.00	495.15	1793 m	North
6628-10430	57399		Operational	Irrigation	1962-04-17	121.92		484.50				4.4600				1797 m	West
6628-11576	58545				1979-02-13	120.00		461.35		418	760	1.5000	42.00	42.00	419.35	1804 m	West
6628-17114	148657			Domestic	1995-03-07	119.00		473.04	7.10	451	820	0.6000	26.00	26.00	447.04	1814 m	West
6628-19662	176247		Abandoned	Irrigation	1999-05-04	132.50		468.75		402	730	1.5000				1814 m	West
6628-18846	168029			Irrigation	1997-12-16	120.00		490.13		281	510	2.5000	17.00	17.00	473.13	1815 m	North East
6628-10339	57308		Not In Use			76.20		407.74	6.50	520	945	2.5500	0.10	0.10	407.64	1818 m	South
6628-10365	57334		Operational	Irrigation		71.93		453.58	7.60	2577	4615	5.2100	0.00	0.00	453.58	1822 m	North
6628-10959	57928		Abandoned	Irrigation	1979-07-21	90.00		434.66								1823 m	East
6628-10389	57358		Not In Use	Irrigation		131.07		403.78	7.10	1266	2290	1.0200				1825 m	South
6628-10651	57620		Not In Use	Irrigation		122.22		485.70		1155	2090	3.2580	27.00	27.00	458.70	1825 m	North East
6628-11914	58883			Irrigation	1981-12-31	203.00		403.78		733	1330	6.7500				1825 m	South
6628-16910	147595		Abandoned	Irrigation	1995-01-18	175.00		434.09	7.70	794	1440	0.3120	20.00	20.00	414.09	1829 m	South
6628-10427	57396		Operational	Irrigation		120.00		475.65				3.8200				1830 m	West
6628-10388	57357		Not In Use	Irrigation		51.82		400.55		1105	2000	0.2500	0.00	0.00	400.55	1833 m	South
6628-10426	57395		Operational	Irrigation		39.32		470.53	6.80	374	680	3.8200				1834 m	West
6628-28527	289839				2016-03-04	98.00				749	1359	7.5000				1836 m	North
6628-13337	60306		Abandoned	Irrigation	1985-05-06	151.00		453.82					40.00	40.00	413.82	1840 m	North
6628-10297	57266		Not In Use			27.00		458.86	6.90	407	740	1.2000	0.00	0.00	458.86	1843 m	North West
6628-12406	59375		Operational	Irrigation	1983-06-24	100.00		454.31		750	1360	15.0000	3.90	3.90	450.41	1843 m	North
6628-16911	147596			Irrigation	1995-01-21	238.00		436.87	7.60	1005	1820	0.5000	2.00	2.00	434.87	1845 m	South
6628-10616	57585		Collapsed	Irrigation		30.48		399.51	6.00	145	264	1.3000	12.19	12.19	387.32	1849 m	South East
6628-10306	57275		Operational	Irrigation		65.53		454.84	6.80	419	761	3.8200	0.00	0.00	454.84	1849 m	West
6628-30594	333150			Stock	2020-02-10	70.00				447	813	3.7500				1849 m	West
6628-18287	164158			Domestic		63.00		480.11		435	790	1.7000	25.00	25.00	455.11	1859 m	West
6628-10300	57269		Operational	Irrigation; Stock		101.80	464.83	464.75	7.00	365	663	5.0900	5.40	5.31	459.43	1862 m	North West
6628-10652	57621		Abandoned	Irrigation		122.00		471.63								1871 m	North East
6628-10431	57400		Operational	Irrigation		67.06		467.61				7.6400				1871 m	South West
6628-19300	173728			Irrigation	1998-10-06	182.90		484.08		275	500	2.5000	27.80	27.80	456.28	1871 m	North East
6628-27718	284956				2015-01-17	160.00				605	1100	4.5000	25.00	25.00		1877 m	West
6628-10425	57394		Operational	Domestic; Irrigation		91.44		465.18	7.50	520	945	11.4600	6.10	6.10	459.08	1881 m	West
6628-10312	57281		Operational	Irrigation		203.00		463.69		611	1110	4.3750				1884 m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-10299	57268		Operational	Irrigation		79.25		470.99	6.80	358	651	3.5600				1885 m	North West
6628-10390	57359		Operational	Irrigation	1977-01-27	113.40		413.80	7.50	705	1280	3.8200	13.60	13.60	400.20	1918 m	South
6628-10358	57327		Operational	Irrigation		85.36	459.71	459.71	7.40	801	1452	1.9100	0.73	0.73	458.98	1919 m	North
6628-16566	140954			Domestic; Stock	1994-03-01	70.20		495.90	7.30	633	1150	1.0000	23.00	23.00	472.90	1937 m	West
6628-13251	60220		Operational	Irrigation	1985-02-21	164.00		410.47	7.30	634	1153	9.0000				1951 m	South
6628-20110	178744			Irrigation	2000-02-09	140.00		477.55		435	790	4.5000	8.40	8.40	469.15	1958 m	West
6628-14280	61249		Operational	Irrigation	1988-10-07	175.00		498.95		497	904	5.0000	17.06	17.06	481.89	1960 m	West
6628-10630	57599		Operational	Domestic; Irrigation; Stock	1978-03-01	86.00		445.97	6.90	628	1140	6.3700	27.30	27.30	418.67	1972 m	South East
6628-9464	56433		Backfilled		1979-01-19	147.00		473.03		583	1060	0.7500	13.70	13.70	459.33	1978 m	North
6628-10363	57332		Operational	Irrigation		121.92		455.91	7.40	794	1440	1.2700				1986 m	North
6628-10364	57333		Not In Use	Irrigation		88.40		456.49				2.2700				1986 m	North
6628-10432	57401		Operational	Irrigation		36.58		450.18				2.5500				1989 m	South West
6628-16984	147864			Irrigation	1995-02-14	55.00		520.56	7.30	347	630	6.8000	8.84	8.84	511.72	1992 m	North West
6628-10311	57280		Operational	Irrigation	1962-05-21	76.20		464.92	7.40	528	960	6.5000	0.00	0.00	464.92	1992 m	West

Drillholes Data Source: Dept of Environment, Water and Natural Resources - South Australia

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## Geology

792 Swamp Road, Lenswood, SA 5240

### Surface Geology 1:100,000

Surface Geology Units within the dataset buffer:

Map Unit Code	Name	Description	Parent Name	Province	Age	Min Age	Max Age	Distance
Ndw	Woolshed Flat Shale	Shale, black; dolomitic siltstone; dolomite; grey laminated siltstone.	Bungarider Subgroup	ADELAIDE GEOSYNCLINE	NEOPROTEROZOIC	Torrensian	Torrensian	0m
Q	Unnamed GIS Unit - see description	Undifferentiated Quaternary rocks.		UNKNOWN	PLEISTOCENE-HOLOCENE	Quaternary	Quaternary	32m

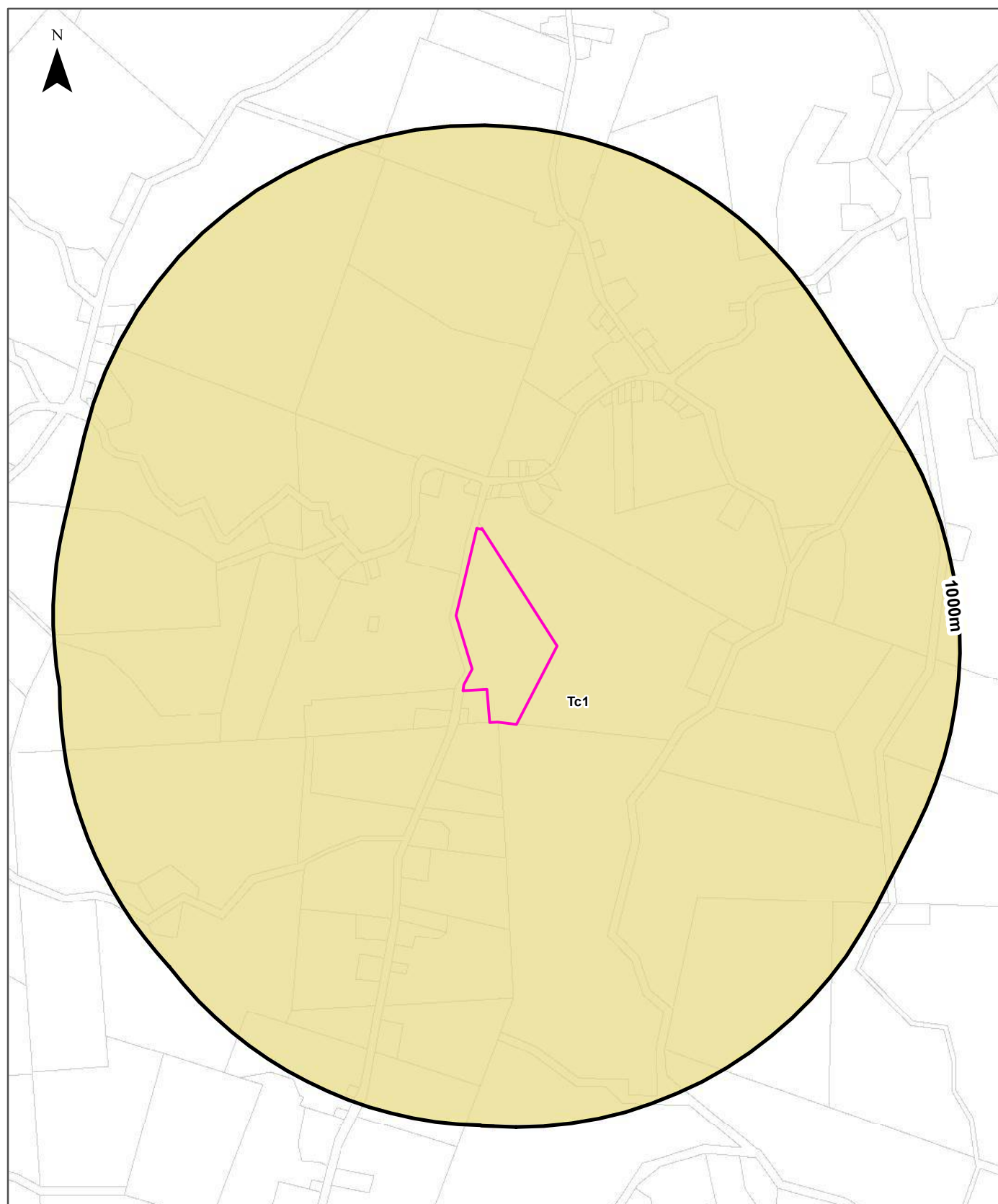
Geology Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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### Linear Structures 1:100,000

Linear geological structures within the dataset buffer:

Map Code	Description	Distance
25	Fault position accurate	136m

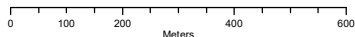
Geology Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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#### Legend

Site Boundary	Anthrosol	Dermosol	Kandosol	Podosol	Tenosol	No Data
Report Buffer	Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol	
Property Boundary	Chromosol	Hydrosol	Organosol	Sodosol	Lake	

Scale:



Data Sources: Property Boundaries - Sourced by Omnilink  
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[www.psmadata.com.au/psma-data-copyright-and-disclaimer](http://www.psmadata.com.au/psma-data-copyright-and-disclaimer)

Coordinate System:  
GDA 1994 MGA Zone 54

Date: 16 December 2020

## Soils

792 Swamp Road, Lenswood, SA 5240

### Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance
Tc1	Kurosol	Hilly to steep hilly, small valley plains: hard acidic yellow mottled soils (Dy3.61) with shallow grey-brown sandy soils (Uc6.11) and rock outcrops in association with variable areas of (Dy3.41 and Dy3.42), (Dy3.22), (Dr2.12 and Dr2.22) on hills and hill slopes, and minor areas of (Dy3.61) containing ironstone gravel in the A horizons on some ridge tops; unclassified alluvial soils, peats (0), and acid swamp soils (0) in the wetter valleys. There are also pockets of many other soils such as red friable earths (Gn4.11) and (Gn3.12) through the hills.	0m

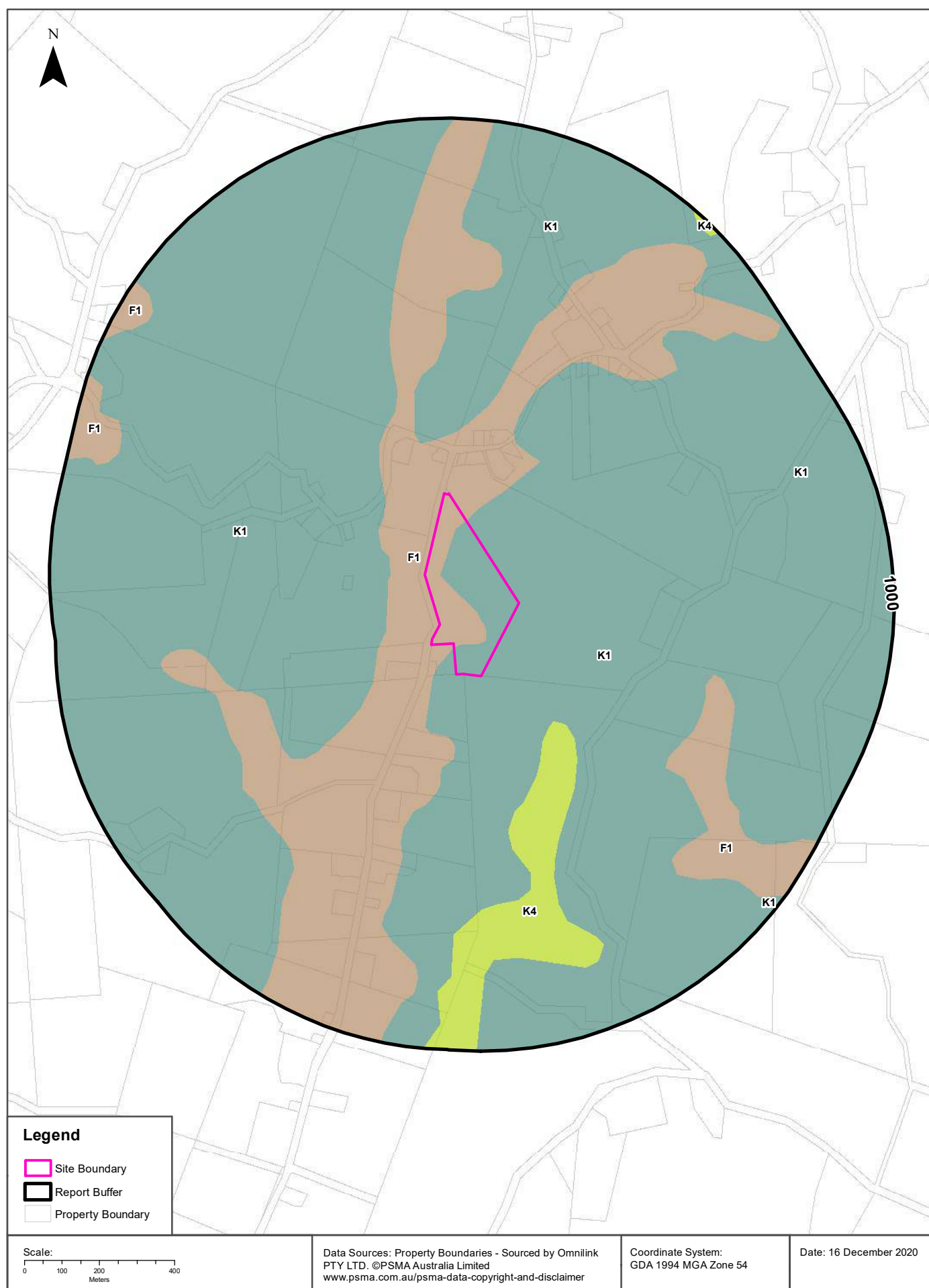
Atlas of Australian Soils Data Source: CSIRO

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## Soil Types

792 Swamp Road, Lenswood, SA 5240



## Soils

792 Swamp Road, Lenswood, SA 5240

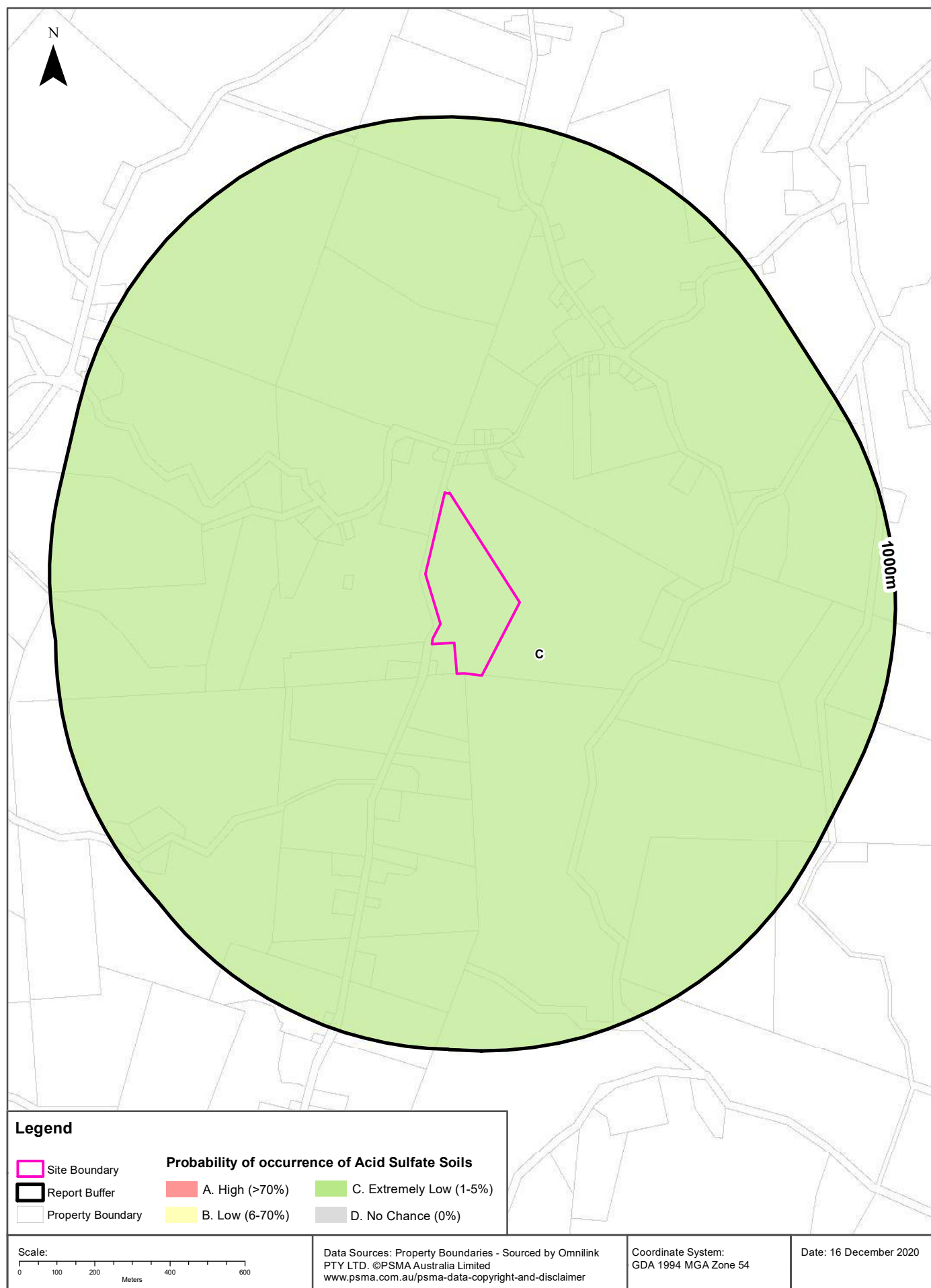
### Soil Types

Soil types within the dataset buffer:

Map category code	Soil type description	Distance
K1	Acidic gradational loam on rock	0m
F1	Loam over brown or dark clay	0m
K4	Acidic sandy loam over brown or grey clay on rock	224m

Soil Types Data Source: Dept of Environment, Water and Natural Resources - South Australia

