Attachment - Item 10.2.5(a)

No	Name	Issues	Response	Recommended Change to the Plan
1	Tina Jackson	1.No further development in Ballan. 2. Pedestrian bridge at Jopling St over the River	1. Development can occur regardless of the BSP. BSP is a way to guide this. 2. Pedestrian bridge is better addressed through the tracks and trails process and would need to be subject to the allocation of separate budget.	No change
2a	John Kowarsky	1. Structure Plan should recognise environmental values of Werribee River Corridor more. 2. A large buffer be created with an overlay or similar to protect the corridor.	1. Structure Plan already proposed a 100m buffer from the river for new residential subdivisions. 2. Environmental significance of river is recognised in the structure plan and a number of initiatives are proposed. 3. There is an existing ESO applied to the river corridor.	No change
2b	John Kowarsky	1. The area north of the river should remain residential 1 zone to allow more infill and not expand the township boundary. 2. Areas designated for DPO investigation areas should be designated as well designed infill instead. 3. The BSP does not take into account the existing 120 dwelling approved development on the west of town. 4. Does not consider an area south of the railway adjoining Old Geelong Road as an area of urban investigation however is in current planning scheme. 5. The BSP should extend the residential investigation area further south than currently marked. 6. Population projections may not be sustainable for the township. 7. The BSP does not adequately recognise the ecological values needing protection around the Werribee River and Valley. 8. The BSP does not take into account the significant landscape values of the land proposed to be residential in the west. 9. The area west is current productive agricultural land which is not taken into account. 10. If the area west is developed a rural living area buffer should be applied to the river corridor area. 11. Proper protection of the trees and landscape values of no. 400 Old Melbourne Road should be included for any future development.	1. The area north of the river has limited access, current services, is located away from the town centre and is majority zoned for LDRZ. 2. The DPO is to be applied to two different areas. One schedule will be for areas already zoned Residential 1 Zone and the other for future urban areas. 3. Existing development was considered in the land supply projections. 4 & 5. Investigation area to the south may expanded in the final BSP with consideration to be given to the buffer to the approved wind farm. 6. Ballan is identified for growth within the Regional Growth Plan and has a range of higher order services. 7. The BSP recognises the environmental values of the Werribee River and how they would be enhanced in any future rezoning process. 8. The SWLS did not identify the Werribee River as a significant landscape for a SLO. The BSP outlines a range of landscape issues to be addressed in any future rezoning in this area. 9. The area to the west has been identified within the planning scheme for future growth. It is not highly productive agricultural land, such as the Bacchus Marsh River Flats, where transition from agricultural uses is discouraged. 10. A no building buffer is proposed to be determined based on corridor function; open space and hard edges. This is described in the implementation chapter in relation to a future rezoning proposal and DPO schedule to apply to the Western Growth area. The Ballan Structure Plan does not propose to rezone the land but to provide guidance as to the issues that need to be considered and the design, layout and function expectations to be responded to. 11. This property may have some heritage significance and will be investigated and mentioned in the DPO for the western corridor.	No change.
2c	John Kowarsky	1. In relation to the draft Regional Growth Plan it suggests that growth could occur south or west of the township. Not both. 2. Growth should occur to the south not west as the community wishes.	1. The wording in the Draft Regional Growth Plan depending on how its interpreted does not preclude either or both west and south being developed. The RGP includes Ballan as a major centre where continued growth is envisaged. 2. In the long term both corridors will be required in Ballan. The issues to be addressed by proponents in seeking to rezone land have been outlined in the structure plan for both corridors. Service Authorities have confirmed some issues with development in the southern corridor which would need to be addressed before rezoning.	No change.

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3	Martin Sadikovski	1. Boundary of township in future should extend down to Kerrins Lane not Gillispies Lane.	1. The Structure Plan already suggests large areas to the south and west of the township for further growth. To extend further south will double the amount of possible residential growth for Ballan which is more than is required within the timeframe this Structure Plan envisages. However by suggesting in the structure plan that council is not opposed to further appropriate growth to Kerrins lane in the future may encourage a larger developer.	Include a larger area for inclusion in the southern growth corridor. Carefully match in regard to industrial and windfarm buffers.
4	Stephen Kelly	1. The maps are incorrect in regards to 15 Walsh Street and watercourses in a number of pages and do not follow the actual drainage lines.	1. The watercourses are from the topographic map as outlined on the GIS.	No change.
5	Dorothy McKenzie	1. A single storey philosophy in reference to the core centre 2. Drainage issues need to be addressed before further growth. The current system may not be able to cope with further growth.	1 Drainage is an issue at the time of development. The DPO's do include drainage as a key aspect. Council is currently investigating existing drainage in Ballan. 2. Already some reference to the single storey nature in 7.2.1 where for the Heritage Infill areas it states "Require low scale single storey dwellings that incorporate a landscape setting where possible.	No change.
6	Tor Roxburgh	1. Powerlines should go underground in town centre to allow street trees.2. No town square mapped on the map.3. Recommendations for soft and hardscape features in 4.2 is generic and will not enhance the character of the town.4. Issues with various guidelines for commercial areas in 7.2.1 in particular the need for verendahs, to require a 'modern' design and mid block carparking being a requirement.5. Issues with the various guidelines for Heritage Infill Areas in 7.2.1 and objects to the single storey limit, the excessive front setbacks, recessed upper storeys and separation between buildings.6. No mention of the arts within the structure plan.7. Growth to the south first rather than the west must be strengthened.	1. Council is lobbying Powercor to either bundle or put powerlines within the township underground. Council does not have the resources for widespread 'undergrounding' of power lines. New development requires undergrounding of power. 2. Delete any town square on maps and suggest that new developments in the town centre consider the development of a town square. 3. The treatment of soft and hardscapes within the township is appropriate and is a design concept not a final design. 4. The design concepts were discussed with urban designers and the community.	Refine references to Town Square. Keep reference in DDO for town centre.
7	Fraser Family C/o Beveridge Williams	1. Opposes any 'recreation reserve' on Balindyeapp as development is not appropriate as a 'gateway' site and proposed subdivision provides passive recreation areas already. 2. The site should be rezoned to Residential 1 Zone as part of the implementation of the Structure Plan.	1. Open space will need to be provided as part of any future subdivision of this area. Several possible locations for 'future recreation' are identified within the structure plan. 2. The western growth area does recommend that this is an area to be residential. A proposed Development Plan Overlay over the area also indicates the area is to be rezoned in the future.	No change.
8	Jessica Strawbridge	1. Growth must occur to the south not the west 2. Development to the west would impact on the amenity of the township, impact the rivers health, impact on the traffic movements and would not be a good thing for Ballan.	1. Proposal is to expand growth area to south however still keep western growth area as immediate growth area. 2. The Development Plan Overlay would be applied to any site to be rezoned and would require consideration of a range of environmental, infrastructure and amenity issues as have been discussed in the structure plan.	No change.
9	Peter Dickson	1. The retirement village proposed on the outskirts of Ballan will be a social and economic benefit to the township.	1. This is a site with an existing permit. It is outside the structure plan boundary.	No change.
10	Peter Hodgson	1. Area south should be developed and include a botanical park/aboretum. 2. If the western growth area is to be developed then a large area along the river should be put aside for a bicycle path. 3. Council land within the township should be put aside for town square or for hospital expansion.	1. Provision for parks will be mentioned in proposed DPO for southern area. An arboretum was not envisaged but this may be considered as part of an open space study. 2. Shared pathways along the Werribee River is a requirement in the western growth DPO. 3. Noted however not included in the structure plan – would require public acquisition overlay.	Consider an 'arboretum' function in an open space reserve or within the 'passive river' corridor.

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11	Powercor C/o Peter Yates	1. Supports Structure plans guidance on bundling power cables and low trees under power lines. 2. Suggest the structure plan should reference "Street Tree Management Plan Ballan" in the Structure Plan.	1. Street Tree protection is mentioned throughout the Structure Plan and will be part of any proposed Design and Development Overlays (DDO's) for the town centre.	No Change.
12	Mike Vale	1. That further growth should be south of Railway Line and not to the west. 2. Growth to the west will impact traffic movements within Ballan. Growth in the south less so. 3. Growth to the west 'Fraser land' will impact the landscape qualities of Ballan and the townships sense of space were as growth to the south will not.	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process. 2. Landscape / environment corridors and plantings are envisaged as part of any future rezoning of either corridor.	Expand structure plan area to the south.
13	Denise & Anthony Dudley	1. Supports urban growth to the south planned in the Structure Plan. 2. Objects to the area marked as "protect from residential density" in 6.5 of the Structure Plan. 3. No industrial 3 zone proposed so why in plan (pg51). Could be included along Daylesford /Geelong Road 4. Ballan Structure Plan has a chance to protect and nurture the river, make it accessible to all residents and provide adequate buffers to protect it in the future.	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process. 2.The sensitive use area relates to the requirements of clause 17.02. State policy is clear on the need to protect existing industrial areas, including from encroachment of 'sensitive uses'. Rezoning from Farming to Residential would be contrary to this policy. 3. Page 51 (actually 52) relates to the key planning tools. The industrial area in Ballan is currently zoned Industrial 2 or "manufacturing industries and storage facilities that require a substantial threshold distance within the core of the zone. Industrial 1 (manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities) for the core uses that require a buffer and Industrial 3 (provide a buffer between the Industrial 1 Zone or Industrial 2 Zone and local communities) for areas between the core industry and residential areas would allow for industrial development with less potential for impact on residential uses. 4. A key focus of the Ballan Structure Plan is achieving a linear open space corridor along the Werribee River.	Expand structure plan area to the south. Clarify Industrial recommendations in the discussion.
14	Les Martin C/o Ballan Golf Course	1. Golf Club committee needs to be consulted on any changes to Werribee River Corridor. 2. Acknowledgement that the Golf Club is an authority in managing the River Corridor. 3. Drainage issues already exist throughout Ballan and this needs to be fixed before future growth.	1. Initial community consultation and a landscape plan promoted a bicycle / pedestrian path along the both sides of the Werribee River. Inspection of the central portion identified that this was not achievable on the north bank due to slope and ownership nor on the south bank due to public safety (fairways). The Ballan Structure Plan shows that shared pathways diverge from the river corridors in this section. 2. The Golf Club is the a Committee of Management for the reserve and can be added to the list of reserve managers. 3. There is currently a study looking at existing drainage in Ballan. Future development is required to maintain pre-existing flows as a result of development.	Better reference shared pathway augmentation (6.6) in Werribee River Corridor (6.4) . Include the Golf Club in 4.3.
15	Eileen Logan	1. Objects to the north of the river being rezoned LDRZ. As most of Hogan/Spencer Roads from the freeway down to Densley Street has already been subdivided I am hoping you have not included the remaining three properties in this change. It would be very unfair to the owners of these properties who may have made plans of subdivision for the future.	The area north of the river has limited access, current services, is located away from the town centre and a majority of the area is already zoned LDRZ. The Residential 1 Zone has not delivered the type of development envisaged when this land was rezoned originally. The nature of traffic access points to the area raises question of public safety if the area was developed to 15 dwellings per hectare. Any future rezoning of the land to LDRZ would be subject to a planning	Identify this site for the application of the Neighbourhood Residential Zone and the application of a DDO to include a minimum subdivision size in the structure plan elements and implementation plan.

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			scheme amendment process including the ability to make a submission and have that submission considered by a Panel. The new suite of residential zones may offer a solution to this site. The use of the Neighbourhood Residential zone in concert with a Design and Development overlay with a minimum lot size of 700m2 for NRZ zoned land.	
16	Marylin Rister	1. Land should be developed south not west. 2. More bike/walking tracks throughout the town. 3. Protection of the river corridor and its wildlife. 4. No building near the freeway due to noise pollution. 5. All blocks should be a quarter an acre so there is room for trees. 6. Tree protection within the township – should be illegal to denude sites before sale. 7. Do not turn Ballan into another Bacchus Marsh	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process. 2. The Ballan Structure Plan has identified opportunities for improved paths. 3. The river corridor is currently within an Environmental Significance Overlay. The Ballan Structure Plan proposes to add to the existing control by outlining how public ownership of the river corridor can be facilitated and how revegetation can occur. 4. Development approval processes address noise impact from road and rail. 5. There are few 1000m2 blocks existing in Ballan. The proposal for north of the river is a minimum of 750m2. Careful application of the new residential zones should provide opportunity for a range of lot sizes. State Policy encourages an average density of 15 dwellings per hectare. Rescode requires the consideration of vegetation that has been removed within 12 months of development application being made.	Strengthen acoustic reports for future rezoning in both corridors.
17	Daniel Tucci c/o APA Group	APA will not allow road construction within the transmission pipeline easements parallel to the pipeline. APA also seeks to minimise construction work in the easements to reduce the likelihood of excavations impacting upon the pipelines and potentially causing damage to the pipelines. High pressure gas transmission pipelines have the potential to cause catastrophic damage in the case of a rupture where the gas ignites. APA constantly monitors and maintains these pipelines to ensure their integrity. The likelihood of a catastrophic incident is highly unlikely. APA's position is supported by a range of legislation and development control rights and APA acknowledges that the Ballan Draft PSP broadly applies these principles. We understand that the predominant land use within the 4.7kW/m^2 zone of the gas pipeline in the Ballan Draft PSP is likely to be residential land. Conventional and medium density residential land in the Ballan Draft PSP context within the 4.7kW/m^2 zone may not be considered in AS2885 as a '"T2" high density and "Sensitive"' land use by APA, and therefore there is no conflict. Residential is defined in AS2885 as: "Residential applies where multiple dwellings exist in proximity to each other and dwellings are served by common public utilities. Residential includes areas of land with public infrastructure serving the residential use; roads, railways, recreational areas, camping grounds/caravan parks, suburban parks, small strip shopping centres. Residential land use may include isolated higher density areas provided they are not more than 10% of the land use. Land used for other purposes but	The Structure Plan in its implementation phase includes the pipeline issues within the proposed Development Plan Overlay. The Gas Pipeline will impact on how development happens and potential densities and is an issue to be investigated as part of any future rezoning submission. If council extends growth area further south will allow more land for development without interference of the pipeline.	Clearly include in any guidance for future rezoning of Southern Corridor.

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		with similar population density shall be assigned Residential location class." (Section 4.3.4[c]of Australian Standard AS2885). However, there could be possible conflicts if the location or isolated high density area land uses as described in the Ballan Draft PSP within the 4.7kW/m^2 zone were to increase to more than the 10% of the developed land use and therefore APA would in that case request that '"T2" high density and "Sensitive"' is relocated preferably to a position located 215 m and not within 130 m from the edge of this pipeline's easements.		
18	Rachel Carney c/o Department of Primary Industries	1. Supports APA's submission and highlights the restriction of any sensitive use within 215 metres of the pipeline 2. Identifies that Clause 19.03-6 requires protection of existing pipelines from further encroachment by residential development or other sensitive uses.	The Structure Plan in its implementation phase includes the pipeline issues within the proposed Development Plan Overlay. The Gas Pipeline will impact on how development happens and potential densities and is an issue to be investigated as part of any future rezoning submission.	No change.
19	Julie Lancashire C/o Urban Design and Management	1. Submits that the site 166 Old Melbourne Road, Ballan should be part of the Structure Plan and looked at for a further investigation area for development due to its location. 2. Does not agree to have a large portion of the site earmarked for 'parks and recreation' as in the Map in 4.3	1. This is rejected in that this area has many environmental issues with the Werribee River and that adequate land supply already exists in the west and south. 2. There was desire within the community for a riverside connection. Although this site was 'outside' the structure plan boundary there is some merit in considering how this end could be achieved. Map 4.3 could only be achieved if the structure plan was extended and some form of rezoning / development was considered suitable in the future, which would be in line with the submission. It would allow the extension of public access to the river and mirror the development edge to the south of Inglis Street. The land is screened from the Ballan road by the existing Cyprus plantings and due to the topography the area is relatively screened from the eastern entry into Ballan.	Identify potential future expansion of the town subject to landscaping and other requirements. (see concept testing document)
20	John Gregurke C/o Birdlife Ballarat	The Werribee River corridor, in particular the section immediately south of the Wester Freeway, requires adequate buffer zones to ensure: Å Preservation of landscape values of the Werribee River valley. Å Protect and enhance the biodiversity values of the River corridor. Å Provide habitat for iconic species such as Platypus and threatened species including Latham's Snipe.	The Werribee River is in an environmental significance overlay. The Structure Plan envisages public ownership and revegetation of the river corridor. Future rezoning of the Western Growth corridor would be subject to detailed flora and fauna studies.	No change

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21	Maree McNeily c/o Department of Transport, Planning and Infrastructure	1. Critical of Urban Growth to the south due to Gas Pipeline issues, connection and possible need for upgrades over train lines, possibly physically disconnect the community. 2. For the reasons described prefers the western area for any 'greenfield' development. Issues such as landscape and gateway issues can be overcome with appropriate controls. 3. Concern that any blanket Heritage Overlay or Design and Development Overlay over the township will have an impact on the ability for medium density development to occur in the core centre. 4. Any new development to have a 15 dwellings per hectare. Strongly discourages the policy of low level infill for heritage core. 5. Disagrees with rezoning north of the River Low Density Residential Zone (LDRZ) instead improve access etc for this area. 6. Agrees with an increase of shared pathways. Suggests a way finding strategy. Disagrees with the boulevard approach for new development. 7. Implementation section of the Structure Plan needs to be clearer including short term, medium term and long term planning.	1. Council is aware of all the issues of any development occurring south. For this reason any development occurring in the south requires a large development to be able to fund the needed infrastructure upgrades. 2. Council is indicating the west will supply the greenfield development in the short to medium term. The structure plan identifies issues including landscaping to be considered as part of any future rezoning proposal. 3. The proposed heritage and design controls should not prohibit medium density development. The Structure Plan encourages well designed and respectful infill development to provide a diversity of housing options. 4. Ballan is a rural service town. The changes to the residential zones indicates that the Government supports diversity of housing types. The Structure Plan envisages providing a range of housing types, character and lot sizes across the Ballan township. Ballan was subdivided into 5 main categories: Commercial Core; original town settlement; north Ballan; developing Residential 1 areas and growth areas. An approach tailored to the vision for that typology and responding to site issues was indicated in the Structure Plan and will be the basis for the application of the new zones and the exhibition of future controls. 5. A large portion of this land is zoned LDRZ already. The basis of this rezoning was not the Residential 1 Zone translation which was applied with the approval of the NPS1 scheme. The area is suited for the Neighbourhood Residential Zone with a minimum lot size trigger. The existing physical infrastructure in the area is poor and the river crossing points provide issues regarding increased density in this area. 6. The large road reserves and tree plantings are recognised as the valued character of Ballan. 7. Noted.	The final structure plan will contain the key land use directions and how they are to be implemented. Material on community consultation will from a background document.
22	Richard Biden C/o Ballan Historical Society	1. Western Growth Area site of historic homestead needs to be protected and marked with signage. 2. Appropriate buffer around historic site and river corridor. 3. More importance on the river corridor within the structure plan.	1 The historic homestead site is an archaeological area and as such is protected by the Heritage Act 1995. Heritage is one of the reports required to be prepared by a proponent prior to the consideration of a rezoning submission. 2. The need to provide a river corridor is identified as an issue to be addressed by a proponent prior to the consideration of a rezoning submission. 3. The Werribee River Corridor is a key element of the Structure Plan.	Individually identify 'Strategic Assessment Guideline' material to be provided in further letter.
23	Gavin Cerini	1. Supports John Kowarsky's submission 2. Protection of the river is required including no building on floodplain, adequate wildlife corridor and adequate frontages. 3. Use information from the 1980's Victorian State of the Rivers strategy.	1-3. The Werribee River Corridor is already protected via an Environmental Significance Overlay. The Ballan Structure Plan is a land use and development plan not a catchment plan. The Werribee River content reflects this land use focus by identifying how the riparian corridor can be protected and placed into public ownership which then allows revegetation and other processes to occur.	No change.
24	Rose De la Cruz C/o Moorabool Environment Group	1. MEG, want a sustainable future for our town. Sustainability involves environmental, social and economic sustainability. We feel the structure plan, as it reads, generally supports the aim of a sustainable future. 2. We agree the "structure plan needs to address the planning system, be fiscally achievable and be practical". We would like added that the structure plan must also reflect community values as were made clear at the 3 community consultation workshops and in written submissions. **7.1 (p/51)** **3.** We would like to read the Ballan Framework Plan as the strategy plan	2. Chapter 7 is implementation. The first line of the vision for the Ballan Structure Plan is to *guide development in Ballan it is important to have a clear idea of what the community likes about Ballan and what they want to change. The land use and development vision for Ballan has been created from the community consultation sessions and will guide all elements of the structure plan.* Chapter 1 outlined what was heard from the consultation. Chapter 2 took the key themes raised from consultation and discussed the issues around that. Chapter 4 summarises what the	The structure of the final plan will change. The initial chapters which set the scene – what the community raised in comparison to what the technical planning assessment / policy context raised. The final structure plan will minimise this content and expand on the key directions (Chapter 4 – 7) in more detail as these are the elements that underpin future changes to the planning scheme. It was important to

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		is so closely linked to this document. We want to be updated/informed and consulted re changes as time goes on. (7.2 p.51). **4.** Growth to occur in three stages and orders: 1. Infill, 2. Growth to the South of the Railway, 3. Growth to the west only after 1 & 2. 7.3 Future development proposals (p/56 -58). 5. Also we ask Council to communicate with V Line and Vic Track to discuss construction of a pedestrian and bike path or bridge across to the station. We also ask that action is taken on upgrading the road underpass. 6. Western corridor to be large lot development. 7. All housing to be 5 stars or higher, designed for solar access, mix of native and deciduous street trees, existing mature trees retained, character and heritage protected. 8. We strongly recommend Council to be careful in allowing only those developers in who will work towards the community's vision for Ballan's development ie. – residential developments that respect the natural landscape, the river and its ecological values, the heritage value of land and buildings and maintain the rural character of the town. 9. Protection of river corridor including over the brow of the hill, plantings at gateways of townships, developments with sustainable principals, buffer of 100m either side of river. 10. Wetlands created as part of any new development in the west of the river Stormwater in any development to be managed to promote healthy river ecology 11. We agree the river corridor must be deeded to public land management and riparian revegetation programs, maintenance of walking tracks etc be done in accordance with strict regulations 12. All flood plains must be left as flood plains – no development according to guidelines set out by Melbourne Water. 13. We support the ideas outlined in the strategy plan document. We believe Council could actively gain the co-operation and financial support of other organisations to help implement the plan 14. we hope and trust Council will **implement the vision** – Ballan as a "prosperous, creative and sustainable community".	community said and how the structure plan responds – or why it does not. Chapter 5 is a one page vision statement encompassing this – its first lines reinforce the concept of sustainability: *Ballan in 2026 will be a town where growth has not been at the expense of the places and character cherished by residents in 2012. The implementation of the Ballan Structure Plan will create the physical environment to allow Ballan to be a prosperous, creative and sustainable community.* Chapter 6 provides a snapshot of actions for each 'physical area'. 3. The Ballan Framework Plan is within the current Moorabool Planning Scheme at Clause 21.08. 4. Council cannot dictate the order of development occurring. In reality infill will occur first as the Ballan Structure Plan does not proposed to rezone either growth corridor but to identify the issues to be addressed by any proponent lead planning scheme amendment in the future. Council was aware of the preference for the southern growth corridor by those who attended the consultation. Structure Planning needs to balance community desires against orderly and proper planning concerns, which includes infrastructure provision. Council has received several submissions from servicing authorities identifying a preference for the western growth corridor. 5. There are significant costs in upgrading infrastructure. This would be required to occur as part of a development contribution from the landowners. 6. The current framework plan supports residential development in the western growth corridor. 7. These aspects are provided for in the planning system. 8. Council cannot choose who develops (anti-competitive practice). Council can use the tools within the planning system to specify how development will occur. These aspects are clearly addressed in the structure plan and are the basis of the policy and overlays proposed within the Structure Plan. 9. This is what is proposed in the structure plan. The detail for how this is to be achieved would be part of any future proponent lead amendment. 10. Stormwater management is a key element of a development plan to be prepared for any growth area post development. These issues would also be examined in less detail during the rezoning process. 11. The Structure Plan establishes this as a principle to be delivers as part of any future rezoning proposal. 12. This is a key element of the state policy and has been reflected in the structure plan.	demonstrate to the community where these directions had come from for better understanding at the consultation phase. The final structure plan was intended to a document which can be incorporated into the planning scheme.
25	Michael Boatman C/o CFA	1. Ballan is not within the BMO and not at risk from bushfires. 2. Ballan is susceptible to grassfire attack. 3. Any future development should be mindful of potential grassfire attack on the periphery. 4. CFA wishes to consider any potential increase in fire risk as a result of revegetation in the river corridor.	The CFA will be involved in all stages of the planning process.	Make reference to fire management within the structure plan.

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26	Merylin Meadows	1 Growth has been at the expense of character. When entering town from east all you see is rooves. 2 Reinforce wide streets planted with deciduous trees. No pines or conifers. 3. Council should remove all eucalypts in new development. 4. Infrastructure requires to be upgraded before anymore infill in areas such as Crook Court. 5. Hogan Road is impassable in the wet and cannot cope with additional traffic. 6. Inglis street parking should remain how it is. 7. More footpaths (especially in north Ballan) and pedestrian crossings (especially main street). 8. Street signage, information signs and lighting are needed 9. More tennis courts and a skate ramp for young people	1. At present there is limited policy or overlay controls for Ballan. The aim of the Structure Plan is to determine the suite of planning considerations required to ensure that development is in accordance with councils vision. 2.The structure plan does re-enforce the value of the autumn trees in Ballan and the concept of wide streets. 3. Native vegetation is often protected within the planning scheme. 4. Infrastructure issues are raised in the Structure Plan. Currently subdivision can occur without a holistic consideration of infrastructure. The application of a Development Plan Overlay allows for coordinated planning of infrastructure. 5. The structure plan has identified traffic capacity issues in North Ballan as a basis for applying controls to maintain a low density average development size. 6. Noted 7. Provision of paths occurs with subdivision. Council is working on a program of path connections throughout the municipality. 8. Noted 9. The Ballan Structure Plan is predominantly a land use and development plan. New development makes provision for open space. Council's recreation plan determines which specific active open space assets may be provided.	No change.
27	Mike Kearny C/o Melbourne Water	1. Werribee River to be the 'heart and lungs' of the township 2. Open space strategy to connect township with the river 3. Opportunities for widening of the corridor and shared pathways along the river 4. Additional land may need to be set aside for stormwater treatment. 5. Incorporate WSUD into the Structure Plan in various areas. 6. Reference documents should be followed such as the Draft Healthy Waterways Strategy in managing the Werribee River.	1. It will be recommended for limited growth in the west only and to expand the southern corridor for longer term growth. 2. WSUD to be included in any Development Plan Overlays (DPO's) for new growth. 3. WSUD is part of the planning permit process.	No change.
28	Stephanie Day	1. Higher density to eliminate need for greenfield sites 2. No community facilities planned in growth areas 3. Extra traffic with growth areas 4. Railway hub should be a focus of the structure plan 5. Werribee River corridor is important	1. For there to be no 'greenfield' development high density (multi storey) development would be required. 2. Growth areas need to undergo detailed studies and a rezoning process, including development contributions. This is the stage where community facilities are determined. 3. Ballan, in most areas, has a capacity for increased growth, especially along the former highway. Traffic studies are part of both the planning scheme amendment process (future rezoning of growth corridors) and the subdivision permit process (zoned land). 4. The opportunities as well as the constraints relating to development around the railway have been identified in the plan. 5. The structure plan acknowledges the importance of the river corridor.	Greater detail on the design and development overlay to encourage development on strategic infill sites will be included in the final structure plan.
29	Anna Foley C/o National Trust	1. Supports the Design and Development Overlay to protect the heritage character of the township while allowing infill development. 2. Protection of the landscape values of the Werribee River corridor through the application of a Significant Landscape Overlay along the river and banks overlapping the ESO2.	1. The proposed DDO's will remain a recommendation of the Structure Plan. 2. Protection of the river corridor is proposed in the form of an SLO could be investigated at a later stage. The SWLS did not identify the site as a key landscape.	No change.

No	Name	Issues	Response	Recommended Change to the Plan
30	Angela and Frank Kearns	1. Supports growth to the south 2. Limited growth to the north west as getting far from services 3. Secondary School for the township 4. More than 100 metres buffer from homes and river 5. Windfarm in near vicinity to the south of Ballan may impact desire for growth in the south as main street is only 3.5kms from nearest turbine. 6. Possible health affects for development to the south as getting closer to the wind farm.	1 & 2. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process. 3. The Secondary School is an issue for DEECD. 4. The exact width of any 'river corridor' would be determined during the planning scheme amendment process. 5. The impact of the Windfarm is minor as only one small portion of the southern growth area will be within the current 2km exclusion zone for wind turbines. This will be mentioned in the southern growth area as an issue.	No change.
31	Sheryl Fry	1. The area north of the river should remain residential 1 zone as there are existing small blocks and people planned to develop in the future.	1. The land north of the river is not seen as an infill area within the Ballan Framework plan or the Draft Structure Plan and further development is not encouraged.	No change.
32	Neil Repacholi C/o Murray Goulbourn Water	1. No objection to the Ballan Structure Plan	No response required	No change.
33	Amber Durante President ASD	1. The Structure plan should advocate for a secondary school within Ballan.	1. This is not a local government planning issue. DEECD is the appropriate agency. The growth area population trigger is a population of 10,000.	No change.
34	Matthew Gliberston C/o Glossop Planning	1. It is clear from our reading of the Ballan Structure Plan that the Moorabool Shire Council has thoroughly contemplated how new growth should be accommodated, both in terms of infill development and the consideration of new growth areas. 2 We are concerned that the Council has privileged the Southern Growth Corridor as the preferred location for growth because of its proximity to the railway line and commercial core of the Ballan Township, despite the Structure Plan identifying that: Å Infrastructure and servicing costs may make [the Southern Growth Corridor] economically unviable Å in the shorter term *(page 45).* Å The Southern Growth Corridor has a number of constraints that will inhibit it being successfully developed in the short to medium term *(page 45).* Å Previous reports have identified that providing sewerage to the area to the south of Ballan is likely to incur additional costs and the provision of hard infrastructure such as a pumping station *(page 49).* 2. The southern growth area as indicated by the BSP will be difficult to service and will require major upgrades of existing systems as well as new infrastructure. 2. New infrastructure will be difficult to finance if there is a number of small developments. 3. The western growth area as indicated by the BSP requires little infrastructure and is the easiest to service.	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process. 2. Council is aware of the significant challenges regarding infrastructure in the Southern Corridor. Many submitters during the process and in response to the draft have been vocal regarding the need to promote the southern corridor and to remove the western corridor. Council has not 'privileged' the Southern Growth Corridor.	No change.

No	Name	Issues	Response	Recommended Change to the Plan
35	Vicki Buchannan & Richard Wiebush	1. Growth needs to occur in the south not the west as the community want it this way 2. Developers are pushing the west growth area not the community 3. River corridor needs to be protected including the escarpment above the river	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process. 2. The Structure Plan clearly address the escarpment / river corridor issue. The detail of this would be in a development plan overlay at the planning scheme amendment stage.	No change.
36	Geoff Brook c/o Department of Environment and Primary Industries	1. An endangered EVC exists in the Western Growth Corridor in the north near the river and freeway. This must be protected with any development plans.	1. This area is already covered by a ESO. Flora and fauna studies would be requires as part of any future rezoning process.	No change.
37	Caroyln Francis c/o EPA	1. No objection to the Ballan Structure Plan	1. No response required.	No change.
38	Lorraine Tipple	1. Was told that the drainage is so bad south of the Railway by the Shires Engineer 10 years ago that no further residential growth would occur south of the railway. 2. Growth to the south would impact wetlands and flows into Werribee River 3. Infrastructure such as electricity, gas, sewage and internet are not serviced south of the railway 4. Development to the South would destroy the 'rural' feel of Ballan 5. Residential growth would comprise the rural activity undertaken on the land. 6. Parking should remain in the main street as it exists now. 7. Truck bypass for the town. 8. A vacant piece of land opposite the Mechanics Hall would be a great place for a town square 9. More parkland between football oval and Inglis street as none exists. 10. Aldi would be good in town. 11. Protection of historic buildings and the rural urban form - no subdivision of existing town blocks. 12. Protection of Autumnal trees 13. Ensure any development from the south is not impacted by Windfarms.	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process. 2. Protection of the historic buildings is an objective of the structure plan. 3. The structure plan envisages open space provision.	The LPPF guidance section should be strengthened to discussion locational attributes for a town square and how this may be achieved through development within the commercial centre.

No	Name	Issues	Response	Recommended Change to the Plan
39	Janine Mitchell (verbally informed now in support)	1. In consultation with the Draft Ballan Structure Plan it was promised that the land to the west was not going to be developed now we see in the structure plan it is.2. Opposed strongly to rezoning land in the Western Growth Corridor due to environmental issues, impacts on 400 Old Melbourne road and its heritage trees and landscape values3. Southern Corridor should be the only growth area for a number of reasons with the major ones being no environmental constraints and proximity to the railway station.4. Protection of Heritage Sites within Ballan is needed5. Map shows pedestrain link through private property at 400 Old Melbourne Road. No consultation about this.6. More justification needed why land needs to be rezoned in the future at all.7. No consultation on the impact of 400 old melbourne road being part of a growth region.	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process 2. The river corridor is currently protected by an ESO. 3. Council has received funding to commence the West Moorabool Heritage Study Stage 2. 4. The structure plan identifies strategic linkages. These can be provided as a response to development of land, or if critical, via acquisition of land. 5. 400 Old Melbourne is part of the Western Growth Corridor.	No change.
40	Bernard Reimert	1. The Structure Plan fails to include the greater southern area within the growth corridor. Could be seen to be biased to development to the west. 2. Character of Ballan must be protected including the river corridor, large open streets, autumn trees and historic buildings. 3. The Structure Plan ignores many existing developments in the town that increase house numbers including the approved residential village. 4. The western growth corridor is not within walking distance of the township or train station. 5. More services need to be provided to the township. 6. The Western Growth Corridor should not be rezoned Residential 1 Zone as it has landscape values and heritage and environment issues. It can be developed currently under Rural Living Zone and this is the appropriate zone for the area. 7. Medium Density housing should be directed to the centre of the township only.	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process 2. Ballan has been identified for major growth in both the Central Highlands Regional Growth Plan and Plan Melbourne. A key role of the structure plan is to identify how this can occur without losing the character and charm of Ballan. 3. The Structure Plan does suggest medium density residential opportunities in the central Ballan area.	No change.
41	Marc Amos C/o Regional Devleopment Victoria	1. The Structure Plan needs to be very clear in what direction the town is growing. 2. Needs to cater for medium to long term growth of Ballan 3. The findings of the initial consultation could be attached as an appendix rather than a major part of the plan. 4. More implementation actions are required in the final plan.	1. The structure plan will identify both the southern and western growth corridors. 2. The plan caters for the medium and long term growth of Ballan through infill development and provision of 2 future growth corridors. 3. The final structure plan was always envisaged as being a statutory focused document that could be incorporated into the planning scheme.	No major change to content. The document was designed so that Chapters 1 to 4 could be a background document (summary of background work) and the directions in Chapter 5 and 6 be confirmed (or altered) so that the final Structure Plan would be a vision, an area by area description of what is to be achieved and a suite of controls to deliver the outcome (or stage 1 of)
42	Gerry Clarke C/o Pocket Books	1. Future residential development should occur to the south not west as it is closer to railway station and services. 2. Well designed medium density could be developed close to the railway station with Dome house as inspiration. 3. Beerwah on the Sunshine Coast is an example of a similar situation where the council rezoned land for medium to high density residential on vacant land adjacent to the railway station.	1. Both growth corridors will be required in the longer term. Sequence of development will depend on proponents addressing the identified strategic and infrastructure issues to support a planning scheme amendment process 2. Medium density residential development and possible commercial development around the train station in the future is considered.	Strengthen content on medium density development sites within the town core.

No	Name	Issues	Response	Recommended Change to the Plan
43	Andrew Howard Smith	1.Plan must include a suitable allotment of land for a secondary school. 2. Smaller towns have a secondary college so plan should not discount it.	1. The state is the responsible body for identification of secondary education. Council has not been notified by DEECD of the need to identify a site for this purpose Identification of a site on a plan will not ensure that a high school will occur. The identification of a site can trigger acquisition processes and therefore requires approval of the acquiring body.	No change.
2d	John Kowarsky	There does not seem to be any support in the structure plan for pedestrian crossing at the Railway station. The Ballan Structure Plan does not take into account views and vistas. The north west area of the town should provide rural ambience.	The Ballan Structure Plan was based upon these background reports and many others. The Structure Plan needs to balance a range of competing issues. The BSP identifies a series of points for crossing upgrades if development in the southern corridor is to occur. Any crossing upgrade would include pedestrian access. The views and vistas plan relates predominantly to landscape and other treatment. The river corridor, as identified in the viewshed report is included in the parameters for any future western corridor. The wider viewshed proposed is not supported. There is no "right" to a view and the structure plan is attempting to keep key corridor vistas and to provide landscape character in new development areas. The Western Corridor is identified in the Moorabool Planning Scheme as the next area for residential growth. To achieve rezoning a range of technical studies are required but the process does not guarantee a built form outcome. The Ballan Structure Plan aims to demonstrate the outcome that is expected for this land – including the protection and revegetation of the river corridor and landscape treatments.	No change.
2e	John Kowarsky	A response on the themes of Submission 44 based on a rezoning proposal which is not part of the Ballan Structure Plan.	See above.	No change.

Attachment - Item 10.2.5(b)

21.08 BALLAN

26/02/2009
C34

21.08-1 Key Issues and Influences

26/02/2009
C34

Ballan is the second largest town within the Shire. Sustained growth has seen Ballan double in size in the last fifteen years. While the Werribee River physically divides the town it is a key environmental and recreational linkage to be enhanced. Long term residents and new residents value the heritage streetscapes of Ballan; the visual dominance of autumnal species in both the public and private realm and the easy access to a range of commercial health, education, community and retail facilities.

Ballan is located on the Ballarat to Melbourne road and rail corridor which provides easy commutability to employment within this corridor. The retail, local government, health, education and industrial sectors provide local employment opportunities.

Ballan's role as a key town within the periurban area was identified in the Central Highlands Regional Growth Plan. Its role is seen as:

- Providing services to the wider community
- Supporting residential growth that respects rural character and environmental attributes
- Providing employment opportunities.

The CHRGP recognises that "*a key attribute of the town is its strong historical and village character within a rural setting and environmentally sensitive location.*" The Ballan Structure Plan is the key document to identify:

- How Ballan's growth will be managed to protect and promote its character;
- How infill development will be supported in the town centre;
- The location of future residential and industrial zones;
- Opportunities for new retail and office uses within the existing commercial centre of town;
- Streetscape, open space; infrastructure and trail improvement opportunities.

The character and issues within Ballan vary by key areas. The Ballan Structure Plan provides greater detail on these areas.

- The Werribee River Corridor – ensure transfer of the corridor for passive recreation as part of any future development;
- Commercial area – encourage consolidation of underutilised land for future retail office development which respects the historic character. Support expansion of the health sector.
- Residential land north of the Werribee River – recognise and reinforce low density nature of development.
- Traditional housing within the historic town core – encourage sensitive infill which respects the single storey, minimal setback (wide street) with canopy tree character.
- Post WWII housing estates to the east and west of the historic town core – encourage co-ordinated resubdivision and development that improves transport and pedestrian linkages.

Areas of Ballan have physical infrastructure constraints such as river or rail crossings and drainage. Some areas are less suited to the provision of reticulated services Future growth

DRAFT

and development needs to be cognisant of these constraints and the likely timelines or ability for these issues to be resolved.

21.08-2 Objective—Infill Development in the township core

26/02/2009
C34

Strategies

21.08-3 Objective—Town Centre

26/02/2009
C34

To provide for new commercial and community facility opportunities within the town centre that reinforce its historic character;

To plan for a public realm that enhances the treed historic township character of Ballan and reflects its cultural identity.

To provide new meeting space and linkage opportunities in the town centre.

Strategies

- Provide for managed growth of the Ballan Hospital through the utilisation of public land.
- Support para medical facilities within the town core
- To encourage relocation of non commercial activities from the town centre to allow for larger format retail development with linkages to the main street and opportunities for town space.
- To undertake public realm improvements which reinforce Ballan's historic town character.
- To implement autumnal street street planting which minimise conflict with infrastructure.
- To improve pedestrian and cycle connections to the town centre to key community facilities and residential areas.

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Above: Encourage transition to commercial uses and consolidated holdings.

21.08-4 Objective—Future residential areas

26/02/2009
C34

To identify short, medium and long term residential growth options for Ballan.

To ensure that planning for new growth areas considers local infrastructure needs, responds to environmental and cultural issues and enhances the treed historic town character of Ballan.

Strategies

- Provide for managed and staged residential growth in Ballan, as indicated in the Ballan Framework Plan; which:

- Identifies the Western Corridor as Urban Growth Zone requiring the preparation of an Urban Growth Plan;
- Provides strategic support for rezoning of an infill site to the east of Ballan;
- Supports planning for the long term extent of the southern growth corridor.
- Encourages infill on strategic development sites;
- Identifies opportunities for infill development (all access) in identified areas close to the commercial centre and hospital;
- Applies a range of minima throughout Ballan to respect historic character and reflect walkability to services.
- Supports the maintenance of a low density development in North Ballan

- Protect the urban and landscape elements that contribute to the township's heritage and rural character.

21.08-5 Objective—North Ballan

26/02/2009
C34

To reinforce the rural / low density residential character of Ballan North.

To ensure development does not exceed the design capacity of physical infrastructure.

Strategies

21.08-6 Objective—Infill Development

26/02/2009
C34

Strategies

21.08-7 Objective—Resubivision areas

26/02/2009
C34

Strategies

21.08-8 Objective—Industrial development

26/02/2009
C34

Strategies

21.08-3 Objective—Housing

26/02/2009
C34

To provide diversity in housing that is in character with the township and provides for continued growth of the town as a regional centre.

Strategies

- Encourage re-subdivision of large lots including limited well designed medium-density development within 500 metres of the town centre and railway station.

21.08-4 Implementation

26/02/2009
C34

Zones and Overlays

Specific application of zones and overlays to achieve the strategic objectives includes:

- Applying the Public Acquisition Overlay to land west of the Ballan Recreation Reserve.
- Applying the Urban Growth Zone to the western growth corridor.
- Applying the General Residential Zone ** to land near the commercial centre and ***
- Applying the General Residential Zone *** to land where resubdivision should provide connection to adjoining developments / future developments
- Applying the Neighbourhood Residential Zone * to strategic unit development close to the hospital;
- Applying the Neighbourhood Residential Zone ** to land in the town core to maintain the treed character of the area;

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- Applying the Neighbourhood Residential Zone *** to land in the town core with heritage character and to areas in the south east to maintain the historic streetscape character of the area;
- Applying the Neighbourhood Residential Zone **** to newer subdivisions to the east of the town centre to enhance the existing character.
- Applying the Neighbourhood Residential Zone ***** to newer subdivisions in the North Ballan to reflect the existing character of the area including rural infrastructure provision.
- Applying the Neighbourhood Residential Zone ****** developed areas within North Ballan to maintain the existing low density residential character.
- Applying Development Plan Overlays to General Residential Zoned land which is able to be resubdivided to ensure connections between separate land holdings.
- Applying a Design and Development Overlay to the historic town core;
- Applying a Design and Development Overlay to the commercial area to allow for redevelopment which reinforces the character of the centre; encourages integration between areas and provides opportunities for community space.
- Applying a Design and Development Overlay to land adjoining the Industrial Zone.
- Amending the schedule to the Low Density Residential Zone to restore the 0.4ha minima

Introducing a schedule to Clause 52.01 to plan for the provision of open space.

Further Strategic Work

- Prepare and implement a street tree plan for Ballan.
- Prepare and implement a place making program for the commercial area of Ballan.
- Complete and implement the findings of the West Moorabool Heritage Study Part 2a.
- Drainage study

DRAFT

Ballan Framework Plan

Attachment - Item 10.2.5(c)

Ballan
STRUCTURE PLAN

Moorabool Shire Council
2015

0.1
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Above, Ballan's Main Street.

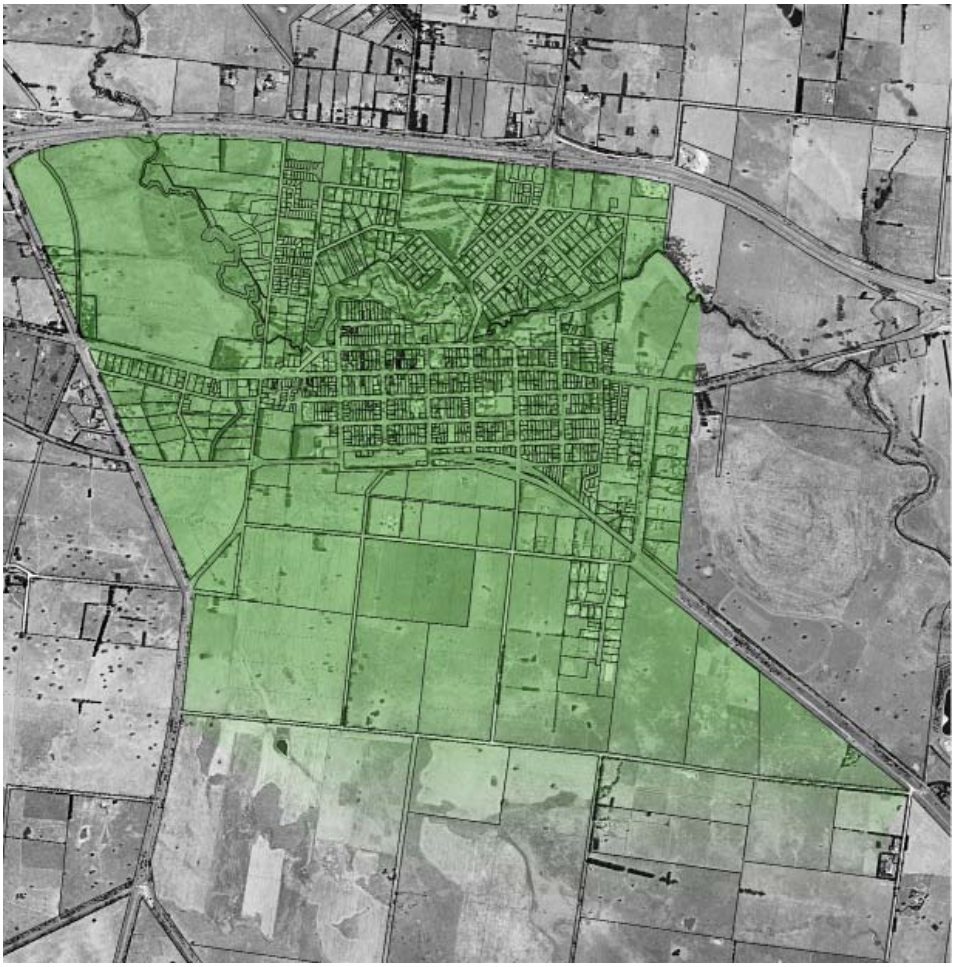
1.1
INTRODUCTION

The purpose of the Ballan Structure Plan is to provide a strategic and integrated framework for the future development of the Ballan township and surrounds. The Structure Plan applies to both existing urban zoned land and to the location and documentation requirements of future urban land.

The Structure Plan is based on community consultation and the range of considerations outlined within the Moorabool Planning Scheme. The exhibition draft includes information the consultation process and how it has informed the document.

1.2
LAND TO WHICH THE STRUCTURE PLAN APPLIES

The Structure Plan applies to land shown in Figure 1.



Above, The study area

1.3
IMPLEMENTATION

The Structure Plan will be implemented by:

- Development proponents who develop land within Ballan
- Government agencies and Council in delivering and managing a range of infrastructure and services and in developing streetscape and tree planting policy.
- Non government service providers;
- Changes to the Moorabool Planning Scheme including;
- revision of the Ballan Framework Plan in the Municipal Strategic Statement;
- the implementation of the new residential zones in Ballan;
- the application of new Design and Development and Development Plan Overlays; and
- identify the work required by proponents to rezone land for urban purposes in the future.

2.1
REGIONAL CONTEXT

Ballan is the second largest urban settlement within Moorabool Shire. It is located 78 kilometres north west of Melbourne on the Western Freeway and Melbourne – Ararat train line. It had an enumerated population of 2008 at the 2011 census and is expected to grow by 350-750 people in the life of the structure plan. Ballan provides a range of education, health and retail services to West Moorabool.
Ballan is a traditional rural service centre town located within the periurban areas between Melbourne and Ballarat. Ballan has been experiencing steady growth which is perceived by the community as having an impact on the 'rural character' of Ballan.

Ballan's location adjacent to the Western Freeway and on the Melbourne- Ballarat railway line, and its good access to higher order services and employment in Bacchus Marsh, Ballarat and Melbourne, means it will most likely continue to attract steady growth. It is anticipated development pressure on the town will increase in the long term, when residential development opportunities become scarce in Bacchus Marsh. Additional infrastructure will be required to service any future growth.

CENTRAL HIGHLANDS REGIONAL GROWTH PLAN

Community consultation in preparing the Ballan Structure Plan raised many issues which stem from the application of standard zones without local policy or overlay to specify the strategic objective to be delivered. The Ballan Structure Plan forms the basis to ensure the appropriate suite of controls can be applied to ensure that as Ballan grows it retains its historic character as expressed in the Central Highlands Regional Growth Plan.

The Central Highlands Regional Growth Plan recommends the following:

- Support Ballan as a town providing services consistent with its role in the peri-urban region
- Support residential growth that respects the surrounding rural character and environmental attributes
- Encourage local employment opportunities Ballan is strategically located between Bacchus Marsh and Ballarat in the heart of the peri-urban part of the Central Highlands region.
- further residential land supply should be considered to the west or south of the town. Additional infrastructure will be required to service any future growth.

It acknowledges that:

> *"A key attribute of the town is its strong historical and village character within a rural setting and environmentally sensitive landscape. Given the pressures for growth in areas closer to metropolitan Melbourne, it will be important to make sure Ballan's growth is carefully managed and planned for to protect and promote its valued character. A structure plan process will help guide preferred locations for future development and should be focused within a designated urban boundary. Employment opportunities should be encouraged to reduce the need to commute and should be directed towards either the town centre or the industrial estate in the short to medium term."*

The Ballan Structure Plan achieves the following Land use policies, strategies and actions:

- Finalise and impliment a structure plan to identify preferred locations for growth in Ballan.
- Focus residential development within the town boundary ove rthe short-to-medium term.
- Provide appropriate policy to support and provisions in the planning scheme to protect residential character and landscapes.
- Retain and enhance services and facilities appropriate to servicing the local community.

2.2
SITE ANALYSIS & DEMOGRAPHY

Ballan has an undulating topography which is bisected by the Werribee River. Land on the northern banks of the river is generally elevated above the river, whilst land on the south bank is generally flood plain to the river and utilised for passive and active open space. The traditional town centre is characterised by wide tree lined streets which are key to the character of Ballan by Melbourne Water.

Existing drainage is relatively poor and flood mapping is being prepared for Ballan. Discharge of urban stormwater will need to be treated through Water Sensitive Urban Design measures.

Main movement networks are well designed and have capacity for growth. The internal movement network north of the Werribee River is limited. Subdivision and resubdivision of land needs to carefully consider the quality of the existing movement network as well as the connectivity of the new internal network provided, where appropriate.

HOW MANY PEOPLE WILL LIVE IN BALLAN?

The population of the Ballan township, as at 2011, is estimated as 2,052 persons. The wider Ballan area which includes the nearby rural residential estates is estimated at 2,744 persons in 2011. This is up 467 persons as at 2006. Ballan has experienced generally solid growth over the last 30 years, except for the period between 2001 and 2006 where it remained relatively constant, as shown in the accompanying table. It might be reasonably assumed that this overall growth rate would continue into the future. Indeed, with the further expansion of Melbourne and Ballarat, and with improved transport links, it could also be assumed that the pressure for population growth would actually increase, as compared to historical records.

Ballan Township Population Estimates

Year	Population (1)	Five Year Period	Population Growth	% Growth Per Annum
1981	689			
1986	857	1981-86	168	4.5%
1991	1184	1986-91	327	6.7%
1996	1448	1991-96	264	4.1%
2001	1756	1996-01	308	3.9%
2006	1770	2001-06	14	0.2%
2011(2)	2052	2006-11	282	3.0%
		Average	227	3.7%

Source:
(1) 1981-2006 figure - DPCD, Towns in Time, 2008,
(2) ABS Census 2011

Population growth rates tend to vary, however, and generally can be difficult to predict. Given the strong population growth rates over the last 30 years, it might be reasonable to consider a range of scenarios, namely 2.7%, 3.7% and 4.7%. These scenarios are roughly based around a 1.0% variation on the 30 year average. Applying the range of annual population growth rates to a 15 year planning horizon – from 2011 the Census estimate - provides the following projections:

Scenario A

4.7% per annum over the 15 years, would mean Ballan Township would have a population of approximately 4,090 persons by 2026. This is represents around an extra 2,000 persons.

Scenario B
3.7% per annum over the 15 years, would mean Ballan Township would have a population of approximately 3,540 persons by 2026. This is represents around an extra 1,500 persons.

Scenario C
2.7% per annum over the 15 years, would mean Ballan Township would have a population of approximately 3,060 persons by 2026. This is represents around an extra 1,010 persons.

Scenarios A, B and C are calculated on percentage growth terms. When converting these figures to Census period averages it equates to approximately 680 persons, 500 persons and 340 persons each five year period for scenarios A, B and C, respectively. Given that these numbers are relatively high in historical terms there is also value in developing a scenario based around historical average numbers, rather than historical average percentages.

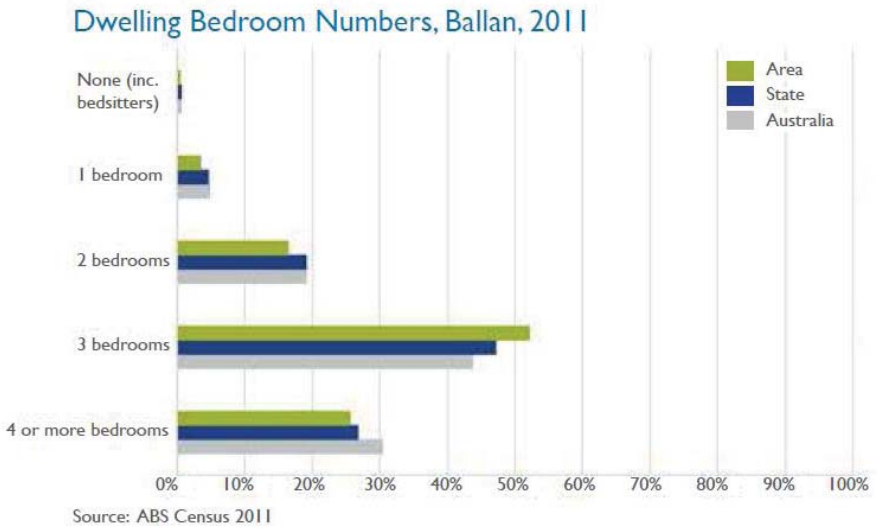
WHAT AGE WILL THE RESIDENTS BE?

As at 2011, in Ballan there were 18.1% of the population, or 372 persons, were aged 65 years or over. This compares to 12.9% for Moorabool Shire as a whole and 14.2% for Victoria. If this proportion remains constant then there would be approximately 500 persons (Scenario D) to 740 persons (Scenario A) aged 65 years and over in Ballan by 2026. However, the overall Australian population is aging as the 'baby boomer' generation is reaching retirement age and as people are living longer. It might be assumed that the proportion of persons aged over 65 years my increase into the future.

The percentage of persons aged less than 15 years in Ballan, at 20.5%, is slightly less than the Moorabool percentage at 21.0% but higher than that for the State as a whole at 18.6%, respectively. If this proportion remains constant then by 2026 there would be approximately 840 persons (Scenario D) to 570 persons (Scenario A) in this age group by 2026, up from 420 persons as at 2011.
In 2011, 217 people or 10% per cent of the population lived in a single person household and 218 people live in a couple only household.
Despite the number of small households 81% of the housing stock in Ballan has 3 or more bedrooms, as outlined in the table below.

WHAT HOUSING STOCK WILL BE REQUIRED?

In 2011, 217 people or 10% per cent of the population lived in a single person household and 218 people live in a couple only household.
Despite the number of small households 81% of the housing stock in Ballan has 3 or more bedrooms, as outlined in the table below.



Source: ABS Census 2011

The average household size has been steadily decreasing in Ballan, mirroring what has happened across Moorabool Shire and the State as a whole. This means that even if the population was stable, additional dwelling units would be required for the same population. This also demonstrates that while there will still be demand for 'family' housing, the decrease in household Size, the increase in the average age of the population and the growing number of single person and couple only households will see a demand for well-located and accessible 1-2 bedroom dwellings.

As at 2011, there were 871 dwellings in Ballan, of which 785 were occupied and 86 vacant. The average household size per occupied dwelling was 2.6 persons per dwellings. In 2008, ID consulting undertook household projections for Moorabool Shire Council. For Ballan, ID consulting estimated that the average household size would continue to decline over the next 20 to 30 years, in line with what has been happening in the Shire and State as a whole. Based on ID consulting estimated rate of decline, and the 2011 Census results, this would mean that the average household size in Ballan would be 2.38 persons per dwelling by 2026.

As at the 2011 Census 9.9% of all dwellings in the Ballan township were vacant. This is consistent with the vacancy rate across the Shire, also at 9.9% and across the State, at 11.7%, respectively. It is projected that there would be no change in the percentage of vacant dwellings, remaining at around 9.9%. Based on the projected population increase as outlined in Scenarios A, B, C and D, the average dwelling occupancy rate of 2.38 persons per household, and a 9.9% dwelling vacancy rate, the additional dwellings required, as at 2026 will be between around 420 dwellings (Scenario D) and 1,040 dwellings (Scenario A). Based on the same assumptions In the short term, over the next 5 years, it is projected that 140 lots (Scenario D) to 340 lots (Scenario A) will be required.

Ballan Projected Dwelling Numbers 2026, by Scenario

Scenario	Population Total Dwellings 2026	Existing Dwelling 2011	Projected New Dewllings required by 2026
A	1,907	871	1,036
B	1,650	871	779
C	1,427	871	556
D	1,287	871	416

Source: Moorabool Shire Council, 2013

The structure plan will be able to meet the projected demand for an additional 350 dwellings. It aims to ensure that new housing stock provides greater housing choice by encouraging:

Infill

As the population ages there will be demand for low maintenance housing close to shops and services. Planning to ensure this development can occur to both need the accessibility requirements of an aging population and by sympathetic to the character of Ballan.

As the number of lone and two people houses increase and as the population ages Ballan in 2027 should provide opportunities for people to live within an easy walk of the shops and trains. Central housing will be respectful to the character of Ballan but will have a wider range of 1 and 2 bedroom dwellings, many of which are single storey without steps or have a bedroom and bathroom on ground level.

Growth Corridors

Based on the projected lot yields and an average household size of 2.37 people it is likely that new residential land will be required in the medium to long term. In the longer term it is likely that both the western and southern corridor will be required as greenfield options in Bacchus Marsh become scarce. The Structure Plan needs to ensure that the ability of these areas to be urban in the future is not compromised.

The Urban Growth Zone should be applied to the western growth corridor. This would allow the preparation of Precinct Structure Plans to guide future development.

Above, Urban growth areas.

Town centre

The town centre is zoned Commercial 1 and there is an industrial estate in the south east of Ballan. All residential land is currently zoned General Residential Zone however there are distinct areas within Ballan that will be reflected in schedules to the new residential zone.

Existing overlays include:

- Environment significance overlay schedule 1: proclaimed water supply catchment – applies to whole structure plan area;
- Environment significance overlay schedule 2: Werribee River Corridor – applies to 200m corridor along the course of the Werribee River;
- Heritage Overlay – applies to individual sites however the West Moorabool Heritage Study Stage 1 identified a precinct and many additional sites which are currently being documented.
- Design and Development Overlay Schedule 2: requires the use of non reflective material in non urban zoned land.
- Design and Development Overlay Schedule 3: requires the utilisation of noise mitigation in areas adjoining the Western Freeway.

Above, The former Ballan Hotel.

2.3
FORM AND CHARACTER OF FUTURE DEVELOPMENT AS EXPRESSED BY COMMUNITY

- Ballan is characterised by deciduous trees and wide streets.
- The landscape features and rural vistas of Ballan are important
- We recognise the importance of our past, and are keen to embrace our future.
- Our proximity to Melbourne and to Ballarat, particularly by rail, is a very valuable part of our town, and adds significantly to the liveability of Ballan and district.
- Upgrade and protect the environs of the Werribee River corridor and its tributaries.
- Make better use of the Werribee River – walking trails, cycle paths and interpretative signage.
- New housing has not been in keeping with the town character and village feel.
- The low rise form, single storey scale of the residential dwellings is valued.
- Manage growth so that it provides facilities like schools and sporting grounds.
- Improve the streetscape amenity, especially in the shopping centre and surrounding residential areas.
- Physical infrastructure to keep pace with new development.
- Footpaths should be well maintained and be accessible to all.
- Ballan needs a town square.
- Heritage streetscapes (currently being documented)
- Well serviced by community facilities but with opportunity to enhance the library and secondary education.

Above, The autumn festival

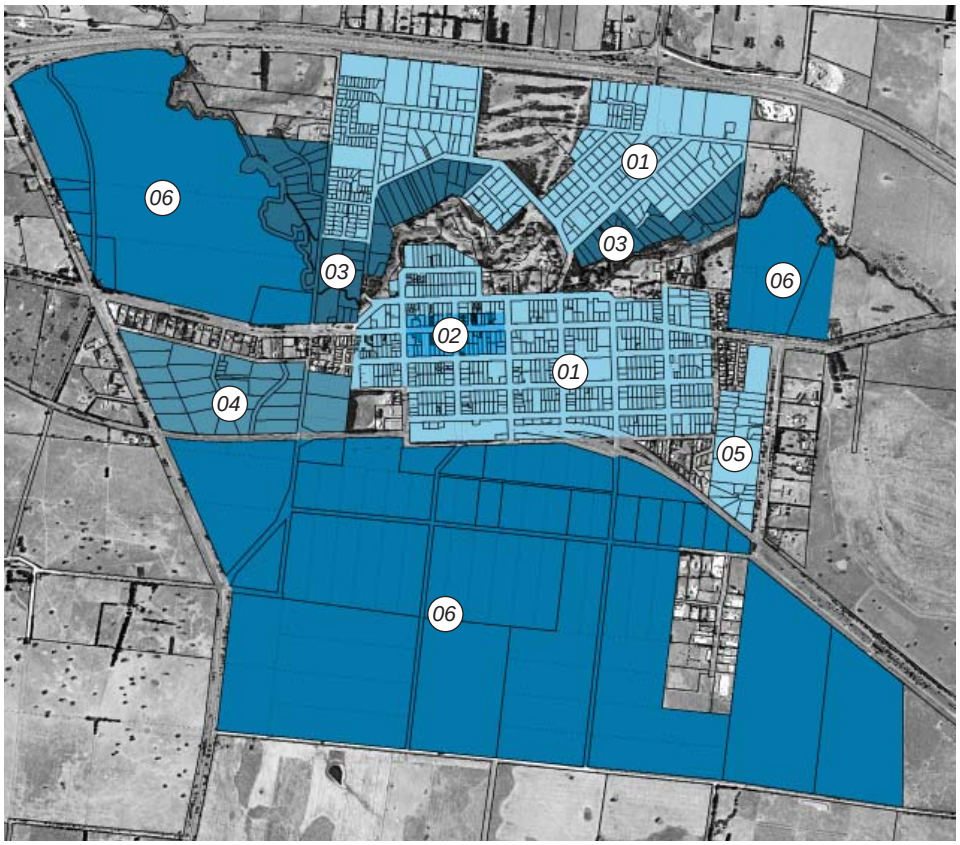
2.4
IMPLEMENTATION

The Ballan Structure Plan will be implemented via a planning scheme amendment to:

- Apply the Urban Growth zone to the western growth corridor
- Apply the heritage overlay to sites identified in the west Moorabool Heritage Study Stage 2a (upon completion)
- amend the Ballan Framework Plan to provide guidance for future development in the town centre and support for allied facilities such as the Hospital.
- review the application of the new residential zones
- introduce a local policy to guide street width and planting
- introduce a Design and Development Overlay for the town centre
- Introduce a Design and Development Overlay on the commercial area of the township
- Introduce a Design and Development Overlay for key infill development sites.

Further strategic work

- Development of a streetscape program for Inglis Street.
- Development of a street tree planting guide.
- Completion and implementation of West Moorabool Heritage Study Stage 2a.



01 Neighborhood residential
02 Design Development Overlay - Town Center
03 Low Density Residential
04 General residential
05 Neighborhood Residential (Poor Conectivity)
06 Future urban development

3.1
VISION

To ensure that as Ballan develops its retains its character it is important to understand what the community likes about Ballan, what they want to change and what facilities they may desire in the future.

The land use and development vision for Ballan has been created from the community consultation sessions and will guide all elements of the structure plan.

Ballan in 2031 will be used to demonstrate a town where growth has not been at the expense of the places and character cherished by its residents in 2015."

The implementation of the Ballan Structure Plan will create the physical environment to allow Ballan to be a prosperous, creative and sustainable community. Development of Ballan we be respectful to and celebrate its unique character by consolidating the autumnal rural village with a core urban form.

Despite growth in its population Ballan will maintain its nature as a connected community centred on a heritage town centre and the environmental corridor of the Werribee River.
Ballan is a pedestrian friendly town of 4,000 people with Fisken Street as the cultural, social and retail focus for the community. Despite population growth Ballan has maintained and reinforced its predominant character as a town with wide, tree lined and interconnected streets.

Developer contributions from growth have improved provision of physical and social infrastructure.
The town centre has maintained its zero lot line form and new development has created a thriving activity centre offering commercial, medical, retail and community services to the local community.

Development has allowed for a town square which is a focal point for the community celebrations and markets which have made Ballan a popular destination to visit. The town centre has many opportunities for people to meet, interact and rest. These areas feature function and creatively interesting street furniture and interpretative information.

Infill development within the town centre has provided well designed and accessible accommodation in walking distance to the train, shops and hospital. Ballan residents are able to age in their community and new families are enjoying the community, recreational and employment opportunities within Ballan.

New residential estates provide a connected grid of wide, tree lined streets, reinforcing the predominant character of Ballan. Local open space is provided in growth areas, and residents utilise bike / pedestrian paths to easily and safely access central retail, recreational, social and transport services.

The spaciousness of lots north of the river have been maintained, providing a range of housing styles and opportunities for the diverse community.

The Werribee River between the freeway and Inglis Street has been revegetated and creates a green spine for habitat. Linkages utilise the river corridor and feed into the grid network of the town centre.

4.0
DEVELOPMENT ISSUES GUIDING THE STRUCTURE PLAN

Five key development issues have been identified which underpin the Structure Plan. How these issues inter-relate determines physical areas for planning scheme control or policy guidance.

The key issues are:

- Character;
- Connectivity;
- Commerce;
- Conservation; and
- Future Urban Development

4.1
CHARACTER

Character is the interplay of elements that make each town unique. It is often about what we love and want to protect, or what we dislike and want to avoid or remediate – the preferred future character. The valued character of Ballan from consultation was "a rural feel with a creative edge".

Above, A typical Ballan Street.

The elements of Ballan that give it a "rural feel" or a "creative edge" are:

- Autumnal vegetation
- Wide streets with established trees
- Small scale dwellings, often with minimal setback (the street width gives a sense of space) and often with large back yards
- Rural views and spaces, including the Werribee River Corridor
- Cultural activities often centred around the Mechanics Institute
- Participation in community events and festivals
- Cultural expression - for example the mosaic fence.

There is growing concern in the community that some of the new housing is not in keeping with the towns character and village feel - it is seen as being too suburban with narrow streets on subdivisions that are too homogenous and do not reflect the differing needs of residents.

The community and stakeholders recognise and accept that growth has to occur in Ballan. They are also accepting of higher densities of development, particularly within the core of the township, providing that the design and siting of the residential and commercial buildings is thoughtful and respects the character of the town and its heritage.

Under the new residential zones in Victoria the Neighbourhood Residential Zone may be applied to 'In areas where single dwellings prevail and change is not identified, such as areas of recognised neighbourhood character, heritage environmental or landscape significance; including Areas where more than 80% of lots currently accommodate detached dwellings' Responding to the RZSAP report on Moorabool there is only one block of residentially zoned land in the township core which has less than 80% single dwellings (78%).

7 blocks are between 80% and 100% single dwellings and 31 blocks 100% single dwellings. Aerial photography also demonstrates the importance of canopy trees in the streetscape and on private land. This area should be zoned Neighbourhood Residential Zone with a specific schedule (minimum lot size 200m2) and design and development overlay for vacant blocks where well designed medium density housing could be provided. Minimums of 400m2 and 500m2 should be applied to the remaining area. Canopy tree provisions should be triggered.

400m2 General Residential Zone
600m2 General Residential Zone
200m2 Neighborhood Residential Zone
400m2 Neighborhood Residential Zone
500m2 Neighborhood Residential Zone
600m2 Neighborhood Residential Zone
900m2 Neighborhood Residential Zone
150m2 Neighborhood Residential Zone
0.4ha Low Density Residential Zone

To ensure opportunities for infil close to services, this been modified to identify blocks near the hospital, which are in walking distance of the main street shops and the train station, to be retained in a General Residential Zone to encourage medium density infill.

The area north of the Werribee River (currently zoned General Residential Zone; Special Use Zone and Low Density Residential Zone) has traditionally developed as a low density residential area. The road and drainage network and river crossings have not been designed and constructed for urban loads.

11 blocks of General Residential zoned land in this area have an average lot size greater than 2000m2, 1 block has an average lot size of more than 1500m2 and 1 block with an average lot size of more than 1000m2. Of the 4 blocks of more recent subdivision, three average between 900m2 to 1000m2 and one between 850m2 and 900m2. These blocks are perceived as being relatively small given the lot sizes of surrounding development and lack of canopy trees. Areas of average lot size greater than 1500m2 should be zoned Neighbourhood Residential Zone with a minimum lot size of 1500m2. Areas surrounding more recent subdivisions should be zoned Neighbourhood Residential Zone with a minimum lot size of 900m2. Canopy tree provisions should be triggered.

Mechanisms to help protect and promote the character of the town include:

Neighbourhood Character Zone and / or Design and Development Overlays to protect areas with a unique character, Development Plan Overlays to protect for future urban areas from fragmentation and the use of Design and Development Overlays to ensure redeveloping areas provide a urban form that is respectful to the “rural feel” and meet good design parameters.

The Structure Plan responds by:

- reinforcing the predominant character of Ballan by requiring new subdivision to allow for wide tree lined streets; (Infrastructure design manual)
- working with the power companies to minimise ‘lopping’ of street trees and to identify species that will provide a canopy and colour without impact on power lines; (Street tree policy)
- encouraging the completion of Stage 2 of the West Moorabool Heritage Study and apply a Design and Development Overlay to an area with the highest density of indicative sites;
- providing design guidance on residential infill; providing design guidance on how to increase density at key infill sites with minimal impact on the streetscape character; and (policy/Design Development Overlay)
- looking at how interpretation of heritage places can be built into paths and trails. (Policy)

4.2
CONNECTIVITY

Ballan has a strong network of transport connections. The freeway, railway, provide and highway network provide good external transport connections. Traffic flow within Ballan benefits from the bypass of through traffic and the excellent internal road network.

As the town has grown through the 1970's to today there has been less emphasis on a connected street network that provides for road transport as well as pedestrian and cyclist movements. The community has identified the need for improvements to the existing pedestrian and cycling networks and to ensure any new development augments this network.

Development Plans Overlays will be one tool to ensure new development provides for connectivity for vehicles, pedestrians and cyclists. Infrastructure Contributions Plans / Urban Growth Zones for the future growth corridors will assist in upgrading key infrastructure where there is a clear nexus between the development and the need for augmentation. Resolving existing network issues will require external funding or fund raising (rates or special charge) to fund implementation. Development control plans for strategic sites will be sought.

The potential doubling of Ballan's population over a 15 - 25 year period needs to consider movement and connection issues.

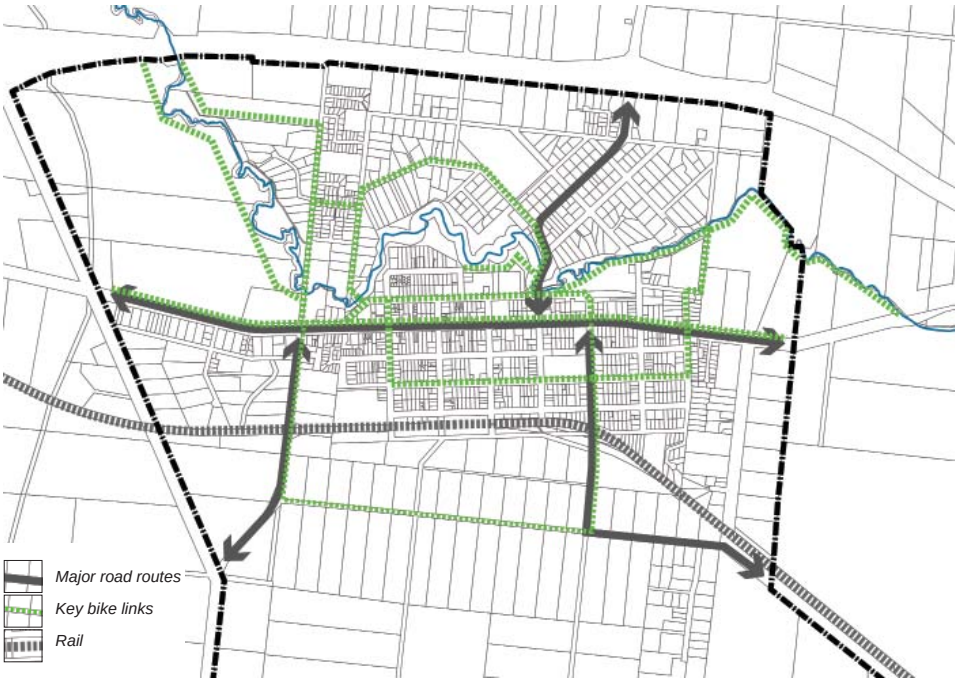
Ballan is well serviced by the Western Freeway and the Melbourne – Ararat Railway.

Inglis Street is designed above the existing and projected capacity as it was once the Western Highway. This provides a safe East-West connection and provides opportunities for widening the pedestrian spaces in the town centre and to provide dedicated cycle lanes over time.

The Werribee River and its escarpment makes additional north-south crossings difficult. The road network and construction to the north was not planned for traffic movements from traditional residential development densities. Intensification of development north of the river in Ballan should be avoided if it cannot provide a network of access/egress and contribute to the augmentation of 'collector' level roads leading to the key river crossings.

Irrespective of the future growth potential of the township area to the north of the Werribee River, the capacity restrictions of access and services over the river needs to be considered given the constraints of the existing development.

While the Werribee River can provide connection through the Western Corridor an on road pathway along Inglis Street would provide the best connection to the town centre. Bike and pedestrian linkages to the recreation reserve, railway station and primary school should link to Inglis Street and connect through to any future development of the southern corridor.



Above, Connectivity within the study area.

The Structure Plan responds by:

- Identifying key pedestrian linkages to be augmented, improved or extended; (is this better in tracks and trails)
- Minimises the increase in density in north ballan where access is poor and augmentation options are limited
- Seeking to develop streetscape design concepts for civic works in Fiskin Street commercial area and township entrances.
- Avenue and median planting of suitable low rise tree species
- Identifies that prior to zoning the Southern Growth Corridor determining any requirements for rail crossing augmentation and how the cost of augmentation will be borne by the development will be a key factor to be addressed in any future rezoning submission.
- Recommends the use of a Development Plan Overlay and schedules to ensure co-ordination between landholdings in infill areas where a connected grid of streets is possible
- Outlines the development principles to be incorporated in any future rezoning proposal in a growth corridor via the Urban Growth Zone and a Precinct Structure Plan.
- Establishes the requirement for a development contributions plan overlay and its supporting documents to be part of any future rezoning proposal in a growth corridor.

4.3
COMMERCE

To be a sustainable township requires local access to employment and goods and services. Ballan has two main employment nodes that also provide local access to goods and services being the main street shopping centre, including associated community and health services and the Ballan industrial estate. The community reinforced the importance of these areas.

Improvements to the town centre identified by the community include:

- Better range of goods and services on offer;
- Greater opportunity to meet and mingle – eg town square;
- Reinforcing the strong urban design presence / character of the main street in any new development;
- Improvements to the look, feel and functionality of Inglis Street

Given that the range of goods and services on offer is a commercial decision the role of council through the structure plan is to ensure the the zones facilitate investment and that overlays and or policy protect the attractiveness of Ballan which is part of it's 'economic edge'.
These elements will be addressed through:

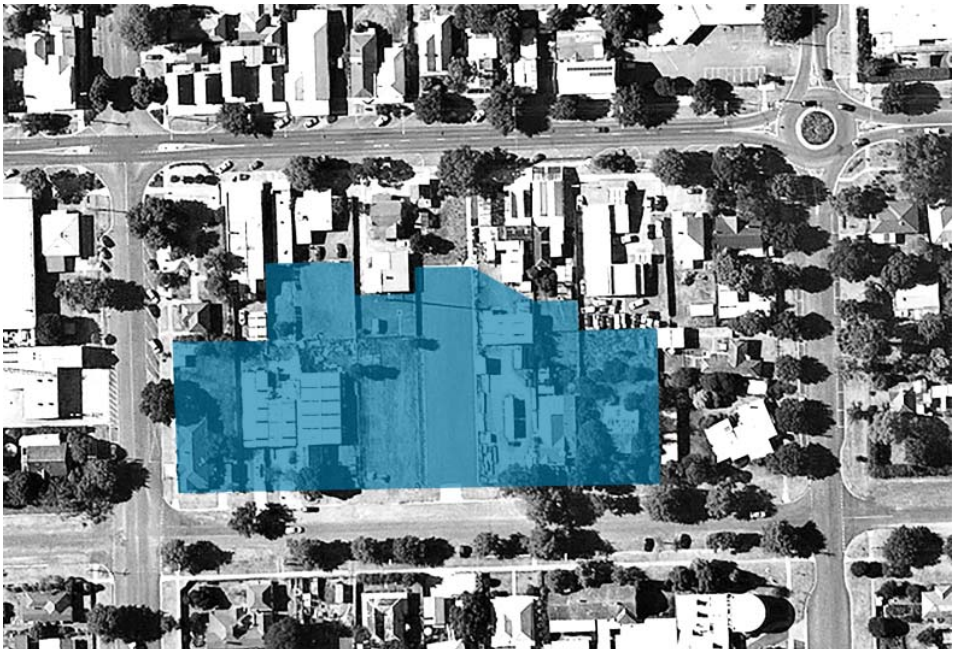
- Design and Development Overlay for Inglis Street Shopping Centre
- Local policy on new commercial development in Inglis Street Shopping Centre
- Defining a retail hierarchy within the MSS
- Implementation of streetscape improvement works over the long term.

Careful consideration needs to be given to how the creation of a town square could be incorporated into future commercial development proposals. There are opportunities to build new commercial facilities within the within the existing Commercial Zoned land through the co-ordinated use of vacant blocks; rear of shop land and transitioning non commercial uses over time.

Above, indicative concept retail development opportunities in existing commercial zone.

The structure plan responds

- Identifying how new retail can be developed in the town centre
- Identifying options for a town square
- Making the main street more pedestrian friendly with opportunities to sit and chat / rest near points of interest
- Planning streetscape improvements
- Implementing design controls within commercial areas of the town centre

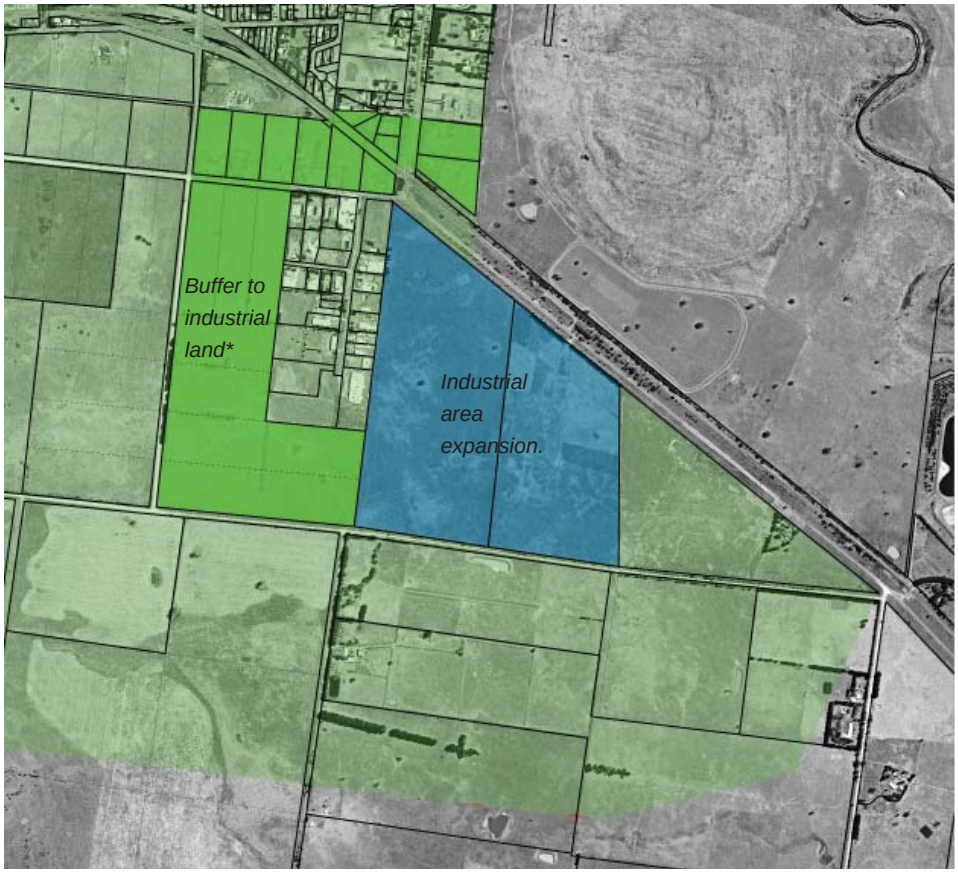


Above, Encourage transition to commercial uses and consolidated holdings.

The hospital is a major employer within the town centre, as well as a major community service provider. Expansion of the hospital is strategically supported. Melbourne Water, Aboriginal Affairs Victoria/ Wathaurong Aboriginal Co-operative will be major stakeholders in any future expansion in crown land.

