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**ADELAIDE HILLS COUNCIL**  
**RURAL/PRIMARY PRODUCTION AREAS PLANNING POLICY**  
**CHANGES**  
**PRIMARY PRODUCTION PRIORITY**  
**AREAS MAPPING**



The Adelaide Hills Council area is renowned as having some of the best farming land in the State. The district comprises a mix of high rainfall, cool climate primary production, remnant natural areas and distinctive, small local communities. Together these produce a landscape that is admired and valued by visitors and locals alike. It is also well-known that globally, the area of available good farming land is decreasing as urban and rural lifestyle development encroaches into food production areas. Protecting this important farm land resource is essential for securing local food production capacity to supply food for future populations.

Primary production has a long and proud history in the district, with some farms and orchards having been established only a few years after arrival of the South Australian colony in 1836. Almost 200 years on, Adelaide is different from many other cities in that it still has substantial “food bowls”, such as the Adelaide Hills, on its doorstep.

This situation presents a range of opportunities and advantages for local producers, regional businesses, South Australian consumers and the wider economy. These opportunities and advantages can be measured in terms of access to productive land and water resources, economic benefits and jobs, reliable supply of fresh food and insulation from the uncertainties associated with future climate change and energy costs.

However, the district is under constant pressure from unplanned development and proposals that have created uncertainty for the primary producers who maintain so much of this landscape. Maintaining a productive and sustainable primary production landscape in the Adelaide Hills is going to require new ideas about how to manage this important asset.

One way in which the Adelaide Hills community can protect its primary production landscape is through the land use planning process. The Adelaide Hills Council, with assistance from the Rural Land Management Advisory Group and input from industry groups, has developed a concept to protect important primary production land through changes to the Council’s Development Plan policies. The Council is looking at changing its planning policy to protect its good farm land by reviewing the planning policies for the Watershed (Primary Production) Zone. This project will cover all rural areas of the Council District including those which fall in the Watershed (Primary Production) Zone [W(PP)]. The primary intent of this project is to protect Primary Production Priority Areas (PPPA) for farming, to secure this important and diminishing resource for future food and fibre production. It is also intended to review land use policy guidelines to respond to emerging trends in primary production, and to make it easier for farmers to seek approval to undertake a range of primary production and value adding activities on their land.

Before starting on the main investigation work of this project, Council is seeking input from farmers and their industry or representative groups. This process will enable Council to identify the main land use and planning issues that need to be addressed in the review of the planning policies for the rural/primary production areas of the District.

A significant element of this investigative work has been the mapping and designation of priority primary production areas (PPPA) with the intent of protecting these areas for primary production activities. The intent of this information sheet is to provide an overview of how this mapping process was undertaken by Primary Industries and Regions SA (PIRSA), and how it was reviewed by the Council’s Rural Land Management Advisory Group (RLMAG) back in 2008. A copy of the map can be viewed at Council’s Woodside office.

For further information in this regard, please do not hesitate to contact James Szabo, Senior Strategic & Policy Planner on 8408-0503 or email: [mail@ahc.sa.gov.au](mailto:mail@ahc.sa.gov.au)

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## PRIMARY PRODUCTION PRIORITY AREAS (PPPA) MAPPING

The Department of Primary Industries & Regions SA (PIRSA) has been working with Councils and State government agencies to identify and map areas of primary production significance within the Greater Adelaide region. This summary outlines the project, its methodology and the intended use of the mapping.

### BACKGROUND

Areas within 100kms of the Adelaide GPO consistently generate around 25% of South Australia's total farm-gate value of production, much of it from high value horticulture, winegrape and livestock industries. This distinctive pattern of production is due to a combination of favourable natural resources and climate, major investments in infrastructure, and good access to labour, transport and support industries. Very few parts of the State enjoy this combination of factors.

These same areas also present important opportunities for adapting to the impacts, risks and uncertainties of climate change, water scarcity, 'peak oil' and a carbon-constrained economy. Within this region, SA's farm-sector and food supply are buffered from external shocks by the high rainfall, cool climate conditions of the Mt Lofty Ranges, by access to multiple water resource options, including recycled urban wastewater, and by proximity to a major market and national freight network.