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## Acid Sulfate Soils

792 Swamp Road, Lenswood, SA 5240

### Atlas of Australian Acid Sulfate Soils

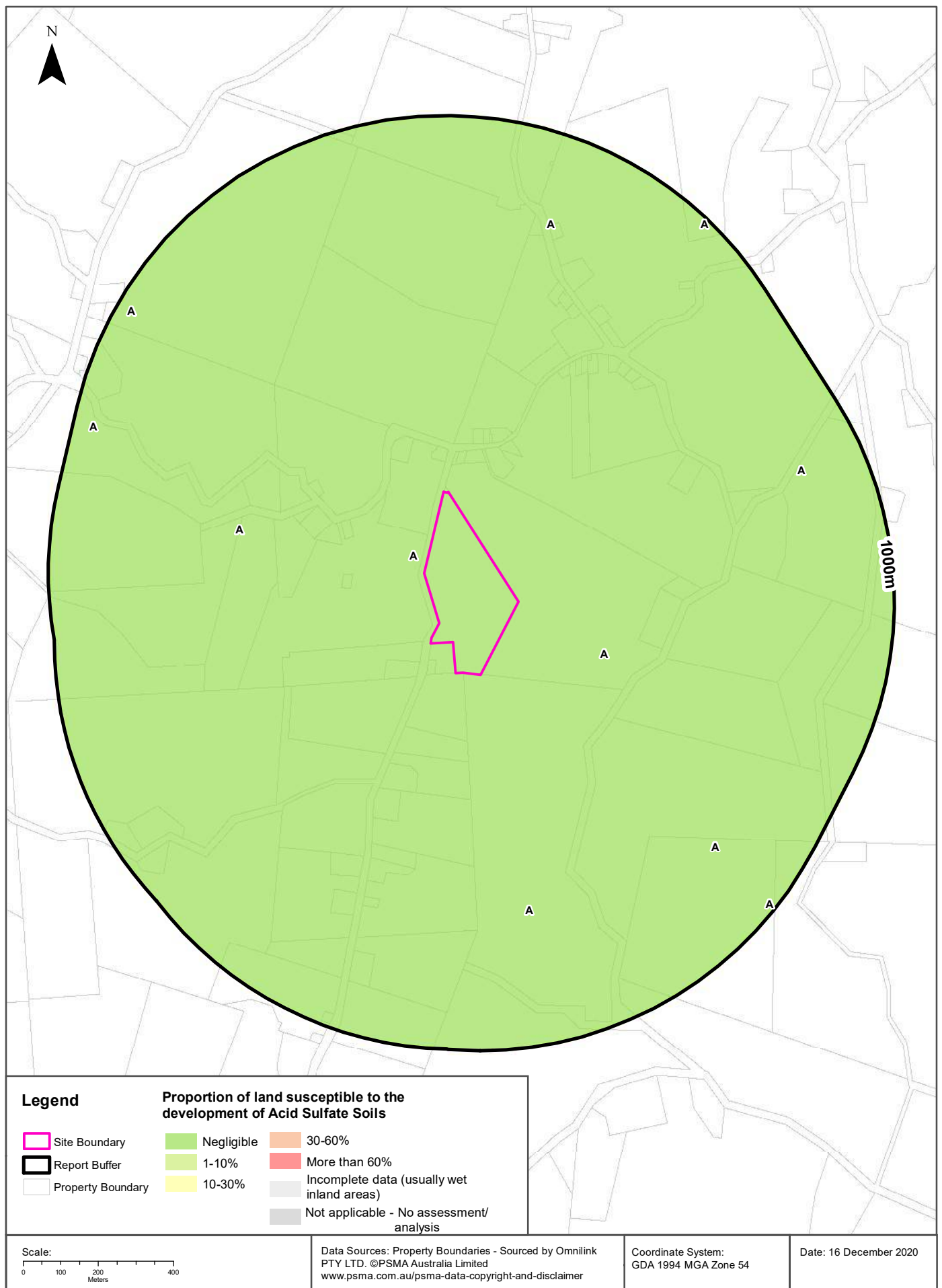
Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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## Acid Sulfate Soils

792 Swamp Road, Lenswood, SA 5240

### Acid Sulfate Soil Potential

Acid sulfate soil potential within the dataset buffer:

Map category code	Proportion of land susceptible to the development of acid sulfate soils	Distance
A	Negligible	0m

Acid Sulfate Soils Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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# Soil Salinity - Non-watertable (Magnesia Patches)

792 Swamp Road, Lenswood, SA 5240



## Soil Salinity

792 Swamp Road, Lenswood, SA 5240

### Soil Salinity - Watertable Induced

Watertable induced soil salinity within the dataset buffer:

Map category code	Severity description	Distance
A	Negligible	0m

Salinity Watertable Induced Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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### Soil Salinity - Non-Watertable

Non-watertable soil salinity within the dataset buffer:

Map category code	Severity description	Surface ECe (dS/m)	Subsoil ECe (dS/m)	Distance
A	Low	<2	<4	0m

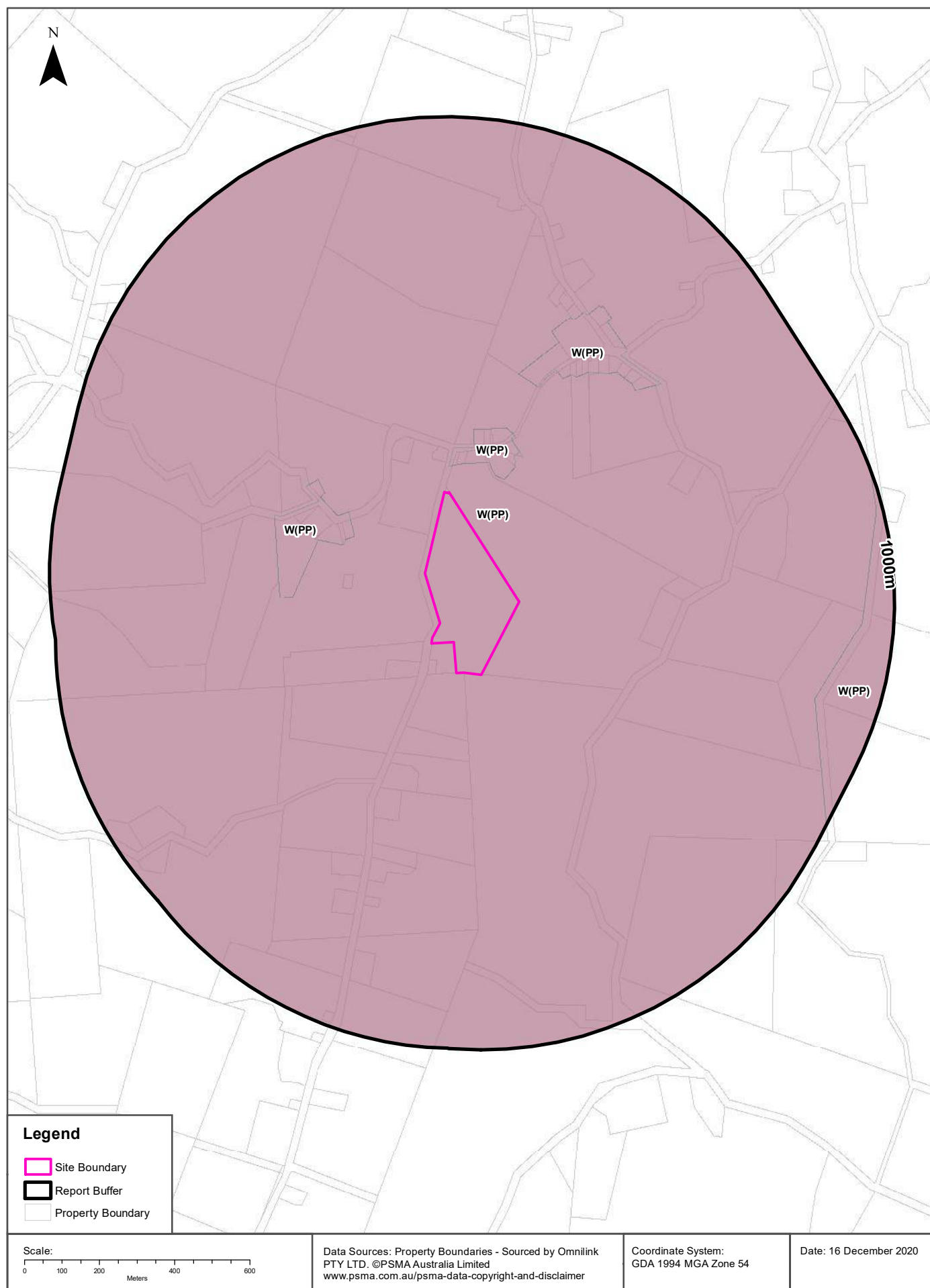
Salinity Non-Watertable Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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### Soil Salinity - Non-Watertable (Magnesia Patches)

Magnesia patches within the dataset buffer:

Map category code	Proportion of land affected by magnesia patches	Distance
A	Negligible	0m

Salinity Non-Watertable (Magnesia Patches) Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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## Planning

792 Swamp Road, Lenswood, SA 5240

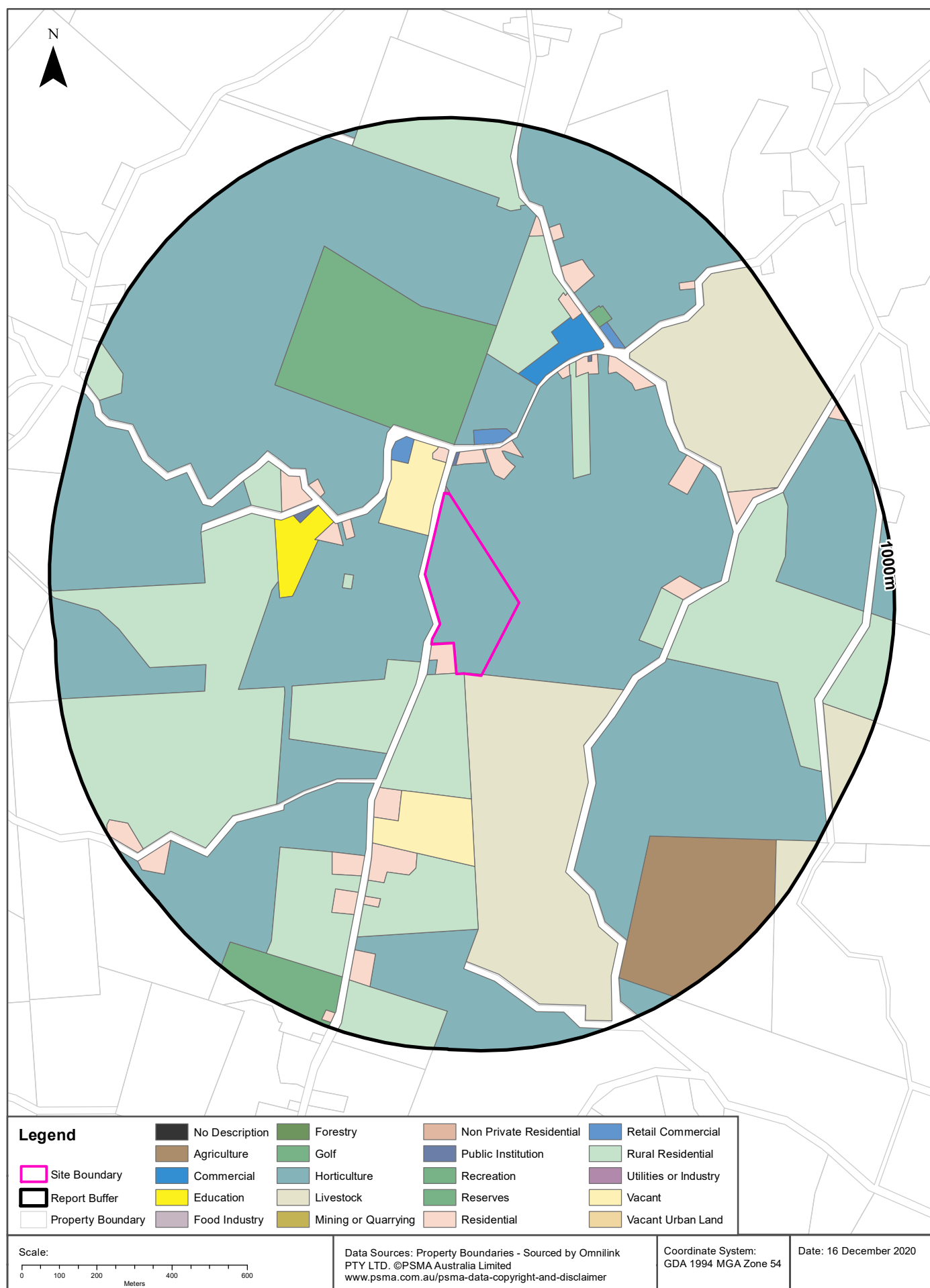
### Land Development Zones

Land development zoning within the dataset buffer:

Zone Code	Development Plan Code	Zone Description	Development Category	Distance	Direction
W(PP)	ADHI	Watershed (Primary Production) zone	PRIMARY PRODUCTION - MINING	0m	Onsite
W(PP)	ADHI	Watershed (Primary Production) zone	PRIMARY PRODUCTION - MINING	68m	North
W(PP)	ADHI	Watershed (Primary Production) zone	PRIMARY PRODUCTION - MINING	206m	West
W(PP)	ADHI	Watershed (Primary Production) zone	PRIMARY PRODUCTION - MINING	364m	North East
W(PP)	ADHI	Watershed (Primary Production) zone	PRIMARY PRODUCTION - MINING	828m	South

Land Development Zones Data Source: Dept of Planning, Transport and Infrastructure - South Australia  
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## Planning

792 Swamp Road, Lenswood, SA 5240

### Land Use Generalised 2018

Land use classes within the dataset buffer:

Description	Distance	Direction
Horticulture	0m	Onsite
Residential	0m	South
Livestock	0m	South
Rural Residential	0m	South
Utilities or Industry	1m	North
Vacant	15m	North West
Public Institution	73m	North
Retail Commercial	124m	North West
Recreation	130m	North
Education	268m	West
Commercial	367m	North
Agriculture	620m	South East

Land Use Generalised Data Source: Dept of Planning, Transport and Infrastructure - South Australia  
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## Heritage

792 Swamp Road, Lenswood, SA 5240

### Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch  
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### National Heritage List

What are the National Heritage List Items located within the dataset buffer?

Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch  
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### State Heritage Areas

State Heritage Areas within the dataset buffer:

Heritage Id	Name	Distance	Direction
N/A	No records in buffer		

Heritage Areas Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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### SA Heritage Places

SA Heritage Places within the dataset buffer:

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
N/A	No records in buffer						

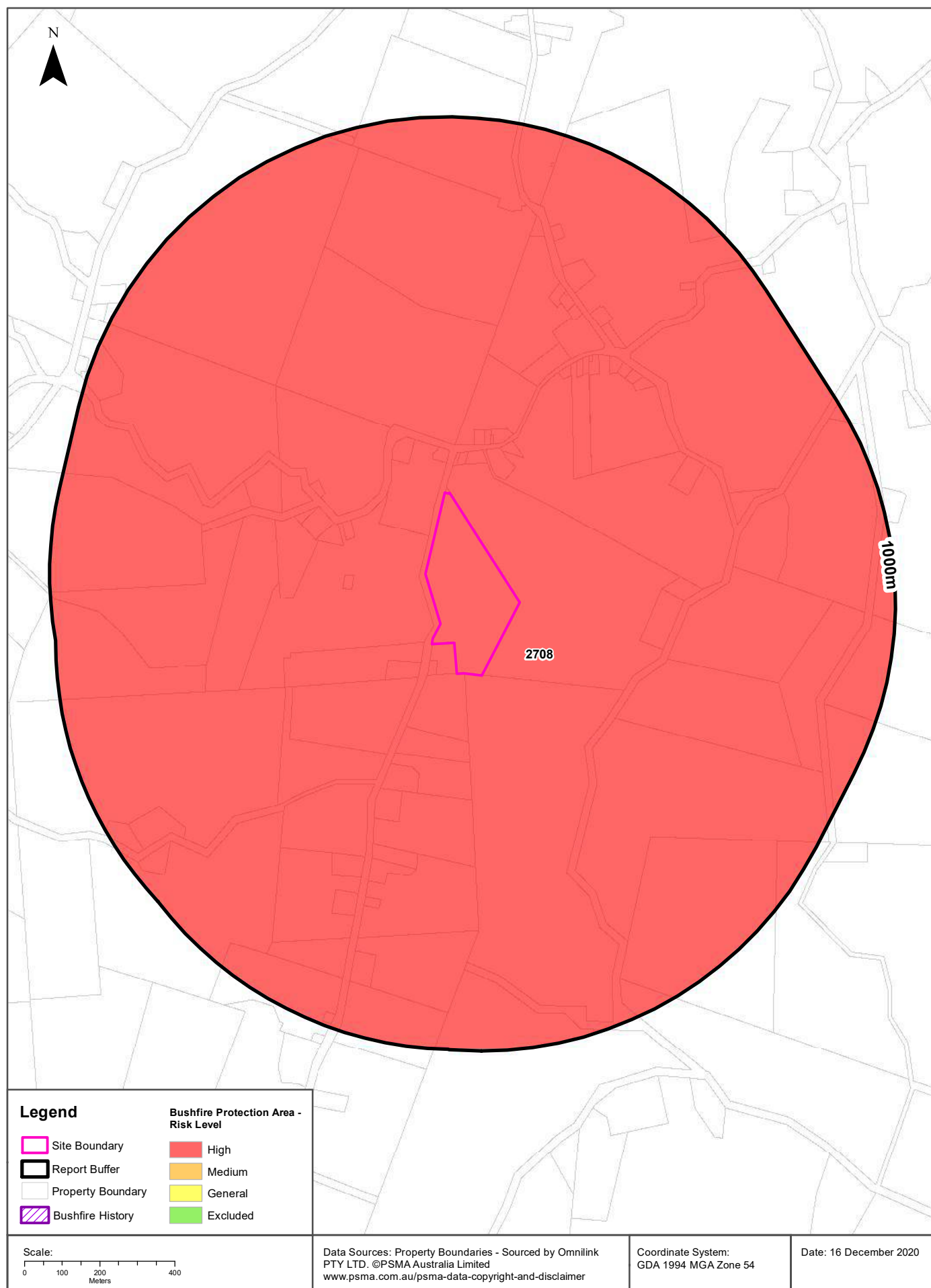
Heritage Places Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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### Aboriginal Land

Aboriginal Land within the dataset buffer:

Map Id	Grant Date	Address	Locality	Description	Title	Distance	Direction
N/A	No records in buffer						

Aboriginal Land Data Source: Department of State Development, Resources and Energy - South Australia





## Natural Hazards

792 Swamp Road, Lenswood, SA 5240

### Bushfire Protection Areas

Bushfire Protection Areas within the dataset buffer:

Map Id	Bushfire Risk Code	Development Plan Code	Additional Development Criteria	Distance	Direction
2708	High	ADHI		0m	On-site

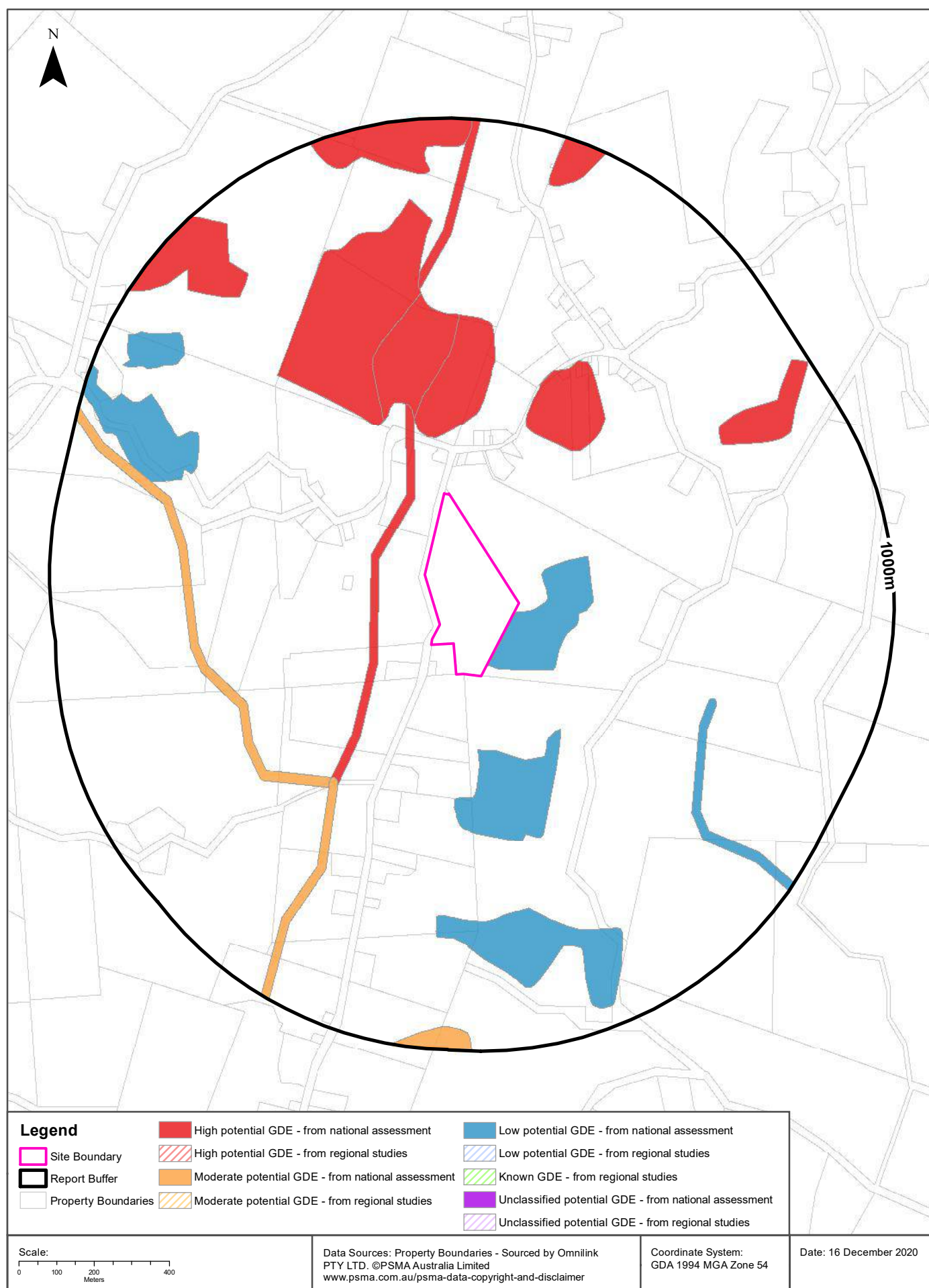
Bushfire Protection Areas Data Source: Dept of Planning, Transport and Infrastructure - South Australia  
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### Bushfires and Prescribed Burns History