Above, Potential hospital expansion opportunities

The Industrial Estate has opportunities for expansion. Protection of the estate from encroachment of residential development will need to be considered in the future planning for the Southern Growth corridor. Landscape and Design guidelines for development in this area should be added as further strategic work in Clause 21.08 (Ballan Framework Plan)



**Future precinct structure plan will determine appropriate use.*

Above, Potential retail development opportunities

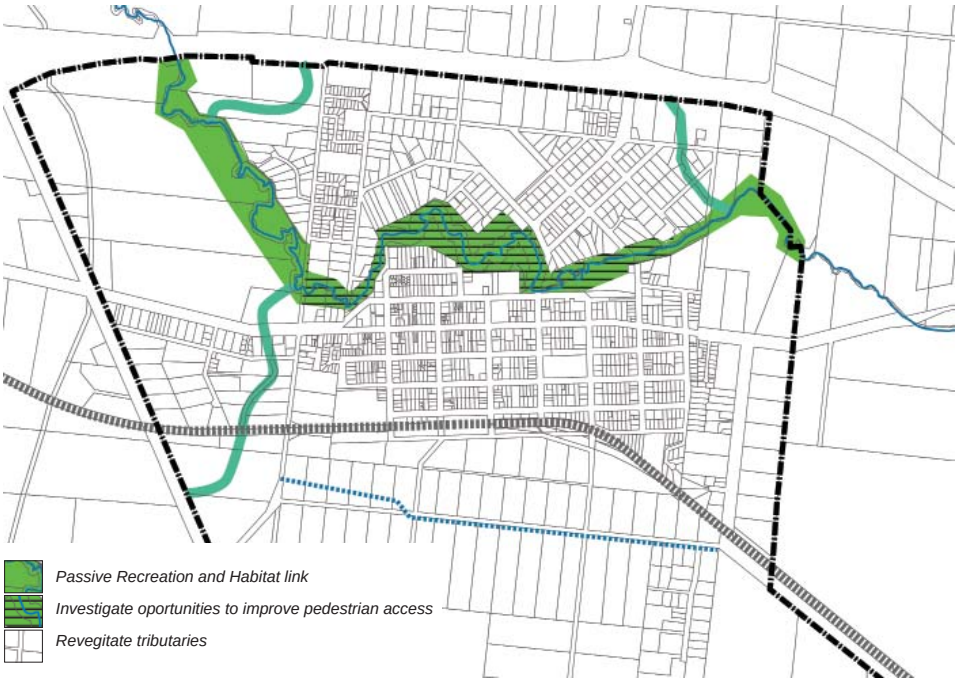
4.4
CONSERVATION

Until the 1970's the Werribee River was largely the northern boundary of the Ballan township. With the growth of Ballan northwards over the past 40 years the Werribee River has become a central feature of the township. Its open space, conservation and landscape values, and contribution to "rural feel" are valued by the community, as is the desire to:

- protect and enhance biodiversity values;
- preserve and interpret culturally significant sites;
- strengthen the role of the river as a passive recreation spine, and
- use the river as a town entry feature reinforcing the 'rural feel'.

As the Werribee River environs are already within the Environmental Significance Overlay, the Structure Plan addresses these issues through:

- Working with Landcare / CMA to undertake environmental improvements ;
- Designing future town entry treatments;
- Indicating that both future growth corridors will be required to contribute to open space embellishment of the corridor; and
- Investigating options to extend the river corridor as part of any consideration of the Western Growth Corridor.
- Looking at options for public access / arboretum as part of future urban infill at the eastern boundary of town
- Including the Werribee River in the Framework Plan. (21.08)



Above, Waterway corridors.

4.5
FUTURE URBAN DEVELOPMENT

It is a State planning requirement for Councils to provide for a minimum of 15 years land supply within its planning scheme. The rate of growth in Ballan has been increasing over time and that is likely to increase. The consultation has demonstrated some concern, not with the concept of growth, but with the effect that 'unplanned' growth is having on the character of Ballan.

The Structure Plan contains elements addressing 'infill' development in existing zoned areas as well as identifying what form and function will be expected in new growth corridors.

Western

The Western Growth area is currently identified in the Moorabool Planning Scheme as the next urban growth area for Ballan. Some members of the community had concerns regarding the high visibility of the Western Growth Corridor, the impact of its development on the River Corridor and its relative remoteness from the train station. The participants in the engagement process did not perceive this area as being suitable for residential development, either in the short or longer term, primarily due to the gateway aspects of the land.

Investigations have shown that the Western Growth area is able to be serviced. Development would allow public access to the Werribee River Corridor. Due to the fall of the land, development can be partially screened through appropriate landscaping. As the site has current strategic support for urban uses Council will seek to apply the Urban Growth Zone will be applied. This will allow Precinct Structure Plans to be prepared for how the area will develop and allow for the detailed consideration of heritage, flora and fauna, open space, landscape, density, and infrastructure.

Above, Potential Western growth area development opportunities

Southern

Some members of the community expressed a preference for the southern corridor due to its proximity to the railway station and the town centre, as well as its topography and its environmental status. This site is also a gateway to the township.

While the southern corridor has locational benefits it also has a range of challenges to be addressed. The land is in proximity to land uses with buffer controls, is transversed by a high pressure gas main, is relatively fragmented and has a range of infrastructure issues to be addressed.

It is proposed that a wider southern corridor be investigated and the Urban Growth Zone be applied to a larger area in the long term.

Above, Potential Southern corridor development considerations

East infill

Through the exhibition process a site to the east of Ballan along the Werribee Corridor was identified. The consultation plan expressed a desire to extend the Werribee River open space corridor to the east. Investigation of the site has demonstrated that there is an opportunity to plan development in the area with minimal visual impact to the entrance and which would allow the transfer of the river corridor to public ownership. The flood plain in this area would also provide an opportunity for an arboretum.

It is recommended that this site be identified as future urban within the Ballan Framework Plan.

Above, Potential Eastern infill area development opportunities

5.0
STRUCTURE PLAN PRECINCTS

When looking at where these issues are most prominent a series of distinct areas arise that lead to the application of planning scheme control, being:

- Commercial Core
- Historic Township ‘grid’.
- North Ballan Residential Area
- Large lot residential 1 Zoned land
- Growth Corridors / major infill sites
- Werribee River Corridor
- Recreational Reserve

Planning for the future of Ballan will look at the issues that arise within each of these areas and the best way to address them.

5.1
TOWN CENTER COMMERCIAL

The Ballan Town centre has a recognised character based around a series of heritage places. Its character is predominantly single storey shops on a zero lot line. Within the town centre there are opportunities for small infill development as well as larger redevelopment. The town centre is at the core of the traditional grid network and has excellent connectivity. The town centre is also located near the Ballan Hospital which may provide integration opportunities.

Three key sites have been identified for consolidation / overall design within the town centre.

There is the possibility to acquire and consolidate parcels which would allow a larger format retail offer including car parking and ‘civic’ space. To develop these sites it will be critical to ensure that structures address and interact with the street and that car parking and services do not provide a whole in the rhythm of the neighbourhood.

Inglis Street itself will become a more pedestrian friendly space. Wider footpaths, cycle routes, small decidious trees will encourage movement. Well placed street furniture will allow for people to rest, meet and mingle in the town centre.

The Structure Plan responds by:

- Identifying how new retail can be developed in the town centre
- Incorporating delivering a town square as part of any larger format development within the commercial core;
- Working towards a streetscape plan to make the main street more pedestrian friendly with opportunities to sit and chat / rest near points of interest
- Providing for tree lined streets or median plantings.
- Identifying the hospital precinct and providing strategic support for its growth

Implementation

- Amending the Ballan Framework Plan at Clause21.07 to reflect the key objectives for the Ballan town centre, including:
    - Encouraging transition of industrial uses to commercial;
    - Encouraging consolidation of land parcels to facilitate retail development including a town centre;
    - Maintaining heritage character of main street.

- Apply a schedule to the design and development overlay which:
- Commercial Development DDO or local policy
    - Recognises the general 0 lot line character of Inglis Street and requires development to address the street
    - Requires development to interact with the street (no blank walls)
    - Requires development to provide verandah treatments to Inglis Street
    - Requires infill development to be sympathetic to the bulk and scale of surrounding development but demonstrate modern design.
    - Requires car parking to be mid block
    - Require development which consolidates blocks to respond to rhythm of the main street; consider drive through loading and examine the incorporation of a town square as part of an overall development.
    - Encourages transition of industrial uses out of the town centre over time.

Development Plan Overlay - Fragmentation
Development Plan Overlay or Policy - Layout and connection
Public Acquisition Overlay
Development Development Overlay - Historic core
Development Development Overlay - Infill Development

5.2
HISTORIC TOWNSHIP GRID

The residential streets surrounding the town centre contain many sites of heritage significance. Development in these areas will be respectful of the heritage and character of Ballan as well as providing opportunities for well design infill housing that provides a diversity of housing options. The traditional grid network provides excellent access to the town centre, the railway station , Werribee River and recreation reserve. The 30m wide road reservations, often tree lined, provide a sense of spaciousness despite minimum front setbacks of structures.

Key sites within this area have been identified to ensure that future development maximises the opportunities for housing choice suited for less mobile residents in areas close to shops and services. Part of this identification will be detailed guidance on design so that density does not impact on the character and charm of Ballan.

The community has indicated that out of character development is where a large residential zoned lot has been subdivided into multiple lots fronting onto a narrow street or court.

These sites have similar house height and setbacks, and block to the town core. The key character difference is the narrow width of the road does not provide a feeling of space and the lack of canopy trees in the streetscape and within residential gardens.

Resubivision of residential lots to the east and west of the town centre should be encouraged where there is an area of a size that would allow a connected network of 16-20m wide tree lined streets. Areas suitable for redevelopment via resubdivision will be identified with a planning control aimed at ensuring this subdivision is on an area basis rather than by single land holding. Other areas where a well planned medium density development would be appropriate will be identified through outlining the design parameters for the site.

Areas where resubdivision or medium density development cannot occur in and orderly manner will be identified as areas where further development will be discouraged where good connection cannot be provided.

Areas where resubdivision or medium density development cannot occur in and orderly manner will be identified as areas where further development will be discouraged.

The Structure Plan responds by:

- Reinforcing the predominant character of Ballan by requiring wide tree lined streets in new subdivisions
- Working with the power companies to minimise ‘lopping’ of street trees and to identify species that will provide a canopy and colour without impact on power lines
- Investigating at street tree planting guidelines
- Prioritising the completion of Stage 2 of the West Moorabool Heritage Study and apply a Design and Development Overlay to an area with the highest density of indicative sites
- Provide design guidance on how to increase density at key infill sites with minimal impact on the streetscape character
- Policy for Crook Court - Subdivision requires a through connection.

Implementation

- Neighbourhood Residential Zone be applied to the Residential 1 Zoned land with the following elements in the schedule:
    - Minimum lot size ranging from 200m2 to 600m2* (general)
    - Front setback 2m
    - Side setback 2m / 1m
    - Site coverage 50%
    - Permeability 25%
    - Height 8m
    - 1 tree per 300m
- General Residential Zone be applied to the large holdings of residential land to the west of town centre (eg Crook Court) with the following elements in the schedule:
    - Minimum lot size 400m2
    - Front setback 5m
    - Side setback 2m / 1m
    - Site coverage 50%
    - Permeability 25%
    - Height 9m
    - 1 tree per 300m
- Changes to the MSS & framework plan
- Street Tree policy
- Infill Areas DDO

Dwellings are to be designed to:

- ensure that carports and garages are not the dominant elements from the streetscape.
- encourage the retention of existing native / exotic trees.
- Provide generous setbacks from side and rear property boundaries to ensure there are breaks between buildings.
- Promote building separation and aesthetic landscaping to soften the visual appearance of medium density development.
- Require low scale single storey dwellings that incorporate a landscape setting where possible.
- provide for a range of dwelling sizes and types such as one and / or two bedroom dwellings.
- Retain dwellings with period type character as part of any medium density development.
- In situations where double storey dwellings are proposed, ensure that the upper level is recessed from the street frontage and comprises a small component of the built form and seek bed and bathing facilities on the ground level.
- Discourage the construction of high fencing along side streets.
- Incorporate a maximum height of 1.2 metres for fencing located along the front or side boundaries of allotments.
- Not exceed a building coverage of 50%.
- Limit the number of crossovers to an allotment and utilise existing access points where practical. New crossovers should be located so as to avoid street trees / significant trees.

Subdivision layout must provide for:

- An internal road network that provides a high level of access within the development for all vehicular and non-vehicular traffic.
- Road alignment and layout that encourages connectivity with existing road networks and provides logical opportunities for extension of the street system for new development areas in the future.
- The prevention of cul-de-sacs and other street layouts which contribute to isolating forms of development and discourage permeability.
- Lots that are of appropriate dimensions and proportions that can accommodate future dwellings that are reflective of the existing patterns of the area.

5.3
NORTH BALLAN RESIDENTIAL AREA

North Ballan is a large residential / low density residential development to the north of the Werribee River in Ballan. Prior to the VPP format planning scheme this area was subject to a specific zoning which was translated to a mix of low density residential and residential zones without policy guidance to protect the predominantly semi rural character of the area. Many Residential 1 zoned blocks are over 3000m2 in area. The road network is characterised by narrow seal, no curb or channel and no footpaths. Recent small scale subdivision on residential 1 zoned land is not in keeping with the character of the area (road design; lot size; front and side setbacks) and landscaping. Increased vehicle movements on roads designed for low traffic volumes identifies the area or its physical infrastructure.

Assessment of the existing lot sizes and setbacks demonstrate that the area meets the requirements of the Neighbourhood Residential Zone. It is proposed that the Low Density Residential Zone be maintained where zoned and the Neighbourhood Residential Zone be applied to the Residential 1 Zoned land with the following elements in the schedule to ensure that the predominant semi rural character with houses in grounds are maintained:

- Minimum lot size 850 to 2000m2
- Front setback 10m
- Side setback 5m
- Site coverage 25%
- Permeability 75%
- Height 9m
- 1 tree per 250m

LDRZ Schedule

- Minimum lot size 4000m2
- Front setback 15m
- Side setback 5m
- Site coverage 20%
- Permeability 80%
- Height 8m
- 1 tree per 200m2

There are significant areas in Ballan which are zoned General Residential Zone with an existing subdivision pattern that is low density residential in nature with average lot sizes of 1 hectare. Where this land is not constrained (physical infrastructure) and can be developed to as to provide a grid network of streets it is proposed that it be translated into the General Residential Zone with the following schedule:

- Minimum lot size 350m2
- Front setback 5m
- Side setback 2m / 1m
- Site coverage 50%
- Permeability 25%
- Height 8m
- 1 tree per 350m2

A Development Plan Overlay will be applied to ensure that subdivision is based on an area network basis not on land ownership basis. A minimum road width of 20m will be required.

5.4
WERRIBEE RIVER CORRIDOR AND ENVIRONMENT

The Werribee River was once the northern extent of Ballan. Subdivision to the north did not allow for the augmentation of public land. Current planning regulations would require a public road as an edge between development and the river which provides for community access and emergency staging. The environmental values of the area are already recognised by ESO2 in the Moorabool Planning Scheme.

The central sections of the Werribee River Corridor between Cowie and Stead streets are degraded and have poor access. The north bank of the river is a steep cliff adjoining private land. The south bank has public access to the river, predominantly accessed through the golf club. The location of the fairways does not allow for pedestrian / bike connections or riparian planting. Options to link existing pedestrian and cycle networks through the existing street network should be examined.

Any development in the Western corridor would be required to provide the 'floodway' area as undevelopable land. Before this land was ceded to the crown initial rehabilitation works would be required. A habitat corridor along the river, with areas for passive recreation / playground should be provided. A road way with off road bike and cycle paths would provide an edge between development and the river reserve.

Opportunities for planned riparian plantings in the central and eastern extent of the corridor should be examined. Further plantings should create a diverse habitat and consider public safety through providing surveillance of and from pathways.

Ability to achieve the link to the east will be dependent on future development north of Old Melbourne Road.

The Structure Plan responds by:

Supporting change to the Moorabool Planning Scheme to:

- Designate the Werribee River Corridor as the key passive recreational area for Ballan
- Provide support for transfer of land to public ownership in the east post future development
- Require new development (infill and growth corridor) to contribute to improvements to the river corridor
- Require new development along the Werribee River Corridor to be above the floodplain
- Require new subdivisions adjoining the Werribee River Corridor to have a road and path network between the development and the corridor (hard edge).

Council is also investigating options to improve connectivity between the Werribee River and the town centre. This will using existing street networks due to topography and existing land uses.

This will be achieved by:

- Amending the Ballan Framework Plan in the MSS to designate the Werribee River Corridor as the key passive recreational area for Ballan
- Requires all new subdivision and commercial development (infill and growth corridor) to contribute to improvements to the river corridor by amending the Ballan Framework Plan to insert a map of open space contribution areas to be referenced in the schedule to Clause 52.01.
- Amending the Ballan Framework Plan to require new development along the Werribee River Corridor to be above the floodplain
- Amending the Ballan Framework Plan to require new subdivisions adjoining the Werribee River Corridor to have a road and path network between the development and the corridor
- Amending the Ballan Framework Plan to outline development objectives for the western growth corridor and eastern infill area.
- Amending the Ballan Framework Plan to identify future infill site to the east to include river corridor / arboretum.
- Develop riparian planting guidelines for the Werribee River corridor.

Above, A crossing over the Werribee River

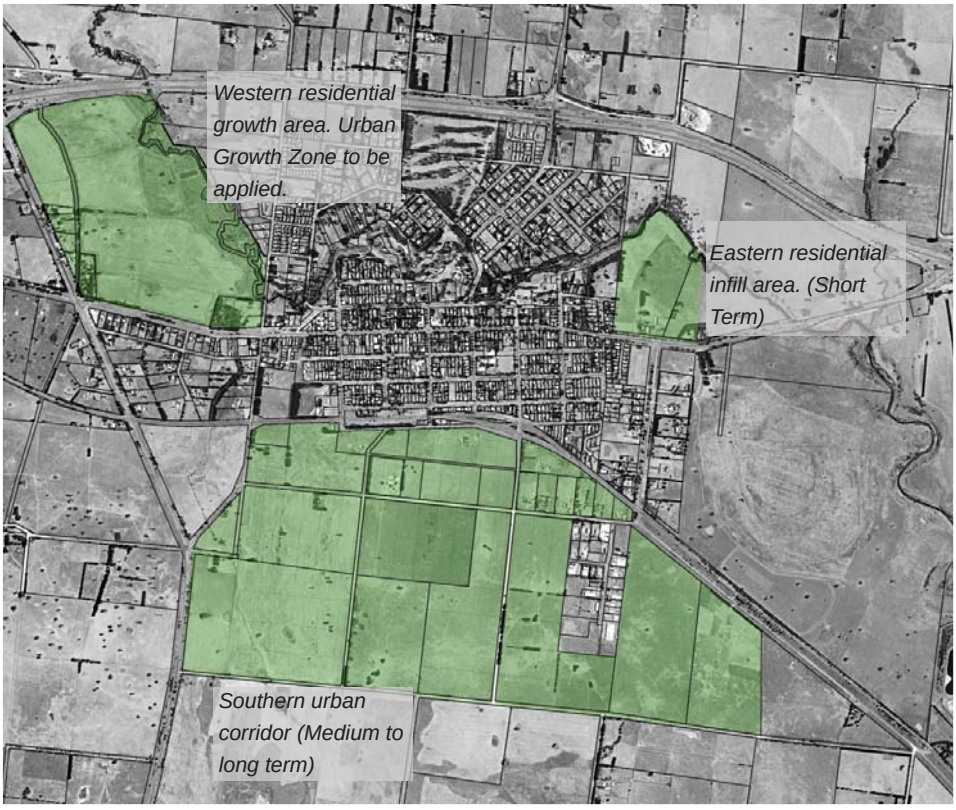
5.5
POTENTIAL URBAN GROWTH AREAS

In 2004, Hansen Partnership prepared a structure plan for Ballan which looked at a Western and a Southern growth area. The Planning Panel which examined the planning scheme amendment which proposed to implement this strategic direction (C34) directed that the Western growth area be identified in the Ballan Framework plan as the next growth area for Ballan, and that the southern corridor be identified as a longer term option if further investigations showed development was feasible.

In the longer term, both corridors may be required for development. In the 15 year planning horizon for the Ballan Structure plan a total of 1650 people are planned for. At an average of 2.4 persons per household this translates to approximately 700 dwellings, all of which could not be provided for in the existing zoned land without undue impact on the character of Ballan as outlined in the Central Highlands Regional Growth Plan.

The two growth corridors identified in 2004 are included within the Ballan Framework plan at clause 21.08 of the Moorabool Planning Scheme.

Through exhibition an infill site was identified at the eastern edge of town. Given the topography this site may be suited for development with limited visual impact on the town entry.



Above, Urban growth areas.

Eastern entry infill – Old Melbourne Road (FUI 3)

A parcel of land between the Werribee River and Inglis St (Old Melbourne Road) and opposite Sunline Court was identified through the exhibition process. This site slopes down towards the Werribee River such that well planned development on the site could be screened from Old Melbourne Road. A future proponent led rezoning of this site would allow for the transfer of land along the Werribee River into public access and provide a link back to Old Melbourne Road. Given the extent of the floodplain there may be opportunities to plan an arboretum on the floodplain in consultation with Melbourne Water.

Above, The Eastern infill area

Implementation

Identify the site on the Framework Plan (21.08)

Outline the key objectives of development on the site within Clause 21.08 as a basis for any future rezoning submission for the land. Future rezoning will be via proponent lead amendment.

Any future rezoning application in growth corridors identified in the framework plan will need to be subject to a detailed rezoning submission in accordance with the Strategic Assessment Guidelines. Rezoning submissions will need to address the following principles for development and respond to how the development will provide for the required augmentation of physical and social infrastructure.

- Open space / arboretum / trails
- River frontage
- Wide lots fronting old Melbourne road
- Height controls
- Screen vegetation
- Amend schedule 52.01
- Designation as a strategic site for Infrastructure Ccontribution Plan.

Southern Growth Corridor (FUI2)

The southern growth corridor has the benefit of providing residences with access to public transport if existing crossings were upgraded. Detailed examination of the southern growth corridor has identified that the area available for development is restricted by the need to protect the industrial estate by encroachment from sensitive uses and a high pressure gas transmission pipeline running generally E-W along Gillespies Lane.

The land is in several holdings. For the land to be developed for residential purposes a single development plan and planning scheme amendment would be required. A rezoning submission would be required to address all servicing issues, the attributes of the land and how contributions to infrastructure upgrades would be made. Infrastructure and servicing costs may make this land economically unviable in the shorter term.

The Structure Plan responds by:

- Outlining the likely future demography for Ballan and what that means in terms of both infill and greenfield development
- Identifies the opportunities and constraints relating to both growth corridors and the likely developable areas
- Recommending that the Ballan Framework Plan be amended to identify both corridors and reference, in the Ballan Framework Plan, the sections of the Ballan Structure Plan that outline the work required to be undertaken before a rezoning request can be considered by Council.
- Identifies what contributions to infrastructure and open space would be required from new development (Infrastructure Contribution Plan / Precinct Structure Plan)
- Designate general precinct - Transit oriented development (mixed use and density)

Above, Indicative urban zones for future Precinct structure plan

Implementation

Amend Ballan Framework Plan to identify buffer issues (see plan)
Include key aspects to be considered in rezoning in clause 21.08? (including consideration of RGZ near railway)
Utilise the Development Plan Overlay to:

- Protect future urban land from inappropriate development or fragmentation
- (streamline for MSS & add the 'givens' Future development proposal / proponent
- Any future rezoning application in growth corridors identified in the framework plan will need to be subject to a detailed rezoning submission in accordance with the Strategic Assessment Guidelines. Rezoning submissions will need to address the following principles for development and respond to how the development will provide for the required augmentation of physical and social infrastructure.)

Southern Corridor

Principles for development

- Application of a Development Plan Overlay (DPO) to the proposed subdivision area that incorporates the following principles:
- Lot layouts which incorporate lots of varying sizes to provide diverse housing choices and mix of lot sizes, and identifies multi-dwelling development sites and provides for solar efficiency and design;
- An internal road network that provides a high level of access within the development for all vehicular and non-vehicular traffic and responds in a positive way (with out replicating) to the traditional street pattern of Ballan, in terms of the grid street pattern, width of streets and street tree planting, etc;
- A subdivision design, which provides an attractive entrance treatment to the township and contributes to the amenity of Old Geelong Road and Geelong - Ballan Road by reinforcing the traditional tree lined boulevard characteristics of the older parts of Ballan, and ensuring that residential development addresses these roads (i.e. by use of service roads or internal roads to enable dwellings to face Old Geelong Road and Geelong - Ballan Road).;
- A subdivision design, which considers sensitive interfaces with the railway line and the industrial estate;
- Provision of a generously proportioned public open space corridor, including walking paths, etc;
- Provision for public open space of not less than ten per cent (10%) of the development area, of which 3% should be within walking distance (400 metres) of each household and 7% should be for the augmentation of active and passive recreation areas;
- Public open space may include land identified for stormwater detention or treatment where the Council is satisfied that the land is not unduly compromised for use as open space in its secondary role for Stormwater Management;
- Provision of pedestrian and cyclist connections to the town centre along existing roads and across the railway line;
- Provision for the collection, treatment and disposal of stormwater runoff in an environmentally acceptable manner, including the provision of water retention basins and water quality treatment wetlands and bioretention systems within the local street network. The management of stormwater discharge must be consistent with guidelines established using appropriate Australian design standards and Council's Stormwater Quality Management Plan;
- A traffic report outlining requirements for improvements to the network, especially at key intersections and railway crossings;

- A design report describing the stormwater management system referred to above including all stormwater quality and quantity systems to be implemented; and
- A subdivision staging plan with approximate timing of development, including intersection improvements to Old Geelong Road and the Geelong - Ballan Road and construction / upgrading of the surrounding road network.
- Inclusion of a Section 173 Agreement pursuant to the Planning and Environment Act 1987 providing agreement for the timing of either the finance or works in kind for:
- Construction of Gillespies Lane between Old Geelong Road and Ingliston Road;
- Sealing of all existing roads providing access to the development;
- Any required upgrades to the intersections connecting to the main road hierarchy, and;
- Any required upgrades to the intersection of Gillespies Lane and the Geelong – Ballan Road to include protected right turn lanes and left turn deceleration lanes to Austroads standards to the satisfaction of VicRoads;
- Treatment works at the intersection of the Geelong - Ballan Road and any access roads to the development area to include protected right turn lanes and left turn deceleration lanes to Austroads standards to the satisfaction of VicRoads;
- Any required upgrades to the intersection of the Old Geelong Road and the Geelong - Ballan Road to Austroads standards to the satisfaction of VicRoads;
- Any required upgrades to the intersection of the Old Geelong Road and Gillespies Lane to Austroads standards to the satisfaction of VicRoads;
- Any required road or intersection upgrades or rail crossing upgrades identified in a traffic plan;
- A contribution towards the provision of community infrastructure in Ballan;
- A 10% contribution towards public open space; and
- The construction of a 1.5-metre wide pedestrian pathway as indicated on the connection plan.
- Amend schedule 52.01

Western Growth Corridor
The Western Growth Corridor is able to demonstrate an ability to be serviced. Community concern with the proposal relates to the visibility of the site, a desire to maintain a rural landscape and distance from the town centre and railway.

A control is proposed to ensure that the site is protected from fragmentation until the future of the growth corridors is determined.

If the corridor was to be rezoned a rezoning submission would be required to address all servicing issues, the attributes of the land and how contributions to infrastructure upgrades would be made.

Implementation
Apply the Urban Growth Zone to the site in the medium term.

Require that future Precinct Structure Plan processes include:

- Provision of a landscape buffer between the development and main roads
- Lot layouts which incorporate lots of varying sizes to provide diverse housing choices and mix of lot sizes, and identifies multi-dwelling development sites and provides for solar efficiency and design;
- An internal road network that provides a high level of access within the development for all vehicular and non-vehicular traffic and responds positively (without replicating) to the traditional street pattern of Ballan, in terms of the grid street pattern, width of streets and street tree planting, etc;
- A subdivision design, which provides an attractive entrance treatment to the township and contributes to the amenity of Old Melbourne Road and Geelong - Ballan Road by reinforcing the traditional tree lined boulevard characteristics of the older parts of Ballan, and ensuring that residential development addresses these roads (i.e. by use of service roads or internal roads to enable dwellings to face Old Melbourne Road and Geelong - Ballan Road).;
- A subdivision design, which considers sensitive interfaces with the Werribee River and the Western Freeway;
- Deeding to Council non developable drainage land and provision of a generously proportioned public open space corridor along the Werribee River, including walking paths, etc;
- Provision for public open space of not less than ten per cent (10%) of the development area, of which 3% should be within walking distance (400 metres) of each household and 7% should be for the augmentation of active and passive recreation areas;
- Public open space may include land identified for stormwater detention or treatment where the Council is satisfied that the land is not unduly compromised for use as open space in its secondary role for Stormwater Management;
- Provision of pedestrian and cyclist connections to the town centre along both Old Melbourne Road and the River Corridor;
- Provision for the collection, treatment and disposal of stormwater runoff in an environmentally acceptable manner, including the provision of water retention basins and water quality treatment wetlands and bioretention systems within the local street network. The management of stormwater discharge must be consistent with guidelines established using appropriate Australian design standards and Council's Stormwater Quality Management Plan;
- A design report describing the stormwater management system referred to above including all stormwater quality and quantity systems to be implemented; and
- A subdivision staging plan with approximate timing of development, including intersection improvements to Old Melbourne Road and the Geelong - Ballan Road and construction / upgrading of the surrounding road network.

Provision of Infrastructure Contributions Plan finance or works in kind for:

- Construction and / or upgrades of all roads as indicated on the Traffic plan;
- Any required upgrades to the intersection of the Geelong - Ballan Road and Old Melbourne Road to include protected right turn lanes and left turn deceleration lanes to Austroads standards to the satisfaction of VicRoads;
- Treatment works at the intersection of the Geelong - Ballan Road and any access roads to the development area to include protected right turn lanes and left turn deceleration lanes to Austroads standards to the satisfaction of VicRoads;
- Treatment works at the intersection of the Old Melbourne Road and any access roads to the development area to include protected right turn lanes and left turn deceleration lanes to Austroads standards to the satisfaction of VicRoads;
- Any required upgrades to intersection identified in the traffic report to Austroads standards to the satisfaction of VicRoads;
- Any other required upgrades to roads or intersections in the township;
- A contribution towards the provision of community infrastructure in Ballan;
- A 10% contribution towards public open space; and
- The construction of a 1.5 metre wide pedestrian pathway along the Werribee River Corridor and along Inglis Street.

Future development proposal / proponent

Any future rezoning application or PSP process in growth corridors identified in the framework plan will need to be subject to a detailed rezoning submission in accordance with the Strategic Assessment Guidelines. Rezoning submissions will need to address the following principles for development and respond to how the development will provide for the required augmentation of physical and social infrastructure.

6.0
SOCIAL AND PHYSICAL INFRASTRUCTURE

6.1
RECREATION

Physical and recreational services are generally planned for and provided as an area develops. The Planning and Environment Act provides two mechanisms for the provision of infrastructure:

- Subdivisional infrastructure – the open space; roads and drainage requirements relating to the land to be developed. Generally 100% developer borne.
- Development Infrastructure - the provision of major development infrastructure that serves and area wider than a subdivision such as main roads, railway infrastructure, drainage wetlands, major recreational facilities. The cost of these works are apportioned by share of usage with existing developments share to be borne by Council.

Council has different mechanisms to guide the provision of these facilities and their funding. A structure plan is a key document in guiding both what is to be provided and how it is to be achieved.

Recreation

As Ballan develops there will be a need to augment recreational facilities. The Structure plan makes recommendations regarding the type of recreational services to be provided and a methodology as to how this can be achieved. The three main types of recreation are:

- Active Recreation Facility – The Ballan Recreation Reserve
- Passive Recreation Area – The Werribee River Corridor and parklands
- Local Park – small area in walking distance of homes / playground focus.

Active Recreation

The Ballan Recreation Reserve should be maintained as a key focal point for active recreation. Opportunities to augment or, if required, relocate the facility should be investigated. Upgrading of any active recreation facility in the future should include the construction of a multi purpose facility. This contribution will be in the form of cash and will be placed in an open space account for the specified purpose. This will require acquisition of land.

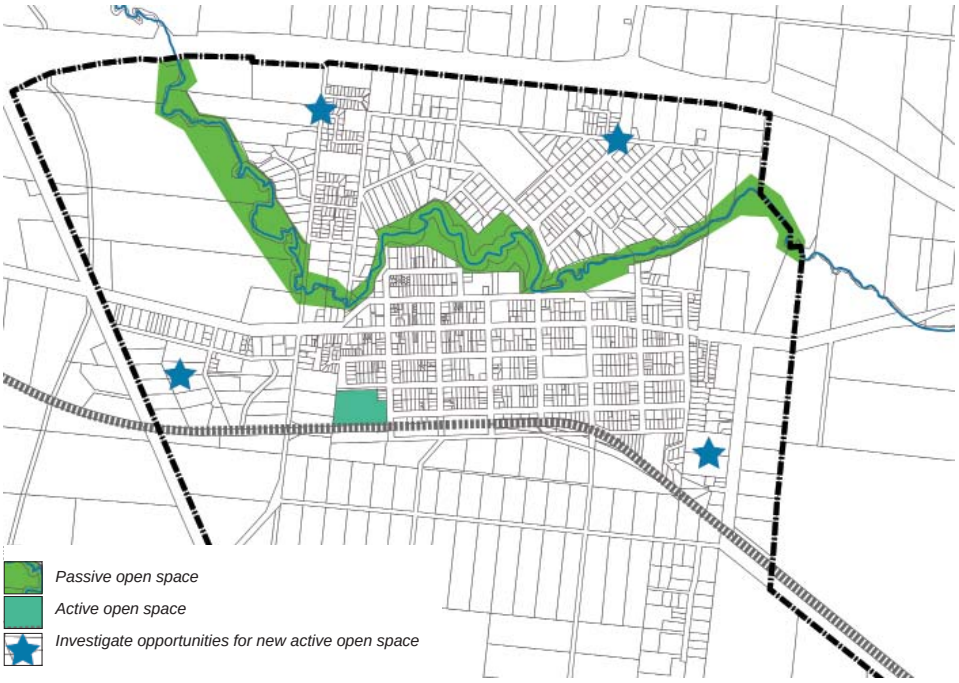
If the site cannot be augmented a new dual oval recreation reserve of a size in accordance with the recreation and leasure strategy will be required to be provided in a growth corridor. An infrastructure contribution plan will be the means to compensate land holders with council to contribute for existing (2015) share of usage.

Above, Investigate acquisition for oval extension / open space.

Passive Recreation

The key passive recreation area to be augmented and embellished is the Werribee River Corridor. The Western Growth area would be required to deed to Council the non developable 'drainage' land and to provide access paths delineating public and private land. The contribution from development would be for embellishment of the corridor including replanting, augmenting trails and facilities and extending the reserve as and when required. This contribution will be in the form of cash and will be placed in an open space account for the specified purpose.

It is noted that Melbourne Water and the Port Phillip & Westernport CMA also play a key role in waterway management.



Above, Areas requiring further open space.

Local Park

Playground spaces should be provided as part of larger residential subdivisions. This contribution can be in the form of cash or land to be determined at the planning permit stage considering need and provision in the area.

Under the Subdivision Act residential subdivision may be subject to a public open space requirement (land or embellishment) of up to 5% of the site value of all land in the subdivision. The Victoria Planning provisions offer two mechanisms to specify a larger open space contribution – the schedule to Clause 52.01 or a development contributions plan overlay.

The Ballan Structure Plan recommends that a 10% open space contribution be made for the provision of recreation in new growth corridors and residential infill sites covered by a Development Plan Overlay if a contribution to open space has not previously been collected*. General residential infill will be subject to a 6% levy.

	Active (%)	**Passive (%)**	**Local (%)**	**Total (%)**
Growth Corridors	4 (in lieu).	3 onsite if corridor.	3 on site.	10
DPO Areas	4 (in lieu).	4 (in lieu).	2 within DPO area.	10
Infill	3 (in lieu).	3 (in lieu).	0	6

6.2
INFRASTRUCTURE SERVICES

The ability to provide physical services is a key consideration at all stages of development. At the Structure Plan stage it is key to identify whether there are any impediments to servicing land or issues to be addressed due to the presence of existing services.

Water

Central Highlands Water is the water and sewer authority for Ballan. Ballan's reticulated water is received from a treatment plant that is situated within Lal Lal. There is capacity for water from the White Swan Treatment Plant to be diverted to the Lal Lal plant and supply water to the township in the event that output from the Lal Lal plant becomes unavailable.

With regards to the capacity of the system, a test was undertaken on a hydraulic model constructed in 2001 of the Ballan reticulated water system. This test identified that the system could accommodate the connection of more than 1,000 additional properties without requiring major upgrade works. It has previously been identified that land in higher elevated locations such as Kerrins Lane and Mount Gorong would be difficult and more expensive to service in comparison to alternative locations.

Sewerage

Central Highlands Water is the servicing authority for sewerage within the Ballan township. The sewerage system involves all sewer mains gravitating to a single pump station located in Jopling Street. The sewerage is then pumped approximately 5 kilometres in a south eastern direction to the wastewater treatment plant located along Ingliston Road. The treatment plant comprises two allotments that are zoned Public Use Zone – Schedule 5 (Service and Utility). The Ballan Urban Growth Strategy outlined that no areas identified within the exhibited and final Ballan framework plan should be discounted from consideration for future urban development due to an inability to provide services. Most areas can be provided with sewerage services, though physical infrastructure upgrades may need to be undertaken and costs would be incurred as development occurs.

Through previous redevelopment proposals, Central Highlands Water has indicated that there could be financial constraints pertaining to servicing requirements for land parcels within the Residential 1 Zone. This has been indicated for land towards the north-west corner and for land in the vicinity of Steiglitz Street within the town grid.

Previous reports have identified that providing sewerage to the area to the south of Ballan is likely to incur additional costs and the provision of hard infrastructure such as a pumping station.

Stormwater Drainage Assets

Moorabool Shire Council and Melbourne Water are responsible for drainage within Ballan. At subdivision the rate of flow of water off the land must not exceed pre development levels which often required retardation. The Moorabool Shire Council Stormwater Management Plan is the key applicable document.

Melbourne Water is investigating drainage retarding basis to the south of the railway line.

Power – Powercor

There are existing 22kV high voltage distribution lines servicing properties in the general vicinity of the north-western portion of town, to the south and east of the potential growth area to the west of the township.

Powercor responsibilities include the street vegetation does not pose a risk to powerlines. Severe pruning of species may occur under power industry exemptions.

Gas

A gas transmission pipeline is located to the south of the town grid in Ballan that extends further westward to provide service to Ballarat. This pipeline is encompassed by an easement with a width of 20 metres. SP Ausnet (Gas) Pty Ltd is the owner of gas assets for the area and Tenix Networks Pty Ltd operates as their maintenance provider.

Based on the existing infrastructure associated with the gas system, it appears that most areas that are zoned for urban purposes could be serviced to the satisfaction of the service provider. There are some large residential sites located on the periphery of the town that may be required to augment the infrastructure in order to be serviced.

With regards to the potential growth area to the west of the township, there is an existing small diameter gas main exists along Old Melbourne Road that may be capable of provided greater supply. Should development occur there is a possibility that minor reinforcement works would be required in the vicinity of the Ballan City Gate. Ballan City Gate is located on the existing large diameter high pressure pipe 1.5 kilometres south of Old Melbourne Road, within close vicinity to the intersection of Deholms Road and Gillespies Lane.

Above, Gas transmition line and potential drainage retardation locations

Telecommunication – NBN Co / Telstra

The existing developments to the south and east have limited availability to the Telstra network. As it relates to the National Broadband Network, Ballan has been outlined to receive fibre coverage.

Implementation

The Ballan Framework Plan will be amended to:

- support the long term relocation of industrial uses from the town centre to the industrial estate;
- support the future expansion of the industrial estate and support the future application of a Development Plan Overlay to guide the form and function of the estate.
- Protect zoned land from residential encroachment.
- Identify the high pressure gas pipeline

Development Plan Overlay / policy on subdivision

- An internal road network that provides a high level of access within the development for all vehicular and non-vehicular traffic.
- Road alignment and layout that encourages connectivity with existing road networks and provides logical opportunities for extension of the street system for new development areas in the future.
- The prevention of cul-de-sacs and other street layouts which contribute to isolating forms of development and discourage permeability.
- Lots that are of appropriate dimensions and proportions that can accommodate future dwellings that are reflective of the existing patterns of the area.
- The retention of existing significant native or exotic trees.

The Development Plan Overlay / Local Policy

Utilise the Development Plan Overlay or local policy to:

- Identify the form and connectivity requirements to be met for resubdivision of large general residential zoned lots

7.0
IMPLEMENTATION

Below, Framework plan

01 Central Ballan
02 Commercial area
03 Ballan North
04 Consolidated Residential
05 Future Urban Investigation
06 Future Urban Investigation (Long Term)
07 Urban Infill
08 Future urban investigation (Medium Term)
09 Rural interface
10 Rural interface
11 Buffer to industrial land
12 Industrial area expansion
13 Passive recreation corridor
14 Historic Design Development Overlay
Local park gaps

Implementation

The Ballan Structure Plan will be implemented by Council and proponent lead amendments that will seek to implement the following changes to the Moorabool Planning Scheme.

Municipal Strategic Statement

- Replace Clause 21.08 to reflect policy directions of the Ballan Structure Plan and identify future strategic work.

Zones

- Apply the Urban Growth Zone to the western growth corridor.
- Apply the Industrial 1 Zone to the existing Industrial 3 area.
- Apply the General Residential Zone (specific schedule) to identified land near the commercial centre and Ballan Hospital.
- Apply the General Residential Zone (specific schedule) to land where resubdivision should provide connection to adjoining developments / future developments
- Apply the Neighbourhood Residential Zone (specific schedule) to strategic unit development close sites to the hospital;
- Apply the Neighbourhood Residential Zone (specific schedule) to land in the town core to maintain the treed character of the area;
- Apply the Neighbourhood Residential Zone (specific schedule) to land in the town core with heritage character and to areas in the south east to maintain the historic streetscape character of the area;
- Apply the Neighbourhood Residential Zone (specific schedule) to newer subdivisions to the east of the town centre to enhance the existing character.
- Apply the Neighbourhood Residential Zone (specific schedule) to newer

subdivisions in the North Ballan to reflect the existing character of the area including rural infrastructure provision.

- Apply the Neighbourhood Residential Zone (specific schedule) developed areas within North Ballan to maintain the existing low density residential character.
- Amend the schedule to the Low Density Residential Zone to restore the 0.4ha minima
- Future proponent led rezonings – eastern infill site, industrial zone expansion, southern growth corridor.
- Future proponent led Precinct Structure Plans for Western and Southern Growth Corridors following application of the Urban Growth Zone.

Overlays / Policy

- Apply a Development Plan Overlays or policy statement to land zoned General Residential Zoned land which is able to be resubdivided to ensure connections between separate land holdings.
- Apply a Design and Development Overlay to area with a concentration of indicative heritage sites;
- Apply a Design and Development Overlay to the commercial area to allow for redevelopment which reinforces the character of the centre; encourages an urban form respectful to the exising form; encourages integration between areas and provides opportunities for community space.
- Consider future application of a Design and Development Overlay to land adjoining the Industrial Zone.

Particular Provisions

- Introduce a schedule to Clause 52.01 Open Space Provision

Attachment - Item 10.2.6(a)

Southern Rural Water

Quarry Site - Lake Merrimu
Planning Scheme Amendment

August 2015

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Appendices

Appendix A Certificate of Title

1. Introduction and Project Overview

1.1 Background and Project Rationale

Gippsland and Southern Rural Water Corporation (trading as Southern Rural Water) manages rural water across the southern half of Victoria.

Southern Rural Water's (SRW) main customers are principally the farmers, graziers and growers of southern Victoria, and also supply water in bulk to non-metropolitan urban water corporations (ie. Western Water) and to Latrobe Valley electricity generators.

SRW has identified a number of sites across southern Victoria that are surplus to the operational requirements of the business. Part of the subject site known as Lot 2 (Part) on LP 221537M on Diggers Rest-Coimadai Road has been identified as being surplus and accordingly, SRW seeks to release this land to the market for development.

Accordingly, the current Public Use Zoning (PUZ1 – Service and Utility) of the land is no longer relevant and SRW seeks to rezone the property to a more appropriate zone to facilitate future private use of the land.

The project requires a planning scheme amendment pursuant to the provisions of the Moorabool Planning Scheme and the *Planning and Environment Act 1987*.

1.2 Limitations

This report: 'Quarry Site, Lake Merrimu – Planning Scheme Amendment' has been prepared by GHD for SRW and may only be used and relied upon by SRW for the purpose agreed between GHD and the Southern Rural Water as set out in section 1.3 of this report.

GHD otherwise disclaims responsibility to any person other than SRW arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section 1.3 of this report). GHD disclaims liability

1.3 Assumptions

This report was prepared based upon a desktop assessment of available GIS data, photographs, publicly available reports and documents, and information sourced from Victorian Government agencies and others during meetings (including the former Department of Transport, Planning and Local Infrastructure (DTPLI), former Department of Environment and Primary Industries (DEPI), Country Fire Authority (CFA) and VicRoads, which GHD has not independently verified or checked beyond the agreed scope of work. A site inspection has been undertaken during the preparation of the report.

2. Subject site and surrounds

2.1 Subject Site and Context Description

The site is situated on the corner of Bences Road and Diggers Rest-Coimadai Road, Bacchus Marsh. The site is bounded by Diggers Rest-Coimadai Road on the north boundary and Bences Road on the west boundary.

The site is situated to the south-west of Lake Merrimu and is adjoined to the south by large rural residential blocks.

The land to the north, east and west is generally used for grazing / farming with scattered dwellings. Further west of the site and across Gisborne Road is an existing quarry.

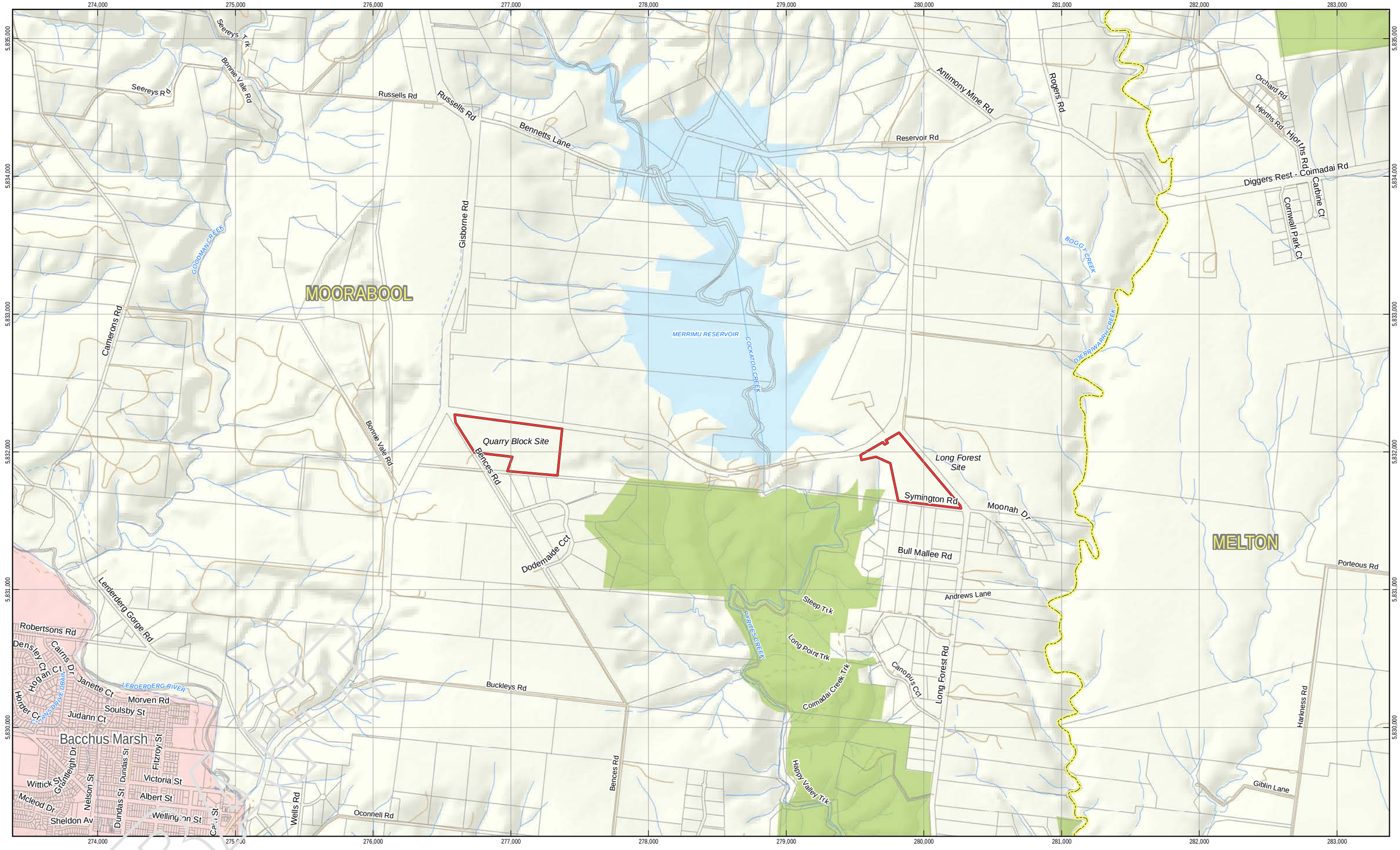
A Locality plan is provided at Figure 1.

2.2 Current Land Use

The western portion of the site is currently used for grazing. The balance of the site is currently vacant land.

A pump station and associated water storage tanks are located at the western end of the site and adjacent to Bences Road.

Access to the site is obtained from an existing gravel driveway off both Bences Road and Diggers Rest-Coimadai Road.



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0 125 250 500 750 1,000

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Site Boundaries
- Local Government Boundary
- Major water area
- Major water course
- Urban Area
- Park

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Job Number	31-30827
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Locality Plan

Figure 1

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3. Project Description

3.1 Project Description

The project involves a Planning Scheme Amendment to rezone Lot 2 (part) LP221537M from a Public Use Zone 1 – Service and Utility (PUZ1) to a Rural Conservation Zone (RCZ), pursuant to Part 3 of the *Planning and Environment Act 1987*.

The Rural Conservation Zone would facilitate the future subdivision of the site for residential purposes in a manner that would be compatible with the land use character of the area and strategic objectives of the Planning Scheme.

4. State, Regional and Local Government Strategic Planning Policies

The following section outlines relevant State, Regional and Local Planning Policies which support the proposed amendment and the subdivision application.

4.1 State

4.1.1 Plan Melbourne

Plan Melbourne (Chapter 6 – State of Cities) identifies Bacchus Marsh and Ballan as peri-urban towns with potential to attract housing and population growth out of Melbourne. It is likely that demand for housing in these centres would be accelerated in the future with the imposition of a permanent growth boundary around Melbourne.

The proposed amendment and subdivision implements Plan Melbourne by providing opportunities for rural residential subdivision.

4.2 Regional

4.2.1 Central Highlands Regional Growth Plan (May 2014)

The Central Highlands Regional Growth Plan (Plan) sets out a vision for the region to 2041 that seeks to create vibrant, innovative, sustainable and connected communities offering a diversity of lifestyles, building on valued heritage, natural environment and agricultural landscapes in the region.

The Plan recognises that there is ongoing pressure for urban and rural residential development in high amenity areas, in particular, Bacchus March which has good access to Melbourne. These pressures may conflict with planning objectives relating to the protection of state and regionally significant water catchments, environmental assets and ensuring the ongoing availability of versatile and productive agricultural land for primary production.

Land use planning has an important role to play in ensuring agricultural operations are not encroached upon by sensitive uses where such pressures exist, particularly within Moorabool and Golden Plains shires.

The Plan also acknowledges that natural hazards such as bushfire need to be carefully managed to protect life and property in many high amenity areas.

4.3 Local

4.3.1 Moorabool Planning Scheme

The site is located within Moorabool Shire.

Consistent with the objectives for planning in Victoria, as set out under the *Planning and Environment Act 1987*, the Moorabool Planning Scheme provides a framework for decision making about the use and development of land, and sets out the policies that implement state, regional, local and community expectations for areas and land uses.

The Planning Scheme includes the State Planning Policy Framework (SPPF), which sets out a number of policies that provide a clear strategic basis for the provision of rural residential development.

The site is located within PUZ1 and is affected by the Environmental Significance Overlay (ESO3). The site is adjacent to the Diggers Rest-Coimadai Road which is included within a Road Zone – Category 1 (RDZ1) and is managed by VicRoads.

The land to the north is zoned Farming Zone (FZ), to the south and west is the Rural Conservations Zone (RCZ). The land to the west (across Gisborne Road) operates as a quarry and is zoned Special Use Zone 2 – Earth and Energy Resource Industry (SUZ2).

The existing zone and overlays are presented I Figure 2.

4.3.2 Bences Road Local Structure Plan

The Bences Road Local Structure Plan, November 2007 (LSP) applies to land immediately south of the subject land. The LSP provides a framework for future development of the Bences Road plateau, whilst also balancing the need to protect and enhance the environmental attributes of the area.

A number of key issues regarding the feasibility of the future development of the Bences Road area are identified in the LSP which are considered relevant to the proposed subdivision.

These issues are summarised below:

- The Bences Road plateau area has significant environmental values. The area has prominent ridgelines that provide a strong character to the Bacchus Marsh township and the Long Forest Nature Reserve to the west is recognised as an area of State environmental significance. Environmental and view line buffers have been developed to ensure adequate protection of the unique environmental features of the area
- Infrastructure capacity issues and the feasibility of upgrading infrastructure limit the development potential of the area affected by the LSP. The capacity of the existing sewer system has a direct impact on lot yield and lot size
- All lots are to be connected to a potable water supply
- The need exists for developer contributions to fund infrastructure and works, open space and upgraded community facilities.

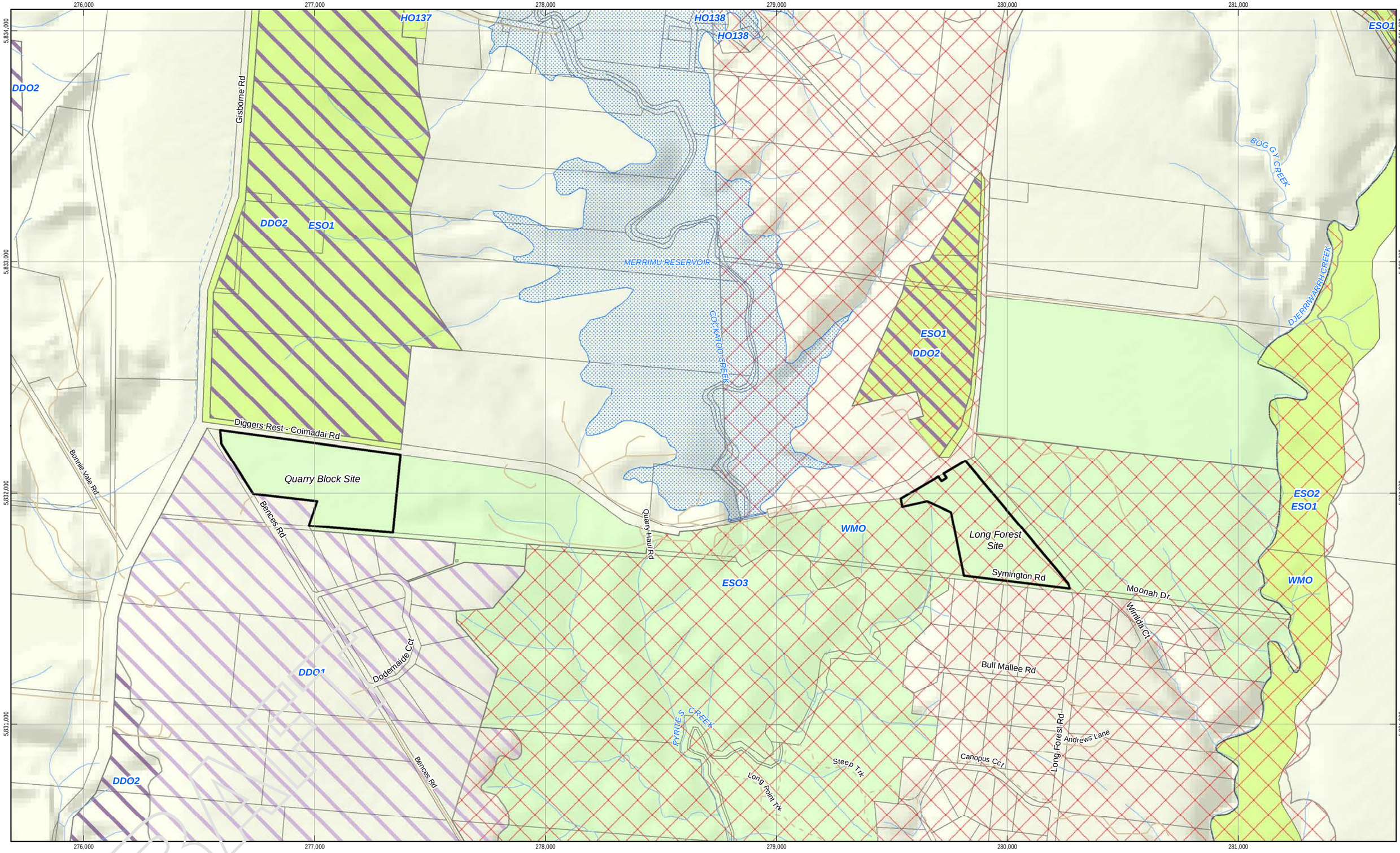
Whilst the Bences Road Structure Plan does not affect the subject site, this document has served as a reference for the proposed subdivision of the land to ensure a level of consistency and compatibility of lot size and land use.

4.3.3 Moorabool 2041 – Urban Growth Strategy

Moorabool Shire Council has commenced the *Moorabool 2041* strategy to develop a growth framework for both the Bacchus Marsh district (Urban Growth Framework) and the municipality's rural small towns (Rural Growth Framework).

Council has recently entered into a joint strategic planning initiative with the Metropolitan Planning Authority to assist in coordinating these urban and rural growth strategies. It is understood that the urban growth strategy would include investigations into future growth in the Lake Merrimu region.

It is expected that urban and rural growth strategies would be completed in 2016.



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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Site Boundaries
- Planning overlay
  - Design & Development 1
  - Design & Development 2
- Environmental Significance 1
- Environmental Significance 3
- Wildfire Management

DRAFT

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Desktop Planning Assessment

Job Number	31-30827
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Overlay Map

Figure 3

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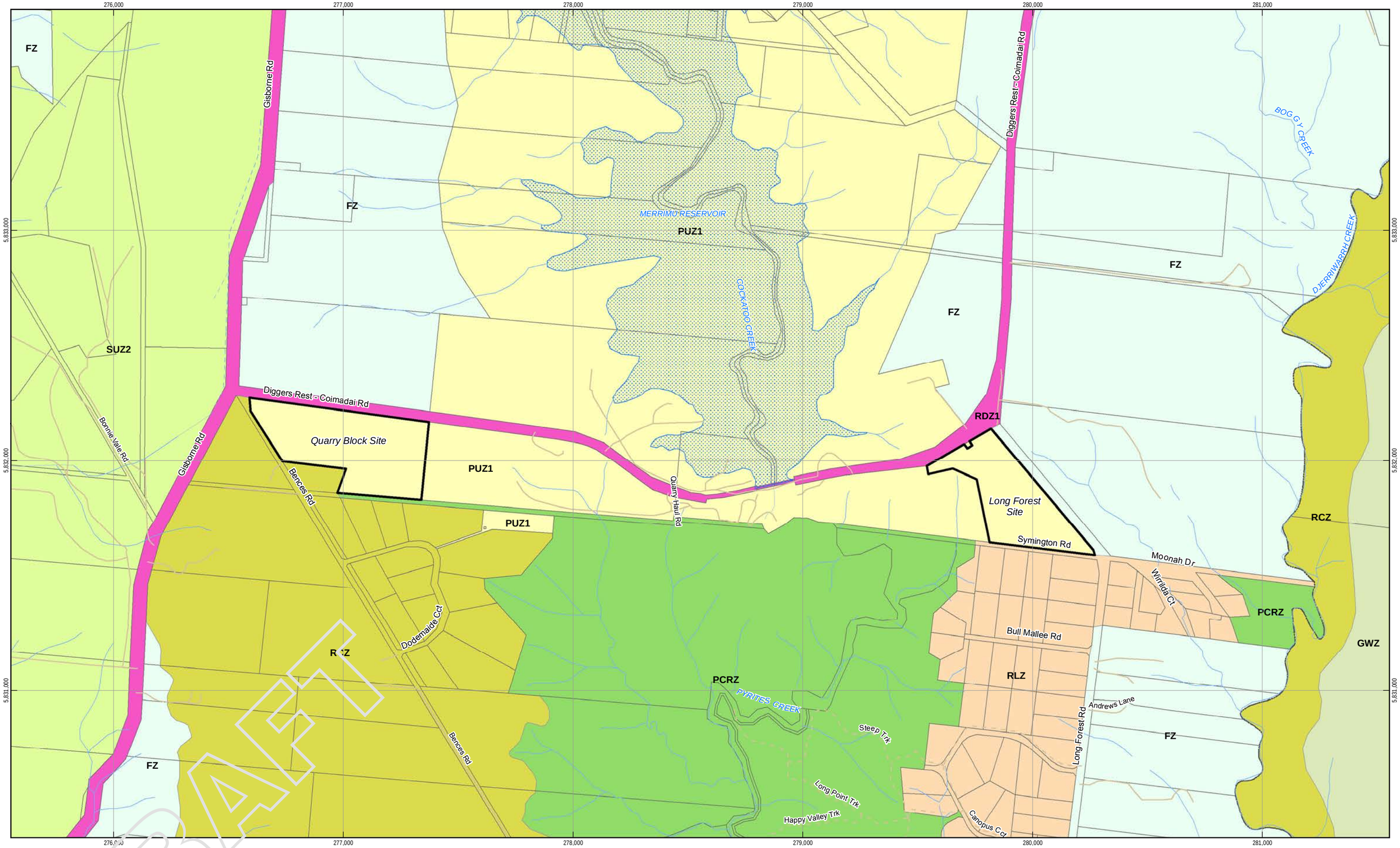

Scale 1:15,000 (At A3)

0 75 150 300 450 600

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Site Boundaries
- **Planning zone**
  - Farming
  - Green Wedge
- Public Conservation & Resource
- Public Use 1 - Service & Utiltiy
- Rural Conservation
- Road – Category 1
- Rural Living
- Special Use 2 - Earth & Energy Resources Industry

Southern Rural Water
Desktop Planning Assessment

Job Number	31-30827
Revision	A
Date	24 Oct 2013

Zoning Plan

Figure 2

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5. Strategic Assessment of the Amendment

The following sections of this report outline the strategic basis for the amendment, and consider its social, economic and environmental impacts. In particular, the following sections provide an assessment against the relevant policies of the Moorabool Planning Scheme.

Consistent with Minister's Direction No. 11 *Strategic Assessment Guidelines, and the Strategic Assessment Guidelines* for preparing and evaluating planning scheme amendments (DTPLI, July 2014), the following relevant strategic considerations must be addressed in the preparation of the proposed amendment:

- Why is the amendment required?
- Does the amendment implement the objectives of planning as stated in the Planning and Environment Act 1987, and address any environmental, social and economic effects?
- Does the amendment address relevant bushfire risk?
- Does the amendment comply with all the relevant Minister's Directions?
- Does the amendment support or implement the State Planning Policy Framework (SPPF)?
- How does the amendment support or implement the Local Planning Policy Framework (LPPF) and, specifically, the Municipal Strategic Statement (MSS)?
- Does the amendment make proper use of the Victoria Planning Provisions?
- How does the amendment address the views of relevant agencies?
- Does the amendment address the requirements of the Transport Integration Act 2010?
- What impact will the new planning provisions have on the administrative costs of the responsible authority?

5.1 Why is an amendment required?

As referenced earlier, SRW seek to sell the land as it is surplus to its operational requirements. Accordingly, it is proposed to rezone the land to a more appropriate zone in order to facilitate future residential subdivision of the land which is not consistent with the purpose of the currently PUZ1 zoning.

5.2 How does the amendment implement the objectives of planning in Victoria?

The amendment is consistent with the objectives of Section (4) of *the Planning and Environment Act 1987.* In particular, the amendment:

- Provides for the fair and orderly, economic and sustainable use and development of land
- Secures a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria
- Balances the present and future interests of all Victorians.

5.3 How does the amendment address any environmental, social and economic effects?

The amendment ensures that the planning objectives in Victoria are met by providing the fair, orderly, economic and sustainable use of land by including the subject site in the most appropriate zone.

5.3.1 Environmental Effects

The amendment would facilitate the future subdivision of the site for residential purposes.

Whilst native vegetation does exist on the subject site, any future subdivision of the site would need to assess the impact of access and building locations on native vegetation. The subject site contains significant areas that are unaffected by native vegetation. Accordingly, it is expected that a future subdivision can be undertaken in a manner that would minimise impacts on native vegetation.

Future allotments can be connected to existing water infrastructure established adjacent to the subject site.

The proposed rezoning will not prejudice the long-term availability and management of Victoria's natural resources. It is noted that the subject land is not productive agricultural land and the site is not located within a special water supply catchment area under the *Catchment and Land Protection Act 1994*.

5.3.2 Social Effects

The proposed rezoning is not anticipated to result in any significant social effects. The Rural Conservation Zone will facilitate the future subdivision of the land for residential purposes, which will contribute the housing needs of the municipality and provide for housing diversity and choice.

The proposed rezoning is consistent with the surrounding land use and will be a continuation of the existing rural residential development located south of the subject land. As a result the proposed zoning will be compatible with the surrounding area.

The amendment will have positive social effects as it provides the opportunity for the orderly provision of residential subdivision that makes effective use of existing and proposed social and physical infrastructure in the surrounding area.

5.3.3 Economic Effects

The amendment may result in a positive economic impact by providing additional land suitable for residential land use within the municipality. Future subdivision of the land is likely to result in flow-on economic effects to the local construction industry through the construction of additional housing.

The amendment will not impact upon natural resources such as agricultural land or the sand quarry which are identified as being fundamentally important to the local and state economy.

The amendment will result in negligible administrative costs to the responsible authority given the rezoning only affects one site.

5.4 Does the amendment address relevant bushfire risk?

The site is not affected by the Bushfire Management Overlay.

Notwithstanding this, it is anticipated that all dwellings would have water tanks with a sufficient supply of water to assist in localised firefighting efforts.

5.5 Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?

The amendment has been prepared in accordance with the Ministerial Direction on the Form and Content of Planning Schemes under Section 7(5) of the *Planning and Environment Act 1987*.

The amendment is consistent with Ministerial Direction 11 (Strategic Assessment of Amendments). This report contains an evaluation and discussion on how the amendment addresses the strategic considerations outlined in the Ministerial Direction and provides sound strategic basis and an appropriate level of justification for the amendment.

No specific Ministerial Direction applies to the proposed amendment.

5.6 How does the amendment support or implement the State Planning Policy Framework?

The proposed amendment directly supports an implementation of the State Planning Policy Framework through the following:

- The subject site will provide rural conservation zoned land that is readily accessible to services and infrastructure to support rural residential housing
- The subject site will provide opportunity to increase the supply of housing in a peri-urban setting
- The site provides an opportunity for future subdivision of a site that is no longer required by Southern rural Water for the infrastructure purposes.

Specifically, the proposed amendment responds to the provisions of the State Planning Policy Framework as follows:

Clause 12.06 Central Highlands Regional Growth

The objective of this Clause is to plan for population growth in sustainable locations throughout the region.

The amendment implements this objective by providing residential land supply in a peri-urban context that has access to services and infrastructure.

Clause 12.01 Biodiversity

Clause 12.01 includes objectives for the protection of habitat, native vegetation management and the preparation of biodiversity strategies. Furthermore, this Clause also seeks to ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

The subject site contains significant areas that are unaffected by native vegetation. Accordingly, it is expected that any future subdivision can be undertaken in a manner that would minimise impacts on biodiversity in the area.

Clause 13.04 Noise and Air

Clause 13.04 includes objectives to in assist the control of noise effects on sensitive land uses and assist the protection and improvement of air quality.

The amendment supports these objectives as sufficient separation can be provided between the sand quarry at Bacchus Marsh-Gisborne Road and potential future residents on the subject land.

Clause 13.05 Bushfire

Clause 13.05 includes the objective to assist to strengthen community resilience to bushfire.

The amendment responds appropriately to this objective on the basis that the subject land is not located in an area covered by the Bushfire Management Overlay. Furthermore, future residential development of the site could be designed with sufficient on-site water supply for firefighting purposes.

Clause 15.03-2 Cultural Heritage

Clause 15.03-2 includes the objective to ensure the protection and conservation of places of Aboriginal cultural heritage significance.

The amendment has considered this objective in the early planning stages, with a desktop assessment undertaken confirming that the site is not within an area of cultural sensitivity.

Clause 16.02-1 Rural Residential Development

Clause 16.02-1 includes the objective to identify land suitable for rural living and rural residential development.

The proposed amendment would facilitate the future subdivision of the site for residential development that is compatible with existing residential development in the surrounding area.

Accordingly, the proposed amendment would assist in implementing the above clause.

Clause 19.02-3 Water Supply, Sewerage and Drainage

Clause 19.02-3 includes the objective to plan for the provision of water supply, sewerage and drainage services that efficiently and effectively meet State and community needs and protect the environment.

The proposal implements this objective by ultimately facilitating future subdivision that is capable of adequately treating and retaining all domestic wastewater within the boundaries of each lot and will be connected to potable water and electricity supply.

5.7 How does the amendment make proper use of the Local Planning Policy Framework?

The amendment supports and implements the Local Planning Policy Framework of the Moorabool Planning Scheme, including the Municipal Strategic Framework and the Local Planning Policies as follows:

Clause 21.02 Natural Environment

Moorabool Shire's natural environment, towns, rural landscapes, and forested areas are important elements of the Shire's character. Clause 21.02 seeks to maintain and enhance the natural environment and the Shire's rural identity and character.

The subject site contains significant areas that are unaffected by native vegetation. Accordingly, it is expected that a future subdivision can be undertaken in a manner that would minimise impacts on the biodiversity in the area.

Clause 21.02-2 Non Urban Landscapes

Clause 21.02-2 seeks to maintain and enhance the natural environment and the Shire's rural identity and character.

The subject site contains significant areas that are unaffected by native vegetation. Accordingly, it is expected that a future subdivision can be undertaken in a manner that would not create any significant impacts on biodiversity in the area.

Clause 21.02-5 Wildfire

The objective of the clause is to minimise the risk of wildfire.

Notwithstanding no subdivision or development is currently proposed for the site, provision can be made for on-site water storage tanks associated with future residential use of the site.

Clause 21.03 – Settlement and Housing

It is expected that outward pressure from the Melbourne metropolitan area, the location of the Shire on one of the State's major regional transport corridors and proximity to the regional centres of Ballarat and Geelong will continue to reinforce the advantages of the Shire as a place to live and invest.

The proposed amendment would ultimately facilitate a response to the known demand for rural residential type allotments in the local area.

Clause 21.03-4 Landscape and Neighbourhood Character

Clause 21.03-4 seeks to ensure that new development in all zones respects the existing character, landscape setting and amenity of the local area.

The proposed rezoning will be consistent with relevant strategies for this clause as the proposed rural conservation zone will complement the rural residential use and zoning of adjoining land to the south.

Accordingly, the proposed rezoning will not result in any unreasonable impact on the landscape character of the local area in the future.

Clause 21.03-5 Rural Lifestyle Opportunities

Clause 21.03-5 relates to rural lifestyle opportunities and seeks to support development in small towns and rural lifestyle opportunities as an additional residential choice. The proposed rezoning supports this strategy by providing an opportunity for rural residential development on the subject site that would not adversely affect agricultural production and would have minimal impact to native vegetation and habitat values.

A future subdivision of the site is capable of satisfying environmental and physical requirements, including appropriate on-site treatment of effluent and stormwater management, reticulated water services are provided and sealed access roads service all lots. Future subdivision could also be undertaken in a manner that is consistent with the pattern of existing rural living type development to the south of the site.

Clause 21.05 – Development and Community Infrastructure

The rezoning supports and implements this Clause by enabling financial contributions to the provision of infrastructure such as public facilities, public transport, and roads.

Clause 21.07 Bacchus Marsh

Clause 21.07-4 refers specifically to rural residential development in Bacchus Marsh. The objective of this Clause is to provide high amenity rural lifestyle opportunities while protecting irrigated horticultural land and the sustainability of environmental assets. The Clause recognises the importance and attractiveness of rural residential and rural lifestyle living as an alternative living environment in designated areas around Bacchus Marsh and seeks to ensures that rural residential development is consistent with the Bacchus Marsh Framework Plan.

The subject land is not included in the Bacchus Marsh Framework Plan. However, the land immediately south and west of the site is subject to the provisions of the Bacchus Marsh Framework Plan and is identified as an area for '*low density and environmentally sensitive housing opportunities'*.

The proposed amendment implements this clause as it can facilitate future residential development without impacting upon agricultural land or the environment.

5.8 How does the amendment make proper use of the Victoria Planning Provisions?

The amendment makes the proper use of the Victorian Planning Provision (VPPs), as:

- SRW have identified that the site is surplus to its operational requirements and intends on selling the property. In accordance with the VPP's it would be inappropriate to have privately owned land included within a Public Use Zone.
- The RCZ has been applied to land immediately south of the site and is the considered the most appropriate zone to apply over the subject site. The proposed rezoning would form a logical extension of the RCZ to allow the land to be development for rural residential purposes.
- The ESO affecting the subject site will not be altered by the proposed amendment.

5.9 How does the amendment address the views of the relevant agency?

SRW, in the course of preparing this amendment request, has consulted with a number of relevant agencies in preparing the amendment. The agencies whose views have been addressed in this amendment are listed below:

- Moorabool Shire Council – as the planning authority for the Moorabool Planning Scheme
- Department of Transport, Planning and Local Infrastructure (now Department of Environment, Land, Water and Planning) – on behalf of the Minister for Planning responsible for authorising the amendment.
- VicRoads – as the road manager of the Diggers Rest-Coimadai Road.
- Department of State Development, Business and Innovation (now Department of Economic Development, Jobs, Transport and Resources) – as administer of the Mineral Resources Sustainable Development Act 1990 which covers extractive industries and mining and in relation to the existing quarries on Bacchus Marsh-Gisborne Road.

5.10 How does the amendment address the requirements of the Transport Integration Act 2010?

The amendment is not considered to have any impact on the transport system, as defined by Section of the *Transport Integration Act 2010*.

There are no applicable statements of policy principles prepared under Section 22 of the *Transport Integration Act 2010*.

5.11 What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?

The new planning provisions will have a minor impact only on the resource and administrative costs of the Moorabool Shire Council, as the relevant responsible authority.

The amendment only affects land that would facilitate future subdivision of the site. A small number of subdivision and residential use planning permit applications would likely be generated as a result of the amendment.

5.12 The Appropriateness of the Amendment

The planning scheme amendment to rezone the subject land to a RCZ is an appropriate planning outcome for the following reasons:

- SRW intend on selling the land and therefore it would inappropriate to have privately owned land with a PUZ1
- The proposed amendment, is consistent with the policy and objectives as set out in the State and local planning policies of the Moorabool Planning Scheme and the Regional Strategy
- Any future subdivision facilitated by the proposed amendment could be designed in a manner that has minimal impact on native vegetation and habitat values, having regard to the native vegetation cover of the site.
- The subject site can be readily connected to water and electricity infrastructure to support rural residential use of the site.
- Future allotments on the subject site could be designed in a manner that allows for sufficient on-site wastewater disposal area to minimise impact on ground and surface water resources within the local area.

6. Conclusion

The proposed planning scheme amendment is sought pursuant to the provisions of the *Planning and Environment Act 1987.*

This report supports the amendment request to rezone the subject land from the existing Public Use Zone – Schedule 1 to the Rural Conservation Zone under the Moorabool Planning Scheme. This would accommodate the future residential subdivision of the site and assist in addressing demand for housing the area.

On balance, we are of the opinion that the proposed amendment is appropriate and is consistent with State and local policy directions which encourage growth in appropriate locations.

Accordingly, we respectively seek the support of Council for the proposed amendment request.

Appendices

Appendix A Certificate of Title

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Produced 09/12/2014 08:06 am

LAND DESCRIPTION

Lot 2 on Plan of Subdivision 221537M.
PARENT TITLE Volume 06128 Folio 500

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
RURAL WATER COMMISSION OF VICTORIA

ENCUMBRANCES, CAVEATS AND NOTICES

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE LP221537M FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

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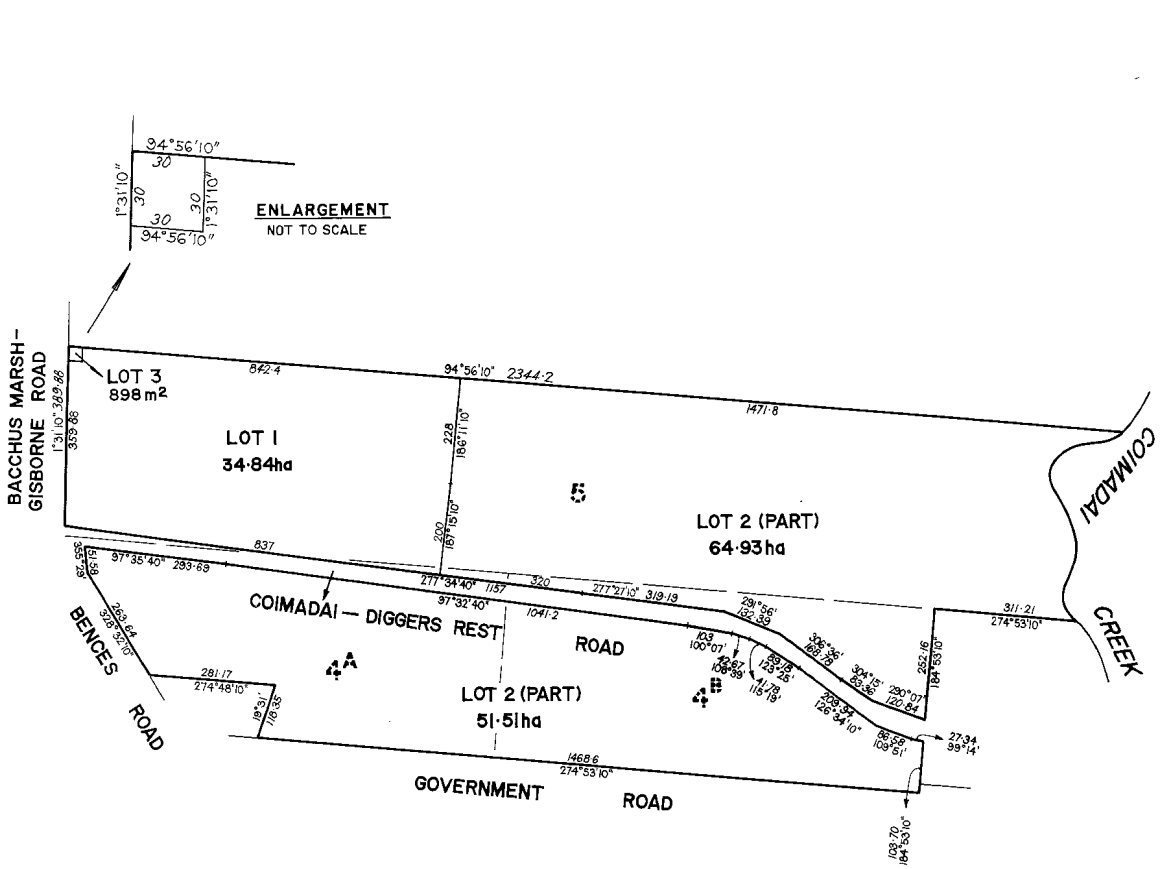

NOTATIONS

LOT 2 IS NOT SUBJECT TO SURVEY.

TO BE COMPLETED WHERE APPLICABLE
THIS SURVEY HAS BEEN CONNECTED TO PERMANENT MARKS NOS: 13
IN PROCLAIMED SURVEY AREA NO. ——

THE LAND TO BE SUBDIVIDED IS SHOWN ENCLOSED BY THICK LINES
TITLE REF: C/T 6128/500
LAST PLAN REF: LP86344 (LOT 2)

CERTIFICATION BY SURVEYOR

I, ALAN EDWARD TIMCKE, OF 590 ORRONG ROAD ARMADALE, 3143, CERTIFY THAT THIS PLAN HAS BEEN PREPARED FROM A SURVEY MADE UNDER MY IMMEDIATE DIRECTION AND SUPERVISION, IN ACCORDANCE WITH THE SURVEYORS ACT 1978 AND COMPLETED ON THE EIGHTH DAY OF FEBRUARY 1989, AND THAT THIS PLAN IS ACCURATE AND CORRECTLY REPRESENTS THE ADOPTED BOUNDARIES AND THAT THE CLASSIFICATION OF THE SURVEY IS D3.

28 Aug 1990
DATE

Alan Timcke
LICENSED SURVEYOR
Surveyors Act 1978

AMENDMENTS

RURAL WATER COMMISSION OF VICTORIA

SURVEYORS REF
F/N's 15727
Corr. No. 88/11741
Refer RWC plan 200827

CERTIFICATE OF MUNICIPAL CLERK

MUNICIPALITY SHIRE OF BACCHUS MARSH
COUNCIL REF. PS. 33/89

CERTIFICATE A
THIS PLAN ACCORDS WITH A PLAN
- SEALED BY THE COUNCIL UNDER SECTION 569B OF THE LOCAL GOVERNMENT ACT 1958 ON 20·9·90
- ~~CONFIRMED BY THE PLANNING APPEALS BOARD ON~~
- AND ~~A REQUIREMENT~~ / NO REQUIREMENT PURSUANT TO SECTION 569E OF THE LOCAL GOVERNMENT ACT 1958 HAS BEEN MADE

DATE 20·9·90 MUNICIPAL CLERK

CERTIFICATE B
THIS PLAN ACCORDS WITH A PLAN EXEMPTED FROM SUBDIVISION (3) OF DIVISION (9) OF PART XIX OF THE LOCAL GOVERNMENT ACT 1958 BY
- THE COUNCIL ON
- THE PLANNING APPEALS BOARD ON

DATE MUNICIPAL CLERK

OFFICE USE ONLY

PLAN APPROVED
AT
ON 5-2-91

(ASSISTANT) REGISTRAR OF TITLES

PLAN OF SUBDIVISION

COUNTY OF BOURKE
PARISH OF COIMADAI
CROWN SECTION 5 (PART)
CROWN PORTIONS 4^A AND 4^B (PARTS)

NUMBER OF SHEETS IN PLAN 1
NUMBER OF THIS SHEET 1

SCALE
80 0 80 160 240 320 400
LENGTHS ARE IN METRES

ORIGINAL SCALE 1:8000
SHEET SIZE A 2

OFFICE USE ONLY
LP221537M
VICTORIA

PC. HRH

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150mm

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
A	Dan Herrmann	Brad George	**	Brad George	**	15/6/2015
B	Dan Herrmann	Brad George	**	Brad George	**	25/8/2015

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Planning and Environment Act 1987

MOORABOOL PLANNING SCHEME

AMENDMENT C*

EXPLANATORY REPORT

Who is the planning authority?