The recent 30 Year Plan for the Greater Adelaide region proposes identification of 'areas of primary production significance' in order to better manage the region's primary industry lands. In response to this strategic direction, PIRSA has been developing the Primary Production Priority Areas mapping project (hereafter 'PPPAs' or 'priority areas'). The objectives of the PPPA project have been to:

- develop a method to broadly differentiate rural land on the basis of its significance for primary production;
- identify and map provisional Primary Production Priority Areas within selected local government areas across the region; and,
- provide information in a form that will assist Local and State government in developing land use policy for primary industry land.

### METHOD

PPPAs in the Adelaide Hills Council area have been provisionally identified and mapped on the basis of a range of 'enabling' factors. These factors include land capability, industry investment and land use, access to water, climatic considerations (including anticipated climate change) and other local conditions that give rural land special significance for primary production. Figure 1 shows conceptually how these various enabling factors were combined. A multi-dimensional assessment technique was used because soil conditions alone are rarely an adequate indicator of the strategic importance of land.

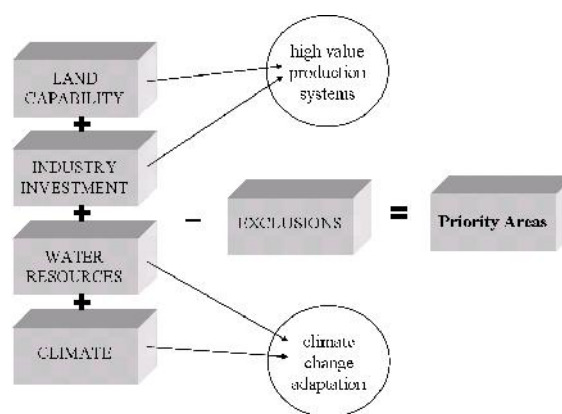


Figure 1. Conceptual outline of the PPPA project

Areas where PPPAs could not or should not be established were excluded from the assessment process on the basis of information about zoning, national parks, reservoir reserves and other public or special purpose land. The effect of these exclusions was that PPPAs have only been identified on land that has already been zoned for primary production or similar use. Zones and policy areas were excluded where there was not a clear and unambiguous priority to agriculture, farming, grazing or primary production in their stated objectives or in the zone/policy area name.

The conceptual model shown in Figure 1 also gives emphasis to areas of existing or potential high value production systems<sup>1</sup>, especially where options for that production are limited or under threat; and to areas providing significant scope for climate change adaptation in agriculture. These emphases are consistent with current State Government plans and strategies in the Food, Natural Resources

<sup>1</sup> This equates to intensive and (usually) irrigated viticulture, horticulture and grazing systems. In the initial phase of PPPA development this definition did not include any broadacre or dryland cropping production systems.

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Management and Climate Change arenas. An important and intentional consequence of this decision is that PPPA mapping does not identify all potentially productive land in the region as a priority area: the project simply seeks to identify the more important parts of the region that are already zoned for primary production.

Data describing the various enabling and exclusion factors were employed in a staged mapping process that included:

- desktop modelling using GIS<sup>2</sup> techniques to produce generalised maps of potential PPPAs across the Greater Adelaide region;
- pilot studies in the Alexandrina and Adelaide Hills council areas; and
- several phases of fieldwork in each Greater Adelaide region council area, preceded and followed by project team review.

The fieldwork stage was important to 'ground-truth' potential PPPAs, take account of any local circumstances not evident from the GIS analysis, and adjust draft PPPA mapping to cadastral (property) boundaries. Cadastre-based mapping is necessary for the eventual policy applications anticipated by the 30 Year Plan.

The resulting PPPA mapping comprises areas of land with one or more of the following characteristics:

- existing high value land use (viticulture, horticulture, dairying and irrigated pastures, major forestry plantations); OR
- land with capability for high value land use (Class 1&2 land according to DWLBC (now called the Department of Environment & Water (DEW)) crop potential modelling for viticulture and pasture grasses<sup>3</sup>) AND access to irrigation water in the form of groundwater with salinity <1500ppm, average annual rainfall >650mm, or proximity to local pipeline schemes; OR
- land suited to cool climate production (Class 1-3 land according to DWLBC crop potential

modelling for viticulture and pasture grasses) AND average annual rainfall >650mm<sup>4</sup>; OR

- land without fundamental limitations for irrigation AND groundwater with salinity <1500ppm; OR
- land with high capability for cropping AND average annual rainfall of 350-650mm.