Bushfires and prescribed burns within the dataset buffer:

Map Id	Incident No.	Incident Name	Incident Type	Date of Fire	Area of Fire	Distance	Direction
N/A	No records in buffer						

Bushfires and Prescribed Burns History Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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## Ecological Constraints

792 Swamp Road, Lenswood, SA 5240

## Groundwater Dependent Ecosystems Atlas

GDEs within the dataset buffer:

MapID	Type	Name	GDE Potential	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
141981	Terrestrial		Low potential GDE - from national assessment	8	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		0m
65602	Aquatic		High potential GDE - from national assessment	8	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	River		72m
141924	Terrestrial		High potential GDE - from national assessment	8	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		149m
142014	Terrestrial		Low potential GDE - from national assessment	8	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		197m
141914	Terrestrial		High potential GDE - from national assessment	8	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		214m
141886	Terrestrial		High potential GDE - from national assessment	9	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		249m

MapID	Type	Name	GDE Potential	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
141942	Terrestrial		High potential GDE - from national assessment	8	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		270m
33941	Aquatic		Moderate potential GDE - from national assessment	10	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	River		424m
62608	Aquatic		Moderate potential GDE - from national assessment	10	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	River		432m
45224	Aquatic		Low potential GDE - from national assessment	10	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	River		567m
142052	Terrestrial		Low potential GDE - from national assessment	6	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		630m
141938	Terrestrial		Low potential GDE - from national assessment	6	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		658m
141945	Terrestrial		High potential GDE - from national assessment	10	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		682m
141888	Terrestrial		High potential GDE - from national assessment	8	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		754m



MapID	Type	Name	GDE Potential	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
141929	Terrestrial		Low potential GDE - from national assessment	7	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		782m
141854	Terrestrial		High potential GDE - from national assessment	8	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		852m
141866	Terrestrial		High potential GDE - from national assessment	9	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		863m
142094	Terrestrial		Moderate potential GDE - from national assessment	10	Complex fold belt of prominent ranges in north, chiefly quartzite with vales on weaker rocks; stepped fault blocks and islands in south, mainly of weathered metamorphic rocks with ferruginous cappings.	Vegetation		938m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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## Ecological Constraints

792 Swamp Road, Lenswood, SA 5240

## Ramsar Wetlands

Ramsar Wetlands within the dataset buffer:

Wetland	Distance	Direction
No records in buffer		

Ramsar Wetlands Data Source: Dept of Environment, Water and Natural Resources - South Australia  
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LC Code	Location Confidence
Premise match	Georeferenced to the site location / premise or part of site
General area or suburb match	Georeferenced with the confidence of the general/approximate area
Road match	Georeferenced to the road or rail
Road intersection	Georeferenced to the road intersection
Feature is a buffered point	Feature is a buffered point
Land adjacent to geocoded site	Land adjacent to Georeferenced Site
Network of features	Georeferenced to a network of features

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




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APPENDIX B – FIGURES

LEGEND

-  BORE LOCATION
-  INDICATIVE BUILDING LOCATIONS
-  INDICATIVE LAND APPLICATION AREA
-  EXISTING SITE BOUNDARY
-  PROPOSED SITE BOUNDARY
-  WATER COURSE

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1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SITE AND SOIL REPORT
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5. ALL SITE WASTEWATER TO BE DIRECTED TO THE PROPOSED WASTEWATER MANAGEMENT SYSTEM.
6. ALL STORMWATER TO BE DIVERTED AWAY FROM THE PROPOSED IRRIGATION AREAS.
7. CONTRACTOR TO ENSURE ALL MINIMUM SETBACK DISTANCES ARE MAINTAINED. LOCATIONS ARE SHOWN INDICATIVELY, ACTUAL LOCATIONS WILL BE CONFIRMED ON SITE BASED ON SITE CONDITIONS, MAINTAINING THE MINIMUM SETBACK DISTANCES.

AEROBIC WASTEWATER TREATMENT SYSTEMS (AWTS)

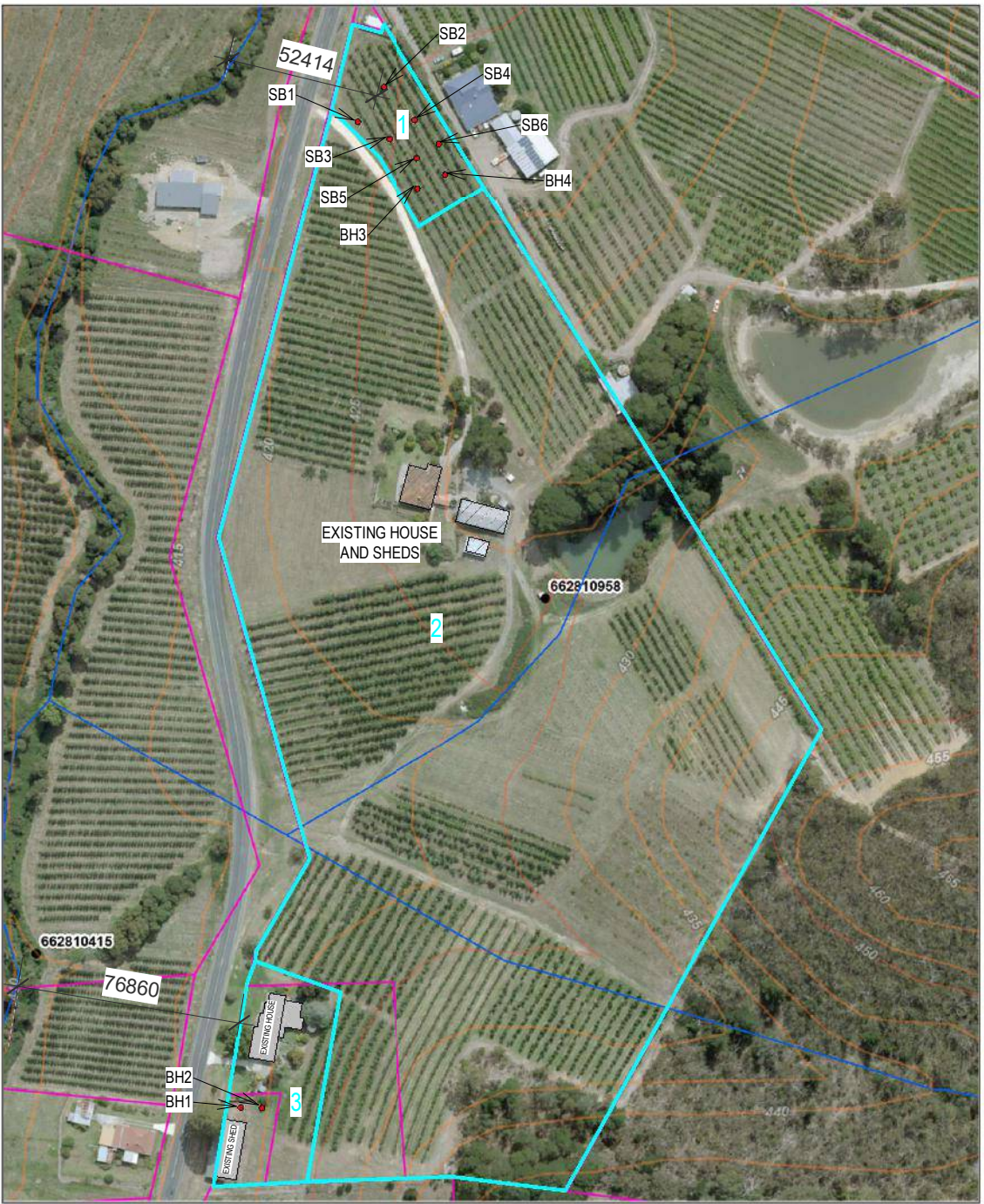
1. LOCATION OF AWTS SHOWN IS INDICATIVE ONLY .AWTS TO BE SA HEALTH APPROVED
2. MINIMUM SETBACK DISTANCES = 3.0M FROM BUILDINGS AND BOUNDARIES. 1.5M FROM IRRIGATION AREA
3. ALL PLUMBING TO BE IN ACCORDANCE WITH AS 3500
4. DESIGN FOR 6 EQUIVALENT PERSONS OCCUPANCY WITH NO FOOD WASTE DISPOSAL.
5. WORK ON THE AWTS INSTALLATION SHALL NOT COMMENCE UNTIL THE COPIES OF THE "APPLICANT PLAN & CONDITIONS" HAVE BEEN RECEIVED BY THE APPLICANT.

SPRINKLERS


1. SPRINKLER SETBACKS 0.5M FROM ALLOTMENT BOUNDARY, 1.5M FROM BUILDINGS AND DOWN-SLOPE BOUNDARIES.
2. SPRINKLERS TO BE "ANTELCO RE-UZIT" OR SIMILAR APPROVED PRODUCTAND CONTROLLED SURFACE TO SPRAY DIAMETERS NOTED ON DRAWING.

SURFACE IRRIGATION AREA

1. SOIL IMPROVEMENT THROUGH RIPPING TO A MINIMUM OF 150MMAND ADDING A SURFACE LAYER OF MULCH ACROSS THE DESIGNATED IRRIGATION AREA.
2. WARNING SIGNS MUST BE POSITIONED WITHIN THE LAND APPLICATION AREA TO INDICATE THAT RECYCLED WATER IS BEING USED FOR IRRIGATION. THE SIGNS MUST BE ON A WHITE BACKGROUND WITH RED LETTERING OF AT LEAST 20MM IN HEIGHT. THE SIGNS MUST BE CLEARLY VISIBLE FROM ALL SIDES AND MUST CONTAIN A WARNING SUCH AS: RECYCLED WATER - AVOID CONTACT/CONSUMPTION (AS PER ON-SITE WASTEWATER SYSTEMS CODE).
3. IRRIGATION ROWS TERRACED TO PROVIDE <5% GRADIENT



02 SITE PLAN  
1 : 2000

	A: PO Box 89, Aldgate SA 5154			SCALES: 1:2000		CLIENT:  W & J MURDOCH	PROJECT NAME:  PROPOSED ON-SITE WASTEWATER MANAGEMENT TO FACILITATE PROPOSED ALLOTMENT BOUNDARY RE-ALIGNMENT	ON-SITE WASTEWATER		ORIGINAL DRAWING AT A1. DO NOT SCALE DIRECTLY OFF DRAWING. DIRECT ANY QUERIES AND/OR DISCREPANCIES TO RFE CONSULTING.
	E: ross@rfeconsulting.com.au			DESIGNED: KB				SITE LAYOUT PLAN		
	P: +61 439 034 900			CHECKED: RF						
				DRAWN: MB						
				CHECKED: RF				ADDRESS: 792 SWAMP RD, LENSWOOD		
The information contained in this document is the property of RFE Consulting. Copying of this document in whole or in part without written permission of RFE Consulting constitutes an infringement of copyright.										
1	ISSUED FOR REVIEW		18/01/2021	RF						
REV	AMENDMENTS		DATE	BY	DATE:	18/01/2021				







APPENDIX C – SITE INSPECTION PHOTOGRAPHS



Photograph above the apple sorting shed, facing north west





Photograph of a soil testing borehole from the northern portion of the site





Photograph of a core tray (post sampling)





Photograph of the apple sorting shed facing south west

APPENDIX D – SOIL SUMMARY TABLE

Field_ID	Sampled_Date	Matrix	Lab ID		Metals													
				% Moisture	Arsenic	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC
				%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					2	0.5	1	2	5	5	0.1	2	5	0.05	0.05	0.05		0.05
NEPM 1999 EIL					20	3	1		65	600	1	60	200					
NEPM 1999 HIL A					100	20	100		6000	300	10	400	7400				6	

BH1_0.0	21/12/2020	Soil	M20-De50970	12	5.3	< 0.4	-	35	54	22	< 0.1	18	47	0.07	< 0.05	< 0.05	< 0.05	< 0.05
BH2_0.0	21/12/2020	Soil	M20-De50971	14	2.1	< 0.4	-	9.3	32	14	< 0.1	< 5	31	0.06	< 0.05	< 0.05	< 0.05	< 0.05
BH3_0.0	21/12/2020	Soil	M20-De50972	15	3.2	< 0.4	-	16	45	14	< 0.1	8.8	36	0.24	< 0.05	< 0.05	< 0.05	< 0.05
BH4_0.0	21/12/2020	Soil	M20-De50973	20	3.7	< 0.4	-	18	35	18	< 0.1	9.6	37	0.15	< 0.05	< 0.05	< 0.05	< 0.05
BH5_0.0	21/12/2020	Soil	M20-De50974	11	3.7	< 0.4	-	20	53	16	< 0.1	7	38	0.1	< 0.05	< 0.05	< 0.05	< 0.05
BH6_0.0	21/12/2020	Soil	M20-De50975	21	2.2	< 0.4	-	9	29	9.9	< 0.1	< 5	37	0.13	< 0.05	< 0.05	< 0.05	< 0.05
DUP A	21/12/2020	Soil	M20-De50976	12	< 2	< 0.4	-	7.8	31	8.9	< 0.1	< 5	30	0.08	< 0.05	< 0.05	< 0.05	< 0.05
RB01	21/12/2020	Water	M20-De50977	-	< 0.001	< 0.0002	-	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.001	< 0.005	-	-	-	-	-

Field_ID	Sampled_Date	Matrix	Lab ID	Organochlorine Pesticides															
				chlordan	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.05	0.05	0.05		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
NEPM 1999 EIL																			
NEPM 1999 HIL A				50				240		270	270	270	10				6		300

[illegible]



Field_ID	Sampled_Date	Matrix	Lab ID				
				Toxaphene	Hexachlorobenzene	Vic EPA IWRG 621 OCP (Total)*	Vic EPA IWRG 621 Other OCP (Total)*
				mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1			
NEPM 1999 EIL							
NEPM 1999 HIL A				20	10		

BH1_0.0	21/12/2020	Soil	M20-De50970	< 0.1	< 0.05	< 0.1	< 0.1
BH2_0.0	21/12/2020	Soil	M20-De50971	< 0.1	< 0.05	< 0.1	< 0.1
BH3_0.0	21/12/2020	Soil	M20-De50972	< 0.1	< 0.05	0.24	< 0.1
BH4_0.0	21/12/2020	Soil	M20-De50973	< 0.1	< 0.05	0.15	< 0.1
BH5_0.0	21/12/2020	Soil	M20-De50974	< 0.1	< 0.05	0.1	< 0.1
BH6_0.0	21/12/2020	Soil	M20-De50975	< 0.1	< 0.05	0.13	< 0.1
DUP A	21/12/2020	Soil	M20-De50976	< 0.1	< 0.05	< 0.1	< 0.1
RB01	21/12/2020	Water	M20-De50977	-	-	-	-

APPENDIX E – LABORATORY DATA AND CHAIN OF CUSTODY

[illegible]

# Environment Testing

RFE Consulting Pty Ltd  
P O BOX 89  
Aldgate  
SA 5154



NATA Accredited  
Accreditation Number 1261  
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing  
The results of the tests, calibrations and/or  
measurements included in this document are traceable  
to Australian/national standards.

Attention: ALL REPORTS

Report 765827-S  
Project name SOIL SAMPLING  
Project ID RFE0144  
Received Date Dec 24, 2020

Client Sample ID			BH1_0.0	BH2_0.0	BH3_0.0	BH4_0.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-De50970	M20-De50971	M20-De50972	M20-De50973
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 21, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
<b>Organochlorine Pesticides</b>						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	0.07	0.06	0.24	0.15
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	0.07	0.06	0.24	0.15
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	0.24	0.15
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	132	123	141	127
Tetrachloro-m-xylene (surr.)	1	%	99	86	95	86
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	5.3	2.1	3.2	3.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	35	9.3	16	18
Copper	5	mg/kg	54	32	45	35
Lead	5	mg/kg	22	14	14	18
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	18	< 5	8.8	9.6
Zinc	5	mg/kg	47	31	36	37



## Environment Testing

Client Sample ID			BH1_0.0	BH2_0.0	BH3_0.0	BH4_0.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M20-De50970	M20-De50971	M20-De50972	M20-De50973
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 21, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
% Moisture	1	%	12	14	15	20

Client Sample ID			BH5_0.0	BH6_0.0	DUP A
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			M20-De50974	M20-De50975	M20-De50976
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 21, 2020
Test/Reference	LOR	Unit			
<b>Organochlorine Pesticides</b>					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	0.10	0.13	0.08
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	0.1	0.13	0.08
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	0.1	0.13	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	120	119	110
Tetrachloro-m-xylene (surr.)	1	%	84	86	121
<b>Heavy Metals</b>					
Arsenic	2	mg/kg	3.7	2.2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	20	9.0	7.8
Copper	5	mg/kg	53	29	31
Lead	5	mg/kg	16	9.9	8.9
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	7.0	< 5	< 5
Zinc	5	mg/kg	38	37	30
% Moisture	1	%	11	21	12

## Environment Testing

### Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

### Description

Organochlorine Pesticides

- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)

Metals M8

- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS

% Moisture

- Method: LTM-GEN-7080 Moisture

### Testing Site

Melbourne

Melbourne

Melbourne

### Extracted

Jan 04, 2021

Jan 08, 2021

Dec 29, 2020

### Holding Time

14 Days

180 Days

14 Days

**Australia**

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Site # 1254 & 14271

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**Company Name:** RFE Consulting Pty Ltd  
**Address:** P O BOX 89  
Aldgate  
SA 5154  
**Project Name:** SOIL SAMPLING  
**Project ID:** RFE0144

**Order No.:**  
**Report #:** 765827  
**Phone:** 0439034900  
**Fax:**

**Received:** Dec 24, 2020 10:11 AM  
**Due:** Jan 12, 2021  
**Priority:** 10 Day  
**Contact Name:** ALL INVOICES

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						HOLD	Organochlorine Pesticides	Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
Mayfield Laboratory									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	BH1_0.0	Dec 21, 2020		Soil	M20-De50970		X		X
2	BH2_0.0	Dec 21, 2020		Soil	M20-De50971		X		X
3	BH3_0.0	Dec 21, 2020		Soil	M20-De50972		X		X
4	BH4_0.0	Dec 21, 2020		Soil	M20-De50973		X		X
5	BH5_0.0	Dec 21, 2020		Soil	M20-De50974		X		X
6	BH6_0.0	Dec 21, 2020		Soil	M20-De50975		X		X
7	DUP A	Dec 21, 2020		Soil	M20-De50976		X		X
8	RB01	Dec 21, 2020		Water	M20-De50977			X	
9	BH1_0.1	Dec 21, 2020		Soil	M20-De50978	X			