This amendment has been prepared by the Moorabool Shire Council which is the planning authority for this amendment.

The amendment has been made at the request of Gippsland and Southern Rural Water Corporation (Southern Rural Water).

Land affected by the amendment

The Amendment applies to land know as Lot 2 PS 221537M on Diggers Rest-Coimadai Road.

What the amendment does

The amendment rezones the land from a Public Use Zone 1 (PUZ1) to a Rural Conservation Zone (RCZ).

Strategic assessment of the amendment

Why is the amendment required?

The amendment is required to rezone the land to a Rural Conservation Zone to facilitate a future subdivision of the land.

How does the amendment implement the objectives of planning in Victoria?

The amendment implements the objectives of planning in Victoria as outlined in the following objectives in Section 4(1) and 12(1)(a) of the Planning and Environment Act. In particular, the amendment:

- Provides for the fair and orderly, economic and sustainable use and development of land;
- Secures a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria;
- Balances the present and future interests of all Victorians.

How does the amendment address any environmental, social and economic effects?

The amendment ensures that the planning objectives in Victoria are met by providing the fair, orderly, economic and sustainable use of land by including the subject site in the most appropriate zone.

Environmental Effects

The amendment would facilitate the future subdivision of the site for residential purposes.

Whilst native vegetation does exist on the subject site, any future subdivision of the site would need to assess the impact of access and building locations on native vegetation. The

subject site contains significant areas that are unaffected by native vegetation. Accordingly, it is expected that a future subdivision can be undertaken in a manner that would minimise impacts on native vegetation.

Future allotments can be connected to existing water infrastructure established adjacent to the subject site.

The proposed rezoning will not prejudice the long-term availability and management of Victoria's natural resources. It is noted that the subject land is not productive agricultural land and the site is not located within a special water supply catchment area under the *Catchment and Land Protection Act 1994*.

Social Effects

The proposed rezoning is not anticipated to result in any significant social effects. The Rural Conservation Zone will facilitate the future subdivision of the land for residential purposes, which will contribute the housing needs of the municipality and provide for housing diversity and choice.

The proposed rezoning is consistent with the surrounding land use and will be a continuation of the existing rural residential development located south of the subject land. As a result the proposed zoning will be compatible with the surrounding area.

The amendment will have positive social effects as it provides the opportunity for the orderly provision of residential subdivision that makes effective use of existing and proposed social and physical infrastructure in the surrounding area.

Economic Effects

The amendment may result in a positive economic impact by providing additional land suitable for residential land use within the municipality. Future subdivision of the land is likely to result in flow-on economic effects to the local construction industry through the construction of additional housing.

The amendment will not impact upon natural resources such as agricultural land or the sand quarry which are identified as being fundamentally important to the local and state economy.

The amendment will result in negligible administrative costs to the responsible authority given the rezoning only affects one site.

Does the amendment address relevant bushfire risk?

The site is not affected by the Bushfire Management Overlay.

Notwithstanding this, it is anticipated that any future dwellings would have water tanks with a sufficient supply of water to assist in localised firefighting efforts.

Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?

The amendment has been prepared in accordance with the Ministerial Direction on the Form and Content of Planning Schemes under Section 7(5) of the Planning and Environment Act 1987.

The amendment is consistent with Ministerial Direction 11 (Strategic Assessment of Amendments). This report contains an evaluation and discussion on how the amendment

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addresses the strategic considerations outlined in the Ministerial Direction and provides sound strategic basis and an appropriate level of justification for the amendment.

No specific Ministerial Direction applies to the proposed amendment.

How does the amendment support or implement the State Planning Policy Framework and any adopted State policy?

The proposed amendment directly supports an implementation of the State Planning Policy Framework through the following:

- The subject site will provide rural conservation zoned land that is readily accessible to services and infrastructure to support rural residential housing
- The subject site will provide opportunity to increase the supply of housing in a peri-urban setting
- The site provides an opportunity for future subdivision of a site that is no longer required by Southern Rural Water for the infrastructure purposes.

Specifically, the proposed amendment responds to the provisions of the State Planning Policy Framework as follows:

Clause 12.06 Central Highlands Regional Growth

The objective of this Clause is to plan for population growth in sustainable locations throughout the region.

The amendment implements this objective by providing residential land supply in a peri-urban context that has access to services and infrastructure.

Clause 12.01 Biodiversity

Clause 12.01 includes objectives for the protection of habitat, native vegetation management and the preparation of biodiversity strategies. Furthermore, this Clause also seeks to ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

The subject site contains significant areas that are unaffected by native vegetation. Accordingly, it is expected that any future subdivision can be undertaken in a manner that would minimise impacts on biodiversity in the area.

Clause 13.04 Noise and Air

Clause 13.04 includes objectives to in assist the control of noise effects on sensitive land uses and assist the protection and improvement of air quality.

The amendment supports these objectives as sufficient separation can be provided between the sand quarry at Bacchus Marsh-Gisborne Road and potential future residents on the subject land.

Clause 13.05 Bushfire

Clause 13.05 includes the objective to assist to strengthen community resilience to bushfire.

The amendment responds appropriately to this objective on the basis that the subject land is not located in an area covered by the Bushfire Management Overlay. Furthermore, future residential development of the site could be designed with sufficient on-site water supply for firefighting purposes.

Clause 15.03-2 Cultural Heritage

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Clause 15.03-2 includes the objective to ensure the protection and conservation of places of Aboriginal cultural heritage significance.

The amendment has considered this objective in the early planning stages, with a desktop assessment undertaken confirming that the site is not within an area of cultural sensitivity.

Clause 16.02-1 Rural Residential Development

Clause 16.02-1 includes the objective to identify land suitable for rural living and rural residential development.

The proposed amendment would facilitate the future subdivision of the site for residential development that is compatible with existing residential development in the surrounding area.

Accordingly, the proposed amendment would assist in implementing the above clause.

Clause 19.02-3 Water Supply, Sewerage and Drainage

Clause 19.02-3 includes the objective to plan for the provision of water supply, sewerage and drainage services that efficiently and effectively meet State and community needs and protect the environment.

The proposal implements this objective by ultimately facilitating future subdivision that is capable of adequately treating and retaining all domestic wastewater within the boundaries of each lot and will be connected to potable water and electricity supply.

How does the amendment support or implement the Local Planning Policy Framework, and specifically the Municipal Strategic Statement?

The amendment supports and implements the Local Planning Policy Framework of the Moorabool Planning Scheme, including the Municipal Strategic Framework and the Local Planning Policies as follows:

Clause 21.02 Natural Environment

Moorabool Shire's natural environment, towns, rural landscapes, and forested areas are important elements of the Shire's character. Clause 21.02 seeks to maintain and enhance the natural environment and the Shire's rural identity and character.

The subject site contains significant areas that are unaffected by native vegetation. Accordingly, it is expected that a future subdivision can be undertaken in a manner that would minimise impacts on the biodiversity in the area.

Clause 21.02-2 Non Urban Landscapes

Clause 21.02-2 seeks to maintain and enhance the natural environment and the Shire's rural identity and character.

The subject site contains significant areas that are unaffected by native vegetation. Accordingly, it is expected that a future subdivision can be undertaken in a manner that would not create any significant impacts on biodiversity in the area.

Clause 21.02-5 Wildfire

The objective of the clause is to minimise the risk of wildfire.

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Notwithstanding no subdivision or development is currently proposed for the site, provision can be made for on-site water storage tanks associated with future residential use of the site.

Clause 21.03 – Settlement and Housing

It is expected that outward pressure from the Melbourne metropolitan area, the location of the Shire on one of the State's major regional transport corridors and proximity to the regional centres of Ballarat and Geelong will continue to reinforce the advantages of the Shire as a place to live and invest.

The proposed amendment would ultimately facilitate a response to the known demand for rural residential type allotments in the local area.

Clause 21.03-4 Landscape and Neighbourhood Character

Clause 21.03-4 seeks to ensure that new development in all zones respects the existing character, landscape setting and amenity of the local area.

The proposed rezoning will be consistent with relevant strategies for this clause as the proposed rural conservation zone will complement the rural residential use and zoning of adjoining land to the south.

Accordingly, the proposed rezoning will not result in any unreasonable impact on the landscape character of the local area in the future.

Clause 21.03-5 Rural Lifestyle Opportunities

Clause 21.03-5 relates to rural lifestyle opportunities and seeks to support development in small towns and rural lifestyle opportunities as an additional residential choice. The proposed rezoning supports this strategy by providing an opportunity for rural residential development on the subject site that would not adversely affect agricultural production and would have minimal impact to native vegetation and habitat values.

A future subdivision of the site is capable of satisfying environmental and physical requirements, including appropriate on-site treatment of effluent and stormwater management, reticulated water services are provided and sealed access roads service all lots. Future subdivision could also be undertaken in a manner that is consistent with the pattern of existing rural living type development to the south of the site.

Clause 21.05 – Development and Community Infrastructure

The rezoning supports and implements this Clause by enabling financial contributions to the provision of infrastructure such as public facilities, public transport, and roads.

Clause 21.07 Bacchus Marsh

Clause 21.07-4 refers specifically to rural residential development in Bacchus Marsh. The objective of this Clause is to provide high amenity rural lifestyle opportunities while protecting irrigated horticultural land and the sustainability of environmental assets. The Clause recognises the importance and attractiveness of rural residential and rural lifestyle living as an alternative living environment in designated areas around Bacchus Marsh and seeks to ensures that rural residential development is consistent with the Bacchus Marsh Framework Plan.

The subject land is not included in the Bacchus Marsh Framework Plan. However, the land immediately south and west of the site is subject to the provisions of the Bacchus Marsh

Framework Plan and is identified as an area for '*low density and environmentally sensitive housing opportunities'*.

The proposed amendment implements this clause as it can facilitate future residential development without impacting upon agricultural land or the environment.

Does the amendment make proper use of the Victoria Planning Provisions?

The amendment makes the proper use of the Victorian Planning Provision (VPPs), as:

- SRW have identified that the site is surplus to its operational requirements and intends on selling the property. In accordance with the VPP's it would be inappropriate to have privately owned land included within a Public Use Zone.
- The RCZ has been applied to land immediately south of the site and is the considered the most appropriate zone to apply over the subject site. The proposed rezoning would form a logical extension of the RCZ to allow the land to be development for rural residential purposes.
- The ESO affecting the subject site will not be altered by the proposed amendment.

How does the amendment address the views of any relevant agency?

Southern Rural Water, as proponent for the amendment, has consulted with a number of relevant agencies in preparing the amendment. The agencies whose views have been addressed in this amendment are listed below:

- Moorabool Shire Council – as the planning authority for the Moorabool Planning Scheme
- Department of Environment, Land, Water and Planning (DEWLP) – on behalf of the Minister for Planning responsible for authorising the amendment;
- VicRoads – as the road manager of the Diggers Rest-Coimadai Road;
- Department of State Development, Business and Innovation (DSDBI) – as administer of the Mineral Resources Sustainable Development Act 1990 which covers extractive industries and mining and in relation to the existing quarries on Diggers Rest-Gisborne Road.

Does the amendment address relevant requirements of the Transport Integration Act 2010?

The amendment is not considered to have any impact on the transport system, as defined by the Transport Integration Act 2010.

Resource and administrative costs

- **What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?**

The new planning provisions will have a minor impact only on the resource and administrative costs of the Moorabool Shire Council, as the relevant responsible authority.

The amendment only affects land that would facilitate future subdivision of the site. A small number of subdivision and residential use planning permit applications would likely be generated as a result of the amendment.

Where you may inspect this Amendment

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The amendment is available for public inspection, free of charge, during office hours at the following places:

Moorabool Shire Council

182 Halletts Way

Darley VIC 3340

The Amendment can also be inspected free of charge at the Department of Environment, Land, Water and Planning website at www.delwp.vic.gov.au/public-inspection.

Submissions

Any person who may be affected by the amendment may make a submission to the planning authority. Submissions about the amendment must be received by ***.

A submission must be sent to: Moorabool Shire Council, PO Box 18, Ballan, 3342

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Planning and Environment Act 1987

MOORABOOL PLANNING SCHEME

AMENDMENT C*

INSTRUCTION SHEET

The planning authority for this amendment is the Moorabool Shire Council.

The Moorabool Planning Scheme is amended as follows:

Planning Scheme Maps

The Planning Scheme Maps are amended by a total of 2 map sheets.

Zoning Maps

1. Amend Planning Scheme Map Nos 31 and 38 in the manner shown on the attached maps.

End of document

Attachment - Item 10.2.6(b)

Southern Rural Water

Longforest Site - Lake Merrimu

Section 96A Combined Planning Scheme Amendment and Planning Permit Application

June 2015

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Appendix D Bushfire Management Assessment
Appendix E Infrastructure & Servicing Assessment

1. Introduction and Project Overview

1.1 Background and Project Rationale

Gippsland and Southern Rural Water Corporation (trading as Southern Rural Water) manages rural water across the southern half of Victoria.

Southern Rural Water's (SRW) main customers are principally the farmers, graziers and growers of southern Victoria, and also supply water in bulk to non-metropolitan urban water corporations (ie. Western Water) and to Latrobe Valley electricity generators.

SRW has identified a number of sites across southern Victoria that are surplus to the operational requirements of the business. The subject site known as Lot 1 on PS348971 on Longforest Road has identified as being surplus and accordingly, SRW seeks to release this land to the market for development.

Accordingly, the current Public Use Zoning (PUZ1 – Service and Utility) of the land is no longer relevant and SRW seeks to rezone the property to a more appropriate zone and obtain a planning permit to subdivide the land.

The project requires a planning scheme amendment and a planning permit pursuant to the provisions of the Moorabool Planning Scheme and the *Planning and Environment Act 1987* which enables the consideration of land use issues associated with the terrestrial environment, subdivision design, bushfire management and infrastructure servicing.

1.2 Limitations

This report: 'Longforest Site –Section 96A Combined Planning Scheme Amendment and Planning Permit Application' has been prepared by GHD for SRW and may only be used and relied upon by Southern Rural Water for the purpose agreed between GHD and the Southern Rural Water as set out in section 1.3 of this report.

GHD otherwise disclaims responsibility to any person other than SRW arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section 1.3 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

1.3 Assumptions

This report was prepared based upon a desktop assessment of available GIS data, photographs, publicly available reports and documents, and information sourced from Victorian Government agencies and others during meetings (including the former Department of Transport, Planning and Local Infrastructure (DTPLI), former Department of Environment and Primary Industries (DEPI), Country Fire Authority (CFA) and VicRoads, which GHD has not

independently verified or checked beyond the agreed scope of work. A site inspection has been undertaken during the preparation of the report.

2. Subject Site and Surrounds

2.1 Subject Site and Context Description

The site is situated on the south-west corner of Longforest Road and Diggers Rest-Coimadai Road, Bacchus Marsh and is located approximately 5 km north-west of the township of Bacchus Marsh. The site is bounded by Diggers Rest-Coimadai Road to the north, Long Forest Road to the east and Symington Road to the south.

The land is located south-east of Lake Merrimu and neighbours low density residential development to the south side of Symington Road and along Long Forest Road. The Long Forest Flora Reserve is located immediately southwest of the subject site.

The land is situated on a largely flat plateau with land sloping downwards in all directions, most sharply to the south-west. It is heavily vegetated around its perimeter and is surrounded by vegetation to the east, south and west.

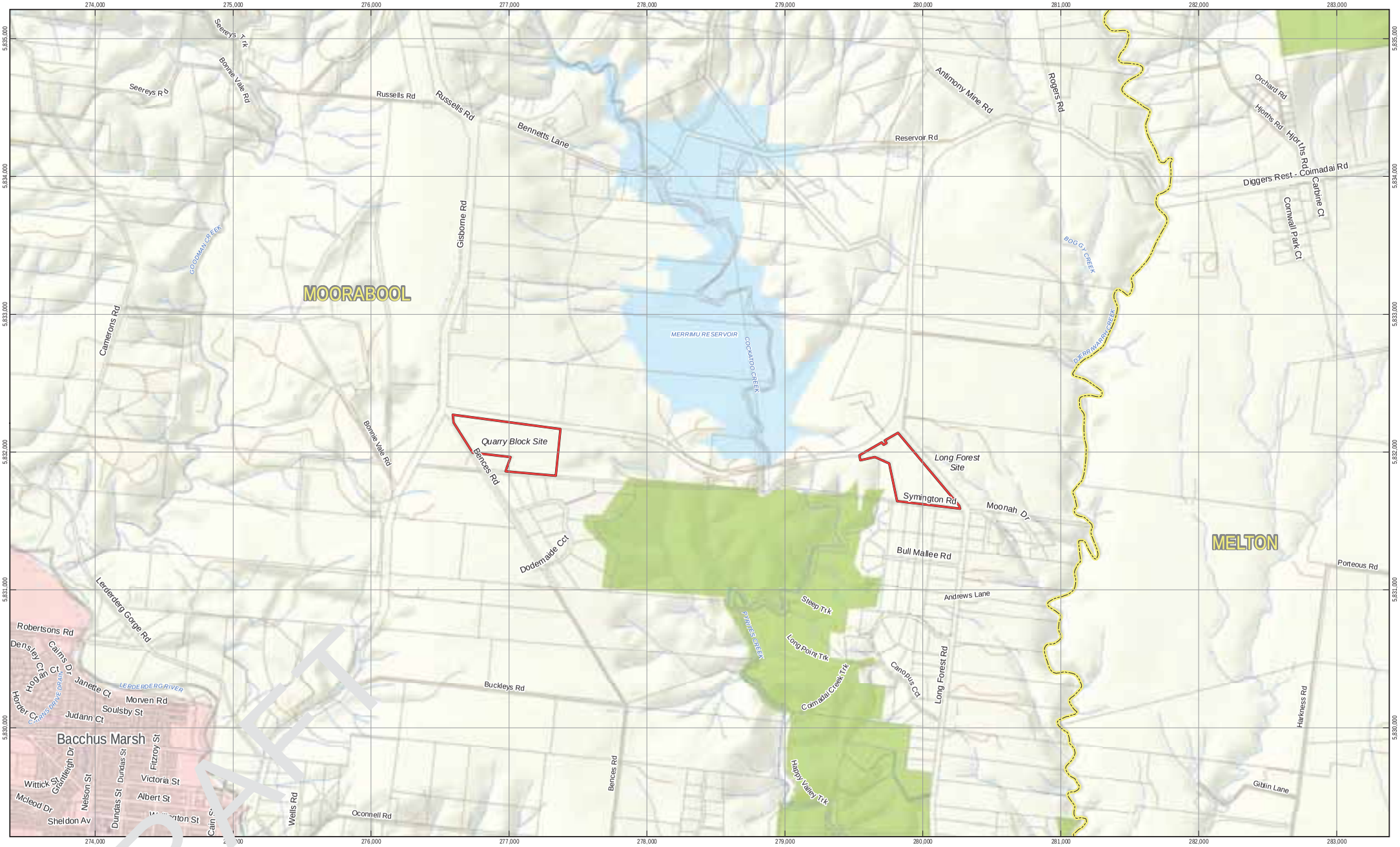
Access to the site is current via an existing access way off Diggers Rest-Coimadai Road.

A Locality plan is provided at Figure 1.

2.2 Current Land Use

The site is currently vacant of development and appears to have been modified through previous land-use. There are existing water tanks located centrally along the northern boundary of the site (purchased by SRW), as well as a small dam at the northern end of the eastern boundary, which is bounded by two small constructed earth mounds.

There are power lines running within the road reserve along the northern and southern boundaries of the site, with a power line easement that has been cleared of vegetation located just within the eastern boundary of the site.



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Scale 1:25,000 (At A3)

0 125 250 500 750 1,000

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

LEGEND

- Site Boundaries
- Local Government Boundary
- Major water area
- Major water course
- Urban Area
- Park

Southern Rural Water
Desktop Planning Assessment

Job Number	31-30827
Revision	A
Date	21 Oct 2013

Locality Plan

Figure 1

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3. Project Description

3.1 Project Description

The project involves a Planning Scheme Amendment to rezone the land on Longforest Road from a Public Use Zone 1 – Service and Utility (PUZ1) to a Rural Living Zone (RLZ).

The project also seeks a planning permit for subdivision and for associated native vegetation removal. More specifically the subdivision includes:

- Subdivision of the land into two allotments, with nominated building envelopes and bushfire defendable space
- Removal of approximately 0.5-0.6 hectares of native vegetation
- Provision of two new access driveways from Longforest Road.

The subdivision will contribute to land and housing stock in a market which seeks greater supply to cater to this type of living environment.

The proposed subdivision plan is included in Appendix B.

4. State, Regional and Local Government Strategic Planning Policies

The following section outlines relevant State, Regional and Local Planning Policies which support the proposed amendment and the subdivision application.

4.1 State

4.1.1 Plan Melbourne

Plan Melbourne (Chapter 6 – State of Cities) identifies Bacchus Marsh and Ballan as peri-urban towns with potential to attract housing and population growth out of Melbourne. It is likely that demand for housing in these centres would be accelerated in the future with the imposition of a permanent growth boundary around Melbourne.

The proposed amendment and subdivision implements Plan Melbourne by providing opportunities for rural residential subdivision.

4.2 Regional

4.2.1 Central Highlands Regional Growth Plan (May 2014)

The Central Highlands Regional Growth Plan (Plan) sets out a vision for the region to 2041 that seeks to create vibrant, innovative, sustainable and connected communities offering a diversity of lifestyles, building on valued heritage, natural environment and agricultural landscapes in the region.

The Plan recognises that there is ongoing pressure for urban and rural residential development in high amenity areas, in particular, Bacchus March which has good access to Melbourne. These pressures may conflict with planning objectives relating to the protection of state and regionally significant water catchments, environmental assets and ensuring the ongoing availability of versatile and productive agricultural land for primary production.

Land use planning has an important role to play in ensuring agricultural operations are not encroached upon by sensitive uses where such pressures exist, particularly within Moorabool and Golden Plains shires.

The Plan also acknowledges that natural hazards such as bushfire need to be carefully managed to protect life and property in many high amenity areas.

4.3 Local

4.3.1 Moorabool Planning Scheme

The site is located within Moorabool Shire.

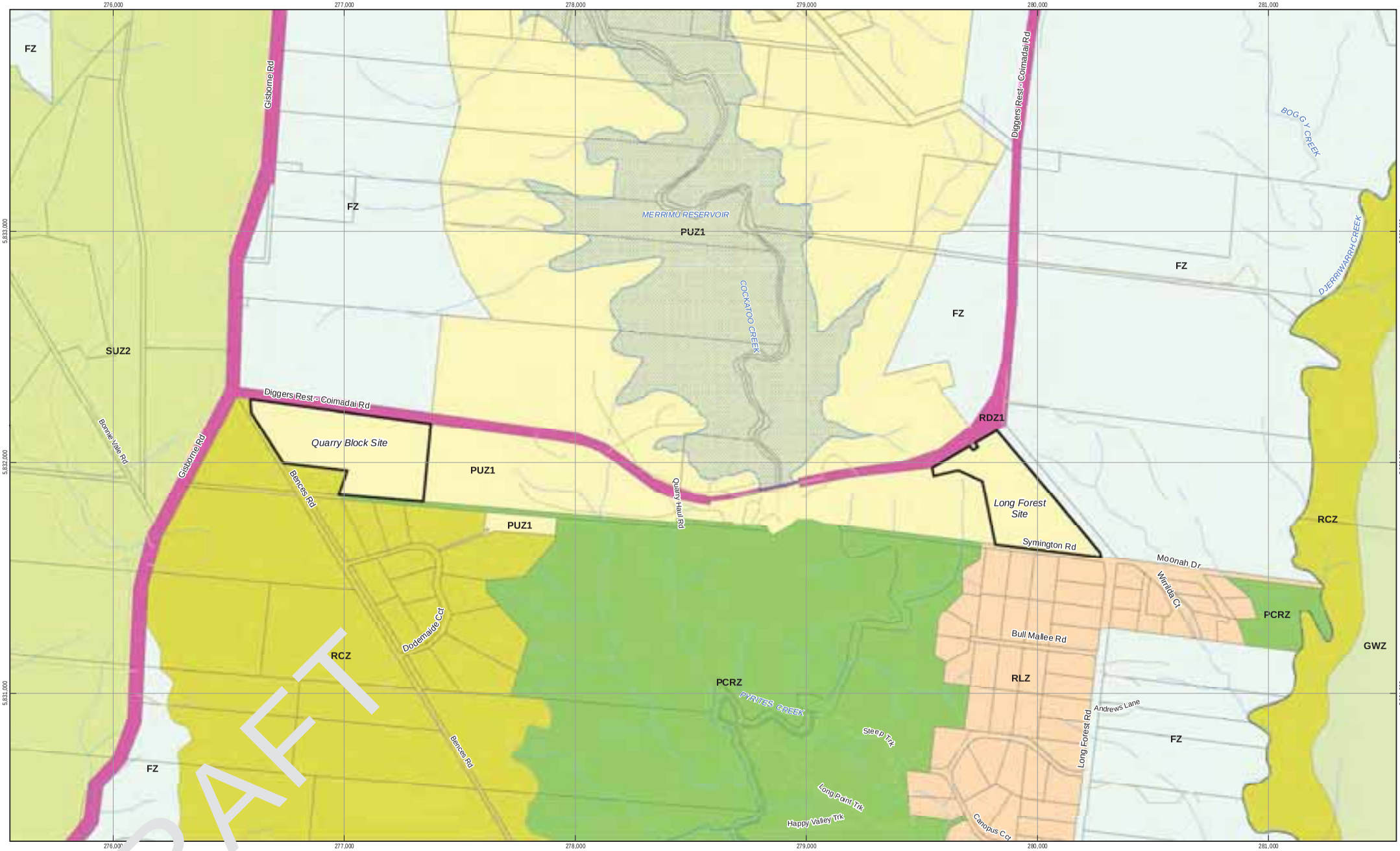
Consistent with the objectives for planning in Victoria, as set out under the *Planning and Environment Act 1987*, the Moorabool Planning Scheme provides a framework for decision making about the use and development of land, and sets out the policies that implement state, regional, local and community expectations for areas and land uses.

The Planning Scheme includes the State Planning Policy Framework (SPPF), which sets out a number of policies that provide a clear strategic basis for the provision of rural residential development.

The site is currently located within PUZ1 and is affected by the Environmental Significance Overlay 3 – Long Forest and Werribee Gorge (ESO3) and the Bushfire Management Overlay (BMO). The site is adjacent to the Diggers Rest-Coimadai Road which is included within a Road Zone – Category 1 (RDZ1) and is managed by VicRoads.

The land to the north and east is zoned Farming Zone (FZ), to the south is land zoned Rural Living (RLZ). The land to the west is also zoned Public Use Zone 1 (Service and Utility) and under the ownership of SRW.

The existing zone and overlays are presented in Figure 2.



Scale 1:15,000 (At A3)

0 75 150 300 450 600

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Site Boundaries
- Planning zone
  - Farming
  - Green Wedge
- Public Conservation & Resource
- Public Use 1 - Service & Utiltiy
- Rural Conservation
- Road – Category 1
- Rural Living
- Special Use 2 - Earth & Energy Resources Industry

Southern Rural Water
Desktop Planning Assessment

Job Number	31-30827
Revision	A
Date	24 Oct 2013

Zoning Plan

Figure 2

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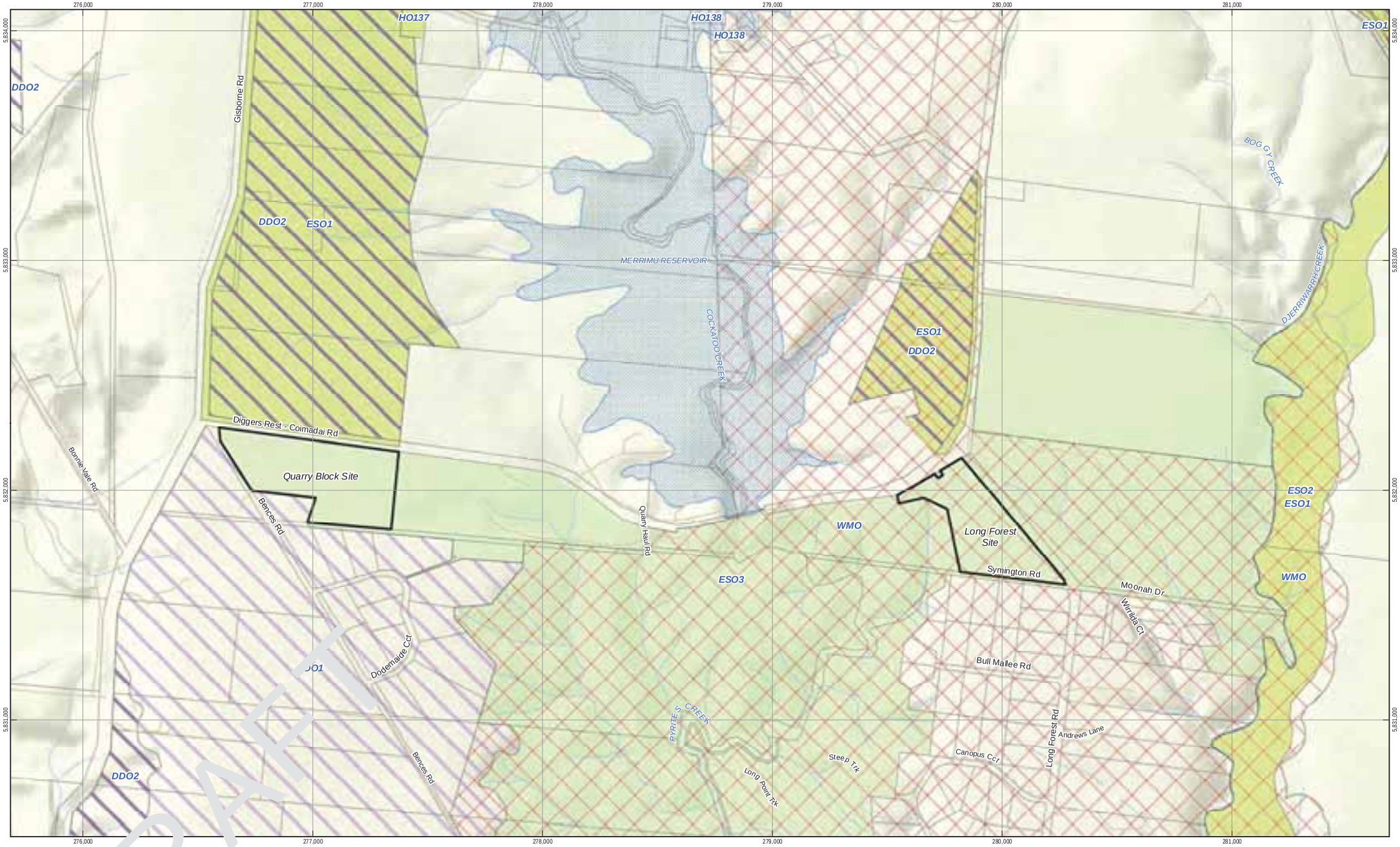

Scale 1:15,000 (At A3)

0 75 150 300 450 600

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Site Boundaries
- Planning overlay
  - Design & Development 1
  - Design & Development 2
  - Environmental Significance 1
  - Environmental Significance 3
  - Wildfire Management

Southern Rural Water
Desktop Planning Assessment

Job Number	31-30827
Revision	A
Date	24 Oct 2013

Overlay Map

Figure 3

G:\31\30827\GIS\Maps\Working\3130827_012_Overall_Overlays_A3L.mxd

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5. Legislation and Project Approvals

The following section identifies the relevant legislation and project approvals required for the proposed rezoning and subdivision of the land.

5.1 Planning and Environment Act 1987

Pursuant to Section 96(a) of the *Planning and Environment Act 1987*, SRW respectfully seeks a concurrent planning scheme amendment and planning permit to facilitate the subdivision.

Section 96A of the *Planning and Environment Act 1987* allows for a planning scheme amendment request to be sought concurrently with a planning permit application. The process enables a planning authority to simultaneously prepare and give notice of a proposed amendment to a planning scheme and give notice of an application for a planning permit.

Section 96A of the *Planning and Environment Act 1987* specifies that the combined planning permit and planning scheme amendment process should only be used for proposals for which a planning permit application cannot be made under the current provisions of the planning scheme.

The combined process is appropriate in this case as it would be inconsistent with the purposes of PUZ1 to grant a planning permit for a subdivision for residential purposes.

5.1.1 Proposed Planning Scheme Amendment

An amendment to the Moorabool Planning Scheme is required to facilitate the proposed subdivision.

The principal purpose of the Public Use Zone 1 (PUZ1) is *'to recognise public land use for a public utility and community services and facilities*'. SRW has identified the site as being surplus to the requirements of the business and intends to sell the land. Accordingly it is proposed to rezone the land to accommodate a subdivision for residential purposes.

The rezoning of the land to a Rural Living Zone (RLZ) via a planning scheme amendment under the *Planning and Environment Act 1987* will enable the land to be included within an appropriate zone and facilitate a rural residential subdivision.

5.1.2 Planning Permit Application

A planning permit is sought concurrently for a subdivision creating 2 lots and associated vegetation removal. The following planning permit triggers apply to the assessment of the planning permit application:

- Subdivision of the land, pursuant to RLZ, ESO3 and the BMO
- The removal of vegetation, pursuant to ESO3 and Clause 52.17 (Native Vegetation).

5.2 Aboriginal Heritage Act 2006

A desktop cultural heritage assessment has been undertaken for the project. It has been determined that a Cultural Heritage Management assessment is not required for the site on the basis that the site is located more than 200 metres from a main watercourse and the site is not within an identified area of Aboriginal Cultural Sensitivity.

5.3 Environment Protection and Biodiversity Conservation (EPBC) Act 1999

The EPBC Act focuses Australian Government interests on the protection of matters of national environmental significance, with the states and territories having responsibility for matters of state and local significance.

Habitat Zone 1 meets the criteria for the EPBC listed community *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia*. The proposed building envelopes have been positioned in poorer quality vegetation and outside the EPBC community. The removal of vegetation corresponding to the threatened community is for access to the proposed allotments.

In total, 15 EPBC Act-listed fauna species are known or considered likely to occur within 10 km of this site. Of these, only one endangered species (Swift Parrot, *Lathamus discolor*) is assumed to have an occasional presence on the subject site.

5.4 Flora and Fauna Guarantee (FFG) Act 1988

A permit to remove or disturb protected flora will not be required. An Environmental Management Plan (EMP) will be required to document mitigation measures to avoid or minimise potentially threatening processes.

5.5 Wildlife Act 1975

Authorisation under the Wildlife Act 1975 would be required if capture, handling, relocation, or temporary housing of wildlife is required during the project works.

Salvage or handling of fauna is not expected to be required at this site during construction, so a Management Authorisation under the Wildlife Act 1975 would not be required.

6. Summary of Agency Consultation

This section of the report provides a summary of the consultation that has been undertaken during the preparation of the amendment and subdivision permit application.

6.1 Moorabool Shire Council

SRW and GHD met with Moorabool Shire in November 2013 and again in July 2014 (Andrew Goodsell and Lisa Gervasoni) regarding the proposed planning scheme amendment and planning permit application.

SRW and GHD introduced the proposal, its rationale and the nature of supporting documentation which was under preparation at the time.

Moorabool Shire provided in principle support for the proposal (subject to undertaking further detailed investigations) and agreed the amendment request and permit application would be considered on its merits once lodged.

6.2 VicRoads

GHD spoke with VicRoads (Sat Satkunam) in July 2014 regarding potentially creating a new accessway on to Diggers Rest-Coimadai Road, which is a Road Zone – Category 1. VicRoads advised that preference is to limit the creation of the new access onto arterial roads where alternative access is available ie Long Forest Road.

Based on the advice of VicRoads, access to each lot is proposed from Longforest Road.

6.3 Country Fire Authority

The Country Fire Authority (CFA) reviewed the preliminary bushfire assessment for the proposed amendment and two lot subdivision of the site. The CFA did not offer any objection in principle to the proposed amendment and subdivision. The CFA provided advice regarding access to the proposed lots and the information required to support a planning permit application.

6.4 Department of Environment, Land, Water and Planning (formerly Department of Transport, Planning and Local Infrastructure)

GHD spoke with Somma Sourivong (Planning and Development Manager, Regional Development Victoria) in January 2014 regarding the proposed planning scheme amendments. Somma confirmed that initial discussions with Council should be undertaken when preparing a planning scheme amendment and was happy to learn that SRW and GHD had previously met with Senior Council staff.

Somma did not offer any objection to the proposed rezoning and subdivision of the two sites, subject to the preparation and lodgement of comprehensive amendment request packages.

7. Specialist Assessment

In support of the combined rezoning and planning permit application, a number of specialist investigations have been undertaken to better understand any opportunities or constraints which may be imposed by physical or environmental factors.

7.1 Flora and Fauna Assessment

7.1.1 Assessment Approach

A *Flora, Fauna and Habitat Hectares Assessment* for the study area was prepared by GHD (August 2014) and is included in Appendix C. The study area for the assessment included the subject site (Longforest Site) and an allotment, also owned by SRW, located approximately 3 kilometres to the west of the subject site along Diggers Rest-Coimadai Road. The assessment was prepared to document the ecological values, particularly native vegetation and habitat for species, which occur within the project area and which could be impacted by the proposed works associated with the proposal.

This report provides calculations of native vegetation losses and offset targets following the Victorian Biodiversity Assessment Guidelines, discusses implications of other environmental legislation, and provides recommendations on how ecological impacts may be mitigated.

Assessment methods used to generate the report include comprehensive desktop and field investigations, drawing heavily on information contained in numerous past studies relating to significant ecological features of the surrounding area (Coimadi environs).

7.1.2 Summary of Key Findings

The likely impact on ecological values within the project area are described below.

- The removal of native vegetation (Grassy Woodland; EVC 175) considered a threatened community under the EPBC Act: *Grey Box Woodlands* and derived grassland of south-eastern Australia (0.05 to 0.06 Ha)
- Impacts on TRZ of trees adjacent to the proposed access routes
- Removal of numerous flora species listed as protected under the FFG Act e.g. wattles
- Loss of small areas (along access routes) of woodland that provides habitat for a range of threatened and near-threatened fauna species.
- The possible impacts on ecological values within the project area are described below:
- Impacts on TRZs of vulnerable species: *Eucalyptus leucoxylon subsp. connata* (Melbourne Yellow Gum) – depending on the access road selection
- Removal of a rare flora species: *Rhagodia parabolica* (Fragrant Saltbush) and Acacia rostriformis (Bacchus Marsh Wattle).
- Potential direct impacts (death, injury, loss of den/nest) or indirect impacts (loss of small areas of habitat) on threatened fauna species (mammals, birds, reptiles) that use hollows, if trees or limbs with hollows are removed.

Three (3) EPBC Act listed species were recorded during the field assessment and/or the preliminary Flora and Fauna assessment conducted by EHP (2013a), including; Melbourne Yellow Gum (*Eucalyptus leucoxylon* ssp. *connata),* Fragrant Saltbush(*Rhagodia parabolica)* and Bacchus Marsh wattle (*Acacia rostriformis)*.

It was determined that the proposed sub-division at the Longforest site is unlikely to cause a 'significant impact' on a critically endangered or endangered ecological community as referred to in the EPBC Act. The proposed building envelopes have been positioned in poorer quality vegetation and outside the EPBC community. The removal of vegetation corresponding to the threatened community is for access to the proposed allotments.

The subject site falls within Location C and would therefore follow the high risk pathway for assessment purposes under Clause 52.17 of the planning scheme.

Please refer to Appendix C for full details

7.2 Bushfire Assessment

7.2.1 Assessment Approach

A Bushfire Assessment (November 2014) was prepared by GHD for the subject site, which has been included in Appendix D of this report.. The assessment has been prepared in accordance with the application requirements set out in Clause 52.47 (Planning for Bushfires) of the planning scheme and *AS 3959:2009 Construction of buildings in bushfire prone areas* (Standards Australia).

The bushfire assessment includes:

- A bushfire hazard site assessment – including a plan that describes the bushfire vegetation and topographic hazards within 150 metres of the proposed development
- A bushfire hazard landscape assessment – including a plan that describes the bushfire hazard of the general locality more than 150 metres of the site
- A bushfire management statement – describing how the proposed development responds to the requirements of Clause 52.47 and 44.06 of the planning scheme.

7.2.2 Summary of Key Findings

The site is situated in a mostly cleared landscape comprised of significant tracts of agricultural land with interspersed rural residential settlement, mixed with fire-prone vegetated areas.

The site is directly adjacent to fire prone vegetation on its eastern, western and southern extents, although these tracts of vegetation are also surrounded by agricultural and developed areas.

The site was identified to be located within Broader Landscape Area Three, based on:

- The proposed building envelope areas being well protected from a fire burning under adverse north-east to westerly winds owing to lack of fuels and presence of grazed, cropped and horticultural enterprises and Lake Merrimu reservoir
- While, due to the absence of forest fuels, bushfires are not able to impact the subject land under adverse weather conditions (northerly through to westerly wind influence), they could potentially impact the site under a south-westerly to southerly wind or under a easterly influence (though such conditions would generally be more humid dampening fire behaviour)
- The vegetation type and extent within one quadrant of site to the south-east, and potentially private properties to the south and east of the surrounding area may not be managed in a minimum fuel condition and therefore could potentially support a bushfire.

Table 1 below provides an assessment of compliance with approved measures set out in Clause 52.47 of the planning scheme.

Table 1 Compliance with Clause 52.47 of the Moorabool Planning Scheme

Clause 52.47-2.4 Subdivision objectives	Assessment of Compliance
AM 5.1 An application to subdivide land, *other than where AM 5.2 applies…*	AM 5.1 does not apply to this application, as it is proposed to subdivide land for rural residential purposes.
AM 5.2 An application to subdivide land zoned for residential or rural residential purposes must be accompanied by a plan that shows: • A building envelope for a single dwelling on each lot that complies with **AM 2.2** and provides defendable space in accordance with: – Columns A or B of Table 2 to Clause 52.47-3 for a subdivision that creates 10 or more lots; or – Columns A, B or C of Table 2 to Clause 52.47-3 for a subdivision that creates less than 10 lots. • Defendable space wholly contained within the boundaries of the proposed subdivision. • Vegetation management requirements, including inner zone standards (as appropriate), to implement and maintain the defendable space required under this approved measure. • Water supply and vehicle access that complies with **AM 4.1**.	• The building envelope on both lots is sited to achieve the requirements of AM 2.2 • Defendable space is provided around each building envelope in accordance with Column B of Table 2 to Clause 52.47-3 • The defendable space of both lots is wholly contained within the boundaries of the proposed subdivision • Vegetation management requirements have been defined • The requirement for a static water supply for fire-fighting can be provided in the defendable space for each allotment • The designation of primary and potential secondary vehicle access ways is provided for each allotment.
AM 5.3 An application to subdivide land *to create 10 or more lots* provides a perimeter road adjoining the hazardous vegetation to support firefighting.	AM 5.3 does not apply to this application, as the proposed subdivision is less than 10 lots.

Clause 52.47-2.4 Subdivision objectives	Assessment of Compliance
AM 5.4 A subdivision manages the bushfire risk to future development from existing or proposed landscaping, public open space and communal areas.	It is considered that the bushfire risk to future development would be managed by adhering to vegetation management measures. No public open space or communal areas are proposed for this subdivision.

The assessment concludes that the bushfire management measures proposed for the subdivision have been designed to comply with the relevant approved measures of Clause 52.47 and to meet the objectives of Clause 44.06.

7.3 Infrastructure and Servicing

A preliminary Infrastructure Assessment of the proposed subdivision is included in Appendix E.

7.3.1 Water

Existing conditions

Western water has advised GHD that there are existing water assets that run adjacent to the site of the proposed subdivision. An existing 100 mm AC pipe runs along the southern side of the site along Symington Road, while there is a 150 mm AC pipe which runs on the eastern side of the proposed subdivision. A 600 mm MSCL pipe runs along Diggers Rest-Comadai Road which is located to the north of the location.

Development conditions

There are currently no connection points around the region of the proposed sub division, or any water pipes crossing through the location. Western Water has advised GHD that supply of water to the location could be achieved by connecting into one of the pipes that run along the extent of the site. GHD believes that connection points to the area would best be achieved from the 150 mm AC or 100 mm AC pipes running along Long Forrest Road or Symington Road.

Works Required

The development will require separate connections for each lot, which we understand to be available.

7.3.2 Sewer

Existing Conditions

Within the vicinity of the proposed sub division there are currently no existing sewer assets. Western water has advised that there is no sewer connection available for connection

Development Conditions

Western Water has outlined that due to the fact that the proposed area is not within one of their drinking water catchments, the development could contain its own sewage treatment system to provide a solution to sewage. That is the authority do not have any special requirements or limitations in creating a sewage system for the sub division however, the local council would need to be consulted regarding the type of system used.

Works Required

A sewage system would need to be installed within the development considering there are no sewer assets in close proximity to the region. A septic system was proposed as an option for onsite sewage treatment. This could be a good solution however this option would need to be reviewed by council and the existing drainage systems would need to be inspected.

7.3.3 Electricity

Existing Conditions

The site has existing HV (22kV) infrastructure surrounding it. This includes substations poles and HV poles. The power authority (Powercor) have outlined that there is currently an electrical connection in the north eastern region of the site to the HV line which run along the streets that make up the boundary of the location.

Development Conditions

There is some uncertainty about the ability of the proposed lots to connect to power. Powercor has suggested that a pole mounted substation will be required for the northern lot, and potentially also the southern lot. Some additional work is required to clarify this situation.

Works Required

To allow for power within the site, connections from one or two of the poles along Long Forest Road would be required as well as a 12m wide easement along the eastern boundary to cover existing power lines on this frontage. Depending on electrical demand within the development, additional power infrastructure may be installed by the power authority. This would typically be additional HV cables or kiosk substations.

7.3.4 Gas

Existing Conditions

There is no gas main in the vicinity of the proposed site. No further investigation has gone into gas connection to the sub division.

8. Planning Controls

This proposed planning scheme amendment and planning permit application is subject to the provisions of the Moorabool Planning Scheme. The concurrent amendment and planning permit application is consistent with the relevant State and local objectives of the planning scheme as described later in this report.

As set out in the *Planning and Environment Act 1987*, the matters to be considered as part of the Planning Scheme Amendment include the applicable Ministerial Directions, State and local policy and whether the proposed amendment is in accordance with the *Planning and Environment Act 1987,* having regards to the potential environmental and economic effects.

For the planning permit application, before deciding on the application, the responsible authority must consider the relevant decision guidelines as outlined in Clause 65 and in zone and overlay provisions of the Planning Scheme. The planning considerations relevant to this proposal will be discussed in greater detail later in this report.

The following provides an overview of the existing planning controls applicable to the subject land and the associated approval requirements.

8.1 Existing Planning Scheme Zone and Overlay Controls

The site is located within the PUZ1 and is affected by the ESO3 and the BMO. The site is adjacent to the Diggers Rest-Coimadai Road which is a Road Zone Category 1 and managed by VicRoads.

The existing zones and overlays relevant to the subject site and surrounds are provided in Figure 2 and 3.

Details of the provisions of the zone are outlined below.

8.1.1 Public Use Zone 1 – Service and Utility (PUZ1)

The site is located within a PUZ1. Pursuant to Clause 36.01 of the Planning Scheme, the purpose of the zone is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To recognise public land use for public utility and community services and facilities.*
- *To provide for associated uses that are consistent with the intent of the public land reservation or purpose.*

Uses associated with 'service and utility' (ie pump stations and water transfer stations) are Section 1 uses and do not require a permit if they are carried out by or on behalf of the public land manager.

If a use and/or development does not meet the requirements above then it is considered a Section 3 use, and is prohibited.

On this basis, the re-zoning of the site to a more appropriate zone, the Rural Living Zone (RLZ) would facilitate the subdivision of the land for rural residential purposes.

8.1.2 Environment Significance Overlay – Schedule 3 (ESO3)

The site is covered by ESO – Schedule 3, pursuant to Clause 42.01 of the Planning Scheme. The purpose of the ESO is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To identify areas where the development of land may be affected by environmental constraints.*
- *To ensure that development is compatible with identified environmental values.*

Schedule 3 applies to Longforest and Werribee Gorge with the following specific environmental objectives to be achieved:

- *To protect the environmental and scientific significance of the vegetation.*
- *To protect the habitat significance of the vegetation.*
- *To protect the areas high landscape values and scenic views.*
- *To protect significant threatened species of flora and fauna from adverse management practices that may result in their extinction.*
- *To conserve native vegetation communities in their natural condition, and maintain genetic diversity.*
- *To provide protection and enhance the long-term survival prospects for significant vegetation communities and species.*
- *To improve the water quality of the waterways and increase and protect their significance.*
- *To minimise the erosion risk due to shallow soils and rocky outcrops.*
- *To provide for the retention, restoration and revegetation of local native species.*
- *To protect the natural, aesthetic and scientific values of geological features. To minimise impacts from visitors on sensitive geological features.*

Pursuant to the provisions of Clause 42.01-2 of the ESO, a permit is required to construct a building or construct or carry out works, to subdivide land and to remove, destroy or lop any vegetation, including dead vegetation.

8.1.3 Bushfire Management Overlay (BMO)

The site is also covered by the BMO, pursuant to Clause 44.06 of the Planning Scheme. The purpose of the BMO is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To assist to strengthen community resilience to bushfire.*
- *To identify areas where the bushfire hazard requires specified bushfire protection measures for subdivision and buildings and works to be implemented.*
- *To ensure that the location, design and construction of development considers the need to implement bushfire protection measures.*
- *To ensure development does not proceed unless the risk to life and property from bushfire can be reduced to an acceptable level.*

Pursuant to Clause 44.06-1, a permit is required to subdivide land and to construct a building or construct or carry out works associated with accommodation (including a dwelling).

8.2 Particular Provisions

The following particular provisions of the planning scheme are relevant to the proposal:

8.2.1 Clause 52.17 Native Vegetation

Clause 52.17 of the planning scheme applies to all land in the Municipality. The purpose of the clause is:

- *To ensure permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity. This is achieved through the following approach:*
- *Avoid the removal of native vegetation that makes a significant contribution to Victoria's biodiversity.*
- *Minimise impacts on Victoria's biodiversity from the removal of native vegetation.*
- *Where native vegetation is permitted to be removed, ensure that an offset is provided in a manner that makes a contribution to Victoria's biodiversity that is equivalent to the contribution made by the native vegetation to be removed.*
- *To manage native vegetation to minimise land and water degradation.*
- *To manage native vegetation near buildings to reduce the threat to life and property from bushfire.*

Pursuant to Clause 52.17-2 a permit is required to remove, destroy or lop native vegetation, including dead native vegetation.

8.2.2 Clause 52.47 Bushfire Protection: Planning Requirements

Clause 52.47 of the planning scheme applies to applications to subdivide land within the Bushfire Management Overlay (BMO). The general purpose of the clause is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To ensure that development is only permitted if the risk to life, property and community infrastructure can be reduced to an acceptable level.*
- *To specify requirements for buildings, works and subdivision on land to which the Bushfire Management Overlay applies.*

Clause 52.47-1 outlines objectives that are specific to the subdivision on land, as follows:

- *To ensure that subdivision of land that would result in an unacceptable risk to human life is not permitted.*
- *To ensure that all lots created are capable of:*
  - *Achieving an appropriate level of defendable space.*
  - *Providing an adequate supply of water to facilitate firefighting and property protection during and after the passage of a bushfire.*
  - *Providing safe access to properties for emergency and other vehicles at all times.*

The clause sets out specific standards / requirements for subdivision of residential lots within a Rural Living Zone.

An assessment of these standards and requirements is contained in Appendix D of this report.

9. Strategic Assessment of the Amendment

The following sections of this report outline the strategic basis for the amendment and proposed subdivision, and consider its social, economic and environmental impacts. In particular, the following sections provide an assessment against the relevant policies of the Moorabool Planning Scheme.

Consistent with *Minister's Direction No. 11 Strategic Assessment Guidelines*, and the *Strategic Assessment Guidelines for preparing and evaluating planning scheme amendments* (DTPLI, July 2014), the following relevant strategic considerations must be addressed in the preparation of the proposed amendment:

- Why is the amendment required?
- What the permit application does?
- Does the amendment implement the objectives of planning [as stated in the Planning and Environment Act 1987], and addresses any environmental, social and economic effects?
- Does the amendment address relevant bushfire risk?
- Does the amendment comply with all the relevant Minister's Directions?
- Does the amendment support or implement the State Planning Policy Framework (SPPF)?
- How does the amendment support or implement the Local Planning Policy Framework (LPPF) and, specifically, the Municipal Strategic Statement (MSS)?
- Does the amendment make proper use of the Victoria Planning Provisions?
- How does the amendment address the views of relevant agencies?
- Does the amendment address the requirements of the Transport Integration Act 2010?
- What impact will the new planning provisions have on the administrative costs of the responsible authority?

9.1.1 Why is an amendment required?

As referenced earlier, SRW seek to sell the land as it is surplus to its operational requirements. Accordingly, it is proposed to rezone the land to a more appropriate zone in order to accommodate the residential type subdivision of the land which is not consistent with the purpose of the PUZ1

9.1.2 How does the amendment implement the objectives of planning in Victoria?

The amendment is consistent with the objectives of Section (4) of *the Planning and Environment Act 1987.* In particular, the amendment:

- Provides for the fair and orderly, economic and sustainable use and development of land;
- Secures a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria;
- Balances the present and future interests of all Victorians.

9.1.3 How does the amendment address any environmental, social and economic effects?

The amendment ensures that the planning objectives in Victoria are met by providing the fair, orderly, economic and sustainable use of land by including the subject site in the most appropriate zone.

Environmental Effects

The amendment facilitates the subdivision of the site to allow for the future construction of two dwellings for rural living purposes, which can be undertaken in a manner that has minimal impact on the environment.

A flora and fauna assessment of the site has been undertaken, which revealed that the site contains patches of Grassy Woodland native vegetation patches of varied quality. The future development of the site shown by the proposed building envelopes will require the removal of approximately 0.5-0.6 hectares of native vegetation including species of the threatened *Grey Box Woodlands and derived grassland of south-eastern Australia* vegetation community. This is considered a small area comparative to the overall size of the subject site and the extent and density of native vegetation on the subject site and within adjoining road reserves. The native vegetation to be removed will be offset to ensure no net loss of biodiversity results from the proposal.

The extent of native vegetation to be removed has been minimised by locating building envelopes within cleared areas of the site and the location of access ways to minimise impacts on significant native vegetation. The site is situated in modified rural landscape context and as such changes to the rural landscape character of the local area are considered to be negligible.

The proposed allotments can be connected to existing water infrastructure established adjacent the subject site. Each allotment also has sufficient area to accommodate an on-site effluent disposal system to appropriately minimise nutrient loading within the site boundaries.

The proposed rezoning will not prejudice the long-term availability and management of Victoria's natural resources. It is noted that the subject land is not productive agricultural land and the site is not located within a special water supply catchment area under the *Catchment and Land Protection Act 1994*.

Social Effects

The proposed rezoning is not anticipated to result in any significant social effects. The Rural Living Zone will facilitate the subdivision of the land for rural residential purposes, which will contribute the housing needs of the municipality and provide for housing diversity and choice.

The proposed rezoning is consistent with the surrounding land use and will be a continuation of the existing rural residential development located south of the subject land. As a result the proposed zoning will be compatible with the surrounding area.

The amendment will have positive social effects as it provides the opportunity for the orderly provision of rural residential type subdivision that makes effective use of existing and proposed social and physical infrastructure in the surrounding area.

Bushfire hazard risks associated with future rural residential use of the proposed allotments can be appropriately managed as demonstrated through the capacity to provide appropriate defendable space, water supply and vehicle access for each dwelling.

Two additional dwellings are likely to generate fewer than 20 vehicle trips per day on average (ie. 10 per dwelling), and is therefore likely to have minimal impact on the safety and free flow of traffic on the local road network.

Economic Effects

The amendment may result in a positive economic impact by providing new rural residential land within the municipality.

The amendment will not impact upon natural resources such as agricultural land and the sand quarry which are identified as being fundamentally important to the local and state economy.

The amendment will allow the future owners of the proposed allotments to construct a new dwelling and associated outbuildings on each allotment, which have the potential to provide a positive economic effect on the local construction industry. The flow-on economic effects resulting from two additional households are expected to be small on the local area.

The amendment will result in negligible administrative costs to the responsible authority given the rezoning only affects a single parcel.

9.1.4 Does the amendment address relevant bushfire risk?

The site is affected by a Bushfire Management Overlay. A Bushfire Management Assessment has been undertaken which has confirmed that the site is suitable to be developed for rural residential purposes subject to appropriate bushfire protection measures being implemented on each lot.

9.1.5 Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?

The amendment has been prepared in accordance with the Ministerial Direction on the Form and Content of Planning Schemes under Section 7(5) of the *Planning and Environment Act 1987*.

The amendment is consistent with Ministerial Direction 11 (Strategic Assessment of Amendments). This report contains an evaluation and discussion on how the amendment addresses the strategic considerations outlined in the Ministerial Direction and provides sound strategic basis and an appropriate level of justification for the amendment.

9.1.6 How does the amendment support or implement the State Planning Policy Framework?

The proposed amendment directly supports an implementation of the State Planning Policy Framework through the following:

- The subject site will provide rural living zoned land that is readily accessible to services and infrastructure to support rural residential housing;
- The subject site will increase the supply of housing in the rural context; and
- The site provides an opportunity for redevelopment and subdivision of a site that is no longer required by Southern Rural Water for the infrastructure purposes.

Specifically, the proposed amendment responds to the provisions of the State Planning Policy Framework as follows:

Clause 12.06 Central Highlands Regional Growth

The objective of this Clause is to plan for population growth in sustainable locations throughout the region.

The amendment implements this objective by providing land supply in a rural residential context that is accessible to servicing and infrastructure.

Clause 12.01 Biodiversity

Clause 12.01 includes objectives for the protection of habitat, native vegetation management and the preparation of biodiversity strategies. Furthermore, this Clause also seeks to ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

The Flora and Fauna Assessment undertaken for the subject land confirms that the proposal will not result in a significant loss of native vegetation or biodiversity on the subject site and adjoining road reserves. The proposed subdivision layout has been configured to minimise impacts on vegetation. Any loss of native vegetation will be appropriately offset to ensure there is no net loss of biodiversity in Victoria. Accordingly, the amendment supports the biodiversity objectives of the SPPF.

Clause 13.05 Bushfire

Clause 13.05 includes the objective to assist to strengthen community resilience to bushfire. The site is within a Bushfire Management Overlay (BMO). A bushfire site-based assessment has been undertaken which has confirmed that subject to bushfire protection measures being implemented, the site is suitable for a two-lot subdivision. On this basis, the amendment implements the objectives of this clause.

Clause 15 Built Environment

Clause 15 seeks to ensure that land use and development appropriately responds to its landscape, valued built form and cultural context, and protect places and sites with significant heritage, architectural, aesthetic, scientific and cultural value. The amendment implements this objective by ensuring that the subdivision design takes into account the landscape and surrounding built form. The amendment proposes a two lot subdivision that is consistent with the pattern of development immediately south of the subject land.

Clause 15.03-2 Cultural Heritage

Clause 15.03-2 includes the objective to ensure the protection and conservation of places of Aboriginal cultural heritage significance. The amendment implements the objective, as a desktop assessment has confirmed that the site is not in an area of cultural sensitivity.

Clause 16.02-1 Rural Residential Development

Clause 16.02-1 includes the objective to identify land suitable for rural living and rural residential development.

The amendment implements this objective as the subject land is located close to the township of Bacchus Marsh, is adjacent to existing rural residential development, can be serviced with electricity and water, has sufficient area to accommodate on-site effluent disposal and has good access to existing roads.

Clause 19.02-3 Water supply, sewerage and drainage

Clause 19.02-3 includes the objective to plan for the provision of water supply, sewerage and drainage services that efficiently and effectively meet State and community needs and protect the environment.

The amendment implements this objective by creating a subdivision that is capable of adequately treating and retaining all domestic wastewater within the boundaries of each lot and capable of being supplied with electricity and water.

9.2 How does the amendment make proper use of the Local Planning Policy Framework?

The amendment supports and implements the Local Planning Policy Framework of the Moorabool Planning Scheme, including the Municipal Strategic Framework and the Local Planning Policies as follows:

Clause 21.02 Natural Environment

Moorabool Shire's natural environment, towns, rural landscapes, and forested areas are important elements of the Shire's character. Clause 21.02 seeks to maintain and enhance the natural environment and the Shire's rural identity and character.

The flora and fauna assessment undertaken in support of the project has considered the potential impacts a rural residential subdivision will have on the environment. The subdivision layout has been designed to minimise impacts to the natural environment whilst also maintaining the rural landscape character.

Clause 21.02-2 Non Urban Landscapes

Clause 21.02-2 seeks to maintain and enhance the natural environment and the Shire's rural identity and character.

The projects flora and fauna assessment has considered potential impacts the proposed subdivision may have on the environment and local biodiversity, which are not considered significant and will be appropriately offset.

The subdivision layout has been designed to minimise impacts to the natural environment whilst also maintaining the rural landscape character, noting historical occupation and disturbance on the site

Clause 21.02-5 Wildfire

The objective of the clause is to minimise the risk of wildfire.

A bushfire assessment has been prepared which has guided the design of the proposed two lot subdivision in terms of lot boundaries, location of building envelopes and impacts to vegetation. On this basis it is considered that the subdivision supports this Clause.

Clause 21.03 – Settlement and Housing

It is expected that outward pressure from the Melbourne metropolitan area, the location of the Shire on one of the State's major regional transport corridors and proximity to the regional centres of Ballarat and Geelong will continue to reinforce the advantages of the Shire as a place to live and invest.

The proposed subdivision responds to identified demand for rural residential type allotments in this location.

Clause 21.03-4 Landscape and Neighbourhood Character

Clause 21.03-4 seeks to ensure that new development in all zones respects the existing character, landscape setting and amenity of the local area.

The proposed rezoning will be consistent with relevant strategies for this clause as the proposed rural living zoning will complement the rural residential use and zoning of adjoining land to the south. It is also envisaged that the future rural residential use of the land will not require significant removal of existing vegetation and any future building can be constructed with a minimum setback of 40 metres of adjoining road reserves. Accordingly, the proposed rezoning will not result in any unreasonable impact on the landscape character of the local area.

Clause 21.03-5 Rural Lifestyle Opportunities

Clause 21.03-5 relates to rural lifestyle opportunities and seeks to support development in small towns and rural lifestyle opportunities as an additional residential choice. The proposed rezoning supports this strategy by providing an opportunity for limited rural residential development on the subject site that would not adversely affect agricultural production and would have minimal impact to native vegetation and habitat values.

The proposed subdivision is capable of satisfying environmental and physical requirements, including appropriate on-site treatment of effluent and stormwater management, reticulated water services are provided and sealed access roads service all lots. Further to this, the proposed subdivision is consistent with the pattern of existing rural living development to the south of the site.

Clause 21.05 – Development and Community Infrastructure

The rezoning supports and implements this Clause by enabling financial contributions to the provision of infrastructure such as public facilities, public transport, and roads.

Clause 21.07 Bacchus Marsh

Clause 21.07-4 refers specifically to rural residential development in Bacchus Marsh. The objective of this Clause is to provide high amenity rural lifestyle opportunities while protecting irrigated horticultural land and the sustainability of environmental assets. The Clause recognises the importance and attractiveness of rural residential and rural lifestyle living as an alternative living environment in designated areas around Bacchus Marsh and seeks to ensure that rural residential development is consistent with the Bacchus Marsh Framework Plan.

The subject land is not included in the Bacchus Marsh Framework Plan. However, the land immediately south and west of the site is within the Bacchus Marsh Framework Plan and is identified as an area for '*low density and environmentally sensitive housing opportunities*'.

The rezoning implements this clause as it will facilitate rural residential development without impacting upon agricultural land or the environment.

9.3 How does the amendment make proper use of the Victoria Planning Provisions?

The amendment makes the proper use of the Victorian Planning Provision (VPPs), as:

- SRW has identified that the site is surplus to its operational requirements and intends on selling the property. In accordance with the VPP's it would be inappropriate to have privately owned land included within a Public Use Zone.
- The RLZ has been applied to land immediately south of the site and is the most appropriate zone to apply. The proposed rezoning would form a logical extension of the RLZ to allow the land to be development for rural residential purposes.
- The ESO and BMO affecting the subject site will not be altered by the proposed amendment.

9.4 How does the amendment address the views of the relevant agency?

SRW, in the course of preparing this amendment request, has consulted with a number of relevant agencies in preparing the amendment. The agencies whose views have been addressed in this amendment are listed below:

- Moorabool Shire Council – as the planning authority for the Moorabool Planning Scheme

- Department of Transport, Planning and Local Infrastructure (now Department of Environment, Land, Water and Planning) – on behalf of the Minister for Planning responsible for authorising the amendment
- VicRoads – as the road manager of the Diggers Rest-Coimadai Road
- Country Fire Authority – as the relevant fire authority.

It is considered that agency views have been reasonably addressed by this amendment request, with details provided though this submission where relevant.

9.5 How does the amendment address the requirements of the Transport Integration Act 2010?

The amendment is not considered to have any impact on the transport system, as defined by Section of the *Transport Integration Act 2010*.

There are no applicable statements of policy principles prepared under Section 22 of the *Transport Integration Act 2010*.

9.6 What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?

The new planning provisions will have a minor impact on the resource and administrative costs of the Moorabool Shire Council, as the relevant responsible authority.

The amendment only affects land subject to the proposed rural residential subdivision for which a planning permit is concurrently being sought. A number of planning permit applications will likely be required to establish buildings and works on each allotment in association with rural residential use.

9.7 The Appropriateness of the Amendment

The planning scheme amendment to rezone the subject land to a RLZ is an appropriate planning outcome for the following reasons:

- SRW intend on selling the land and therefore it would inappropriate to have privately owned land included within a PUZ1;
- The proposed subdivision, as facilitated by the amendment, is consistent with the policy and objectives as set out in the State and local planning policies of the Moorabool Planning Scheme and the Regional Strategy;
- The proposal will have minimal impact on native vegetation and habitat values. Any loss of native vegetation associated with future rural residential use of the land will be offset to ensure there will be no net loss of biodiversity in Victoria;
- Bushfire hazard risks associated with future rural residential use of the proposed allotments can be appropriately managed as demonstrated through the capacity to provide appropriate defendable space, water supply and vehicle access for each dwelling;
- The proposed amendment will maintain the landscape character of the local area.
- The subject site can be readily connected to water and electricity infrastructure to support rural residential use of the site;
- The subject site is an appropriate area to accommodate on-site wastewater disposal to minimise impact on ground and surface water resources within the local area.

10. Planning Permit Assessment

An assessment of the planning permit application must consider the relevant policies and strategies of the SPPF and LPPF. The responsible authority must also consider the relevant decision guidelines set out in Clause 65, the provisions of the proposed zone (RLZ) and existing overlays, the provisions of Clause 52.17 (Native Vegetation) Clause 52.47 (Bushfire Protection: Planning Requirements) and Planning Practice Note 37 – Rural Residential Development (November 2013).

Section 10 provides a detailed assessment of the application.

10.1 SPPF and LPPF Assessment

The strategic assessment for the amendment provides a response for how the amendment supports and implements the SPPF and the LPPF of the Moorabool Planning Scheme, Plan Melbourne and the Central Highlands Regional Growth Plan. The same response applies for how the proposed development supports and implements these strategic planning documents.

10.2 Rural Living Zone (proposed zoning)

The following is an assessment against the provisions and decision guidelines of the Rural Living Zone, Clause 35.03 of the Planning Scheme. Clause 35.03-3 states that a permit is required to subdivide land and that each lot must be at least the area specified for the land in a schedule to this zone. The schedule specifies that each lot must be at least 6 hectares. The proposed subdivision implements the minimum lot size specified in the schedule, due to the proposed allotments having areas of 7.02 hectares and 8.65 hectares respectively.

The following is also noted with regards to the subdivision:

- The existing allotment is not considered to be suitable for long term productive agricultural use due to its moderate size, interface with rural residential use and limitations on utilisation posed by existing native vegetation
- The proposed lots will adjoin existing rural living allotments located to the south of the subject site
- Each allotment can accommodate a future dwelling with appropriate defendable space
- Access to each lot is provided via an all-weather road that is capable of accommodating emergency vehicles
- Each allotment has sufficient area to ensure waste water can be treated or retained on-site in accordance with the Statement Environment Project Policy (Waters of Victoria) under the Environment Protection Act 1970
- Each allotment will be connected to a reticulated potable water supply or have an alternative potable water supply with adequate storage for domestic use as well as for firefighting purposes.

It is considered that the parcel size and location of building envelopes will maintain a low-density rural living style character within the zone. Further, the proposed subdivision layout has been designed to minimise impacts to vegetation on the site.

10.3 Environment Significance Overlay – Schedule 3 (ESO3)

Schedule 3 of the ESO contains the following statement of environmental significance for Long Forest:

> *'The Long Forest area is of high natural, scientific and scenic value and comprises important forest, grassland and riparian ecosystems, which represent valuable habitat for native flora and fauna. While much of the area is protected within the scattered blocks of the Long Forest Flora Reserve, valuable habitat remains on private land between and surrounding the Reserve, and on other public land including roadsides, streamside reserves and on land managed for water supply.*
>
> *This area supports a unique vegetation community of national significance known colloquially as the Melton Mallee. Its significance is recognised by the fact that it is included in the National Estate Register and is listed as Threatened under Schedule 2 of the Flora and Fauna Guarantee Act. The vegetation essentially occupies the slopes and valleys of the Coimadai and Djerriwarrh Creeks and the ridge between them along which runs Long Forest Road. This tongue of vegetation is entirely different from the surrounding community, and is more characteristic of dry north-western Victorian environments. It is thought to be thousands of years old and is of great scientific and scenic interest'.*

The Long Forrest Flora Reserve is located on the southern side of Symington Road and located southwest of the subject site. The field investigation detailed in the Flora and Fauna Assessment does not identify the presence of the Melton Mallee vegetation community or Bull Mallee species on the subject site or adjoining road reserves.

The proposal will likely result in the loss of an area of Grassy Woodland native vegetation, which is a threatened vegetation community under the EPBC Act. The overall loss of native vegetation will be approximately 0.5 hectares. The native vegetation to be removed is limited to areas of proposed access and the building envelopes located centrally on the subject site. As a result, only a small loss of native vegetation will be experienced along adjoining road reserves and site frontage areas.

Accordingly, the proposal will not detract from the environmental, scientific, landscape, habitat and ecological significance of the 'Long Forrest' environmentally significant area. It is considered that the objectives of Schedule 3 of the ESO are satisfied

10.4 Subdivision Decision Guidelines (Clause 65)

Clause 65.02 sets out a range of decision guidelines that must be considered before deciding an application to subdivide land. The following sections provide an assessment response to these decision guidelines.

10.4.1 Subdivision Layout and Lot Size

The ecological features of the site have influenced the pattern of subdivision and in particular the location of building envelopes.

To optimise the lot yield on the site and protect environmentally sensitive areas, the provision of a building envelope on each lot has been provided. The building envelopes provide an area to accommodate a dwelling, driveway and associated outbuildings. Furthermore, the location of the proposed building envelopes achieve appropriate setbacks from roads and other properties, and therefore ensuring the area's rural residential character is maintained.

In order to protect remnant vegetation, for all areas outside of the building envelope a 'building exclusion zone' will apply. A building exclusion zone will restrict buildings and works within these areas.

10.4.2 Lot Access

Each lot will have access to a formed all-weather public road. Each allotment will be provided with a new access point along the Longforest Road frontage. Therefore no access is proposed from Diggers Rest-Coimadai Road, which is located within a Road Zone, Category 1. Accordingly, the requirements under clause 52.29 are not applicable to the assessment of the application.

Each driveway to the site will be 6 metres wide which is consistent with the requirements of the Bushfire Management requirements. The proposed access points and driveway areas have been carefully positioned to minimise the need to remove native vegetation.

The proposed access ways shown at Appendix B are well separated from road intersections and existing access points along Longforest Road. Having regard to the likely traffic generated from the future rural residential use of each allotment and location of potential access, it is considered that there will be a negligible impact on the safety and function local road network.

10.4.3 Land Servicing Capability

An assessment of the land's physical capability to sustain rural residential development has been undertaken to identify the potential of the site to support development, including the capacity to be serviced by an on-site wastewater treatment system, water supply, electricity supply, road access and stormwater drainage systems.

The cost of service infrastructure will be borne by the developer and could be imposed in the form of a permit condition.

The proposed subdivision design including road layout, lot configuration and building envelopes have been based on the vegetation assessment with an aim to avoid and minimise impacts to native vegetation.

10.4.4 Provision of Open Space and Community Facilities

Planning for open space and community facilities has not been included in the proposed subdivision. Thus, a level of contributions towards open space and community facilities will be required, in line with State policy, in the form of developer contributions.

10.5 Native Vegetation (Clause 52.17)

The protection of natural resources is a State Planning Policy and is of fundamental importance to the local and state economy.

The assessment of Clause 52.17 requirements is based on the Flora and Fauna study, which is included in Appendix C.

10.5.1 Avoiding and/or Minimising Native Vegetation Impacts

The objective throughout the planning phase of the subdivision design has been to avoid and/or minimise the removal of native vegetation. The subdivision layout and siting of building envelopes and access way has been done so with the view to avoid significant loss of vegetation.

This is expanded on in the Flora and Fauna Assessment at Appendix C.

10.5.2 Native Vegetation Impacts

A planning permit for the removal of native vegetation under the *Planning and Environment Act 1987* will be required for the proposed subdivision. The subdivision at the Longforest Site has sought to minimise impact upon and the need to remove native vegetation from the site.

Please refer to the Flora and Fauna Assessment at Appendix C for further detailed discussion.

10.5.3 Referral Pathway Under the Planning Scheme

As removal of native vegetation will occur in Location C, the project will be considered low risk (refer to Table 9 of Appendix B) and will follow the high-risk application pathway for permitted clearing of native vegetation.

Pursuant to Section 55 of the *Planning and Environment Act 1987* and Clause 66.02-2 of the planning scheme, a permit application to remove, destroy or lop native vegetation must be referred to the Department of Environment and Primary Industries (DEPI) if:

- *the area to be cleared is greater than 0.5 hectares, or*
- *the application is to follow a high risk-based pathway, or*
- *Is located on Crown land that is occupied or managed by the Responsible Authority.*

A referral to DEPI will therefore be required as part of the application process.

10.6 Planning for Bushfire (Bushfire Management Overlay and Clause 52.47)

A Bushfire Assessment has been undertaken in accordance with the provisions of the Bushfire Management Overlay and Clause 52.47 (Planning for Bushfire) of the Moorabool Planning Scheme.

Bushfire hazard risks associated with future rural residential use of the proposed allotments can be appropriately managed as demonstrated through the capacity to provide appropriate defendable space, water supply and vehicle access for each dwelling.

The Bushfire Assessment has confirmed that the site is suitable for subdivision into two lots for rural residential purposes and that the objectives and approved measures of Clause 52.47 will be satisfied

A copy of the Bushfire Assessment is contained in Appendix D.

11. Conclusion

This report supports an amendment request for a rezoning of the land from the existing Public Use Zone – Schedule 1 to the Rural Living Zone under the Moorabool Planning Scheme, and summarises the planning permit application for the subdivision creating two allotments (one additional allotment).

The planning scheme amendment and permit will be undertaken via a combined process under Section 96a of the *Planning and Environment Act 1987*. This permit also provides an overview of the key findings of the technical assessments, such as flora and fauna assessment, bushfire assessment and infrastructure servicing.

On balance, we are of the opinion that the proposal is appropriate and is consistent with State and local policy directives which encourage growth in appropriate locations.

Accordingly, we respectively seek the support of Council for this concurrent planning scheme amendment request and planning permit application.

Appendices

Appendix A Certificate of Title

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REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 10313 FOLIO 025 Security no : 124053302568E
Produced 09/12/2014 08:05 am

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 349871U.
PARENT TITLE Volume 10110 Folio 096
Created by instrument PS349871U 21/01/1997

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
GIPPSLAND AND SOUTHERN RURAL WATER AUTHORITY
PS349871U 21/01/1997

ENCUMBRANCES, CAVEATS AND NOTICES

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE PS349871U FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

Street Address: GISBORNE ROAD COIMADAI VIC 3340

DOCUMENT END

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PLAN OF SUBDIVISION

Under section 35(8) of the Subdivision Act 1988

LTO use only: **EDITION 1**

Stage No.: /

Plan Number: **PS 349871U**

Location of Land

Parish: COIMADAI
Crown Allotment: 58 (PART)
Parish: MERRIMU
Crown Allotment: 21 AND 22 (PARTS)
Section: 22

LTO Base Record: LITHO COIMADAI (2404)
LTO Base Record: LITHO MERRIMU (3095)
Title Reference: VOL. 10110 FOL. 096
Last Plan Reference: LP228536

Postal Address: COIMADAI - DIGGERS REST ROAD
(at time of subdivision) BACCHUS MARSH (3340)

AMG Co-ordinates (of approx. centre of land in plan) E 278 000 N 5 832 000 Zone: 55

Council Certification and Endorsement

Council Name: SHIRE OF MOORABOOL Ref:

A. This is a plan under section 35(8) of the Subdivision Act 1988 which does not create any additional lots.
B. This plan is exempt from Part 3 of the Subdivision Act 1988.
~~C. This is a plan under section 35(8) of the Subdivision Act 1988 which creates (an) additional lot(s).~~
D. It is certified under section 6 of the Subdivision Act 1988.
~~E. It is certified under section 11(7) of the Subdivision Act 1988.~~
~~F. Date of original certification under section 6 / / /~~
G. This is a statement of compliance issued under section 21 of the Subdivision Act 1988.

Council delegate

~~Council seal~~

Date 9 / 9 / 96

Roads or Reserves vest in the council/body/person named upon registration of this plan.

Identifier	Council/Body/Person
Nil	

Notations

Depth Limitation: Not applicable

Staging: This is/is not a staged subdivision
Planning Permit No. Not applicable

1. The land being subdivided is enclosed within thick continuous lines
2. No land is to be acquired by this plan.

Survey
Dimensions underlined have been adopted from title and are not the result of survey.
This survey has been connected to permanent marks no. 84, Parish of Merrimu.