Small, isolated areas with these characteristics (outliers <40ha in the hilly areas and <100ha on the slopes and plains) were generally omitted from the PPPA mapping. Likewise, small areas of land without these characteristics but surrounded by better land (in-liers) were included. This rule was adopted to avoid excessive fragmentation in the final map. Where necessary, individual allotments were assessed according to a 'decision-tree', as shown in **Figure 2**.

There were also several theme-specific rules developed by the project team that influenced decisions about PPPA status:

- Within PPPA polygons, remnant native vegetation on private land was generally ignored unless it comprised, separately or in combination with other limiting factors, such as slope, a potential in-lier of >40/>100 ha;
- Steeply sloping land was ignored where the balance of the allotment comprised existing high value production and was part of a locality characterised by production systems adapted to steep sites;
- Small lot subdivision was ignored where substantial rural residential development had not occurred and where land use remains predominantly agricultural;
- Allotments that were substantially smaller than the locality average were generally ignored unless they were part of a cluster of limiting factors that was potentially an in-lier of >40/>100 hectares; and
- Large allotments comprising a mix of high and low priority land could be split and partially included/omitted provided a dividing line could be established between two cadastre-based points on their surveyed boundary.

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<sup>2</sup> Geographic information systems (GIS) techniques enable rapid modelling and analysis of land use policy options.

<sup>3</sup> Capability for pasture grass production was based initially on crop potential modelling for Perennial Ryegrass. This was subsequently modified with the addition of modelling for Phalaris, which is more suited to sandy soils found in some parts of the region.

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<sup>4</sup> In the absence of suitable temperature modelling, average annual rainfall of >650mm was used as a proxy for cool climate conditions.

### **INTERPRETATION AND USE**

The PPPA mapping project seeks to provide a starting point for formal identification of areas of primary production significance in the Greater Adelaide region. The project is not intended to identify primary industry development opportunities; nor is it an expression of agricultural land needs.

Likewise, PPPA mapping needs to be viewed as the product of a multi-dimensional, strategic-level assessment conducted at the regional and district scale. It is not a paddock-scale soil survey; nor is it an assessment of the viability of individual farm businesses or parcels of land. Rather than guaranteeing the presence of specific attributes at any one point, these maps simply indicate the likelihood of encountering certain generalised conditions within a locality.

It should be noted that reports provided to councils do not propose any changes to land use policy for the proposed PPPA areas, or for land not given PPPA status. In any case, such policies would not affect existing uses; would not prescribe crops, production systems or management regimes; and could not oblige landholders to undertake agricultural activity. Likewise, it is not intended that PPPA status would in any way change landholders' NRM, EPA, farm chemicals or other environmental management obligations.

Mapping has been provided to all Councils in the Greater Adelaide region for an open-ended period of review and consultation. Although the 30 Year Plan for Greater Adelaide gives clear direction about incorporating this or similar mapping into Development Plans, at the time of writing there is no schedule for that to occur. Councils have been invited to review provisional PPPA mapping and suggest local adjustments where they can be justified.

### ***FURTHER INFORMATION***

A more detailed description of the mapping method used in the PPPA project can be found in the report *Primary Production Priority Areas: Project Design and Method*. Electronic copies of the report are available free from the Council or PIRSA Consumer Services. Printed copies can be viewed at Council's Libraries or can be purchased from PIRSA Consumer Services.