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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						HOLD	Organochlorine Pesticides	Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
Mayfield Laboratory									
External Laboratory									
10	BH1_0.3	Dec 21, 2020		Soil	M20-De50979	X			
11	BH2_0.1	Dec 21, 2020		Soil	M20-De50980	X			
12	BH2_0.3	Dec 21, 2020		Soil	M20-De50981	X			
13	BH3_0.1	Dec 21, 2020		Soil	M20-De50982	X			
14	BH3_0.3	Dec 21, 2020		Soil	M20-De50983	X			
15	BH4_0.1	Dec 21, 2020		Soil	M20-De50984	X			
16	BH4_0.3	Dec 21, 2020		Soil	M20-De50985	X			
17	BH5_0.1	Dec 21, 2020		Soil	M20-De50986	X			
18	BH5_0.3	Dec 21, 2020		Soil	M20-De50987	X			
19	BH6_0.1	Dec 21, 2020		Soil	M20-De50988	X			
20	BH6_0.3	Dec 21, 2020		Soil	M20-De50989	X			



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**Received:** Dec 24, 2020 10:11 AM  
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**Priority:** 10 Day  
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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						HOLD	Organochlorine Pesticides	Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
Mayfield Laboratory									
External Laboratory									
21	DUP B	Dec 21, 2020		Soil	M20-De50990	X			
Test Counts						13	7	1	7

## Internal Quality Control Review and Glossary

### General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

### Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

**\*\*NOTE:** pH duplicates are reported as a range NOT as RPD

### Units

**mg/kg:** milligrams per kilogram

**mg/L:** milligrams per litre

**ug/L:** micrograms per litre

**ppm:** Parts per million

**ppb:** Parts per billion

**%:** Percentage

**org/100mL:** Organisms per 100 millilitres

**NTU:** Nephelometric Turbidity Units

**MPN/100mL:** Most Probable Number of organisms per 100 millilitres

### Terms

<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>LOR</b>	Limit of Reporting.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>CRM</b>	Certified Reference Material - reported as percent recovery.
<b>Method Blank</b>	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>USEPA</b>	United States Environmental Protection Agency
<b>APHA</b>	American Public Health Association
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>COC</b>	Chain of Custody
<b>SRA</b>	Sample Receipt Advice
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.3
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>NC</b>	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
<b>TEQ</b>	Toxic Equivalency Quotient

### QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

### QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

# Environment Testing

## Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Method Blank</b>							
<b>Organochlorine Pesticides</b>							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
<b>Method Blank</b>							
<b>Heavy Metals</b>							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
<b>LCS - % Recovery</b>							
<b>Organochlorine Pesticides</b>							
Chlordanes - Total	%	111			70-130	Pass	
4.4'-DDD	%	119			70-130	Pass	
4.4'-DDE	%	115			70-130	Pass	
4.4'-DDT	%	97			70-130	Pass	
a-BHC	%	101			70-130	Pass	
Aldrin	%	106			70-130	Pass	
b-BHC	%	110			70-130	Pass	
d-BHC	%	114			70-130	Pass	
Dieldrin	%	120			70-130	Pass	
Endosulfan I	%	114			70-130	Pass	
Endosulfan II	%	119			70-130	Pass	
Endosulfan sulphate	%	104			70-130	Pass	
Endrin	%	125			70-130	Pass	
Endrin aldehyde	%	79			70-130	Pass	
Endrin ketone	%	98			70-130	Pass	
g-BHC (Lindane)	%	104			70-130	Pass	
Heptachlor	%	105			70-130	Pass	

# Environment Testing

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor epoxide			%	111			70-130	Pass	
Hexachlorobenzene			%	116			70-130	Pass	
Methoxychlor			%	119			70-130	Pass	
<b>LCS - % Recovery</b>									
<b>Heavy Metals</b>									
Arsenic			%	99			80-120	Pass	
Cadmium			%	103			80-120	Pass	
Chromium			%	103			80-120	Pass	
Copper			%	102			80-120	Pass	
Lead			%	106			80-120	Pass	
Mercury			%	108			80-120	Pass	
Nickel			%	98			80-120	Pass	
Zinc			%	99			80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Spike - % Recovery</b>									
<b>Organochlorine Pesticides</b>				Result 1					
Chlordanes - Total	M20-De50719	NCP	%	83			70-130	Pass	
4,4'-DDD	M20-De50719	NCP	%	96			70-130	Pass	
4,4'-DDE	M20-De50719	NCP	%	87			70-130	Pass	
4,4'-DDT	M20-De50719	NCP	%	76			70-130	Pass	
a-BHC	M20-De50719	NCP	%	81			70-130	Pass	
Aldrin	M20-De50719	NCP	%	83			70-130	Pass	
b-BHC	M20-De50719	NCP	%	89			70-130	Pass	
d-BHC	M20-De50719	NCP	%	85			70-130	Pass	
Dieldrin	M20-De50719	NCP	%	93			70-130	Pass	
Endosulfan I	M20-De50719	NCP	%	84			70-130	Pass	
Endosulfan II	M20-De50719	NCP	%	94			70-130	Pass	
Endosulfan sulphate	M20-De50719	NCP	%	85			70-130	Pass	
Endrin	M20-De50719	NCP	%	88			70-130	Pass	
Endrin aldehyde	M20-De50719	NCP	%	94			70-130	Pass	
Endrin ketone	M20-De50719	NCP	%	87			70-130	Pass	
g-BHC (Lindane)	M20-De50719	NCP	%	83			70-130	Pass	
Heptachlor	M20-De50719	NCP	%	82			70-130	Pass	
Heptachlor epoxide	M20-De50719	NCP	%	79			70-130	Pass	
Hexachlorobenzene	M20-De50719	NCP	%	93			70-130	Pass	
Methoxychlor	M20-De50719	NCP	%	76			70-130	Pass	
<b>Spike - % Recovery</b>									
<b>Heavy Metals</b>				Result 1					
Arsenic	M20-De49879	NCP	%	77			75-125	Pass	
Cadmium	M20-De49879	NCP	%	101			75-125	Pass	
Chromium	M20-De49879	NCP	%	85			75-125	Pass	
Copper	M20-De49879	NCP	%	84			75-125	Pass	
Lead	M20-De49879	NCP	%	78			75-125	Pass	
Mercury	M20-De49879	NCP	%	94			75-125	Pass	
Nickel	M20-De49879	NCP	%	93			75-125	Pass	
Zinc	M20-De49879	NCP	%	85			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Organochlorine Pesticides</b>				Result 1	Result 2	RPD			
Chlordanes - Total	M20-De50718	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4,4'-DDD	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDE	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDT	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	



# Environment Testing

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Organochlorine Pesticides</b>				Result 1	Result 2	RPD			
a-BHC	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M20-De50718	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M20-De50718	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
<b>Duplicate</b>									
<b>Heavy Metals</b>				Result 1	Result 2	RPD			
Arsenic	M20-De49877	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	M20-De49877	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M20-De49877	NCP	mg/kg	28	24	16	30%	Pass	
Copper	M20-De49877	NCP	mg/kg	5.4	5.3	2.0	30%	Pass	
Lead	M20-De49877	NCP	mg/kg	13	10	19	30%	Pass	
Mercury	M20-De49877	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M20-De49877	NCP	mg/kg	24	26	9.0	30%	Pass	
Zinc	M20-De49877	NCP	mg/kg	12	9.6	20	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
% Moisture	M20-De50716	NCP	%	2.1	2.1	1.0	30%	Pass	

## Environment Testing

### Comments

#### Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

### Authorised By

Michael Cassidy	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)



**Glenn Jackson**

#### General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

# Environment Testing

RFE Consulting Pty Ltd  
P O BOX 89  
Aldgate  
SA 5154



NATA Accredited  
Accreditation Number 1261  
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing  
The results of the tests, calibrations and/or  
measurements included in this document are traceable  
to Australian/national standards.

Attention: ALL REPORTS

Report 765827-W  
Project name SOIL SAMPLING  
Project ID RFE0144  
Received Date Dec 24, 2020

Client Sample ID			RB01
Sample Matrix			Water
Eurofins Sample No.			M20-De50977
Date Sampled			Dec 21, 2020
Test/Reference	LOR	Unit	
<b>Heavy Metals</b>			
Arsenic	0.001	mg/L	< 0.001
Cadmium	0.0002	mg/L	< 0.0002
Chromium	0.001	mg/L	< 0.001
Copper	0.001	mg/L	< 0.001
Lead	0.001	mg/L	< 0.001
Mercury	0.0001	mg/L	< 0.0001
Nickel	0.001	mg/L	< 0.001
Zinc	0.005	mg/L	< 0.005

## Environment Testing

### Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

### Description

Metals M8

### Testing Site

Melbourne

### Extracted

Dec 29, 2020

### Holding Time

180 Days

- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS



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Site # 1254 & 14271

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Phone : +61 2 9900 8400  
NATA # 1261 Site # 18217

**Brisbane**

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**Perth**

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**Company Name:** RFE Consulting Pty Ltd  
**Address:** P O BOX 89  
Aldgate  
SA 5154  
**Project Name:** SOIL SAMPLING  
**Project ID:** RFE0144

**Order No.:**  
**Report #:** 765827  
**Phone:** 0439034900  
**Fax:**

**Received:** Dec 24, 2020 10:11 AM  
**Due:** Jan 12, 2021  
**Priority:** 10 Day  
**Contact Name:** ALL INVOICES

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						HOLD	Organochlorine Pesticides	Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
Mayfield Laboratory									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	BH1_0.0	Dec 21, 2020		Soil	M20-De50970		X		X
2	BH2_0.0	Dec 21, 2020		Soil	M20-De50971		X		X
3	BH3_0.0	Dec 21, 2020		Soil	M20-De50972		X		X
4	BH4_0.0	Dec 21, 2020		Soil	M20-De50973		X		X
5	BH5_0.0	Dec 21, 2020		Soil	M20-De50974		X		X
6	BH6_0.0	Dec 21, 2020		Soil	M20-De50975		X		X
7	DUP A	Dec 21, 2020		Soil	M20-De50976		X		X
8	RB01	Dec 21, 2020		Water	M20-De50977			X	
9	BH1_0.1	Dec 21, 2020		Soil	M20-De50978	X			

**Australia**

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Sample Detail						HOLD	Organochlorine Pesticides	Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
Mayfield Laboratory									
External Laboratory									
10	BH1_0.3	Dec 21, 2020		Soil	M20-De50979	X			
11	BH2_0.1	Dec 21, 2020		Soil	M20-De50980	X			
12	BH2_0.3	Dec 21, 2020		Soil	M20-De50981	X			
13	BH3_0.1	Dec 21, 2020		Soil	M20-De50982	X			
14	BH3_0.3	Dec 21, 2020		Soil	M20-De50983	X			
15	BH4_0.1	Dec 21, 2020		Soil	M20-De50984	X			
16	BH4_0.3	Dec 21, 2020		Soil	M20-De50985	X			
17	BH5_0.1	Dec 21, 2020		Soil	M20-De50986	X			
18	BH5_0.3	Dec 21, 2020		Soil	M20-De50987	X			
19	BH6_0.1	Dec 21, 2020		Soil	M20-De50988	X			
20	BH6_0.3	Dec 21, 2020		Soil	M20-De50989	X			

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**Project Name:** SOIL SAMPLING  
**Project ID:** RFE0144

**Order No.:**  
**Report #:** 765827  
**Phone:** 0439034900  
**Fax:**

**Received:** Dec 24, 2020 10:11 AM  
**Due:** Jan 12, 2021  
**Priority:** 10 Day  
**Contact Name:** ALL INVOICES

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	Organochlorine Pesticides	Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
Mayfield Laboratory									
External Laboratory									
21	DUP B	Dec 21, 2020		Soil	M20-De50990	X			
Test Counts						13	7	1	7

## Internal Quality Control Review and Glossary

### General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

### Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

**\*\*NOTE:** pH duplicates are reported as a range NOT as RPD

### Units

**mg/kg:** milligrams per kilogram

**mg/L:** milligrams per litre

**ug/L:** micrograms per litre

**ppm:** Parts per million

**ppb:** Parts per billion

**%:** Percentage

**org/100mL:** Organisms per 100 millilitres

**NTU:** Nephelometric Turbidity Units

**MPN/100mL:** Most Probable Number of organisms per 100 millilitres

### Terms

<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>LOR</b>	Limit of Reporting.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>CRM</b>	Certified Reference Material - reported as percent recovery.
<b>Method Blank</b>	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>USEPA</b>	United States Environmental Protection Agency
<b>APHA</b>	American Public Health Association
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>COC</b>	Chain of Custody
<b>SRA</b>	Sample Receipt Advice
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.3
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>NC</b>	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
<b>TEQ</b>	Toxic Equivalency Quotient

### QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

### QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.



## Environment Testing

### Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Method Blank</b>							
<b>Heavy Metals</b>							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
<b>LCS - % Recovery</b>							
<b>Heavy Metals</b>							
Arsenic	%	107			80-120	Pass	
Cadmium	%	103			80-120	Pass	
Chromium	%	105			80-120	Pass	
Copper	%	105			80-120	Pass	
Lead	%	107			80-120	Pass	
Mercury	%	104			80-120	Pass	
Nickel	%	99			80-120	Pass	
Zinc	%	112			80-120	Pass	

## Environment Testing

### Comments

#### Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

### Authorised By

Michael Cassidy	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)



#### Glenn Jackson General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

[illegible]

APPENDIX F – CURRENT AND HISTORICAL CERTIFICATES OF TITLE



## Certificate of Title

Title Reference:	CT 6161/134
Status:	CURRENT
Parent Title(s):	CT 6136/247
Dealing(s) Creating Title:	SC 12357562
Title Issued:	12/08/2015
Edition:	2

## Certificate of Title

**Title Reference:** CT 6136/247  
**Status:** CANCELLED  
**Parent Title(s):** CT 5189/602  
**Dealing(s) Creating Title:** RT 12080539  
**Title Issued:** 23/04/2014  
**Title Cancelled:** 12/08/2015  
**Edition:** 1

## Child Titles

Title Reference	Status	Estate Type	Plan / Parcel	Proprietors/Lessees/ Custodians at time of issue
CT 6161/134	CURRENT	FEE SIMPLE	F106541 ALLOTMENT 11	WARREN DUDLEY MURDOCH  JOAN THERESE MURDOCH

## Certificate of Title

**Title Reference:** CT 5189/602  
**Status:** CANCELLED  
**Parent Title(s):** CT 4142/812  
**Dealing(s) Creating Title:** RTD 7629382  
**Title Issued:** 25/05/1994  
**Title Cancelled:** 23/04/2014  
**Edition:** 2

## Child Titles

Title Reference	Status	Estate Type	Plan / Parcel	Proprietors/Lesseees/ Custodians at time of issue
CT 6136/246	CANCELLED	FEE SIMPLE	D38904 ALLOTMENT 101	WARREN DUDLEY MURDOCH  JOAN THERESE MURDOCH
CT 6136/247	CANCELLED	FEE SIMPLE	F106541 ALLOTMENT 11	JOAN THERESE MURDOCH  WARREN DUDLEY MURDOCH

RECEIVED 18/02/2021

ORIGINAL

## CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4142 Folio 812

(Comprising 2 sheets)



New Certificate for the balance of the Land in Vol.4139 Folio 180

WARREN DUDLEY MURDOCH of Main Road Lenswood 5240 Contractor and JOAN THERESE MURDOCH

his wife are the proprietors of an estate in fee simple subject nevertheless to such encumbrances  
 liens and interests as are notified by memorial underwritten or endorsed hereon in PORTIONS OF  
SECTIONS 22 and 5149 HUNDRED OF ONKAPARINGA and ALLOTMENT 1 of other portion of the said

Section 5149 (L.T.R.O. FILED PLAN No.3050) and delineated on the plan hereon by bold black lines

In witness whereof I have signed my name and affixed my seal this 15<sup>th</sup> day of June 1979

Signed the 15<sup>th</sup> day of June  
 1979, in the presence of akamp

Deputy Registrar-General



RESUBDIVISION APPROVED  
 Vide Dkt. 1806/1975

~~M 4304934 --- M 4304938~~

MORTGAGE 4304934 to GEORGE WILLIAM SCHULTZ  
 and JOHN O'CONNOR of portion of the within  
 land Produced 11.12.1978 at 11.40 a.m.



MORTGAGE 4304938 to GEORGE WILLIAM SCHULTZ  
 and JOHN O'CONNOR of portion of the within  
 land Produced 11.12.1978 at 11.40 a.m.

~~M 4744228~~

MORTGAGE 4744228 to AUSTRALIA AND NEW ZEALAND  
 BANKING GROUP LIMITED Produced 23.6.1981 at  
 11.10 a.m.



DEATH 6888905 George William Schultz Died on  
 15.11.1988 Produced 23.3.1990 at 14:15



TRANSFER 6888906 to ADA LOUVAIN SCHULTZ Widow  
 of ONE UNDIVIDED MOIETY ADILE MARGARET LOU of  
 CRITCHLOW Married Woman of ONE UNDIVIDED  
 FOURTH PART TONY JAMES SCHULTZ Apprentice  
 Fitter and Plumber of ONE UNDIVIDED TWELTH  
 PART and MARK ALAN SCHULTZ Truck driver of ONE  
 UNDIVIDED TWELTH PART all of Swamp Road  
 Lenswood 5240 and PHILLIP JOHN SCHULTZ of 196  
 Commercial Street West Mt. Gambier 5290 School  
 Teacher of ONE UNDIVIDED TWELTH PART in the  
 within Mortgages 4304934 and 4304938 Produced  
 23.3.1990 at 14:15



OVER

13



DISCHARGE of Mortgages 4304934 and 4304938  
vide 7057756 Produced 15.2.1991 at 11:20



The within land is discharged from Mortgage  
4744228 vide 7563893 Produced  
27.8.1993 at 12:10  
(Dup. Mtge Lost)



MORTGAGE 7563894 to AUSTRALIA AND NEW ZEALAND  
BANKING GROUP LTD. Produced 27.8.1993 at  
12:10



PORTION of the within land is discharged  
from Mortgage 7563894 vide 7638018  
Produced 5.1.1994 at 11:00



**CANCELLED AS REGARDS**

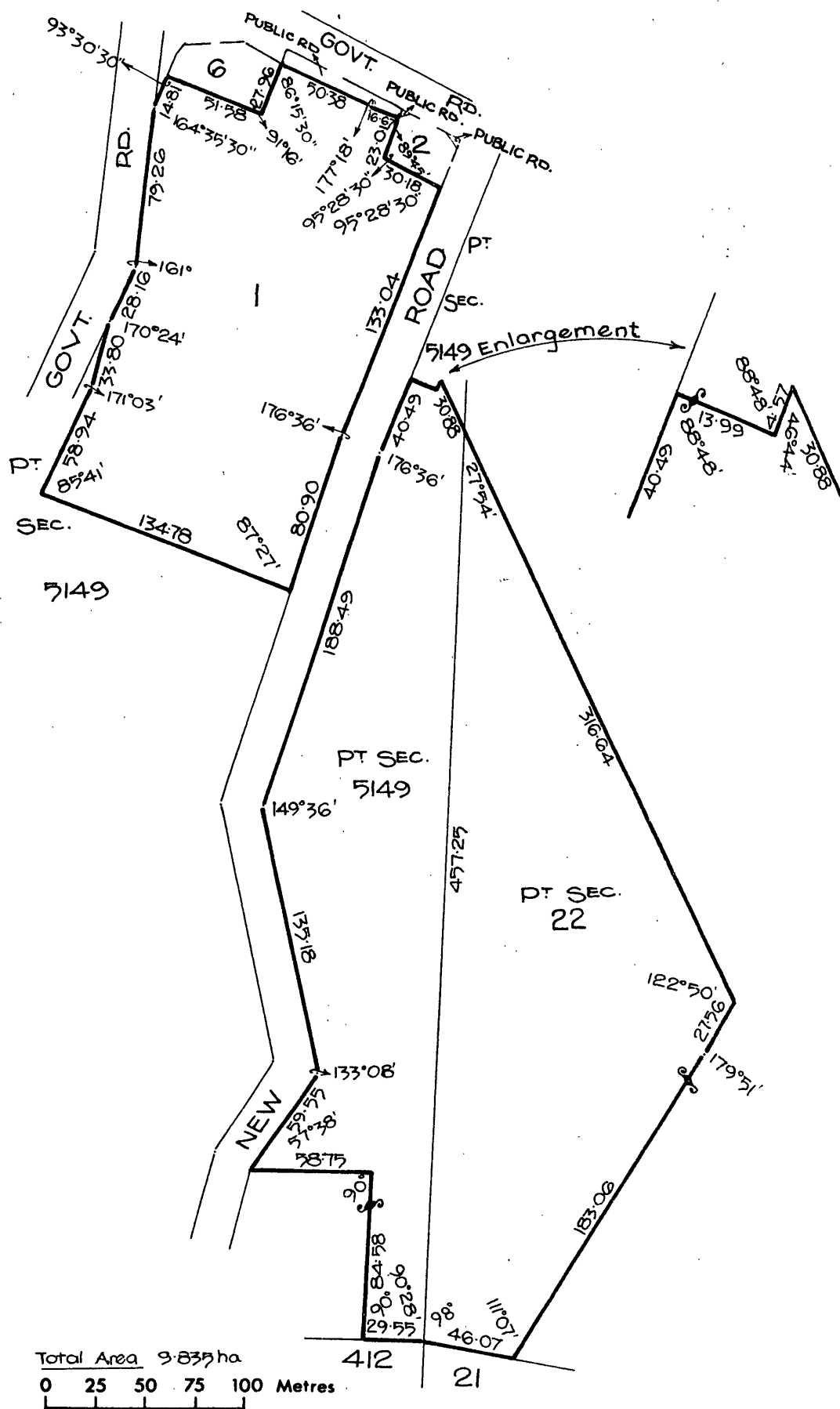
**~~PORTION BALANCE OF~~**

**THE WITHIN LAND AND**

**NEW COMPUTERISED TITLE(S) ISSUED**



Sheet 2





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ORIGINAL  
CERTIFICATE OF TITLE

South Australia

Register Book,  
Volume 4139 Folio 180

(Comprising 2 sheets)



Pursuant to Transfers 4045016 Registered on Vol.4012 Folio 497  
and 4304936 Registered on Vol.3857 Folio 33

WARREN DUDLEY MURDOCH of Main Road Lenswood 5240 Contractor and JOAN THERESE MURDOCH

his wife are the proprietors of an estate in fee simple subject nevertheless to such encumbrances

liens and interests as are notified by memorial underwritten or endorsed hereon in PORTIONS OF

SECTIONS 22 and 5149 HUNDRED OF ONKAPARINGA delineated on the plan hereon by bold black lines

In witness whereof I have signed my name and affixed my seal this 6<sup>th</sup> day of april 1979

Signed the 6<sup>th</sup> day of april }  
1979, in the presence of seignior }

*John Hughes*

Deputy Registrar-General



RESUBDIVISION APPROVED  
Vide DKT. 1806/1975  
(F.P. 3050)

~~7-4304933-~~ M4304934 M4304938

TRANSFER 4304933 to THE DISTRICT COUNCIL OF  
ONKAPARINGA of PORTION of the within Part  
Section 5149 (Lot 5 F.P. 3050) FOR ROAD  
PURPOSES Produced 11.12.1978 at 11.40 a.m.