In Proclaimed Survey Area No. ———

Easement Information

Legend: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
E-1	PIPELINE	5m	HI90274	BACCHUS MARSH SHIRE COUNCIL
E-2	PIPELINE	5m	HI90274	BACCHUS MARSH SHIRE COUNCIL
E-2	POWER SUPPLY	10.06	EI58810	STATE ELECTRICITY COMMISSION
E-3	POWER SUPPLY	10.06	EI58810	STATE ELECTRICITY COMMISSION

LTO use only

Statement of Compliance/ Exemption Statement

Received ☑

Date 30 / 9 / 96

LTO use only

PLAN REGISTERED

TIME 2pm

DATE 21 / 1 / 96

Assistant Registrar of Titles

Sheet 1 of 4 sheets

SOUTHERN
RURAL WATER AUTHORITY
P.O. BOX 153
MAFFRA 3860

LICENSED SURVEYOR: ALAN EDWARD TIMCKE

SIGNATURE..... DATE 9 / 6 / 96

REF: FN's Corr No. VERSION 1

DATE 9 / 9 / 96

COUNCIL DELEGATE SIGNATURE

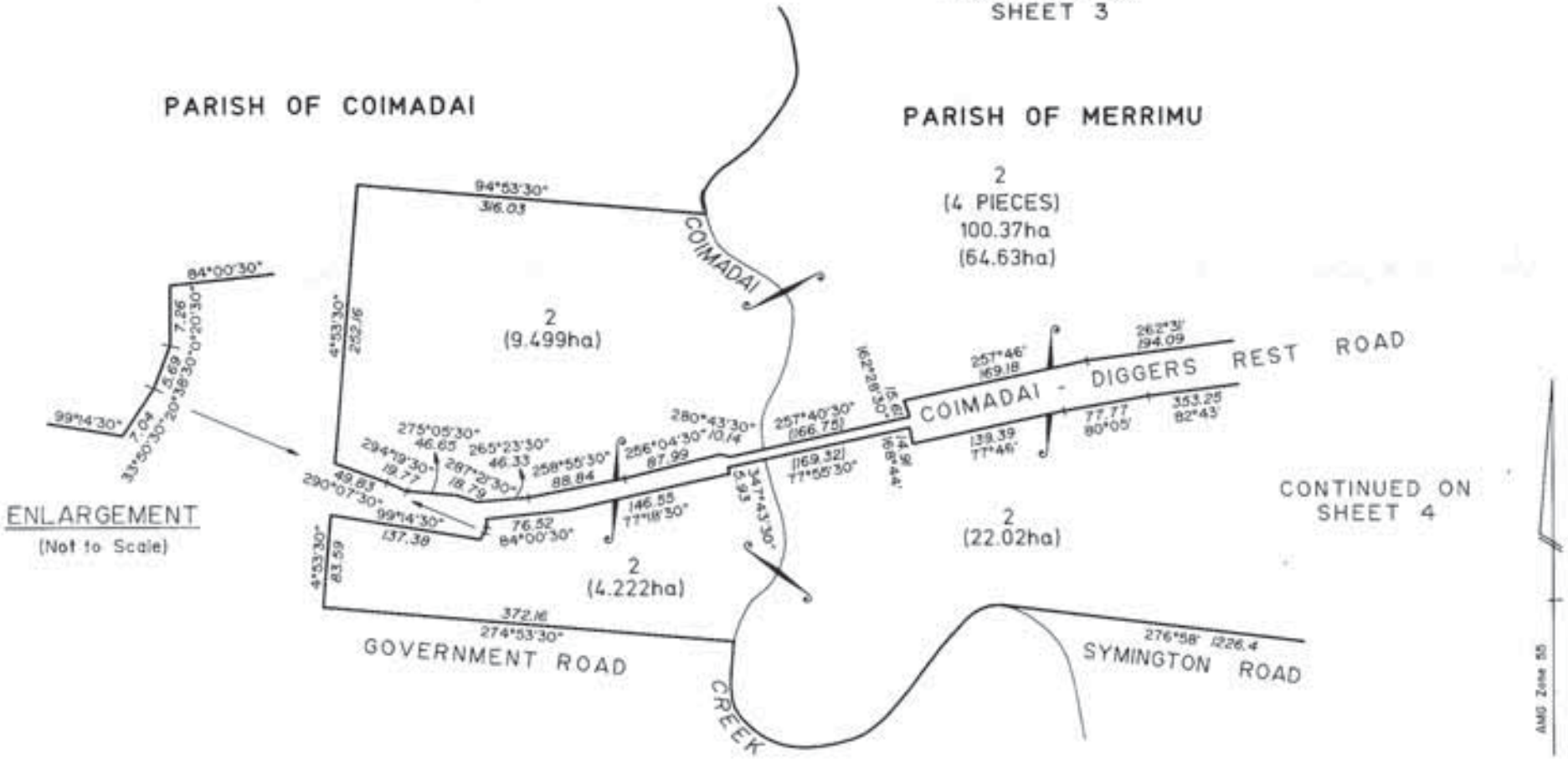
Original sheet size A3

PLAN OF SUBDIVISION

Under section 35(8) of the Subdivision Act 1988

Stage No. /

Plan Number **PS 349871U**



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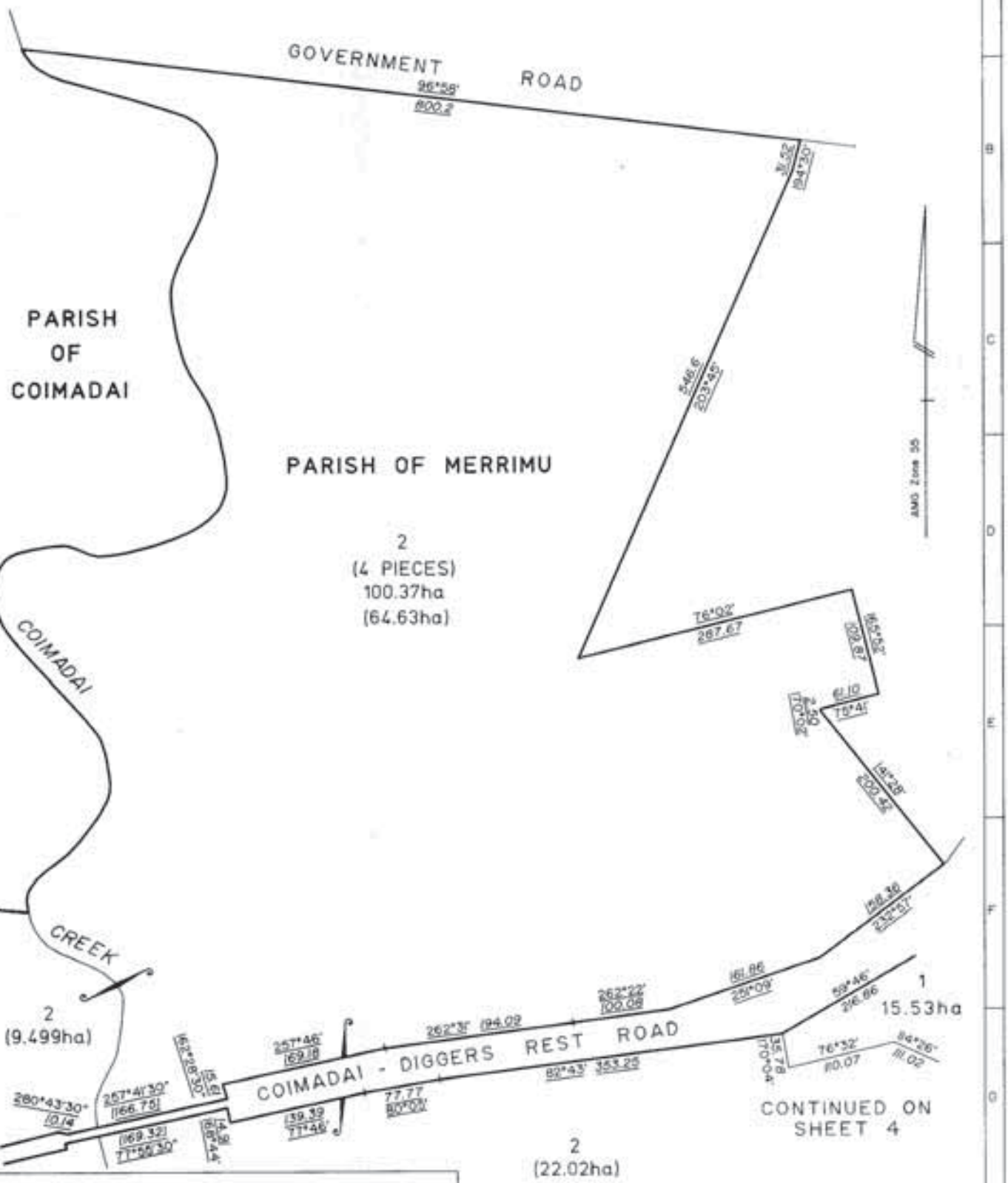
Plan Number

PS 349871U



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P.O. BOX 153
MAFFRA 3860

Sheet 3 of 4 sheets

ORIGINAL SCALE	ORIGINAL SHEET SIZE	SCALE
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LICENSED SURVEYOR: ALAN EDWARD TIMCKE

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DATE 7 / 7 /96

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PLAN OF SUBDIVISION

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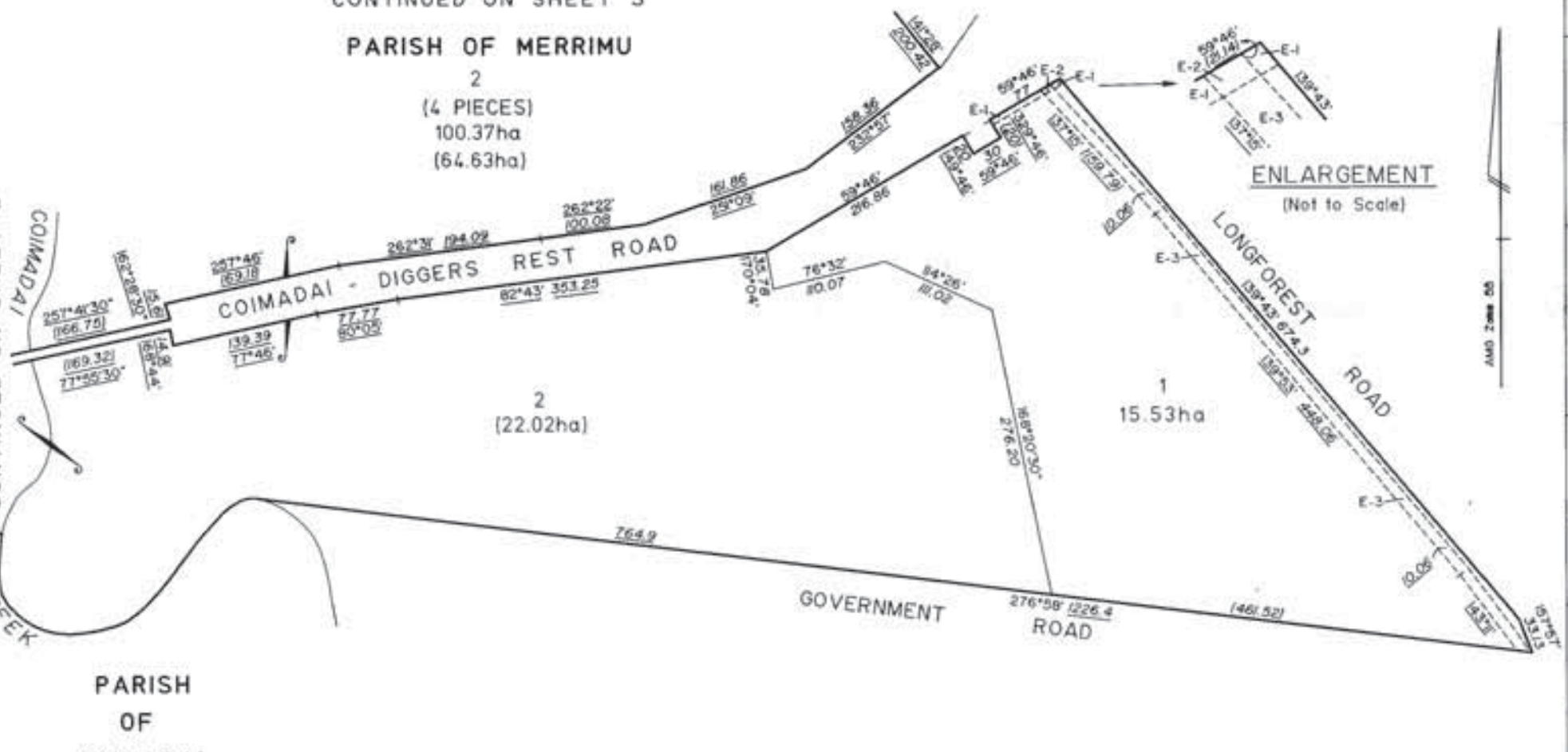

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Appendix B Subdivision Concept Plan

Scale 1:2,500 (At A3)

0 12.5 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Long Forest Site Boundary
- Building Envelope (500msq)
- Proposed Vegetation Removal
- Stream

Southern Rural Water
Desktop Planning Assessment

Job Number	31-30827
Revision	A
Date	31 Jul 2014

Long Forest Site
Proposed Vegetation Removal

Figure

G:\31\30827\GIS\Maps\Working\Long Forst Site\3130827_010_LFS_VegetationRemoval_A3L.mxd

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Appendix C Flora and Fauna Assessment

Southern Rural Water

Diggers Rest-Coimadai Road, Merrimu Planning Assessment

Flora, Fauna and Habitat Hectares Assessment

DRAFT

April 2015

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WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

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Executive summary

This report was commissioned by Southern Rural Water (SRW) as part of the proposed Diggers Rest-Coimadai Road, Merrimu Surplus Land Assessment project (the 'Project'). SRW proposes to subdivide surplus land located near Lake Merrimu, north of Bacchus Marsh. SRW would like to sell the two properties (known as the Long Forest Block (PS 348971) and the Quarry Block (part LP 221537), with rural residential subdivision approval to maximise the value of the land.

The purpose of this report is to document:

- The risk-pathway that a permit to remove native vegetation is likely to take for each property (in accordance with the *Permitted Clearing of Native Vegetation – Biodiversity Assessment Guidelines*; DEPI 2013);
- Identification of potential ecological constraints associated with each property;
- Recommendations regarding the location of development to avoid/minimise impact on ecological values;
- Results of the habitat hectare assessments;
- Results of the analysis by DEPI (offset requirements for proposed native vegetation removal) for each property. Shape files were submitted to DEPI for analyses and determination of offset requirements;
- Likely legislative implications of works that would be associated with approval and construction of the proposed development; and
- The need (if any) for any further ecological surveys.

The study sites are along the Diggers Rest-Coimadai Road, 5 km north-east of the Bacchus Marsh township. The Quarry Block occurs east of the intersection with the Bacchus Marsh – Gisborne Road, and the Long Forest Block is located west of the intersection with Long Forest Road.

For the Long Forest Block – four options were considered with respect to location of access roads and footprint for removal of native vegetation associated with the proposed building envelopes. Two allotments are proposed. For the Quarry Block – three options were considered and 11 allotments are proposed. All options are described in section 1.1 and shown in Appendix F and Appendix G.

A GHD botanist and zoologist undertook a field assessment of the study sites on 28 May 2014, during which ecological values were confirmed, including native vegetation and potential for threatened species. Habitat hectare assessments were undertaken in patches of native vegetation (in accordance with DEPI 2013).

Long Forest Block: flora and fauna values

The Long Forest Block supports extensive areas of Grassy Woodland (EVC 175), some of which meets the condition threshold to be the threatened community: *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia* (listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999*). Three habitat zones were mapped, mostly differing in presence/absence of tree canopy and degree of weed cover. Two of the habitat zones (Habitat Zone 1 and 2) meet condition thresholds to be the EPBC listed community.

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Three flora species listed as rare or threatened were observed during the current site assessment at the Long Forest Block:

- *Acacia rostriformis* (Bacchus Marsh Wattle; rare in Victoria);
- *Eucalyptus leucoxylon* ssp. *connata* (Melbourne Yellow Gum; vulnerable in Victoria); and
- *Rhagodia parabolica* (Fragrant Saltbush; rare in Victoria).

Threatened fauna most likely to occur at the Long Forest Block are those associated with woodland habitats. These include the migratory Swift Parrot, the Brush-tailed Phascogale, Common Dunnart, and a suite of woodland-dependent (and some hollow-dependent) birds and reptiles. Loss or degradation of woodland habitat from this site will impact on these species, but for no species are the potential impacts associated with the proposed development considered likely to be significant. Threatened fauna species that are grassland specialists (e.g., Striped Legless Lizard, Golden Sun Moth, Fat-tailed Dunnart) are not expected to occur at this site.

Quarry Block: flora and fauna values

The Quarry Block supports extensive areas of Plains Grassland (Low Rainfall – EVC 132_63), albeit of moderate quality. At the time of assessment, the vegetation met the condition threshold to be considered the EPBC listed community: *Natural Temperate Grasslands of the Victorian Volcanic Plains Bioregion* and is also listed as a threatened community under the *Flora and Fauna Guarantee Act 1988*.

No rare or threatened flora species were encountered during the current survey or previous surveys conducted by Ecology and Heritage Partners (EHP 2013b) at the Quarry Block.

Threatened fauna most likely to occur at the Quarry Block are those associated with grassland habitats. However, given the history of land-use at this site, and its currently degraded condition in terms of fauna habitat, no species is considered likely to make significant use of this site, and most are expected to be absent. Threatened fauna species that are grassland specialists (e.g., Striped Legless Lizard, Golden Sun Moth, Fat-tailed Dunnart) are not expected to occur at this site.

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Legislative requirements

***Environment Protection and Biodiversity Conservation Act*:** The proposed sub-division at both sites requires the removal of a community listed as threatened under the EPBC Act:

- Long Forest Block: *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia* (endangered) – 0.05 to 0.06 Ha (depending on option selected); and
- Quarry Block: *Natural Temperate Grasslands of the Victorian Volcanic Plains Bioregion* (critically endangered) – 1.21 to 1.40 Ha (depending on option selected).

The proposed footprint associated with the Long Forest Block is unlikely to be considered a significant impact under the EPBC Act, as only 0.05 to 0.06 Ha is proposed for removal. The proposed building envelopes have been positioned in poorer quality vegetation and outside the EPBC community. The removal of vegetation corresponding to the threatened community is for access to the proposed allotments.

The proposed sub-division at the Quarry Block exceeds 1 Ha in size and could be considered a significant impact, according to DoTE guidelines. GHD therefore discussed the project with DoTE (Drew McLean; Assistant Director of Compliance) to identify if impacts at the Quarry Block are considered a significant impact under the EPBC Act (as agreed in our work plan with SRW), to determine whether a referral is required and offsets under the EPBC Act. DoTE (Drew Mclean) subsequently met with GHD's Botanist on site on the 12th February to assess the

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site. Based on the condition of the vegetation at the time of the site meeting, DoTE concluded and advised that the project would not require referral because of the low quality of the Plains Grassland and past disturbance to the ground.

Planning permit for removal of native vegetation: A planning permit for the removal of native vegetation under the *Environment and Planning Act 1987* will be required for the proposed subdivision at both sites, regardless of which option is selected, unless an exemption applies. The proposed subdivision at Long Forest Block would follow the **high** risk pathway for any of the four options, when being assessed by the Moorabool Shire Council and DEPI (because the project area falls within Location C). The proposed subdivision at the Quarry Block would follow the **moderate** risk pathway for any of the three options (the project area falls within location A, but the extent of clearing is expected to be > 1 Ha).

Offset requirements: Offsets are required for all options being considered for both blocks. These offsets must be located within the Port Phillip and Westernport Catchment Management Authority (PPWCMA) area, and will need to be sourced in accordance with DEPI's *Native vegetation gain scoring manual* (DEPI 2013b). For moderate and high risk-based pathway, the application must include an offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

At the Long Forest Block, the type and amount of offset required will depend on whether the vegetation in the area around proposed dwellings to be maintained at < 5 cm tall for bushfire management (defendable space; GHD 2014), is considered a loss of native vegetation by Moorabool Shire Council and DEPI. We recommend that SRW consults with the above-listed authorities to determine if the area to be maintained at < 5 cm for bushfire management is considered a loss and must be considered when determining offsets for the project. For example, if this area must be considered a loss, then the offset will need to be specific habitat for the Bacchus Marsh Wattle, whereas if this area is not considered a loss, then a general offset only would be required.

For the Quarry Block, general offsets are required and the quantity of offset varies depending on the option selected (see Table 1).

A suitable offset strategy must be determined prior to applying for a planning permit and submitted with the planning permit application for any works undertaken at both blocks (because the projects are considered moderate (Quarry Block) and high risk (Long Forest Block).

Impacts on native vegetation and their potential offset requirements are summarised in Table 1 for each of the proposed options. For the Long Forest Block, an assessment by an arborist is required to determine if any trees will be affected and considered a loss owing to encroachment of their Tree Retention Zone (TRZ), particularly for trees adjacent to the proposed access roads/driveways. Data will then need to be submitted to DEPI for analyses and offset determination based on final footprint and losses of trees.

Flora and Fauna Guarantee Act: A permit for the removal of the threatened community: *Western Basalt Plains Grassland* will be required for the proposed sub-division at the Quarry Block. For the proposed subdivision at the Long Forest Block, a permit for the removal of FFG listed protected flora will be required (e.g. Wattle species).

An *Environment Management Plan (EMP)* should be developed for this project. This EMP should specifically include (though not be limited to) mitigation measures to prevent and/or minimise impacts on rare or threatened flora and fauna.

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Table 1 Estimated losses of native vegetation and offset requirements for each of the proposed subdivision options for Long Forest and Quarry Blocks

Site and option	Unavoidable loss of native vegetation (Ha)	Type of offset	Amount of offset	Minimum score
Long Forest Block – option 1	0.154	General	0.067 general units	0.512
Long Forest Block – option 2	0.169	General	0.074 general units	0.510
Long Forest Block – option 3	1.010	Specific	0.688 specific units of habitat for the Bacchus Marsh Wattle	NA
Long Forest Block – option 4	1.025	Specific	0.704 specific units of habitat for the Bacchus Marsh Wattle	NA
Quarry Block – option 1	1.396	General	0.444 general units	0.309
Quarry Block – option 2	1.214	General	0.384 general units	0.306
Quarry Block – option 3	1.282	General	0.409 general units	0.309

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Definitions

The following terms are used in the Biodiversity Assessment Guidelines.

General biodiversity equivalence score/units

Score or units used to quantify the relative overall contribution of a site to Victoria's biodiversity.

General offset

An offset that is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have a significant impact on habitat for any rare or threatened species.

Habitat hectares site assessment

A site-based measure of the condition of native vegetation with reference to the benchmark for the same type of native vegetation. The assessment generates a condition score of between 0 and 1.

Location risk

The location risk dataset (GIS layer) identifies the risk (according to DEPI) that removing native vegetation in a particular location will have an impact on the persistence of a rare or threatened species.

Native vegetation site condition

The native vegetation site condition dataset (GIS layer) recognises that most remaining native vegetation in Victoria has been subject to some disturbance, such as historical land use, grazing or weed and pest animal invasion and is subsequently reduced in condition. The Native Vegetation site condition dataset aims to quantify the quality of vegetation using three components: composition (species diversity), structure (cover) and function. The condition of vegetation is then rated on a scale from 0 to 1 with 0 being vegetation in poorest condition and 1 being vegetation in best condition.

Minor treeless vegetation

Minor treeless vegetation is vegetation that does not meet the condition threshold to be considered a patch of native vegetation or scattered indigenous tree. For example, the cover of native species is < 25% of the total perennial understorey vegetation cover.

Offset

Protection and management (including revegetation) of native vegetation at a site to generate a gain in the contribution that native vegetation makes to Victoria's biodiversity. An offset is used to compensate for the loss to Victoria's biodiversity from the removal of native vegetation.

Strategic biodiversity score

The strategic biodiversity score of native vegetation at a site is a measure of the site's importance for Victoria's biodiversity relative to other locations across the landscape. The score is derived using a spatial prioritisation tool that ranks locations in Victoria for their conservation priority on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation. All native vegetation in Victoria has a biodiversity score. The Strategic Biodiversity score is rated on a scale from 0 to 1, with a 0 rating indicating a site has lowest importance for Victoria's biodiversity and a score of 1 indicating a site has highest importance for Victoria's biodiversity.

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Specific biodiversity equivalence score/units

With reference to a specific species, a score or units used to quantify the relative contribution of a site to Victoria's biodiversity.

Specific offset

An offset that is targeted to a particular species (or multiple species) impacted by the removal of native vegetation.

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Abbreviations

AVW	Atlas of Victorian Wildlife
CaLP Act	*Catchment and Land Protection Act 1994*
CMA	Catchment Management Authority
CVU	Central Victorian Uplands Bioregion
DBH	Diameter at breast height
DEPI	Victorian Department of Environment and Primary Industries (formerly DSE)
DEWHA	Commonwealth Department of the Environment, Water, Heritage and the Arts (now DoTE)
DNRE	Victorian Department of Natural Resources and Environment (now DSE)
DoTE	Commonwealth Department of the Environment
DSE	Victorian Department of Sustainability and Environment (now DEPI)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities
EMP	Environmental Management Plan
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EVC	Ecological Vegetation Class
FFG Act	*Flora and Fauna Guarantee Act 1988*
FIS	Flora Information System
GHD	GHD Pty Ltd
GIS	Geographical Information System
HabHa	Habitat Hectares
HZ	Habitat Zone
MiTV	Minor Treeless Vegetation
MNES	Matters of National Environmental Significance
PMST	EPBC Act Protected Matters Search Tool
sp.	Species (one species)
spp.	Species (more than one species)
SRW	Southern Rural Water
subsp.	Subspecies
TRZ	Tree Retention Zone
var.	Variety
VBA	Victorian Biodiversity Atlas
VROT	Victorian rare or threatened species
WONS	Weed of National Significance

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1. Introduction

This report was commissioned by Southern Rural Water (SRW) as part of the proposed Diggers Rest-Coimadai Road, Merrimu Surplus Land Assessment project (the 'Project'). SRW proposes to subdivide surplus land located near Lake Merrimu, north of Bacchus Marsh. SRW would like to sell the two properties (known as the Long Forest Block (PS 348971) and the Quarry Block (part LP 221537), with rural residential subdivision approval to maximise the value of the land.

The primary purpose of this assessment was to broadly identify ecological values present or likely to occur within the study area, and determine the potential legislative implications associated with the subdivision. A preliminary ecological assessment for each of the two land parcels was conducted by EHP in 2013 (EHP, 2013a and 2013 b). Thus, the purpose was also to confirm earlier advice provided to SRW by EHP e.g. the need for targeted surveys for threatened species.

In December 2013, the Department of Environment and Primary Industries (DEPI; formerly the Department of Sustainability and Environment, DSE) changed the process for assessing impacts on native vegetation and calculating required offsets: referred to as the *Permitted Clearing of Native Vegetation: Biodiversity Assessment Guidelines* (the Guidelines, DEPI, 2013a). This report is in accordance with the Guidelines.

The purpose of this report is to document:

- The risk-pathway that a permit to remove native vegetation is likely to take for each property (in accordance with the *Permitted Clearing of Native Vegetation – Biodiversity Assessment Guidelines*; DEPI 2013);
- Identification of potential ecological constraints associated with each property;
- Recommendations regarding the location of development to avoid/minimise impacts on ecological values;
- Results of the habitat hectare assessments;
- Results of the analysis by DEPI (offset requirements for proposed native vegetation removal) for each property. GHD submitted shape files to DEPI for analyses and determination of offset requirements;
- Likely legislative implications of the proposed subdivisions; and
- The need (if any) for any further ecological surveys.

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1.1 Study sites

The study area is approximately 5 km north-east of Bacchus Marsh and 50 km north-west of the Melbourne CBD. There are two sites within the study area, and both occur in different properties along the Diggers Rest-Coimadai Road: Long Forest Block and Quarry Block.

Both sites fall within the Port Phillip and Westernport CMA area and the Shire of Moorabool Local Government Authority area.

1.1.1 Long Forest Block

The Long Forest Block (PS 348971) is located immediately west of the intersection of Diggers Rest-Coimadai Road and Long Forest Road (

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Figure 1). The Long Forest Block is located within the Central Victorian Uplands (CVU) Bioregion.

Four options for proposed subdivision of this block are considered in this report, all of which include dividing the property into two allotments. Options vary in 1) location of access route/driveway into allotment 2, and 2) footprint of vegetation to be maintained around proposed dwelling site to < 5 cm tall to meet bushfire management guidelines and whether this area is considered a loss of native vegetation or not. Options are shown in Appendix C.

Option 1: Access to allotment 2 from Long Forest Road. This option does not include the area to be maintained at < 5 cm height for bushfire management as loss of native vegetation.[1]

Option 2: Access to allotment 2 from Symington Road. This option does not include the area to be maintained at < 5 cm height for bushfire management as loss of native vegetation.

Option 3: Access to allotment 2 from Long Forest Road. This option includes the area to be maintained at < 5 cm height for bushfire management as loss of native vegetation.

Option 4: Access to allotment 2 from Symington Road. This option includes the area to be maintained at < 5 cm height for bushfire management as loss of native vegetation.

1.1.2 Quarry Block

The Quarry Block (LP 221537) occurs immediately east of the intersection of the Diggers Rest-Coimadai Road and the Bacchus Marsh – Gisborne Road (Figure 2). The Quarry Block is located within the Victorian Volcanic Plain (VVP) Bioregion.

Three options for proposed subdivision are considered in this report, all of which include dividing the property into eleven allotments. Options vary in location of access routes/driveways into allotments. Options are shown in **Error! Reference source not found.**.

1.2 Limitations

1.2.1 Legal

This *Diggers Rest-Coimadai Road, Merrimu Planning Assessment - Flora, Fauna and Habitat Hectares Assessment Report ("Report"):*

1. has been prepared by GHD Pty Ltd (GHD) for Southern Rural Water (SRW);
2. may only be used and relied on by SRW;
3. must not be copied to, used by, or relied on by any person other than SRW without the prior written consent of GHD;
4. may only be used for the purpose of assessing the ecological values present at the time of survey within the proposed study site and evaluating the proposed impacts on native vegetation (and must not be used for any other purpose).

GHD and its servants, employees and officers otherwise expressly disclaim responsibility to any person other than SRW arising from or in connection with this Report.

To the maximum extent permitted by law, all implied warranties and conditions in relation to the services provided by GHD and the Report are excluded unless they are expressly stated to apply in this Report.

[1] To meet bushfire management guidelines, the grassland surrounding the building envelope must be maintained at < 5 cm tall. This area is likely to be considered a loss of native vegetation because under clause 52.17 of the *Planning and Environment Act* exemptions for maintaining grasses apply if the grass is maintained at > 10 cm.

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The services undertaken by GHD in connection with preparing this Report were limited to those specifically detailed in the Report and are subject to the scope, study area and study site, and ecological limitations sections set out in the Report.

Subject to the paragraphs in this section of the Report, the opinions, conclusions and any recommendations in this Report are based on conditions encountered onsite and information reviewed at the time of preparation of the Report. GHD has no responsibility or obligation to update this Report to account for events or changes occurring subsequent to the date that the Report was prepared.

The opinions, conclusions and any recommendations in this Report are based on assumptions made by GHD described in this Report. GHD disclaims liability arising from any of the assumptions being incorrect.

Our survey was limited to the proposed construction areas provided by SRW. If plans change and a larger and/or different area is proposed to be included in the footprint, further ecological survey would be required to determine impacts in these additional areas and a revision of the calculations would be required.

1.2.2 Ecological survey

This assessment is restricted to terrestrial vascular plant species (ferns, conifers and flowering plants) and terrestrial vertebrate fauna (mammals, birds, reptiles and frogs), as most comprehensive data is available on these groups. Non-vascular flora (e.g. mosses, liverworts, lichens), fungi and terrestrial invertebrates have not been considered in detail as part of this assessment, except where listed threatened species are known or suspected to occur. There is relatively little information available on these latter taxa within state-managed databases. Threatened aquatic fauna (fish and aquatic invertebrates) have not been considered in this assessment as it is understood that no waterways are to be impacted.

No targeted surveys for rare or threatened species were undertaken during this assessment, but an incidental species list was recorded for species observed. It was beyond the scope of this assessment to undertake detailed flora or fauna survey, such as flora quadrat surveys or fauna trapping. If the proposed subdivision changes, further ecological assessment may be required to determine impacts on ecological values.

An assessment of impacts on Tree retention Zones was not conducted and will be required at the Long Forest Block.

1.2.3 Time of year

The flora, fauna and habitat hectares assessment was undertaken in May (late autumn), a sub-optimal time period for detecting many native flora and fauna species. However, the field assessment is supplemented by records from the VBA database.

1.2.4 Use of databases

Using the VBA database (2013 version) a defined geographical area can be searched to produce species lists of flora and fauna that have been documented within the searched area. These database lists are only as accurate as the quality and quantity of data that has been recorded and documented from the area. The use of the database in a desktop assessment has the following limitations:

- Observations were last updated in 2011 for the VBA; and
- This dataset is not exhaustive. In other words, many locations locally and across Victoria have a low level of documented survey effort for one or more groups of flora and fauna.

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During field surveys, it is not uncommon to find species at locations for which there are few or no previous nearby database records.

1.2.5 Assumptions

This report has been prepared based on certain assumptions being correct. These are:

- Storage of spoil, equipment, vehicles and machinery would be restricted to cleared areas or have been included within the footprint;
- In preparing this report, we have assumed that the proposed subdivision at each of the Blocks will be treated as separate projects by Moorabool Shire Council and DEPI because separate planning permit applications will be submitted by SRW. If the authorities conclude that the impacts of both subdivisions are to be assessed in combination, then this report would require updating.

1.3 Recent legislative changes

The Department of Environment and Primary Industries (DEPI; formerly the Department of Sustainability and Environment, DSE) has recently changed the process for assessing impacts on native vegetation and calculating required offsets: referred to as the *Permitted Clearing of Native Vegetation: Biodiversity Assessment Guidelines* (the Guidelines, DEPI, 2013a) – since the previous reports by EHP were completed. These changes came into effect in December 2013, thus this report has been completed in accordance with the Guidelines.

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2. Methods

2.1 Desktop assessment

The desktop assessment included a review of the following information and government ecological databases:

- Previous consultancy reports:
  - Ecology & Heritage Partners (2013a). Due diligence ecological assessment for Lot 1 PS 349871U, Lake Merrimu, Victoria. Report to Southern Rural Water by Ecology & Heritage Partners; and
  - Ecology & Heritage Partners (2013b). Due diligence ecological assessment for Lot 1 LP221357, Lake Merrimu, Victoria. Report to Southern Rural Water by Ecology & Heritage Partners;
- The Victorian Biodiversity Atlas (VBA) database for flora species recorded within the local area;
- The Commonwealth Department of the Environment Protected Matters Search Tool (PMST), which predicts the occurrence of Matters of National Environmental Significance;
- GIS mapping by the Department of Environment and Primary Industries (DEPI) e.g. mapping of extant and pre-European Ecological Vegetation Classes, Location Risk maps, BioSites mapping and Native Vegetation Extent maps; and
- Aerial imagery of the study site.

The VBA database is managed and maintained by the Victorian Department of Environment and Primary Industries (DEPI). Search of the VBA was conducted for a 10 km radius around the proposed study sites.

GIS layers other than the VBA data and EVC mapping were accessed via the DEPI biodiversity interactive map website.

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2.2 Flora assessment

GHD botanist undertook a field assessment of the proposed subdivision areas on 28 May 2014. The field assessment included:

- Recording flora species encountered incidentally within the study site;
- Identification and mapping of patches of remnant native vegetation within the study site;
- Describing the structure and composition of all patches of native vegetation within the study site (e.g. dominant species in each stratum, weed cover);
- A habitat hectares assessment in each native vegetation patch within the study sites; and
- If any threatened flora or fauna were encountered during the field survey, their location and a population estimate was recorded.

The survey included a walking assessment of each of the two study sites.

A species list of incidental flora observations will be entered into the Victoria Biodiversity Database.

Following the field assessment, the likelihood of occurrence of threatened flora (based on known or predicted occurrence within 10 km of the study site, and the presence of suitable habitat) was assessed. The results are presented in Section 3.1.

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2.3 Fauna assessment

A GHD zoologist undertook a field assessment of the proposed subdivision areas on 28 May 2014. The field assessment included:

- Identifying the fauna habitats and condition represented in each of the study sites;
- Assessing the likelihood of occurrence of threatened fauna and migratory fauna (based on known or predicted occurrence within 10 km of the site, and the presence of suitable habitat); and
- Recording a list of fauna species encountered incidentally within and around the proposed study site. The list will be entered into the Victoria Biodiversity Atlas database as required under GHD's data-sharing agreement with DEPI.

The Marine status of fauna species (as indicated under the EPBC Act) was not considered because the study site is not in or near a Commonwealth marine area.

Fish and aquatic invertebrates are not considered as part of this assessment and are not included in the fauna species lists.

2.4 Nomenclature

2.4.1 Flora species

Common and scientific names for plants follow the VBA database (2013 version).

2.4.2 Vegetation communities

Native vegetation in Victoria is classified into units known as Ecological Vegetation Classes (EVCs). EVCs are described according to a combination of floristic, life form and ecological characteristics, and through an inferred fidelity to particular environmental attributes. Each EVC occurs under a common regime of ecological processes within a given biogeographic range, and may contain multiple floristic communities (DNRE, 2002).

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2.4.3 Fauna species

Unless otherwise noted, common and scientific names for terrestrial fauna (mammals, birds, reptiles, amphibians, invertebrates) follow the VBA database (2013 version).

2.4.4 Fauna communities

Unlike flora and the use of EVCs, there is no official widespread classification system for fauna communities in Victoria. Both the EPBC Act and the FFG Act list a small number of fauna communities that are considered to be threatened, at a national or state scale, respectively. Fauna communities known or potentially occurring within the project area or surrounds are only considered in this report if they are listed under either of these two Acts.

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3. Results

3.1 Flora and vegetation

3.1.1 Long Forest Block

The desktop assessment indicated that a total of 921 flora species are documented to occur, or predicted to occur within 10 km of the Long Forest Block (VBA and PMST).

Vegetation at the Long Forest Block is predominantly remnant native vegetation, with some small patches of minor treeless vegetation, and a small patch of non-native vegetation (Figure 1).

Three habitat zones were mapped at the Long Forest Block (HZ1-3). All supported Grassy Woodland (EVC 175) of varying quality. The habitat hectare scores for each habitat zone are presented in Appendix E.

Habitat Zone 1 (HZ1) supports the most intact vegetation on the site, open woodland dominated by *Eucalyptus microcarpa* (Grey Box) to 12 m tall, with a canopy cover of 2 - 10%. Many young eucalypts were seen throughout HZ1. The understorey was relatively sparse but dominated by native grasses, with scattered small and medium shrubs such as *Acacia pycnantha* (Golden Wattle), *Acacia verniciflua* (Varnish Wattle) and *Cassinia arcuata* (Drooping Cassinia) to 2 m tall. The groundlayer is dominated by *Rytidosperma* spp. (Wallaby Grasses e.g. *R. geniculatum*; Kneed wallaby-grass, *R. setaceum*; Bristly Wallaby-grass and *R. racemosum*; Slender Wallaby-grass) and *Austrostipa* spp. (Spear Grasses e.g. *A. bigeniculata*; Kneed Spear-grass, *A. gibbosa*; Spurred Spear-grass and *A. scabra*; Rough Spear-grass), typically less than 20 cm tall. Habitat zone 1 meets the criteria for the EPBC listed community *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia*, as detailed in Section 3.2.1. Plate 1 shows an area representative of HZ1.

Habitat Zone 2 (HZ2) supports modified EVC 175, in which the canopy has been removed. The medium shrub layer is dominant, with *Cassinia arcuata* (Drooping Cassinia) the most prolific species. Emergent *Acacia* spp. (Wattles) and *Eucalyptus microcarpa* were also seen throughout HZ2. The groundlayer is dominated by *Austrostipa* spp. (Spear Grass) and *Microlaena stipoides* var. *stipoides* (Weeping Grass) with scattered native and introduced herbs. No logs were recorded in HZ2, which may indicate wood-hooking in the area, but may also reflect historical removal of the tree canopy. One high-threat weed (*Rosa rubiginosa* – Briar Rose) was recorded in HZ2. Habitat zone 2 meets the criteria for the EPBC listed community *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia*, as detailed in Section 3.2.1. Plate 2 shows an area representative of HZ2.

Habitat Zone 3 (HZ3) is a derived grassland form of Grassy Woodland (EVC 175) dominated by *Austrostipa* spp. (Spear Grass), *Rytidosperma* spp. (Wallaby Grass) and *Elymus scaber* (Wheat Grass) to 1 m tall. Some regeneration of shrubs is occurring in HZ3, dominated by *Cassinia arcuata* (Drooping Cassinia). Habitat zone 3 does not currently meet the criteria for the EPBC listed community *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia*, as detailed in Section 3.2.1, but may do at other times of year when native annuals are flowering and differentiation within graminoid genera is possible. Plate 3 shows an area representative of HZ3.

3.1.2 Quarry Block

The desktop assessment indicated that a total of 967 flora species are documented to occur, or predicted to occur within 10 km of the Quarry Block (VBA and PMST).

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Vegetation at the Quarry Block is a mix of remnant native vegetation (Low rainfall Plains Grassland; EVC 132_63), minor treeless vegetation, and regrowth less than 10 years old (Figure 2).

One Habitat Zone was recorded at the Quarry Block (HZ4), supporting Plains Grassland (Low Rainfall – EVC 132_63). The low rainfall variant of EVC 132 was determined based on species composition at the site and EVC description, as the mean annual rainfall for Bacchus Marsh is around 500 mm[2] (BOM 2014), which is the cut-off for the low rainfall/high rainfall variants.

Habitat zone 4 is dominated by perennial native tussock grasses, including *Rytidosperma* spp. (Wallaby Grasses e.g. *R. geniculatum*; Kneed Wallaby-grass, *R. setaceum*; Bristly Wallaby-grass and *R. racemosum*; Slender Wallaby-grass) and *Austrostipa* spp. (Spear Grasses e.g. *A. bigeniculata*; Kneed Spear-grass, *A. gibbosa*; Spurred Spear-grass and *A. scabra*; Rough Spear-grass), typically less than 20 cm tall. Scattered shrubs (including *Cassinia arcuata* - Drooping Cassinia and *Sclerolaena muricata* var. *muricata* – Black Roly-poly) and forbs (such as *Einadia nutans* – Climbing Saltbush and *Euchiton collinus* – Creeping Cudweed) occurred throughout the habitat zone. At the time of survey, habitat zone 4 met the criteria for the EPBC listed community *Natural Temperate Grassland of the Victorian Volcanic Plain*, as detailed in Section 3.2.2. Plate 4 shows an area representative of HZ4. Habitat hectare results are presented in Appendix E.

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[2] BOM 2014, *Climate Data Online - Climate statistics for Australian locations*. Bureau of Meteorology, Commonwealth of Australia. Online Resource http://www.bom.gov.au/climate/data/index.shtml Accessed 28/05/2014

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Plate 1 Habitat Zone 1 (Long Forest Block)

Plate 2 Habitat Zone 2 (Long Forest Block)

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Plate 3 Habitat Zone 3 (Long Forest Block)

Plate 4 Habitat Zone 4 (Quarry Block)

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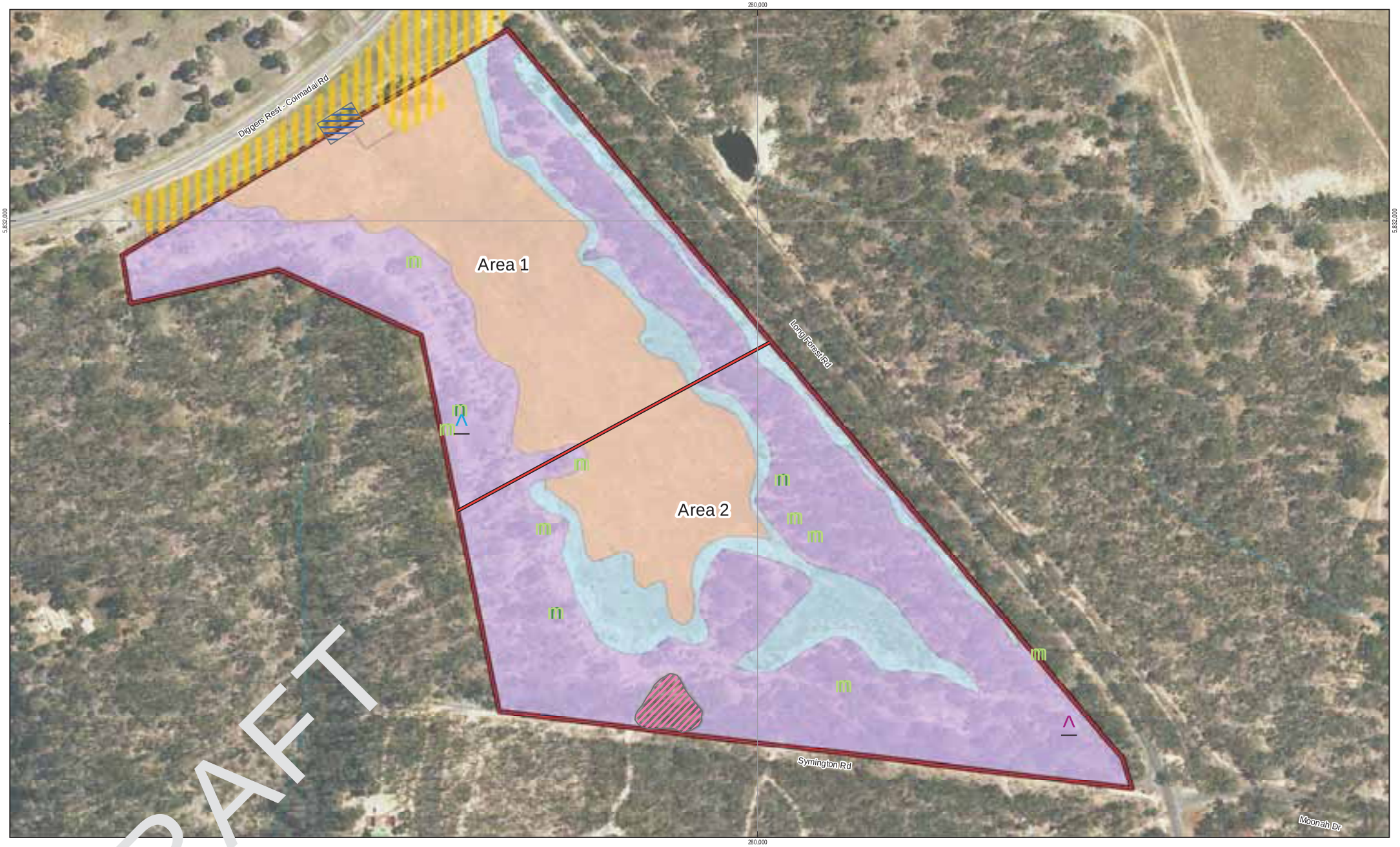

Scale 1:2,500 (At A3)

0 12.5 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Long Forest Site Boundary
- Stream
- Habitat Zones
  - HZ1
  - HZ2
  - HZ3
- miTV
- Non Native Vegetation
  - *Genista monspessulana*
- Significant Species
  - *Eucalyptus leucoxylon*
- *Pterostylis truncata*
- *Rhagodia parabolica*
- Very Large Old Tree
- Large Old Tree

Southern Rural Water
Desktop Planning Assessment

Long Forest Site
Ecological Features

Job Number	31-30827
Revision	A
Date	04 Jun 2014

Figure

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Data source: DSE and VicMap 2013. Created by:lrsmith

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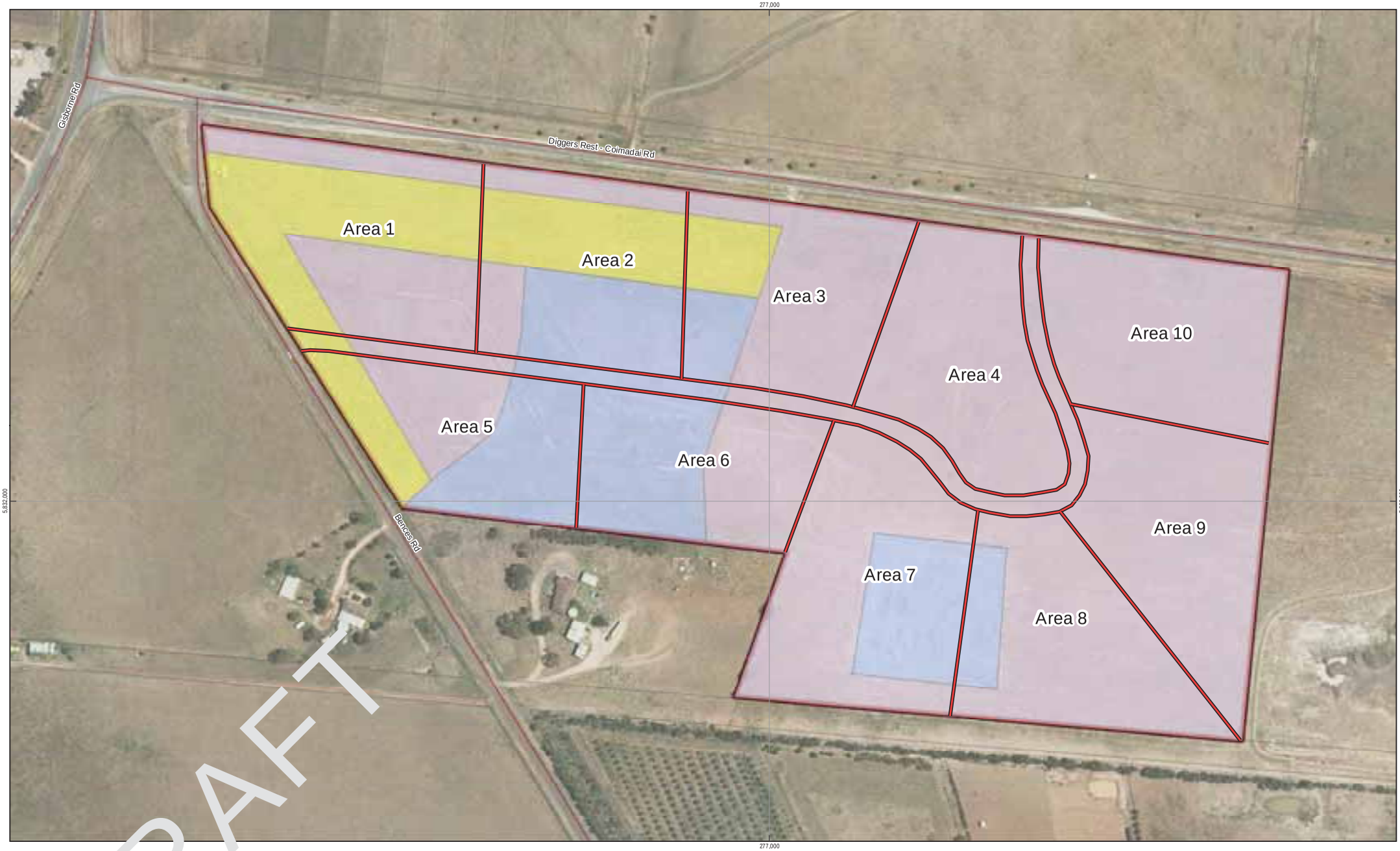

Scale 1:2,500 (At A3)

0 12.5 25 50 75 100 125

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Site Boundaries
- Sealed road (arterial and local)
- Unsealed road
- Channel / drain
- Habitat Zone 4
- Minor Treeless Vegetation
- Planted *eucalypts cladocalyx*

Southern Rural Water
Desktop Planning Assessment

Quarry Block Site Ecological Features

Job Number	31-30827
Revision	A
Date	10 Jun 2014

Figure

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Data source: DSE and VicMap 2013. Created by:lrsmith

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3.2 Flora communities of conservation significance

The PMST searches for both sites predicted that five ecological communities listed as threatened under the EPBC Act may occur within the study area. These are:

- *Grassy Eucalypt Woodland of the Victorian Volcanic Plain* (Critically Endangered);
- *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia* (Endangered);
- *Natural Temperate Grassland of the Victorian Volcanic Plain* (Critically Endangered);
- *Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains* (Critically Endangered); and
- *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland* (Critically Endangered).

3.2.1 Long Forest Block

Habitat Zone 1 meets the criteria for the EPBC listed community *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia*, as detailed in the decision flow-path below.

Flowchart One (adapted from DSEWPAC 2012):

Is the area within or near the area shown on the Grey Box Grassy Woodland distribution map on page 13 (DSEWPAC 2012)? Yes

Is at least 50% of the plant cover in the ground layer made up of perennial native species? Yes

Is (or was previously) the most common tree species (or group of species) one of the following – grey box *Eucalyptus microcarpa*? Yes *Grey Box (Eucalyptus microcarpa) Grassy Woodlands or derived native grasslands of South-eastern Australia* may be present. Go to Flowchart 2.

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Flowchart Two (adapted from DSEWPAC 2012):

Is (or was previously) the most common tree species Grey Box *Eucalyptus microcarpa*? Yes Is the patch at least 0.5 ha in size? Yes Do non-grass weeds make up more than 30% of the ground layer? No Do trees cover at least 10% of the patch? Yes Is the patch bigger than 2 ha? Yes Are there at least 8 trees/ha: a) that contain hollows; or b) have a diameter >60 cm at 1.3 m above ground level? No Are there at least 20 live trees/ha with a diameter >12 cm at 1.3 m above ground level? Yes Is at least 50% of the plant cover in the ground layer made up of perennial native species? Yes **The listed national ecological community is present.**

Habitat Zone 2 also meets the criteria for the EPBC listed community *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia*, as detailed in the decision flow-path below.

Flowchart One (adapted from DSEWPAC 2012):

Is the area within or near the area shown on the Grey Box Grassy Woodland distribution map on page 13 (DSEWPAC 2012)? Yes Is at least 50% of the plant cover in the ground layer made up of perennial native species? Yes Is (or was previously) the most common tree species (or group of species) one of the following – grey box *Eucalyptus microcarpa*? Yes *Grey Box (Eucalyptus microcarpa) Grassy Woodlands or derived native grasslands of South-eastern Australia* may be present. Go to Flowchart 2.

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Flowchart Two (adapted from DSEWPAC 2012):

Is (or was previously) the most common tree species Grey Box *Eucalyptus microcarpa*? Yes Is the patch at least 0.5 ha in size? Yes Do non-grass weeds make up more than 30% of the ground layer? No Do trees cover at least 10% of the patch? No Is there evidence that Grey Box trees were once common in the patch? Yes Are there at least 12 perennial native species in the mid and ground layers? Yes Is at least 50% of the plant cover in the ground layer made up of perennial native species? Yes **The listed national ecological community is present.**

Habitat Zone 3 does not meet the criteria for the EPBC listed community *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia*, as detailed in the decision flow-path below.

Flowchart One (adapted from DSEWPAC 2012):

Is the area within or near the area shown on the Grey Box Grassy Woodland distribution map on page 13 (DSEWPAC 2012)? Yes Is at least 50% of the plant cover in the ground layer made up of perennial native species? Yes Is (or was previously) the most common tree species (or group of species) one of the following – grey box *Eucalyptus microcarpa*? Yes *Grey Box (Eucalyptus microcarpa) Grassy Woodlands or derived native grasslands of South-eastern Australia* may be present. Go to Flowchart 2.

Flowchart Two (adapted from DSEWPAC 2012):

Is (or was previously) the most common tree species Grey Box *Eucalyptus microcarpa*? Yes Is the patch at least 0.5 ha in size? Yes Do non-grass weeds make up more than 30% of the ground layer? No Do trees cover at least 10% of the patch? No Is there evidence that Grey Box trees were once common in the patch? Yes Are there at least 12 perennial native species in the mid and ground layers? No **Not the listed national ecological community.**

The proposed building envelopes have been positioned in poorer quality vegetation and outside the EPBC community. The removal of vegetation corresponding to the threatened community is for access to the proposed allotments.

3.2.2 Quarry Block

Habitat Zone 4 meets the criteria for the EPBC listed community *Natural Temperate Grassland of the Victorian Volcanic Plain* as detailed in the decision flow-path below.

Step One (adapted from DSEWPAC 2011):

Does the patch occur within or near the Victorian Volcanic Plain as shown on the map at page 17 (DSEWPAC 2011)? Yes Is the site dominated by native vegetation *i.e.* a native vegetation remnant? Yes Are trees absent or sparse such that the projective foliage cover of native trees in the in the patch is 5% or less? Yes Is the ground vegetation layer dominated by native grasses and/or other native herbs? Yes **Yes, the grassland ecological community is present. Go to Step Two.**

Step Two (adapted from DSEWPAC 2011):

Is the patch bigger than or equal to 0.05 hectares? Yes The dominant native species represent at least 50% of the native species *and* the **perennial** tussock cover; OR non-grass weeds comprise less than 30% of ground cover OR native forbs (wildflowers) comprise at least 50% of the total vegetation cover during spring – summer. Yes **The patch of the ecological community is of sufficient quality to consider EPBC protection.**

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3.3 Flora species of conservation significance

3.3.1 Long Forest Block

Of the 921 flora species documented or predicted to occur within 10 km of the site (refer Section 3.1.1), 39 species are listed under the Commonwealth *Environment Protection and Biodiversity Conservation (EPBC) Act* 1999, the Victorian *Flora and Fauna Guarantee Act* 1988 and/or the DSE Advisory list of Rare or Threatened Species (DSE, 2005) (Appendix A).

Three of these species were recorded during the current site assessment and/or the preliminary Flora and Fauna assessment conducted by EHP (2013a):

- *Eucalyptus leucoxylon* ssp. *connata* – Melbourne Yellow Gum vulnerable in Victoria;
- *Rhagodia parabolica* – Fragrant Saltbush; rare in Victoria; and
- *Acacia rostriformis* (Bacchus Marsh wattle; rare in Victoria.

EHP (2013a) considered it moderately likely that the EPBC Act listed species *Pimelea spinescens* subsp. *spinescens* (Spiny Rice-flower) is present within the Long Forest Block. EHP conducted targeted surveys for this species and did not encounter the species during the surveys (SRW pers. comm.[3]).

There is potential that other EPBC or FFG listed flora occur at the Long Forest Block, however, the likelihood of occurrence was deemed to be low owing to 1) lack of previous records within 10 km in most cases and 2) lack of suitable habitat. Likelihood determinations are provided in Appendix A, together with a description of preferred habitat (for species listed under the EPBC and/or FFG Acts).

3.3.2 Quarry Block

Of the 967 flora species documented or predicted to occur within 10 km of the site (refer Section 3.1.2), 32 species are listed under the Commonwealth *Environment Protection and Biodiversity Conservation (EPBC) Act* 1999, the Victorian *Flora and Fauna Guarantee Act* 1988 and/or the Victorian Advisory list of Rare or Threatened Species (DSE, 2005) (Appendix A). None of these were recorded during the preliminary Flora and Fauna assessment (EHP 2013b), or the current assessment.

EHP (2013a) considered it moderately likely that the EPBC Act listed species *Pimelea spinescens* subsp. *spinescens* (Spiny Rice-flower) is present within the Quarry Block. EHP conducted targeted surveys for this species and did not encounter the species during the surveys (SRW pers. comm.).

There is potential that other EPBC or FFG listed flora occur at the Quarry Block, however, the likelihood of occurrence was deemed to be low owing to 1) lack of previous records within 10 km in most cases and 2) lack of suitable habitat. Likelihood determinations are provided in Appendix A, together with a description of preferred habitat (for species listed under the EPBC and/or FFG Acts).

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[3] Colin McQuillen, March 2014, telephone conversation

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3.4 Fauna

3.4.1 Long Forest Block

Desktop results - all species

In total, 306 terrestrial fauna species are documented to occur, predicted to occur or have habitat occurring, within 10 km of the site (VBA and PMST). These include 285 native species (33 mammals, 211 birds, 27 reptiles, 12 amphibians and two invertebrates) and 21 non-native species (nine mammals and 12 birds).

Of the species identified, 61 are listed as threatened or near threatened under one or more of the EPBC Act, FFG Act and DEPI Advisory Lists of Threatened Vertebrate or Invertebrate Fauna of Victoria (DSE 2013, 2009 respectively) (Table 2).

Table 2 Fauna species identified for the Long Forest Block (VBA, PMST), and counts of threatened and near-threatened fauna species identified for the 10-km search area

Species group	Total*	EPBC (Threatened)	FFG (Threatened)	DEPI (DSE 2013)
Mammals	42 (9)	4	5	9
Birds	223 (12)	6	24	42
Reptiles	27	3	3	6
Amphibians	12	1	2	2
Invertebrates (terrestrial)	2	1	2	2
Total	**306 (21)**	**15**	**36**	**61**

*Numbers in parentheses represent non-native species, and are included in the cell totals.

Fish, aquatic invertebrates and marine species are not considered as part of this assessment and have been removed from the fauna species lists.

Site visit results – species

In total, 22 vertebrate fauna species were identified during the site visit, including two mammals (one native and one non-native) and 20 native birds. All of these species had been recorded previously within the 10 km search area.

One bird species (Speckled Warbler, *Chthonicola sagittata*) seen within the investigation area is listed as threatened under the FFG Act and Vulnerable under the DEPI Advisory List (DSE 2013). No other threatened or Migratory (*sensu* EPBC Act) fauna species were seen or heard during the site visit.

Site visit results - fauna habitats

GHD's assessment of the site's habitats differed from the findings of the investigation by Ecology & Heritage Partners (EHP) (2013a). EHP reported two main habitat types: open woodland and native grassland. GHD found there to be extensive areas of open woodland (mainly along the eastern, southern and western boundaries), surrounding a large area of grassland in the central and northern parts of the site, with interspersed patches of shrubland also. Unlike EHP (2013a), GHD believes that the grassland is derived (i.e., woodland cleared of its trees), and that the shrubland represents the early stages of regeneration from grassland back to woodland.

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As reported in EHP (2013a), the woodland is generally in moderate to good condition, with some patches in the southeast (where the understorey is more intact) being in very good condition. The trees range in size and maturity. Shrubs are scattered sparsely, and the understorey comprises predominantly native vegetation. Accumulations of litter and coarse woody debris were present, but logs (i.e., > 10 cm diameter) and other habitat features were absent. Thus, with the mostly native understorey, shrub layer and trees, there is relatively good habitat structure in the woodland habitat for it to be expected to support a wide range of woodland species, including threatened species. The understorey appears to be overgrazed (probably by native species - macropods), which reduces the condition of the woodland generally. EHP (2013a) proposed that the site may support the EPBC Act-listed Swift Parrot (*Lathamus discolor*). GHD agrees with this assessment; the good condition of the trees is likely to attract species such as the Swift Parrot from time to time.

A 5-10 m wide powerline easement (and associated clearing of trees) through the woodland near the eastern border of the site reduces the value of the woodland habitat in this part of the site, and partially fragments the strip of woodland to the west of the easement.

At the time of assessment, the grassland area was relatively weedy and appeared to be heavily grazed. In the absence of signs of domestic stock (e.g., cattle), grazing is likely to be by Eastern Grey Kangaroos (*Macropus giganteus*) and non-native European Rabbits (*Oryctolagus cuniculus*). The grassland area could not be described as rocky, but there were some small rocks embedded within some areas, and the soils appeared stony in general. Litter, coarse woody debris, logs and other habitat features were absent from grassland areas.

The distinction between derived grassland and naturally occurring grassland has a bearing on the types of fauna that might be expected to occur in the grassland habitat at this site. EHP (2013a) reported the grassland as native grassland, and proposed that it may support certain grassland-dependent threatened species [e.g., Striped Legless Lizard (*Delma impar*) and Golden Sun Moth (*Synemon plana*)]. GHD believes that the original Grey Box woodland habitat that would once have occurred at this site is likely to have been unsuitable for these grassland species, and suggests that the likelihood of occurrence for these species at this site is low.

EHP (2013a) also reported the presence of a small dam on the site. GHD agrees with EHP that the dam (north-east corner of the site) is of low ecological quality and does not offer good habitat for threatened species of reptiles, amphibians or waterbirds.

Threatened fauna species

The desktop assessment identified a total of 61 fauna species for the 10-km search area that are listed as threatened or near threatened species (Table 2). Threatened or near threatened species are those listed under one or more of the EPBC Act, FFG Act and DEPI Advisory Lists of Threatened Vertebrate or Invertebrate Fauna of Victoria (DSE 2013, 2009 respectively).

EPBC Act-listed species

In total, 15 EPBC Act-listed fauna species are known or considered likely to occur within 10 km of this site. Of these, GHD considers the occurrence of one to be most likely:

- Swift Parrot (*Lathamus discolor*) (Endangered).

The good condition and age of many of the trees is likely to attract this species from time to time (e.g., when trees are flowering). The Swift Parrot has the potential to move through this area twice each year, as it migrates to and from its breeding areas in Tasmania. There are 10 historical records of the Swift Parrot within 10 km of this site, with only three of those from the last 10 years, most recently in 2008. Thus, its use of this locality is known, but the species does not appear to move through this area in all years or in large numbers.

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Despite the possible occasional presence of the Swift Parrot at this site, changes to the site (e.g., removal of small areas of woodland, shrubland and grassland habitat, as proposed by SRW) are considered unlikely to constitute a significant impact under the EPBC Act (Commonwealth of Australia 2013). Under the EPBC Act, an action is likely to have a significant impact on an endangered species if there is a real chance or possibility that it will:

- Lead to a long-term decrease in the size of a population;
- Reduce the area of occupancy of the species;
- Fragment an existing population into two or more populations;
- Adversely affect habitat critical to the survival of a species;
- Disrupt the breeding cycle of a population;
- Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline;
- Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat;
- Introduce disease that may cause the species to decline, or
- Interfere with the recovery of the species.

Given that the Swift Parrot appears to be no more than an occasional transient at this site (i.e., three records within 10 km from the last 10 years, most recently in 2008), none of these criteria is considered likely to occur.

Note that 'habitat critical to the survival of a species' refers to areas that are necessary:

- For activities such as foraging, breeding, roosting, or dispersal;
- For the long-term maintenance of the species (including the maintenance of species essential to the survival of the species, such as pollinators);
- To maintain genetic diversity and long term evolutionary development, or
- For the reintroduction of populations or recovery of the species.

EHP (2013a) recommended targeted surveys for the Swift Parrot. Targeted surveys for a species have the potential to result in new information that could demonstrate the value (or not) of the site to that species. However, the chance of this approach resulting in such information for the Swift Parrot is considered to be very low, given the small numbers of historical records in the general area. Because this species has a relatively small population size, and small groups tend to migrate along a wide variety of dispersal routes across a large geographical area (from Tasmania to Victoria and NSW), the chance of encountering birds during a targeted survey at this site in any one year is very low. Therefore, targeted surveys that *fail* to detect this species would not demonstrate that the species does not occur there. For this reason, GHD suggests that targeted surveys for the Swift Parrot are not required for this project, but that occasional presence should be assumed.

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GHD considers that the likelihood of occurrence of EPBC Act-listed species Striped Legless Lizard (*Delma impar*) and Golden Sun Moth (*Synemon plana*) at this site is low. There are no historical records of either species in this part of the Central Victorian Uplands bioregion, and all of the closest records are to the south, south-east and east, in large sections of the Victorian Volcanic Plains bioregion. The nearest records of Golden Sun Moth are 6 km south and 11.6 km north-east. The nearest records of Striped Legless Lizard are 16.7 km south-east. There are records of both species in the Central Victorian Uplands bioregion, but these tend to be more to the north-east of Melbourne, around Yea, more than 80 km from this site.

The VBA results also identify records of the Common Bent-wing Bat (*Miniopterus schreibersi*), a sub-species of which is listed under the EPBC Act as Critically Endangered (*Miniopterus schreibersi bassanii*). However, given the known distribution of the two sub-species in Victoria, the sub-species that may occur at Long Forest is more likely to be *Miniopterus schreibersi oceanensis*, which is not listed under the EPBC Act. It is, however, listed as threatened under the FFG Act and as Critically Endangered under the DEPI Advisory List of Threatened Vertebrate Fauna in Victoria (DSE 2013).

FFG Act-listed species

In total, 36 FFG Act-listed fauna species are known or considered likely to occur within 10 km of this site. Fifteen of these were considered above for EPBC Act. Of the remaining 21 species, eight are considered likely to occur in habitats within or surrounding the site:

- Brush-tailed Phascogale (*Phascogale tapoatafa*);
- Barking Owl (*Ninox connivens*);
- Hooded Robin (*Melanodryas cucullata*);
- Crested Bellbird (*Oreoica gutturalis*);
- Diamond Firetail (*Stagonopleura guttata*);
- Chestnut-rumped Heathwren (*Hylacola pyrrhopygia*);
- Speckled Warbler (*Chthonicola sagittata*); and
- Bullant (*Myrmecia* sp. 17).

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The Speckled Warbler was detected twice by GHD during then site visit, which suggests that this is a regular and perhaps common occupant of the site. This and the other four small woodland-dependent birds (Hooded Robin, Crested Bellbird, Diamond Firetail and Chestnut-rumped Heathwren) may reside within or near the site, or move into and out of the area in response to changing environmental conditions. The woodland habitat on site is likely to provide foraging and nesting opportunities for these species.

The Barking Owl requires a relatively large foraging area, and the site is likely to form part of the home range of at least one pair of birds. There are 24 historical records of this species within 10 km of the site, including 14 records (up to 1994) in woodland approximately 3 km south of the site. This species roosts and nests in tree hollows, and several large trees in woodland on the site have the potential to be used by this species. Consequently, the removal of large trees from the site should be avoided.

The Brush-tailed Phascogale is likely to reside in or near the site. This species dens and nests in tree hollows, and several large trees in woodland on the site have the potential to be used by this species. Consequently, the removal of large trees from the site should be avoided. This species is nocturnal and fast-moving, so easily evades detection. This could account for the fact that there are not more than seven historical records of this species within 10 km of the site (up to 1989).

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According to Action Statement 195 (Rocky Chenopod Open-scrub) under the FFG Act, the Long Forest area supports a rich ant fauna, including the Bullant (*Myrmecia* sp. 17), which is listed as threatened under the FFG Act and as Vulnerable under the DEPI Advisory List of Threatened Invertebrate Fauna in Victoria (DSE 2009). This species is poorly known and difficult to identify, but given the extent and condition of the remnant habitat there, it must be assumed that this species is present at the Long Forest Block.

DEPI Advisory listed species

All 61 threatened fauna species identified for this site (Table 2) are listed as threatened (Critically endangered, Endangered or Vulnerable), near threatened or Data Deficient on the DEPI Advisory List of Threatened Vertebrate or Invertebrate Fauna in Victoria (DSE 2013 and DSE 2009 respectively). Thirty-seven of these were considered above for EPBC Act or FFG Act. Of the remaining 24 species, six are considered likely to occur in, and potentially make significant use of, habitats within or surrounding the site:

- Common Dunnart (*Sminthopsis murina*);
- Black-chinned Honeyeater (*Melithreptus gularis*);
- Black-eared Cuckoo (*Chrysococcyx osculans*);
- Brown Treecreeper (south-eastern ssp.) (*Climacteris picumnus victoriae*);
- Lace Goanna (*Varanus varius*); and
- Bearded Dragon (*Pogona barbata*).

The Common Dunnart may occur on site. There are only three historical records of this species from the 10 km search area, but all three are from woodland habitats associated with the Central Victorian Uplands bioregion, which is the dominant habitat at this site. This species and the Fat-tailed Dunnart (*Sminthopsis crassicaudata*) were suggested by EHP 2013a as potentially occurring on site. The Fat-tailed Dunnart is considered unlikely to occur at this site; it is more an animal of the natural grasslands of the Victorian Volcanic Plains bioregion than the derived grasslands that occur on this site.

The three woodland-dependent birds (Black-chinned Honeyeater, Black-eared Cuckoo and Brown Treecreeper (south-eastern ssp.)) may reside within or near the site, or move into and out of the area in response to changing environmental conditions. The woodland habitat on site is likely to provide foraging and nesting opportunities for these species.

The two reptiles may also reside within or near the site, and both rely on fairly intact woodland for their persistence. The woodland habitat on site, with its trees of variable sizes and maturity and its accumulations of litter and coarse woody debris, are likely to provide good foraging opportunities for these species. The apparent over-grazing, however, serves to reduce opportunities for these species to shelter from predators (e.g., the non-native Red Fox, *Vulpes vulpes*). The Lace Goanna lays its eggs in tree hollows, and several large trees in woodland on the site have the potential to be used by this species. Consequently, the removal of large trees from the site should be avoided.

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Threatened fauna communities

One fauna community listed as threatened under the FFG Act occurs on site: *Victorian Temperate Woodland Bird Community* (VTWBC). The description of this community identifies *key indicator bird species* (the presence of which confirm the presence of the community) and *associated bird species* (the presence of which indicate the potential presence of the community). This community is characteristically found within box-ironbark, yellow box, cypress pine and other woodlands. The geographic area that supports this bird assemblage can be broadly defined as the country that lies in the south-east along the slopes and plains of the Great Dividing Range.

In total, 19 key indicator species and 13 associated bird species were identified by the desktop assessment as occurring or being likely to occur within 10 km of the site. Two key and one associated VTWBC members were detected during the site visit (Speckled Warbler, *Chthonicola sagittata*, Brown-headed Honeyeater, *Melithreptus brevirostris*, and Rufous Whistler, *Pachycephala rufiventris*, respectively).

The woodland habitat at this Long Forest Block provides suitable habitat for this bird community.

3.4.2 Quarry Block

Desktop results - all species

In total, 296 terrestrial fauna species are documented to occur, predicted to occur or have habitat occurring, within 10 km of the investigation area (VBA and PMST). These include 276 native species (35 mammals, 200 birds, 27 reptiles, 12 amphibians and two invertebrates) and 20 non-native species (nine mammals and 11 birds).

Of the species identified, 54 are listed as threatened or near threatened under one or more of the EPBC Act, FFG Act and DEPI Advisory Lists of Threatened Vertebrate or Invertebrate Fauna of Victoria (DSE 2013, 2009 respectively) (Table 3).

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Table 3 Fauna species identified for the Quarry Block (VBA, PMST), and counts of threatened and near-threatened fauna species identified for the 10-km search area

Species group	Total*	EPBC (Threatened)	FFG (Threatened)	DEPI (DSE 2013)
Mammals	43 (9)	5	6	10
Birds	211 (11)	5	18	34
Reptiles	27	3	3	6
Amphibians	12	1	2	2
Invertebrates (terrestrial)	2	1	2	2
Total	**296 (20)**	**15**	**31**	**54**

*Numbers in parentheses represent non-native species, and are included in the cell totals.

Fish, aquatic invertebrates and marine species are not considered as part of this assessment and have been removed from the fauna species lists.

Site visit results – species

In total, 14 vertebrate fauna species were identified during the site visit, including one native mammal, and 12 native birds and one native frog. All of these species had been recorded previously within the 10 km search area.

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No species seen within or near the Quarry Block is listed as threatened under the EPBC Act, FFG Act or DEPI Advisory List (DSE 2013). No other threatened or Migratory (*sensu* EPBC Act) fauna species were seen or heard during the site visit.

Site visit results - fauna habitats

The Quarry Block is almost entirely open grassland. Where the grassland is dominated by native vegetation, it is considered Plains Grassland (EVC 132_63), dominated by perennial native tussock grasses.

There are two linear plots of planted eucalypts; one (dimensions approximately 350 x 50 m) in the north-west of the site along the northern boundary, and another (dimensions approximately 250 x 25 m) along the western boundary. These plots may be visited occasionally by common native species (e.g., Red Wattlebird, *Anthochaera carunculata*), but neither of these plots is old or established enough to act as woodland habitat and to support or attract threatened fauna species.

This site is in a narrow projection of the Victorian Volcanic Plains bioregion, so the grassland may have the potential to support grassland-dependent species such as Striped Legless Lizard (*Delma impar*) and Golden Sun Moth (*Synemon plana*), if it were in a natural and undisturbed state. However, aerial imagery shows that this site has been extensively ploughed in recent times, so the likelihood of grassland-dependent species occurring at the site is considered to be low. In its current state, the site is likely to attract only common fauna species (e.g., Yellow-rumped Thornbill, *Acanthiza chrysorrhoa*, Superb Fairy-wren, *Malurus cyaneus*, Australasian Pipit, *Anthus novaeseelandiae*, and Australian Magpie, *Gymnorhina tibicen*).

Threatened species

The desktop assessment identified a total of 54 fauna species for the 10-km search area that are listed as threatened or near threatened species (Table 3). Threatened or near threatened species are those listed under one or more of the EPBC Act, FFG Act and DEPI Advisory Lists of Threatened Vertebrate or Invertebrate Fauna of Victoria (DSE 2013, 2009 respectively).

EPBC Act-listed species

In total, 15 EPBC Act-listed fauna species are known or considered likely to occur within 10 km of this site. GHD does not consider any of these to be likely to occur at the Quarry Block. However, two species were identified in the EHP (2013a) report as being potentially present, so warrant special consideration here. These are:

- Golden Sun Moth (*Synemon plana*) (Critically Endangered)
- Striped Legless Lizard (*Delma impar*) (Vulnerable)

This site is in a narrow projection of the Victorian Volcanic Plains bioregion, in an ecotonal region that is more closely aligned to the Central Victorian Uplands bioregion. The Victorian Volcanic Plains bioregion is closely associated with the distribution of the Golden Sun Moth and Striped Legless Lizard. Accordingly, the grassland might have the potential to support these grassland-dependent species if it were in a natural and relatively undisturbed state. However, aerial imagery shows that this site has been extensively ploughed in recent times. This, coupled with the bioregional context and the near-absence of historical records of either species within 10 km of this site, mean that the likelihood of grassland-dependent species occurring at the site is considered to be low. The nearest record of Golden Sun Moth is 7.3 km to the south-east (from 2008), and there are no others within 14 km. The nearest record of Striped Legless Lizard is 19.4 km south-east. There are records of both species in the Central Victorian Uplands bioregion, but these tend to be more to the north-east of Melbourne, around Yea, more than 80 km from this site.

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EHP (2013a) recommended targeted surveys for the Golden Sun Moth and Striped Legless Lizard. GHD suggests that targeted surveys for these species are not required for this project, primarily because the likelihood of these species occurring at the site is considered to be low, and because the site has been ploughed recently and now offers relatively unsuitable habitat in its current state.

FFG Act-listed species

In total, 31 FFG Act-listed fauna species are known or considered likely to occur within 10 km of this site. Fifteen of these were considered above for EPBC Act. Of the remaining 16 species, only one is considered likely to occur in the grassland habitats within or surrounding the site:

- Diamond Firetail (*Stagonopleura guttata*)

This species prefers grassy woodlands rather than true grasslands, but will use larger expanses of grasslands occasionally. There are numerous records of this species within 10 km of this site, but nearly all of these occur in woodland habitats associated with the Central Victorian Uplands bioregion approximately 1.5 km east of the site. Therefore, if this species occurs at this site, then its use of the site is expected to be no more than occasional and irregular.

DEPI Advisory listed species

All 54 threatened fauna species identified for this site (Table 3) are listed as threatened (Critically endangered, Endangered or Vulnerable), near threatened or Data Deficient on the DEPI Advisory List of Threatened Vertebrate or Invertebrate Fauna in Victoria (DSE 2013 and DSE 2009 respectively). Thirty-one of these were considered above for EPBC Act or FFG Act. Of the remaining 23 species, three may use habitats within or surrounding the site as part of their foraging range:

- Spotted Harrier (*Circus assimilis*);
- Black Falcon (*Falco subniger*); and
- White-throated Needletail (*Hirundapus caudacutus*).

Given the degraded condition of the grassland, none of these species is likely to use this site frequently or to depend on the site for its success. The two raptors (Spotted Harrier and Black Falcon) may fly over the site occasionally, but are more likely to find their food (small vertebrates in the grass) in denser, taller, less grazed grasslands and grassy woodlands nearby. The White-throated Needletail is a non-breeding, seasonal, aerial migrant to Australia and rarely if ever lands while here.

Two grassland species of mammal (Fat-tailed Dunnart, *Sminthopsis crassicaudata*, and Common Dunnart, *Sminthopsis murina*) were identified by the desktop assessment and were suggested by EHP 2013a as potentially occurring on site. However, neither species is considered likely to occur on site due to the degraded condition of the grassland and the relatively isolated geographical context of this part of the Victorian Volcanic Plains bioregional grasslands. For these species, there are very few historical records within 10 km (one record of Fat-tailed Dunnart 11 km away in 1988, and three records of Common Dunnart in woodland habitats associated with the Central Victorian Uplands bioregion, approximately 2 km east of the site, most recently in 1990).

Threatened fauna communities

No threatened fauna communities are considered likely to occur within the investigation area.

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3.4.3 Migratory species – both sites

In total, 15 species (all birds) known or predicted to occur within 10 km of the Long forest Block, and 11 species (all birds) known or predicted to occur within 10-km of the Quarry Block, are listed as Migratory under the EPBC Act (Table 4).

Table 4 Counts of historical records of Migratory Species within 10 km of each of the sites

Common Name	*Scientific Name*	Long Forest	Quarry
Lewin's Rail	*Rallus pectoralis*	1	0
Caspian Tern	*Sterna caspia*	1	0
Common Sandpiper	*Actitis hypoleucos*	1	0
Red-necked Stint	*Calidris ruficollis*	1	0
Latham's Snipe	*Gallinago hardwickii*	3	2
Glossy Ibis	*Plegadis falcinellus*	1	1
Eastern Great Egret	*Ardea modesta (=alba)*	7	5
Cattle Egret	*Ardea ibis*	5	4
White-bellied Sea-eagle	*Haliaeetus leucogaster*	2	2
Rainbow Bee-eater	*Merops ornatus*	36	30
White-throated Needletail	*Hirundapus caudacutus*	8	6
Fork-tailed Swift	*Apus pacificus*	4	4
Rufous Fantail	*Rhipidura rufifrons*	8	6
Satin Flycatcher	*Myiagra cyanoleuca*	25	21
Clamorous Reed Warbler	*Acrocephalus stentoreus*	15	13
Total (species)		**15 species**	**11 species**

Most of these species are considered unlikely to occur within either site on the basis of the habitats they use. Nine use wetlands or waterbodies, which are not present (or are present but not to the extent that they provide suitable habitat) on site. Two species (White-throated Needletail, *Hirundapus caudacutus*, and Fork-tailed Swift, *Apus pacificus*) are non-breeding, seasonal, aerial migrants to Australia and rarely if ever land while here.

Three species use woodland habitats (Rainbow Bee-eater, *Merops ornatus*, Rufous Fantail, *Rhipidura rufifrons* and Satin Flycatcher, *Myiagra cyanoleuca*) and may occur in at the Long Forest Block but not at the Quarry Block.

In terms of the EPBC Act, an action is likely to have a significant impact on a migratory species if there is a real chance or possibility that it will:

- Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species;
- Result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species; or
- Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species.

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Neither site is considered to provide important habitat or to support an important population of any Migratory species.

3.4.4 Wetlands of international significance (Ramsar Wetlands) – both sites

Development at either site would not be expected to have a measurable impact on any Ramsar site. The sites are in excess of 30 km from the nearest Ramsar site (*Port Phillip Western Shoreline and Bellarine Peninsula*).

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4. Victoria's Biodiversity Assessment Guidelines (for permitted clearing)

This section of the report summarises the native vegetation proposed to be removed and subsequent offset requirements for the project, based on the recently gazetted *Permitted clearing of native vegetation – Biodiversity Assessment Guidelines* (DEPI, 2013a).

4.1 Victoria's Biodiversity Assessment Guidelines 2013

The *Permitted clearing of native vegetation – Biodiversity assessment guidelines* (Victoria's *Biodiversity Assessment Guidelines 2013*) ('the Guidelines') were incorporated into the Victorian Planning Provisions and all planning schemes in Victoria in May 2013 (DEPI, 2013a). These guidelines were gazetted on 20 December 2013, and replace *Victoria's Native Vegetation Management – A Framework for Action* policy (DNRE, 2002).

The purpose of the guidelines is to guide how impacts on biodiversity should be considered when assessing an application for a permit to remove, destroy or lop native vegetation. Victoria's *Biodiversity Assessment Guidelines 2013* set out the rules and tools for how responsible authorities (such as Local Government Authorities and DEPI) should consider biodiversity when assessing an application.

4.2 Risk based pathway

All applications for a permit to remove native vegetation in Victoria are assigned a level of risk: low, moderate or high risk. The risk-based pathway assigned determines the process for how an application is assessed (DEPI, 2013a).

The risk-based pathway is determined by combining the **extent** risk (size of clearing) and the **location** risk (from map maintained by DEPI) of each project area, in accordance with recently revised DEPI guidelines (DEPI,2013a). In preparing this report, we have assumed that the proposed subdivision at each of the Blocks will be treated as separate projects by Moorabool Shire Council and DEPI because separate planning permit applications will be submitted by SRW.

Long Forest Block

As this project falls within location C (all options), the project would follow the **high** risk pathway, when being assessed by the relevant authorities (Local Government Authority and DEPI). This determination is demonstrated in Table 5.

Quarry Block

Although this project falls within location A, the proposed area of impact is > 1 Ha (for all three options) and thus the project would follow the **moderate** risk pathway, when being assessed by the relevant authorities (Local Government Authority and DEPI). This determination is demonstrated in Table 6.

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Table 5 Risk matrix (which define risk based pathways) for remnant patches of native vegetation and scattered trees at the Long Forest Block

Patches extent	Location		
	Location A	**Location B**	**Location C**
< 0.5 hectares (ha)	Low	Low	**High**
≥ 0.5 ha and < 1 ha	Low	Moderate	High
≥ 1 ha	Moderate	High	High

Table 6 Risk matrix (which define risk based pathways) for remnant patches of native vegetation and scattered trees at the Quarry Block

Patches extent	Location		
	Location A	**Location B**	**Location C**
< 0.5 hectares (ha)	Low	Low	High
≥ 0.5 ha and < 1 ha	Low	Moderate	High
≥ 1 ha	**Moderate**	High	High

4.3 Permit application requirements

Table 7 outlines the information that must be included in a permit application to remove native vegetation, for moderate and high risk projects, and how these requirements are addressed for this project (including which items require further work).

Table 7 Details of information that must be included in a permit to remove native vegetation for moderate and high risk projects

Item no.	Description	Addressed in section?
1	The location of the site of native vegetation to be removed. This includes the address of the property.	Section 1.1
2	A description of the native vegetation to be removed including: • Whether the native vegetation is a remnant patch, or scattered trees, in accordance with the definitions in section 2.2 of DEPI 2013a • The area of any remnant patches of native vegetation • The number of any scattered trees	Description of native vegetation Section 3.1. Area of impact – in the BAR reports Appendix F and Appendix G. Further work is required (e.g. an arborist assessment) to determine which trees will be affected through encroachment of > 10% of their TRZ at the Long Forest Block.