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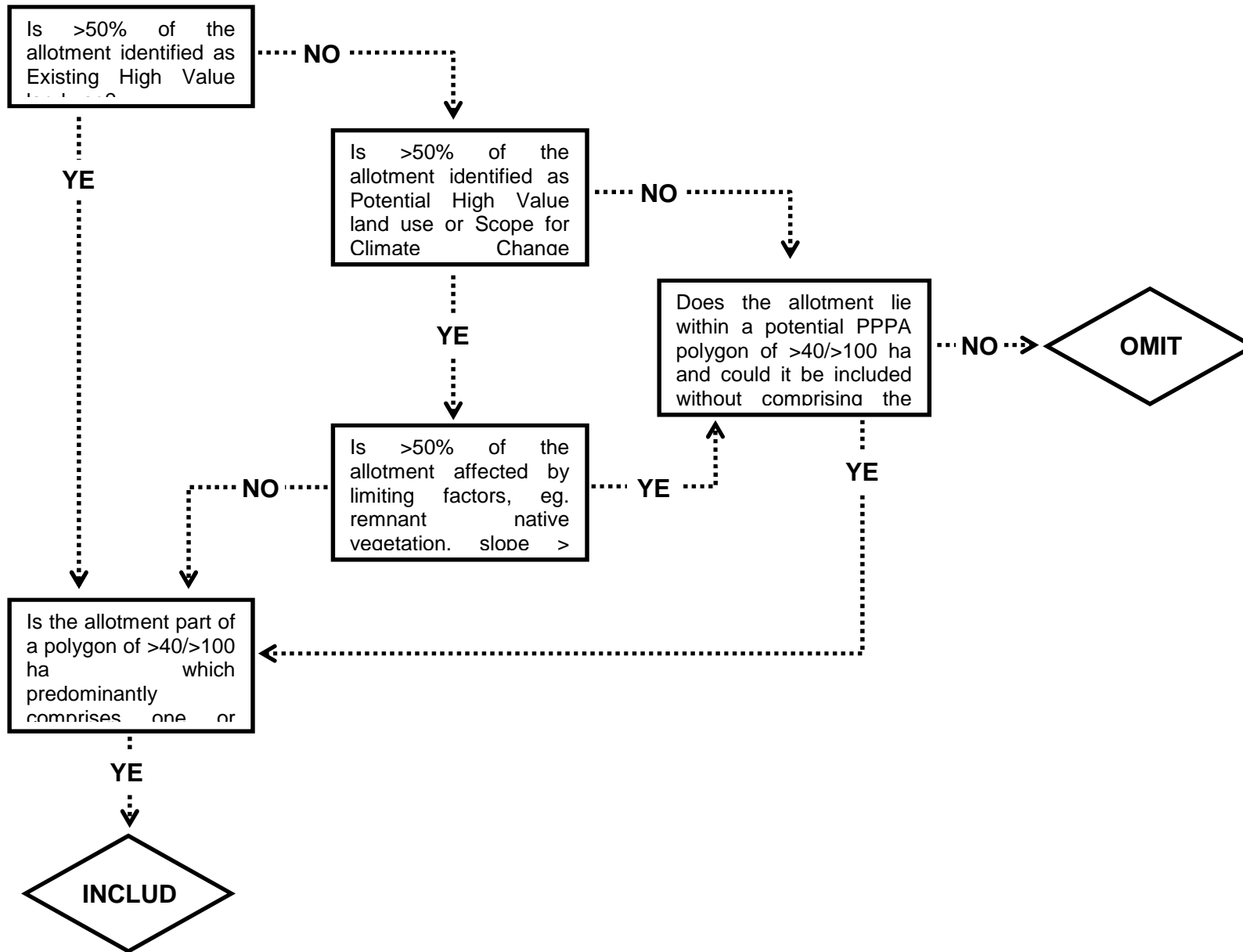


Figure 2. Generalised decision-tree for PPPA assessment of allotments

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### **HORTICULTURE INDUSTRY COMMENT**

The Council's Rural Land Management Advisory Group (RLMAG) undertook ground truthing of the material supplied by PIRSA and included additional areas to the map based on the assessment of current primary production activities on the land.

Through the ground truthing the members of the RLMAG endeavoured to think laterally and into the future. Whilst some land was originally rejected due to steepness, being in a planning policy area with a non-primary production focus, and the property sizes being considered too small, it was considered that land with primary production potential should be included within the PPPA, including the smaller land parcels which could be amalgamated into larger parcels of land for some primary production pursuit in the future.

This approach was adopted in recognition of the fact that we do not know what might be the 'new' and appropriate farming activity in 10, 20 or 50 years' time. Therefore we must leave the land in the best possible arrangements to allow for the new primary production activity.