CANCELLED as regards above Land and New C.T.  
issued

Vol. 4142

Folio 811



CANCELLED

AND Balance

ISSUED VIDE 4304933

VOL. 4142 FOL. 812

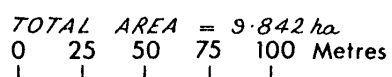
CERTIFICATE OF TITLE  
FILED PLAN No. 3050



*gpl*







TOTAL AREA = 9.842 ha



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ORIGINAL

## South Australia

Register Book,

Volume 4012 Folio 497

## CERTIFICATE OF TITLE

(Comprising 2 Sheets)



New Certificate for the balance of the Land in Vol.3857 Folio 34

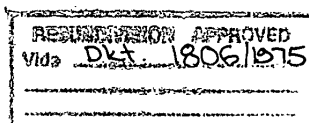
GEORGE WILLIAM SCHULTZ of Lenswood 5240 Gardener and HAZEL ISOBEL SCHULTZ his wife are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in PORTIONS OF SECTIONS 22 and 5149 HUNDRED OF ONKAPARINGA delineated by bold black lines on the plan hereon

In witness whereof I have signed my name and affixed my seal this 13th day of March 1974

Signed the 13th day of March )  
1974, in the presence of )  
A. Dutty )

C. H. Nairn

Deputy Registrar-General



F.P. 3050  
APPROVED

MORTGAGE 2092750 to THE STATE BANK OF SOUTH AUSTRALIA Produced 11.11.1958 at 11.35 a.m.

C. H. Nairn

Dep. Reg. Genl.

2092750 (26/7/74)  
The within land is discharged from Mortgage 2092750 by endorsement thereon Produced 26.7.1974 at 1.40 p.m.

R. P. L. J. Nairn

Dep. Reg. Genl.

TA 3961208---

APPLICATION 3961208 ONE UNDIVIDED MOIETY IN the within land is transmitted to GEORGE WILLIAM SCHULTZ of Lenswood 5240 Retired Orchardist and JOHN O'CONNOR of 18 Dwyer Road Oaklands Park 5046 Law Clerk as the executors named in the Will dated 2.4.1974 of Hazel Isabel Schultz who Died 21.12.1975 vide Probate dated 28.6.1976 Produced 27.10.1976 at 12.45 p.m.



74045015- 144045017

Subst. by

T 4304933 m 4304934 - T 4304937-

TRANSFER 4045016 to WARREN DUDLEY MURDOCH and JOAN THERESE MURDOCH of the within Part Section 22 and Portion of the within Parts Section 5149. Produced 19.5.1977 at 11.55 a.m.



CANCELLED as regards above land and new C.T. issued

Vol. 4139

Fol. 180



TRANSFER 4304937 to JOAN THERESE MURDOCH of THE BALANCE of the within land Produced 11.12.1978 at 11.40 a.m.



CANCELLED as regards above land and new C.T. issued

Vol. 4139

Fol. 181



See Survey 19255





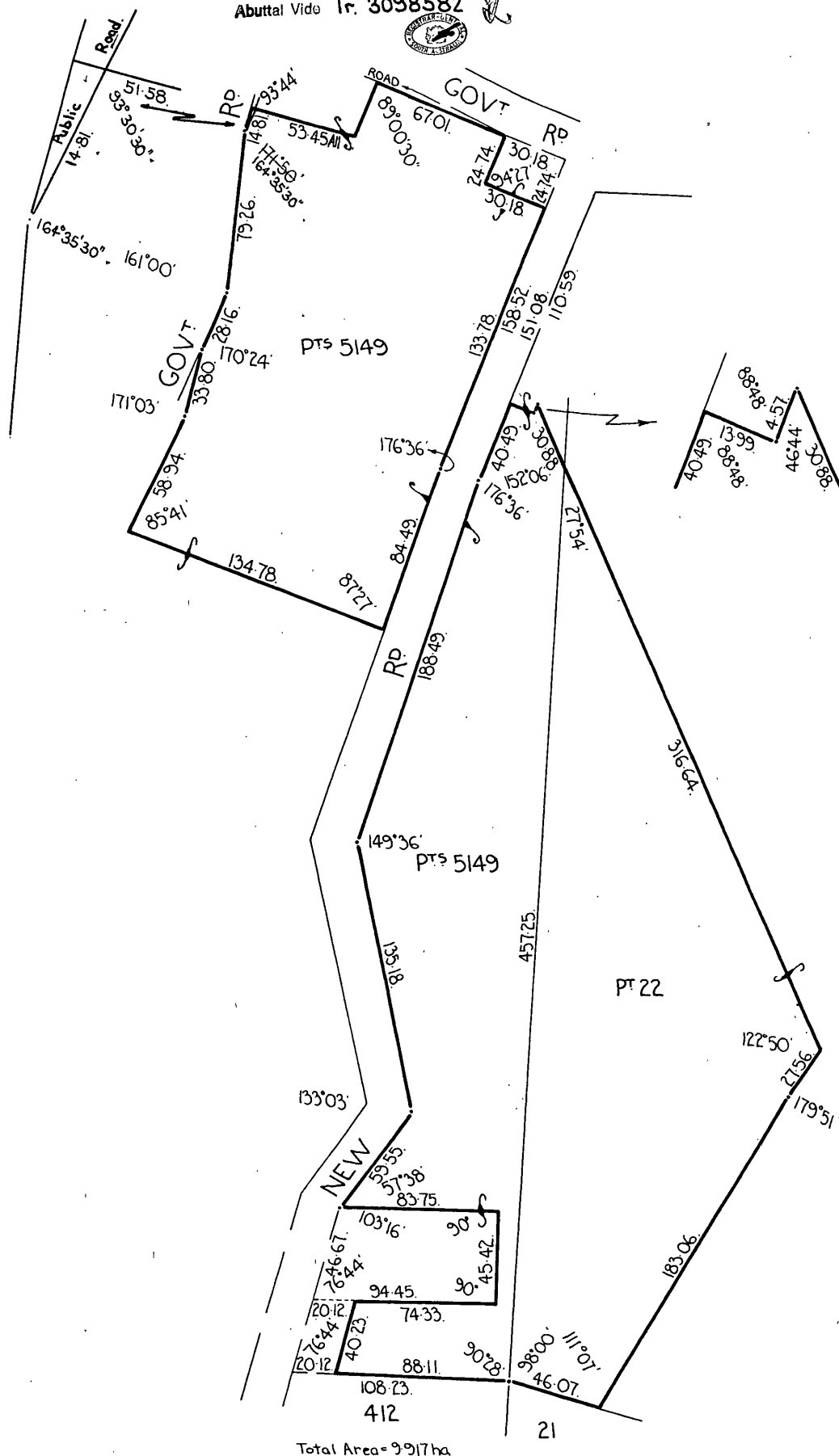
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Corrections in red vide Lr. 3460/1978.



16-6-1978

Abuttal Vide Tr. 3098582



2

South Australia

(CERTIFICATE OF TITLE)



Register Book,  
Vol. 3857 Folio 33

Pursuant to Memorandum of Transfer No. 3325548 Registered on Vol. 3676 Folio 49

JOAN THERESA SCHULTZ of Lenswood 5240 Widow

is the proprietor of an estate in fee simple  
subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
THAT PIECE of land containing one acre or thereabouts situated in the HUNDRED OF ONKAPARINGA COUNTY OF ADELAIDE being  
PORTION OF SECTION 5149 more particularly delineated and bounded as appears in the plan in the margin hereof by bold black lines

Which said Section is delineated in the public map of the said Hundred deposited in the Land Office at  
Adelaide

In witness whereof I have hereunto signed my name and affixed my seal this 31st day of July 1972

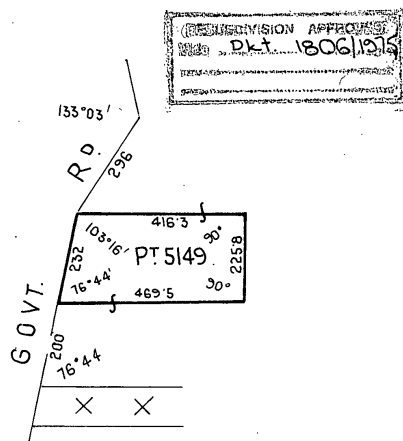
Signed the 31st day of July  
1972, in the presence of *W. Schultze*

*G.E. O'Sullivan*

Acting Registrar-General



*Am 4304935 T4304936 M4304938*




MARRIAGE No. 4304935  
Joan Therese Schultze (formerly was married to  
Warren Dudley Murdoch of Main Road  
Lenswood 5240 Contractor  
on 15.9.1973 at Adelaide  
Entered 26.2.1979 at 11am Produced 11.12.1978  
at 11:40am

TRANSFER No. 4304936 to the within named  
Warren Dudley Murdoch and Joan  
Therese Murdoch of portion  
OF THE WITHINLAND  
PRODUCED 11.12.1978 AT 11:40am  
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED  
VOL 4139 FOL 180

Over *JOH*



CANCELLED	
AND Balance	CERTIFICATE OF TITLE
ISSUED <del>VIA</del>	VOL 4139 FOL 181



South Australia

(CERTIFICATE OF TITLE)



Register Book,  
Vol. 3857 Folio 34

New Certificate of Title for the whole of the Land in Vol. 1234 Folio 15  
and Balance of the Land in Vol. 3676 Folio 49

GEORGE WILLIAM SCHULTZ of Lenswood 5240 Gardener and HAZEL ISOBEL SCHULTZ his wife

are the proprietors of an estate in fee simple AS TENANTS IN COMMON  
subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
THOSE PIECES of land containing together twenty four acres two roods and three perches or thereabouts situated in the HUNDRED OF  
ONKAPARINGA COUNTY OF ADELAIDE being PORTIONS OF SECTIONS 22 and 5149 more particularly delineated and bounded as  
appears in the plan in the margin hereof by bold black lines

Which said Sections are delineated in the public map of the said Hundred deposited in the Land Office at  
Adelaide

In witness whereof I have hereunto signed my name and affixed my seal this 31st day of July 1972

Signed the 31st day of July  
1972, in the presence of

*[Signature]*

*[Signature]*

Acting Registrar-General



Mortgage No. 2092749 to The State Bank of South Australia Produced  
11.11.1958 at 11.35 a.m.

*[Signature]*

Actg. Reg. Genl.

Mortgage No. 2092750 to The State Bank of South Australia Produced  
11.11.1958 at 11.35 a.m.

*[Signature]*

Actg. Reg. Genl.

22092749 (3-8-77)

THE WITHIN LAND IS DISCHARGED FROM MORTGAGE  
No. 2092749 BY ENDORSEMENT THEREON.  
PRODUCED 3-8-1973 AT 2-20pm

*[Signature]* DEP. REG. GEN.  
P/O 3565807 T 3565808

*[Signature]*

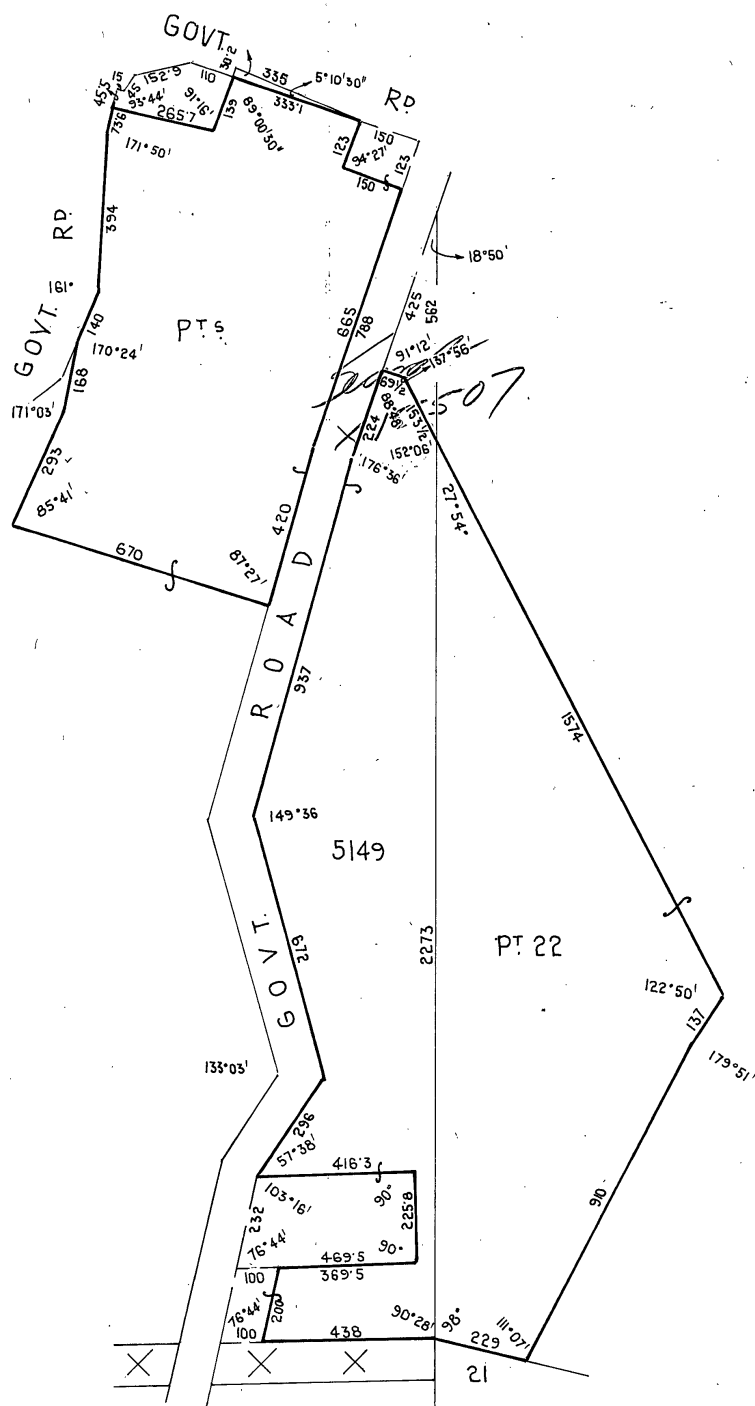
Portion of Part Section 5149  
THE WITHIN LAND IS DISCHARGED FROM MORTGAGE  
No. 2092750 VIDE 3565807  
PRODUCED 15.1.1974 AT 11.30 am  
R. London DEP. REG. GEN.

TRANSFER No. 3565808  
to the Commonwealth of  
Australia of portion  
OF THE WITHIN Part Section 5149  
PRODUCED 15.1.1974 AT 11.30 am  
R. London DEP. REG. GEN.  
CANCELLED AS REGARDS ABOVE LAND AND NEW CT. ISSUED  
VOL. 4012 FOL. 496  
J. Hughes. DEP. REG. GEN.

CANCELLED  
AND Balance CERTIFICATE OF TITLE  
ISSUED VIDE VOL. 4012 FOL. 497  
J. Hughes. DEP. REG. GEN.

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300 150 0 300 [K<sup>s</sup>]

South Australia

CERTIFICATE OF TITLE



Register Book,

Vol. 3676 Folio 49

Balance Certificate of Title from Vol.2137 Folio 5

GEORGE WILLIAM SCHULTZ of Lenswood 5240 Gardener and HAZEL ISOBEL SCHULTZ his wife

are the proprietors of an estate in fee simple AS TENANTS IN COMMON

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land containing together sixteen acres and seventeen perches or thereabouts situated in the HUNDRED OF ONKAPARINGA COUNTY OF ADELAIDE being PORTIONS OF SECTION 5149 more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green

Which said Section is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide. Except such portion of the within land containing 0 Ac 0 Rd 9 Per acquired by the Crown for road purposes.

In witness whereof I have hereunto signed my name and affixed my seal this

12<sup>th</sup> day of January 1970

Signed the

1970, in the presence of

12<sup>th</sup> day of January  
W. J. Pearson

Consent by The Director of Planning  
required before further truncation  
vide L.T.O. Docket 1254 of 1967.

Registrar-General



Resubdivision approved  
under the Planning and  
Development Act 1966-67  
Vide Dkt. 4004 of 1971.

Mortgage No. 2092749 to The State Bank of South  
Australia Produced 11.11.1958 at 11.35 a.m.  
(Including other land)

R. J. Collins

Reg. Genl.

Mortgage No. 2092750 to The State Bank of South  
Australia Produced 11.11.1958 at 11.35 a.m.  
(Including other land)

R. J. Collins

Reg. Genl.

~~P/D 3063902 T 3063903~~

Portions of

THE WITHIN LAND IS DISCHARGED FROM MORTGAGES  
No. 2092749, 2092750 VIDE No. 3063902  
PRODUCED 19.12.1969 AT 2.20 pm.  
K. London DEP. REG. GENL.

TRANSFER No. 3063903.

to HER MAJESTY QUEEN ELIZABETH THE SECOND

OF THE WITHIN LAND. PRODUCED 19.12.1969 at 2.20 pm.  
K. London DEP. REG. GENL.

**CANCELLED** AS REGARDS LAND IN TRANSFER  
No. 3063903 THE SAID LAND HAVING BEEN  
ACQUIRED BY THE CROWN FOR ROAD PURPOSES.

K. London

DEP. REG. GENL.

See AD Re Schultze

RECEIVED 18/02/2021

Portion of  
THE MORTGAGE AND IS DISCHARGED FROM MORTGAGES  
No. ~~2092750~~ VIDE 3325547  
and 2092750 PRODUCED 7.6.1972 AT 2.30 pm  
*[Signature]* DEP. REG. GEN.

TRANSFER No. 3325548.  
to Joan Theresa Schultz  
~~of portion land~~  
PRODUCED 7.6.1972 AT 2.30 pm  
*[Signature]* DEP. REG. GEN.  
CANCELLED RE: ABOVE LAND AND NEW C.T. ISSUED  
VOL 3857 FOL 33  
R. Bordon DEP. REG. GEN.

CANCELLED  
AND Balance CERTIFICATE OF TITLE  
ISSUED VOL 3857 FOL 34  
R. Bordon DEP. REG. GEN.









South Australia.

(CERTIFICATE OF TITLE.)