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Item no.	Description	Addressed in section?
3	Maps or plans containing the following information: • North point and property boundaries • All areas of native vegetation, clearly showing the native vegetation to be removed (including any area that the Country Fire Authority has recommended for removal or management for fire protection purposes) • All scattered trees to be removed	Maps in **Error! Reference source not found.** and Appendix C. Further work is required (e.g. an arborist assessment) to determine which trees will be affected through encroachment of > 10% of their TRZ at the Long Forest Block.
4	Recent photographs (dated) of the native vegetation to be removed. Location where photographs were taken and the direction from which they were taken	General photos of habitat zones are provided in section 4.5. Once the preferred subdivision plan is selected for each Block, photos will need to be taken, noting location and direction of photo.
5	Where the purpose of removal, destruction or lopping of native vegetation is to create defendable space, a statement is required that explains why removal, destruction or lopping of native vegetation is necessary. The statement must have regard to other available bushfire risk mitigation measures. This requirement does not apply to the creation of defendable space in conjunction with an application under the Bushfire Management Overlay.	A separate report is underway addressing Bushfire Management within each of the sites. This report should accompany the planning permit application.
6	A copy of any property vegetation plan that applies to the site.	To be determined by GHD planning team.
7	Details of any other native vegetation that was permitted to be removed on the same contiguous parcel of land with the same ownership as the native vegetation to be removed, where the removal occurred in the five year period before the application to remove native vegetation is lodged.	To be determined by GHD planning team.
8	The strategic biodiversity score of the native vegetation to be removed.	In the BAR reports Appendix F and Appendix G.
9	The offset requirements should a permit be granted to remove native vegetation.	In the BAR reports Appendix F and Appendix G. Also summarised in Table 8.
10	A habitat hectare assessment report, completed by a qualified assessor, of the native vegetation that is to be removed.	This report and habitat hectare results in Appendix E.
11	A statement outlining what steps have been taken to ensure that impacts on biodiversity of the proposed use or development have been minimised. The steps taken should have regard to the contribution the native vegetation to be removed and the native vegetation to be retained makes to biodiversity. The statement should include either: • Details of any strategic planning process the site has been subject to that has minimised impacts on biodiversity of the proposed use or development, or • A description of the opportunities taken to locate, design and manage the proposed use or development to minimise impacts on biodiversity from the removal of native vegetation. If the applicant considers no further opportunities exist to minimise impacts on biodiversity from the removal of native vegetation, provide an explanation of the potential impacts on the proposed use or development if further minimisation was required.	To be prepared by SRW.

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Item no.	Description	Addressed in section?
12	The habitat importance score(s) of the native vegetation to be removed.	In the BAR reports Appendix F and Appendix G and Table 8.
13	An assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.	In the BAR reports Appendix F and Appendix G and Table 8.
14	An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.	To be prepared by SRW.

4.4 Unavoidable losses of native vegetation

The areas of native vegetation proposed for removal and considered a loss for this project have been calculated based on the areas of native vegetation mapped during the Flora and Fauna Assessment and a number of options/footprints shown in **Error! Reference source not found.** (Quarry Block) and Appendix C (Long Forest Block).

Shapefiles were sent to DEPI for analysis and to generate a Biodiversity Assessment Report (BAR) for the project for each of the sub-division options. The BAR reports are provided in Appendix F (Long Forest) and Appendix G (Quarry Block).

Losses of native vegetation associated with each of the proposed subdivision options are provided in Table 8.

At the Long Forest Block, to meet bushfire management guidelines, the grassland within the defendable space surrounding the building envelope must be maintained at < 5 cm tall (GHD 2014). This area is likely to be considered a loss of native vegetation by council and DEPI because under clause 52.17 of the *Planning and Environment Act* exemptions for maintaining grasses apply if the grass is maintained at > 10 cm. Therefore, two of the options (option 3 and 4) include this area in the footprint of proposed removal of native vegetation and two of the options do not include this area (in case council and DEPI agree to an exemption).

The strategic biodiversity score of the vegetation marked for removal is also provided in Table 8 and the BARs Appendix F (Long Forest) and Appendix G (Quarry Block).

4.5 Photos of impact areas

Photographs were not taken of the exact impact areas during the ecological assessment because these were determined following the assessment in consultation with the GHD planning team and SRW. Therefore, photos of impact areas will be required as part of the planning permit application and these photos must include: the location of each photo point and direction in which the photograph was taken is also provided.

4.6 Offset requirements

The offset requirements based on each of the sub-division options are provided in Table 8.

All offsets must be within the Port Philip and Westernport CMA region.

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Table 8 Estimated losses of native vegetation and offset requirements for each of the proposed subdivision options for Long Forest and Quarry Blocks

Site and option	Unavoidable loss of native vegetation (Ha)	Strategic Biodiversity Score (SBS)	Type of offset	Amount of offset	Minimum score (offset)
Long Forest Block – option 1	0.154	0.640	General	0.067 general units	0.512
Long Forest Block – option 2	0.169	0.638	General	0.074 general units	0.510
Long Forest Block – option 3	1.010	0.635	Specific	0.688 specific units of habitat for the Bacchus Marsh Wattle	NA
Long Forest Block – option 4	1.025	0.635	Specific	0.704 specific units of habitat for the Bacchus Marsh Wattle	NA
Quarry Block – option 1	1.396	0.386	General	0.444 general units	0.309
Quarry Block – option 2	1.214	0.383	General	0.384 general units	0.306
Quarry Block – option 3	1.282	0.386	General	0.409 general units	0.309

4.7 Sourcing of offsets

Offsets for this project need to be sourced in accordance with DEPI's *Native vegetation gain scoring manual* (DEPI 2013b). For moderate and high risk-based pathway, the application for a permit to remove native vegetation must include an offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

An offset can be one, or a combination of the following:

- Improvement in the condition of existing vegetation with ongoing management and protection using an appropriate security arrangement; and/or
- Revegetation of a site with ongoing management and protection using an appropriate security arrangement. Note there are restrictions on when revegetation can be considered an offset.

The Native vegetation gain scoring manual sets out the rules regarding site eligibility, offset security and how gain from an offset is calculated. Permit holders can deliver offsets on their own land (also known as a first party offset) or purchase a native vegetation credit from a third party. *The Native vegetation gain scoring manual* sets out the standards for first and third party offsets.

Permit holders who are seeking a third party offset can contact a broker to assist them. A number of local councils and private companies currently provide broker services. In addition, BushBroker and the Trust for Nature also provide a service to assist third party offset sellers and buyers.

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5. Impacts on ecological values

5.1 Long Forest Block

With any of the proposed development options at Long Forest Block, impacts on ecological values are **likely** to include:

- The removal of native vegetation (Grassy Woodland; EVC 175) considered a threatened community under the EPBC Act: *Grey Box Woodlands and derived grassland of south-eastern Australia* (0.05 to 0.06 Ha);
- Impacts on TRZ of trees adjacent to the proposed access routes;
- Removal of numerous flora species listed as protected under the FFG Act e.g. wattles
- Loss of small areas (along access routes) of woodland that provides habitat for a range of threatened and near-threatened fauna species.

Possible impacts on ecological values (depending on the option selected):

- Impacts on TRZs of vulnerable species: *Eucalyptus leucoxylon* subsp. *connata* (Melbourne Yellow Gum) – depending on the access road selection; and
- Removal of a rare flora species: *Rhagodia parabolica* (Fragrant Saltbush) and *Acacia rostriformis* (Bacchus Marsh Wattle).
- Potential direct impacts (death, injury, loss of den/nest) or indirect impacts (loss of small areas of habitat) on threatened fauna species (mammals, birds, reptiles) that use hollows, if trees or limbs with hollows are removed.

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5.2 Quarry Block

Impacts on ecological values at Quarry Block are **likely** to include:

- The removal of native vegetation (Plains Grassland; EVC 132_63) considered a threatened community under the EPBC Act: *Natural Temperate Grasslands of the Victorian Volcanic Plains* and FFG Act: *Western Basalt Plains Grassland* (1.21 to 1.40 Ha); and
- Removal of flora species listed as protected under the FFG Act.

5.3 Significant impact criteria under the EPBC Act

According to the Significant Impact Criteria (DoTE 2013), an action is likely to have a significant impact on a critically endangered or endangered ecological community (listed under the EPBC Act), if there is a real chance or possibility that it will:

- Reduce the extent of an ecological community;
- Fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines;
- Adversely affect habitat critical to the survival of an ecological community;
- Modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns;

- Cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting;
- Cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:
  - Assisting invasive species, that are harmful to the listed ecological community, to become established, or
  - Causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or
  - Interfere with the recovery of an ecological community.

Each of the above criteria is addressed for each Block in Table 9. We conclude that the proposed sub-division at Long Forest is unlikely to be considered a significant impact. The proposed building envelopes have been positioned in poorer quality vegetation and outside the EPBC community. The removal of vegetation corresponding to the threatened community is for access to the proposed allotments.

We concluded that the proposed sub-division at the Quarry Block required further consultation with DoTE to determine if impacts are considered a significant impact under the EPBC Act, in which case a referral to DoTE would be required and offsets under the EPBC would be required. The proposed sub-division at the Quarry Block may be considered a significant impact under the EPBC Act, because > 1 Ha could be affected and eleven allotments are proposed, which will result in dividing the patch into smaller patches. GHD therefore consulted with DoTE (Drew McLean; Assistant Director of Compliance) to discuss the proposal. Subsequently, DoTE (Drew McLean) met GHD's Botanist on site and concluded that based on the condition of the grassland at the time of the site meeting and previous ground disturbance, the proposal would not require referral to DoTE under the EPBC Act.

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Table 9 Criteria for assessing significant impact on a critically endangered or endangered community under the EPBC Act (DoTE 2013)

Criterion	Long Forest Block	Quarry Block
Reduce the extent of an ecological community	**Minor:** Area of removal of threatened community is considered small: 0.05 to 0.06 Ha.	**Moderate:** Area of removal of the threatened community is considered moderate in size: 1.21 to 1.40 Ha.
Fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines	**Minor:** Access driveways into the two allotments require some clearing of the community. The shortest routes possible are currently being explored. Majority of the extent of the community on site will not be removed.	**Moderate:** The proposed allotments will fragment the community into a number of small patches.
Adversely affect habitat critical to the survival of an ecological community;	**Minor:**	**Minor:**
Modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns	**Minor:** These factors would require consideration in the design of any proposed dwellings. Mitigation measures must be included in an Environmental Management Plan.	**Minor:** These factors would require consideration in the design of any proposed dwellings. Mitigation measures must be included in an Environmental Management Plan.

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Criterion	Long Forest Block	Quarry Block
Cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting	**Not applicable**	**Not applicable**
Cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to: • assisting invasive species, that are harmful to the listed ecological community, to become established, or • causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or • Interfere with the recovery of an ecological community.	**Minor:** The proposed change in land use has the potential to introduce weeds These impacts must be managed through an EMP.	**Minor:** The proposed change in land use has the potential to introduce weeds These impacts must be managed through an EMP.
Conclusion	**Not considered a significant impact**	**DoTE were consulted and undertook a site assessment on the 12th February 2015. They concluded that the project would not require referral based on the low quality of the grassland (at the time of the site meeting with DoTE representative) and previous ground disturbance.**

5.4 Wetlands of international significance (Ramsar Wetlands)

Development at either site would not be expected to have a measurable impact on any Ramsar site. Both sites are in excess of 30 km from the nearest Ramsar site (*Port Phillip Western Shoreline and Bellarine Peninsula*), and neither site contains a waterway that would allow impacts to reach that Ramsar site.

6. Implications of Legislation and Policy

6.1 Permits and referrals

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Table 10Table 10 lists the permits and referrals addressed in this report (with respect to flora and fauna values), and indicates which will be required based on the findings of this report for the Long Forest Block and Quarry Block.

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Table 10 List of permits/referrals of relevance to the Long Forest Block and Quarry Block

Permit/referral	Long Forest Block		Quarry Block	
	Required? (yes/no)	Impacts and comments	Required? (yes/no)	Impacts and comments
Referral under the *Environment Protection and Biodiversity Conservation Act 1999*	No	The EPBC listed community: *Grey Box Grassy Woodlands and derived grasslands of south-eastern Australia* will require removal. However, the impact of the proposed subdivision on this community does not constitute a significant impact. Impacts on other Matters of National Environmental Significance are considered unlikely.	No	The EPBC listed community: *Natural Temperate Grasslands of the Victorian Volcanic Plains* will require removal. DoTE were consulted and concluded that the project would not require referral based on the low quality of the grassland (at the time of the site meeting with DoTE representative) and previous ground disturbance. Impacts on other Matters of National Environmental Significance are considered unlikely.
Planning permit for removal of native vegetation under the *Environment and Planning Act 1987*	Yes	Planning permit required for the removal of native vegetation. The project is considered a 'high' risk project (as described in Section 4.2). Information that must be provided with the application is provided in Table 7.	Yes	Planning permit required for the removal of native vegetation. The project is considered a 'moderate' risk project (as described in Section 4.2). Information that must be provided with the application is provided in Table 7.
Permit for removal of flora community or flora species listed as threatened under the *Flora and Fauna Guarantee Act 1988*	No – options 1 to 4	No FFG threatened flora communities or flora species were recorded at the Long Forest Block.	Yes – options 1 to 3	One threatened flora community will require removal: Western Basalt Plains Grassland. A permit will be required under the FFG Act.
Permit for removal of flora species listed as protected under the *Flora and Fauna Guarantee Act 1988*	Yes	Numerous species listed as protected under the FFG Act are expected to be removed. A permit is required to take these species.	Yes	Two species listed as protected under the FFG Act are expected to be removed. A permit is required to take these species.

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Permit/referral	Long Forest Block		Quarry Block	
	Required? (yes/no)	Impacts and comments	Required? (yes/no)	Impacts and comments
Permitted clearing of native vegetation: Biodiversity Assessment Guidelines (DEPI, 2013).	Yes – the guidelines apply because native vegetation patches will be removed	Refer to 4.4 and 4.6 for a breakdown of unavoidable losses of native vegetation and offset requirements for this project. Update the BAR following the arborist's assessment to include losses of trees affected by encroachment of their TRZ.	Yes – the guidelines apply because native vegetation patches will be removed	Refer to 4.4 and 4.6 for a breakdown of unavoidable losses of native vegetation and offset requirements for this project.
Wildlife Act 1975	Possibly	A Management Authorisation under the Wildlife Act would be required during construction if salvage or handling of fauna is proposed as a mitigation measure. At this site, such mitigation would be required if trees or limbs with hollows are proposed to be removed.	No	Salvage or handling of fauna is not expected to be required at this site during construction, so a Management Authorisation under the Wildlife Act would not be required.

7. Conclusions and recommendations

7.1 Summary of findings

Long Forest Block: flora and fauna values

The Long Forest Block supports extensive areas of Grassy Woodland (EVC 175), some of which meets the condition threshold to be the threatened community: *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia* (listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999*). Three habitat zones were mapped, mostly differing in presence/absence of tree canopy and degree of weed cover.

Three flora species listed as rare or threatened were observed during the current site assessment at the Long Forest Block:

- *Acacia rostriformis* (Bacchus Marsh Wattle; rare in Victoria);
- *Eucalyptus leucoxylon* ssp. *connata* (Melbourne Yellow Gum; vulnerable in Victoria); and
- *Rhagodia parabolica* (Fragrant Saltbush; rare in Victoria).

Threatened fauna most likely to occur at the Long Forest Block are those associated with woodland habitats. These include the migratory Swift Parrot, the Brush-tailed Phascogale, Common Dunnart, and a suite of woodland-dependent (and some hollow-dependent) birds and reptiles. Loss or degradation of woodland habitat from this site will impact on these species, but for no species is the potential impact considered likely to be significant. Threatened fauna species that are grassland specialists (e.g., Striped Legless Lizard, Golden Sun Moth, Fat-tailed Dunnart) are not expected to occur at this site.

The greatest potential for impacts on fauna comes from removal of hollow-bearing limbs or trees, and this should be avoided. If hollows are proposed to be removed, then mitigation measures specific to hollow-dependent fauna will be required to minimise the risk of harm to fauna.

Quarry Block: flora and fauna values

The Quarry Block supports extensive areas of Plains Grassland (Low Rainfall – EVC 132_63), albeit of moderate quality. The vegetation meets the condition threshold to be considered the EPBC listed community: *Natural Temperate Grasslands of the Victorian Volcanic Plains Bioregion* and is also listed as a threatened community under the *Flora and Fauna Guarantee Act 1988*.

No rare or threatened flora species were encountered during the current survey or previous surveys conducted by Ecology and Heritage Partners (EHP 2013b) at the Quarry Block.

Threatened fauna most likely to occur at the Quarry Block are those associated with grassland habitats. However, given the history of land-use at this site, and its currently degraded condition in terms of fauna habitat, no species is considered likely to make significant use of this site. Threatened fauna species that are grassland specialists (e.g., Striped Legless Lizard, Golden Sun Moth, Fat-tailed Dunnart) are not expected to occur at this site.

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7.2 Recommendations (including permit requirements)

The following next steps are recommended:

- If possible, avoid impact (including disturbance to TRZs) of the vulnerable *Eucalyptus leucoxylon* subsp. *connata* (Melbourne Yellow Gum) at the Long Forest Block;
- Finalise the subdivision plans for each site and obtain updated Biodiversity Assessment Report from DEPI (if the plans change);
- Micro-align access routes at the Long Forest Block to avoid impacts on hollow-bearing limbs or trees, and the fauna that may use them;
- Engage an arborist to assess the impacts on trees adjacent to the proposed access routes at Long Forest Block and obtain an updated Biodiversity Assessment Report from DEPI;
- Take photos of the proposed impact areas at both blocks, noting location and direction of photo;
- Identify a suitable offset strategy prior to applying for a permit to remove the native vegetation at both blocks;
- Obtain a permit for removal of native vegetation under the *Planning and Environment Act*;
- Obtain a permit to take flora species protected under the FFG Act (both sites), and threatened community (Quarry Block; *Western Basalt Plains Grassland Community*);
- Develop an Environment Management Plan (EMP) for each proposal. This EMP should specifically include (though not be limited to) mitigation measures to prevent and/or minimise impacts on native flora, threatened fauna and waterways, including:
  - Protection of native vegetation to be retained e.g. clearly marked no go zones
  - Measures to minimise impacts on fauna that use hollows, if hollow-bearing limbs or trees are proposed for removal (Long Forest Block only); and
  - Preventing the introduction or spread of weeds or pathogens into the site.
- Obtain a Management Authorisation under the *Wildlife Act 1975* if hollow-bearing limbs or trees are proposed to be removed from the Long Forest Block. Obtaining this permit would require the development (and subsequent implementation) of mitigation measures to minimise risks to fauna that use hollows.

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8. References

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Ecology & Heritage Partners 2013a. Due diligence ecological assessment for Lot 1 PS 349871U, Lake Merrimu, Victoria. Report to Southern Rural Water by Ecology & Heritage Partners.

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Walsh N. G. and Entwisle T. J. 1999. *Flora of Victoria Volume 4, Dicotyledons Cornaceae to Asteraceae*

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Appendix A – Likelihood of Occurrence of rare or Threatened Flora

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Key to Table:

EPBC Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

FFG Victorian *Flora and Fauna Guarantee Act 1988*

VICADV DEPI (=DSE) Advisory List of Threatened Plants in Victoria (2005)

VBA Victorian Biodiversity Atlas 2011 (DEPI)

PMST Protected Matters Search Tool, for the EPBC Act.

Source Indicates data directory from which information was sourced. All dates are representative of the most recent record of that species within 10 kms of the study site from the VBA database.

Status of species:

CR Listed as critically endangered under the EPBC Act

EN Listed as endangered under the EPBC Act

VU Listed as vulnerable under the EPBC Act

L Listed as threatened under the FFG Act

e Listed as endangered on the VICADV

v Listed as vulnerable on the VICADV

r Listed as rare on the VICADV

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Rare or threatened flora recorded within 10 km of the Quarry Block: likelihood of occurrence and habitat description for threatened species

Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
Spiny Rice-flower	*Pimelea spinescens* subsp. *spinescens*	CR	L	e	VBA & PMST	**Unlikely:** EHP undertook targeted surveys and did not encounter the species at Quarry Block. Suitable habitat is present.
Matted Flax-lily	*Dianella amoena*	EN	L	e	PMST	**Unlikely:** based on lack of records within 10 km, habitat is present but of poor condition. Grasslands and grassy woodlands (Walsh & Entwisle 1994).
Adamson's Blown-grass	*Lachnagrostis adamsonii*	EN	L	v	PMST	**Unlikely:** owing to lack of suitable habitat and previous records within 10 km. Apparently endemic in Victoria. The species is known only by the type specimen, collected near Melbourne (1853), and a few recent (1987, 1990) collections from slightly saline, seasonally wet areas on and near the volcanic plain south of Skipton and at Glenthompson toward Hamilton (Walsh & Entwisle 1994).
Curly Sedge	*Carex tasmanica*	VU	L	v	PMST	Unlikely: due to lack of suitable habitat and lack of records within 10 km. Uncommon, confined to seasonally wet, heavy clayey soils immediately north of Melbourne (Craigieburn) and further west (to Heywood, near Portland) (Walsh & Entwisle 1996).
Clover Glycine	*Glycine latrobeana*	VU	L	v	PMST	**Low likelihood:** Although suitable habitat is present, there are no previous records within 10 km. Widespread but of sporadic occurrence and rarely encountered. Grows mainly in grasslands and grassy woodlands. (Walsh and Entwisle 1996).
Large-fruit Fireweed	*Senecio macrocarpus*	VU	L	e	PMST	**Unlikely:** owing to lack of suitable habitat and lack of records within 10 km. Largely confined to Themeda grasslands on loamy clay soils derived from basalt near Melbourne, west to Skipton area. Also known from auriferous ground near Stawell (Walsh and Entwisle 1999).

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Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
Spiral Sun-orchid	*Thelymitra matthewsii*	VU	L	v	PMST	**Unlikely**: due to lack of records within 10 km. Scattered sporadically across southern Vic and extending as far inland as the northern Grampians. Favours open forests and woodlands, where it is found in well-drained sand and clay loams. Grows best in areas where there has been soil disturbance, for example around old quarries and gravel pits, and on road verges, disused tracks or animal trails (Backhouse & Jeanes 1995).
Maroon Leek-orchid	*Prasophyllum frenchii*	EN	L	e	PMST	**Unlikely:** lack of records within 10 km. Grows mostly in or near coastal swamps, rarely more than 10 km inland (Walsh & Entwisle 1994). Widespread across southern Victoria but of disjunct occurrence and with a single record from the eastern Goldfields. Found mostly as loose colonies in grasslands, heathlands and grassy woodlands on moderately rich sandy and black clay loams (Backhouse & Jeanes, 1995).
Swamp Everlasting	*Xerochrysum palustre*	VU	L	v	PMST	**Unlikely:** due to lack of suitable habitat and records within 10 km. Occurs in lowland swamps, usually on black cracking clay soils (Walsh and Entwisle 1999).
Sunshine Diuris	*Diuris fragrantissima*	EN	L	e	VBA	**Low likelihood:** Extremely rare, restricted to remnant dry grassland on the basalt plains near Sunshine, west of Melbourne and near Wodonga (Walsh & Entwisle 1996).
Small Golden Moths	*Diuris basaltica*	EN	L	v	VBA & PMST	**Low likelihood:** Confined to the basalt plains of south-western Victoria, growing in native grassland and grassy woodland. Largely confined to road reserves (Jeans and Backhouse 1996).
Brittle Greenhood	*Pterostylis truncata*		L	e	VBA	**Unlikely:** owing to lack of suitable habitat. Restricted and uncommon to rare in Victoria, growing in open-forest, on sheltered ridges and slopes (Walsh & Entwisle 1996).

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Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
Small Scurf-pea	*Cullen parvum*		L	e	VBA	**Low likelihood:** habitat present but of poor condition. A nationally endangered species, known in Victoria from a few locations in north-central and south-central areas where it grows mainly in grassland or grassy woodland (Walsh & Entwisle 1996).
Tough Scurf-pea	*Cullen tenax*		L	e	VBA	**Unlikely:** Widespread in Victoria but apparently endangered and seldom collected. Generally grows in drier parts of the state in grassy woodland on heavy soils. Flowers most of the year (Walsh & Entwisle 1996).
Buloke	*Allocasuarina luehmannii*		L		VBA	Not present: As this is a tree, it would have been noted during the survey if present.
Swamp Bush-pea	*Pultenaea weindorferi*		X	r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Melbourne Yellow Gum	*Eucalyptus leucoxylon* subsp. *connata*			v	VBA	Not present: as this species is a tree, it would have been noted during the survey.
Black Roly-poly	*Sclerolaena muricata* var. *muricata*			k	VBA	Not determined because listed as poorly known only on the Advisory List.
Black-tip Greenhood	*Pterostylis bicolor*			k	VBA	Not determined because listed as poorly known only on the Advisory List.
Curved Rice-flower	*Pimelea curviflora* var. aff. *subglabrata*			k	VBA	Not determined because listed as poorly known only on the Advisory List.
Leafless Bluebush	*Maireana aphylla*			k	VBA	Not determined because listed as poorly known only on the Advisory List.
Plains Joyweed	*Alternanthera* sp. 1 (Plains)			k	VBA	Not determined because listed as poorly known only on the Advisory List.
Slender Tick-trefoil	*Desmodium varians*			k	VBA	Not determined because listed as poorly known only on the Advisory List.
Austral Tobacco	*Nicotiana suaveolens*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.

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Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
Branching Groundsel	*Senecio cunninghamii* var. *cunninghamii*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Cane Spear-grass	*Austrostipa breviglumis*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Clustered Poranthera	*Poranthera corymbosa*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Dense Mint-bush	*Prostanthera decussata*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Forked Rice-flower	*Pimelea hewardiana*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Fragrant Saltbush	*Rhagodia parabolica*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Hairy Beard-heath	*Leucopogon microphyllus* var. *pilibundus*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Heath Spear-grass	*Austrostipa exilis*			r	VBA	Not determined because only listed on the Advisory List of rare or Threatened Plants.
Rough Wattle	*Acacia aspera* subsp. *parviceps*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Rye Beetle-grass	*Tripogon loliiformis*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Satin Daisy-bush	*Olearia minor*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Slender Saw-sedge	*Gahnia microstachya*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Snowy Mint-bush	*Prostanthera nivea* var. *nivea*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Tangled Pseudanthus	*Pseudanthus orbicularis*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Violet Westringia	*Westringia glabra*			r	VBA	Not determined because only listed on the

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Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
						Advisory List of Rare or Threatened Plants.
Waterbush	*Myoporum montanum*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Western Golden-tip	*Goodia medicaginea*			r	VBA	Not determined because only listed on the Advisory List of rare or Threatened Plants.
Wiry Bossiaea	*Bossiaea cordigera*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Wombat Bush-pea	*Pultenaea reflexifolia*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Yellow Burr-daisy	*Calotis lappulacea*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Arching Flax-lily	*Dianella* sp. aff. *longifolia* (Benambra)			v	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.

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Rare or threatened flora recorded within 10 km of the Long Forest Block: likelihood of occurrence and habitat description for threatened species

Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
Spiny Rice-flower	*Pimelea spinescens* subsp. *spinescens*	CR	L	e	VBA, PMST	**Unlikely:** Targeted surveys were conducted by EHP and species was not encountered (SRW pers. comm.). Suitable habitat is present.
Sunshine Diuris	*Diuris fragrantissima*	EN	L	e	VBA	**Low likelihood:** Extremely rare, restricted to remnant dry grassland on the basalt plains near Sunshine, west of Melbourne and near Wodonga (Walsh & Entwisle 1996).
Small Golden Moths	*Diuris basaltica*	EN	L	v	VBA, PMST	**Low likelihood:** Confined to the basalt plains of south-western Victoria, growing in native grassland and grassy woodland. Largely confined to road reserves (Jeans and Backhouse 2006).
Matted Flax-lily	*Dianella amoena*	EN	L	e	PMST	**Low likelihood:** based on lack of records within 10 km, however, suitable habitat is present. Grasslands and grassy woodlands (Walsh & Entwisle 1994).
Adamson's Blown-grass	*Lachnagrostis adamsonii*	EN	L	v	PMST	Unlikely: owing to lack of suitable habitat. Apparently endemic in Victoria. The species is known only by the type specimen, collected near Melbourne (1853), and a few recent (1987, 1990) collections from slightly saline, seasonally wet areas on and near the volcanic plain south of Skipton and at Glenthompson toward Hamilton (Walsh & Entwisle 1994).
Maroon Leek-orchid	*Prasophyllum frenchii*	EN	L	e	PMST	**Unlikely:** lack of records within 10 km. Grows mostly in or near coastal swamps, rarely more than 10 km inland (Walsh & Entwisle 1994). Widespread across southern Victoria but of disjunct occurrence and with a single record from the eastern Goldfields. Found mostly as loose colonies in grasslands, heathlands and grassy woodlands on moderately rich sandy and black clay loams (Backhouse & Jeanes, 1995).
Curly Sedge	*Carex tasmanica*	VU	L	v	PMST	**Unlikely:** due to lack of suitable habitat and lack of records within 10 km. Uncommon, confined to seasonally wet, heavy clayey soils immediately north of Melbourne (Craigieburn) and further west (to Heywood, near Portland) (Walsh & Entwisle 1996).

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Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
Clover Glycine	*Glycine latrobeana*	VU	L	v	PMST	**Low likelihood:** Although suitable habitat is present, there are no previous records within 10 km. Widespread but of sporadic occurrence and rarely encountered. Grows mainly in grasslands and grassy woodlands. (Walsh and Entwisle 1996).
Large-fruit Fireweed	*Senecio macrocarpus*	VU	L	e	PMST	**Unlikely:** owing to lack of suitable habitat and lack of records within 10 km. Largely confined to Themeda grasslands on loamy clay soils derived from basalt near Melbourne, west to Skipton area. Also known from auriferous ground near Stawell (Walsh and Entwisle 1999).
Spiral Sun-orchid	*Thelymitra matthewsii*	VU	L	v	PMST	**Unlikely**: due to lack of records within 10 km. Scattered sporadically across southern Vic and extending as far inland as the northern Grampians. Favours open forests and woodlands, where it is found in well-drained sand and clay loams. Grows best in areas where there has been soil disturbance, for example around old quarries and gravel pits, and on road verges, disused tracks or animal trails (Backhouse & Jeanes 1995). Nearest known occurrence.
Swamp Everlasting	*Xerochrysum palustre*	VU	L	v	PMST	**Unlikely:** due to lack of suitable habitat. Occurs in lowland swamps, usually on black cracking clay soils (Walsh and Entwisle 1999).
Small Scurf-pea	*Cullen parvum*		L	e	VBA	**Possible:** A nationally endangered species, known in Victoria from a few locations in north-central and south-central areas where it grows mainly in grassland or grassy woodland (Walsh & Entwisle 1996).
Tough Scurf-pea	*Cullen tenax*		L	e	VBA	**Possible:** Widespread in Victoria but apparently endangered and seldom collected. Generally grows in drier parts of the state in grassy woodland on heavy soils. Flowers most of the year (Walsh & Entwisle 1996).
Brittle Greenhood	*Pterostylis truncata*		L	e	EHP 2013, VBA	**Unlikely:** Restricted and uncommon to rare in Victoria, growing in open-forest, on sheltered ridges and slopes (Walsh & Entwisle 1996).

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Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
Buloke	*Allocasuarina luehmannii*		L		VBA	**Not present:** as this is a tree, it would have been noted if present.
Melbourne Yellow Gum	*Eucalyptus leucoxylon* subsp. *connata*			v	EHP 2013, VBA	**Present:** Found within the Long Forest Block, refer to Figure 1 for location of trees.
Bacchus Marsh Wattle	*Acacia rostriformis*			r	None	**Present:** recorded within Habitat Zone 1.
Cane Spear-grass	*Austrostipa breviglumis*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Heath Spear-grass	*Austrostipa exilis*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Yellow Burr-daisy	*Calotis lappulacea*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Western Golden-tip	*Goodia medicaginea*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Hairy Beard-heath	*Leucopogon microphyllus* var. *pilibundus*			r	VBA	Not determined because only listed on the Advisory List of rare or Threatened Plants.
Waterbush	*Myoporum montanum*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Austral Tobacco	*Nicotiana suaveolens*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Satin Daisy-bush	*Olearia minor*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Forked Rice-flower	*Pimelea hewardiana*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Clustered Poranthera	*Poranthera corymbosa*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Slender Mint-bush	*Prostanthera saxicola* var. *bracteolata*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.

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Common name	Scientific name	EPBC	FFG	VICADV	Source	Likelihood and habitat description
Fragrant Saltbush	*Rhagodia parabolica*			r	EHP 2013, VBA	Present: scattered throughout Long Forest Block.
Branching Groundsel	*Senecio cunninghamii* var. *cunninghamii*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Rye Beetle-grass	*Tripogon loliiformis*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Violet Westringia	*Westringia glabra*			r	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.
Arching Flax-lily	*Dianella* sp. aff. *longifolia (Benambra)*			v	VBA	Not determined because only listed on the Advisory List of Rare or Threatened Plants.

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Appendix B - Likelihood of Occurrence of Threatened and Near Threatened Fauna Species Identified for the Study Sites

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Key to Table:

EPBC	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
FFG	Victorian *Flora and Fauna Guarantee Act 1988*
DEPI	DEPI (=DSE) Advisory List of Threatened Vertebrate (2013) or Invertebrate (2009) Fauna in Victoria

Status of species:

EW	Extinct in the Wild
CR	Critically Endangered
EN	Endangered
VU	Vulnerable
NT	Near Threatened
DD	Data deficient
RX	Regionally Extinct
L	Listed as threatened under the FFG Act

Likelihood of occurrence:

KNOWN – Species detected in the study site during the site visit.

POSSIBLE – potentially suitable habitat occurs within study area and species' known range encompasses the study site. Species recorded historically within 10 km of the study site, and generally within the last 30 years.

UNLIKELY – species' known range encompasses the study site, but suitable habitat does not occur within study site, or occurs within study site but with generally low quality and quantity. Species recorded historically within 10 km of the study site, but generally not within the last 30 years.

HIGHLY UNLIKELY – No historical records of the species within 10 km of the study site and/or no suitable habitat within study site.

na - Not identified for that site by the desktop assessment

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Common Name	Scientific Name	EPBC	FFG	DEPI	Likelihood of Occurrence		Comments on Likelihood
					Long Forest	Quarry	
Mammals							
Spot-tailed Quoll	*Dasyurus maculatus maculatus*	EN	L	EN	Highly unlikely	Highly unlikely	No historical records within 10 km of either site. Poor quality habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Brush-tailed Phascogale	*Phascogale tapoatafa tapoatafa*		L	VU	Possible	Highly unlikely	Seven historical records within 10 km of the sites (most recently 1989). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Common Dunnart	*Sminthopsis murina murina*			VU	Possible	Unlikely	Three historical records within 10 km of the sites (most recently 1990). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Fat-tailed Dunnart	*Sminthopsis crassicaudata*			NT	Unlikely	Unlikely	Two historical records within 10 km of the sites (most recently 1988). Unsuitable habitat at the Long Forest Block. Suitable habitat at the Quarry Block, but very disturbed and degraded.
Eastern Barred Bandicoot	*Perameles gunnii*	EN	L	EW	Highly unlikely	Highly unlikely	Species considered extinct in the wild in Victoria.
Greater Glider	*Petauroides volans*			VU	Unlikely	Highly unlikely	Only one historical record within 10 km of the sites (1988). Potentially suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Eastern Pygmy-possum	*Cercartetus nanus*			NT	Unlikely	Unlikely	Two historical records within 10 km of the sites (most recently 1992). Potentially suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Grey-headed Flying-fox	*Pteropus poliocephalus*	VU	L	VU	Unlikely	Unlikely	Two old historical records within 10 km of the sites (most recently 1968). Generally unsuitable habitat at both sites.
Common Bent-wing Bat	*Miniopterus schreibersii*	(CR, as *M. s. schreibersii*)	L	CR	Possible (as *M. s. oceanensis*	Unlikely	Sub-species *Miniopterus schreibersi bassanii* listed under the EPBC Act as Critically Endangered. Sub-species *M. s. oceanensis* not listed the EPBC Act. The bat that may occur at Long Forest is more likely to be *M. s. oceanensis*. Potentially suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.

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Common Name	Scientific Name	EPBC	FFG	DEPI	Likelihood of Occurrence		Comments on Likelihood
					Long Forest	Quarry	
Smoky Mouse	*Pseudomys fumeus*	EN	L	NT	na	Highly unlikely	No historical records within 10 km of either site. Unsuitable habitat at both sites.
Birds							
Plains-wanderer	*Pedionomus torquatus*	VU	L	CR	Highly unlikely	na	Only one historical record within 10 km of the sites (1880). Unsuitable habitat at the Long Forest Block. Suitable habitat at the Quarry Block, but very disturbed and degraded.
Diamond Dove	*Geopelia cuneata*		L	NT	Highly unlikely	Highly unlikely	Two old historical records within 10 km of the sites (most recently 1905). Both sites outside species' typical distributional range.
Lewin's Rail	*Rallus pectoralis*		L	*VU*	Highly unlikely	na	Only one historical record within 10 km of the sites (1880). Unsuitable habitat at both sites.
Pied Cormorant	*Phalacrocorax varius*			NT	Highly unlikely	Highly unlikely	Three historical records within 10 km of the sites (most recently 1991). Unsuitable habitat at both sites.
Gull-billed Tern	*Sterna nilotica*		L	EN	Highly unlikely	Highly unlikely	Only one historical record within 10 km of the sites (1986). Unsuitable habitat at both sites.
Caspian Tern	*Sterna caspia*		L	*NT*	Highly unlikely	na	Only one historical record within 10 km of the sites (1977). Unsuitable habitat at both sites.
Fairy Tern	*Sternula nereis*	VU	L	EN	Highly unlikely	Highly unlikely	No historical records within 10 km of either site. Coastal species. Unsuitable habitat at both sites.
Common Sandpiper	*Actitis hypoleucos*			*VU*	Highly unlikely	na	Only one historical record within 10 km of the sites (1977). Unsuitable habitat at both sites.
Latham's Snipe	*Gallinago hardwickii*			NT	Unlikely	Unlikely	Three historical records within 10 km of the sites (most recently 1987). Marginally suitable grassland habitat at both sites.
Australian Painted Snipe	*Rostratula australis (=benghalensis)*	VU	L	CR	Highly unlikely	Highly unlikely	No historical records within 10 km of either site. Unsuitable habitat at both sites.

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Common Name	Scientific Name	EPBC	FFG	DEPI	Likelihood of Occurrence		Comments on Likelihood
					Long Forest	Quarry	
Bush Stone-curlew	*Burhinus grallarius*		L	*EN*	Unlikely	na	One old historical record within 10 km of the sites (1880). Marginally suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Glossy Ibis	*Plegadis falcinellus*			NT	Highly unlikely	Highly unlikely	Only one historical record within 10 km of the sites (1986). Unsuitable habitat at both sites.
Royal Spoonbill	*Platalea regia*			NT	Highly unlikely	Highly unlikely	Three historical records within 10 km of the sites (most recently 1991). Unsuitable habitat at both sites.
Eastern Great Egret	*Ardea modesta (=alba)*		L	VU	Unlikely	Unlikely	Seven historical records within 10 km of the sites (most recently 2001). Generally unsuitable habitat at both sites, but this species may occur in flooded grassland.
Nankeen Night Heron	*Nycticorax caledonicus*			NT	Highly unlikely	Highly unlikely	Seven historical records within 10 km of the sites (most recently 2000). Generally unsuitable habitat at both sites.
Australasian Bittern	*Botaurus poiciloptilus*	EN	L	EN	Highly unlikely	Highly unlikely	No historical records within 10 km of either site. Unsuitable habitat at both sites.
Australasian Shoveler	*Anas rhynchotis*			VU	Highly unlikely	Highly unlikely	Five historical records within 10 km of the sites (most recently 2006). Unsuitable habitat at both sites.
Freckled Duck	*Stictonetta naevosa*		L	EN	Highly unlikely	Highly unlikely	Two historical records within 10 km of the sites (most recently 2006). Unsuitable habitat at both sites.
Hardhead	*Aythya australis*			VU	Highly unlikely	Highly unlikely	Twelve historical records within 10 km of the sites (most recently 2006). Unsuitable habitat at both sites.
Blue-billed Duck	*Oxyura australis*		L	EN	Highly unlikely	Highly unlikely	One historical record within 10 km of the sites (2006). Unsuitable habitat at both sites.
Musk Duck	*Biziura lobata*			VU	Highly unlikely	Highly unlikely	Eleven historical records within 10 km of the sites (most recently 2003). Unsuitable habitat at both sites.
Spotted Harrier	*Circus assimilis*			NT	Unlikely	Possible	Seven historical records within 10 km of the sites (most recently 2008). Generally unsuitable habitat at the Long Forest Block. Suitable habitat at the Quarry Block.

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Common Name	Scientific Name	EPBC	FFG	DEPI	Likelihood of Occurrence		Comments on Likelihood
					Long Forest	Quarry	
White-bellied Sea-eagle	*Haliaeetus leucogaster*		L	VU	Highly unlikely	Highly unlikely	Two historical records within 10 km of the sites (most recently 1995). Unsuitable habitat at both sites.
Black Falcon	*Falco subniger*			VU	Unlikely	Possible	Six historical records within 10 km of the sites (most recently 1986). Generally unsuitable habitat at the Long Forest Block. Suitable habitat at the Quarry Block.
Barking Owl	*Ninox connivens*		L	EN	Possible	Highly unlikely	24 historical records within 10 km of the sites (most recently 2002). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Powerful Owl	*Ninox strenua*		L	VU	Unlikely	Highly unlikely	Three historical records within 10 km of the sites (most recently 1997). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Swift Parrot	*Lathamus discolor*	EN	L	EN	Possible	Highly unlikely	Ten historical records within 10 km of the sites (most recently 2008). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Azure Kingfisher	*Alcedo azurea*			NT	Highly unlikely	Highly unlikely	Two historical records within 10 km of the sites (most recently 1988). Unsuitable habitat at both sites.
Red-backed Kingfisher	*Todiramphus pyrrhopygia*			NT	Unlikely	Unlikely	One historical record within 10 km of the sites (1986). Marginally suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
White-throated Needletail	*Hirundapus caudacutus*			VU	Unlikely	Possible	Eight historical records within 10 km of the sites (most recently 1994). Aerial migratory species that rarely if ever lands in Australia.
Black-eared Cuckoo	*Chrysococcyx osculans*			NT	Possible	Highly unlikely	Ten historical records within 10 km of the sites (most recently 2000). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Hooded Robin	*Melanodryas cucullata*		L	NT	Possible	Highly unlikely	Ten historical records within 10 km of the sites (most recently 1990). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.

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Common Name	Scientific Name	EPBC	FFG	DEPI	Likelihood of Occurrence		Comments on Likelihood
					Long Forest	Quarry	
Crested Bellbird	*Oreoica gutturalis*		L	NT	Possible	Highly unlikely	15 historical records within 10 km of the sites (most recently 2003). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Spotted Quail-thrush	*Cinclosoma punctatum*			NT	Unlikely	Highly unlikely	Four historical records within 10 km of the sites (most recently 1988). Marginally suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Grey-crowned Babbler	*Pomatostomus temporalis*		L	EN	Highly unlikely	na	One old historical record within 10 km of the sites (1880). Marginally suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Chestnut-rumped Heathwren	*Hylacola pyrrhopygia*		L	VU	Possible	Highly unlikely	Ten historical records within 10 km of the sites (most recently 2004). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Speckled Warbler	*Chthonicola sagittata*		L	VU	**KNOWN**	Highly unlikely	66 historical records within 10 km of the sites (up to 2008), and species seen twice during the site visit to Long Forest. Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Brown Treecreeper (south-eastern ssp.)	*Climacteris picumnus victoriae*			NT	Possible	Highly unlikely	46 historical records within 10 km of the sites (most recently 2007). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Black-chinned Honeyeater	*Melithreptus gularis*			NT	Possible	Highly unlikely	Seven historical records within 10 km of the sites (most recently 2006). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Painted Honeyeater	*Grantiella picta*		L	*VU*	Unlikely	Highly unlikely	One historical record within 10 km of the sites (1990). Marginally suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Regent Honeyeater	*Anthochaera (Xanthomyza) phrygia*	EN	L	CR	Unlikely	Highly unlikely	No historical records within 10 km of either site. Potentially suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Diamond Firetail	*Stagonopleura guttata*		L	NT	Possible	Possible	60 historical records within 10 km of the sites (most recently 2008). Suitable habitat at the Long Forest Block. Marginally suitable habitat at the Quarry Block.

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Common Name	Scientific Name	EPBC	FFG	DEPI	Likelihood of Occurrence		Comments on Likelihood
					Long Forest	Quarry	
Reptiles							
Common Long-necked Turtle	*Chelodina longicollis*			DD	Unlikely	Highly unlikely	One historical record within 10 km of the sites (1988). Potentially suitable but low quality habitat at the Long Forest Block (dam). Unsuitable habitat at the Quarry Block.
Pink-tailed Worm-Lizard	*Aprasia parapulchella*	VU	L	EN	Highly unlikely	Highly unlikely	No historical records within 10 km of either site. Unsuitable habitat at both sites.
Striped Legless Lizard	*Delma impar*	VU	L	EN	Unlikely	Unlikely	No historical records within 10 km of either site. Marginally suitable habitat at the Long Forest Block, but site outside species' known distributional range. Suitable habitat at the Quarry Block, but very disturbed and degraded.
Bearded Dragon	*Pogona barbata*			VU	Possible	Unlikely	Two historical records within 10 km of the sites (most recently 1986). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Grassland Earless Dragon	*Tympanocryptis pinguicolla*	EN	L	CR	Highly unlikely	Highly unlikely	No historical records within 10 km of either site. Unsuitable habitat at the Long Forest Block. Suitable habitat at the Quarry Block, but very disturbed and degraded. Persistence of species in Victoria uncertain.
Lace Goanna	*Varanus varius*			EN	Possible	Highly unlikely	Two historical records within 10 km of the sites (most recently 1987). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Frogs							
Brown Toadlet	*Pseudophryne bibronii*		L	EN	Unlikely	Highly unlikely	Five historical records within 10 km of the sites (most recently 1990). Generally unsuitable habitat at both sites.
Growling Grass Frog	*Litoria raniformis*	VU	L	EN	Highly unlikely	Highly unlikely	16 historical records within 10 km of the sites (most recently 2007). Unsuitable habitat at the both sites.

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Common Name	Scientific Name	EPBC	FFG	DEPI	Likelihood of Occurrence		Comments on Likelihood
					Long Forest	Quarry	
Invertebrates							
Bullant	*Myrmecia sp. 17*		L	VU	Possible	Highly unlikely	Poorly known species. Two old historical records within 10 km of the sites (most recently 1969). Suitable habitat at the Long Forest Block. Unsuitable habitat at the Quarry Block.
Golden Sun Moth	*Synemon plana*	CR	L	CR	Unlikely	Unlikely	No historical records within 10 km of either site. Marginally suitable habitat at the Long Forest Block, but site outside species' known distributional range. Suitable habitat at the Quarry Block, but very disturbed and degraded.

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Appendix C – Subdivision options Long Forest Block

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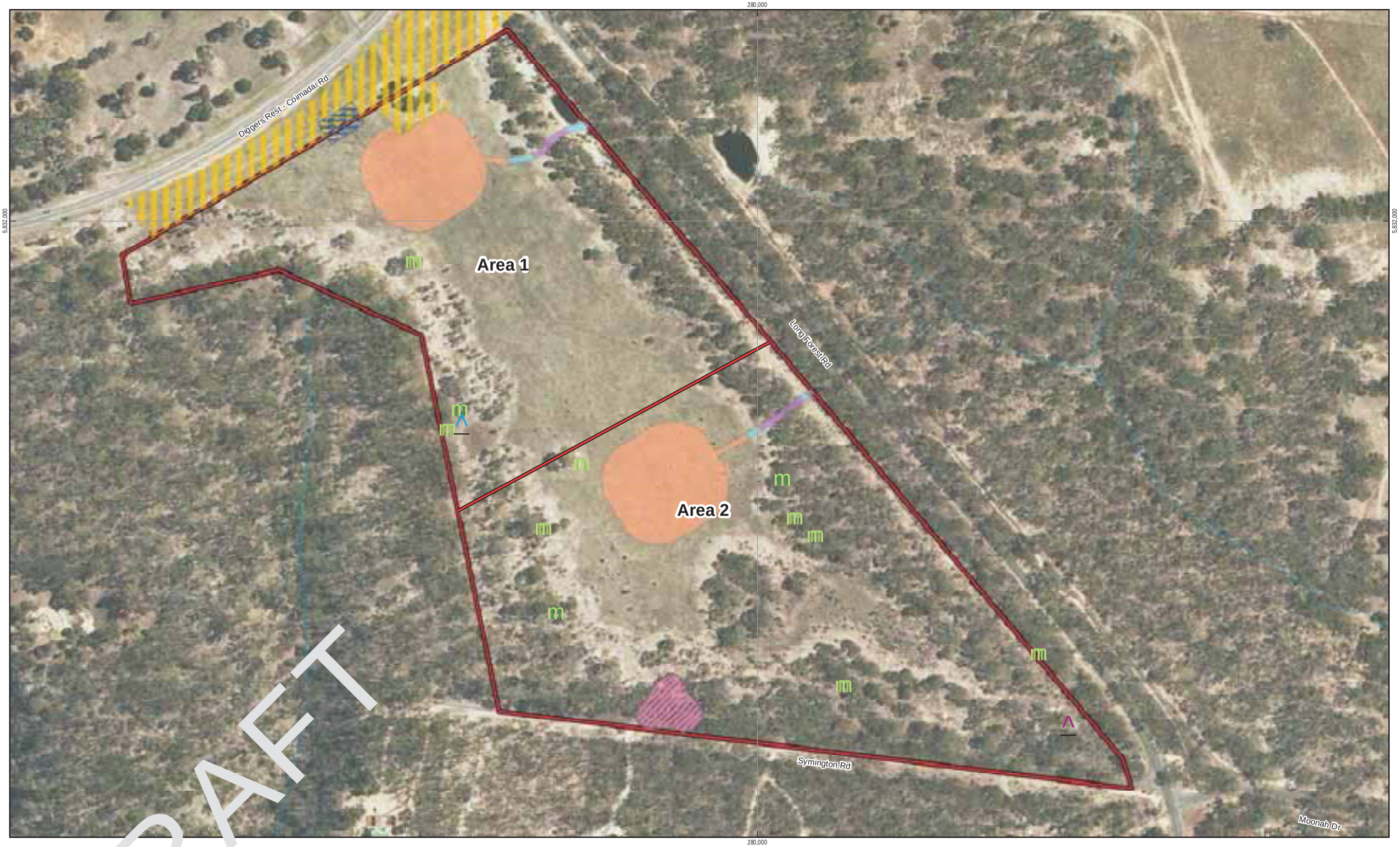

Scale 1:2,500 (At A3)

0 12.5 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

O

LEGEND

- Long Forest Site Boundary
- Stream

Option 5- Habitat Zones

- HZ1-EPBC Community: Grey Box Woodland
- HZ2-EPBC Community: Grey Box Woodland - derived grassland
- HZ3
- miTV

Non Native Vegetation

- *Genista monspessulana*

Significant Species

- *Eucalyptus leucoxylon*
- *Pterostylis truncata*
- *Rhagodia parabolica*
- Very Large Old Tree
- Large Old Tree

Southern Rural Water
Desktop Planning Assessment

Option 5 -
Habitat Zones

Job Number	31-30827
Revision	A
Date	18 Dec 2014

Figure

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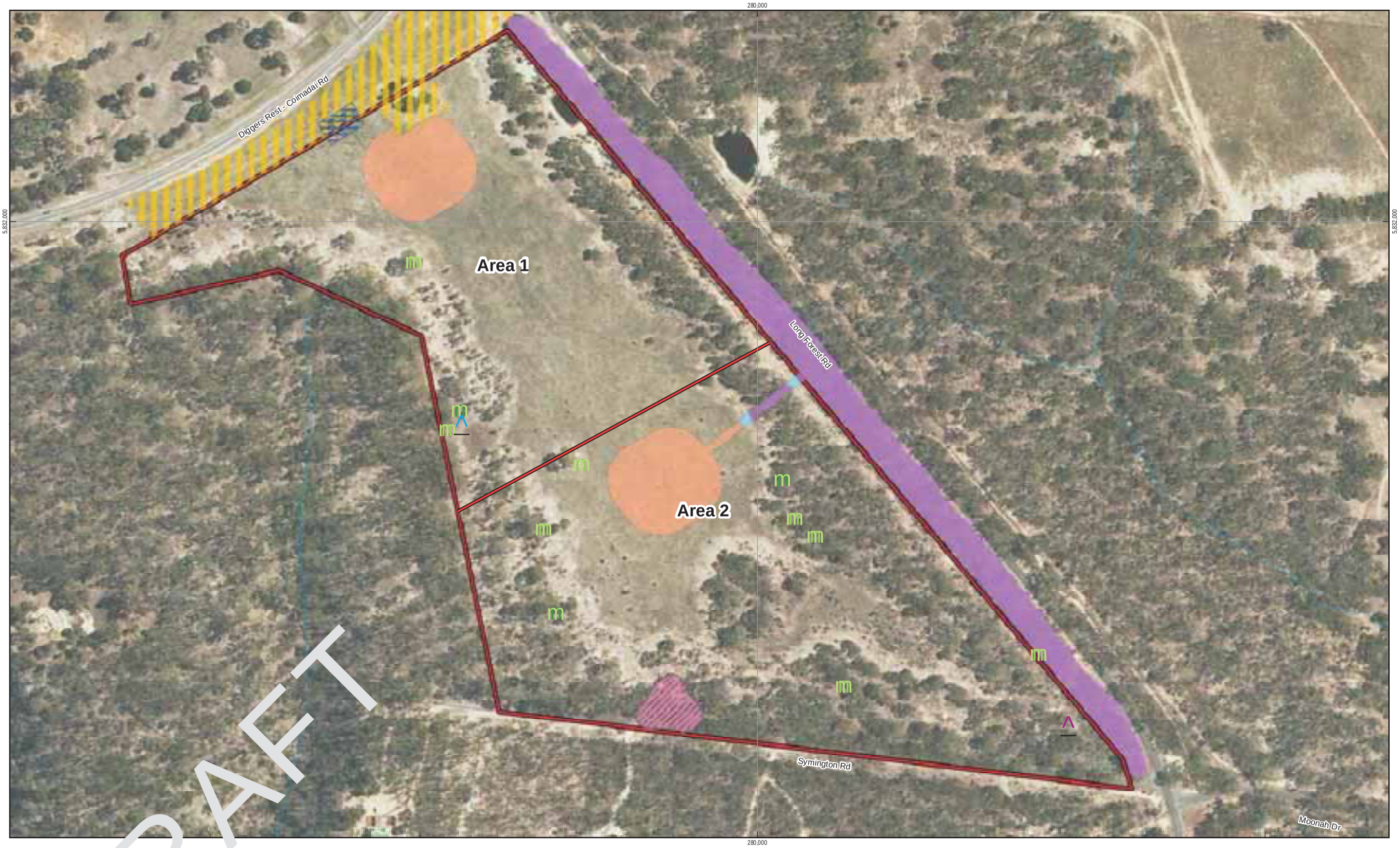

Scale 1:2,500 (At A3)

0 12.5 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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LEGEND

- Long Forest Site Boundary
- Stream

Option 3- Habitat Zones

- HZ1-EPBC Community: Grey Box Woodland
- HZ2-EPBC Community: Grey Box Woodland - derived grassland
- HZ3
- miTV

Non Native Vegetation

- *Genista monspessulana*

Significant Species

- *Eucalyptus leucoxylon*
- *Pterostylis truncata*
- *Rhagodia parabolica*
- Large Old Tree
- Very Large Old Tree

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Southern Rural Water

Southern Rural Water
Desktop Planning Assessment

Job Number	31-30827
Revision	A
Date	17 Dec 2014

Option 3 -
Habitat Zones

Figure

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Appendix D – Subdivision options Quarry Block

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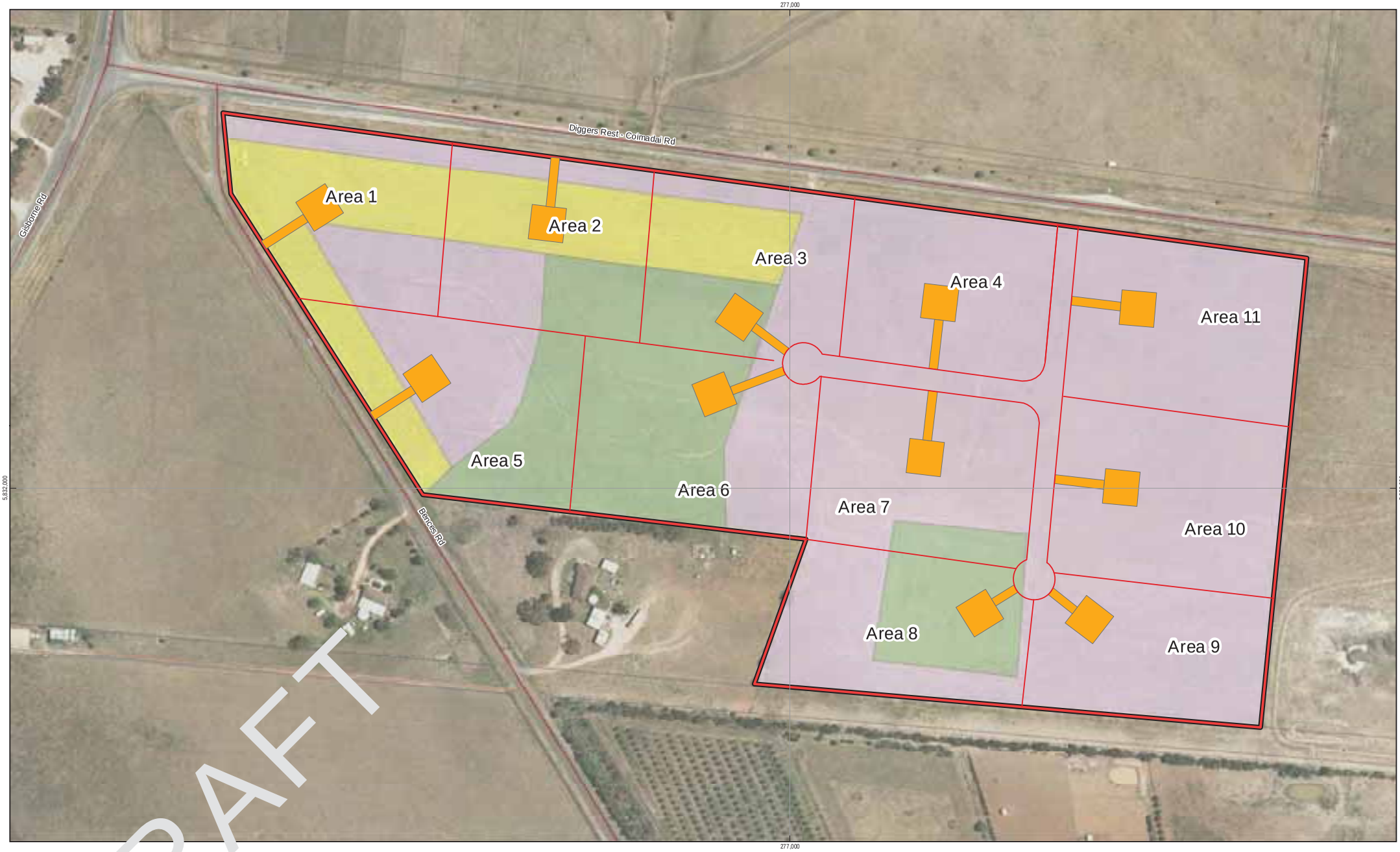

Scale 1:2,500 (At A3)

0 12.5 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

Site Boundaries

Southern Rural Water
Desktop Planning Assessment

Job Number 31-30827
Revision A
Date 21 Jul 2014

Quarry Block Site
Option 3 Subdivision

Figure

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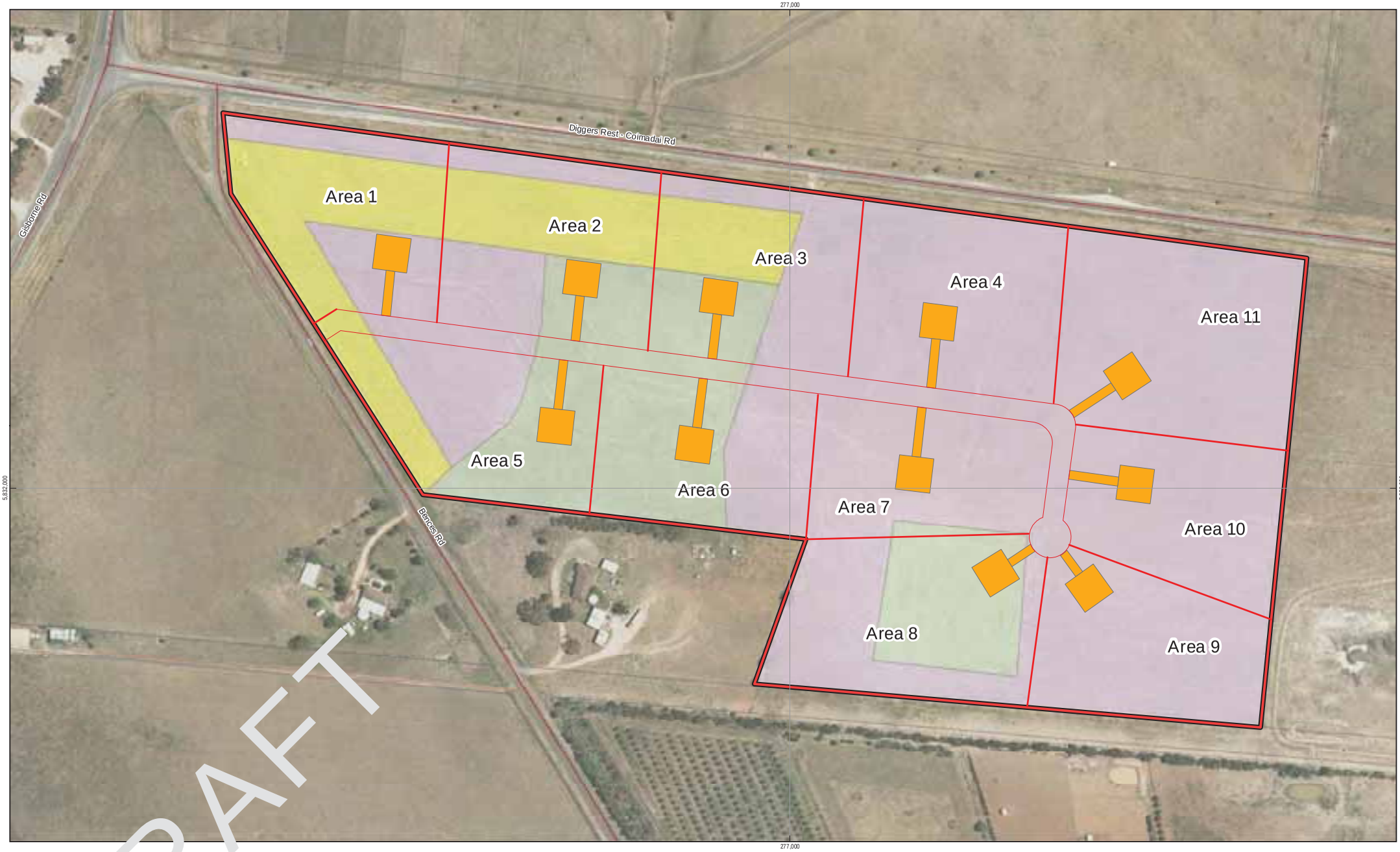

Scale 1:2,500 (At A3)

0 12.5 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Site Boundaries
- Building Envelope
- Habitat Zone 4
- Minor Treeless Vegetation
- Planted *eucalypts cladocalyx*

Southern Rural Water
Desktop Planning Assessment

Quarry Block Site
Option 2 Subdivision

Job Number	31-30827
Revision	A
Date	21 Jul 2014

Figure

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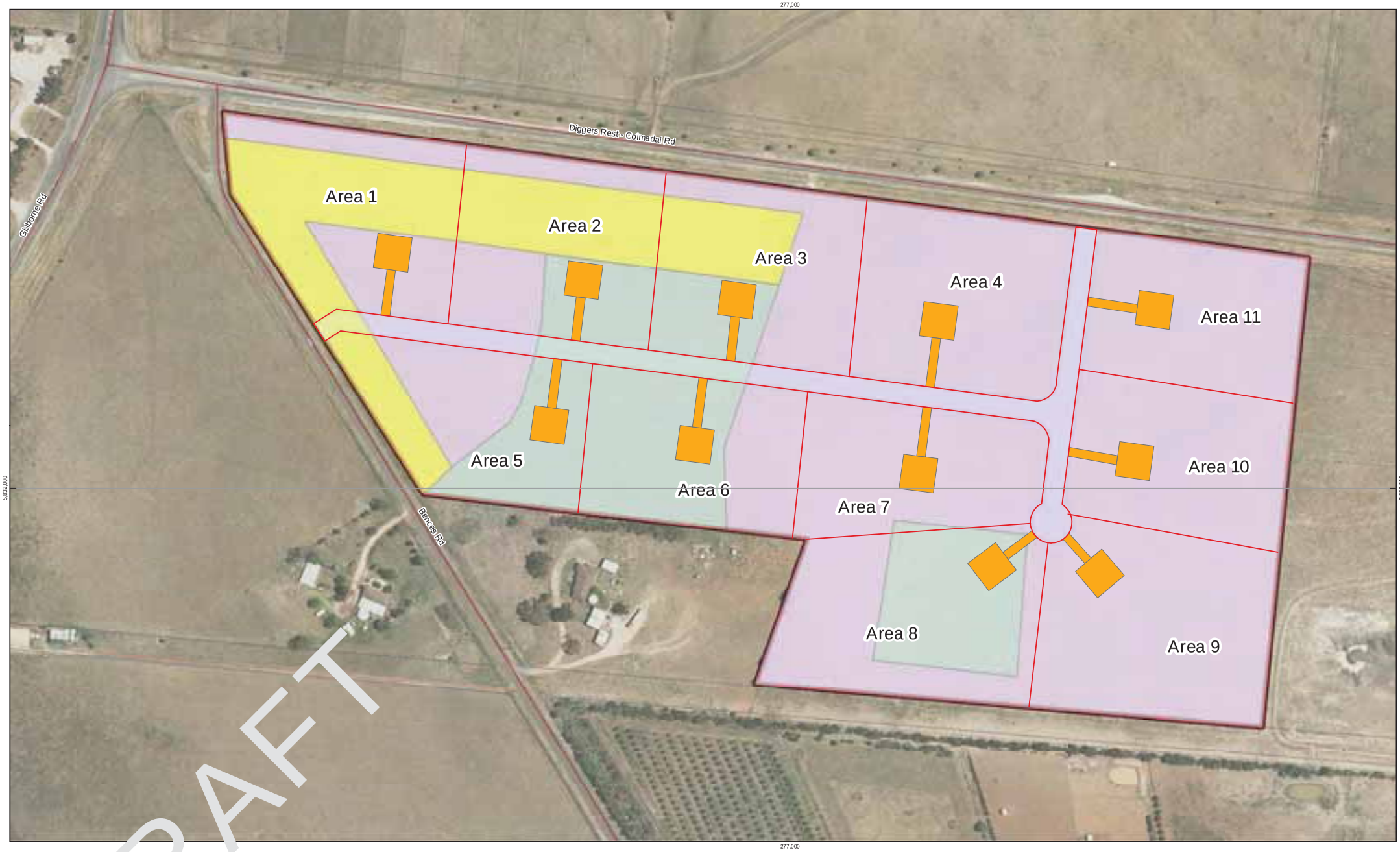

Scale 1:2,500 (At A3)

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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LEGEND

- Site Boundaries
- Option 1 Building Envelope
- Habitat Zone 4
- Minor Treeless Vegetation
- Planted *eucalypts cladocalyx*

Southern Rural Water
Desktop Planning Assessment

Job Number	31-30827
Revision	A
Date	21 Jul 2014

Quarry Block Site
Option 1 Subdivision

Figure

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Appendix E – Habitat Hectare assessment results

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Habitat Hectare results for the Long Forest (three habitat zones: HZ1-3) and Quarry Blocks (one habitat zone: HZ4)

Habitat Zone.			HZ01	HZ02	HZ03	HZ04
			Long Forest	Long Forest	Long Forest	Quarry Block
Bioregion			Central Victorian Uplands	Central Victorian Uplands	Central Victorian Uplands	Victorian Volcanic Plain
EVC Name			Grassy Woodland	Grassy Woodland	Grassy Woodland	Plains Grassland (Low Rainfall)
EVC Number			175	175	175	132_63
		Max Score	Score	Score	Score	Score
Site Condition	Large Old Trees	10	3	0	0	na
	Canopy Cover	5	3	0	0	na
	Under storey	25	15	15	5	15
	Lack of Weeds	15	11	13	6	9
	Recruitment	10	6	6	6	6
	Organic Matter	5	3	5	5	4
	Logs	5	0	0	0	na
Treeless EVC Multiplier		Multiplier	1	1	1	1.36
		Subtotal =	41	39	22	46.24
Landscape value	Patch Size	10	8	8	8	6
	Neighbourhood	10	5	5	5	1
	Distance to Core	5	4	4	4	2
Habitat points out of 100		100	58	56	39	55.24
Habitat Score (habitat points/100)			0.58	0.56	0.39	0.55

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Appendix F – Biodiversity Assessment Reports – Long Forest

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Biodiversity impact and offset requirements report

This report provides additional biodiversity information for moderate and high risk-based pathway applications for permits to remove native vegetation under clause 52.16 or 52.17 of the planning schemes in Victoria

Date of issue: **7/07/2014** **DEPI ref: GHD_0004**
Time of issue: **4:30 PM**

Project ID	Long Forest Option4

Summary of marked native vegetation

Risk-based pathway	**High**
Total extent	1.025 ha
Remnant patches	1.025 ha
Scattered trees	0 trees
Location risk	C

Strategic biodiversity score of all marked native vegetation	0.635

Offset requirements if a permit is granted

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	**Specific offset(s)**
Specific offset amount (specific biodiversity equivalence units) and attributes	0.704 specific units of habitat for Bacchus Marsh Wattle

See Appendices 1 and 2 for details in how offset requirements were determined.

NB: values presented in tables throughout this document may not add to totals due to rounding

Next steps

This proposal to remove native vegetation must meet the application requirements of the high risk-based pathway and it will be assessed under the high risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council.
The biodiversity assessment report from NVIM and this biodiversity impact and offset report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report generated by the tool within NVIM provides the following information:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*
- The risk-based pathway of the application for a permit to remove native vegetation

This report provides the following information to meet application requirements for a permit to remove native vegetation:

- Confirmation of the risk-based pathway of the application for a permit to remove native vegetation
- The strategic biodiversity score of the native vegetation to be removed
- Information to inform the assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.
- The offset requirements should a permit be granted to remove native vegetation.

Additional application requirements must be provided with an application for a permit to remove native vegetation in the moderate or high risk-based pathways. These include:

- A habitat hectare assessment report of the native vegetation that is to be removed
- A statement outlining what steps have been taken to ensure that impacts on biodiversity from the removal of native vegetation have been minimised
- An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

Refer to the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* and for a full list and details of application requirements.

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Obtaining this publication does not guarantee that an application will meet the requirements of clauses 52.16 or 52.17 of the Victoria Planning Provisions or that a permit to remove native vegetation will be granted.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of clauses 52.16 or 52.17 of the Victoria Planning Provisions.

Appendix 1 – Biodiversity impact of removal of native vegetation

Habitat hectares

Habitat hectares are calculated for each habitat zone within your proposal using the extent and condition scores in the GIS data you provided.

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
HZ2	0.560	0.030	0.017
HZ1	0.580	0.031	0.018
HZ3	0.390	0.963	0.376
TOTAL			**0.411**

Impacts on rare or threatened species habitat above specific offset threshold

The specific-general offset test was applied to your proposal. The test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the specific offset threshold. The threshold is set at 0.005 per cent of the total habitat for a species. When the proportional impact is above the specific offset threshold a specific offset for that species' habitat is required.

The specific-general offset test found your proposal has a proportional impact above the specific offset threshold for the following rare or threatened species' habitats.

Species number	Species common name	Species scientific name	Species type	Area of mapped habitat (ha)	Proportional impact (%)
505136	Bacchus Marsh Wattle	Acacia rostriformis	Dispersed	1.025	0.009

Clearing site biodiversity equivalence score(s)

Where a habitat zone requires specific offset(s), the specific biodiversity equivalence score(s) for each species in that habitat zone is calculated by multiplying the habitat hectares of the habitat zone by the habitat importance score for each species impacted in the habitat zone.

Habitat zone	Habitat hectares	Habitat for rare or threatened species				Specific biodiversity equivalence score (SBES)
		Species number	Species common name	Species scientific name	Habitat importance score	
HZ2	0.017	505136	Bacchus Marsh Wattle	Acacia rostriformis	0.910	0.015
HZ1	0.018	505136	Bacchus Marsh Wattle	Acacia rostriformis	0.919	0.017
HZ3	0.376	505136	Bacchus Marsh Wattle	Acacia rostriformis	0.852	0.320

Mapped rare or threatened species' habitats on site

This table sets out the list of rare or threatened species' habitats mapped at the site beyond those species for which the impact is above the specific offset threshold. These species habitats do not require a specific offset according to the specific-general offset test.

Species number	Species common name	Species scientific name
10212	Australasian Shoveler	Anas rhynchotis
10215	Hardhead	Aythya australis
10220	Grey Goshawk	Accipiter novaehollandiae novaehollandiae
10230	Square-tailed Kite	Lophoictinia isura
10238	Black Falcon	Falco subniger
10246	Barking Owl	Ninox connivens connivens
10498	Chestnut-rumped Heathwren	Calamanthus pyrrhopygius
10504	Speckled Warbler	Chthonicola sagittatus
10598	Painted Honeyeater	Grantiella picta
11061	Common Dunnart	Sminthopsis murina murina
12283	Lace Monitor	Varanus varius
13117	Brown Toadlet	Pseudophryne bibronii
15021	Golden Sun Moth	Synemon plana
501456	Clover Glycine	Glycine latrobeana
502746	Snowy Mint-bush	Prostanthera nivea var. nivea
502929	Fragrant Saltbush	Rhagodia parabolica
504484	Melbourne Yellow-gum	Eucalyptus leucoxylon subsp. connata
504655	Pale Swamp Everlasting	Coronidium scorpioides 'aff. rutidolepis (Lowland Swamps)' variant
505337	Austral Crane's-bill	Geranium solanderi var. solanderi s.s.

Appendix 2 – Offset requirements detail

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset.

To calculate the required offset amount required the biodiversity equivalence scores are aggregated to the proposal level and multiplied by the relevant risk multiplier.

Offsets also have required attributes:

- Specific offsets must be located in the same species habitat as that being removed, as determined by the habitat importance map for that species.

The offset requirements for your proposal are as follows:

Offset type	Clearing site biodiversity equivalence score	Risk multiplier	Offset requirements	
			Offset amount (biodiversity equivalence units)	Offset attributes
Specific	0.352 SBES	2	0.704 specific units	Offset must provide habitat for *505136, Bacchus Marsh Wattle, Acacia rostriformis*

Appendix 3 – Images of marked native vegetation

Image 1. Native vegetation location risk map

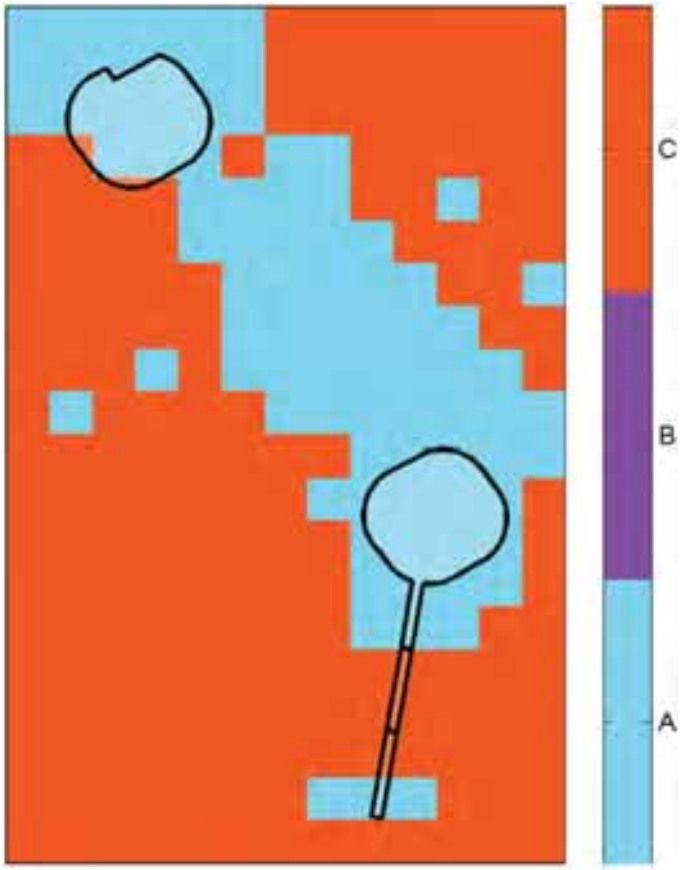


Image 2. Strategic biodiversity score map

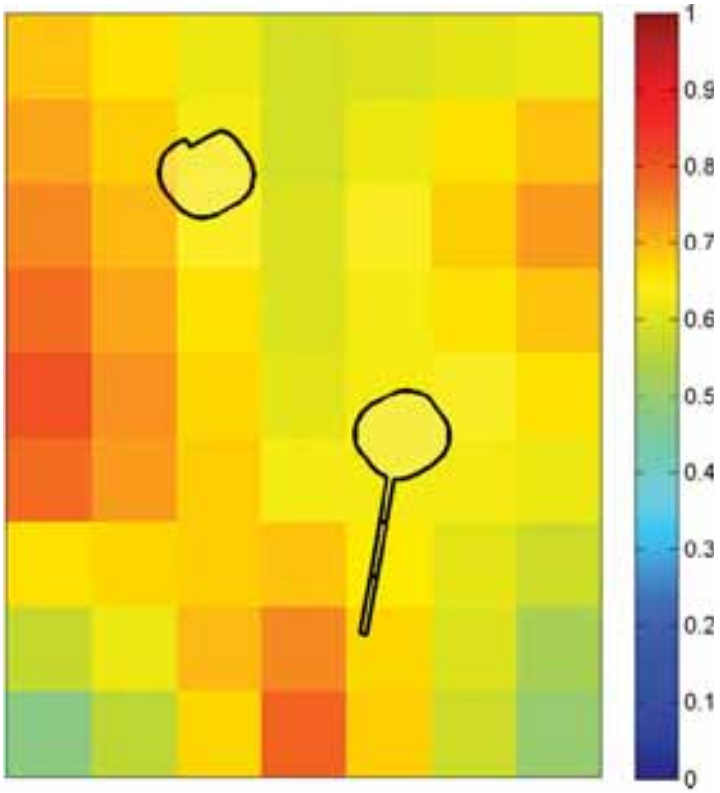
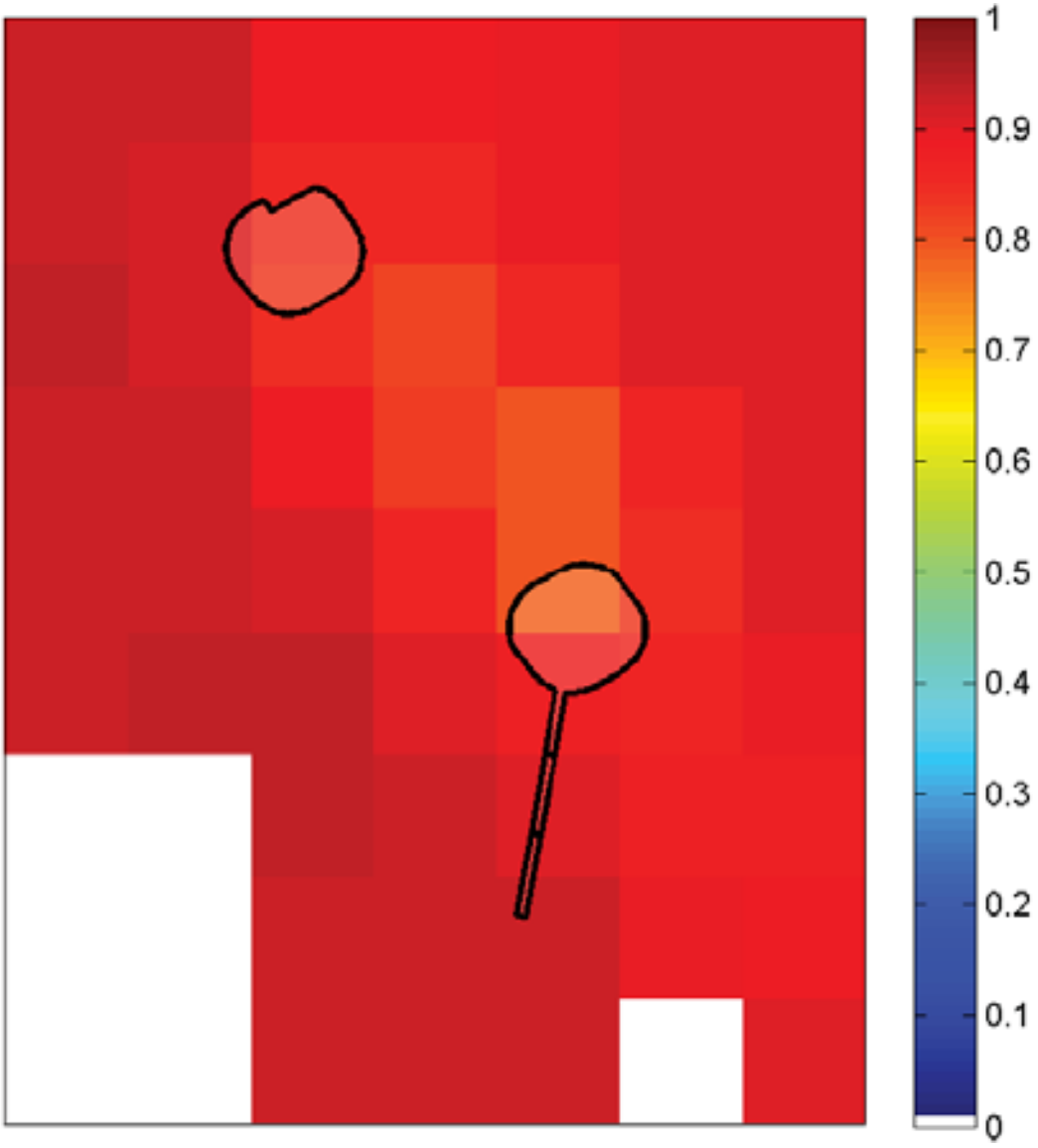


Image 3. Aerial photograph showing marked native vegetation

Image 4. Habitat importance map – 505136, Bacchus Marsh Wattle, Acacia rostriformis



Glossary

Condition score

This is the site-assessed condition score for the native vegetation. Each habitat zone in the clearing proposal is assigned a condition score according to the habitat hectare assessment method. This information has been provided by or on behalf of the applicant in the GIS file.

Dispersed habitat

A dispersed species habitat is a habitat for a rare or threatened species whose habitat is spread over a relatively broad geographic area greater than 2,000 hectares.

General biodiversity equivalence score

The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to Victoria's biodiversity. The general biodiversity equivalence score is calculated as follows:

$$\boldsymbol{General\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{strategic\ biodiversity\ score}$$

General offset amount

This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ general\ biodiversity\ equivalence\ score} = \boldsymbol{general\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{1.5}$$

General offset attributes

General offset must be located in the same Catchment Management Authority boundary or Municipal District (local council) as the clearing site. They must also have a strategic biodiversity score that is at least 80 per cent of the score of the clearing site.