The industry representatives of the RLMAG are supportive of the PPL DPA work being undertaken by the Council as they believe that:

- a) recognition and retention of primary production land is a part of the Council's Strategic Plan,
- b) the community wants such land to be protected and retained,
- c) the region is an important 'food bowl' for Adelaide and South Australia,
- d) the concept delivers certainty to the current and future primary producers,
- e) allows the land to be used to its maximum potential to ensure the appropriate productive capacity is achieved,
- f) the process will maintain the economic viability of the land and the region,
- g) the process will establish a set of guidelines which all existing and potential residents can use to make appropriate decisions about land purchases, and

- h) the recognition of PPPA mapping will minimise future adverse reaction/land use conflicts to primary production activities.

By establishing PPPA's and implementing appropriate Good Agricultural Practices, the Council and industry will ensure environmental viability and sustainability with the appropriate usage of the natural resources.

By establishing PPPA's the Council will protect a significant high rainfall agricultural region within South Australia and ensure the regions appropriate use during any future climate changes.

### **VITICULTURE INDUSTRY COMMENT**

What has happened in the viticulture industry could be regarded as an indicator of what will steadily happen in other food growing industries, that is the phenomenon of value being placed on quality. Most wine grapes are grown to supply the \$5 to \$15/ bottle market, which is really a commodity market that places little or no value on complexity or subtlety of flavour, the story behind the product or other intangibles. However, over the past decades a significant subset of wine consumers has developed which places high value on these aspects and who will willingly pay much higher prices. This in turn has driven the development of vineyards on sites that 50 years ago would have been regarded as unviable follies, and preserved old vineyards on sites that are only viable with high grape prices. Many of these sites are in the cooler parts of the Adelaide Hills.

Interestingly, the Slow Food Movement, which places value on similar characteristics in food and its raw materials, has developed in parallel with this. This is part of the driving force behind the resurgence (or were they ever here?) of farmers markets and it is considered likely that we will see the development of payment for quality in other agricultural industries. This already happens overseas and in certain crops such as cereals (e.g. barley for beer, wheat for pasta), and now that a cider industry is getting on to its feet, may begin in apples and pears.

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With the above points in mind, the issue at hand is that land that is currently considered marginal may not be considered so in another decade. Because we don't know what the next valuable crop will be, we can't really expect that only flat rich soil will be the most desirable.

It is therefore important that we should err on the side of optimism as we consider what to include and exclude in terms of land for designation within the PPPA.

By way of direct example, 50 years ago the most desirable grape growing land in South Australia was warm (for early ripening), flat (for ease of working), had rich soils (for big plants) and plenty of water (for big crops). Such land was mostly located within the Riverland. This is still true for lower value wines, but the opposite is true for high value producers, who value cooler sites for later ripening, low vigour soils for low crops, slopes for protection from afternoon sun or certain winds, and little or no irrigation.

It is noted that a lot of Taiwan is mountainous (not just hilly), and primary production thrives in a lot of the mountains, driven by the Japanese market which is willing to pay high prices for extra quality in crops such as peaches, tea, rice, and many other products. Such an approach has a host of spin off benefits for tourism, employment, and sustainability.

By establishing PPPA's the Council will help to protect a significant area within South Australia for the growing of quality wine and encourage the sustainability of the wine industry within the Adelaide Hills Council area.

### **NATURAL RESOURCES ADELAIDE & MT LOFTY RANGES COMMENT**

In 2008, the office of Natural Resources Adelaide and Mount Lofty Ranges was supportive of the Adelaide Hills Council identifying priority primary production land through the development plan. The inclusion of areas based on potentially suitable primary production areas in a changing climate is particularly important as it provides the

opportunity now to protect important areas for future primary production.

From an NRM perspective PPPA's designation also potentially provides an opportunity to target on-ground works, as if the land is primary production zoned then there is less chance of it changing to rural living or residential and therefore it is likely that the NRM works will remain for a longer time. This provides the Board with the opportunity to promote and involve agricultural industries in NRM related activities.

As the project progresses it is also important to consider how the PPPAs align with the water management zones within the Western Mount Lofty Ranges Water Allocation Plan, to ensure that the two policies are not contradictory.