Register Book,

Vol. 2137

Folio 5

Balance Certificate of Title from Vol. 1808 Folio 199

GEORGE WILLIAM SCHULTZ of Lenswood Gardener and HAZEL ISOBEL SCHULTZ his wife

— are the proprietors of an estate in fee simple —

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
THOSE piece of land situate in the HUNDRED of ONKAPARINGA COUNTY of ADELAIDE  
being PORTIONS OF SECTION 5149 containing together sixteen acres and thirty two perches or  
thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof  
and therein colored green —

Which said Section is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this thirteenth day of April 1951

Signed the 13th day of April  
1951, in the presence of

*J. L. Yates*

*[Signature]*

Registrar-General.



Resubdivision approved  
under the Planning and  
Development Act 1966-67.  
Vide Dkt. 1254 of 1967.

Mortgage No. 1419266 from George William Schultz and  
Hazel Isobel Schultz to The Bank of Adelaide Produced  
for registration the 17 day of November 1944 at 2.45 p.m.  
(Including other land)

Reg. Genl.

Power of Attorney No. 1630163

Reg. Genl.

DISCHARGE OF MORTGAGE No. 1419266 BY ENDORSEMENT  
THEREON. PRODUCED 11/11/58 AT 11.35 am

DEP. REG. GEN.

MORTGAGE No. 2092749 FROM George William Schultz and Hazel Isobel Schultz  
TO THE STATE BANK OF SOUTH AUSTRALIA  
PRODUCED 11/11/58 AT 11.35 am  
(Including other land)

DEP. REG. GEN.

MORTGAGE No. 2092750 FROM George William Schultz and Hazel Isobel Schultz  
TO THE STATE BANK OF SOUTH AUSTRALIA  
PRODUCED 11/11/58 AT 11.35 am  
(Including other land)

DEP. REG. GEN.



RECEIVED 18/02/2021

George William Schultz  
 to the within named  
 and Agent  
 to be made in common  
 OF THE WITHIN LAND PRODUCED 21.10.1967 AT 11.15 am  
 DEP. REG. GEN.

Lofbock pro

M 2918945

T 2918946

M 2918946

T 2918947

M 2918948

P/D. 2918945 and T. 2918946 withdrawn  
 VIDE T.O. Dkt. 4061/1967.

R. Nelson Haydon

D.R.G.

Mortgage No. 2092749 is discharged from  
 the sum of \$140.00. and portion of the  
 within land is discharged from mortgages  
 Nos. 2092749 and 2092750. VIDE No. 2932516

Produced 26.7.1968 at 11.25 am.

R. Condon

Dep. Reg. Gen.

TRANSFER No. 2932517 To  
 Murdoch Constructions Proprietary  
 Limited of Portion  
 OF THE WITHIN LAND  
 PRODUCED 26.7.1969 AT 11.25 am.  
 R. Condon DEP. REG. GEN.  
 CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED  
 VOL 3676 FOL 48  
 R. Nelson Haydon DEP. REG. GEN.

M 2062902

T 2062903

CANCELLED

AND

Balance

CERTIFICATE OF TITLE

ISSUED VIDE

VOL 3676 FOL 49

R. Nelson Haydon

DEP. REG. GEN.





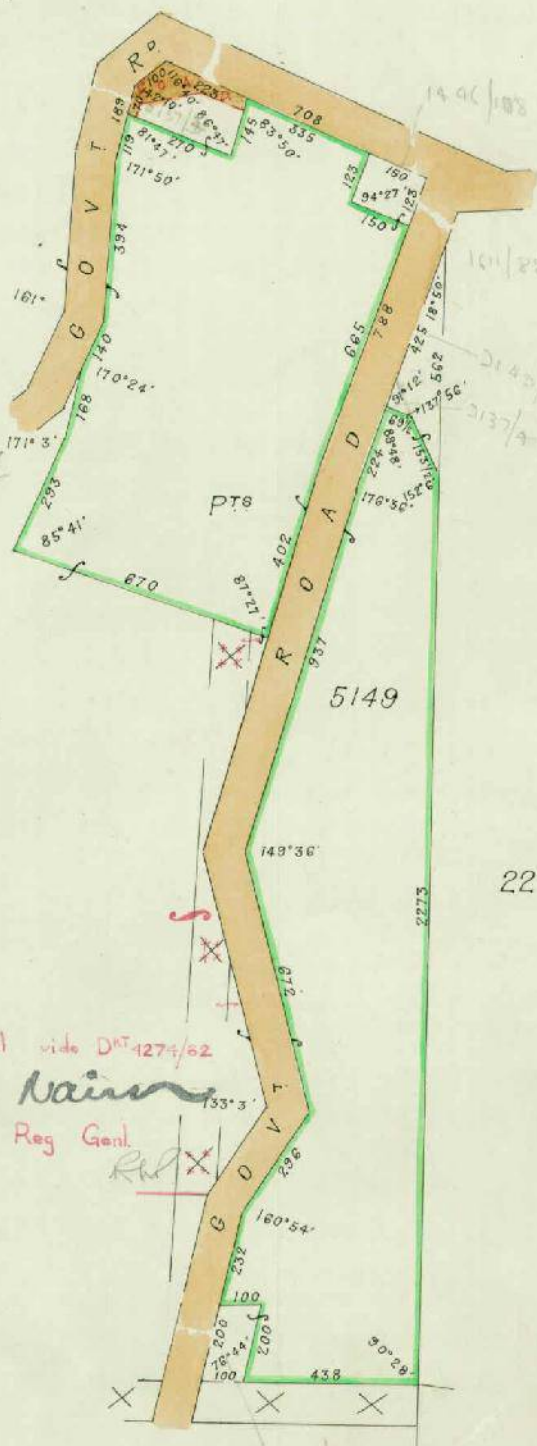
*Ref 1509/19*

Abuttal vide T2883671.

*B.H. Nairn*  
Dep. Reg. Genl.

Abuttal vide DNT4274/62

*B.H. Nairn*  
Dep. Reg. Genl.



300 0 300 M

*HP*

*Ym*

South Australia.

(CERTIFICATE OF TITLE.)



Register Book,

Vol. 1808 Folio 199

Balance Certificate of Title from Vol. 1446 Folio 109

GEORGE WILLIAM SCHULTZ of Lenswood Gardener and HAZEL  
ISOBEL SCHULTZ his wife

are the proprietors of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
THOSE PIECES of land situated in the HUNDRED OF ONKAPARINGA COUNTY OF ADELAIDE  
being PORTIONS OF SECTION 5149 containing together fifteen acres one rood and  
nineteen perches or thereabouts and CLOSED ROAD containing one acre and one rood  
or thereabouts and more particularly delineated and bounded as appears in the plan  
in the margin hereof and therein colored green

Which said Section is delineated in the public map of the said Hundred deposited in the Lands and Survey  
Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this twentyfourth day of February 1943

Signed the 24th day of February  
1943, in the presence of W. S. L. L. L.

Resubdivision Approved under  
Sec. 15, T.P. Act 1945 of 1929  
Vide Book 35. Page 334

Resubdivision Approved under  
Sec. 15, T.P. Act 1945 of 1929  
Vide Book 36 Page 168

Registrar-General.



Mortgage No. 1221509 from George William  
Schultz and Hazel Isobel Schultz to William  
Green and Ada Mary Green Produced for  
registration the 30 day of September 1936 at  
11 a.m. (Including other land)

Reg. Genl.

DISCHARGE OF THE 1221509 MORTGAGE  
No. 1221509  
BY MEMORANDUM No. 1419265  
PRODUCED FOR REGISTRATION THE 17 DAY OF  
November 1944 AT 2.45 pm  
St Regent  
DEF. REG. GENL.

MORTGAGE No. 1419266 FROM  
George William Schultz and Hazel Isobel Schultz  
to The Bank of Adelaide  
PRODUCED FOR REGISTRATION THE 17 DAY OF  
November 1944 AT 2.45 pm (Including  
Other land)  
St Regent  
DEF. REG. GENL.

PB 1660334 P/B 1460335 71660336  
71660337

over



RECEIVED 18/02/2021

PORTIONS OF SECTION 5149.  
 THE WITHIN LAND IS DISCHARGED FROM THE  
 WITHIN MORTGAGE No. 1419266. AS APPEARS  
 BY MEMORANDUM No. 1660334. PRODUCED FOR  
 REGISTRATION THE 2 DAY OF February  
 1951 AT 11:10 am.  
*fulcher*  
 DEP. REG. GENL.

PORTION ACTIONS OF SECTION 5149.  
 THE WITHIN LAND IS DISCHARGED FROM THE  
 WITHIN MORTGAGE No. 1419266. AS APPEARS  
 BY MEMORANDUM No. 1660335. PRODUCED FOR  
 REGISTRATION THE 2 DAY OF February  
 1951 AT 11:10 am.  
*fulcher*  
 DEP. REG. GENL.

TRANSFER No. 1660336 FROM  
 George William Schultz and Hazel Isobel  
 Schultz to The Bishop's Home Mission  
 Society in the process of Adelaide Incorporated of portion  
 OF THE WITHIN portions of section 5149.  
 PRODUCED FOR REGISTRATION THE 2. DAY OF  
 February 1951 AT 11:10 am.  
*fulcher*  
 DEP. REG. GENL.

CANCELLED AS REGARDS LAND IN TRANSFER  
 No. 1660336 AND NEW CERTIFICATE  
 OF TITLE ISSUED VOL 2137 FOLIO 3.  
*W. Peckars*  
 DEP. REG. GENL.

TRANSFER No. 1660337 FROM  
 George William Schultz and Hazel Isobel  
 Schultz to The Commonwealth of Australia of portion  
 OF THE WITHIN portions of section 5149.  
 PRODUCED FOR REGISTRATION THE 2. DAY OF  
 February 1951 AT 11:10 am.  
*fulcher*  
 DEP. REG. GENL.

CANCELLED AS REGARDS LAND IN TRANSFER  
 No. 1660337 AND NEW CERTIFICATE  
 OF TITLE ISSUED VOL 2137 FOLIO 4.  
*W. Peckars*  
 DEP. REG. GENL.

CANCELLED  
 AND Balance  
 CERTIFICATE OF TITLE ISSUED  
 VIDE L.T.O. Letter 529/1951  
 VOL 2137 FOLIO 5  
*W. Peckars*  
 DEP. REG. GENL.









South Australia.

(CERTIFICATE OF TITLE.)



Register Book,

Vol. 1446

Folio 109

Balance Certificate of Title from Vol. 1299 Folio 51

William Green of Lenswood Gardener

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
These pieces of land situated in the Hundred of Pukaparinga County of  
Adelaide being portions of Section 5149 containing together fifteen  
acres one rood and thirty four perches or thereabouts and closed  
Road containing one acre and one rood or thereabouts and are  
more particularly delineated and bounded as appears in the plan  
in the margin hereof and therein colored green

which said Section is delineated in the public map of the said Hundred deposited in the Lands and Survey Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this nineteenth day of November 1926

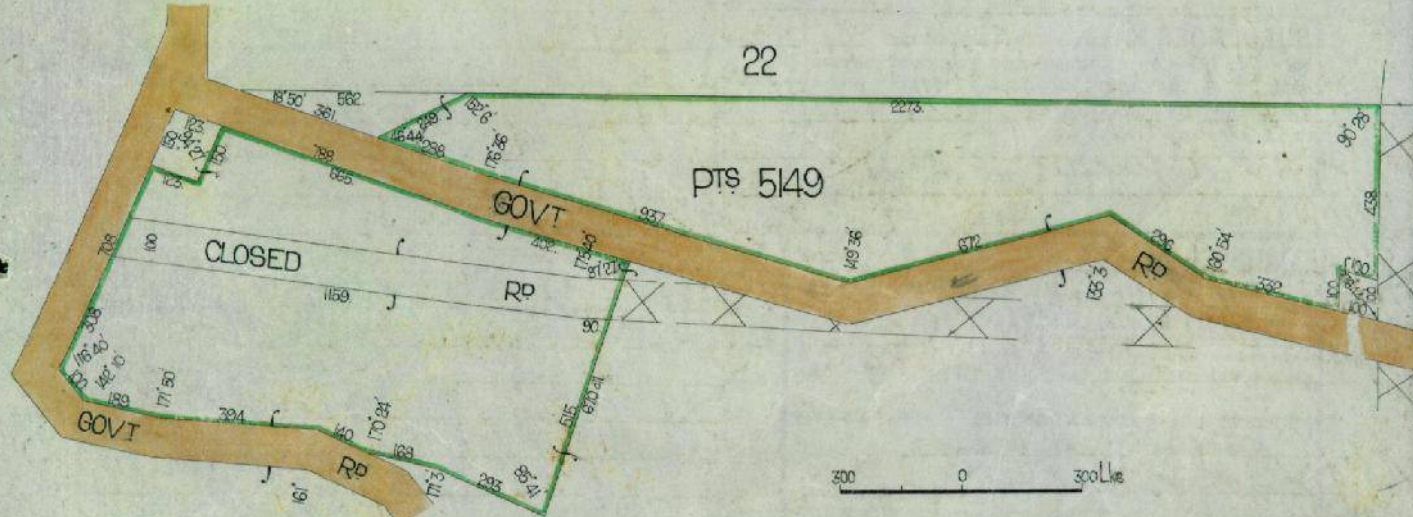
Signed the 19<sup>th</sup> day of November  
1926, in the presence of McKenzie

W. H. Selinger

Registrar-General.



Resubdivision Approved under  
Sec. 15, T. P. Act 1945 of 1920  
Vide Book 24 Page 310





TRANSFER No. 1067514 FROM  
William Green  
TO George Henry Green of Lenswood  
Gardener  
OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND.  
PRODUCED FOR REGISTRATION THE 3 DAY OF  
May 1939 AT 2 pm  
W. Green DEP. REG. GENL.

LEASE No. 1183186 FROM  
George Henry Green  
TO George William Schultz  
OF THE WITHIN LAND. TERM 3 YEARS FROM THE  
1 DAY OF January 1935 PRODUCED FOR REGISTRATION  
THE 14 DAY OF February 1935 AT 11 am  
W. Green DEP. REG. GENL.

TRANSMISSION APPLICATION No. 1208582  
William Green retired gardener and  
Ada Mary Green married woman  
OF AN ESTATE IN FEE SIMPLE IN THE WITHIN  
LAND AS THE EXECUTORS NAMED IN THE WILL DATED  
THE 27 DAY OF May 1929  
NAMED George Henry Green  
WHO DIED ON THE 8 DAY OF December  
1935 AS APPEARS BY PROBATE DATED THE 25  
DAY OF February 1936 PRODUCED FOR REGISTRATION  
THE 16 DAY OF March 1936 AT 2.40 pm  
G. Pontelow DEP. REG. GENL.

TRANSFER No. 1208583 FROM  
William Green and Ada Mary Green  
to the said William Green and  
Ada Mary Green  
OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND.  
PRODUCED FOR REGISTRATION THE 19 DAY OF  
March 1936 AT 2.40 pm  
G. Pontelow DEP. REG. GENL.

SURRENDER OF THE within Lease  
No 1183186 BY ENDORSEMENT THEREON DATED  
THE 16 DAY OF September 1936  
PRODUCED FOR REGISTRATION THE 30 DAY OF  
September 1936 AT 11 am  
A. S. Siebert DEP. REG. GENL.

TRANSFER No. 1221507 FROM  
William Green and Ada Mary Green  
to George William Schultz of Lenswood  
Gardener and Hazel Isobel Schultz his wife  
OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND.  
PRODUCED FOR REGISTRATION THE 30 DAY OF  
September 1936 AT 11 am  
A. S. Siebert DEP. REG. GENL.

MORTGAGE No. 1221509 FROM  
George William Schultz and Hazel Isobel  
Schultz to William Green and  
Ada Mary Green  
PRODUCED FOR REGISTRATION THE 30 DAY OF  
September 1936 AT 11 am (including other  
land)  
A. S. Siebert DEP. REG. GENL.

Portion of the within <sup>part</sup> sec 5149 is discharged  
from the within Mortgage No 1221509 as  
appears by Memorandum No 1380821  
Produced for registration the 1 day of January  
1943 at 11 am  
A. S. Siebert DEP. REG. GENL.

Transfer No 1380822 from George William  
Schultz and Hazel Isobel Schultz to  
Lenswood Fruitgrowers Co-operative  
Society Limited of portion of the within  
part sec 5149 Produced for registration the  
1 day of January 1943 at 11 am  
A. S. Siebert DEP. REG. GENL.

CANCELLED AS RESARDS LAND IN TRANSFER  
No. 1380822 AND NEW CERTIFICATE  
OF TITLE ISSUED VOL. 1808 FOLIO 198  
A. S. Siebert DEP. REG. GENL.

CANCELLED  
AND Balance  
CERTIFICATE OF TITLE ISSUED  
VIDE  
VOL. 1808 FOL. 199.  
A. S. Siebert DEP. REG. GENL.



South Australia.

(CERTIFICATE OF TITLE.)



Register Book,

Vol. 1299

Folio 51

Balance Certificate of Title from Vol. 1234 Folio 90  
William Green of Lenswood Gardens is  
the proprietor of an estate in fee simple

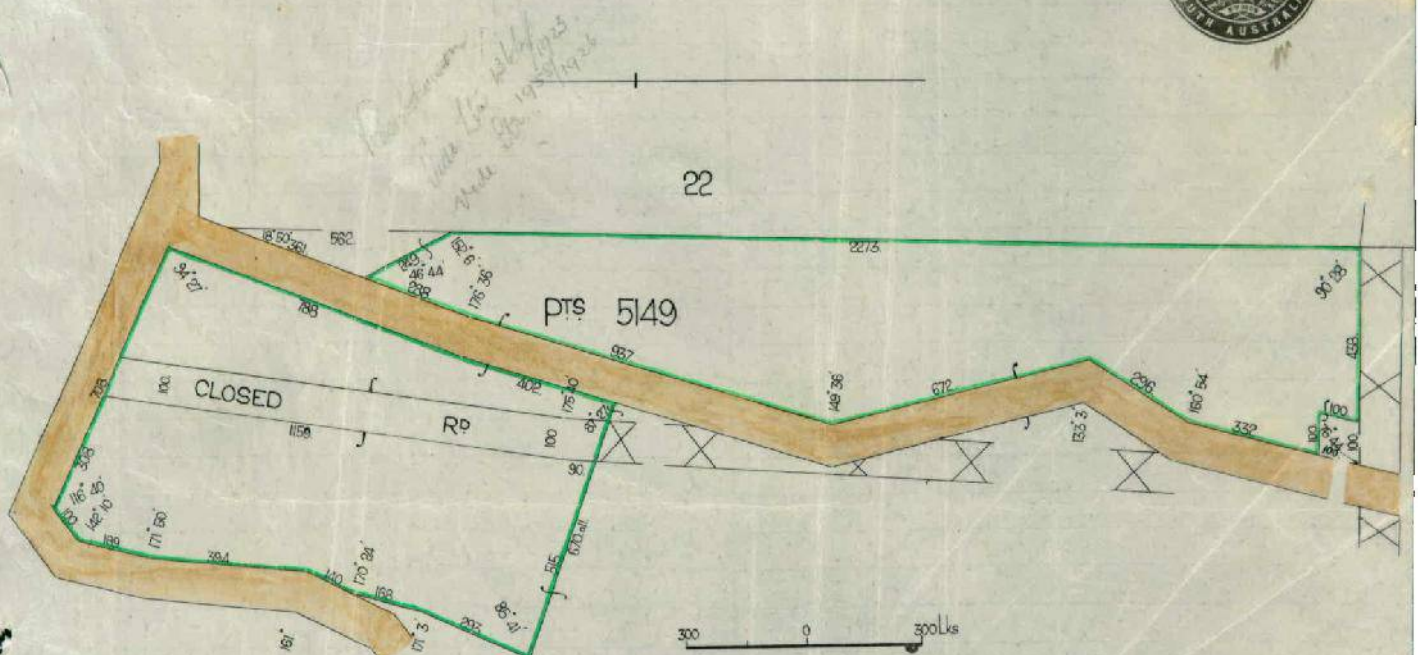
subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
those Pieces of land situated in the Hundred of Onkaparinga  
County of Adelaide being Portions of Section 5149 containing together  
fifty six acres two roods and twenty three perches or thereabouts and  
closed Road containing one acre and one rood or thereabouts  
and are more particularly delineated and bounded as appears on the  
plan in the margin hereof and therein colored green

which said Section is delineated in the public map of the said Hundred deposited in the Lands and Survey Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this twenty seventh day of September 1923

Signed the 27th day of September  
1923, in the presence of W. H. Green

W. H. Green  
Registrar-General.





Transfer No. 980556 from William Green to  
Hilda Mary Boerth of portion of the within  
sections of Section 5149 Produced for registration  
the 25 day of October 1926 at 3pm  
H. H. Smith Dep. Reg. Genl.