Habitat hectares

Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation. Habitat hectares can be calculated for a remnant patch or for scattered trees or a combination of these two vegetation types. This value is calculated for each habitat zone using the following formula:

$$\boldsymbol{Habitat\ hectares} = \boldsymbol{total\ extent}\ (\boldsymbol{hectares}) \times \boldsymbol{condition\ score}$$

Habitat importance score

The habitat importance score is a measure of the importance of the habitat located on a site for a particular rare or threatened species. The habitat importance score for a species is a weighted average value calculated from the habitat importance map for that species. The habitat importance score is calculated for each habitat zone where the habitat importace map indicates that species habitat occurs.

Habitat zone

Habitat zone is a discrete contiguous area of native vegetation that:

- is of a single Ecological Vegetation Class
- has the same measured condition.

Highly localised habitat

A highly localised habitat is habitat for a rare or threatened species that is spread across a very restricted area (less than 2,000 hectares). This can also be applied to a similarly limited sub-habitat that is disproportionately important for a wide-ranging rare or threatened species. Highly localised habitats have the highest habitat importance score (1) for all locations where they are present.

Minimum strategic biodiversity score

The minimum strategic biodiversity score is an attribute for a general offset.

The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed. Where a specific and general offset is required, the minimum strategic biodiversity score relates only to the habitat zones that require the general offset.

Offset risk factor

There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.

To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.

$$\boldsymbol{Risk\ factor\ for\ general\ offsets} = \mathbf{1.5}$$

$$\boldsymbol{Risk\ factor\ for\ specific\ offset} = \mathbf{2}$$

Offset type

The specific-general offset test determines the offset type required.

When the specific-general offset test determines that the native vegetation removal will have an impact on one or more rare or threatened species habitat above the set threshold of 0.005 per cent, a specific offset is required. This test is done at the permit application level.

A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have an impact on any habitat for any rare or threatened species above the set threshold of 0.005 per cent. All habitat zones that do not require a specific offset will require a general offset.

Proportional impact on species

This is the outcome of the specific-general offset test. The specific-general offset test is calculated across the entire proposal for each species on the native vegetation permitted clearing species list. If the proportional impact on a species is above the set threshold of 0.005 per cent then a specific offset is required for that species.

Specific offset amount

The specific offset amount is calculated by multiplying the specific biodiversity equivalence score of the native vegetation to be removed by the risk factor for specific offsets. This number is expressed in specific biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ specific\ biodiversity\ equivalence\ score} = \boldsymbol{specific\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{2}$$

Specific offset attributes

Specific offsets must be located in the modelled habitat for the species that has triggered the specific offset requirement.

Specific biodiversity equivalence score

The specific biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to the habitat of the relevant rare or threatened species. It is calculated for each habitat zone where one or more species habitats require a specific offset as a result of the specific-general offset test as follows:

$$\boldsymbol{Specific\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{habitat\ importance\ score}$$

Strategic biodiversity score

This is the weighted average strategic biodiversity score of the marked native vegetation. The strategic biodiversity score has been calculated from the *Strategic biodiversity map* for each habitat zone .

The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The *Strategic biodiversity map* is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.

Total extent (hectares) for calculating habitat hectares

This is the total area of the marked native vegetation in hectares.

The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree. This information has been provided by or on behalf of the applicant in the GIS file.

Vicinity

The vicinity is an attribute for a general offset.

The offset site must be located within the same Catchment Management Authority boundary or Local Municipal District as the native vegetation to be removed.

Biodiversity impact and offset requirements report

This report provides additional biodiversity information for moderate and high risk-based pathway applications for permits to remove native vegetation under clause 52.16 or 52.17 of the planning schemes in Victoria

Date of issue: **7/07/2014** **DEPI ref: GHD_0003**
Time of issue: **4:12 PM**

Project ID	Long Forest Option3

Summary of marked native vegetation

Risk-based pathway	**High**
Total extent	1.010 ha
Remnant patches	1.010 ha
Scattered trees	0 trees
Location risk	C

Strategic biodiversity score of all marked native vegetation	0.635

Offset requirements if a permit is granted

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	**Specific offset(s)**
Specific offset amount (specific biodiversity equivalence units) and attributes	0.688 specific units of habitat for Bacchus Marsh Wattle

See Appendices 1 and 2 for details in how offset requirements were determined.

NB: values presented in tables throughout this document may not add to totals due to rounding

Next steps

This proposal to remove native vegetation must meet the application requirements of the high risk-based pathway and it will be assessed under the high risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council.
The biodiversity assessment report from NVIM and this biodiversity impact and offset report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report generated by the tool within NVIM provides the following information:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*
- The risk-based pathway of the application for a permit to remove native vegetation

This report provides the following information to meet application requirements for a permit to remove native vegetation:

- Confirmation of the risk-based pathway of the application for a permit to remove native vegetation
- The strategic biodiversity score of the native vegetation to be removed
- Information to inform the assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.
- The offset requirements should a permit be granted to remove native vegetation.

Additional application requirements must be provided with an application for a permit to remove native vegetation in the moderate or high risk-based pathways. These include:

- A habitat hectare assessment report of the native vegetation that is to be removed
- A statement outlining what steps have been taken to ensure that impacts on biodiversity from the removal of native vegetation have been minimised
- An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

Refer to the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* and for a full list and details of application requirements.

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Obtaining this publication does not guarantee that an application will meet the requirements of clauses 52.16 or 52.17 of the Victoria Planning Provisions or that a permit to remove native vegetation will be granted.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of clauses 52.16 or 52.17 of the Victoria Planning Provisions.

Appendix 1 – Biodiversity impact of removal of native vegetation

Habitat hectares

Habitat hectares are calculated for each habitat zone within your proposal using the extent and condition scores in the GIS data you provided.

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
HZ1	0.580	0.041	0.024
HZ2	0.560	0.011	0.006
HZ3	0.390	0.959	0.374
TOTAL			**0.404**

Impacts on rare or threatened species habitat above specific offset threshold

The specific-general offset test was applied to your proposal. The test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the specific offset threshold. The threshold is set at 0.005 per cent of the total habitat for a species. When the proportional impact is above the specific offset threshold a specific offset for that species' habitat is required.

The specific-general offset test found your proposal has a proportional impact above the specific offset threshold for the following rare or threatened species' habitats.

Species number	Species common name	Species scientific name	Species type	Area of mapped habitat (ha)	Proportional impact (%)
505136	Bacchus Marsh Wattle	Acacia rostriformis	Dispersed	1.010	0.008

Clearing site biodiversity equivalence score(s)

Where a habitat zone requires specific offset(s), the specific biodiversity equivalence score(s) for each species in that habitat zone is calculated by multiplying the habitat hectares of the habitat zone by the habitat importance score for each species impacted in the habitat zone.

Habitat zone	Habitat hectares	Habitat for rare or threatened species				Specific biodiversity equivalence score (SBES)
		Species number	Species common name	Species scientific name	Habitat importance score	
HZ1	0.024	505136	Bacchus Marsh Wattle	Acacia rostriformis	0.874	0.021
HZ2	0.006	505136	Bacchus Marsh Wattle	Acacia rostriformis	0.851	0.005
HZ3	0.374	505136	Bacchus Marsh Wattle	Acacia rostriformis	0.851	0.318

Mapped rare or threatened species' habitats on site

This table sets out the list of rare or threatened species' habitats mapped at the site beyond those species for which the impact is above the specific offset threshold. These species habitats do not require a specific offset according to the specific-general offset test.

Species number	Species common name	Species scientific name
10212	Australasian Shoveler	Anas rhynchotis
10215	Hardhead	Aythya australis
10220	Grey Goshawk	Accipiter novaehollandiae novaehollandiae
10230	Square-tailed Kite	Lophoictinia isura
10238	Black Falcon	Falco subniger
10246	Barking Owl	Ninox connivens connivens
10498	Chestnut-rumped Heathwren	Calamanthus pyrrhopygius
10504	Speckled Warbler	Chthonicola sagittatus
10598	Painted Honeyeater	Grantiella picta
11061	Common Dunnart	Sminthopsis murina murina
12283	Lace Monitor	Varanus varius
13117	Brown Toadlet	Pseudophryne bibronii
15021	Golden Sun Moth	Synemon plana
501456	Clover Glycine	Glycine latrobeana
502929	Fragrant Saltbush	Rhagodia parabolica
504484	Melbourne Yellow-gum	Eucalyptus leucoxylon subsp. connata
504655	Pale Swamp Everlasting	Coronidium scorpioides 'aff. rutidolepis (Lowland Swamps)' variant
505337	Austral Crane's-bill	Geranium solanderi var. solanderi s.s.

Appendix 2 – Offset requirements detail

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset.

To calculate the required offset amount required the biodiversity equivalence scores are aggregated to the proposal level and multiplied by the relevant risk multiplier.

Offsets also have required attributes:

- Specific offsets must be located in the same species habitat as that being removed, as determined by the habitat importance map for that species.

The offset requirements for your proposal are as follows:

Offset type	Clearing site biodiversity equivalence score	Risk multiplier	Offset requirements	
			Offset amount (biodiversity equivalence units)	Offset attributes
Specific	0.344 SBES	2	0.688 specific units	Offset must provide habitat for *505136, Bacchus Marsh Wattle, Acacia rostriformis*

Appendix 3 – Images of marked native vegetation

Image 1. Native vegetation location risk map

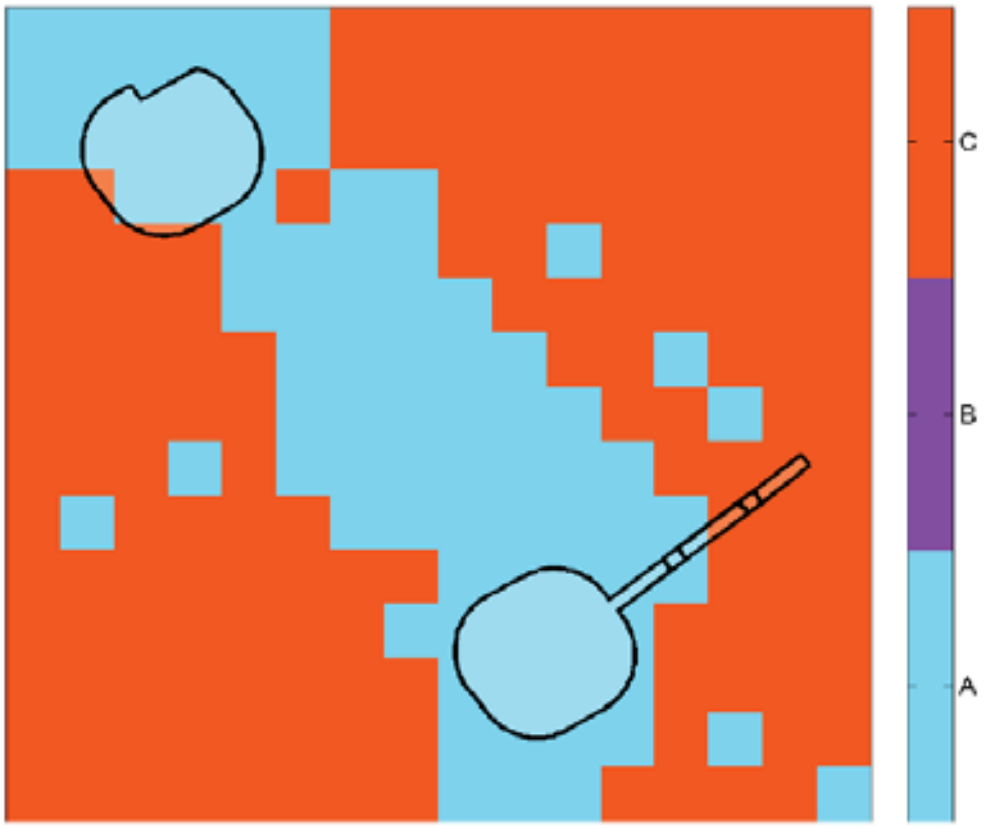


Image 2. Strategic biodiversity score map

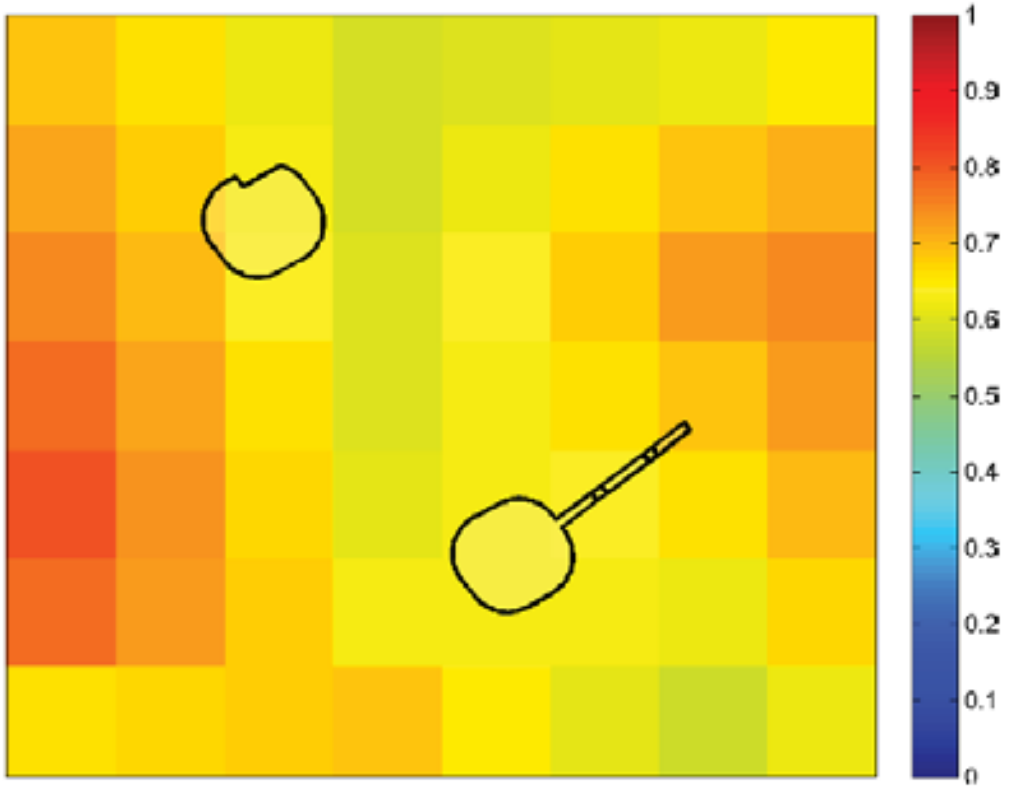
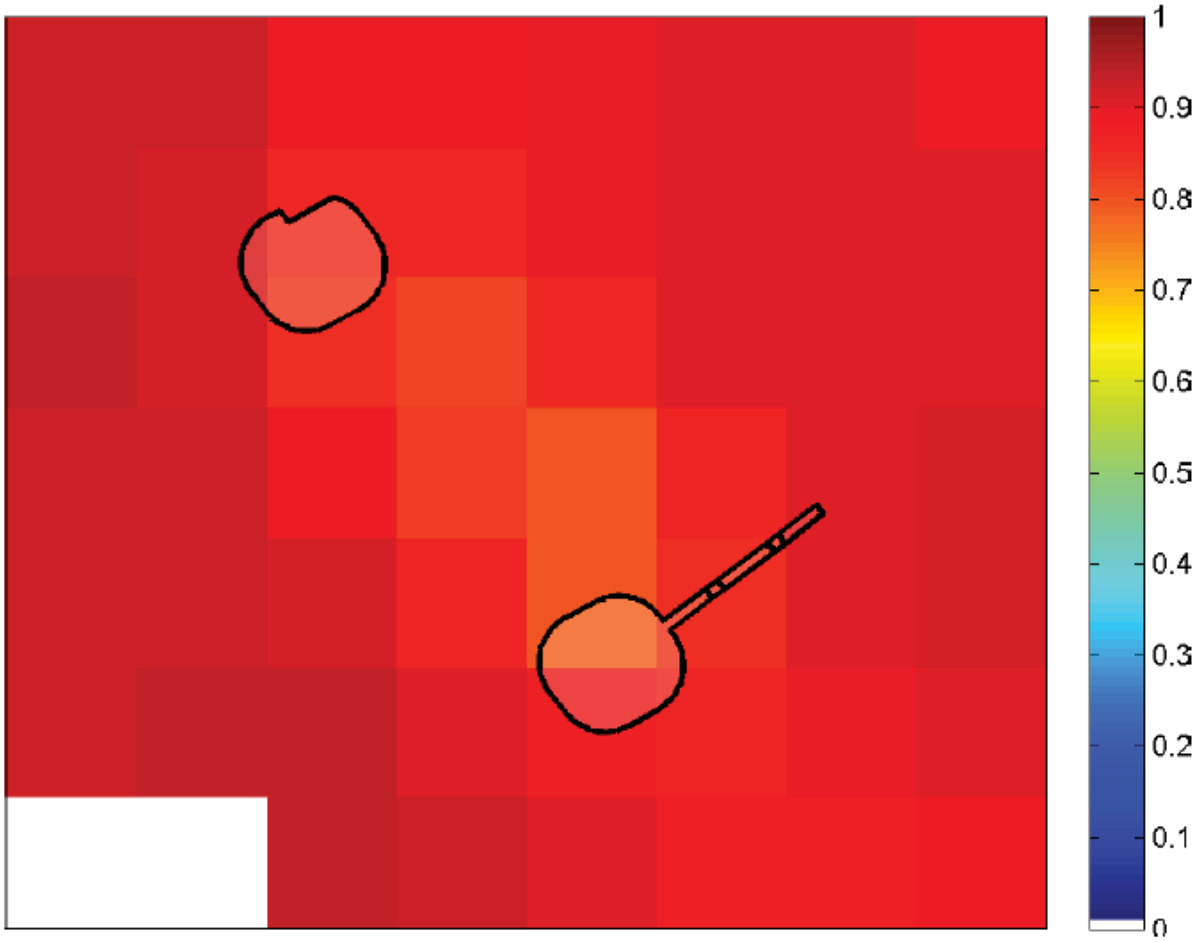


Image 3. Aerial photograph showing marked native vegetation

Image 4. Habitat importance map – 505136, Bacchus Marsh Wattle, Acacia rostriformis



Glossary

Condition score

This is the site-assessed condition score for the native vegetation. Each habitat zone in the clearing proposal is assigned a condition score according to the habitat hectare assessment method. This information has been provided by or on behalf of the applicant in the GIS file.

Dispersed habitat

A dispersed species habitat is a habitat for a rare or threatened species whose habitat is spread over a relatively broad geographic area greater than 2,000 hectares.

General biodiversity equivalence score

The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to Victoria's biodiversity. The general biodiversity equivalence score is calculated as follows:

$$\boldsymbol{General\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{strategic\ biodiversity\ score}$$

General offset amount

This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ general\ biodiversity\ equivalence\ score} = \boldsymbol{general\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{1.5}$$

General offset attributes

General offset must be located in the same Catchment Management Authority boundary or Municipal District (local council) as the clearing site. They must also have a strategic biodiversity score that is at least 80 per cent of the score of the clearing site.

Habitat hectares

Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation. Habitat hectares can be calculated for a remnant patch or for scattered trees or a combination of these two vegetation types. This value is calculated for each habitat zone using the following formula:

$$\boldsymbol{Habitat\ hectares} = \boldsymbol{total\ extent}\ (\boldsymbol{hectares}) \times \boldsymbol{condition\ score}$$

Habitat importance score

The habitat importance score is a measure of the importance of the habitat located on a site for a particular rare or threatened species. The habitat importance score for a species is a weighted average value calculated from the habitat importance map for that species. The habitat importance score is calculated for each habitat zone where the habitat importace map indicates that species habitat occurs.

Habitat zone

Habitat zone is a discrete contiguous area of native vegetation that:

- is of a single Ecological Vegetation Class
- has the same measured condition.

Highly localised habitat

A highly localised habitat is habitat for a rare or threatened species that is spread across a very restricted area (less than 2,000 hectares). This can also be applied to a similarly limited sub-habitat that is disproportionately important for a wide-ranging rare or threatened species. Highly localised habitats have the highest habitat importance score (1) for all locations where they are present.

Minimum strategic biodiversity score

The minimum strategic biodiversity score is an attribute for a general offset.

The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed. Where a specific and general offset is required, the minimum strategic biodiversity score relates only to the habitat zones that require the general offset.

Offset risk factor

There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.

To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.

$$\boldsymbol{Risk\ factor\ for\ general\ offsets} = \mathbf{1.5}$$

$$\boldsymbol{Risk\ factor\ for\ specific\ offset} = \mathbf{2}$$

Offset type

The specific-general offset test determines the offset type required.

When the specific-general offset test determines that the native vegetation removal will have an impact on one or more rare or threatened species habitat above the set threshold of 0.005 per cent, a specific offset is required. This test is done at the permit application level.

A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have an impact on any habitat for any rare or threatened species above the set threshold of 0.005 per cent. All habitat zones that do not require a specific offset will require a general offset.

Proportional impact on species

This is the outcome of the specific-general offset test. The specific-general offset test is calculated across the entire proposal for each species on the native vegetation permitted clearing species list. If the proportional impact on a species is above the set threshold of 0.005 per cent then a specific offset is required for that species.

Specific offset amount

The specific offset amount is calculated by multiplying the specific biodiversity equivalence score of the native vegetation to be removed by the risk factor for specific offsets. This number is expressed in specific biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ specific\ biodiversity\ equivalence\ score} = \boldsymbol{specific\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{2}$$

Specific offset attributes

Specific offsets must be located in the modelled habitat for the species that has triggered the specific offset requirement.

Specific biodiversity equivalence score

The specific biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to the habitat of the relevant rare or threatened species. It is calculated for each habitat zone where one or more species habitats require a specific offset as a result of the specific-general offset test as follows:

$$\boldsymbol{Specific\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{habitat\ importance\ score}$$

Strategic biodiversity score

This is the weighted average strategic biodiversity score of the marked native vegetation. The strategic biodiversity score has been calculated from the *Strategic biodiversity map* for each habitat zone .

The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The *Strategic biodiversity map* is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.

Total extent (hectares) for calculating habitat hectares

This is the total area of the marked native vegetation in hectares.

The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree. This information has been provided by or on behalf of the applicant in the GIS file.

Vicinity

The vicinity is an attribute for a general offset.

The offset site must be located within the same Catchment Management Authority boundary or Local Municipal District as the native vegetation to be removed.

Biodiversity impact and offset requirements report

This report provides additional biodiversity information for moderate and high risk-based pathway applications for permits to remove native vegetation under clause 52.16 or 52.17 of the planning schemes in Victoria

Date of issue: **7/07/2014** **DEPI ref: GHD_0002**
Time of issue: **4:00 PM**

Project ID	Long Forest Option2

Summary of marked native vegetation

Risk-based pathway	**High**
Total extent	0.169 ha
Remnant patches	0.169 ha
Scattered trees	0 trees
Location risk	C

Strategic biodiversity score of all marked native vegetation	0.638

Offset requirements if a permit is granted

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	**General offset**
General offset amount (general biodiversity equivalence units)	0.074 general units
General offset attributes	
Vicinity	Port Phillip And Westernport Catchment Management Authority (CMA) **or** the Local Municipal District where clearing takes place
Minimum strategic biodiversity score	0.510[1]

See Appendices 1 and 2 for details in how offset requirements were determined.

NB: values presented in tables throughout this document may not add to totals due to rounding

[1] Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

This proposal to remove native vegetation must meet the application requirements of the high risk-based pathway and it will be assessed under the high risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council.
The biodiversity assessment report from NVIM and this biodiversity impact and offset report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report generated by the tool within NVIM provides the following information:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*
- The risk-based pathway of the application for a permit to remove native vegetation

This report provides the following information to meet application requirements for a permit to remove native vegetation:

- Confirmation of the risk-based pathway of the application for a permit to remove native vegetation
- The strategic biodiversity score of the native vegetation to be removed
- Information to inform the assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.
- The offset requirements should a permit be granted to remove native vegetation.

Additional application requirements must be provided with an application for a permit to remove native vegetation in the moderate or high risk-based pathways. These include:

- A habitat hectare assessment report of the native vegetation that is to be removed
- A statement outlining what steps have been taken to ensure that impacts on biodiversity from the removal of native vegetation have been minimised
- An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

Refer to the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* and for a full list and details of application requirements.

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Appendix 1 – Biodiversity impact of removal of native vegetation

Habitat hectares

Habitat hectares are calculated for each habitat zone within your proposal using the extent and condition scores in the GIS data you provided.

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
HZ3	0.390	0.108	0.042
HZ2	0.560	0.030	0.017
HZ1	0.580	0.031	0.018
TOTAL			**0.077**

Impacts on rare or threatened species habitat above specific offset threshold

The specific-general offset test was applied to your proposal. The test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the specific offset threshold. The threshold is set at 0.005 per cent of the total habitat for a species. When the proportional impact is above the specific offset threshold a specific offset for that species' habitat is required.

The specific-general offset test found your proposal does not have a proportional impact on any rare or threatened species' habitats above the specific offset threshold. No specific offsets are required. A general offset is required as set out below.

Clearing site biodiversity equivalence score(s)

The general biodiversity equivalence score for the habitat zone(s) is calculated by multiplying the habitat hectares by the strategic biodiversity score.

Habitat zone	Habitat hectares	Strategic biodiversity score	General biodiversity equivalence score (GBES)
HZ3	0.042	0.629	0.026
HZ2	0.017	0.648	0.011
HZ1	0.018	0.658	0.012

Mapped rare or threatened species' habitats on site

This table sets out the list of rare or threatened species' habitats mapped at the site beyond those species for which the impact is above the specific offset threshold. These species habitats do not require a specific offset according to the specific-general offset test.

Species number	Species common name	Species scientific name
10212	Australasian Shoveler	Anas rhynchotis
10215	Hardhead	Aythya australis
10220	Grey Goshawk	Accipiter novaehollandiae novaehollandiae
10230	Square-tailed Kite	Lophoictinia isura
10238	Black Falcon	Falco subniger
10246	Barking Owl	Ninox connivens connivens
10498	Chestnut-rumped Heathwren	Calamanthus pyrrhopygius
10504	Speckled Warbler	Chthonicola sagittatus
10598	Painted Honeyeater	Grantiella picta
11061	Common Dunnart	Sminthopsis murina murina
12283	Lace Monitor	Varanus varius
13117	Brown Toadlet	Pseudophryne bibronii
15021	Golden Sun Moth	Synemon plana
501456	Clover Glycine	Glycine latrobeana
502746	Snowy Mint-bush	Prostanthera nivea var. nivea
502929	Fragrant Saltbush	Rhagodia parabolica
504484	Melbourne Yellow-gum	Eucalyptus leucoxylon subsp. connata
504655	Pale Swamp Everlasting	Coronidium scorpioides 'aff. rutidolepis (Lowland Swamps)' variant
505136	Bacchus Marsh Wattle	Acacia rostriformis
505337	Austral Crane's-bill	Geranium solanderi var. solanderi s.s.

Appendix 2 – Offset requirements detail

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset.

To calculate the required offset amount required the biodiversity equivalence scores are aggregated to the proposal level and multiplied by the relevant risk multiplier.

Offsets also have required attributes:

- General offsets must be located in the same Catchment Management Authority (CMA) boundary or Local Municipal District (local council) as the clearing and must have a minimum strategic biodiversity score of 80 per cent of the clearing.[2]

The offset requirements for your proposal are as follows:

Offset type	Clearing site biodiversity equivalence score	Risk multiplier	Offset requirements	
			Offset amount (biodiversity equivalence units)	Offset attributes
General	0.049 GBES	1.5	0.074 general units	Offset must be within Port Phillip And Westernport CMA **or** the same Municipal District as the vegetation removal Offset must have a minimum strategic biodiversity score of 0.510

[2] Strategic biodiversity score is a weighted average across habitat zones where a general offset is required

Appendix 3 – Images of marked native vegetation

Image 1. Native vegetation location risk map

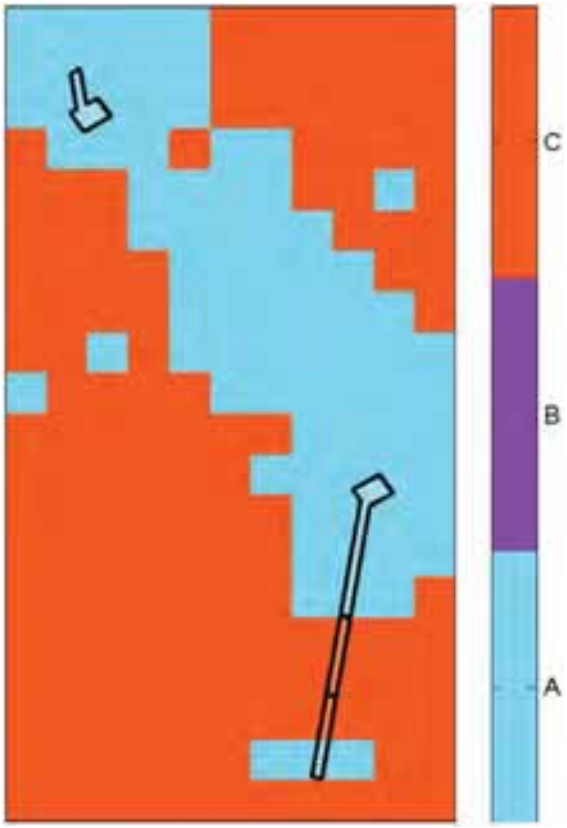

Image 2. Strategic biodiversity score map

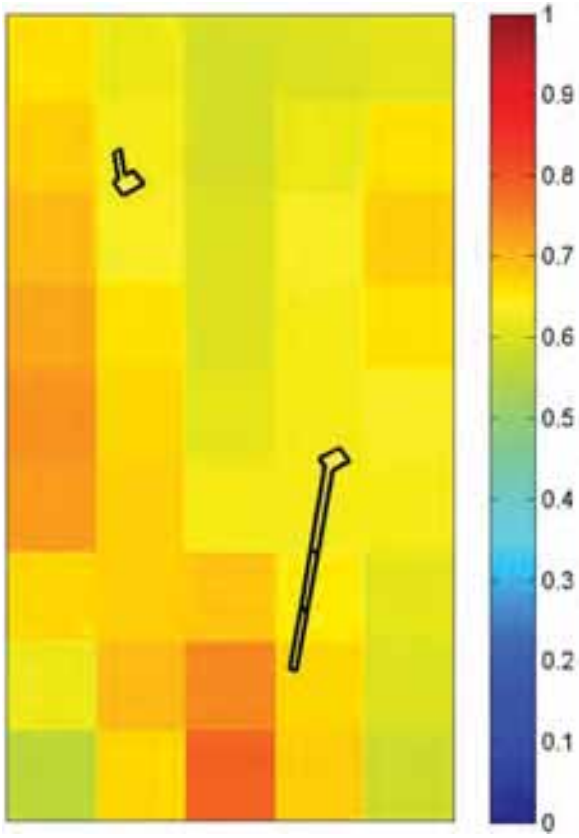

Image 3. Aerial photograph showing marked native vegetation

Glossary

Condition score

This is the site-assessed condition score for the native vegetation. Each habitat zone in the clearing proposal is assigned a condition score according to the habitat hectare assessment method. This information has been provided by or on behalf of the applicant in the GIS file.

Dispersed habitat

A dispersed species habitat is a habitat for a rare or threatened species whose habitat is spread over a relatively broad geographic area greater than 2,000 hectares.

General biodiversity equivalence score

The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to Victoria's biodiversity. The general biodiversity equivalence score is calculated as follows:

$$\boldsymbol{General\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{strategic\ biodiversity\ score}$$

General offset amount

This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ general\ biodiversity\ equivalence\ score} = \boldsymbol{general\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{1.5}$$

General offset attributes

General offset must be located in the same Catchment Management Authority boundary or Municipal District (local council) as the clearing site. They must also have a strategic biodiversity score that is at least 80 per cent of the score of the clearing site.

Habitat hectares

Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation. Habitat hectares can be calculated for a remnant patch or for scattered trees or a combination of these two vegetation types. This value is calculated for each habitat zone using the following formula:

$$\boldsymbol{Habitat\ hectares} = \boldsymbol{total\ extent}\ (\boldsymbol{hectares}) \times \boldsymbol{condition\ score}$$

Habitat importance score

The habitat importance score is a measure of the importance of the habitat located on a site for a particular rare or threatened species. The habitat importance score for a species is a weighted average value calculated from the habitat importance map for that species. The habitat importance score is calculated for each habitat zone where the habitat importace map indicates that species habitat occurs.

Habitat zone

Habitat zone is a discrete contiguous area of native vegetation that:

- is of a single Ecological Vegetation Class
- has the same measured condition.

Highly localised habitat

A highly localised habitat is habitat for a rare or threatened species that is spread across a very restricted area (less than 2,000 hectares). This can also be applied to a similarly limited sub-habitat that is disproportionately important for a wide-ranging rare or threatened species. Highly localised habitats have the highest habitat importance score (1) for all locations where they are present.

Minimum strategic biodiversity score

The minimum strategic biodiversity score is an attribute for a general offset.

The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed. Where a specific and general offset is required, the minimum strategic biodiversity score relates only to the habitat zones that require the general offset.

Offset risk factor

There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.

To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.

$$\boldsymbol{Risk\ factor\ for\ general\ offsets} = \mathbf{1.5}$$

$$\boldsymbol{Risk\ factor\ for\ specific\ offset} = \mathbf{2}$$

Offset type

The specific-general offset test determines the offset type required.

When the specific-general offset test determines that the native vegetation removal will have an impact on one or more rare or threatened species habitat above the set threshold of 0.005 per cent, a specific offset is required. This test is done at the permit application level.

A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have an impact on any habitat for any rare or threatened species above the set threshold of 0.005 per cent. All habitat zones that do not require a specific offset will require a general offset.

Proportional impact on species

This is the outcome of the specific-general offset test. The specific-general offset test is calculated across the entire proposal for each species on the native vegetation permitted clearing species list. If the proportional impact on a species is above the set threshold of 0.005 per cent then a specific offset is required for that species.

Specific offset amount

The specific offset amount is calculated by multiplying the specific biodiversity equivalence score of the native vegetation to be removed by the risk factor for specific offsets. This number is expressed in specific biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ specific\ biodiversity\ equivalence\ score} = \boldsymbol{specific\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{2}$$

Specific offset attributes

Specific offsets must be located in the modelled habitat for the species that has triggered the specific offset requirement.

Specific biodiversity equivalence score

The specific biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to the habitat of the relevant rare or threatened species. It is calculated for each habitat zone where one or more species habitats require a specific offset as a result of the specific-general offset test as follows:

$$\boldsymbol{Specific\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{habitat\ importance\ score}$$

Strategic biodiversity score

This is the weighted average strategic biodiversity score of the marked native vegetation. The strategic biodiversity score has been calculated from the *Strategic biodiversity map* for each habitat zone .

The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The *Strategic biodiversity map* is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.

Total extent (hectares) for calculating habitat hectares

This is the total area of the marked native vegetation in hectares.

The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree. This information has been provided by or on behalf of the applicant in the GIS file.

Vicinity

The vicinity is an attribute for a general offset.

The offset site must be located within the same Catchment Management Authority boundary or Local Municipal District as the native vegetation to be removed.

Biodiversity impact and offset requirements report

This report provides additional biodiversity information for moderate and high risk-based pathway applications for permits to remove native vegetation under clause 52.16 or 52.17 of the planning schemes in Victoria

Date of issue: **7/07/2014** **DEPI ref: GHD_0001**
Time of issue: **3:59 PM**

Project ID	Long Forest Option1

Summary of marked native vegetation

Risk-based pathway	**High**
Total extent	0.154 ha
Remnant patches	0.154 ha
Scattered trees	0 trees
Location risk	C

Strategic biodiversity score of all marked native vegetation	0.640

Offset requirements if a permit is granted

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	**General offset**
General offset amount (general biodiversity equivalence units)	0.067 general units
General offset attributes	
Vicinity	Port Phillip And Westernport Catchment Management Authority (CMA) **or** the Local Municipal District where clearing takes place
Minimum strategic biodiversity score	0.512[1]

See Appendices 1 and 2 for details in how offset requirements were determined.

NB: values presented in tables throughout this document may not add to totals due to rounding

[1] Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

This proposal to remove native vegetation must meet the application requirements of the high risk-based pathway and it will be assessed under the high risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council.
The biodiversity assessment report from NVIM and this biodiversity impact and offset report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report generated by the tool within NVIM provides the following information:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*
- The risk-based pathway of the application for a permit to remove native vegetation

This report provides the following information to meet application requirements for a permit to remove native vegetation:

- Confirmation of the risk-based pathway of the application for a permit to remove native vegetation
- The strategic biodiversity score of the native vegetation to be removed
- Information to inform the assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.
- The offset requirements should a permit be granted to remove native vegetation.

Additional application requirements must be provided with an application for a permit to remove native vegetation in the moderate or high risk-based pathways. These include:

- A habitat hectare assessment report of the native vegetation that is to be removed
- A statement outlining what steps have been taken to ensure that impacts on biodiversity from the removal of native vegetation have been minimised
- An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

Refer to the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* and for a full list and details of application requirements.

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Obtaining this publication does not guarantee that an application will meet the requirements of clauses 52.16 or 52.17 of the Victoria Planning Provisions or that a permit to remove native vegetation will be granted.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of clauses 52.16 or 52.17 of the Victoria Planning Provisions.

Appendix 1 – Biodiversity impact of removal of native vegetation

Habitat hectares

Habitat hectares are calculated for each habitat zone within your proposal using the extent and condition scores in the GIS data you provided.

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
HZ3	0.390	0.103	0.040
HZ1	0.580	0.041	0.024
HZ2	0.560	0.011	0.006
TOTAL			**0.070**

Impacts on rare or threatened species habitat above specific offset threshold

The specific-general offset test was applied to your proposal. The test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the specific offset threshold. The threshold is set at 0.005 per cent of the total habitat for a species. When the proportional impact is above the specific offset threshold a specific offset for that species' habitat is required.

The specific-general offset test found your proposal does not have a proportional impact on any rare or threatened species' habitats above the specific offset threshold. No specific offsets are required. A general offset is required as set out below.

Clearing site biodiversity equivalence score(s)

The general biodiversity equivalence score for the habitat zone(s) is calculated by multiplying the habitat hectares by the strategic biodiversity score.

Habitat zone	Habitat hectares	Strategic biodiversity score	General biodiversity equivalence score (GBES)
HZ3	0.040	0.632	0.025
HZ1	0.024	0.661	0.016
HZ2	0.006	0.642	0.004

Mapped rare or threatened species' habitats on site

This table sets out the list of rare or threatened species' habitats mapped at the site beyond those species for which the impact is above the specific offset threshold. These species habitats do not require a specific offset according to the specific-general offset test.

Species number	Species common name	Species scientific name
10212	Australasian Shoveler	Anas rhynchotis
10215	Hardhead	Aythya australis
10220	Grey Goshawk	Accipiter novaehollandiae novaehollandiae
10230	Square-tailed Kite	Lophoictinia isura
10238	Black Falcon	Falco subniger
10246	Barking Owl	Ninox connivens connivens
10498	Chestnut-rumped Heathwren	Calamanthus pyrrhopygius
10504	Speckled Warbler	Chthonicola sagittatus
10598	Painted Honeyeater	Grantiella picta
11061	Common Dunnart	Sminthopsis murina murina
12283	Lace Monitor	Varanus varius
13117	Brown Toadlet	Pseudophryne bibronii
15021	Golden Sun Moth	Synemon plana
501456	Clover Glycine	Glycine latrobeana
502929	Fragrant Saltbush	Rhagodia parabolica
504484	Melbourne Yellow-gum	Eucalyptus leucoxylon subsp. connata
504655	Pale Swamp Everlasting	Coronidium scorpioides 'aff. rutidolepis (Lowland Swamps)' variant
505136	Bacchus Marsh Wattle	Acacia rostriformis
505337	Austral Crane's-bill	Geranium solanderi var. solanderi s.s.

Appendix 2 – Offset requirements detail

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset.

To calculate the required offset amount required the biodiversity equivalence scores are aggregated to the proposal level and multiplied by the relevant risk multiplier.

Offsets also have required attributes:

- General offsets must be located in the same Catchment Management Authority (CMA) boundary or Local Municipal District (local council) as the clearing and must have a minimum strategic biodiversity score of 80 per cent of the clearing.[2]

The offset requirements for your proposal are as follows:

Offset type	Clearing site biodiversity equivalence score	Risk multiplier	Offset requirements	
			Offset amount (biodiversity equivalence units)	Offset attributes
General	0.045 GBES	1.5	0.067 general units	Offset must be within Port Phillip And Westernport CMA **or** the same Municipal District as the vegetation removal Offset must have a minimum strategic biodiversity score of 0.512

[2] Strategic biodiversity score is a weighted average across habitat zones where a general offset is required

Appendix 3 – Images of marked native vegetation

Image 1. Native vegetation location risk map

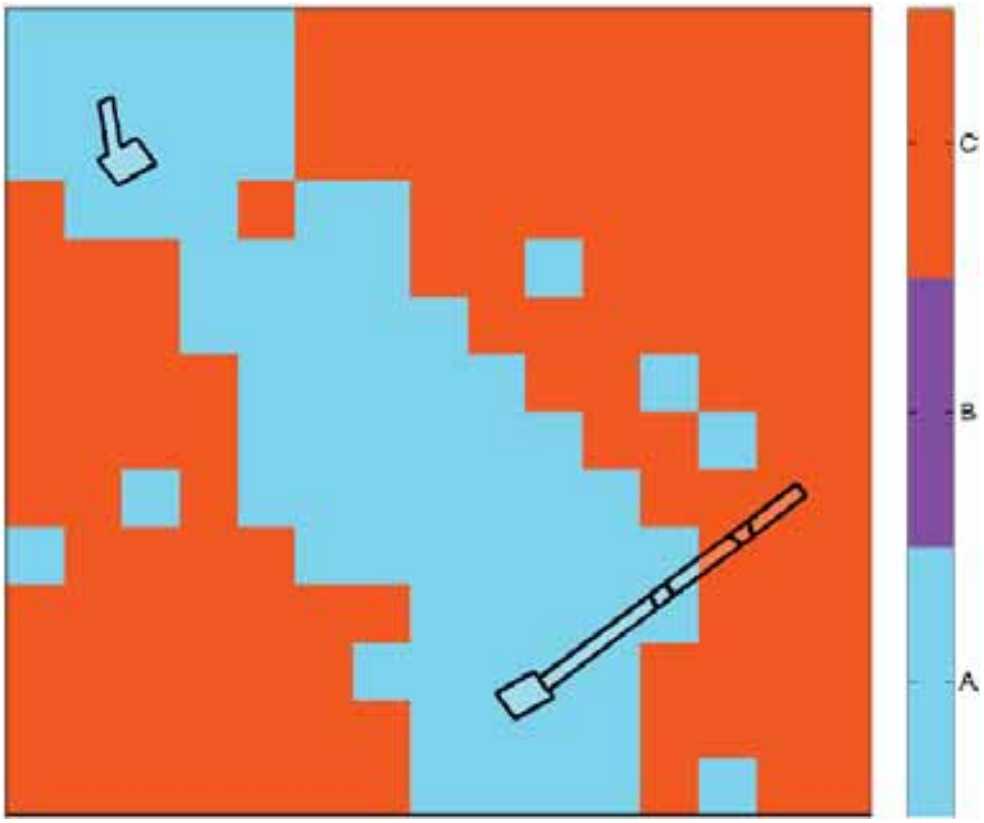

Image 2. Strategic biodiversity score map

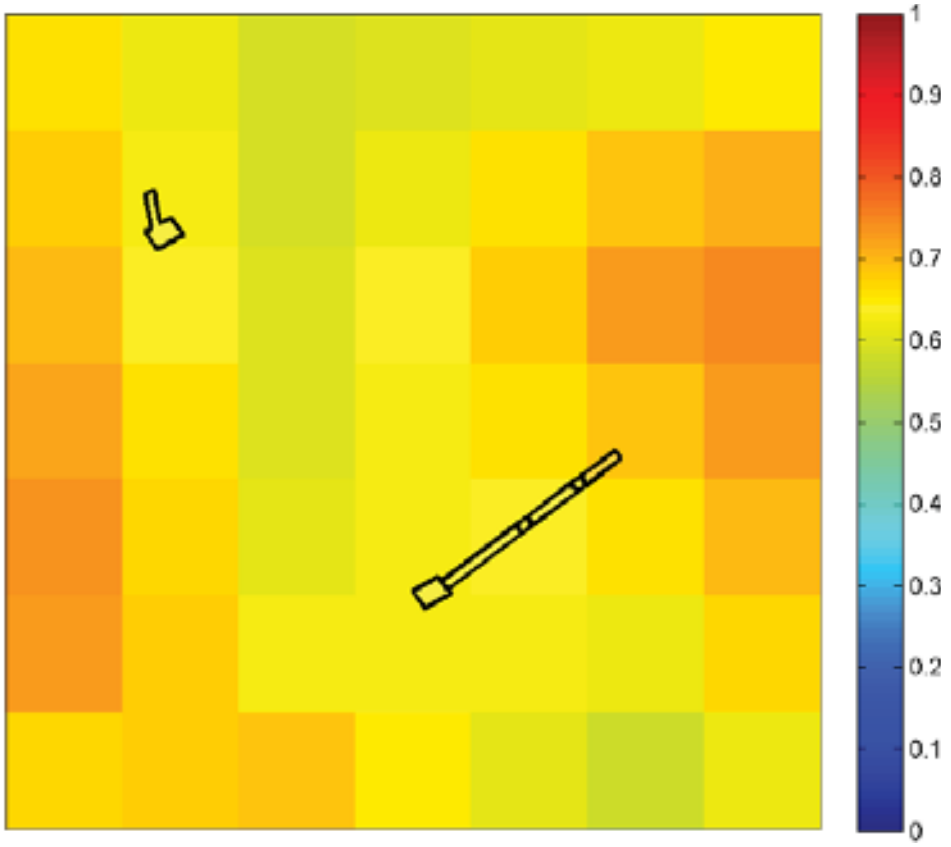

Image 3. Aerial photograph showing marked native vegetation

Glossary

Condition score

This is the site-assessed condition score for the native vegetation. Each habitat zone in the clearing proposal is assigned a condition score according to the habitat hectare assessment method. This information has been provided by or on behalf of the applicant in the GIS file.

Dispersed habitat

A dispersed species habitat is a habitat for a rare or threatened species whose habitat is spread over a relatively broad geographic area greater than 2,000 hectares.

General biodiversity equivalence score

The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to Victoria's biodiversity. The general biodiversity equivalence score is calculated as follows:

$$\boldsymbol{General\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{strategic\ biodiversity\ score}$$

General offset amount

This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ general\ biodiversity\ equivalence\ score} = \boldsymbol{general\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{1.5}$$

General offset attributes

General offset must be located in the same Catchment Management Authority boundary or Municipal District (local council) as the clearing site. They must also have a strategic biodiversity score that is at least 80 per cent of the score of the clearing site.

Habitat hectares

Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation. Habitat hectares can be calculated for a remnant patch or for scattered trees or a combination of these two vegetation types. This value is calculated for each habitat zone using the following formula:

$$\boldsymbol{Habitat\ hectares} = \boldsymbol{total\ extent}\ (\boldsymbol{hectares}) \times \boldsymbol{condition\ score}$$

Habitat importance score

The habitat importance score is a measure of the importance of the habitat located on a site for a particular rare or threatened species. The habitat importance score for a species is a weighted average value calculated from the habitat importance map for that species. The habitat importance score is calculated for each habitat zone where the habitat importace map indicates that species habitat occurs.

Habitat zone

Habitat zone is a discrete contiguous area of native vegetation that:

- is of a single Ecological Vegetation Class
- has the same measured condition.

Highly localised habitat

A highly localised habitat is habitat for a rare or threatened species that is spread across a very restricted area (less than 2,000 hectares). This can also be applied to a similarly limited sub-habitat that is disproportionately important for a wide-ranging rare or threatened species. Highly localised habitats have the highest habitat importance score (1) for all locations where they are present.

Minimum strategic biodiversity score

The minimum strategic biodiversity score is an attribute for a general offset.

The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed. Where a specific and general offset is required, the minimum strategic biodiversity score relates only to the habitat zones that require the general offset.

Offset risk factor

There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.

To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.

$$\boldsymbol{Risk\ factor\ for\ general\ offsets} = \mathbf{1.5}$$

$$\boldsymbol{Risk\ factor\ for\ specific\ offset} = \mathbf{2}$$

Offset type

The specific-general offset test determines the offset type required.

When the specific-general offset test determines that the native vegetation removal will have an impact on one or more rare or threatened species habitat above the set threshold of 0.005 per cent, a specific offset is required. This test is done at the permit application level.

A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have an impact on any habitat for any rare or threatened species above the set threshold of 0.005 per cent. All habitat zones that do not require a specific offset will require a general offset.

Proportional impact on species

This is the outcome of the specific-general offset test. The specific-general offset test is calculated across the entire proposal for each species on the native vegetation permitted clearing species list. If the proportional impact on a species is above the set threshold of 0.005 per cent then a specific offset is required for that species.

Specific offset amount

The specific offset amount is calculated by multiplying the specific biodiversity equivalence score of the native vegetation to be removed by the risk factor for specific offsets. This number is expressed in specific biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ specific\ biodiversity\ equivalence\ score} = \boldsymbol{specific\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{2}$$

Specific offset attributes

Specific offsets must be located in the modelled habitat for the species that has triggered the specific offset requirement.

Specific biodiversity equivalence score

The specific biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to the habitat of the relevant rare or threatened species. It is calculated for each habitat zone where one or more species habitats require a specific offset as a result of the specific-general offset test as follows:

$$\boldsymbol{Specific\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{habitat\ importance\ score}$$

Strategic biodiversity score

This is the weighted average strategic biodiversity score of the marked native vegetation. The strategic biodiversity score has been calculated from the *Strategic biodiversity map* for each habitat zone .

The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The *Strategic biodiversity map* is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.

Total extent (hectares) for calculating habitat hectares

This is the total area of the marked native vegetation in hectares.

The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree. This information has been provided by or on behalf of the applicant in the GIS file.

Vicinity

The vicinity is an attribute for a general offset.

The offset site must be located within the same Catchment Management Authority boundary or Local Municipal District as the native vegetation to be removed.

Appendix G – Biodiversity Assessment Report – Quarry Block

DRAFT

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Biodiversity impact and offset requirements report

This report provides additional biodiversity information for moderate and high risk-based pathway applications for permits to remove native vegetation under clause 52.16 or 52.17 of the planning schemes in Victoria

Date of issue: **8/08/2014** **DEPI ref: GHD_0007**
Time of issue: **11:01 AM**

Project ID	QBS_Hz4_Opt3

Summary of marked native vegetation

Risk-based pathway	**Moderate**
Total extent	1.282 ha
Remnant patches	1.282 ha
Scattered trees	0 trees
Location risk	A

Strategic biodiversity score of all marked native vegetation	0.386

Offset requirements if a permit is granted

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	**General offset**
General offset amount (general biodiversity equivalence units)	0.409 general units
General offset attributes	
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) **or** the Local Municipal District where clearing takes place
Minimum strategic biodiversity score	0.309[1]

See Appendices 1 and 2 for details in how offset requirements were determined.

NB: values presented in tables throughout this document may not add to totals due to rounding

[1] Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

This proposal to remove native vegetation must meet the application requirements of the moderate risk-based pathway and it will be assessed under the moderate risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council.
The biodiversity assessment report from NVIM and this biodiversity impact and offset report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report generated by the tool within NVIM provides the following information:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*
- The risk-based pathway of the application for a permit to remove native vegetation

This report provides the following information to meet application requirements for a permit to remove native vegetation:

- Confirmation of the risk-based pathway of the application for a permit to remove native vegetation
- The strategic biodiversity score of the native vegetation to be removed
- Information to inform the assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.
- The offset requirements should a permit be granted to remove native vegetation.

Additional application requirements must be provided with an application for a permit to remove native vegetation in the moderate or high risk-based pathways. These include:

- A habitat hectare assessment report of the native vegetation that is to be removed
- A statement outlining what steps have been taken to ensure that impacts on biodiversity from the removal of native vegetation have been minimised
- An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

Refer to the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* and for a full list and details of application requirements.

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Appendix 1 – Biodiversity impact of removal of native vegetation

Habitat hectares

Habitat hectares are calculated for each habitat zone within your proposal using the extent and condition scores in the GIS data you provided.

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
1_HZ4	0.550	0.011	0.006
2_HZ4	0.550	0.000	0.000
3_HZ4	0.550	0.004	0.002
4_HZ4	0.550	1.201	0.660
5_HZ4	0.550	0.066	0.036
TOTAL			**0.705**

Impacts on rare or threatened species habitat above specific offset threshold

The specific-general offset test was applied to your proposal. The test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the specific offset threshold. The threshold is set at 0.005 per cent of the total habitat for a species. When the proportional impact is above the specific offset threshold a specific offset for that species' habitat is required.

The specific-general offset test found your proposal does not have a proportional impact on any rare or threatened species' habitats above the specific offset threshold. No specific offsets are required. A general offset is required as set out below.

Clearing site biodiversity equivalence score(s)

The general biodiversity equivalence score for the habitat zone(s) is calculated by multiplying the habitat hectares by the strategic biodiversity score.

Habitat zone	Habitat hectares	Strategic biodiversity score	General biodiversity equivalence score (GBES)
1_HZ4	0.006	0.274	0.002
2_HZ4	0.000	0.331	0.000
3_HZ4	0.002	0.350	0.001
4_HZ4	0.660	0.389	0.257
5_HZ4	0.036	0.353	0.013

Mapped rare or threatened species' habitats on site

This table sets out the list of rare or threatened species' habitats mapped at the site beyond those species for which the impact is above the specific offset threshold. These species habitats do not require a specific offset according to the specific-general offset test.

Species number	Species common name	Species scientific name
10230	Square-tailed Kite	Lophoictinia isura
10238	Black Falcon	Falco subniger
10498	Chestnut-rumped Heathwren	Calamanthus pyrrhopygius
10598	Painted Honeyeater	Grantiella picta
12283	Lace Monitor	Varanus varius
13117	Brown Toadlet	Pseudophryne bibronii
15021	Golden Sun Moth	Synemon plana
501456	Clover Glycine	Glycine latrobeana
502929	Fragrant Saltbush	Rhagodia parabolica
504484	Melbourne Yellow-gum	Eucalyptus leucoxylon subsp. connata
504655	Pale Swamp Everlasting	Coronidium scorpioides 'aff. rutidolepis (Lowland Swamps)' variant
505136	Bacchus Marsh Wattle	Acacia rostriformis
505337	Austral Crane's-bill	Geranium solanderi var. solanderi s.s.

Appendix 2 – Offset requirements detail

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset.

To calculate the required offset amount required the biodiversity equivalence scores are aggregated to the proposal level and multiplied by the relevant risk multiplier.

Offsets also have required attributes:

- General offsets must be located in the same Catchment Management Authority (CMA) boundary or Local Municipal District (local council) as the clearing and must have a minimum strategic biodiversity score of 80 per cent of the clearing.[2]

The offset requirements for your proposal are as follows:

Offset type	Clearing site biodiversity equivalence score	Risk multiplier	Offset requirements	
			Offset amount (biodiversity equivalence units)	Offset attributes
General	0.272 GBES	1.5	0.409 general units	Offset must be within Port Phillip and Westernport CMA **or** the same Municipal District as the vegetation removal Offset must have a minimum strategic biodiversity score of 0.309

[2] Strategic biodiversity score is a weighted average across habitat zones where a general offset is required

Appendix 3 – Images of marked native vegetation

Image 1. Native vegetation location risk map

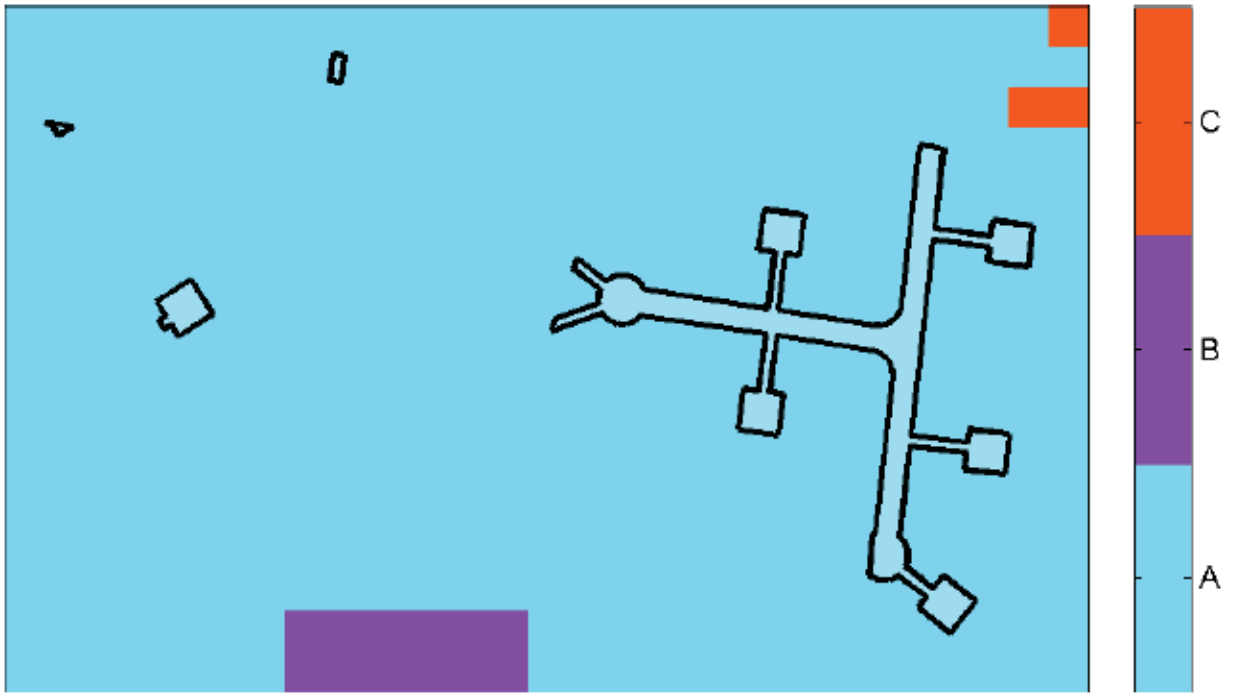


Image 2. Strategic biodiversity score map

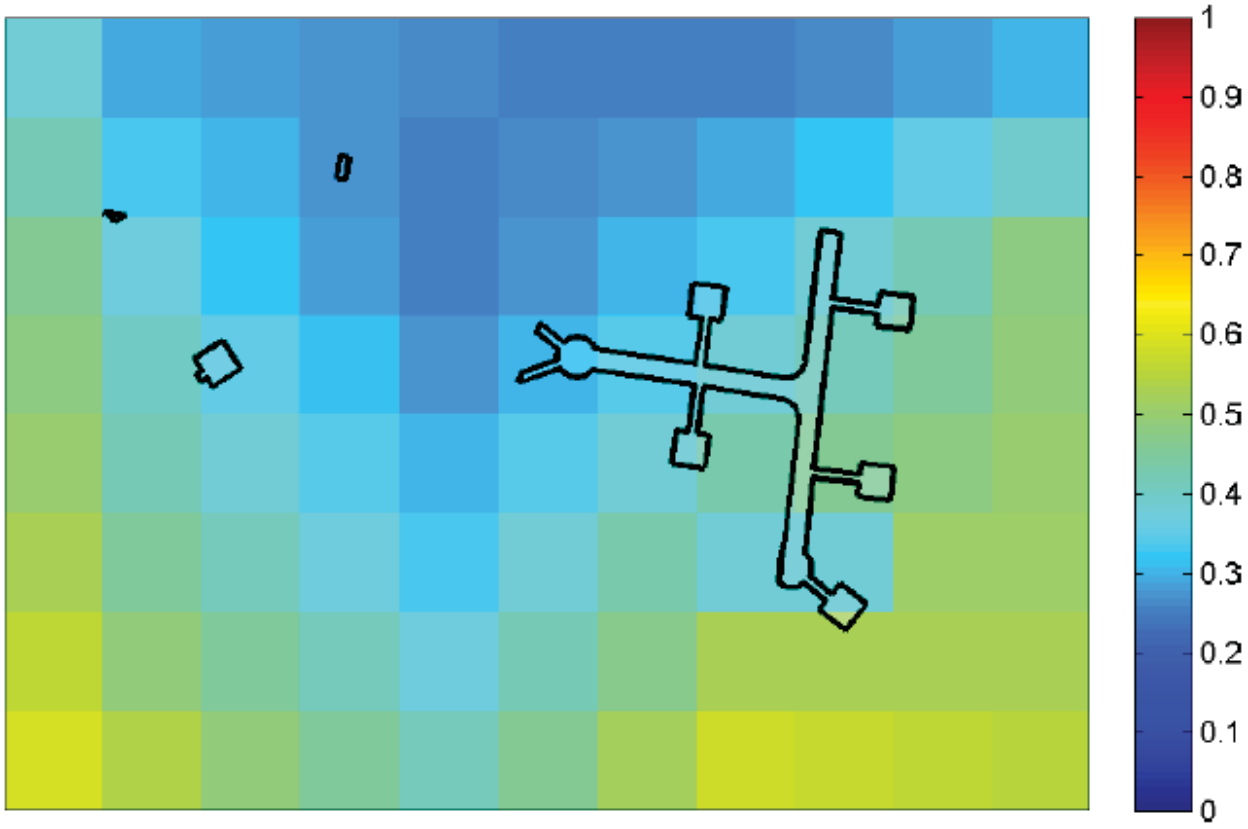
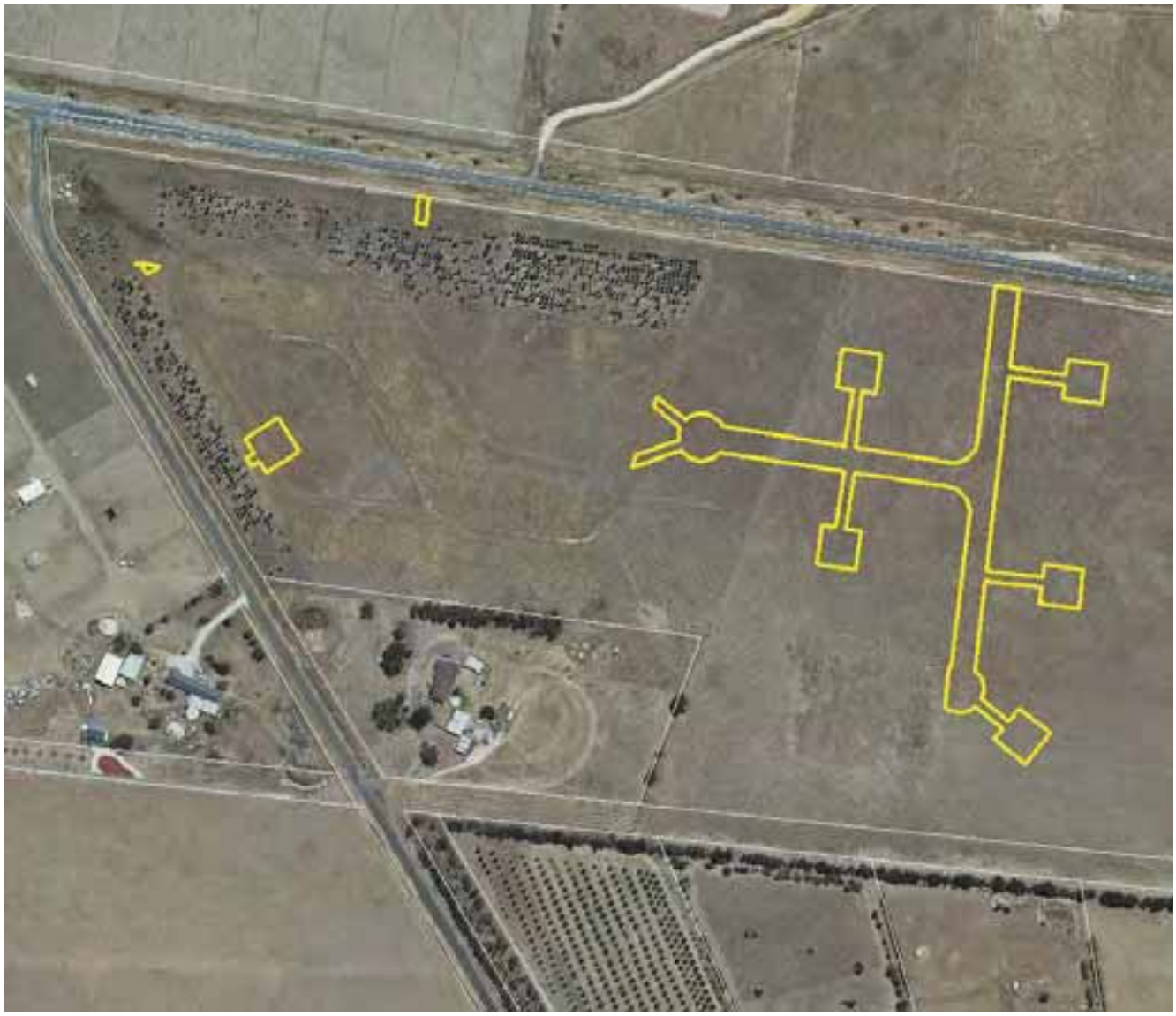


Image 3. Aerial photograph showing marked native vegetation



Glossary

Condition score

This is the site-assessed condition score for the native vegetation. Each habitat zone in the clearing proposal is assigned a condition score according to the habitat hectare assessment method. This information has been provided by or on behalf of the applicant in the GIS file.

Dispersed habitat

A dispersed species habitat is a habitat for a rare or threatened species whose habitat is spread over a relatively broad geographic area greater than 2,000 hectares.

General biodiversity equivalence score

The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to Victoria's biodiversity. The general biodiversity equivalence score is calculated as follows:

$$\boldsymbol{General\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{strategic\ biodiversity\ score}$$

General offset amount

This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ general\ biodiversity\ equivalence\ score} = \boldsymbol{general\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{1.5}$$

General offset attributes

General offset must be located in the same Catchment Management Authority boundary or Municipal District (local council) as the clearing site. They must also have a strategic biodiversity score that is at least 80 per cent of the score of the clearing site.

Habitat hectares

Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation. Habitat hectares can be calculated for a remnant patch or for scattered trees or a combination of these two vegetation types. This value is calculated for each habitat zone using the following formula:

$$\boldsymbol{Habitat\ hectares} = \boldsymbol{total\ extent}\ (\boldsymbol{hectares}) \times \boldsymbol{condition\ score}$$

Habitat importance score

The habitat importance score is a measure of the importance of the habitat located on a site for a particular rare or threatened species. The habitat importance score for a species is a weighted average value calculated from the habitat importance map for that species. The habitat importance score is calculated for each habitat zone where the habitat importace map indicates that species habitat occurs.

Habitat zone

Habitat zone is a discrete contiguous area of native vegetation that:

- is of a single Ecological Vegetation Class
- has the same measured condition.

Highly localised habitat

A highly localised habitat is habitat for a rare or threatened species that is spread across a very restricted area (less than 2,000 hectares). This can also be applied to a similarly limited sub-habitat that is disproportionately important for a wide-ranging rare or threatened species. Highly localised habitats have the highest habitat importance score (1) for all locations where they are present.

Minimum strategic biodiversity score

The minimum strategic biodiversity score is an attribute for a general offset.

The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed. Where a specific and general offset is required, the minimum strategic biodiversity score relates only to the habitat zones that require the general offset.

Offset risk factor

There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.

To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.

$$\boldsymbol{Risk\ factor\ for\ general\ offsets} = \mathbf{1.5}$$

$$\boldsymbol{Risk\ factor\ for\ specific\ offset} = \mathbf{2}$$

Offset type

The specific-general offset test determines the offset type required.

When the specific-general offset test determines that the native vegetation removal will have an impact on one or more rare or threatened species habitat above the set threshold of 0.005 per cent, a specific offset is required. This test is done at the permit application level.

A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have an impact on any habitat for any rare or threatened species above the set threshold of 0.005 per cent. All habitat zones that do not require a specific offset will require a general offset.

Proportional impact on species

This is the outcome of the specific-general offset test. The specific-general offset test is calculated across the entire proposal for each species on the native vegetation permitted clearing species list. If the proportional impact on a species is above the set threshold of 0.005 per cent then a specific offset is required for that species.

Specific offset amount

The specific offset amount is calculated by multiplying the specific biodiversity equivalence score of the native vegetation to be removed by the risk factor for specific offsets. This number is expressed in specific biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ specific\ biodiversity\ equivalence\ score} = \boldsymbol{specific\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{2}$$

Specific offset attributes

Specific offsets must be located in the modelled habitat for the species that has triggered the specific offset requirement.

Specific biodiversity equivalence score

The specific biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to the habitat of the relevant rare or threatened species. It is calculated for each habitat zone where one or more species habitats require a specific offset as a result of the specific-general offset test as follows:

$$\boldsymbol{Specific\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{habitat\ importance\ score}$$

Strategic biodiversity score

This is the weighted average strategic biodiversity score of the marked native vegetation. The strategic biodiversity score has been calculated from the *Strategic biodiversity map* for each habitat zone.

The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The *Strategic biodiversity map* is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.

Total extent (hectares) for calculating habitat hectares

This is the total area of the marked native vegetation in hectares.

The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree. This information has been provided by or on behalf of the applicant in the GIS file.

Vicinity

The vicinity is an attribute for a general offset.

The offset site must be located within the same Catchment Management Authority boundary or Local Municipal District as the native vegetation to be removed.

Biodiversity impact and offset requirements report

This report provides additional biodiversity information for moderate and high risk-based pathway applications for permits to remove native vegetation under clause 52.16 or 52.17 of the planning schemes in Victoria

Date of issue: **8/08/2014** **DEPI ref: GHD_0006**
Time of issue: **10:57 AM**

Project ID	QBS_Hz4_Opt2

Summary of marked native vegetation

Risk-based pathway	**Moderate**
Total extent	1.214 ha
Remnant patches	1.214 ha
Scattered trees	0 trees
Location risk	A

Strategic biodiversity score of all marked native vegetation	0.383

Offset requirements if a permit is granted

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	**General offset**
General offset amount (general biodiversity equivalence units)	0.384 general units
General offset attributes	
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) **or** the Local Municipal District where clearing takes place
Minimum strategic biodiversity score	0.306[1]

See Appendices 1 and 2 for details in how offset requirements were determined.

NB: values presented in tables throughout this document may not add to totals due to rounding

[1] Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

This proposal to remove native vegetation must meet the application requirements of the moderate risk-based pathway and it will be assessed under the moderate risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council.
The biodiversity assessment report from NVIM and this biodiversity impact and offset report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report generated by the tool within NVIM provides the following information:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*
- The risk-based pathway of the application for a permit to remove native vegetation

This report provides the following information to meet application requirements for a permit to remove native vegetation:

- Confirmation of the risk-based pathway of the application for a permit to remove native vegetation
- The strategic biodiversity score of the native vegetation to be removed
- Information to inform the assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.
- The offset requirements should a permit be granted to remove native vegetation.

Additional application requirements must be provided with an application for a permit to remove native vegetation in the moderate or high risk-based pathways. These include:

- A habitat hectare assessment report of the native vegetation that is to be removed
- A statement outlining what steps have been taken to ensure that impacts on biodiversity from the removal of native vegetation have been minimised
- An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

Refer to the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* and for a full list and details of application requirements.

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Obtaining this publication does not guarantee that an application will meet the requirements of clauses 52.16 or 52.17 of the Victoria Planning Provisions or that a permit to remove native vegetation will be granted.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of clauses 52.16 or 52.17 of the Victoria Planning Provisions.

Appendix 1 – Biodiversity impact of removal of native vegetation

Habitat hectares

Habitat hectares are calculated for each habitat zone within your proposal using the extent and condition scores in the GIS data you provided.

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
1_Hz4	0.550	0.945	0.520
2_Hz4	0.550	0.269	0.148
TOTAL			**0.668**

Impacts on rare or threatened species habitat above specific offset threshold

The specific-general offset test was applied to your proposal. The test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the specific offset threshold. The threshold is set at 0.005 per cent of the total habitat for a species. When the proportional impact is above the specific offset threshold a specific offset for that species' habitat is required.

The specific-general offset test found your proposal does not have a proportional impact on any rare or threatened species' habitats above the specific offset threshold. No specific offsets are required. A general offset is required as set out below.

Clearing site biodiversity equivalence score(s)

The general biodiversity equivalence score for the habitat zone(s) is calculated by multiplying the habitat hectares by the strategic biodiversity score.

Habitat zone	Habitat hectares	Strategic biodiversity score	General biodiversity equivalence score (GBES)
1_Hz4	0.520	0.391	0.203
2_Hz4	0.148	0.356	0.053

Mapped rare or threatened species' habitats on site

This table sets out the list of rare or threatened species' habitats mapped at the site beyond those species for which the impact is above the specific offset threshold. These species habitats do not require a specific offset according to the specific-general offset test.

Species number	Species common name	Species scientific name
10230	Square-tailed Kite	Lophoictinia isura
10238	Black Falcon	Falco subniger
10498	Chestnut-rumped Heathwren	Calamanthus pyrrhopygius
10598	Painted Honeyeater	Grantiella picta
12283	Lace Monitor	Varanus varius
13117	Brown Toadlet	Pseudophryne bibronii
15021	Golden Sun Moth	Synemon plana
501456	Clover Glycine	Glycine latrobeana
502929	Fragrant Saltbush	Rhagodia parabolica
504484	Melbourne Yellow-gum	Eucalyptus leucoxylon subsp. connata
504655	Pale Swamp Everlasting	Coronidium scorpioides 'aff. rutidolepis (Lowland Swamps)' variant
505136	Bacchus Marsh Wattle	Acacia rostriformis
505337	Austral Crane's-bill	Geranium solanderi var. solanderi s.s.

Appendix 2 – Offset requirements detail

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset.

To calculate the required offset amount required the biodiversity equivalence scores are aggregated to the proposal level and multiplied by the relevant risk multiplier.

Offsets also have required attributes:

- General offsets must be located in the same Catchment Management Authority (CMA) boundary or Local Municipal District (local council) as the clearing and must have a minimum strategic biodiversity score of 80 per cent of the clearing.[2]

The offset requirements for your proposal are as follows:

Offset type	Clearing site biodiversity equivalence score	Risk multiplier	Offset requirements	
			Offset amount (biodiversity equivalence units)	Offset attributes
General	0.256 GBES	1.5	0.384 general units	Offset must be within Port Phillip and Westernport CMA **or** the same Municipal District as the vegetation removal Offset must have a minimum strategic biodiversity score of 0.306

[2] Strategic biodiversity score is a weighted average across habitat zones where a general offset is required

Appendix 3 – Images of marked native vegetation

Image 1. Native vegetation location risk map

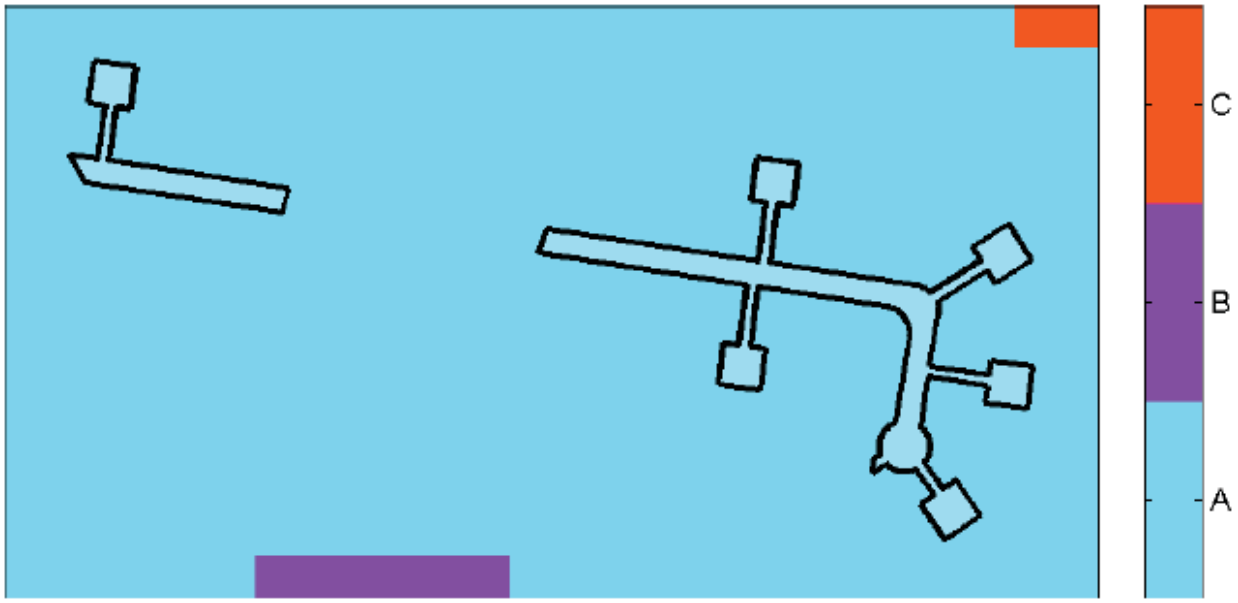


Image 2. Strategic biodiversity score map

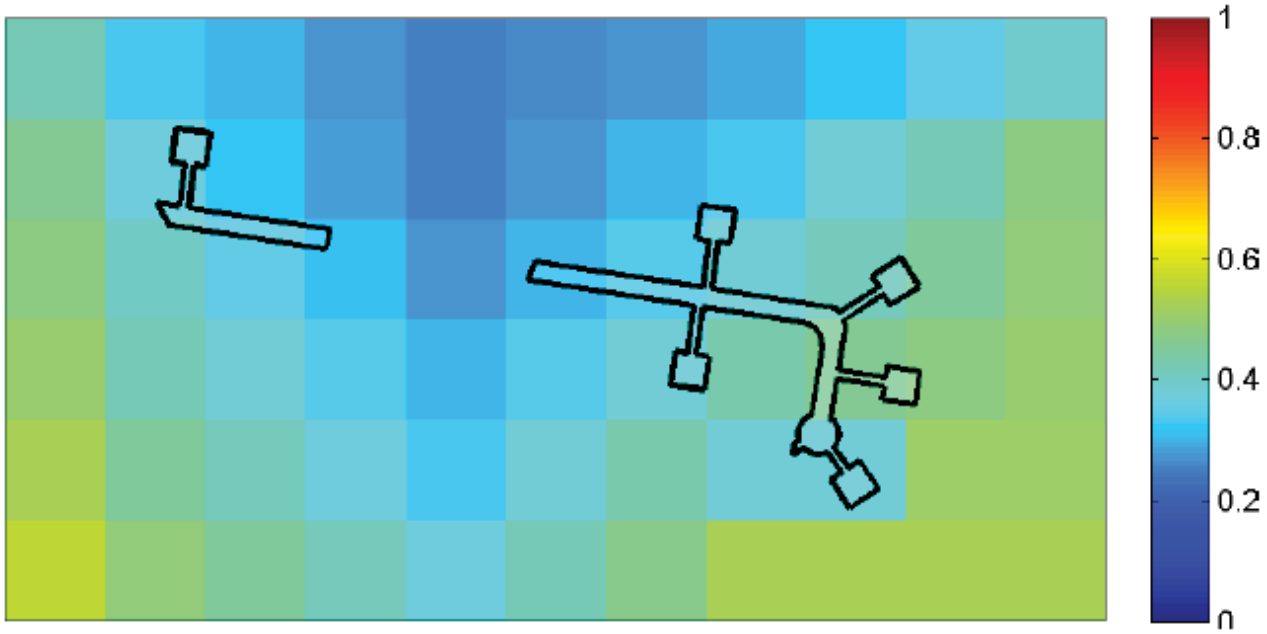
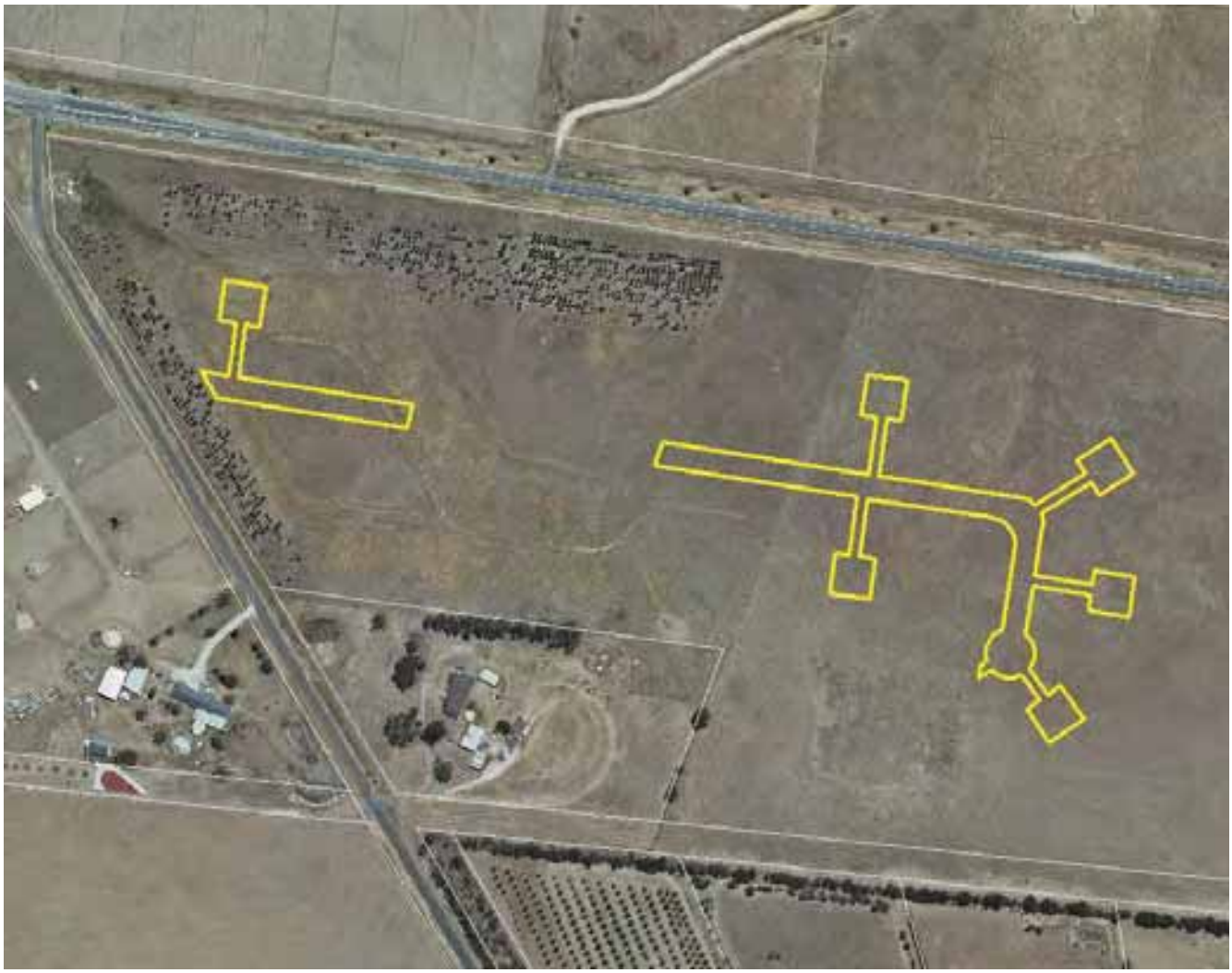


Image 3. Aerial photograph showing marked native vegetation



Glossary

Condition score

This is the site-assessed condition score for the native vegetation. Each habitat zone in the clearing proposal is assigned a condition score according to the habitat hectare assessment method. This information has been provided by or on behalf of the applicant in the GIS file.

Dispersed habitat

A dispersed species habitat is a habitat for a rare or threatened species whose habitat is spread over a relatively broad geographic area greater than 2,000 hectares.

General biodiversity equivalence score

The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to Victoria's biodiversity. The general biodiversity equivalence score is calculated as follows:

$$\boldsymbol{General\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{strategic\ biodiversity\ score}$$

General offset amount

This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ general\ biodiversity\ equivalence\ score} = \boldsymbol{general\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{1.5}$$

General offset attributes

General offset must be located in the same Catchment Management Authority boundary or Municipal District (local council) as the clearing site. They must also have a strategic biodiversity score that is at least 80 per cent of the score of the clearing site.

Habitat hectares

Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation. Habitat hectares can be calculated for a remnant patch or for scattered trees or a combination of these two vegetation types. This value is calculated for each habitat zone using the following formula:

$$\boldsymbol{Habitat\ hectares} = \boldsymbol{total\ extent}\ (\boldsymbol{hectares}) \times \boldsymbol{condition\ score}$$

Habitat importance score

The habitat importance score is a measure of the importance of the habitat located on a site for a particular rare or threatened species. The habitat importance score for a species is a weighted average value calculated from the habitat importance map for that species. The habitat importance score is calculated for each habitat zone where the habitat importace map indicates that species habitat occurs.

Habitat zone

Habitat zone is a discrete contiguous area of native vegetation that:

- is of a single Ecological Vegetation Class
- has the same measured condition.

Highly localised habitat

A highly localised habitat is habitat for a rare or threatened species that is spread across a very restricted area (less than 2,000 hectares). This can also be applied to a similarly limited sub-habitat that is disproportionately important for a wide-ranging rare or threatened species. Highly localised habitats have the highest habitat importance score (1) for all locations where they are present.

Minimum strategic biodiversity score

The minimum strategic biodiversity score is an attribute for a general offset.

The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed. Where a specific and general offset is required, the minimum strategic biodiversity score relates only to the habitat zones that require the general offset.

Offset risk factor

There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.

To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.

$$\boldsymbol{Risk\ factor\ for\ general\ offsets} = \mathbf{1.5}$$

$$\boldsymbol{Risk\ factor\ for\ specific\ offset} = \mathbf{2}$$

Offset type

The specific-general offset test determines the offset type required.

When the specific-general offset test determines that the native vegetation removal will have an impact on one or more rare or threatened species habitat above the set threshold of 0.005 per cent, a specific offset is required. This test is done at the permit application level.

A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have an impact on any habitat for any rare or threatened species above the set threshold of 0.005 per cent. All habitat zones that do not require a specific offset will require a general offset.

Proportional impact on species

This is the outcome of the specific-general offset test. The specific-general offset test is calculated across the entire proposal for each species on the native vegetation permitted clearing species list. If the proportional impact on a species is above the set threshold of 0.005 per cent then a specific offset is required for that species.

Specific offset amount

The specific offset amount is calculated by multiplying the specific biodiversity equivalence score of the native vegetation to be removed by the risk factor for specific offsets. This number is expressed in specific biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ specific\ biodiversity\ equivalence\ score} = \boldsymbol{specific\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{2}$$

Specific offset attributes

Specific offsets must be located in the modelled habitat for the species that has triggered the specific offset requirement.

Specific biodiversity equivalence score

The specific biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to the habitat of the relevant rare or threatened species. It is calculated for each habitat zone where one or more species habitats require a specific offset as a result of the specific-general offset test as follows:

$$\boldsymbol{Specific\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{habitat\ importance\ score}$$

Strategic biodiversity score

This is the weighted average strategic biodiversity score of the marked native vegetation. The strategic biodiversity score has been calculated from the *Strategic biodiversity map* for each habitat zone.

The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The *Strategic biodiversity map* is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.

Total extent (hectares) for calculating habitat hectares

This is the total area of the marked native vegetation in hectares.

The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree. This information has been provided by or on behalf of the applicant in the GIS file.

Vicinity

The vicinity is an attribute for a general offset.

The offset site must be located within the same Catchment Management Authority boundary or Local Municipal District as the native vegetation to be removed.

Biodiversity impact and offset requirements report

This report provides additional biodiversity information for moderate and high risk-based pathway applications for permits to remove native vegetation under clause 52.16 or 52.17 of the planning schemes in Victoria

Date of issue: **8/08/2014** **DEPI ref: GHD_0005**
Time of issue: **10:48 AM**

Project ID	QBS_Hz4_Opt1

Summary of marked native vegetation

Risk-based pathway	**Moderate**
Total extent	1.396 ha
Remnant patches	1.396 ha
Scattered trees	0 trees
Location risk	A

Strategic biodiversity score of all marked native vegetation	0.386

Offset requirements if a permit is granted

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	**General offset**
General offset amount (general biodiversity equivalence units)	0.444 general units
General offset attributes	
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) **or** the Local Municipal District where clearing takes place
Minimum strategic biodiversity score	0.309[1]

See Appendices 1 and 2 for details in how offset requirements were determined.

NB: values presented in tables throughout this document may not add to totals due to rounding

[1] Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

This proposal to remove native vegetation must meet the application requirements of the moderate risk-based pathway and it will be assessed under the moderate risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council.
The biodiversity assessment report from NVIM and this biodiversity impact and offset report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report generated by the tool within NVIM provides the following information:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*
- The risk-based pathway of the application for a permit to remove native vegetation

This report provides the following information to meet application requirements for a permit to remove native vegetation:

- Confirmation of the risk-based pathway of the application for a permit to remove native vegetation
- The strategic biodiversity score of the native vegetation to be removed
- Information to inform the assessment of whether the proposed removal of native vegetation will have a significant impact on Victoria's biodiversity, with specific regard to the proportional impact on habitat for any rare or threatened species.
- The offset requirements should a permit be granted to remove native vegetation.

Additional application requirements must be provided with an application for a permit to remove native vegetation in the moderate or high risk-based pathways. These include:

- A habitat hectare assessment report of the native vegetation that is to be removed
- A statement outlining what steps have been taken to ensure that impacts on biodiversity from the removal of native vegetation have been minimised
- An offset strategy that details how a compliant offset will be secured to offset the biodiversity impacts of the removal of native vegetation.

Refer to the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* and for a full list and details of application requirements.

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Appendix 1 – Biodiversity impact of removal of native vegetation

Habitat hectares

Habitat hectares are calculated for each habitat zone within your proposal using the extent and condition scores in the GIS data you provided.

Habitat zone	Site assessed condition score	Extent (ha)	Habitat hectares
1_Hz4	0.550	1.126	0.619
2_Hz4	0.550	0.270	0.149
TOTAL			**0.768**

Impacts on rare or threatened species habitat above specific offset threshold

The specific-general offset test was applied to your proposal. The test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the specific offset threshold. The threshold is set at 0.005 per cent of the total habitat for a species. When the proportional impact is above the specific offset threshold a specific offset for that species' habitat is required.

The specific-general offset test found your proposal does not have a proportional impact on any rare or threatened species' habitats above the specific offset threshold. No specific offsets are required. A general offset is required as set out below.

Clearing site biodiversity equivalence score(s)

The general biodiversity equivalence score for the habitat zone(s) is calculated by multiplying the habitat hectares by the strategic biodiversity score.

Habitat zone	Habitat hectares	Strategic biodiversity score	General biodiversity equivalence score (GBES)
1_Hz4	0.619	0.393	0.243
2_Hz4	0.149	0.356	0.053

Mapped rare or threatened species' habitats on site

This table sets out the list of rare or threatened species' habitats mapped at the site beyond those species for which the impact is above the specific offset threshold. These species habitats do not require a specific offset according to the specific-general offset test.

Species number	Species common name	Species scientific name
10230	Square-tailed Kite	Lophoictinia isura
10238	Black Falcon	Falco subniger
10498	Chestnut-rumped Heathwren	Calamanthus pyrrhopygius
10598	Painted Honeyeater	Grantiella picta
12283	Lace Monitor	Varanus varius
13117	Brown Toadlet	Pseudophryne bibronii
15021	Golden Sun Moth	Synemon plana
501456	Clover Glycine	Glycine latrobeana
502929	Fragrant Saltbush	Rhagodia parabolica
504484	Melbourne Yellow-gum	Eucalyptus leucoxylon subsp. connata
504655	Pale Swamp Everlasting	Coronidium scorpioides 'aff. rutidolepis (Lowland Swamps)' variant
505136	Bacchus Marsh Wattle	Acacia rostriformis
505337	Austral Crane's-bill	Geranium solanderi var. solanderi s.s.

Appendix 2 – Offset requirements detail

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset.

To calculate the required offset amount required the biodiversity equivalence scores are aggregated to the proposal level and multiplied by the relevant risk multiplier.

Offsets also have required attributes:

- General offsets must be located in the same Catchment Management Authority (CMA) boundary or Local Municipal District (local council) as the clearing and must have a minimum strategic biodiversity score of 80 per cent of the clearing.[2]

The offset requirements for your proposal are as follows:

Offset type	Clearing site biodiversity equivalence score	Risk multiplier	Offset requirements	
			Offset amount (biodiversity equivalence units)	Offset attributes
General	0.296 GBES	1.5	0.444 general units	Offset must be within Port Phillip and Westernport CMA **or** the same Municipal District as the vegetation removal Offset must have a minimum strategic biodiversity score of 0.309

[2] Strategic biodiversity score is a weighted average across habitat zones where a general offset is required

Appendix 3 – Images of marked native vegetation

Image 1. Native vegetation location risk map

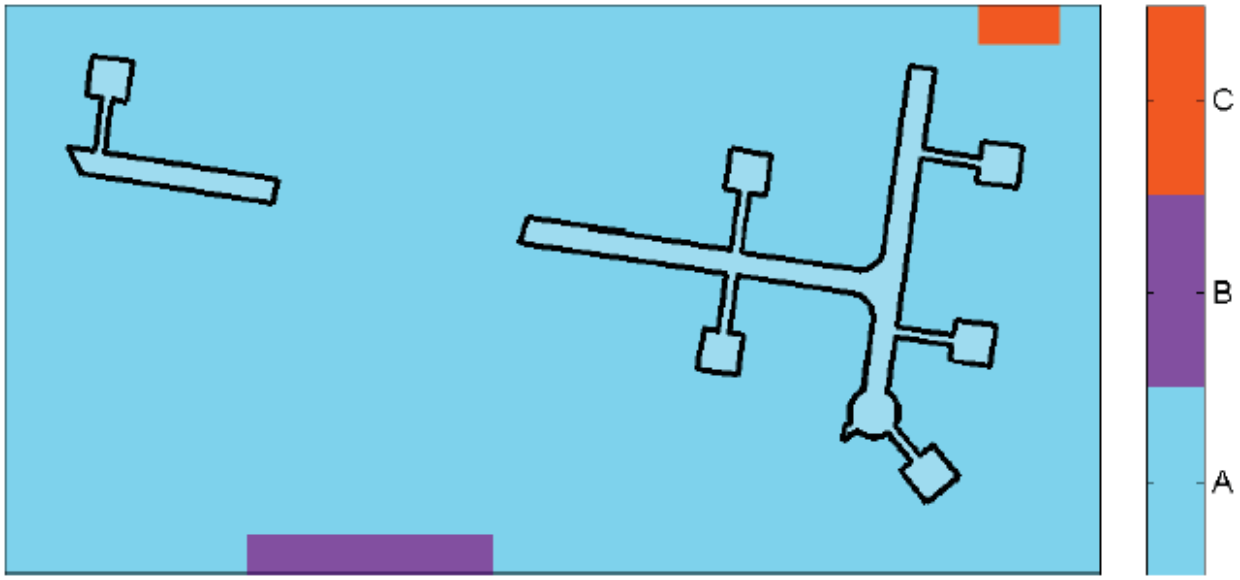


Image 2. Strategic biodiversity score map

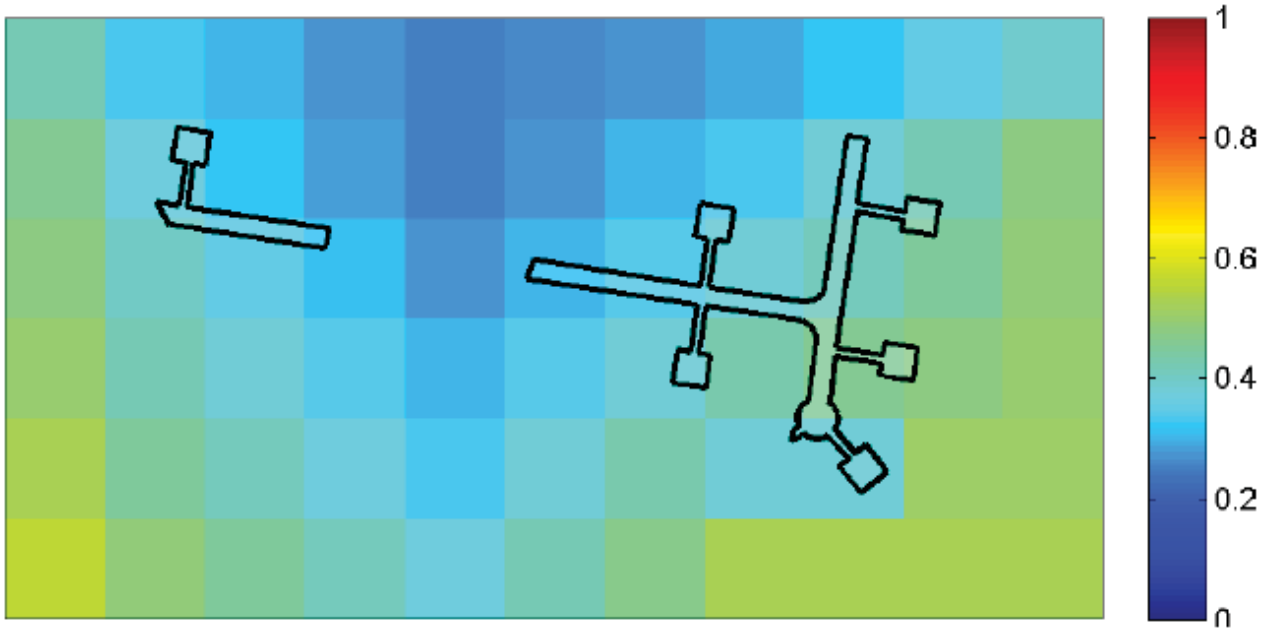
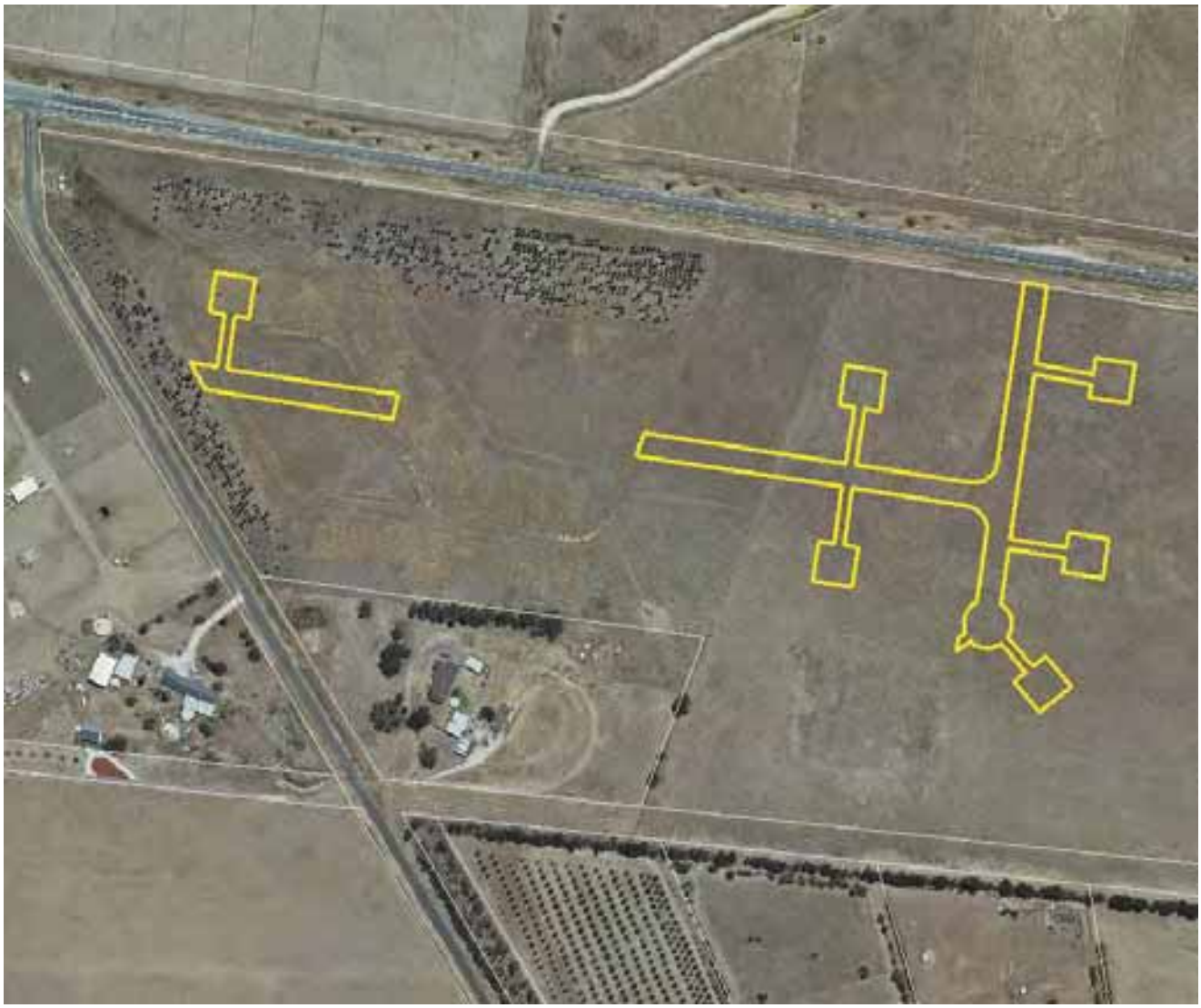


Image 3. Aerial photograph showing marked native vegetation



Glossary

Condition score

This is the site-assessed condition score for the native vegetation. Each habitat zone in the clearing proposal is assigned a condition score according to the habitat hectare assessment method. This information has been provided by or on behalf of the applicant in the GIS file.

Dispersed habitat

A dispersed species habitat is a habitat for a rare or threatened species whose habitat is spread over a relatively broad geographic area greater than 2,000 hectares.

General biodiversity equivalence score

The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to Victoria's biodiversity. The general biodiversity equivalence score is calculated as follows:

$$\boldsymbol{General\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{strategic\ biodiversity\ score}$$

General offset amount

This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ general\ biodiversity\ equivalence\ score} = \boldsymbol{general\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{1.5}$$

General offset attributes

General offset must be located in the same Catchment Management Authority boundary or Municipal District (local council) as the clearing site. They must also have a strategic biodiversity score that is at least 80 per cent of the score of the clearing site.

Habitat hectares

Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation. Habitat hectares can be calculated for a remnant patch or for scattered trees or a combination of these two vegetation types. This value is calculated for each habitat zone using the following formula:

$$\boldsymbol{Habitat\ hectares} = \boldsymbol{total\ extent}\ (\boldsymbol{hectares}) \times \boldsymbol{condition\ score}$$

Habitat importance score

The habitat importance score is a measure of the importance of the habitat located on a site for a particular rare or threatened species. The habitat importance score for a species is a weighted average value calculated from the habitat importance map for that species. The habitat importance score is calculated for each habitat zone where the habitat importace map indicates that species habitat occurs.

Habitat zone

Habitat zone is a discrete contiguous area of native vegetation that:

- is of a single Ecological Vegetation Class
- has the same measured condition.

Highly localised habitat

A highly localised habitat is habitat for a rare or threatened species that is spread across a very restricted area (less than 2,000 hectares). This can also be applied to a similarly limited sub-habitat that is disproportionately important for a wide-ranging rare or threatened species. Highly localised habitats have the highest habitat importance score (1) for all locations where they are present.

Minimum strategic biodiversity score

The minimum strategic biodiversity score is an attribute for a general offset.

The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed. Where a specific and general offset is required, the minimum strategic biodiversity score relates only to the habitat zones that require the general offset.

Offset risk factor

There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.

To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.

$$\boldsymbol{Risk\ factor\ for\ general\ offsets} = \mathbf{1.5}$$

$$\boldsymbol{Risk\ factor\ for\ specific\ offset} = \mathbf{2}$$

Offset type

The specific-general offset test determines the offset type required.

When the specific-general offset test determines that the native vegetation removal will have an impact on one or more rare or threatened species habitat above the set threshold of 0.005 per cent, a specific offset is required. This test is done at the permit application level.

A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have an impact on any habitat for any rare or threatened species above the set threshold of 0.005 per cent. All habitat zones that do not require a specific offset will require a general offset.

Proportional impact on species

This is the outcome of the specific-general offset test. The specific-general offset test is calculated across the entire proposal for each species on the native vegetation permitted clearing species list. If the proportional impact on a species is above the set threshold of 0.005 per cent then a specific offset is required for that species.

Specific offset amount

The specific offset amount is calculated by multiplying the specific biodiversity equivalence score of the native vegetation to be removed by the risk factor for specific offsets. This number is expressed in specific biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.

$$\boldsymbol{Risk\ adjusted\ specific\ biodiversity\ equivalence\ score} = \boldsymbol{specific\ biodiversity\ equivalence\ score\ clearing} \times \mathbf{2}$$

Specific offset attributes

Specific offsets must be located in the modelled habitat for the species that has triggered the specific offset requirement.

Specific biodiversity equivalence score

The specific biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed makes to the habitat of the relevant rare or threatened species. It is calculated for each habitat zone where one or more species habitats require a specific offset as a result of the specific-general offset test as follows:

$$\boldsymbol{Specific\ biodiversity\ equivalence\ score} = \boldsymbol{habitat\ hectares} \times \boldsymbol{habitat\ importance\ score}$$

Strategic biodiversity score

This is the weighted average strategic biodiversity score of the marked native vegetation. The strategic biodiversity score has been calculated from the *Strategic biodiversity map* for each habitat zone.

The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The *Strategic biodiversity map* is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.

Total extent (hectares) for calculating habitat hectares

This is the total area of the marked native vegetation in hectares.

The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree. This information has been provided by or on behalf of the applicant in the GIS file.

Vicinity

The vicinity is an attribute for a general offset.

The offset site must be located within the same Catchment Management Authority boundary or Local Municipal District as the native vegetation to be removed.

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Appendix H – Flora species recorded at Long Forest and Quarry Blocks

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Table H1 Flora species recorded within current survey at Long Forest Block

Origin	Scientific Name	Common Name	Conservation Status	Weed Status
	Acacia acinacea	Gold-dust Wattle	P	
	Acacia dealbata	Silver Wattle	P	
	Acacia pycnantha	Golden Wattle	P	
	Acacia rostriformis	Bacchus Marsh Wattle	r, P	
	Acaena novae-zelandiae	Bidgee-Widgee		
*	*Aira* sp.	Hair Grass		
	Anthosachne scabra	Common Wheat-grass		
*	*Arctotheca calendula*	Cape Weed		
	Atriplex semibaccata	Berry Saltbush		
	Austrostipa bigeniculata	Knead Spear-grass		
	Austrostipa gibbosa	Spurred Spear-grass		
	Austrostipa mollis	Supple Spear-grass		
	Austrostipa scabra	Rough Spear-grass		
	Bursaria spinosa subsp spinosa	Sweet Bursaria		
	Cassinia arcuata	Drooping Cassinia		
	Chloris truncata	Windmill Grass		
	Cerastium glomeratum s.l.	Common Mouse-ear Chickweed		
*	*Cirsium vulgare*	Spear Thistle		R
	Clematis microphylla s.s.	Small-leaved Clematis		
*	*Conyza bonariensis*	Flaxleaf Fleabane		
*	*Dactylis glomerata*	Cocksfoot		
	Dichondra repens	Kidney-weed		
	Dianella admixta	Black-anther Flax-lily		
	Carpobrotus modestus	Inland Pigface		
*	*Ehrharta erecta* var. *erecta*	Panic Veldt-grass		
	Einadia hastata	Saloop		
	Einadia nutans subsp. nutans	Nodding Saltbush		
	Enchylaena tomentosa var. *tomentosa*	Ruby Saltbush		
	Eremophila deserti	Turkey Bush		
	Eucalyptus microcarpa	Grey Box		
	Eucalyptus leucoxylon subsp. *connata*	Melbourne Yellow Gum	V	
	Eucalyptus polyanthemos	Red Box		
*	*Galenia pubescens* var. *pubescens*	Galenia		
*	*Gazania linearis*	Gazania		
*	*Genista linifolia*	Flax-leaf Broom		WONS/C
*	*Hypochaeris radicata*	Flatweed		
	Juncus spp.	Rush		
	Juncus subsecundus	Finger Rush		
	Lomandra filiformis	Wattle Mat-rush		
*	*Lycium ferocissimum*	African Box-thorn		WONS/C
	Microlaena stipoides var. *stipoides*	Weeping Grass		

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Origin	Scientific Name	Common Name	Conservation Status	Weed Status
*	*Nassella neesiana*	Chilean Needle-grass		WONS/R
*	*Nassella trichotoma*	Serrated Tussock		WONS/C
*	*Opuntia sp.*	Prickly Pear		
	Oxalis spp.	Wood Sorrel		
*	*Plantago lanceolata*	Ribwort		
recorded by EHP, but not confirmed	*Pterostylis truncata*	Brittle Greenhood	e,P	
#	*Rhagodia parabolica*	Fragrant Saltbush	r	
*	*Romulea rosea*	Onion Grass		
*	*Rosa rubiginosa*	Sweet Briar		C
	Rytidosperma geniculatum	Kneed Wallaby-grass		
	Rytidosperma setaceum	Wallaby-grass		
	Rytidosperma spp.	Wallaby Grass		
	Senecio quadridentatus	Cotton Fireweed	P	
	Senecio tenuiflorus spp. agg.	Slender Fireweed	P	
*	*Sonchus oleraceus*	Common Sow-thistle		
	Themeda triandra	Kangaroo Grass		
	Vittadinia cuneata	Fuzzy New-Holland Daisy	P	

Key to table:

*	Introduced species
#	Naturalised
P	Protected under FFG Act
r	rare under DEPI advisory list
v	vulnerable under DEPI
e	Endangered under DEPO
R	regionallt restricted under CaLP Act
C	regionally controlled under CaLP Act
WONS	listed under Weeds of National Significance

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Table H2 Flora species recorded within current survey at Quarry Block

Origin	Scientific Name	Common Name	Conservation Status	Weed Status
	Acaena echninata	Sheep's Burr		
*	*Agrostis capallaris*	Bronw-top Bent		
*	*Arctotheca calendula*	Cape Weed		
	Atriplex semibaccata	Berry Saltbush		
	Austrostipa bigeniculata	Knead Spear-grass		
	Austrostipa gibbosa	Spurred Spear-grass		
	Austrostipa scabra	Rough Spear-grass		
	Carpobrotus modestus	Inland Pigface		
	Cassinia arcuata	Drooping Cassinia		
*	*Cirsium vulgare*	Spear Thistle		C
*	*Cynara cardunculus* subsp. *flavescens*	Artichoke Thistle		C
*	*Dactylis glomerata*	Cocksfoot		
	Dichondra repens	Kidney-weed		
*	*Ehrharta erecta* var. *erecta*	Panic Veldt-grass		
	Einadia nutans subsp. *nutans*	Nodding Saltbush		
	Enchylaena tomentosa var. *tomentosa*	Ruby Saltbush		
*	*Erodium sp.*	Heron's-bill		
	Euchiton collinus	Creeping Cudweed	P	
*	*Galenia pubescens* var. *pubescens*	Galenia		
*	*Hypochaeris radicata*	Flatweed		
	Juncus spp.	Rush		
	Juncus subsecundus	Finger Rush		
*	*Lepidium africanum*	Common Peppercress		
*	*Lolium perenne*	Perrennial Rye-grass		
*	*Lycium ferocissimum*	African Box-thorn		WONS/C
*	*Nassella neesiana*	Chilean Needle-grass		WONS/R
*	*Nassella trichotoma*	Serrated Tussock		WONS/C
*	*Opuntia sp.*	Prickly Pear		
	Oxalis perennans	Grassland Wood-sorrel		
*	*Oxalis pes-caprae*	Soursob		
*	*Plantago coronopus*	Buck's-horn Plaintain		
*	*Plantago lanceolata*	Ribwort		
*	*Romulea rosea*	Onion Grass		
	Rytidosperma geniculatum	Kneed Wallaby-grass		
	Rytidosperma setaceum	Wallaby-grass		
	Rytidosperma racemosum	Slender Wallaby-grass		
	Sclerolaena muricata subsp. *villosa*	Grey Rolly-polly		
*	*Sonchus oleraceus*	Common Sow-thistle		
	Trifolium arvense var. *arvense*	Hare's-foot Clover		
	Vittadinia cuneata	Fuzzy New-Holland Daisy	P	

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Key to table:

*	Introduced species
P	Protected under FFG Act
R	regionallt restricted under CaLP Act
C	regionally controlled under CaLP Act
WONS	listed under Weeds of National Significance

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Appendix D Bushfire Management Assessment

Appendix E Infrastructure & Servicing Assessment

Memorandum

22 July 2014

To	Denise Greaney		
Copy to			
From	Sam Rowland	Tel	(03) 8687 8923
Subject	Long Forrest Site	Job no.	31/30827

Below is an outline of the existing conditions of services and drainage around the proposed site of a 2 lot sub division in Coimadai, Victoria.

1 Water

1.1 Existing conditions

Western water has advised GHD that there are existing water assets that run adjacent to the site of the proposed sub division. An existing 100 mm AC pipe runs along the southern side of the site along Symington Avenue, while there is a 150 mm AC pipe which runs on the eastern side of the proposed subdivision. A 600 mm MSCL pipe runs along Diggers Rest-Comadai Road which is located to the north of the location. There is also an existing water tank which is positioned in the north east region of the site.

1.2 Development conditions

There are currently no connection points around the region of the proposed sub division, or any water pipes crossing through the location. Western Water has advised GHD that supply of water to the location could be achieved by connecting into one of the pipes that run along the extent of the site. GHD believes that connection points to the area would best be achieved from the 150 mm AC or 100 mm AC pipes running along Long Forrest Road or Symington Road.

1.3 Works Required

The development will require separate connections for each lot, which we understand to be available.

2 Sewer

2.1 Existing Conditions

Within the vicinity of the proposed sub division there are currently no existing sewer assets. Western water has advised that there is no sewer connection available for connection

2.2 Development Conditions

Western Water has outlined that due to the fact that the proposed area is not within one of their drinking

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water catchments, the development could contain its own sewage treatment system to provide a solution to sewage. That is the authority do not have any special requirements or limitations in creating a sewage system for the sub division however, the local council would need to be consulted regarding the type of system used.

2.3 Works Required

A sewage system would need to be installed within the development considering there are no sewer assets in close proximity to the region. A septic system was proposed as an option for onsite sewage treatment. This could be a good solution however this option would need to be reviewed by council and the existing drainage systems would need to be inspected.

3 Electricity

3.1 Existing Conditions

The site has existing HV (22kV) infrastructure surrounding it. This includes substations poles and HV poles. The power authority (Powercor) have outlined that there is currently an electrical connection in the north eastern region of the site to the HV line which run along the streets that make up the boundary of the location.

3.2 Development Conditions

There is some uncertainty about the ability of the proposed lots to connect to power. Powercor has suggested that a pole mounted substation will be required for the northern lot, and potentially also the southern lot. Some additional work is required to clarify this situation.

3.3 Works Required

To allow for power within the site, connections from one or two of the poles along Long Forest Road would be required as well as a 12m wide easement along the eastern boundary to cover existing power lines on this frontage. Depending on electrical demand within the development, additional power infrastructure may be installed by the power authority. This would typically be additional HV cables or kiosk substations.

4 Gas

There is no gas main in the vicinity of the proposed site. No further investigation has gone into gas connection to the sub division.

5 Telecommunications

5.1 Existing Conditions

Telstra has infrastructure that surrounds the site, and possible also through the site. A plan provided by Telstra suggests there is a direct buried cable, or cables, on the site. We need to investigate this issue with Telstra further.

5.2 Development Conditions

A connection point for each property should be able to be provided without issue.

5.3 Works Required

Connections should be done as part of the ultimate owner's works. The issue of the direct buried cable may require some additional work, however, additional work is required to clarify this issue.

Regards

Sam Rowland
Manager - Urban Development

GHD

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		Name	Signature	Name	Signature	Date
A	D Herrmann	B George	*	B George	*	15/6/2015

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Planning and Environment Act 1987

MOORABOOL PLANNING SCHEME

AMENDMENT C*

EXPLANATORY REPORT

Who is the planning authority?

This amendment has been prepared by the Moorabool Shire Council, who is the planning authority for this amendment.

The Amendment has been made at the request of Southern Rural Water.

Land affected by the Amendment

The Amendment applies to land know as Lot 1 PS 348971 on Diggers Rest-Coimadai Road.

What the amendment does

Southern Rural Water (SRW) has identified a number of sites across southern Victoria that are surplus to the operational requirements of the business. The subject site has identified as being surplus and accordingly, SRW seeks to release this land to the market for development.

The Amendment proposes to rezone the subject site from a Public Use Zone 1 – Service and Utility (PUZ1) to a Rural Living Zone (RLZ) and concurrently seek a planning permit to subdivide the land and associated native vegetation removal.

The subdivision will contribute to land and housing stock in a market which seeks greater supply to cater to this type of living environment.

Strategic assessment of the Amendment

Why is the Amendment required?

The amendment is required to facilitate the residential subdivision and future use of the land, which is nor consistent with the purpose of the PUZ1.

Rezoning to the Rural Living Zone is a more appropriate zone and will be consistent with adjacent residential land use and development.

How does the Amendment implement the objectives of planning in Victoria?

The amendment will implement the following relevant objectives of planning in Victoria under Section 4 of the Planning and Environment Act 1987 (the Act):

- 4(1)(a) to provide for the fair, orderly, economic and sustainable use, and development of the land;
- 4(1)(b) to secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria; and
- 4(1)(g) to balance the present and future interests of all Victorians.

The amendment provides land for residential development in an appropriate location and which responds to local housing demands.

.

How does the Amendment address any environmental, social and economic effects?

Environmental Effects

The amendment facilitates the subdivision of the site to allow for the future construction of two dwellings for rural living purposes, which can be undertaken in a manner that has minimal impact on the environment.

A flora and fauna assessment of the site has been undertaken, which revealed that the site contains patches of Grassy Woodland native vegetation patches of varied quality. The future development of the site shown by the proposed building envelopes will require the removal of approximately 0.5-0.6 hectares of native vegetation including species of the threatened Grey Box Woodlands and derived grassland of south-eastern Australia vegetation community. This is considered a small area comparative to the overall size of the subject site and the extent and density of native vegetation on the subject site and within adjoining road reserves. The native vegetation to be removed will be offset to ensure no net loss of biodiversity results from the proposal.

The extent of native vegetation to be removed has been minimised by locating building envelopes within cleared areas of the site and the location of access ways to minimise impacts on significant native vegetation. The site is situated in modified rural landscape context and as such changes to the rural landscape character of the local area are considered to be negligible.

The proposed allotments can be connected to existing water infrastructure established adjacent the subject site. Each allotment also has sufficient area to accommodate an on-site effluent disposal system to appropriately minimise nutrient loading within the site boundaries.

The proposed rezoning will not prejudice the long-term availability and management of Victoria's natural resources. It is noted that the subject land is not productive agricultural land and the site is not located within a special water supply catchment area under the Catchment and Land Protection Act 1994.

Social Effects

The proposed rezoning is not anticipated to result in any significant social effects. The Rural Living Zone will facilitate the subdivision of the land for rural residential purposes, which will contribute the housing needs of the municipality and provide for housing diversity and choice.

The proposed rezoning is consistent with the surrounding land use and will be a continuation of the existing rural residential development located south of the subject land. As a result the proposed zoning will be compatible with the surrounding area.

The amendment will have positive social effects as it provides the opportunity for the orderly provision of rural residential type subdivision that makes effective use of existing and proposed social and physical infrastructure in the surrounding area.

Bushfire hazard risks associated with future rural residential use of the proposed allotments can be appropriately managed as demonstrated through the capacity to provide appropriate defendable space, water supply and vehicle access for each dwelling.

Two additional dwellings are likely to generate fewer than 20 vehicle trips per day on average (ie. 10 per dwelling), and is therefore likely to have minimal impact on the safety and free flow of traffic on the local road network.

Economic Effects

The amendment may result in a positive economic impact by providing new rural residential land within the municipality.

The amendment will not impact upon natural resources such as agricultural land and the sand quarry which are identified as being fundamentally important to the local and state economy.

The amendment will allow the future owners of the proposed allotments to construct a new dwelling and associated outbuildings on each allotment, which have the potential to provide a positive economic effect on the local construction industry. The flow-on economic effects resulting from two additional households are expected to be small on the local area.

The amendment will result in negligible administrative costs to the responsible authority given the rezoning only affects a single parcel.

Does the Amendment address relevant bushfire risk?

The site is affected by a Bushfire Management Overlay. A Bushfire Management Assessment has been undertaken which has confirmed that the site is suitable to be developed for rural residential purposes subject to appropriate bushfire protection measures being implemented on each lot.

Does the Amendment comply with the requirements of any Minister's Direction applicable to the amendment?

The amendment has been prepared in accordance with the Ministerial Direction on the Form and Content of Planning Schemes under Section 7(5) of the Planning and Environment Act 1987.

The amendment is consistent with Ministerial Direction 11 (Strategic Assessment of Amendments). This report contains an evaluation and discussion on how the amendment addresses the strategic considerations outlined in the Ministerial Direction and provides sound strategic basis and an appropriate level of justification for the amendment.

How does the Amendment support or implement the State Planning Policy Framework and any adopted State policy?

The proposed amendment directly supports an implementation of the State Planning Policy Framework through the following:

- The subject site will provide rural living zoned land that is readily accessible to services and infrastructure to support rural residential housing;
- The subject site will increase the supply of housing in the rural context; and
- The site provides an opportunity for redevelopment and subdivision of a site that is no longer required by Southern Rural Water for the infrastructure purposes.

Specifically, the proposed amendment responds to the provisions of the State Planning Policy Framework as follows:

<u>Clause 12.06 Central Highlands Regional Growth</u>

The objective of this Clause is to plan for population growth in sustainable locations throughout the region.

The amendment implements this objective by providing land supply in a rural residential context that is accessible to servicing and infrastructure.

<u>Clause 12.01 Biodiversity</u>

Clause 12.01 includes objectives for the protection of habitat, native vegetation management and the preparation of biodiversity strategies. Furthermore, this Clause also seeks to ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

The Flora and Fauna Assessment undertaken for the subject land confirms that the proposal will not result in a significant loss of native vegetation or biodiversity on the subject site and adjoining road reserves. The proposed subdivision layout has been configured to minimise impacts on vegetation. Any loss of native vegetation will be appropriately offset to ensure

there is no net loss of biodiversity in Victoria. Accordingly, the amendment supports the biodiversity objectives of the SPPF.

Clause 13.05 Bushfire

Clause 13.05 includes the objective to assist to strengthen community resilience to bushfire. The site is within a Bushfire Management Overlay (BMO). A bushfire site-based assessment has been undertaken which has confirmed that subject to bushfire protection measures being implemented, the site is suitable for a two-lot subdivision. On this basis, the amendment implements the objectives of this clause.

Clause 15 Built Environment

Clause 15 seeks to ensure that land use and development appropriately responds to its landscape, valued built form and cultural context, and protect places and sites with significant heritage, architectural, aesthetic, scientific and cultural value. The amendment implements this objective by ensuring that the subdivision design takes into account the landscape and surrounding built form. The amendment proposes a two lot subdivision that is consistent with the pattern of development immediately south of the subject land.

Clause 15.03-2 Cultural Heritage

Clause 15.03-2 includes the objective to ensure the protection and conservation of places of Aboriginal cultural heritage significance. The amendment implements the objective, as a desktop assessment has confirmed that the site is not in an area of cultural sensitivity.

Clause 16.02-1 Rural Residential Development

Clause 16.02-1 includes the objective to identify land suitable for rural living and rural residential development.

The amendment implements this objective as the subject land is located close to the township of Bacchus Marsh, is adjacent to existing rural residential development, can be serviced with electricity and water, has sufficient area to accommodate on-site effluent disposal and has good access to existing roads.

Clause 19.02-3 Water supply, sewerage and drainage

Clause 19.02-3 includes the objective to plan for the provision of water supply, sewerage and drainage services that efficiently and effectively meet State and community needs and protect the environment.

The amendment implements this objective by creating a subdivision that is capable of adequately treating and retaining all domestic wastewater within the boundaries of each lot and capable of being supplied with electricity and water.

How does the Amendment support or implement the Local Planning Policy Framework, and specifically the Municipal Strategic Statement?

The amendment supports and implements the Local Planning Policy Framework of the Moorabool Planning Scheme, including the Municipal Strategic Framework and the Local Planning Policies as follows:

Clause 21.02 Natural Environment

Moorabool Shire's natural environment, towns, rural landscapes, and forested areas are important elements of the Shire's character. Clause 21.02 seeks to maintain and enhance the natural environment and the Shire's rural identity and character.

The flora and fauna assessment undertaken in support of the project has considered the potential impacts a rural residential subdivision will have on the environment. The subdivision

layout has been designed to minimise impacts to the natural environment whilst also maintaining the rural landscape character.

Clause 21.02-2 Non Urban Landscapes

Clause 21.02-2 seeks to maintain and enhance the natural environment and the Shire's rural identity and character.

The projects flora and fauna assessment has considered potential impacts the proposed subdivision may have on the environment and local biodiversity, which are not considered significant and will be appropriately offset.

The subdivision layout has been designed to minimise impacts to the natural environment whilst also maintaining the rural landscape character, noting historical occupation and disturbance on the site

Clause 21.02-5 Wildfire

The objective of the clause is to minimise the risk of wildfire.

A bushfire assessment has been prepared which has guided the design of the proposed two lot subdivision in terms of lot boundaries, location of building envelopes and impacts to vegetation.

On this basis it is considered that the subdivision supports this Clause.

Clause 21.03 – Settlement and Housing

It is expected that outward pressure from the Melbourne metropolitan area, the location of the Shire on one of the State's major regional transport corridors and proximity to the regional centres of Ballarat and Geelong will continue to reinforce the advantages of the Shire as a place to live and invest.

The proposed subdivision responds to identified demand for rural residential type allotments in this location.

Clause 21.03-4 Landscape and Neighbourhood Character

Clause 21.03-4 seeks to ensure that new development in all zones respects the existing character, landscape setting and amenity of the local area.

The proposed rezoning will be consistent with relevant strategies for this clause as the proposed rural living zoning will complement the rural residential use and zoning of adjoining land to the south. It is also envisaged that the future rural residential use of the land will not require significant removal of existing vegetation and any future building can be constructed with a minimum setback of 40 metres of adjoining road reserves. Accordingly, the proposed rezoning will not result in any unreasonable impact on the landscape character of the local area.

Clause 21.03-5 Rural Lifestyle Opportunities

Clause 21.03-5 relates to rural lifestyle opportunities and seeks to support development in small towns and rural lifestyle opportunities as an additional residential choice. The proposed rezoning supports this strategy by providing an opportunity for limited rural residential development on the subject site that would not adversely affect agricultural production and would have minimal impact to native vegetation and habitat values.

The proposed subdivision is capable of satisfying environmental and physical requirements, including appropriate on-site treatment of effluent and stormwater management, reticulated water services are provided and sealed access roads service all lots. Further to this, the proposed subdivision is consistent with the pattern of existing rural living development to the south of the site.

Clause 21.05 – Development and Community Infrastructure

The rezoning supports and implements this Clause by enabling financial contributions to the provision of infrastructure such as public facilities, public transport, and roads.

Clause 21.07 Bacchus Marsh

Clause 21.07-4 refers specifically to rural residential development in Bacchus Marsh. The objective of this Clause is to provide high amenity rural lifestyle opportunities while protecting irrigated horticultural land and the sustainability of environmental assets. The Clause recognises the importance and attractiveness of rural residential and rural lifestyle living as an alternative living environment in designated areas around Bacchus Marsh and seeks to ensure that rural residential development is consistent with the Bacchus Marsh Framework Plan.

The subject land is not included in the Bacchus Marsh Framework Plan. However, the land immediately south and west of the site is within the Bacchus Marsh Framework Plan and is identified as an area for 'low density and environmentally sensitive housing opportunities'

The rezoning implements this clause as it will facilitate rural residential development without impacting upon agricultural land or the environment.

Does the Amendment make proper use of the Victoria Planning Provisions?

The amendment makes the proper use of the Victorian Planning Provision (VPPs), as:

- SRW have identified that the site is surplus to its operational requirements and intends on selling the property. In accordance with the VPP's it would be inappropriate to have privately owned land included within a Public Use Zone.
- The RLZ has been applied to land immediately south of the site and is the most appropriate zone to apply. The proposed rezoning would form a logical extension of the RLZ to allow the land to be development for rural residential purposes.
- The ESO and BMO affecting the subject site will not be altered by the proposed amendment

How does the Amendment address the views of any relevant agency?

SRW, in the course of preparing this amendment request, has consulted with a number of relevant agencies in preparing the amendment. The agencies whose views have been addressed in this amendment are listed below:

- Moorabool Shire Council – as the planning authority for the Moorabool Planning Scheme
- Department of Transport, Planning and Local Infrastructure (now Department of Environment, Land, Water and Planning) – on behalf of the Minister for Planning responsible for authorising the amendment
- VicRoads – as the road manager of the Diggers Rest-Coimadai Road
- Country Fire Authority – as the relevant fire authority.

It is considered that agency views have been reasonably addressed by this amendment request, with details provided though this submission where relevant.

Does the Amendment address relevant requirements of the Transport Integration Act 2010?

The amendment is not considered to have any impact on the transport system, as defined by Section of the Transport Integration Act 2010.

There are no applicable statements of policy principles prepared under Section 22 of the Transport Integration Act 2010.

Resource and administrative costs

- **What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?**

The new planning provisions will have a minor impact on the resource and administrative costs of the Moorabool Shire Council, as the relevant responsible authority.

The amendment only affects land subject to the proposed rural residential subdivision for which a planning permit is concurrently being sought. A number of planning permit applications will likely be required to establish buildings and works on each allotment in association with rural residential use.

Where you may inspect this Amendment

The amendment is available for public inspection, free of charge, during office hours at the following places:

Moorabool Shire Council

182 Halletts Way

Darley VIC 3340

The Amendment can also be inspected free of charge at the Department of Environment, Land, Water and Planning website at www.dtpli.vic.gov.au/publicinspection .

Permit No.: XXX

Planning Scheme: Moorabool Planning

Responsible Authority: Moorabool Shire Council

PLANNING PERMIT

GRANTED UNDER DIVISION 5 OF PART 4 OF THE PLANNING AND ENVIRONMENT ACT 1987

ADDRESS OF THE LAND: Lot 1 on Plan of Subdivision 349871

THE PERMIT ALLOWS: Two lot subdivision and removal of native vegetation .

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT:

Layout not altered
The subdivision as shown on the endorsed plans must not be alteration without the written consent of the responsible authority.

Easements
All existing and proposed easements and sites for existing and required utility services and roads must be set aside in favour of the relevant authority for which the easement or sites is to be created on the plan of subdivision submitted for certification under the *Subdivision Act 1988*.

Payment in lieu of open space provision
Before the statement of compliance is issued under the *Subdivision Act 1988*, in accordance with the decision of Council dated (insert date of permit issued), made under Section 18 of that Act, the applicant or owner must pay to the responsible authority a sum equivalent to (insert number) percent of the site value of all the land in the subdivision.

Time for starting and completion
This permit will expire if:

(a) The plan of subdivision is not certified with 2 years of the date of this permit; or
(b) The registration of the subdivision is not completed within 5 years of the certification of the Plan of Subdivision under the Subdivision Act 1988.

The Responsible Authority may extend the periods referred to if a request is made in writing whereby either of the following instances apply:

(a) Before or within six (6) months after the permit expiry date, where the use or development allowed by the permit has not yet started; or
(b) Within twelve (12) months after the permit expiry date, where the proposal allowed by the permit has lawfully started before the permit expires.

Agreement with relevant authorities for utility serivces

Date Issued:	**Date Permit comes into operation:** **(or if no date is specified, the permit comes into operation on the same day as the amendment to which the permit applies comes into operation)**	**Signature for the Responsible Authority**

DRAFT

The owner of the land must enter into agreements with the relevant authorities for the provision of water supply, drainage, sewerage facilities, drainage, sewerage facilities, electricity, gas and telecommunication services to each lot shown on the endorsed plan in accordance with the authorities' requirements and relevant legislation at the time.

Detailed construction plans
Before any road/drainage works associated with the subdivision start, detailed construction plans to the satisfaction of the responsible authority must be submitted to and approved by the responsible authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be drawn to scale with dimensions and three copies must be provided. The plans must include:

(a) Details to be advised by Council Infrastructure Department

All works constructed or carried out must be in accordance with those plans.

Development Contributions
Before the plan of subdivision is certified under the *Subdivision Act 1988*, the owner must enter into an agreement with the responsible authority under Section 173 of the *Planning and Environment Act 1987* and make application to the Registrar of Titles to have the agreement registered on the title to the land under section 181 of the Act, which provides that the owner of the land will contribute (specify amount) per lot, at the time a statement of compliance is issued, to the provision of infrastructure for the residential who will occupy the land in accordance with the approved development contributions plan for (specify relevant plan – if there is one?).

The owner must pay the reasonable costs of the preparation, execution and registration of the section 173 Agreement.

Building Envelopes
Before the plan of subdivision is certified under the Subdivision Act 1988, the owner must enter into an agreement with the responsible authority under section 173 of the *Planning and Environment Act 1987*, and make any application to Registrar of Titles to have the agreement registered on the title to the land under section 181 of the Act, which provides that on each lot to be created, building may be constructed only within the building envelopes, and effluent disposal must be confined to the effluent disposal envelopes as shown on the endorsed plans of this permit.

These envelopes cannot be varied except with the consent of the responsible authority.

The owner must pay the reasonable costs of the preparation, execution and registration of the Section 173 agreement.

Site Environmental Management Plan
Prior to the commencement of any works, a Site Environment Management Plan (SEMP) must be submitted to and approved to the satisfaction of the Responsible Authority and relevant external Referral Authorities. When approved, the plan will be endorsed and then form part of the permit. The approved SEMP must be implemented at all times on site during construction to the satisfaction of the Responsible Authority.

Street Trees
The owner or developer of the subject land must plant street trees within the subdivision permitted by this permit to the satisfaction of the Responsible Authority. Such street tree must be in accordance with the plan approved by the Responsible Authority.

Notification of permit conditions

Date Issued:	**Date Permit comes into operation:** **(or if no date is specified, the permit comes into operation on the same day as the amendment to which the permit applies comes into operation)**	**Signature for the Responsible Authority**

Before the vegetation removal starts, all persons undertaking the removal must be advised of all relevant conditions of this permit.

Avoiding damage during vegetation removal
Vegetation removal and disposal must not cause damage to vegetation stands to be retained.

Delineating vegetation stands for removal and retention
Before the removal of any vegetation starts:

(a) A plan to the satisfaction of the responsible authority identifying all trees to be retained must be submitted to and approved by the responsible authority;
(b) The trees to be retained as shown on the endorsed plan must be marked on the site to the satisfaction of the responsible authority
(c) Removal must accord with the endorsed plans

Tree hollows
Any pruning or removal of tree limbs, particularly hollow-bearing tree limbs, must be to the minimum extent necessary.

Offsets to be determined
Before the vegetation removal starts, an offset plan showing appropriate offsets to compensate for the removal of (specify number) habitat hectares of vegetation and (specify number) must be submitted to and approved by the responsible authority. Three copies of the plan must be provided. When approved, the plan will be endorsed and will then form part of this permit.

Condition X is required by Council's Infrastructure Department

Condition X is required by Western Water

Condition X is required by Powercor Australia

Condition X is required by Tenix

Condition X is required by Western Water

Condition X is required by Telstra Telecommunications Network

Ongoing Management and protection of offset
The offset area(s) must be permanently protected and maintained to the satisfaction of the responsible authority and upon advise from the Department of Environment and Primary Industries.

Bushfire Management
Before the statement of compliance is issued under the Subdivision Act 1988 the owner must enter into an agreement with the responsible authority under Section 173 of the Planning and Environment Act 1987 and make application to the Registrar of Titles to have the agreement registered on the title to the land under Section 181 of the Act. The agreement must set out the following matters:

- That it has been prepared for the purpose of an exemption from a planning permit under Clause 44.06-1 of this planning scheme.
- The building envelope and defendable space envelope to achieve the Bushfire Attack Level approved under this permit.

Date Issued:	**Date Permit comes into operation:** **(or if no date is specified, the permit comes into operation on the same day as the amendment to which the permit applies comes into operation)**	**Signature for the Responsible Authority**

DRAFT

- Vegetation management requirements and arrangements suitable to implement and maintain the defendable space approved under this permit.
- The access and water supply requirements approved under this permit.

The land owner must pay the reasonable costs of the preparation, execution and registration of the Section 173 Agreement."

(If the permit has been amended, include the following table indicating the date and nature of amendments included in the amended permit)

Date of amendment	Brief description of amendment

DRAFT

Date Issued:	**Date Permit comes into operation:** **(or if no date is specified, the permit comes into operation on the same day as the amendment to which the permit applies comes into operation)**	**Signature for the Responsible Authority**

IMPORTANT INFORMATION ABOUT THIS PERMIT

WHAT HAS BEEN DECIDED?

The Responsible Authority has issued a permit. The permit was granted by the Minister administering the **Planning and Environment Act 1987** under section 96I of that Act.

WHEN DOES THE PERMIT BEGIN?

The permit operates from a day specified in the permit being a day on or after the day on which the amendment to which the permit applies comes into operation.

WHEN DOES A PERMIT EXPIRE?

1. A permit for the development of land expires if -
   * the development or any stage of it does not start within the time specified in the permit; or
   * the development requires the certification of a plan of subdivision or consolidation under the **Subdivision Act 1988** and the plan is not certified within two years of the issue of a permit, unless the permit contains a different provision; or
   * the development or any stage is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit or in the case of a subdivision or consolidation within 5 years of the certification of the plan of subdivision or consolidation under the **Subdivision Act 1988**.
2. A permit for the use of land expires if -
   * the use does not start within the time specified in the permit, or if no time is specified, within two years after the issue of the permit; or
   * the use is discontinued for a period of two years.
3. A permit for the development and use of land expires if -
   * the development or any stage of it does not start within the time specified in the permit; or
   * the development or any stage of it is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit; or
   - the use does not start within the time specified in the permit, or, if no time is specified, within two years after the completion of the development: or
   - the use is discontinued for a period of two years.
4. If a permit for the use of land or the development and use of land or relating to any of the circumstances mentioned in section 6A(2) of the **Planning and Environment Act 1987**, or to any combination of use, development or any of those circumstances requires the certification of a plan under the **Subdivision Act 1988**, unless the permit contains a different provision-
   * the use or development of any stage is to be taken to have started when the plan is certified; and
   * the permit expires if the plan is not certified within two years of the issue of the permit.
5. The expiry of a permit does not affect the validity of anything done under that permit before the expiry.

WHAT ABOUT APPEALS?

* Any person affected may apply for a review of -
  - a decision of the responsible authority refusing to extend the time within which any development or use is to be started or any development completed; or.
  - a decision of the responsible authority refusing tot extend the time within which a plan under the **Subdivision Act 1988** is to be certified, in the case of a permit relating to any of the circumstances mentioned in section 6A(2) of the **Planning and Environment Act 1987**; or.
  - the failure of the responsible authority to extend the time within one month after the request for extension is made.
* An application for review is lodged with the Victorian Civil and Administrative Tribunal.
* An application for review must be made on an Application for Review form which can be obtained from the Victorian Civil and Administrative Tribunal, and be accompanied by the applicable fee.
* An application for review must state the grounds upon which it is based.
* An application for review must also be served on the Responsible Authority.
* Details about applications for review and the fees payable can be obtained from Victorian Civil and Administrative Tribunal.

DRAFT

Amendment CX
List of changes to the Moorabool Planning Scheme

Clause / Map Numbers	Change	Comment
PLANNING SCHEME MAP CHANGES		
Map No. 38	Amend Planning Scheme Map No. 38 to include land at Long Forrest Road, Coimadai (Lot 1 on LP348971), in a Rural Living Zone, as shown on the attached map marked "Moorabool Planning Scheme Amendment CX".	Amends the planning scheme maps
LIST OF AMENDMENTS (Information to accompany amendment)		
List of Amendments	Insert: Amendment Number 'CX', in operation from [Date to be inserted] "Applies the Rural Living Zone to include land at XX Long Forrest Road, Bacchus Marsh (Lot 1 on LP348971)..	Updates list of amendments to the Moorabool Planning Scheme.

DRAFT

Planning and Environment Act 1987

MOORABOOL PLANNING SCHEME

AMENDMENT C*

INSTRUCTION SHEET

The planning authority for this amendment is the Moorabool Shire Council.

The Moorabool Planning Scheme is amended as follows:

Planning Scheme Maps

The Planning Scheme Maps are amended by a total of 1 map sheet.

Zoning Maps

1. Amend Planning Scheme Map No 38 in the manner shown on the attached map.

End of document

Southern Rural Water

Long Forest Road Bushfire Assessment

November 2015

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1. Introduction

1.1 Background

Southern Rural Water (SRW) has identified a number of sites across southern Victoria that are surplus to their business. One of these sites is located at Long Forest Road, Long Forest ('the site') and SRW are seeking to release this land into the market.

To facilitate the sale of the property, SRW is seeking to rezone the property from the current Public Use Zone 1 – Service and Utility (PUZ1) to the Rural Living Zone (RLZ).

SRW are also seeking to create a two-lot subdivision at this site.

The site is subject to a Bushfire Management Overlay. An application for subdivision of the site is required to be prepared in accordance with Clause 44.06 *Bushfire Management Overlay* (BMO) of the Moorabool Planning Scheme ('the planning scheme'). The purpose of the BMO is to:

- *ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire*
- *identify areas where the bushfire hazard warrants bushfire protection measures to be implemented*
- *ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.*

This application must meet the subdivision objectives outlined in Clause 52.47-2.4 *Planning for Bushfire*:

- *To provide lots that are capable of being developed in accordance with the objectives of Clause 52.47*
- *To specify at the subdivision stage bushfire protection measures to develop a lot with a single dwelling on land zoned for residential or rural residential purposes.*

The subdivision must achieve compliance with either the approved or alternative measures for meeting the above objectives.

1.2 Purpose of this report

This bushfire assessment report was prepared for Southern Rural Water to support proposed rezoning and an application to subdivide land at Long Forest Road Long Forest (Lot 2 LP221537).

This report has been prepared to meet the relevant requirements set out in Clauses 44.06 and 52.47 of the planning scheme.

1.3 Scope and limitations

This document has been prepared by GHD and may only be used and relied on by for the purpose agreed as set out in Section 1.2 of this document.

GHD otherwise disclaims responsibility to any person arising in connection with this document. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this document were limited to those specifically detailed in the document and are subject to the scope limitations set out in the document.

The opinions, conclusions and any recommendations in this document are based on conditions encountered and information reviewed at the date of preparation of the document. GHD has no responsibility or obligation to update this document to account for events or changes occurring subsequent to the date that the document was prepared.

The opinions, conclusions and any recommendations in this document are based on information obtained from specific sample points. Conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Site conditions may change after the date of this document. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this document if the site conditions change.

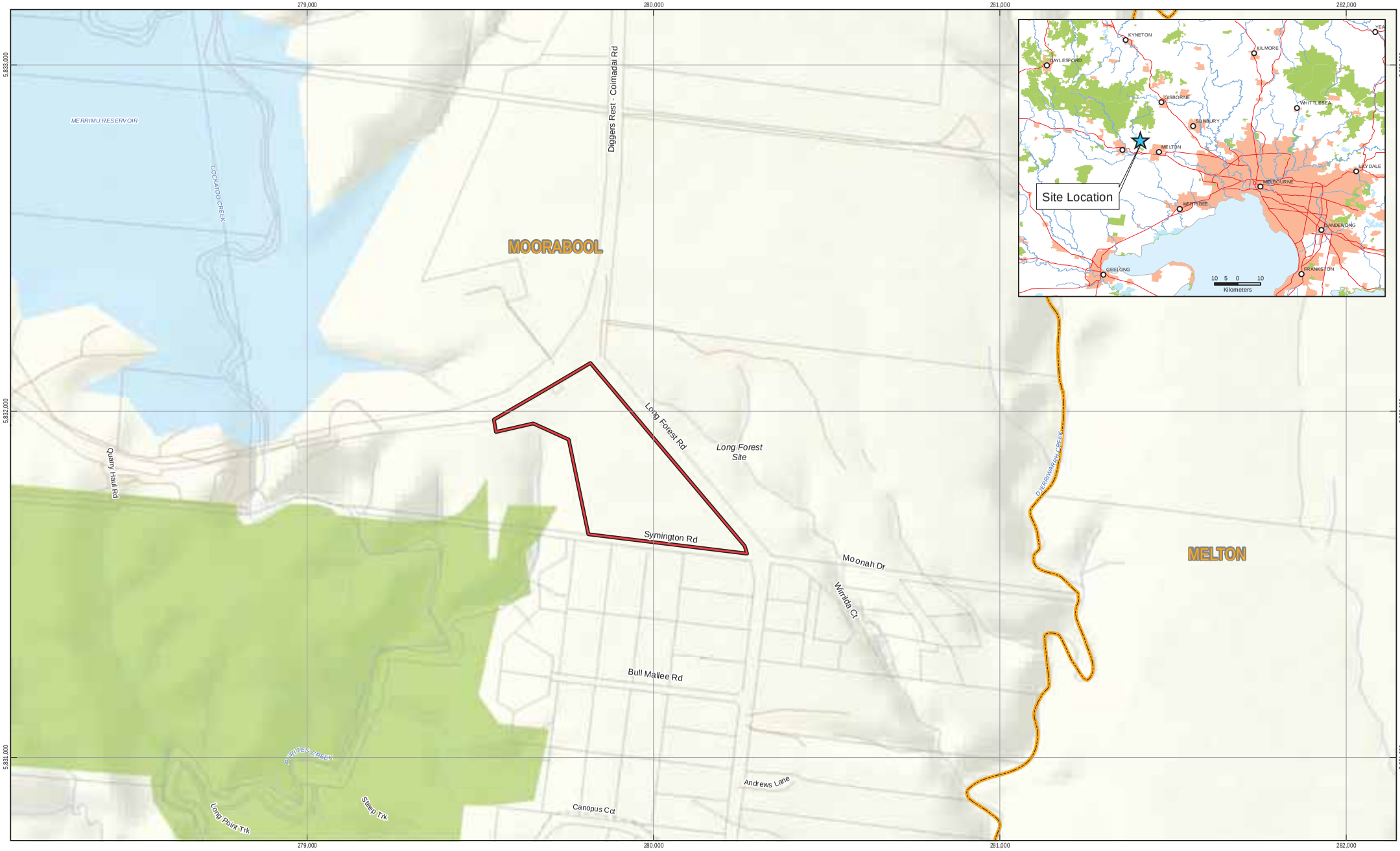
2. Locality and Site Description

The site, known as Lot 2 LP221537, is located at Long Forest Road, Long Forest, approximately 50 kilometres north-west of Melbourne between Melton and Bacchus Marsh (refer to Figure 1).

The site is on a largely flat plateau with land sloping downwards in all directions, most sharply to the south-west. It is heavily vegetated around its perimeter and is surrounded by vegetation to the east, west, and south. To the north of the site is SRW's Lake Merrimu operations area, on Diggers Rest-Coimadai Road, and to the north-west is Lake Merrimu.

The site appears to have been modified through previous land-use. There are existing water tanks at the centre of the northern boundary of the site, as well as a small dam at the north of the eastern boundary, which is bounded by two small constructed earth mounds. There are powerlines running within the road reserve along the northern and southern boundaries of the site, with a powerline easement that has been cleared of vegetation located just within the eastern boundary of the site (refer to attached figure). The site is surrounded by a stock fence with a number of gates. Along with the constructed water supplies, this indicates that the site may have been previously grazed.

There are several existing rural residential properties to the south and south-east of the site, off Symington Road and Long Forest Road, with larger rural properties to the north and north-east.



Scale 1:10,000 (At A3)

0 50 100 200 300 400

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Local Government Boundary
- Major water area
- Major water course
- Urban Area
- Park

Southern Rural Water
Desktop Planning Assessment

Job Number	31-30827
Revision	0
Date	11 Nov 2015

Locality Plan

Figure 1

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© 2015. Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Data source: DSE and VicMap 2013. Created by:lrsmith

180 Lonsdale Street Melbourne VIC 3000 Australia T 61 3 8687 8000 F 61 3 8687 8111 E melmail@ghd.com W www.ghd.com

3. Bushfire Hazard Site Assessment

A Bushfire Hazard Site Assessment was undertaken by GHD on 3 June 2014, considering both the site itself and the area within 150 metres from the site boundary. The results are documented below, in accordance with Sections 2.2.3 to 2.2.5 of Australian Standard 3959:2009 *Construction of buildings in bushfire prone areas* ('AS 3959:2009').

Figure 2 shows the bushfire hazards that are described in this section.

3.1 Vegetation Classification

The vegetation types listed in Table 1 were selected as representative of the vegetation on and within 150 metres of the site, based on Table 2.3 and Figures 2.4(A) to 2.4(G) of AS 3959:2009.

The extent of the vegetation types identified in Table 1 is shown on Figure 2.

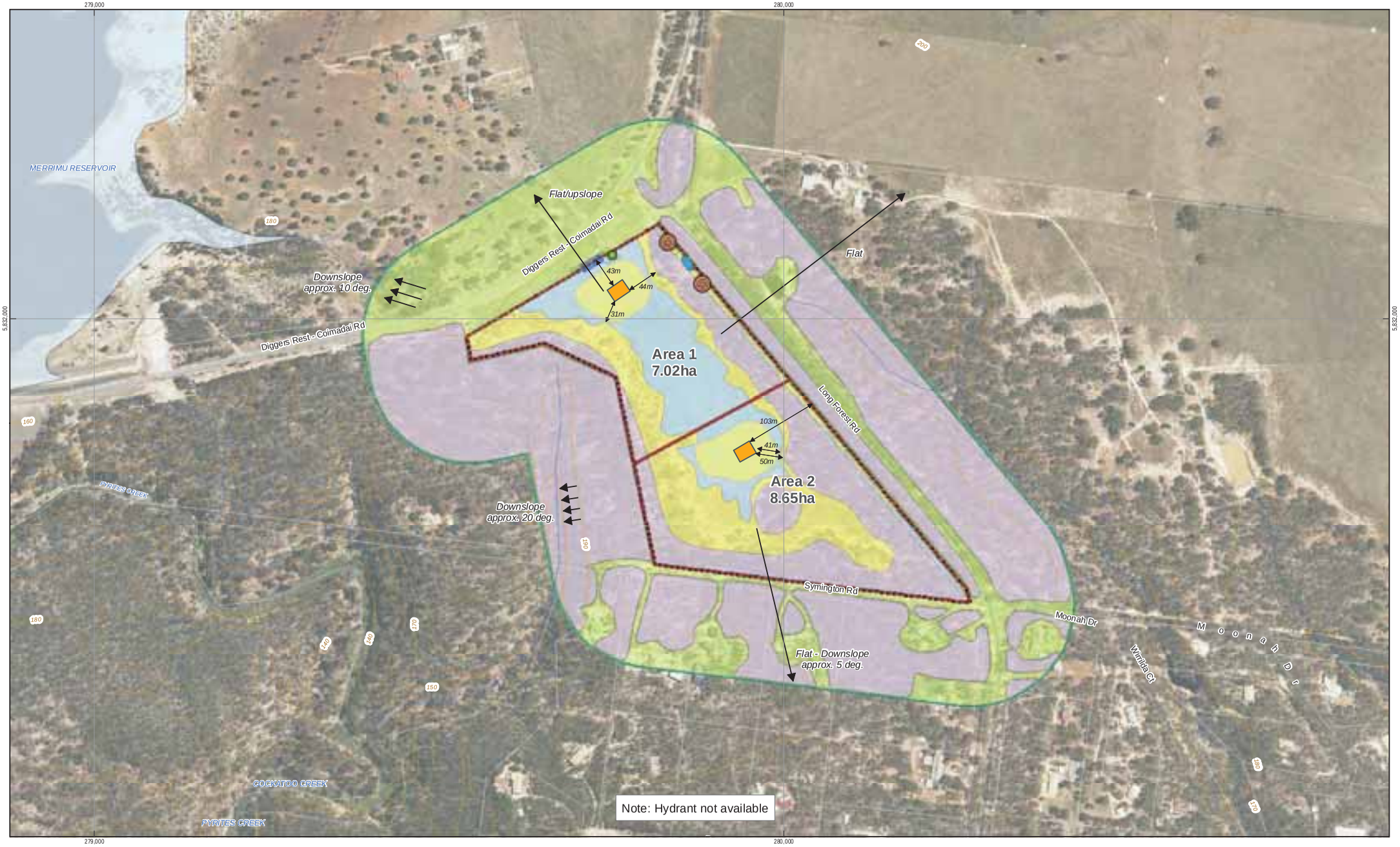
In accordance with Section 2.2.3.1 of AS 3959:2009, the worst case scenario of 'Woodland' was applied to the calculation of defendable space (refer Section —).

3.2 Topography and effective slope

Overall, slope classes within the vegetation hazard (taking into account both the site and land within a 150 metre boundary from the site) are either flat or downslope >0-5 degrees (refer Table 1). There are areas of effective slope up to 20 degrees near the creek tributaries to the east and west; however these constitute a very small proportion of the overall assessment area and would not be expected to greatly influence fire behaviour across the area.

Table 1 Vegetation classification and effective slope on and within 150 metres of site

Photograph 3 June 2014	AS3959-2009 Vegetation class	AS3959-2009 Vegetation type	Vegetation description	Minimum distance of existing vegetation from proposed building envelopes		Effective slope
				Area 1	Area 2	
	Woodland	Woodland	The vegetation is characterised by trees up to around 12 metres in height, with foliage cover dominated by *Eucalyptus microcarpa* (Grey Box), with and understorey of shrubs such as *Acacia pycnantha* (Golden Wattle), *Acacia verniciflua* (Varnish Wattle) and *Cassinia arcuata* (Drooping Cassinia).	44 metres	50 metres	Generally >0-5 degrees downslope. Small sections of land along waterways to the north-east and north-west of the site are upslope and up to 20 degrees downslope
	Woodland	Open shrubland	Vegetation consists of low trees and shrubs generally 2 metres tall or less; mainly *Cassinia arcuata* (Drooping Cassinia). The groundlayer is dominated by *Austrostipa* spp. (Spear Grass) and *Microlaena stipoides* (Weeping Grass) with scattered native and introduced herbs.	31 metres	41 metres	Downslope >0-5 degrees
	Grassland	Low open shrubland	Vegetation is made up of mainly grassland species such as *Austrostipa* spp. (Spear Grass), *Rytidosperma spp.* (Wallaby Grass) and *Elymus scaber* (Wheat Grass), with some shrubs.	Immediately adjacent to proposed building envelopes.		Downslope >0-5 degrees
	Low-threat vegetation	Low-threat vegetation	Non-vegetated areas, including roads and buildings.	43 metres	103 metres	Flat/upslope Downslope >0-5 degrees



Scale 1:5,000 (At A3)

0 25 50 100 150 200

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Long Forest Site Boundary
- Stream
- 10m Contours (mAHD)
- Building Envelope (500 sqm)
- Existing Dam
- Existing Mounds
- Existing Gate & Future Access Point
- Existing Water Tanks
- Existing Powerline Easement

Site Vegetation Type (AS3959-2009)

- Woodland
- Woodland (Open Shrubland)
- Grassland (Low Open Shrubland)
- Low Threat Vegetation

Southern Rural Water
Bushfire Assessment

Job Number	31-30827
Revision	0
Date	11 Nov 2015

Long Forest Site
Bushfire Hazard Site Assessment

Figure 2

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4. Bushfire Hazard Landscape Assessment

The site is situated in a mostly cleared landscape comprised of significant tracts of agricultural land with interspersed rural residential settlement, mixed with fire-prone vegetated areas.

Whilst the surrounded area is largely modified, the site is directly adjacent to fire prone vegetation on its eastern, western and southern extents, although these tracts of vegetation are also surrounded by agricultural and developed areas. Long Forest Road acts as a narrow break to separate the site from fire-prone vegetation on adjacent land to the east. The Grampian Regional Bushfire Planning Assessment (GRBPA) notes that a cluster of rural-residential dwellings currently rely upon Long Forest Road for access and egress from a bushfire hazard area associated with vegetation surrounding a tributary of Djerriwarrh Creek to the east (identified area code 50-026).

Symington Road acts as a narrow break between the site and fire-prone vegetation and existing rural residential settlements to the south.

The Long Forest Flora Fauna Reserve adjoins the along its western side. The reserve comprises a large area of unmanaged fire-prone vegetation and access to this area may be restricted in parts. The GRBPA notes that the existing rural residential lots on Long Forest Road are in a bushfire hazard area associated with this reserve (identified area code 50-027).

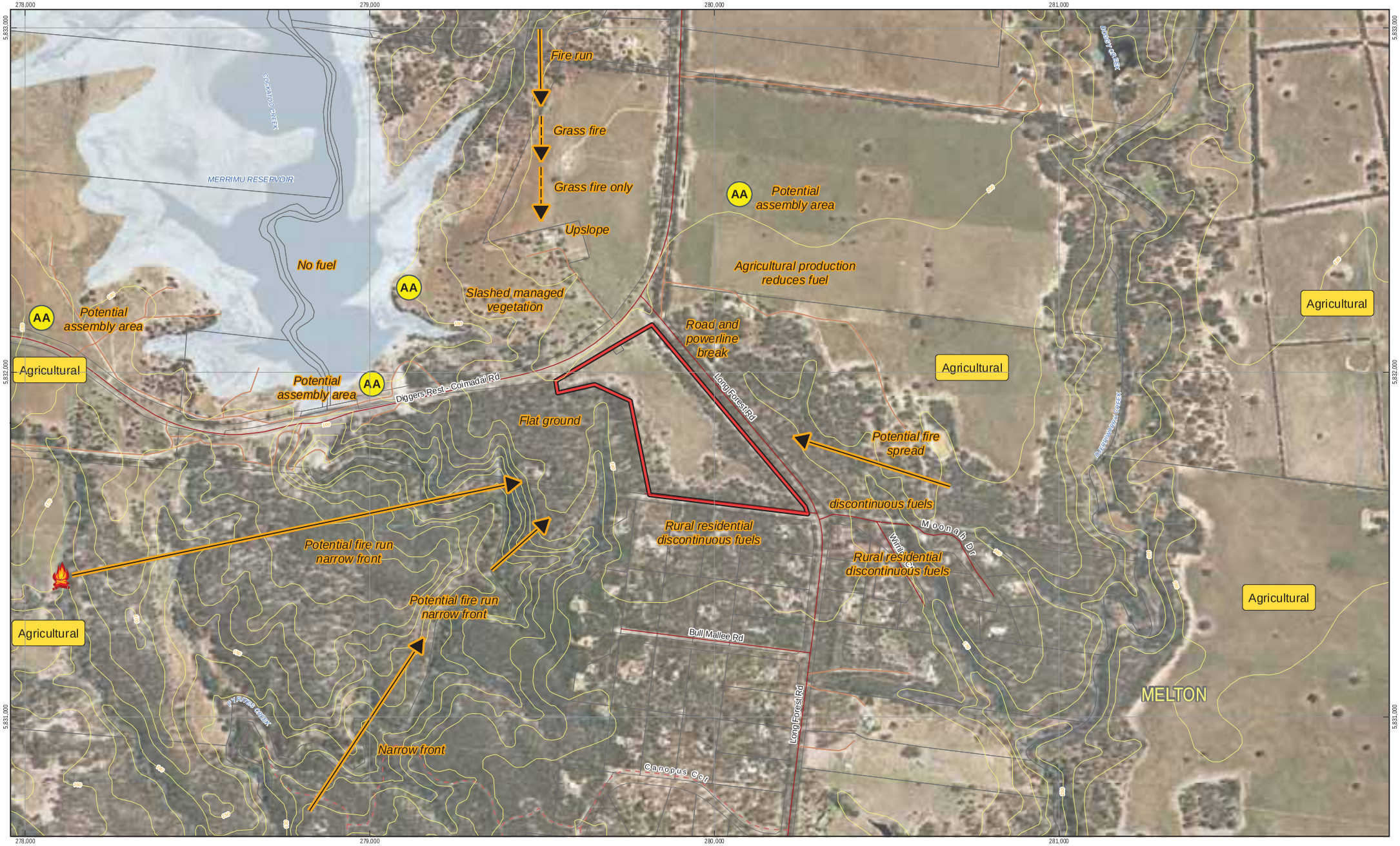
Within this context, the site is most likely to be impacted by bushfire from the south-west, and due to the dimensions of this vegetation it would be as a narrow elliptical front, rather than a large high intensity fire front. The proposed subdivision would have immediate access to the street network (Long Forest Road onto Diggers Rest-Coimadai Road), enabling access to Lake Merrimu and the township of Merrimu (the closest non-vegetated areas) or alternately to the large cleared agricultural areas to the immediate north of the development. The most common fire that would occur within the locality is grassfires.

It is considered that the site is located within Broader Landscape Area Three, based on:

- The proposed development area is well protected from a fire burning under adverse north-east to westerly winds owing to lack of fuels in these quadrants due to the presence of grazed, cropped and horticulture enterprises, and Lake Merrimu reservoir. However the properties to the south (in the vicinity of Bull Mallee Road and Canopus Circuit) are far more susceptible to a fire that would result in ‘neighbourhood scale destruction’ than the subject area;
- While, due to the absence of forest fuels, bushfires are not able to impact the subject land under adverse weather conditions (northerly through to westerly wind influence), they could potentially impact the site under a south-westerly to southerly wind or under a easterly influence (though such conditions would generally be more humid dampening fire behaviour); and
- The vegetation type and extent within one quadrant of site to the south-east, and potentially private properties to the south and east of the surrounding area may not be managed in a minimum fuel condition and therefore could potentially support a bushfire.

Access to appropriate places off-site to provide shelter is available including Lake Merrimu Reservoir and cleared agricultural land to the north.

Realistically the subject lands are not going to be subject to a landscape level high intensity fire front due to protection provided by fuel reduced areas in the northerly to westerly quadrants, although the site might be subject to a smaller scale bushfire burning to the south-east or a grassfire from the north.



Scale 1:10,000 (At A3)

0 50 100 200 300 400

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Long Forest Site Boundary
- Sealed road (arterial and local)
- Unsealed road
- Track and bike path
- Stream
- Channel / drain
- Connector
- Merrimu Reservoir
- Contour 10m Interval

Southern Rural Water
Bushfire Assessment

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Bushfire Hazard Landscape Assessment

Figure 3

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5. Bushfire Management Statement

This section outlines how the proposed subdivision complies with applicable approved measures (AMs) to meet the subdivision objectives outlined in Clause 52.47-2.4 *Planning for Bushfire*.

5.1 Approved Measure 5.1

AM 5.1 does not apply to this application, as it is proposed to subdivide land for rural residential purposes.

5.2 Approved Measure 5.2

As required, compliance with Approved Measure 5.2 is shown on Figure 4. Each lot accommodates a building envelope of 500 square metres.

5.2.1 Site layout

The proposed subdivision complies with AM 2.2 as follows:

- The building envelope on both lots has been sited to achieve the maximum separate distance between the building and the bushfire hazard.
- Both building envelopes area in close proximity to public roads (Area 1 – Long Forest Road and Diggers Rest-Coimadai Road; Area 2 – Long Forest Road and Symington Road).
- Access for emergency service vehicles can be provided to both building envelopes.

5.2.2 Defendable space

The defendable space requirement was calculated using Column B Table 2 (Defendable space and construction) of Clause 52.47-3.

As more than one vegetation type was identified on the site, the worst case scenario (Woodland vegetation) was applied. For a Woodland vegetation class and downslope >0-5°, a defendable space zone of 29 metres is required to meet a Bushfire Attack Limit (BAL) 19.

As shown on Figure 4, the site can easily contain two lots of defendable space at BAL 19 level within the boundary of the proposed subdivision.

5.2.3 Vegetation management

In accordance with DTPLI's *Practice Note 65: Preparing and Assessing a Planning Application under the Bushfire Provisions in Planning Schemes* (July 2014), vegetation would be managed in the following condition in perpetuity:

- Plants and mulches within 10 metres of the building would not be located close to vulnerable parts of the building such as windows, decks and eaves.
- Trees would not overhang the roofline of the building, touch walls or other elements of a building.
- Grass around properties would be kept at a height of five centimetres or less. All leaves and vegetation debris would be removed at regular intervals.
- Shrubs would not be planted under trees.

- Plants greater than 10 centimetres in height at maturity would not be placed directly in front of a window or other glass feature.
- A tree canopy separation of two metres and overall canopy cover of no more than 15% at maturity would be maintained.

5.2.4 Water supply

There is sufficient space within the defendable space of each lot (Area 1 and Area 2) to accommodate a water tank with a dedicated supply of 10 kL for fire-fighting purposes. This would meet the requirements for a static water supply as outlined in AM 4.1 (Clause 52.47-2.3) and Table 4 of Clause 52.47-3.

In accordance with Table 4 of Clause 52.47-3, water tanks on both lots would be fitted with storz coupling, suitable for use by fire services. The fire-fighting water supply would be clearly identified.

5.2.5 Access and egress

Safe access and egress for emergency and other vehicles could be made available to both lots (Area 1 and Area 2), in accordance with the requirements outlined in AM 4.1. Primary access to both lots would be from Long Forest Road as shown on Figure 4. Long Forest Road is a two-wheel drive, all weather road with one-lane each-way.

In accordance with Table 5 of Clause 52.47-3, the primary accessways to both lots from Long Forest Road (Area 1 and Area 2) would meet the following design and construction requirements:

- All-weather construction.
- A load limit of at least 15 tonnes.
- A minimum trafficable width of 3.5 metres.
- Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.
- A minimum inner curve radius of 10 metres.
- Average grade of no more than 1 in 7 (14.4%) (8.1°) with a maximum grade of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- A turning circle with a minimum radius of eight metres.