CANCELLED AS REGARDS LAND IN  
TRANSFER NO. 980556 AND  
NEW CERTIFICATE OF TITLE 27 202  
ISSUED VOL. 1446 FOLIO 109 108 24/1/26  
J. D. Smith DEP. REG. GENL.

CANCELLED

AND Balance  
CERTIFICATE OF TITLE ISSUED  
VOL. 1446 FOLIO 109  
J. D. Smith DEP. REG. GENL.



South Australia.

(CERTIFICATE OF TITLE.)



Register Book,

Vol. **1234** Folio **90**

Pursuant to Memorandum of Transfer No. 508100.

William Green of Lenswood Gardens is

the proprietor of an estate in fee simple.

subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
These pieces of land situated in the Hundred of Onkaparinga County  
of Adelaide being Portions of Section 5149 containing together fifteen acres  
two rods and thirty eight perches or thereabouts and a closed road  
containing one acre and one rod or thereabouts and are more particularly  
delineated and bounded as appears in the plan in the margin hereof and  
therein colored green

which said Section is delineated in the public map of the said Hundred deposited in the Lands and Survey Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this thirteenth day of April 1922

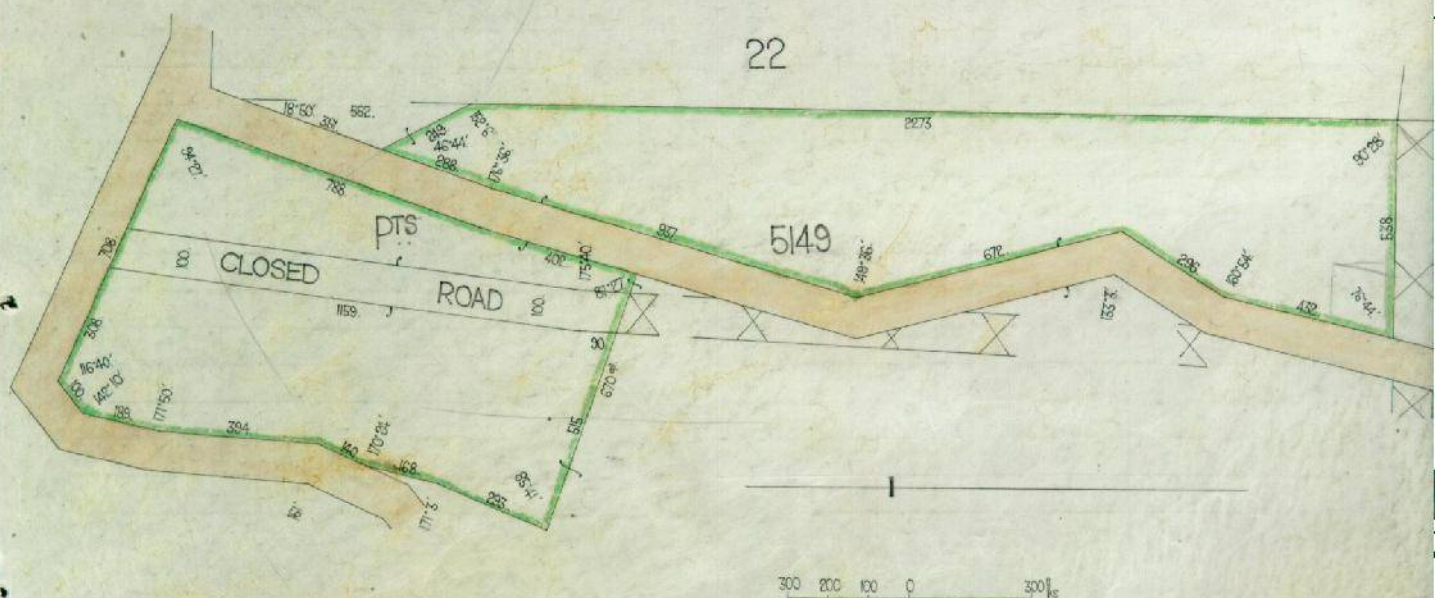
Signed the 13th day of April  
1922, in the presence of

W. Shaw

W. Shaw  
Registrar-General.



22





*Transfer No. 261861 from William  
Green to Forest Range Fruitgrowers  
Co-operative Society Limited of  
portion of the within parts of S149  
Produced for registration the 18 day  
of August 1923 at 1000  
H. A. Cornish Registrar*

CANCELLED AS REGARDS LAND IN  
TRANSFER No. *261861* AND  
NEW CERTIFICATE OF TITLE  
ISSUED VOL. *1299* FOLIO *50*

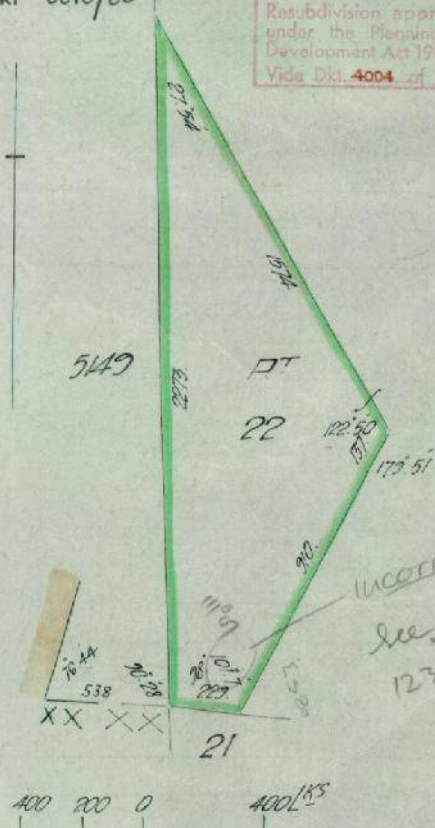
*W. A. Saeber*  
DEP. REG. GENL.

CANCELLED

AND *Balance*  
CERTIFICATE OF TITLE ISSUED  
VOL. *1299* FOLIO *51*

*W. A. Saeber*  
DEP. REG. GENL.







MORTGAGE No. 1419266 FROM  
George William Schultz and Hazel Isobel Schultz  
to The Bank of Adelaide  
PRODUCED FOR REGISTRATION THE 7 DAY OF  
November 1944 AT 2.45 pm (including  
other land)  
*[Signature]*  
DEP. REG. GENL.

1419266 17292749 17292750

DISCHARGE OF MORTGAGE No. 1419266 BY ENDORSEMENT  
THEREON. PRODUCED 11/11/58 AT 11.35 am  
*[Signature]* DEP. REG. GENL.  
P/A2041638 *[Signature]* PRS

MORTGAGE No. 2092749 FROM George  
William Schultz and  
Hazel Isobel Schultz  
TO THE STATE BANK OF SOUTH AUSTRALIA.  
PRODUCED 11/11/58 AT 11.35 am  
*[Signature]* (including other land)  
DEP. REG. GENL.

MORTGAGE No. 2092750 FROM George  
William Schultz and  
Hazel Isobel Schultz  
TO THE STATE BANK OF SOUTH AUSTRALIA.  
PRODUCED 11/11/58 AT 11.35 am  
*[Signature]* (including other land)  
DEP. REG. GENL.

12572945

TRANSFER No. 2572445 George William Schultz  
to the within named George William Schultz  
and Hazel Isobel Schultz  
as tenants in common  
OF THE WITHIN LAND, PRODUCED 24.10.1964 AT 11.15 am  
*[Signature]* DEP. REG. GENL.

CANCELLED  
NEW  
3326648 3857 34.  
*[Signature]* DEP. REG. GENL.

## Certificate of Title

Title Reference:	CT 5509/458
Status:	CURRENT
Parent Title(s):	CT 4139/181
Dealing(s) Creating Title:	CONVERTED TITLE
Title Issued:	03/03/1998
Edition:	2

ORIGINAL

South Australia

Register Book

## CERTIFICATE OF TITLE

Volume 4139 Folio 181



Pursuant to Transfer 4304937 Registered on Vol.4012 Folio 497 and  
New Certificate for the balance of the Land in Vol.3857 Folio 33

JOAN THERESE MURDOCH of Main Road Lenswood 5240 Married Woman is the proprietor of an estate in  
fee simple subject nevertheless to such encumbrances liens and interests as are notified by  
memorial underwritten or endorsed hereon in PORTION OF SECTION 5149 HUNDRED OF ONKAPARINGA  
delineated on the plan hereon by bold black lines

In witness whereof I have signed my name and affixed my seal this 6<sup>th</sup> day of *april* 1979

Signed the 6<sup>th</sup> day of *april*

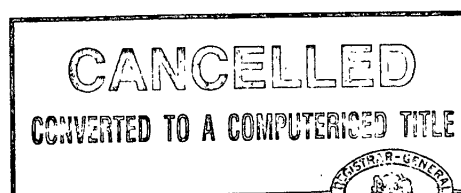
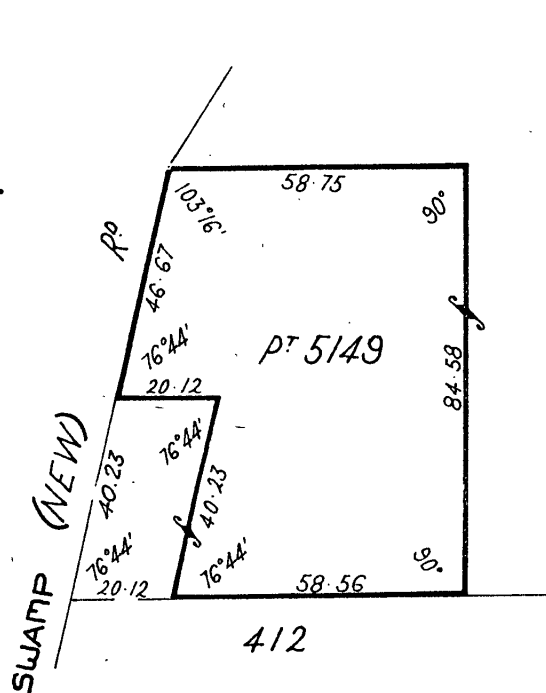
1979, in the presence of *newrights*

*Just Hughes*

Deputy Registrar-General



MORTGAGE 7348256 to THE CO-OPERATIVE BUILDING  
SOCIETY OF SOUTH AUSTRALIA LIMITED Produced  
10.8.1992 at 12:20



Swamp Road  
Vide Docket 3637/1981  
14-8-92

0 12.5 25 37.5 50 Metres

*Just Hughes*





## Certificate of Title

Title Reference:	CT 5724/523
Status:	CURRENT
Parent Title(s):	CT 1808/198
Dealing(s) Creating Title:	CONVERTED TITLE
Title Issued:	12/01/2000
Edition:	1

South Australia.

(CERTIFICATE OF TITLE.)



Register Book,

Vol. 1808 Folio 198

Pursuant to Memorandum of Transfer No. 1380822 Registered on Vol. 1446 Folio 109 and New Certificate of Title for the whole of the Land in Vol. 1299 Folio 50

FOREST RANGE FRUITGROWERS' CO-OPERATIVE  
SOCIETY LIMITED whose registered office is at Forest Range  
is the proprietor of an estate in fee simple

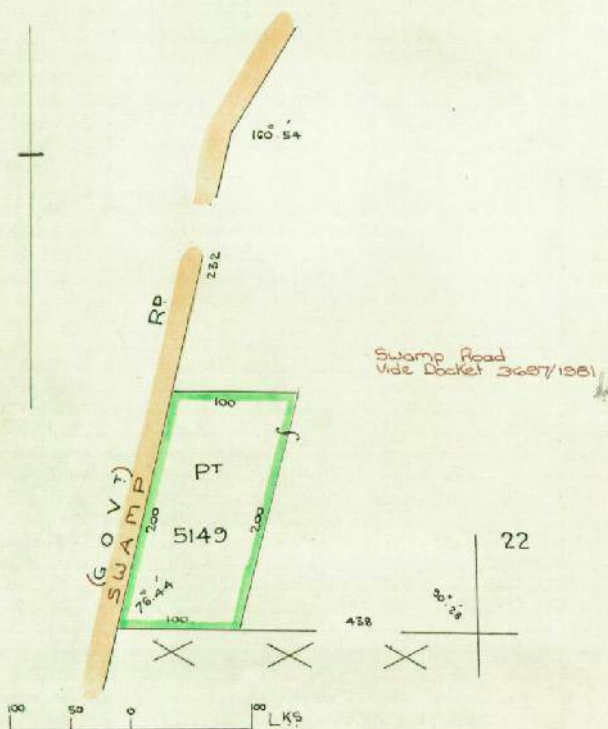
subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
THAT Piece of land situated in the HUNDRED of ONKAPARINGA COUNTY of ADELAIDE  
being PORTION OF SECTION 5149 and bounded as appears in the plan in the margin hereof and  
therein coloured green: Which said piece of land measures as well on the northerly side next other  
portion of the said Section as on the southerly side next a Closed Road one chain  
or thereabouts and as well on the easterly side next other portion of the said  
Section as on the westerly side next a Government Road two chains or thereabouts  
and is more particularly delineated in the said plan

which said Section is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this twentyfourth day of February 1943

Signed the 24th day of February  
1943, in the presence of No. S. Lene

*[Signature]*  
Registrar-General.  
7/1633066, 14/1633067



TRANSFER of 1633066 FROM  
Forest Range Fruitgrowers' Cooperative  
Society Limited to Lenswood Cold  
Stores Cooperative Society Limited  
of Lenswood  
OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND  
PRODUCED FOR REGISTRATION THE 25 DAY OF  
July 1950 AT 11.30 am  
*[Signature]*  
DEP. REG. GENL.

MORTGAGE No. 1633067 FROM  
Lenswood Cold Stores  
Cooperative Society Limited  
TO THE STATE BANK OF SOUTH AUSTRALIA.  
PRODUCED FOR REGISTRATION THE 25 DAY OF  
July 1950 AT 11.30 am  
*[Signature]*  
DEP. REG. GENL.  
14276943



RECEIVED 18/02/2021

2614914 FROM  
 Lenswood Cold Stores Co-operative Society Limited  
 TO THE STATE BANK OF SOUTH AUSTRALIA.  
 PRODUCED 15-1-1960 AT 2pm  
*Monnees* (including other land)  
 DEP. REG. GEN.

14/2/1964

MORTGAGE No. 2614914  
 TO THE STATE BANK OF SOUTH AUSTRALIA.  
 PRODUCED 31/3/1965 AT 11:50am  
*g b steel* (INCLUDING OTHER LAND)  
 DEP. REG. GEN.

173159276

MORTGAGE No. 3159276  
 TO THE STATE BANK OF SOUTH AUSTRALIA.  
 PRODUCED 8/12/1970 AT 10:10am  
*R. E. Gordon* (INCLUDING OTHER LAND)  
 DEP. REG. GEN.

DM 4232905

THE WITHIN LAND IS DISCHARGED FROM MORTGAGE  
 No. 2176943 VIDE No. 4232905 PRODUCED 18-7-1978 AT 11:40am

144520761

MORTGAGE No. 4520761

TO THE STATE BANK OF SOUTH AUSTRALIA.  
 PRODUCED 7-3-1980 AT noon  
 (INCLUDING OTHER LAND)

Pm 4817057 T4817057

PIA 4635432

THE WITHIN LAND IS DISCHARGED FROM MORTGAGE  
 Nos 1632067 2614914 VIDE 4817057  
 Nos 3159276 4520761 PRODUCED 30-11-1981 AT 11:05 am

TRANSFER No. 4817058  
 To  
 Warren Dudley Murdoch of Swamp  
 Road Lenswood 5240 Managing Director  
 and Joan Therese Murdoch his wife  
 OF THE WITHIN LAND. PRODUCED 30-11-1981 at  
 11:05 am

Dupl. C. requires amendment

CANCELLED

CONVERTED TO A COMPUTERISED TITLE



South Australia.

(CERTIFICATE OF TITLE.)



Register Book,

Vol. 1299 Folio 50

Pursuant to Memorandum of Transfer No 861861  
Forest Range Fruitgrowers Cooperative Society Limited  
whose registered office is at Forest Range is  
the proprietor of an estate in fee simple

subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in  
that piece of land situated in the Hundred of Onkaparinga COUNTY of Adelaide  
being PORTION OF SECTION 5149 and bounded as appears in the plan in the margin hereof and therein colored green: Which  
said piece of land contains 11000 square or thereabouts and measures as well on  
the northerly side next other portions of the said Section as on  
the southerly side next a closed Road one chain or thereabouts and  
as well on the easterly side next other portions of the said Section as  
on the westerly side next a Government Road one chain or thereabouts

which said Section 5149 delineated in the public map of the said Hundred deposited in the Lands and Survey Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this fourteenth day of January 1943

Signed the 17th day of January  
1943, in the presence of H. H. H. H.

Registrar-General.



Within Land to be CONSOLIDATED  
Vide Resubdivision Approved under  
Sec. 15 T.P. Act, 1943 of 1929  
Vide Book 24 Page 310

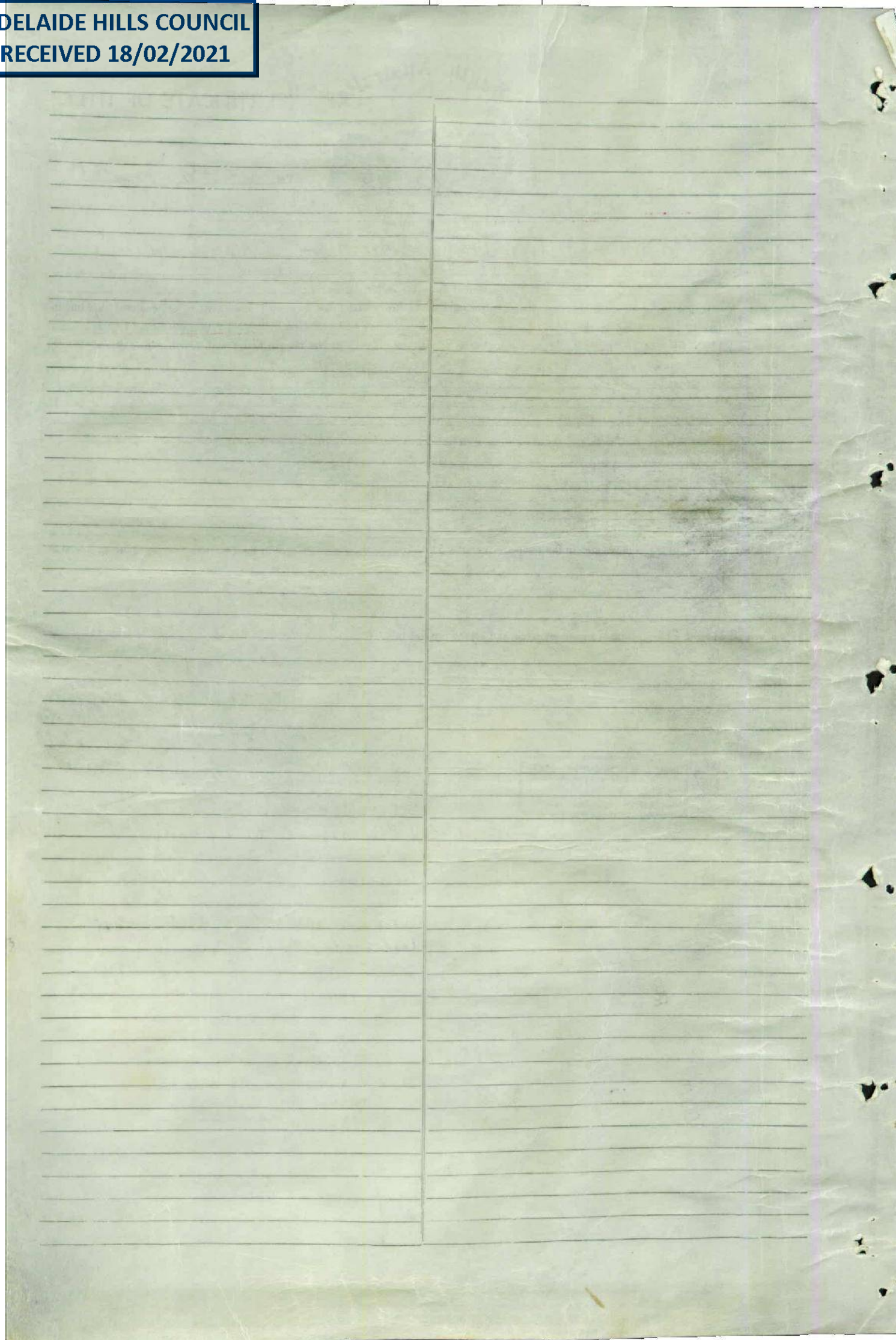


Provisional Application  
A Provisional Certificate of Title was  
issued on the 12 day of February 1943 in  
consequence of a declaration made by  
Frederick Rowley that the Duplicate  
Certificate of Title had been lost or  
destroyed. (Provisional Application No. 4905)  
G. H. H. H. Dep Reg.

CANCELLED

AND new  
CERTIFICATE OF TITLE ISSUED  
Vide Transfer No. 1350822  
VOL 1808 FOL. 198  
H. H. H. H. DEP. REG. GENL.





APPENDIX G – SA EPA SECTION 7 SEARCH

RFE Consulting  
28 Wolseley Road  
BLACKWOOD SA 5051

Contact: Section 7  
Telephone: (08) 8204 2026  
Email: epasection7@sa.gov.au

Contact: Public Register  
Telephone: (08) 8204 9128  
Email: epa.publicregister@sa.gov.au

06 January, 2021

### **EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS**

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference CT Volume 6161 Folio 134  
Address 832 Swamp Road, LENSWOOD SA 5240

#### **Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010***

#### **PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND**

##### ***7. Environment Protection Act 1993***

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

**Schedule – Division 2 – Land and Business (Sale and Conveyancing) Regulations 2010**

**PARTICULARS RELATING TO ENVIRONMENT PROTECTION**

**3-Licences and exemptions recorded by EPA in public register**

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to operate a waste depot at the land?	NO

<sup>1</sup>Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.



- |    |   |    |
|----|---|----|
| g) | details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to produce waste of a prescribed kind (within the meaning of that Act) at the land? | NO |
| h) | details of a licence issued under the repealed <i>Waste Management Act 1987</i> to produce prescribed waste (within the meaning of that Act) at the land?                                       | NO |

**4-Pollution and site contamination on the land - details recorded by the EPA in public register**

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

- |    |  |    |
|----|--|----|
| a) | details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the <i>Environment Protection Act 1993</i> )?   | NO |
| b) | details of site contamination notified to the EPA under section 83A of the <i>Environment Protection Act 1993</i> ?  | NO |
| c) | a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?                          | NO |
| d) | a copy of a site contamination audit report?   | NO |
| e) | details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the <i>Environment Protection Act 1993</i> applies?   | NO |
| f) | details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ?  | NO |
| g) | details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ?   | NO |
| h) | details of a notification under section 103Z(1) of the <i>Environment Protection Act 1993</i> relating to the commencement of a site contamination audit?  | NO |
| i) | details of a notification under section 103Z(2) of the <i>Environment Protection Act 1993</i> relating to the termination before completion of a site contamination audit?   | NO |
| j) | details of records, held by the former <i>South Australian Waste Management Commission</i> under the repealed <i>Waste Management Act 1987</i> , of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995? | NO |

**5-Pollution and site contamination on the land - other details held by EPA**

Does the EPA hold any of the following details in relation to the land or part of the land:

- |    |  |    |
|----|--|----|
| a) | a copy of a report known as a "Health Commission Report" prepared by or on behalf of the <i>South Australian Health Commission</i> (under the repealed <i>South Australian Health Commission Act 1976</i> )? | NO |
|----|--|----|

- |    |  |    |
|----|--|----|
| b) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ?              | NO |
| d) | a copy of a pre-1 July 2009 site audit report?   | NO |
| e) | details relating to the termination before completion of a pre-1 July 2009 site audit?   | NO |

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

RFE Consulting  
28 Wolseley Road  
BLACKWOOD SA 5051

Contact: Section 7  
Telephone: (08) 8204 2026  
Email: epasection7@sa.gov.au

Contact: Public Register  
Telephone: (08) 8204 9128  
Email: epa.publicregister@sa.gov.au

06 January, 2021

### **EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS**

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference CT Volume 5509 Folio 458  
Address 792 Swamp Road, LENSWOOD SA 5240

#### **Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010***

#### **PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND**

##### ***7. Environment Protection Act 1993***

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

**Schedule – Division 2 – Land and Business (Sale and Conveyancing) Regulations 2010**

**PARTICULARS RELATING TO ENVIRONMENT PROTECTION**

**3-Licences and exemptions recorded by EPA in public register**

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to operate a waste depot at the land?	NO

<sup>1</sup>Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.



- |    |   |    |
|----|---|----|
| g) | details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to produce waste of a prescribed kind (within the meaning of that Act) at the land? | NO |
| h) | details of a licence issued under the repealed <i>Waste Management Act 1987</i> to produce prescribed waste (within the meaning of that Act) at the land?                                       | NO |

**4-Pollution and site contamination on the land - details recorded by the EPA in public register**

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

- |    |  |    |
|----|--|----|
| a) | details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the <i>Environment Protection Act 1993</i> )?   | NO |
| b) | details of site contamination notified to the EPA under section 83A of the <i>Environment Protection Act 1993</i> ?  | NO |
| c) | a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?                          | NO |
| d) | a copy of a site contamination audit report?   | NO |
| e) | details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the <i>Environment Protection Act 1993</i> applies?   | NO |
| f) | details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ?  | NO |
| g) | details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ?   | NO |
| h) | details of a notification under section 103Z(1) of the <i>Environment Protection Act 1993</i> relating to the commencement of a site contamination audit?  | NO |
| i) | details of a notification under section 103Z(2) of the <i>Environment Protection Act 1993</i> relating to the termination before completion of a site contamination audit?   | NO |
| j) | details of records, held by the former <i>South Australian Waste Management Commission</i> under the repealed <i>Waste Management Act 1987</i> , of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995? | NO |

**5-Pollution and site contamination on the land - other details held by EPA**

Does the EPA hold any of the following details in relation to the land or part of the land:

- |    |  |    |
|----|--|----|
| a) | a copy of a report known as a "Health Commission Report" prepared by or on behalf of the <i>South Australian Health Commission</i> (under the repealed <i>South Australian Health Commission Act 1976</i> )? | NO |
|----|--|----|

- |    |  |    |
|----|--|----|
| b) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ?              | NO |
| d) | a copy of a pre-1 July 2009 site audit report?   | NO |
| e) | details relating to the termination before completion of a pre-1 July 2009 site audit?   | NO |

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

RFE Consulting  
28 Wolseley Road  
BLACKWOOD SA 5051

Contact: Section 7  
Telephone: (08) 8204 2026  
Email: epasection7@sa.gov.au

Contact: Public Register  
Telephone: (08) 8204 9128  
Email: epa.publicregister@sa.gov.au

06 January, 2021

**EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS**

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference CT Volume 5724 Folio 523

Address Allotment 65, Swamp Road, LENSWOOD SA 5240

**Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010***

**PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND**

***7. Environment Protection Act 1993***

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

**Schedule – Division 2 – Land and Business (Sale and Conveyancing) Regulations 2010**

**PARTICULARS RELATING TO ENVIRONMENT PROTECTION**

**3-Licences and exemptions recorded by EPA in public register**

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or <sup>1</sup>	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to operate a waste depot at the land?	NO

<sup>1</sup>Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.



- |    |   |    |
|----|---|----|
| g) | details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to produce waste of a prescribed kind (within the meaning of that Act) at the land? | NO |
| h) | details of a licence issued under the repealed <i>Waste Management Act 1987</i> to produce prescribed waste (within the meaning of that Act) at the land?                                       | NO |

**4-Pollution and site contamination on the land - details recorded by the EPA in public register**

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

- |    |  |    |
|----|--|----|
| a) | details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the <i>Environment Protection Act 1993</i> )?   | NO |
| b) | details of site contamination notified to the EPA under section 83A of the <i>Environment Protection Act 1993</i> ?  | NO |
| c) | a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?                          | NO |
| d) | a copy of a site contamination audit report?   | NO |
| e) | details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the <i>Environment Protection Act 1993</i> applies?   | NO |
| f) | details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ?  | NO |
| g) | details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ?   | NO |
| h) | details of a notification under section 103Z(1) of the <i>Environment Protection Act 1993</i> relating to the commencement of a site contamination audit?  | NO |
| i) | details of a notification under section 103Z(2) of the <i>Environment Protection Act 1993</i> relating to the termination before completion of a site contamination audit?   | NO |
| j) | details of records, held by the former <i>South Australian Waste Management Commission</i> under the repealed <i>Waste Management Act 1987</i> , of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995? | NO |

**5-Pollution and site contamination on the land - other details held by EPA**

Does the EPA hold any of the following details in relation to the land or part of the land:

- |    |  |    |
|----|--|----|
| a) | a copy of a report known as a "Health Commission Report" prepared by or on behalf of the <i>South Australian Health Commission</i> (under the repealed <i>South Australian Health Commission Act 1976</i> )? | NO |
|----|--|----|

- |    |  |    |
|----|--|----|
| b) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ?              | NO |
| d) | a copy of a pre-1 July 2009 site audit report?   | NO |
| e) | details relating to the termination before completion of a pre-1 July 2009 site audit?   | NO |

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

APPENDIX H – AUDIT RECORDS



*Lenswood Co-op was established in 1933*

## HORTICULTURE PRODUCE AGREEMENT

LENSWOOD COLD STORES COOPERATIVE SOCIETY

COLD STORE ROAD LENSWOOD S.A. 5240

### TERMS OF AGREEMENT FOR APPLES AND PEARS

The Lenswood Cold Stores Cooperative Society (the "Cooperative") hereby agrees to grade, pack and market as agent the supplier's fruit under the following conditions:

- a. Fruit supplied will be graded and packed by the Cooperative and specification decisions will be made by the Cooperative in an effort to enhance the suppliers return.
- b. Suppliers of fruit arrival assessed being of questionable suitable standard will be advised as soon as practical, and any rejections notified within seven days.
- c. Unless otherwise agreed between the Cooperative and the supplier, returns will be determined by the pooling system operating for that month, or in rare cases shorter pool periods, and realized on fruit quality size and quantity along with the gross return per bin. These will be recorded on the sales advice.
- d. The Cooperative will make all inclusive deductions for grading and packaging costs. Additional costs will be invoked for export produce to reflect higher packaging costs. Any alterations in these expenses will be advised within twenty one days.
- e. Government levies will be charged and deducted as at statutory requirements.
- f. Transport charges will be at cost.
- g. Residue testing will be done at the Cooperative cost to conform to our Quality Assurance programs.
- h. Packout advice will be advised by facsimilie or other means within three working days of actual packing.
- i. A sales commission is charged on gross sales.
- j. This Agreement shall only be varied in writing signed by both parties.

### SUPPLIER

By signing this contract, you agree that:

- (i) you are committed to comply with the requirements and regulations of GlobalGap

---

***Lenswood* Cold Stores Co-operative Society Limited**

Cold Store Road, Lenswood SA 5240 Tel. (08) 8389 8300 Fax (08) 8389 8570  
ABN 66 112 676 591 [www.lenswoodcoop.com.au](http://www.lenswoodcoop.com.au)





Australian Government

Department of Agriculture, Fisheries and Forestry  
National Residue Survey

**HORTICULTURE RESULTS - Apple**

**LABORATORY: SYMBIO ALLIANCE**

Product:	Apple	Sample Date:	28 Feb 2012
Sub Product:	Galaxy	Lab Receipt Date:	01 Mar 2012
Collector:	Lenswood Cold Stores	Report Date:	15 Mar 2012
		Storage:	Fresh
Packing Shed Name:	Lenswood Cold Stores	Market:	Domestic
		Bin No:	BC
Grower:	WD & JT Murdoch	Packed:	29 Feb 2012

Sample No	Chemicals /Contaminants	Residue mg/kg	Aust MRL
0017452A	All analytes (overleaf)	<LOR	





9<sup>th</sup> August 2012

Murdoch, WD & JT  
792 Swamp Road  
LENSWOOD 5240

Dear Warren & Joan

**Re: GlobalGap Certification 2012/13 – Apples &/or Cherries**

Please find enclosed your GlobalGap Certificate for Apples and/or Cherries for the period 17/10/12 to 16/10/13.

Please display this certificate in a prominent position.

I would like to thank you for your efforts this year in achieving compliance with the requirements of the up-graded GlobalGap Standard. I hope the Coldstore website information was of some use to you.

Special thanks to the growers selected for external audit, especially those who had 'surprise' audits:

GR & D Green  
Hannaford Orchards  
P & J Brockhoff - Otherwood  
Raeburn Rural  
S & C Collins  
SR & SM Mason  
WD & JT Murdoch  
WD & JH Altmann  
AI & CE Gallasch

Please do not hesitate to contact me if you require any further information.

Kind regards,

Bron Wenham  
QA Manager

---

**Lenswood Cold Stores Co-operative Society Limited**

Cold Store Road, Lenswood SA 5240 Tel. (08) 8389 8300 Fax (08) 8389 8570  
ABN 66 112 676 591 [www.lenswoodcoop.com.au](http://www.lenswoodcoop.com.au)





**Australian Government**

Department of Agriculture, Fisheries and Forestry  
National Residue Survey

**HORTICULTURE RESULTS - Apple**

**LABORATORY: SYMBIO ALLIANCE**

Product:	Apple	Sample Date:	12 Mar 2013
Sub Product:	Royal Gala	Lab Receipt Date:	13 Mar 2013
Collector:	Lenswood Cold Stores	Report Date:	27 Mar 2013
		Storage:	Fresh
Packing Shed Name:	Lenswood Cold Stores	Market:	Domestic
		Bin No:	
Grower:	WD & JT Murdoch	Packed:	12 Mar 2013

Sample No	Chemicals / Contaminants	Residue mg/kg	Aust MRL
0061602C	chlorantraniliprole	0.020	0.3
	diphenylamine	0.012	10
	Remaining analytes(overleaf)	<LOR	

APPENDIX I – SOIL LOGS



Project No:	RFE0144			Drilling Method:	Push Tube - Portables	Date:	30 September 2020
Client:	W&J Murdoch			Drilled and Logged by:	Drilled: JR Soil Sampling, Portables Logged: RFE Consulting, Ross Fitzgerald		
Site Address:	792 Swamp Rd, Lenswood						
Soil Horizon Depth (m)				Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content
BH1	BH2	BH3	BH4				
0.0 – 0.1	0.0 – 0.1	0.0 – 0.1	0.0 – 0.1	Silty SAND, f-m sand, trace roots	Dark brown	SM	Dry
0.1 – 0.2	0.1 – 0.4	0.1 – 0.2	0.1 – 0.2	Sandy CLAY/Clayey SAND, f-m grained sand, low plasticity clays with some f-m gravels	Brown	CL/SC	Dry / <PL
		0.2 – 0.8	0.2 – 2.8	Silty Sandy CLAY, low plasticity, trace gravel	Brown	CL	<PL
0.2 – 0.8	0.4 – 1.2			Silty Sandy CLAY, high plasticity, f sands	Grey brown mottled red brown	CH	<PL
0.8 – 1.3	1.2 – 1.6	0.8 – 1.5	0.8 – 1.3	Silty CLAY, low plasticity	Blue grey	CL	<PL
1.3 – 2.1	1.6 – 2.1	1.5 – 1.7	1.3 – 2.0	SILT, low liquid limit	Blue grey	OL	<PL
		1.7 – 2.1	2.0 – 2.1	Weathered ROCK (siltstone)	Blue grey	-	Dry
Comments:	BH1 to 2.1m, BH2 to 2.0m bgl.						

APPENDIX J – DRILLING LOGS



JR SOIL SAMPLING

Box 178, Echunga 5153

Telephone/Fax: 8388 8431

Mobile: 0408 814 329

DATE 30.9.20

ENGINEER RFE 0144

ENGINEER'S JOB No.

LOCATION

SWAMP RD, LENSWOOD

TRAY No.	NGA1	NGA1	83	83						
No. OF BORES	1	2	3	4						
DEPTH	2.1	2.1	2.1	2.1						
WATER TABLE LEVELS	-	-	-	-						

SITE SURFACE CONDITIONS B1 MOIST, B2 - B4 WET

SLOPE SEE /

DIRECTION PLAN

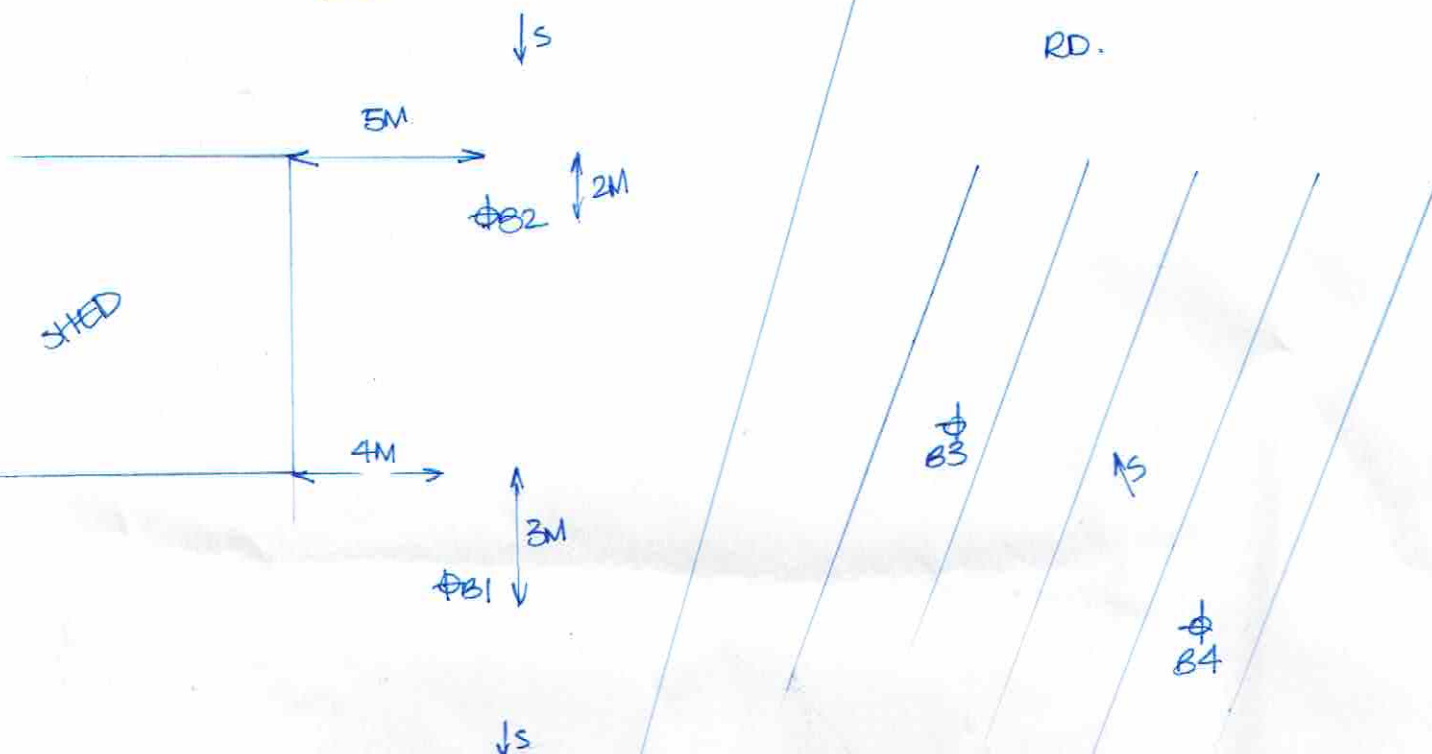
EXCAVATIONS AND DRAINS

VEGETATION GRASS, APPLE TREES.

SITE PLAN

RD.

RD.



COMMENTS

DRILL MED TO MED/HIGH.

PORTABLE

APPENDIX K – BOREHOLE LOGS



## BOREHOLE LOG

<b>Project No:</b>		RFE0144		<b>Drilling Method:</b>		Hand Auger		<b>Date:</b>		21 December 2020	
<b>Client:</b>		W&J Murdoch		<b>Drilled and Logged by:</b>		Drilled: RFE Consulting, Ross Fitzgerald Logged: RFE Consulting, Ross Fitzgerald					
<b>Site Address:</b>		792 Swamp Rd, Lenswood									
Soil Horizon Depth (m)						Soil Description	Soil Colour	Unified Soil Classification Symbol (USCS)	Moisture Content		
BH1	BH2	BH3	BH4	BH5	BH6						
0.0 – 0.3	0.0 – 0.3	0.0 – 0.2	0.0 – 0.3	0.0 – 0.2	0.0 – 0.2	Grass Cover Silty SAND, f-m sand, trace roots, trace gravels	Dark brown	SM	Dry		
0.3 – 0.5	0.3 – 0.5	0.2 – 0.5	0.3 – 0.5	0.2 – 0.5	0.2 – 0.5	Silty CLAY, medium to high plasticity	Brown	CL	<PL		
								-			
<b>Comments:</b>		All boreholes terminated at 0.5m									