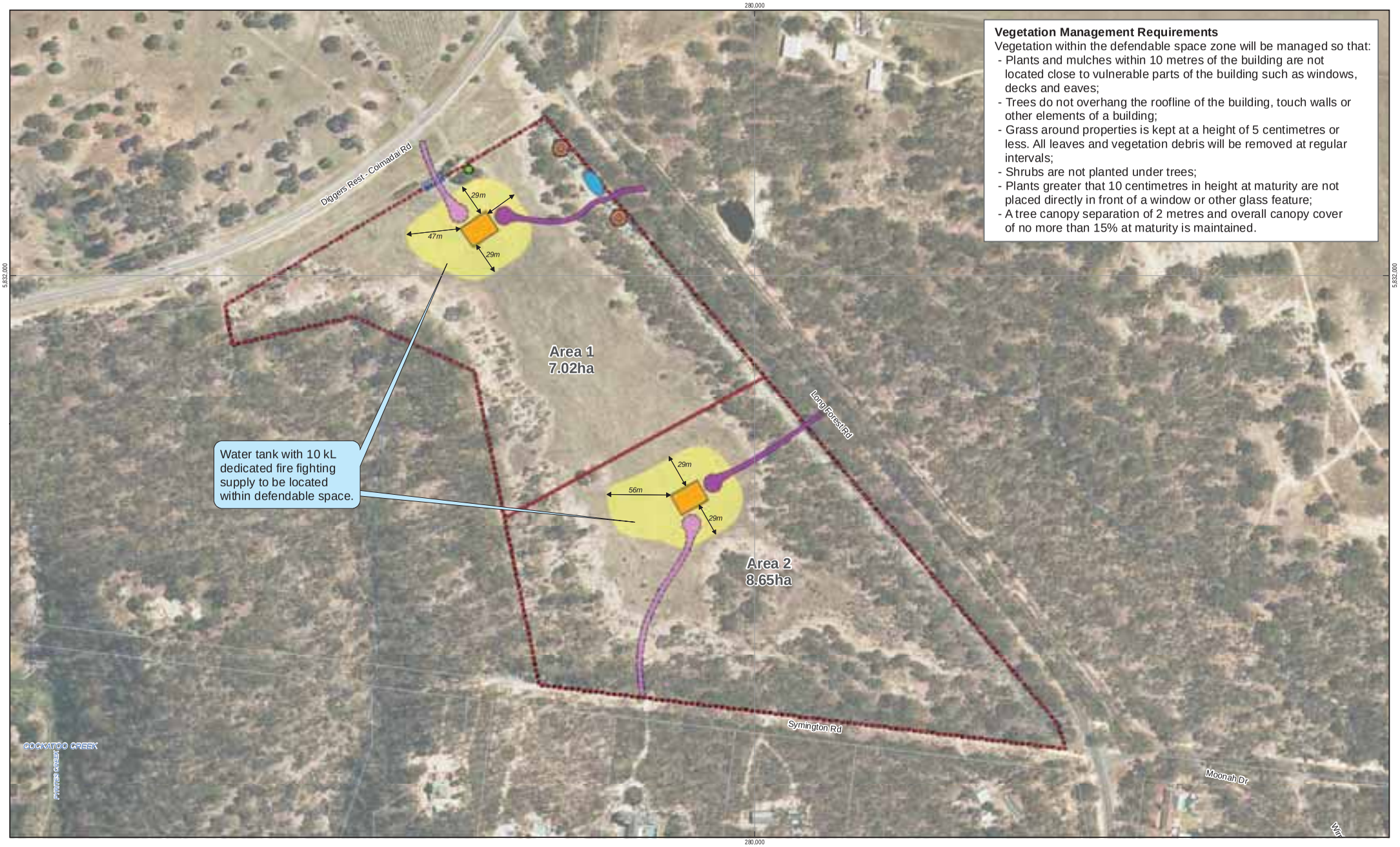
In addition, Figure 4 shows potential secondary accessways (Area 1 – from Diggers Rest-Coimadai Road; Area 2 – from Symington Road). These secondary accessways have been suggested based on areas of boundary vegetation which appear to have been cleared or modified. They would not necessarily meet the design and construction requirements listed above, but could provide another point of access for emergency services vehicles in a bushfire scenario.

5.3 Approved Measure 5.3

AM 5.3 does not apply to this application, as the proposed subdivision is less than 10 lots.

5.4 Approved Measure 5.4

It is considered that the bushfire risk to future development would be managed by adhering to the vegetation management measures detailed in Section 5.2.3. No public open space or communal areas are proposed for this subdivision.



Scale 1:3,000 (At A3)

0 12.5 25 50 75 100 125

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Long Forest Site Boundary
- Stream
- Building Envelope (500 sqm)
- Defendable Space - BAL19
- 4.5m Wide Primary Site Access
- 4.5m Wide Secondary Emergency Access
- Existing Mounds
- Existing Gate
- Existing Water Tanks
- Existing Powerline Easement
- Existing Dam

Note: Hydrant not available

Southern Rural Water
Bushfire Assessment

Long Forest Site
Bushfire Management

Job Number	31-30827
Revision	0
Date	11 Nov 2015

Figure 4

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6. Summary of Compliance

The assessment of the proposed subdivision as detailed in this report has taken into account the rural location of the site, topography, characteristics of the bushfire hazard and likely bushfire behaviour and proposed arrangements for water supply and site access. The subject site has limited exposure to a large bushfire with the majority of the surrounds fuel reduced, with a grassfire scenario more likely.

The report includes discussion and plans to document a:

- Bushfire hazard site assessment – refer Section 3
- Bushfire hazard landscape assessment – refer Section 4
- Bushfire management statement – refer Section 5

The bushfire management measures proposed for the subdivision and discussed in Section 5 of this report are designed to comply with the relevant approved measures of Clause 52.47 (refer Table 2) and to meet the objectives of Clause 44.06 of the planning scheme.

We would therefore seek Council's approval of the proposed subdivision, including the bushfire management measures outlined in Section 5 of this report.

Table 2 Compliance with Clause 52.47 of the Moorabool Planning Scheme

Clause 52.47-2.4 Subdivision objectives	Assessment of Compliance
AM 5.1 An application to subdivide land, *other than where AM 5.2 applies…*	AM 5.1 does not apply to this application, as it is proposed to subdivide land for rural residential purposes.
AM 5.2 An application to subdivide land zoned for residential or rural residential purposes must be accompanied by a plan that shows: • A building envelope for a single dwelling on each lot that complies with AM 2.2 and provides defendable space in accordance with: – Columns A or B of Table 2 to Clause 52.47-3 for a subdivision that creates 10 or more lots; or – Columns A, B or C of Table 2 to Clause 52.47-3 for a subdivision that creates less than 10 lots. • Defendable space wholly contained within the boundaries of the proposed subdivision. • Vegetation management requirements, including inner zone standards (as appropriate), to implement and maintain the defendable space required under this approved measure. • Water supply and vehicle access that complies with **AM 4.1.**	Refer Figure 4. • The building envelope on both lots is sited to achieve the requirements of AM 2.2 (refer Section 5.2.1). • Defendable space is provided around each building envelope in accordance with Column B of Table 2 to Clause 52.47-3 (refer Section 5.2.2). • The defendable space of both lots is wholly contained within the boundaries of the proposed subdivision (refer Section 5.2.2). • Vegetation management requirements have been defined and are outlined in Section 5.2.3. • Refer to Sections 5.2.4 and 5.2.5the requirement for a static water supply for fire-fighting and designation of primary and secondary vehicle accessways.

Clause 52.47-2.4 Subdivision objectives	Assessment of Compliance
AM 5.3 An application to subdivide land *to create 10 or more lots* provides a perimeter road adjoining the hazardous vegetation to support fire fighting.	AM 5.3 does not apply to this application, as the proposed subdivision is less than 10 lots.
AM 5.4 A subdivision manages the bushfire risk to future development from existing or proposed landscaping, public open space and communal areas.	It is considered that the bushfire risk to future development would be managed by adhering to the vegetation management measures detailed in Section 5.2.3. No public open space or communal areas are proposed for this subdivision.

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	E. Daniels	D. Adshead	On file	B. George	On file	11.11.2015

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DRAFT

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Attachment - Item 10.2.7(a)

Costs to Councils – proponent lead amendments

The responsibility for changing the Planning Scheme, which is subordinate legislation, sits with the Parliament of Victoria. For a proponent to seek to change the planning scheme they may either demonstrate that it meets the Ministers Guidelines for Intervention (Minister as Planning Authority) or must seek the support of the local Council to undertake the Planning Scheme Amendment Process. Council is then responsible for facilitating the process as outlined in the Planning and Environment Act.

To administer this process, including notification (local papers, gazette, mail out) Council receives 3 sets of fees amounting to $2120 and its conservative costs are $22,000 for a simple amendment (Band 6). Council receives 9.63% of the costs of undertaking a simple proponent lead amendment. This is a subsidisation by the community of close to $20,000 or 90.37% of the administrative costs. For a more complex amendment it could conservatively cost Council $100,000 in direct costs with 2.12% cost recovery. This is a subsidisation by the community of 97,880 or 97.88% of the direct administrative costs.

Fee to consider amendment and any submissions that do not seek to change it $798
Fee to consider submissions, prepare panel submission, considering panel report, $798
Fee to adopt amendment and submit $524
Fee to be **paid to the** Minister for approval $798

Indicative costs – staff time – simple amendment request – 12 weeks EFT - $20,000 band 6
Pre authorisation request - 6 days
Authorisation request – 2 days (8)
Pre Exhibition – 5 days (13)
Exhibition – 12 days (25)
Pre Panel – 19 days (44)
Panel Hearing – 4 days (48)
Consideration of Panel Report 7 days (55)
Submitting for approval 2 days (57)
Pre approval 1 day (58)
Approval 1 day (59)
Indicative costs notices
Gazette $1000 (check)
Newspaper $1000 (check)
Mail $200

Indicative costs – staff time – complex amendment request – eg Camerons Road– 26 weeks EFT - $46,000 (band 7)
Pre authorisation request – 25 days
Authorisation request – 12 days (37)
Pre Exhibition – 7 days (44)
Exhibition – 28 days (72)
Pre Panel – 30 days (102)
Panel Hearing 5 days (107)
Consideration of Panel Report 18 days (125)
Submitting for approval 5 days (129)
Pre approval 1 day (130)
Approval 1 day (131)
Indicative costs notices / legals $52,500
Gazette $1000 (check)
Newspaper $1000 (check)
Mail $700
Legals ($50,000)

Indicative costs – staff time – complex combined PSA / permit request – eg Bunnings–
20 weeks EFT to post exhibition- $34,000 (band 6) $12,500 non staff costs to date

Pre authorisation request - 10 days
Pre authorisation Permit drafting – 5 days (15)
Authorisation request – 2 days (17)
Post Authorisation (meetings; reviewing documents; permit) 20 days (37)
Pre Exhibition – 2 days (39)
Exhibition – 10 days (49)
Submissions report – 30 days (79)

Indicative costs notices

Gazette $500
Newspaper $500
Mail $1500 (750 notices)
Traffic advice $10,000

PSA Process (not 20(4) request)

Pre authorisation request

- Consider whether the submission is in accordance with the strategic direction of Council; state and local policy, planning practice notes and the Strategic Assessment Guidelines.
- Meetings with proponents – additional information requirements etc
- Review all supporting evidence and amendment documentation.
- Write report to Council with recommendation on how to proceed.
- Discuss payment of panel and other costs (proponent lead)

Authorisation request

- Prepare authorisation request.
- Prebook panel dates etc
- Discussions with department
- Make required changes / discuss conditions of authorisation with proponent

Pre Exhibition

- Prepare amendment documents for exhibition
- Undertake notification of intention to exhibit (10 working days prior)
- Make any changes requested by minister.
- Determine extent of notice. Fill in request to access rates database.
- Prepare notifications and referrals (letters; gazette; newspapers)
- Undertake notification (mail merge; copying; collating etc)
- Make sure materials available on the web and at exhibition points
- Brief records and customer service about exhibition.

Exhibition

- Counter and phone enquiries
- Collate and acknowledge submissions
- Forward submissions to proponent
- Discuss potential changes to the amendment in response to submissions with the proponent
- Review amendment in response to submissions

- Prepare report on submissions, including response to submissions and request for panel.
- Notify affected parties of council meeting
- Attend council

Pre Panel

- Request Panel
- Print two copies of submissions and amendment material
- Post material to planning panels Victoria
- Book venue for direction hearing and hearing
- Write submission to panel (or hire representatives)
- Attend directions hearing
- Undertake directions of panel which may include revising materials, notifications, preparing plans, preparing additional material).
- Brief council.
- Arrange any expert witnesses
- Circulate expert witness reports on the web
- Prepare questions of expert witnesses

Panel Hearing

- Organise catering and room setup
- Attend hearing
- Present council case.
- Provide response to questions of the Panel
- Undertake cross examination of expert witnesses
- Brief council and leadership on any policy directions
- Prepare closing

Consideration of Panel Report

- Receive report
- Instruct records to ensure not public until 28 days
- Read report, brief management and Council
- Determine whether report released (some councils have a set process of release)
- Write report to council
- Notify interested parties
- Make all required changes to amendment documentation for adoption.
- Ensure panel report is released
- Attend Council meeting
- Ensure panel fees paid
- Ensure all stat fees paid

Submitting for approval

- Make any additional changes to document post Council resolution
- Request cheque
- Prepare standard forms
- Package material required to accompany amendment docs (reports; advertising etc)
- Discuss with department

Pre approval

- Make any additional changes requested by the department / discuss issues as they arise
- Brief leadership / council as required

Approval

- Notify planning / council
- Notify affected parties
- Organise copy of notice in local paper

Attachment - Item 10.2.7(b)

Attachment 2 - Changes to complexity

	1988	2015
Ability to write entire control	Yes	No
Requirement for strategic assessment	No	Yes
Requirement to comply with state policy	No	Yes
Authorisation stage	No	Yes
Panels considering state policy implications	No	Yes
Panels considering form and content	No	Yes
Panels considering Ministerial directions	No	Yes
Panels considering practice notes	No	Yes
Panels considering impact on administration	Rare in regional areas	Yes
State based strategic planning organisation eg regional planning authority	No	Yes
Complexity of issues considered in council reports	Limited	Complex
Regional Planning Authorities	Yes	
Agencies as Planning Authorities	Common	

Attachment - Item 10.2.7(c)

Planning scheme amendment process

The Moorabool Planning Scheme is subordinate legislation, approved by the Minister for Planning that uses the Victoria Planning Provisions to establish the land use and development controls applying within Moorabool. As our municipality changes, or as the Victoria Planning Provisions change, Council's strategy and planning controls may also change. These changes must be reflected in the Moorabool Planning Scheme. As a change to the planning scheme is changing the rules applying to the land the process, if authorised, may take several years and require significant strategic work to support the proposal. Excluding background preparation stages the average time taken to process an amendment in Victoria is just under two years. (Authorisation; exhibition; consideration of submissions; panel; consideration of Panel; Council decision; Ministers decision)

What is a planning scheme amendment?

A change to the planning scheme is known as an amendment. The process for an amendment is set out in the *Planning and Environment Act 1987.* Common amendments include a change of zone to allow different use of land, the inclusions of land in an overlay to outline development considerations or changes to the municipal strategic statement to discuss the strategic priorities for different areas within Moorabool.

It is important to note that as a planning scheme amendment is a change to the rules governing land use and development there is a formal regulatory process which governs the process with the Minister for Planning as both the authoriser prior to the commencement of an amendment, and as the final decision maker.

Initiating a planning scheme amendment

A planning scheme amendment can be initiated by any planning authority as specified by the *Planning and Environment Act 1987*. A planning authority is any Minister or agency that has been authorised by the Minister for Planning to prepare amendments. In most cases, the initiating planning authority is a local Council, but it may be another Minister.

Anyone can ask a planning authority to prepare an amendment. If you do, you must be able to demonstrate to the planning authority (usually the Council) adequate justification as to why an amendment should be prepared. Council, as a planning authority, must ascertain that the amendment has planning merit and is consistent with the future strategic directions for the municipality, including that

- must have regard to the Minister's directions and the Victoria Planning Provisions;
- must have regard to any municipal strategic statement, strategic plan, policy statement, code or guideline which forms part of the scheme; and
- must take into account any significant effects which it considers the scheme or amendment might have on the environment or which it considers the environment might have on any use or development envisaged in the scheme or amendment; and
- must take into account its social effects and economic effects.

In order for Council to meet the requirements of the Act and consider any rezoning request the following information is required to accompany any request to prepare a planning scheme amendment:

- A response to the Strategic Assessment Guidelines;
- Any relevant back ground reports to demonstrate the suitability of the land for the proposed purpose;
- Letters from relevant authorities in relation to issues to be considered in any proposed controls;
- A complete set of draft amendment documents for consideration;
- The initial fee required under the Planning and Environment (Fees) Regulations;
- Acknowledgement of willingness to meet all statutory fees and future panel costs if Council were to proceed with the amendment.

What are the Strategic Assessment Guidelines?

- Why is an amendment required?
- Does the amendment implement the objectives of planning and any environmental, social and economic effects?
- Does the amendment address relevant bushfire risk?
- Does the amendment comply with all the relevant Ministerôs Directions?
- Does the amendment support or implement the State Planning Policy Framework?
- Does the amendment support or implement the Local Planning Policy Framework?
- Does the amendment make proper use of the Victoria Planning Provisions?
- How does the amendment address the views of any relevant agency?
- Does the amendment address the requirements of the Transport Integration Act 2010?
- What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?

What happens once my submission is lodged.

Unlike a planning permit (assessment made under the scheme) Council is under no obligation to undertake a planning scheme amendment. Once an application is lodged Council will endeavour to commence the internal assessment of the proposal. The timing of this will be dependent on the resources available and the existing work program.

During this process Council officers will work with the proponent to ensure that the documentation provided complies with the *Planning and Environment Act* and that the appropriate planning tools are being utilised before a report is prepared to Council. Council officers will seek the views of relevant agencies prior to reporting to Council. This identifies any wider issues that the proponent may need to address and is envisaged in the strategic assessment guidelines (how does the amendment address the views of any relevant agency). The proponent may wish to include in their report any agency discussions and how the proposed amendment responds.

When the VPPôs were introduced a wider range of uses were able to be undertaken in zones with the aim of negating the need for site specific amendments. This type of amendment will generally not be supported and must be supported by the SPPF and LPPF. Where there is a strategic reason for the change Council determine address multiple site specific amendment requests via the one amendment on a time scale that reflects existing amendments in the system and Councilôs strategic priorities.

As an amendment is not about making a decision under existing rules but proposes to change the rules Council as a planning authority is under no obligation to seek authorisation from the Minister to prepare a planning scheme amendment.

If you want to request an amendment you are encouraged to make a pre application meeting with Council. Prior to this meeting you should have read the relevant state and local planning policies to discuss how your request is strategically supported and have considered any relevant direction or practice note.

Lodging a submission to a proposed planning scheme amendment

As part of a s19amendment process, the community is consulted on proposed planning scheme amendments. The Minister for Planning may prepare amendments to the planning scheme without public notice.

Anyone can lodge a submission about an amendment. A submission may support the amendment, oppose the amendment, or suggest changes to the amendment. Submissions should focus on issues relevant to land use and development issues outlined in the planning scheme, ministerial directions and planning practice notes.

If Council wishes to proceed with an amendment for which there are unresolved submissions, Council requests the Minister for Planning to appoint a Planning Panel to hear submissions to the amendment.

DELWP has information how to prepare a submission to a planning scheme amendment. Your submission should be lodged before the closing date of the exhibition of the amendment so you have the opportunity to present your views to a panel (if one is appointed to consider submissions).

Planning panel

A planning panel may be appointed by the Minister for Planning to consider the submissions and the amendment. The panel:

- reviews the submissions
- conducts a public hearing
- considers the amendment, and
- prepares an independent report with recommendations about the amendment for Council.

After the panel hearing, the panel has 6 - 8 weeks to provide a report to Council with its recommendations on the amendment. While Council has no obligation to adopt the panel's recommendations they must outline reasons why they have not adopted the Panel's recommendations for consideration by the Minister. The proponent will be responsible for payment of Panel costs as invoiced from Planning Panels Victoria

Approval process

Once an amendment has been adopted by Council, it is submitted to the Minister for Planning for final approval. The Minister will consider Councilôs recommendations and the recommendation of any Planning Panel in making his decision. The Minister may approve the amendment with or without change or not approve the amendment. The Ministerôs decision is published in the Victoria Government Gazette. If the amendment is approved it must lay of the floor of Parliament for two sitting weeks in which time it may be revoked by Parliament.

Once the Minister approves the amendment, it then becomes part of the Moorabool Planning Scheme.

Fees and other expenses

Many proponents engage the services of private planning professionals to assist them in the preparation of their rezoning request and to guide them through the process. Depending on the site and the nature of the proposal the request may need to be accompanied by expert reports ï for example flora and fauna, traffic and aboriginal cultural heritage. The proponent must prepare all required background data to the satisfaction of Council.

All costs associated with the preparation of an amendment, are borne by the proponent, including all statutory fees (Planning and Environment Fees Regulations) and Planning Panel hearing expenses, and any additional private expenses, for example, the preparation of the amendment and the the engagement of professional representation for Panel hearings.

Attachment - Item 10.2.8(a)

Planning and Environment Act 1987

Panel Report

Moorabool Planning Scheme Amendment C58
Camerons Road Proposed Rural Living Zone

31 March 2015

Planning Panels Victoria

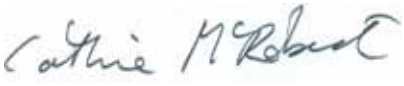
Planning and Environment Act 1987

Panel Report pursuant to Section 25 of the Act

Moorabool Planning Scheme Amendment C58

Camerons Road Proposed Rural Living Zone

31 March 2015



Cathie McRobert, Chair

Graeme David, Member

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List of Abbreviations

BAL	Bushfire Attack Level
BMO	Bushfire Management Overlay
BPA	Bushfire Prone Area
CFA	Country Fire Authority
CRG	Camerons Road Group
DDO	Design and Development Overlay
DELWP	Department of Environment, Land, Water and Planning
DEPI	Department of Environment and Primary Industries (former)
DPO	Development Plan Overlay
DSE	Department of Sustainability and Environment
DTPLI	Department of Transport, Planning and Local Infrastructure (former)
EIIA	Extractive Industry Interest Area
EPA	Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EVC	Ecological Vegetation Class
FDI	Fire Danger Index
FZ	Farming Zone
LMP	Land Management Plan
LPPF	Local Planning Policy Framework
MSS	Municipal Strategic Statement
PCRZ	Public Conservation and Resource Zone
RCZ	Rural Conservation Zone
RLZ	Rural Living Zone
SPPF	State Planning Policy Framework
SUZ2	Special Use Zone Schedule 2
SWSC	Special Water Supply Catchment
The Act	*Planning and Environment Act 1987*
The Draft RSP	Draft Moorabool Rural Strategy Plan 2009
VBRC	Victorian Bushfires Royal Commission
VPP	Victoria Planning Provisions

Overview

Amendment Summary	
The Amendment	Moorabool Planning Scheme Amendment C58. The Amendment proposes to: • Rezone the land from the Farming Zone (FZ) to the Rural Living Zone (RLZ) with a 6 hectare minimum lot size for subdivision • Modify the Clause 21.07 Bacchus Marsh Framework Plan to refer to the to the Camerons Road rural living area • Apply the Design and Development Overlay - Schedule 5 (DDO5) to the rezoned area to guide future development • Amend the schedule to Clause 66-06 to identify notice requirements to the Department of Environment and Primary Industries (DEPI[1]) for proposed dwellings within 500 metres of the Lerderderg State Park.
Common Name	Camerons Road Proposed Rural Living Zone
Subject Site	Approximately 547 hectares of land bound by Lerderderg Gorge Road and the Lerderderg State Park to the west; land immediately to the north of Hornell Lane; and land along Camerons Road south of Seereys Road and Goodmans Creek (see Figure 2).
The Proponent	The Camerons Road Group (CRG), which comprises the owners of nine properties in the Amendment Area (Lots A, C, E, H, I, J, K, P, Q)
Planning Authority	Moorabool Shire Council
Authorisation	28 July 2011
Exhibition	31 July to 1 September 2014
Submissions	As a result of exhibition, 61 submissions (listed in Appendix A) were received, which comprised: • Eight submissions opposing to the rezoning or requesting changes to the Amendment • Two submissions from agencies made no objection • 51 submissions supported of the Amendment.

[1] The functions of the former DSE are now within the Department Environment, Land, Water and Planning.

Panel Process	
The Panel	Cathie McRobert (Chair), Graeme David
Directions Hearing	13 November 2014 at Bacchus Marsh
Panel Hearing	27-29 January 2015 at Bacchus Marsh
Further Notice	The Panel directed in relation to changes to the exhibited documents that were supported by the Proponent and the proposed updating of supporting documents that: 1. The updated documents were to be circulated to the parties to the Hearing. 2. Council was to notify people who were originally notified of the Amendment by 9 December 2014 of the nature of post-exhibition changes that are supported by the Proponent and advise that copies of documents could be viewed on Council's webpage or at the Council's Bacchus Marsh offices. Further notice of post-exhibition changes did not result in additional submissions.
Site Inspections	Unaccompanied, 27 and 29 January 2015
Appearances	• Moorabool Shire represented by Egils Stokans of Russell Kennedy Lawyers assisted by Justin Horne and Lisa Gervasoni of Moorabool Shire Council • The CRG represented by David Merrett of Isis Planning, who called evidence from: - Hamish Alan of Terramatrix – Bushfire - Dr Melanie Birtchnell of Oekologie – Flora and Fauna • The Country Fire Authority (CFA) represented by Emily Porter of Counsel who was assisted by Michael Boatman and Kate Summons of the CFA • Barbara and Patrick Green • Robert Mundy • Boral represented by Adam Terrill of Tract Consultants and Fiona Van Der Hoeven of Boral • Dr Lindsay Turner
Date of this Report	31 March 2015

Overall conclusions and consolidated recommendations

Overall conclusions

For more than two decades landowners in the Amendment Area have, without success, been requesting changes to the planning scheme to enable additional rural living development. In each case, the assessment of the requests highlighted the significant constraints that apply to this land - including an interface with extractive industry, bushfire risk, biodiversity assets and landscape values – together with the absence of any assessment of these issues or potential responses to them. In contrast, the current Amendment process has been informed by expert technical analysis of the key issues relating to bushfire risk and the protection of native vegetation.

Strategic justification

The Panel finds that, provided there are effective responses to key constraints, there is sufficient strategic justification for the proposed rezoning to facilitate rural living development. Strategic planning policy supports additional rural lifestyle opportunities near Bacchus Marsh. We do not consider that the addition of approximately one year supply of rural living lots as a result of the Amendment is a significant issue. The Panel accepts that the theoretical 30 plus year supply of rural residential land overstates the actual supply because the vast majority of rural living lots in the municipality are in Special Water Supply Catchments (SWSC) and the prospect of gaining approval for houses in these areas is currently severely limited.

Fire

State planning policy makes it clear that the risk to life and property from bushfire is to be minimised and the protection of human life is to take priority over other policy considerations. However, this policy imperative does not mean that new residential opportunities should be created if the achievement of acceptable bushfire safety will undermine biodiversity objectives.

The bushfire risk across the Amendment Area varies. Conditions within most of the Amendment Area are within the parameters anticipated by Bushfire Management Overlay (BMO) provisions. However, there is potential for extreme fire behaviour and the risk of neighbourhood-scale destruction due to the fire hazard in the landscape to the north and north-west. This risk is exacerbated by poor egress opportunity, particularly from the northern parts of the Amendment Area.

The Panel agrees with the CFA that the land in the north-west of the Amendment Area has the highest bushfire risk, and that the planning framework should not provide for additional housing in this area.

The Terramatrix bushfire risk assessment provides an appropriate level of confidence that dwelling envelopes can be identified for potential new lots in the other parts of the Amendment Area that will enable BMO standards to be met. However, we consider the landscape scale risk warrants a precautionary approach. Given the variation in risk across

the Amendment Area, before the Amendment is approved, there should be a site by site review in the area subject to the BMO by the CFA and Council, in consultation with landowners and their bushfire expert. This review should address:

- The location of dwelling envelopes (and the driveways to them); and
- Appropriate risk mitigation measures over and above the standard BMO requirements. `

This precautionary approach also extends to applying BMO standards to the bushfire prone areas that are not subject to the BMO.

A number of recent Panels have grappled with the issue of when the bushfire risk from the broader landscape reaches a threshold that justifies precluding residential development or imposing requirements that exceed those that would apply under the BMO. The Panel considers there would be significant benefit in relevant stakeholders - including the CFA, the Department of Environment Land Water and Planning, Planning Panels Victoria and VCAT, Councils with areas subject to extreme bushfire risk and technical specialists in fire behaviour and risk mitigation - developing further explicit guidance on this issue.

Biodiversity

The biodiversity assessments of the Amendment Area demonstrate that the rural living development that would be facilitated by the Amendment can be located to avoid significant vegetation. The recommended review of indicative dwelling envelopes should continue to avoid significant native vegetation. If acceptable bushfire risk mitigation cannot be achieved while protecting significant vegetation, then additional development opportunities should not be identified for that lot. We also endorse Land Management Plans (LMPs) as an important mechanism for the enhancement of biodiversity assets, and this should be explicitly addressed in the schedule to schedule 5 to the Design and Development Overlay (DDO5).

Protecting Adjoining Extractive industry

The Panel considers the planning framework should be strengthened to prohibit additional residential development within the 500 metre separation distance from the adjoining Special Use Zone (SUZ) to the east that covers adjacent quarries.

The Planning Framework

The Panel endorses the rezoning to Rural Living Zone (RLZ) on the eastern side of Camerons Road as recognising the established function of the area. However, in view of the bushfire risk and environmental challenges on the western side of Camerons Road, we consider the Rural Conservation Zone (RCZ) would provide a more appropriate planning framework than the exhibited RLZ.

The Panel considers that the combination of the zone and DDO5 provisions provide an appropriate framework for the consideration of future applications. We do not consider a Development Plan Overly (DPO) is necessary to manage the form of development envisaged, which will largely comprise a series of two lot subdivisions utilising existing roads.

The Panel has accepted that, having regard to the range of planning objectives and the constraints affecting the area, it is reasonable to establish a limit on additional development facilitated by the Amendment to approximately 20 additional dwellings. We have also

recommended that lot size averaging be allowed if it is linked to environmental gains. The changes to DDO5 that are recommended by the Panel are illustrated in Appendix C.

Consolidated recommendations

Based on the reasons set out in this Report, the Panel recommends that Moorabool Planning Scheme Amendment C58 should be adopted as exhibited subject to the following recommendations:

Changes to Schedule 5 to the Design and Development Overlay

1. **Revise the proposed Schedule 5 to the Design and Development Overlay to provide greater certainty that the dwelling envelopes shown on the map to the overlay indicate the limit of additional development.**
2. **Show dwelling envelopes for lots of less than 12 hectares that do not currently have a dwelling on them on the Dwelling Envelopes Plan that forms part of the proposed Schedule 5 to the Design and Development Overlay.**
3. **Review the location of indicative envelopes for lots subject to the Bushfire Management Overlay that rely on Camerons Road for access (Lots A, C, P, Q, H, I, L and G) to identify optimum development envelopes. This review should occur before the Amendment is adopted and should:**
   a) **Ensure long driveways are avoided and the separation from the fuel hazard is maximised.**
   b) **Consider whether there should be a combination of more generous defendable space and more robust construction standard than is normally required by the Bushfire Managemetn Overlay to address the risk of fire from the landscape.**
   c) **Continue to preclude further residential development in the north-west of the Amendment Area, being the land that was excluded from Terramatrix assessments and Lot N.**
4. **Change the proposed Schedule 5 to the Design and Development Overlay as illustrated in Appendix C, including:**
   a) **Explicitly address the landscape scale bushfire risk by indicating that:**
      i. **Bushfire protection measures in excess of those required under the Bushfire Management Overlay may be required where that Overlay applies.**
      ii. **Bushfire protection measures specified under the Bushfire Management Overlay apply to Bushfire Prone areas on the eastern side of Camerons Road.**
   b) **Add an objective, subdivision requirement and decision guideline that focus on the mitigation of bushfire risk and integrating this consideration with responses to other environmental issues.**
   c) **Explicitly indicate that the Dwelling Envelopes Plan shows the number and location of additional dwellings to be accommodated.**
   d) **Specify a minimum setback of dwellings from a road of 30 metres and 50m for outbuildings.**
   e) **Refer to slope in terms of both percentage (%) and degrees (^{0}).**

5. **Revise the proposed Schedule 5 to the Design and Development Overlay to prohibit development of dwellings and other sensitive uses within 500 metres of the Special Use Zone to the east of the Amendment Area.**

6. **Require a Land Management Plan to be submitted with planning permit applications for land subdivision and new dwellings.**

7. **Revise the text relating to Land Management Plans in proposed Schedule 5 to the Design and Development Overlay to the following:**

   A Land Management Plan which includes:

   Description of natural and associated features of the land including topography, soils, vegetation type, land use potentials, and threats to the sustainability of the land and its associated biodiversity values.

   Management requirements to achieve sustainable land use covering:
   - ***Access arrangements***
   - ***Pest plants and animals control***
   - ***Biodiversity management including the protection/enhancement of native vegetation***
   - ***Drainage and soil conservation***
   - ***Screening vegetation (if required)***
   - ***Any other matter considered to be of relevance to the responsible authority.***

8. **Include a decision guideline in proposed Schedule 5 to the Design and Development Overlay relating to whether a Land Management Plan contributes to the sustainable ongoing management of the land.**

Zones

9. **Apply the Rural Conservation Zone to land in the Amendment Area to the west of Camerons Road.**

10. **Include in the schedules to the Rural Living Zone and the recommended Rural Conservation Zone a lot size averaging provision which:**
    - **Is linked to environmental gains**
    - **Specifies that no lot should have an area of less than two hectare**
    - **Precludes further subdivision of the larger lot(s).**

1 Introduction

1.1 The Amendment Area and surrounds

The Amendment applies to approximately 547 hectares on either side of Camerons Road, Bacchus Marsh. The land:

- Extends northwards from Lerderderg Gorge Road approximately 3.7 kilometres to Seereys Road. Its eastern boundary is Goodmans Creek and the western boundary is the Lerderderg State Park.
- Camerons Road provides the primary access to the Amendment Area, although Seereys Road is an alternative route.
- The southern boundary of the land is 700 metres/3.2 kilometres from Darley and 4.7 metres/6.19 kilometres to Bacchus Marsh Post Office (as the crow flies/by road).
- Is undulating to steep. Overall the land falls 180 metres down to Goodmans Creek.
- The Agricultural Land Capability Assessment[2] identified the middle and northern parts of the area as Agricultural Land Class 5 (low to nil agricultural capability) because of poor soils, steep slopes and susceptibility to erosion, while the southern section was designated Class 3. A rating of Class 5 is described as:

  > *'Land unsuited to agriculture. Constraints may be steepness of slope, shallow, sandy or rock soils, high erosion susceptibility. Environmental stability may be best achieved through isolating areas and strictly controlling, or eliminating agricultural land uses.'*

- Rocky Chenopod Woodland (EVC64), mainly west of Camerons Road, and Grassy Woodland (EVC175-1) in the Amendment Area, have a conservation status of *'vulnerable'* and *'endangered'* respectively within the Central Victorian Uplands bioregion. This vegetation has a minimum conservation significance of Very High or High, and High respectively within the review area. Extensive areas, mainly east of Camerons Road, are largely devoid of native vegetation (see Chapter 6).

The Amendment Area is in multiple ownerships, ranging in size between one and 71 hectares, with an average lot size of 13.2ha. Most lots are developed with houses and this establishes a rural living character.[3]

The Amendment Area adjoins:

- Large quarries to the east which are zoned SUZ2
- Lerderderg State Park to the north and north-west which is zoned Public Conservation and Resource Zone (PCRZ)
- Agricultural uses to the south and west on the river flats which are zoned FZ.

[2] *Land Capability and Farming Practice in the Moorabool Shire*, Phillips Agribusiness, 2001.

[3] The Amendment C34 Panel report noted that between 2001-2006, 13 dwellings were approved in the Camerons Road area, which was larger than the area currently under consideration.

1.2 The Amendment

1.2.1 Authorisation of the Amendment

The Minister authorised exhibition of the Amendment on 28 July 2011 subject to the following conditions:

- ***Condition 1 - Responding to bushfire risk and native vegetation qualities****. The Amendment documents must include detail on how the proposed rezoning will balance the Bushfire Management Overlay requirements and bushfire characteristics of the land and the native vegetation qualities of the land and surrounding land.*
- ***Condition 2 - Strategic justification for rural residential development.*** *The Practice Note for Rural Residential Development (May 2012) must be fully addressed including the demonstration of how the proposal supports the strategic framework, meets housing needs and the housing objectives of the area, and why the location is suitable for rural residential development.*
- ***Condition 3 - Mining industry protection.*** *The amendment documents must include a strategic assessment of planning provisions and local planning policy that recognise the significance of the nearby extractive industry and continued mineral extraction.*
- ***Condition 4 - Relevant Authorities response.*** *Department of Primary Industry (DPI), Country Fire Authority (CFA) and the former Department of Sustainability and Environment (DSE) must be consulted in the preparation of the Amendment and given notice.*

1.2.2 The exhibited Amendment

The Amendment proposes to:

- Rezone the land from the FZ to the RLZ, with a six hectare minimum lot size for subdivision (see Figure 1)
- Modify reference to the potential of Camerons Road as a rural living area to '*Camerons Road rural living area'* in the Bacchus Marsh Framework Plan in Clause 21.07
- Apply the DDO5 to the rezoned area to guide the future development of the land
- Amend the schedule to Clause 66-06 to identify notice requirements to the former Department of Environment and Primary Industries (DEPI)[4] for proposed dwellings within 500 metres of the Lerderderg State Park.

[4] The functions of the former DSE are now within the Department Environment, Land, Water and Planning.

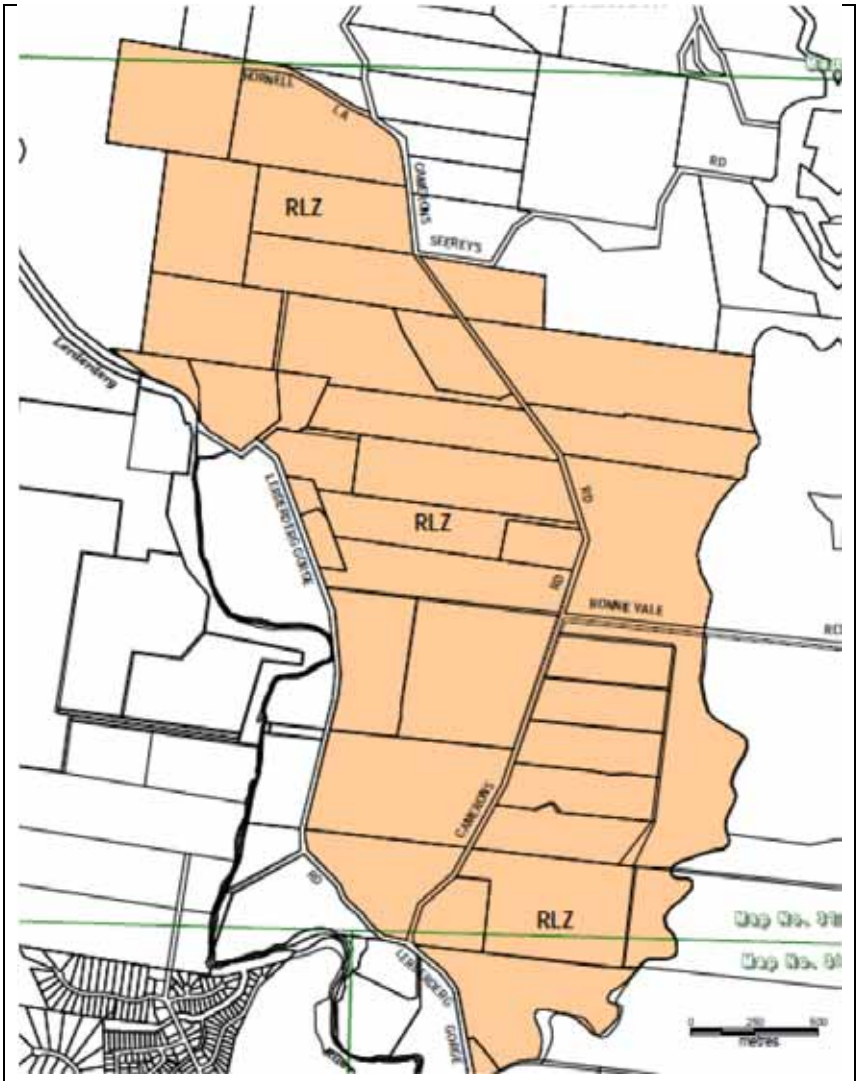

Figure 1 Proposed rezoning

Design and Development Overlay (Schedule 5)

The proposed DDO5 has the following design objectives:

- *To provide for limited rural living development of the land*
- *To protect the water quality of Goodmans Creek and the Lerderderg River*
- *To retain and protect remnant native vegetation and wildlife habitat of the land*
- *To protect the treed landscape values of the land*
- *To protect the nature conservation values and habitat values of the adjacent Lerderderg State Park*
- *To ensure development respects the buffer requirements of the adjacent extractive industries.*

Provisions of DDO5 include, amongst other things:

- That all new dwellings should be sited, as appropriate:
  - At least 300 metres from the extractive industries to the east as defined by the SUZ2

  - At least 100 metres from Goodmans Creek or the Lerderderg River
  - At least 500 metres from the Lerderderg State Park, unless written consent is provided by the (former) DEPI
  - At least 50 metres from the front boundary and 10 metres from the side boundary
  - To avoid or minimise the removal of native vegetation
  - To avoid slopes of greater than 20% (11^0).
- A flora and fauna assessment be prepared in consultation with DEPI if native vegetation is to be removed.
- A LMP should be prepared which addresses the ongoing management of pest plants and animals, appropriate drainage and access provisions, screening vegetation, and any other matter considered to be of relevance to the Responsible Authority.
- Decision guidelines relating to the siting of proposed buildings. The Decision guidelines are designed to: avoid or minimise the need for the removal of native vegetation; be in keeping with the landscape character of the area; avoid erosion; address fire risk by avoiding or minimising the removal of vegetation to create defendable space; and satisfy setbacks from Crown land, waterways, extractive industries and lot boundaries.

1.2.3 Post-exhibition changes supported by the Proponent

At the Directions Hearing the Panel was advised that there had been a misunderstanding between Council and the Proponent relating to documents to be exhibited. The Proponent had anticipated that exhibition would include updated Terramatrix reports relating to bushfire risk (April 2014) and the changes supported by the Proponent. The changes comprised:

- DDO5 to indicate that all new dwellings should be sited at least 500 metres, rather than the exhibited 300 metres, from the extractive industries to the east as defined by the SUZ2.
- Land to the north of White Lane (lot N on the map in the updated DDO5 schedule) was excluded from the Amendment.
- A map, with associated commentary, showing indicative dwelling envelopes to provide greater transparency on the location and number of potential new dwellings (see Figure 2).

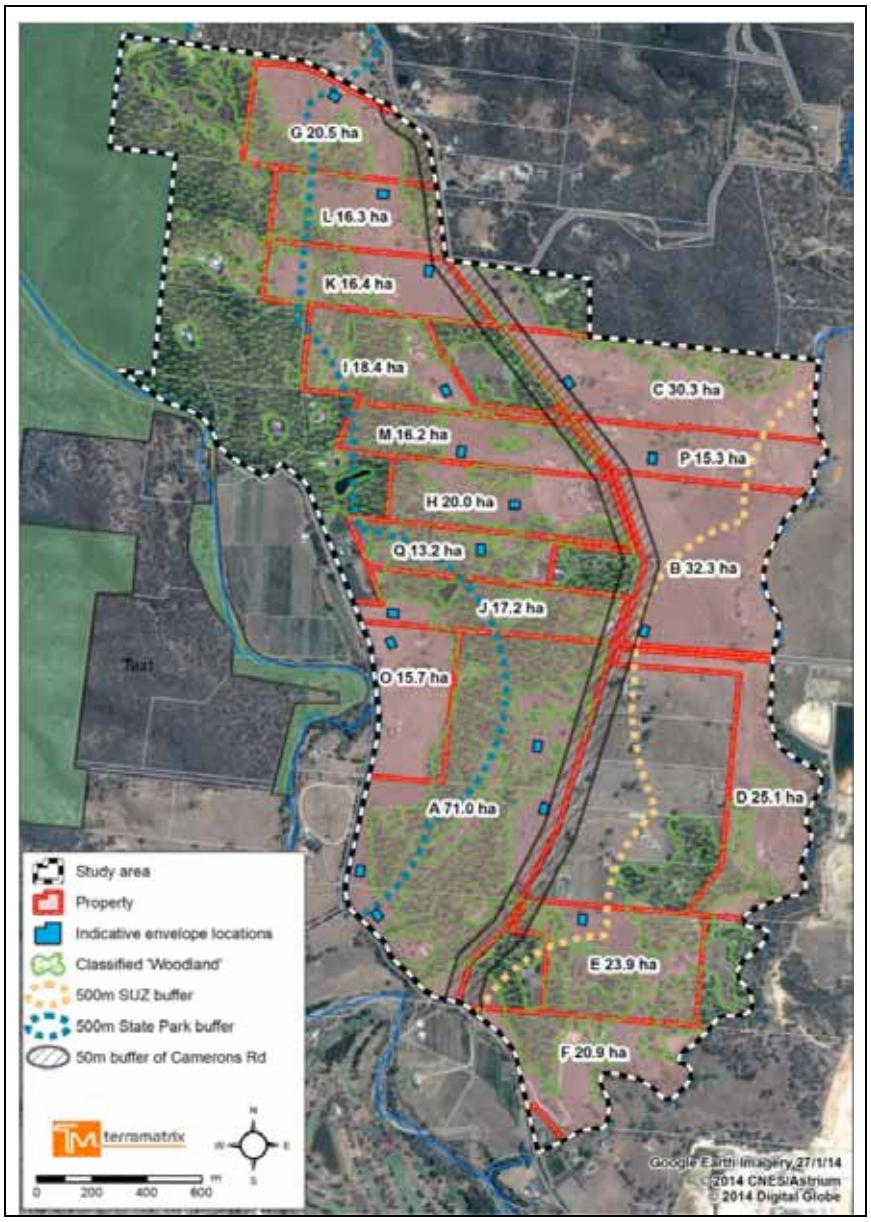

Figure 2 The proposed DDO5 map showing buffers and indicative dwelling envelopes

1.3 Background - Consideration of previous requests for rezoning

Submissions to the Panel setting out the history of requests to rezone the Camerons Road area for rural residential purposes are summarised as follows:

- **1990**: The *Moorabool Shire Rural Residential Strategy* identified Camerons Road as one of three *'Preferred Development Areas'.* However, the *1993 Bacchus Marsh Strategy Plan* did not include this area in the areas identified for investigation for rural residential subdivision[5].
- **1999:** The New Format Planning Scheme Panel and Advisory Committee rejected requests to rezone the area for rural residential development on the basis that:
    - Rezoning is not required simply to recognise existing smaller lot sizes

[5] Amendment C34 Panel report.

- There was an oversupply of rural residential land in the Shire
- The requirements of Ministerial Direction No 6 had not been met
- The relationship with the sand quarries to the east and the State Park to the west had not been addressed
- There was no strategic support for the rezoning in the Municipal Strategic Statement (MSS)
- The attractive qualities of the area would be compromised by further subdivision.

- **2000**: The Panel considering Amendment L60 to rezone one allotment from Rural A to RLZ recommended that the Amendment be abandoned as it was not consistent with the State Planning Policy Framework, particularly in relation to wildfire hazard and the protection of mineral resources.
- **2008**: Council gave in principle support for rezoning the Camerons Road area[6] to RLZ with a Development Plan Overlay (DPO) as part of the MSS review process which led to Amendment C34. Council highlighted its desire to preserve the rural character of Bacchus Marsh and its support was conditional upon a land capability study to demonstrate that the density of development could meet environmental and physical requirements. The C34 Panel acknowledged that the Camerons Road area may have potential for rural living but noted the absence of any assessment against Ministerial Direction No 6. The C34 Panel commented:

  > *The Panel is not comforted by the revisions responding to submissions. The extension of the designated area is contrary to the recommendations of the BMRGS[7] which specifically excluded land east of Camerons Road possibly due to its proximity to the quarry and identified sand resource.*
  >
  > *The Panel recognises that the Planning Authority has a legitimate policy to maintain a wide range of housing and lifestyle options for reasons of both consumer choice and economic development. This is clearly articulated in the MSS and will provide the context for the evaluation of rezoning proposals. However, the Panel considers the emphatic language used (i.e. that rezoning will occur) and the specific delineation of the area in the MSS are premature. It would be appropriate to indicate on the Framework Plan, in the form of an arrow to the Camerons Road locality and an annotation, that the area has potential for rural living development that will be investigated. The specific area should not be delineated. This approach would signal a strategic intent that would be taken into account in the evaluation of a subsequent amendment to rezone land without raising landowner expectations regarding land that may prove unsuitable as a result of full assessment.*
- **April 2009**: Isis Planning prepared the Draft Moorabool Rural Strategy Plan (the Draft RSP) on behalf of Council. This document recommended further investigation of the potential of the Camerons road area for rural living and rezoning of the northern portion of Camerons Road (north of Hornells Lane) to RCZ. In August 2010 Council declined to

[6] The area identified was on both sides of the Lerderderg River and the C34 Panel report noted that the area referred to was significantly larger than is currently being considered.

[7] The *Bacchus Marsh Residential Growth Strategy* (2003).

adopt the Draft RSP in its entirety, largely due to concerns relating to constraints on agricultural uses under the RCZ and because it was not entirely consistent with Council's preferred strategic directions. However, Council did endorse the Draft RSP recommendations relating to Camerons Road. Council resolved to:

> *'(10) Provide general support for Planning Scheme Amendment proposals covering the Camerons Road area and the Bences Road area, that these will be a* (sic) *Proponent led amendments and the subject of individual reports back to Council.'*

- **May 2010**: The Proponents proceeded with the current rezoning proposal from FZ to RLZ, using 6 hectares as the universal standard for rural living across the Shire.
- **20 October 2010**: Following the findings of the Royal Commission on Black Saturday (31 July 2010) consideration of the rezoning proposal came before Council again. The Officer report commented that the Amendment documentation was in draft form and further work was required to address the issues raised by the C34 Panel and Ministerial Direction No 6. The report also highlighted issues relating to extractive industry, the abutting State Park, native vegetation protection and bushfire hazard. The officer report recommended:

  > *'Subject to the CFA giving general support for the proposed amendment resolves to request the Minister for Planning to authorise Moorabool Shire Council to prepare Amendment C58 …'*

  Council did not adopt this recommendation but resolved to request the Minister to authorise Council to prepare Amendment C58 and, following receipt of authorisation, to exhibit the Amendment.
- **28 July 2011**: The Minister authorised exhibition of the Amendment, subject to conditions (see Chapter 1.3).
- **10 January 2012**: The Proponents reduced the area to which the Amendment applied by deleting the north westerly allotments north of Hornell Lane and increased the extractive industry buffer from 300 metres to 500 metres.
- **28 March 2012:** Council advised the Proponents of Council's current position regarding the Amendment. The letter referred to significant changes to the bushfire provisions in the planning scheme[8] and required the Proponents to demonstrate that the requirements of Clause 52.47 (Planning for bushfire) could be met. The letter identified a number of issues to be addressed prior exhibition.
- **2 April 2014:** Following considerable work by the Proponents, the Amendment came back to Council. The Officer concluded that despite Terramatrix fire report, *'... it is doubtful that in an extreme fire event that this area could be protected by these measures'* and the Amendment lacked strategic justification. The recommendation was to abandon the Amendment. The Proponents argued that the Amendment should proceed to exhibition, as a unilateral decision by Council to abandon the Amendment prior to exhibition and Panel scrutiny would be against due process. Contrary to the officers' recommendation to abandon the Amendment, Council resolved to proceed to exhibition and that the Proponent be required to pay costs of any Panel convened.

[8] Amendment VC83 introduced on 18 November 2011.

1.4 Existing zones and overlays

The FZ, which has a focus on protecting agricultural uses, currently applies to the land. In this zone the use and development of houses is subject to:

- Decision guidelines that require consideration of the capacity of the land to sustain agriculture, whether the dwelling will support and enhance agricultural production, and impacts on agricultural productivity.
- A minimum subdivision area of 100 hectares, however, a permit may be granted to create smaller lots if, amongst other things, *'The subdivision is to create a lot for an existing dwelling'* or *'The subdivision must be a two lot subdivision'.* The minimum area for which no permit is required to use land for a dwelling is 40 hectares.
- Minimum setbacks of 20 metres to a road, 5 metres to another boundary, 100 metres from a waterway and 100 metres to a dwelling on another property apply but can be varied with a permit.

Land to the east is zoned SUZ2, land to the north and north-west is zoned PCRZ and the FZ applies to the remainder of surrounding land (see Figure 3).

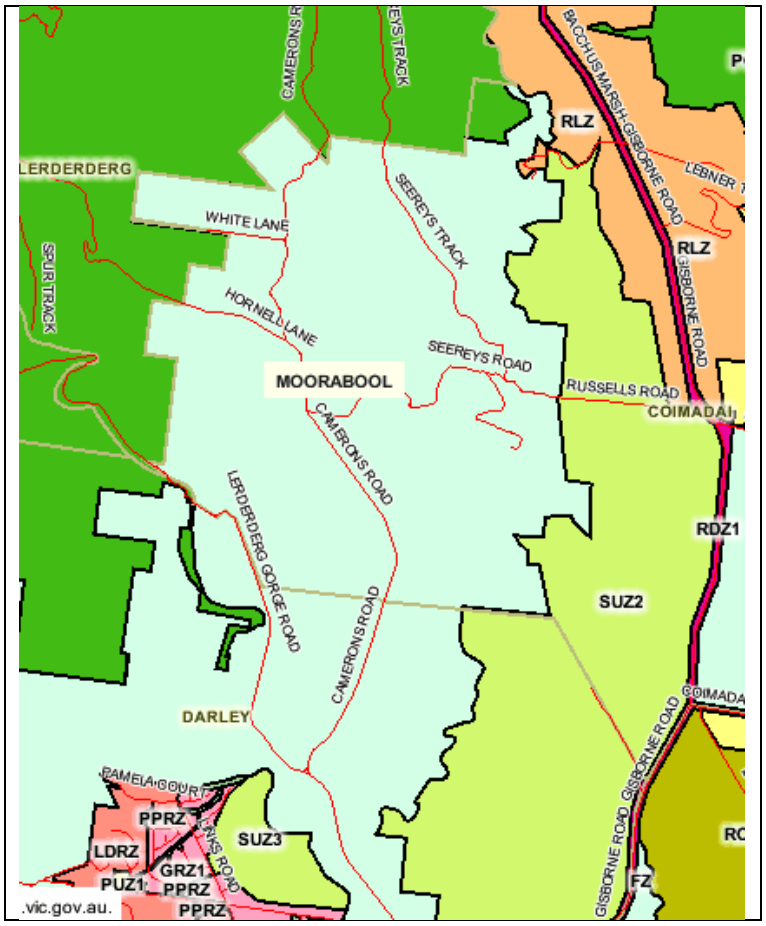

Figure 3 The existing zoning of the Amendment Area and surrounds.

The following overlays apply to the Amendment Area:

- Environmental Significance Overlay (Schedule 2) for waterway protection and habitat significance of vegetation applies 100m either side of Goodmans Creek.

- DDO 2, which applies to the whole of the Amendment Site, contains design objectives to enhance visual amenity via the use of non-reflective materials.
- The BMO applies to all of the land west of Camerons Road and approximately half of the land east of Camerons Road. The whole of the land is a designated Bushfire Prone Area.

1.5 Changes to planning scheme provisions during the Amendment process

Submissions and evidence at the Hearing highlighted changes to the relevant planning context since the rezoning application was made. These are briefly summarised in Table 1.

November 2011 (Amendment VC83)	• Implemented the Bushfire Royal Commission recommendation to prioritise the protection of human life over other policy considerations and, where appropriate, apply the precautionary principle when assessing the risk to life and property from bushfire • Replaced the Wildfire Management Overlay with the BMO and inserted: - Clause 52.47, which applies objectives, standards and guidelines under the BMO - Clause 52.48, which consolidates and updates planning permit exemptions for bushfire protection purposes • Amended Clauses 52.16 and 52.17 to facilitate vegetation removal for defendable space.
December 2013 (Amendment VC105)	• Implemented the new *'no net loss'* approach rather than the previous 'net gain' approach (Clause 12.01) • Streamlined the determination of offset requirements (Clause 52.17 (Native Vegetation) • Replaced '*Victoria's Native Vegetation – A Framework for Action*' with a new incorporated document *'Permitted Clearing of Native Vegetation – Biodiversity Assessment Guidelines.'*
July 2014 (Amendment VC109)	• Moved application requirements from the BMO to Clause 52.47 • Provided exemptions for the provision of defendable space for a dwelling approved under a BMO (Clause 52.48).

Table 1 Changes to planning scheme provisions during the Amendment process

1.6 Procedural issues

Post-exhibition changes and further advice

The letter accompanying the Panel directions and the Hearing timetable noted the following advice that was provided at the Directions Hearing:

- There was a misunderstanding between Council and the Proponent relating to documents to be exhibited. The Proponent had anticipated that the following updated documents and changes would be exhibited:
  - Updated Terramatrix reports relating to bushfire risk would be exhibited with the Amendment. These reports were *Bushfire Development Report for the proposed rezoning of properties in Camerons Road, Bacchus Marsh* (April 2014) and

Supplementary Report on Landscape Risk for the proposed rezoning of properties in Camerons Road, Bacchus Marsh (April 2014).
  - Modify DDO5 to indicate that all new dwellings should be sited at least 500 metres, rather than the exhibited 300 metres, from the extractive industries to the east as defined by the SUZ2.
  - Exclude land to the north of White Lane (lot N on the map in the updated DDO5 schedule) from the Amendment.
- The Proponent's submission to the Amendment supported a further change to DDO5 to include a map, with associated commentary, showing indicative dwelling envelopes to provide greater transparency on the location (and number) of potential new dwellings.
- Technical reports are to be updated to take into account the implications of changes to planning scheme provisions relating to:
  - Bushfire that were introduced by the State-wide Amendment VC109 (approved 31 July 14); and
  - Native vegetation removal that were introduced by the State-wide Amendment VC105 (approved 20 December 2013).

The Directions letter noted that a further directions hearing may be necessary if these updated reports recommend significant additional changes to the Amendment.

The Flora and Fauna assessment supporting the Amendment indicated that referral under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) to the Commonwealth Department of Sustainability, Environment, Water, Population and Communities will be required. The Proponent will make inquiries relating to whether the Amendment should be referred, and if so, when referral should occur. It was noted that EPBC Act referral may be premature but, on the other hand, proceeding with the Amendment in advance of this referral could carry some risk. Mr Merrett undertook to make inquiries on this matter and advise the Panel and parties accordingly.

Mr Merrett provided advice from the Commonwealth Department of Environment (copy attached in Appendix B), which indicated that the Panel consideration of the Amendment is not a defined action under Section 524(2) of the EPBC Act *as 'a decision by a government body to grant a government authorisation (however described) for another person to take an action is not an action'* (see Chapter 6).

Further notice

In view of changes to the exhibited documents that were supported by the Proponent and the proposed updating of supporting documents, the Panel directed that:
- The updated documents should be circulated to the parties to the Hearing.
- As soon as possible after receipt of the updated documents, Council should notify people who were originally notified of the Amendment of the nature of post-exhibition changes that are supported by the Proponent and indicate that copies can be viewed on Council's webpage or at the Council's Bacchus Marsh offices.

Declaration

It was recorded at the Directions Hearing that:
- Mr Merrett declared that he is a sessional member of Planning Panels Victoria.

- In the last two years he and the Panel chair have both been members of the Residential Zones and Bushfire Overlay Mapping Advisory Committees but are not currently appointed to common Panels or Advisory Committees.

The Panel chair and Mr Merrett made an undertaking not to have contact or to discuss the Amendment until the Amendment has been finalised.

Quarry Buffers

On 22 January 2015, Mr Merrett advised the Panel and parties to the Hearing as follows:

> *The purpose of this email is to forewarn the Panel and other parties of a preliminary issue I will raise on Day 1. It relates to what is the appropriate EPA buffer standard to the extractive industries to the east. The EPA guidelines on this issue from July 1990 and March 2013 (both attached) address the issue in different ways. The March 2013 standard is now relevant.*
>
> *The July 1990 version required a 300m buffer to sensitive land uses for 'quarrying of material other than hard rock with blasting'. The March 2013 replacement version only contains a 500m buffer requirement if there is quarrying of rock. For mining of other materials there is a buffer requirement of 250m, irrespective of whether there is blasting or not. Even though the DDO schedule before the Panel requires a 500m buffer we question whether the buffer distance should be 250m. The primary purpose of extractive industry is the mining of soil products (that is, 'mining of other materials') for cement and not the quarrying of rock. The attendance of Mr Terrill on behalf of Boral Resources should assist in clarifying this issue. If indeed a 250m buffer is the appropriate standard then we request the Panel consider this as part of its deliberations.*
>
> *By circulating this in advance of the Hearing it will provide other parties with time to respond.*

Mr Terrill's response on behalf of Boral Resources Vic Pty Ltd expressed serious concern that the Proponent proposed a significant change in its position one and a half business days before the commencement of the Hearing and this denied procedural fairness. Mr Terrill noted that:

- In September 2014, Boral objected to the 300m buffer identified in the Amendment and argued for a 500m buffer. The (former) Department Of State Development, Business And Innovation [9] and Hansen (an adjoining quarry operator) also argued for a 500m buffer.
- Planning Panels Victoria advised on 18 November, after the Directions Hearing, that *'the Proponent will support the associated changes to the exhibited Amendment at the Panel Hearing*:
    - *The Schedule 5 to the Design and Development Overlay (DDO5) to indicate that all new dwellings should be sited at least 500 metres,*

[9] The functions of the former Department of State Development, Business And Innovation are now within the Department of Economic Development, Jobs, Transport and Resources.

rather than the exhibited 300 metres, from the extractive industries to the east as defined by the Special Use Zone Schedule 2.'

- Accordingly, the Amendment documents were revised and further notice was given in December 2014.
- At no point has anyone argued for a 250 metre buffer.
- None of the EPA documents relied on by the Proponents to justify this change are recent - all were cited in Boral's September 2014 submission.
- Boral advised Planning Panels Victoria on 15 January 2015 that only one hour (rather than the three hours originally requested) would be required and an expert on quarry buffers would not be called. Boral's case was prepared and their decision not to call an expert witness on buffers was made on the basis that the re-exhibited amendment documents featured a 500m buffer. If a reduced buffer was to be argued, or even contemplated, their approach to the Hearing would have been very different.
- Others, including Department Of State Development, Business And Innovation, Hansen and the EPA, may have chosen to participate in this Hearing if they knew a 250m buffer was to be pursued.
- If the Proponent wishes to pursue a 250 metre buffer, deferral of the Hearing would be sought.

The Department of State Development, Business and Innovation advised Planning Panels Victoria that:

- its position that a 500 metre buffer between future dwellings and the approved limit of extraction remains unchanged; and
- *'Any change to support for a 500 metre buffer will impact this Department's management of the quarry's operations and this Department will require time to consider the implications of this*.'

The Proponent confirmed at the commencement of the Hearing that it did not intend to argue in favour of a 250 metre buffer. Submissions at the Hearing and the Panel's evaluation of the Amendment proceeded on the basis that there was a consensus view that residential development should not occur within a 500 metre buffer from the adjoining SUZ2.

1.7 Issues dealt with in this report

The Panel considered all written submissions, including submissions presented at the Hearing. In addressing the issues raised in those submissions, the Panel has been assisted by the information provided to it and its observations from inspections of specific sites.

Submissions in support of the Amendment[10] raised the following issues:

- Errors in the Explanatory Report.
- The Amendment site should be expanded to include land south of Seereys Road.
- Previous inconsistent planning decisions.
- The RLZ was supported as one of three preferred RLZ areas in the *Rural Residential Strategy 1990.*
- The supply of rural living land is insufficient.

[10] Submissions 1-29, 31-36, 38-39, 41-47, 51-54, 56, 58, 60-61,63.

- The Amendment will result in a small number of additional lots that will add to the diversity of housing choice and living styles, feeling of community and economic activity.
- Unlike much of the land zoned to accommodate rural residential development and existing small lots in rural areas of the Shire, the Amendment site is outside a SWSC.
- Agricultural production will not be affected as the land is not suitable for farming, smaller areas are able to be managed better and LMPs can be implemented.
- The land can be serviced and the road is adequate. Camerons Road is sealed and heads south away from the treed area to the north. There is an emergency road from Camerons Road to Lerderderg Road, if required.
- Camerons Road is actually rural living in everything but name. Six hectare lots will have no significant visual impact and will encourage more intensive control of weeds and vermin.
- There is no history of severe fire events. Owners are prepared to accept the bushfire risk.
- Residential development will not impact on quarry operations. There is no evidence of resident complaints about quarry noise and dust and all proposed dwelling envelopes are outside the 500m buffer. Quarries will be reclaimed and beautified when quarrying is finished.
- Dwelling envelopes meet requirements of DDO5 and demonstrate that there is no need to remove vegetation.

Objecting submissions[11] raised the following issues:

- The RLZ rezoning is inconsistent with the strategic direction of the area to protect state significant quarry operations. Increasing the intensity of residential use adjacent extractive industry creates create potential conflicts and sources of complaints. Compliance with EPA separation distances should be mandatory.
- More people would be exposed to significant bush fire risk in an area with poor access. The proposed suite of controls do not adequately resolve the acknowledged landscape bushfire risk for high level parts of the Amendment or the potential to increase the existing bushfire hazard through the retention and protection of vegetation. The number of additional dwellings appears to be understated and some indicative dwelling envelopes are in the buffer from the state park, which mitigates landscape-scale bushfire risk.
- The potential loss of significant vegetation and impacts on fauna from cats and dogs.
- Traffic impacts and adverse effects on the amenity of the area due to rubbish.

This report deals with the issues under the following headings:

- Is there a sound strategic basis for additional rural living land?
- The potential development yield
- Bushfire risk
- Protecting extractive industry buffers
- Protecting biodiversity assets
- Land management plans
- Proposed planning scheme mechanisms and drafting.

[11] Submissions 30, 37, 40, 48 - 50, 59.

2 Is there a sound strategic basis for additional rural living land?

The Amendment raised issues relating to bushfire risk, the protection of biodiversity values and buffers to extractive industry. As planning policy and planning scheme provisions relating to these issues are addressed in subsequent chapters of this report, the focus of this chapter is on the other strategic issues.

2.1 The Issues

- Is there a sound strategic planning basis to facilitate rural living development in the Amendment Area?

2.2 Planning context

2.2.1 Planning policy

State planning policy aims to manage growth in Melbourne's hinterland[12] to provide for development in discrete settlements, while having regard to complex ecosystems, landscapes, agricultural and recreational activities in the area. New development is to minimise risk to life, property, the natural environment and community infrastructure from natural hazards, such as bushfire.

While policy promotes the consolidation of new housing in existing settlements, both State and local planning policy[13] are also directed at identifying land suitable for rural living and rural residential development.

State policy indicates that a housing and settlement strategy should demonstrate the need for rural residential development and identify locations where adverse economic, social and environmental impacts are avoided or minimised. Relevant strategies include:

> *Protecting existing landscape values and environmental qualities such as water quality, native vegetation, biodiversity and habitat.*
>
> *Minimising or avoiding property servicing costs carried by local and State governments.*
>
> *Discouraging development of isolated small lots in rural zones from use for rural living or other incompatible uses.*
>
> *Encouraging consolidation of existing isolated small lots in rural zones.*
>
> *Ensure land is not zoned for rural living or rural residential development if it will encroach on high quality productive agricultural land or adversely impact on waterways or other natural resources.*
>
> *Ensuring land is only zoned for rural living or rural residential development where it:*

[12] Clause 11.05-2 (Melbourne's hinterland areas) relates to the area immediately beyond Metropolitan Melbourne and within 100 kilometres of the Melbourne Central Activities District.

[13] Clauses 16.02-1 Rural Residential Development, 21.03-5 Rural Lifestyle Opportunities, 21.07-4 Bacchus Marsh - Rural Living Development.

- *Is located close to existing towns and urban centres, but not in areas that will be required for fully serviced urban development.*
- *Can be supplied with electricity and water and good quality road access.*

The Moorabool MSS notes:

> *While there is an existing 'pool' of small, vacant lots in the rural areas, potential development on many of these is constrained because they are within a Special Water Supply Catchments area.*

The MSS anticipates that appropriate opportunities for planned rural residential/rural living development will be identified once the Moorabool rural strategy has been completed. It supports extension of the range of housing types available, and this includes providing high amenity rural lifestyle opportunities. This form of development is to be focussed in areas close to urban centres with good access to services and facilities and where impacts on productive agriculture and horticulture or areas with environmental values will be minimal. The MSS recognises '*the importance and attractiveness of rural residential and rural lifestyle living as an alternative living environment in designated areas around Bacchus Marsh'.*

In areas zoned for rural living, limited residential development will be accommodated, with preference to be given to subdivision where:

- *the overall density of residential development satisfies environmental and physical requirements, including appropriate on-site treatment of effluent and stormwater management;*
- *development does not restrict agricultural and horticultural production;*
- *sealed access roads service all lots;*
- *reticulated water services are provided; and*
- *the development leads to an overall enhancement in the condition of the environment.*

The Bacchus Marsh Framework Plan (Clause 21.07) identifies the Camerons Road area as '*an investigation area for potential rural living development'.*

2.2.2 Strategic planning assessments

The Camerons Road Bacchus Marsh Rural Living Opportunities Review

The *Camerons Road Bacchus Marsh Rural Living Opportunities Review* was prepared by Isis Planning Pty Ltd on behalf of the CRG and was submitted with the Amendment. The report addressed the following matters:

- Study area characteristics, including lots characteristics and subdivision potential
- Previous reports of Planning Panels Victoria and the response to the Victorian Bushfire Royal Commission
- State and local planning policy, State-wide planning scheme provisions relating to extractive industry, bushfire protection, and the zones and overlays applicable to the Amendment Area
- Technical assessments relating to flora and fauna and bushfire risk mitigation (discussed in Chapters 4 and 5)

- Responses to strategic issues such as housing need, integration with existing urban areas, and the protection of natural resources, biodiversity, landscape and heritage values, social and physical infrastructure and services, land use compatibility
- Subdivision and lot design
- Response to the Minister's authorisation conditions
- The proposed planning controls.

The report highlighted the planning policy that, subject to addressing relevant constraints, directs rural living development to locations that are close to towns, and close to Bacchus Marsh in particular. Its response to earlier findings of Panels that a need for additional RLZ land had not been demonstrated and on the suitability of the land for rural residential development is summarised as follows[14]:

- The Camerons Road area is located on the northern outskirts of Bacchus Marsh and has not been identified as a long-term residential growth direction for the town.
- The supply of RLZ lots of over 30 years, based on around 616 lots and the current average of 20 dwellings per year, overstates the extent of land with a reasonable prospect of development for this purpose
- There is a strong strategic preference for new rural living development outside of SWSCs. Much of the RLZ land in the Shire is unlikely to gain approval for rural residential development as it is:
    - In small lots (77% less of RLZ lots are less than 5 hectares)
    - Within a SWSC and unable to satisfy the density requirement of one lot in 40 hectares that has been consistently upheld by VCAT.
- There is limited land outside the SWSC to meet the market preference for rural living land close to Bacchus Marsh and Melbourne. The only other rural residential development land that is outside the SWSC areas is around Bacchus Marsh at:
    - Bences Road, which is zoned Rural Conservation and offers a significantly different product as a fully reticulated low density residential estate with an average lot size of 0.75 hectares
    - Long Forest with only 5 out of 100 lots remaining vacant in 2009
    - Gisborne Road, which has very limited opportunities due to significant environmental constraints, such as a steep land either side of the north/south ridge and should be rezoned to the RCZ to be consistent with its zoning in the Macedon Ranges Planning Scheme.
- The proposed rezoning would not remove land from productive agricultural as the assessment of land capability and farming practice by Phillips Agribusiness in 2000 confirmed much of the land has a poor rating for agricultural capability (Class 5). Management measures, such isolating areas and strictly controlling or eliminating agricultural land uses, were suggested responses to the Amendment Area constraints, which include steepness, shallow, sandy or rock soils and high erosion susceptibility.
- The Terramatrix bushfire risk and flora and fauna reports confirm that dwellings can be accommodated in existing cleared areas.

[14] The report used data from the draft Moorabool Rural Strategy Plan 2009 as Council advised updated data was not required.

- There are opportunities in the Amendment Area for revegetation to ensure there is a net environmental gain via LMPs.
- Lots provide ample land for the disposal of effluent and stormwater.
- Camerons Road provides a sealed access road.
- The buffer requirements from the extractive industry area and the public land to the west can be avoided.
- The provision of reticulated water services is the only policy criterion not met and this is reasonable in view of the proposed density of lots.

Other Strategies

Council's submission to the Panel referred to the *Growing Moorabool Economic Development Strategy and Action Plan* (April 2006), which stated:

> *Increasing the land available for residential development and promoting the lifestyle offers of Moorabool will be crucial to attracting population growth needed to boost the local economy and jobs.*

2.3 Submissions

The CRG's submission to the Panel on the strategic justification for the Amendment largely relied on analysis in the Rural Living Opportunities Review Report that was submitted in support of the Amendment. Submissions from individual members of the CRG emphasised the lack of productive capacity of the land and the demanding land management required by the existing large holdings. It was submitted that all constraints can be addressed, while preserving the character they value.

Council noted that the vast majority of existing rural living lots in the Shire are in a SWSC and this constraint may explain why 45% of all lots in rural living areas do not have a dwelling. While expansion of rural living areas within the SWSC is unlikely to be supported by water authorities, Council highlighted that the recently approved *Moorabool Shire Domestic Waste Management Plan* may make development possible in these catchments. It also suggested that Amendment VC109 makes development under in the BMO easier. Council's overall position was:

> *If it is accepted that there is a need for additional rural living land, and the bushfire hazard can be reduced to acceptable levels, then this proposal fits generally, but not completely into the overall strategic directions and planning for the municipality.*

While the CFA's position is largely covered in Chapter 4, it argued that a need for rural living zoned land has not been established. It stated:

> *… Council relies on the Moorabool Rural Land Strategy 2009, which is not a reference or incorporated document in the Moorabool Planning Scheme, was not adopted by Council, and is not even a public document. It does not undertake a demand and supply analysis of Rural Living zoned land, or suggest that there is a pressing need for more Rural Living zoned land.*
>
> *11. If there were an established need for more Rural Living zoned land, one would expect some analysis of the availability of potential land for*

rezoning and the comparative opportunities and constraints of that land. There is no such analysis before the Panel.

The CFA also submitted that the strategic justification for the proposed rezoning is undermined by its failure to meet the Clause 21.03-5 criteria for preferred areas for subdivision in the RLZ because, among other things, there will not be sealed access roads, reticulated water or a minimal impact on environmental values. The CFA dismissed the assertion in submissions in support of the Amendment that *'doing nothing'* will result in a planning blight, arguing that residential subdivision and its intensity is at issue, rather than the use of the land.

2.4 Discussion

Local planning policy supports additional rural lifestyle opportunities in the Shire generally and near Bacchus Marsh in particular. The Panel's inspections also confirmed that the Amendment Area provides an alternate choice for the market to areas such as Bences Road, which provides a different, more condensed rural living opportunity. The Panel accepts that the location of the Amendment Area close to Bacchus Marsh is a positive attribute that supports planning policy for the Moorabool Shire.

The Panel agrees with the CRG that the extent of land zoned for rural living and the theoretical 30+ year supply of lots in the municipality probably overstates the actual supply of lots with a realistic prospect of gaining approval for a house.

Both Council and the CRG referred to the constraint created by the very extensive SWSCs in the Moorabool Shire on rural residential development opportunities. There is a fundamental planning objective to ensure the quality of the water supply is protected. Planning decisions, which have been subject to review by VCAT and the Supreme Court, have consistently refused proposals that would result in the density of residential development exceeding catchment guidelines. The newly approved *Domestic Waste Management Plan* may facilitate some additional rural residential opportunities in the SWSCs in the future. However, the Panel has proceeded on the basis that this remains a real limitation on rural living opportunities, as we do not have information to enable us to assess the likely impact of the Domestic Waste Management Plan.

In any event, the proposed rezoning would result in the addition of approximately one year's supply of rural living land and, even if additional development opportunities prove to be possible in the SWSCs, we do not consider there would an adverse effect on the public interest or the operation of the market.

The Panel does not consider the absence of reticulated water in a rural living area should be considered a fatal non-compliance.

Provided the key constraints relating to fire risk, the protection of environmental values, and the maintenance of buffers to nearby extractive industry are adequately addressed, we find that there is sufficient strategic justification for the proposed rezoning. These key issues are addressed in subsequent chapters.

Panel conclusions

The Panel concludes that:

- Planning policy supports additional rural lifestyle opportunities in the Shire generally and near Bacchus Marsh in particular.
- The theoretical 30-plus year supply of rural living lots in the municipality overstates the actual supply of lots. The vast majority of land zoned for this purpose is in SWSCs and the prospect of gaining approval for a house is currently severely limited in these areas.
- The potential addition of approximately one year's supply of rural living land resulting from the Amendment is unlikely to have an adverse effect on matters of public interest (such as infrastructure planning or provision) or the operation of the market, even if additional development opportunities prove to be possible in the SWSCs.
- Provided adequate responses are put in place to address key constraints in relation to fire risk, the protection of environmental values and the maintenance of extractive industry buffers, there is sufficient strategic justification for the proposed rezoning.

3 The potential development yield

3.1 What is proposed?

The Amendment proposes a six hectare minimum lot size, and the DDO5 map identifies 20 indicative dwelling envelopes, which may be varied with a permit. DDO5 states in relation to the indicative dwelling envelopes:

> *New dwellings should be constructed generally in accordance with the indicative dwelling envelope locations shown in Figure 1 (Indicative Dwelling Envelope Plan) attached to this schedule. These indicative dwelling envelopes have been sited to minimise the impacts of environmental constraints and comply with the extractive industry buffer requirement. A permit can be issued for an alternate location.* (Emphasis added)

In addition, DDO5 indicates that all new dwellings should be sited, as appropriate, at least 500 metres from the SUZ2, 100 metres from Goodmans Creek or the Lerderderg River, 500 metres from the Lerderderg State Park (unless written consent is provided by the former DEPI), at least 50 metres from the front boundary and 10 metres from the side boundary, to avoid or minimise the removal of native vegetation, and to avoid slopes of greater than 20%.

3.2 The issues

Submissions raised issues relating to:

- The extent of development allowed by the Amendment
- Whether the indicative dwelling envelopes on the proposed DDO5 map in fact represent the extent of development allowed.

3.2.1 Submissions

The CFA, Boral and Council argued that DDO5 underplays the likely development outcome and the potential for additional dwellings under the proposed planning framework is uncertain. It was submitted that the Amendment does not preclude residential development in addition to that foreshadowed by the 20 indicative dwelling envelopes. In the absence of anything to the contrary in a schedule to the RLZ, there is potential for further subdivision of lots in excess of 12ha. Boral also noted that the RLZ can allow a second dwelling on a lot, subject to a permit.

In submitting about greater certainty in relation to the level of development allowed, Council stated:

> *25.4 The ability to grant a permit for alternative dwelling envelope locations introduces great uncertainty on the crucial issue of ameliorating bushfire hazard to acceptable levels and preventing the removal of native vegetation. …*
>
> *25.7 The potential for further subdivision will increase the number of dwellings subject to possible bushfire risk. This will also have visual impacts on the landscape, which was a concern of the Advisory Committee.*

25.8 It would also have serious consequences to the amount of native vegetation that would have to be removed to create defendable space around the dwellings, as mandated by Clause 52.47.

25.9 DDO5 has not responded to CFA's request to make the various buffer requirements mandatory. Where there is potential danger to life and property, any buffers which can reduce that risk should be mandatory. Given the severe bushfire risk to the area and the native vegetation on the site, control over residential development is a must.

25.10 Further subdivision may also increase the risk of erosion of the poor quality soil from the creation of additional dwelling envelopes.

The CFA also questioned the justification for the 6 hectare minimum lot size, which is the default minimum lot size in Moorabool's RLZ, for the Amendment Area.

The CRG submitted that the intention is to only provide for the subdivision and development of one additional lot and dwelling on lots greater than 12 hectares and that this is reflected in the 20 additional dwelling envelopes shown on the plan in the proposed DDO5. The Proponents highlighted that the varied sizes of the lots, native vegetation, buffer requirements and other constraints limit development yields.

During the Hearing the CRG and Council put forward further revisions to the Amendment documents (on a 'without prejudice' basis) that would strengthen the certainty that development would be limited. These changes included:

- Making the requirements relating to the location of new dwellings mandatory. The CRG version of the DDO excluded lots (Lots A, O and J) from the prohibition of new dwellings within the 500 metre buffer to the Lerderderg State Park (see discussion in Chapter 4).
- Council put forward the following conditions and requirements for permits in a new Development Plan Overlay (DPO):

  A planning permit for subdivision of land must contain the following conditions:

  - *The formal plan of subdivision submitted for certification must include a restriction showing a dwelling envelope and effluent disposal envelope for each lot. The restriction shall be to the effect of:*
    - *The registered proprietor shall not allow a building to be constructed except within the dwelling envelope shown hatched.*
    - *A 'building' includes any structure except a fence.*
    - *The registered proprietor shall not allow an effluent disposal field to be constructed except within the effluent disposal envelope shown cross hatched.*

  ….

  - *If the permit allows the creation of a lot of 12 hectares or greater and the lot cannot be further subdivided in accordance with a development plan approved under this schedule, then the permit must include the following condition:*

- *Prior to the issue of a statement of compliance for the subdivision, the owner of the land must enter into an agreement with the responsible authority pursuant to section 173 of the Planning and Environment Act 1987, covenanting that the lot must not be further subdivided. The owner must pay all costs in relation to the preparation and registration of the agreement, and must provide evidence that the agreement has been registered on title, prior to the issue of a statement of compliance.*

3.3 Discussion

Key features of the RLZ of relevance to the potential development yield are:

- A permit would not be required to use or construct a dwelling if it is the only dwelling on the lot and the lot has an area of at least 6 hectares. (Relevant overlay and particular provision requirements would apply and could trigger a permit or constrain development).
- A permit may be granted to create smaller lots if any of the following apply:
  - *The subdivision is the re-subdivision of existing lots and the number of lots is not increased.*
  - *The number of lots is no more than the number the land could be subdivided into in accordance with a schedule to this zone.*

The Panel considers that the indicative dwelling envelopes serve a useful function to address the range of constraints applicable to the Amendment Area, and that the DDO map should address the development of all lots irrespective of subdivision potential.

The Panel agrees with submissions that stated that there is scope for debate about the capacity for additional development in the Amendment Area in locations other than those shown as indicative dwelling envelopes on the DDO5 map. The Panel notes that:

- Indicative dwelling envelopes are not shown for lots that meet the six hectare minimum lot size and do not appear to currently have a house developed on them (including two of the three lots comprising Lot A).
- The size of some existing lots would theoretically allow subdivision into more than two lots.
- In addition to meeting the minimum lot size, the assessment of subdivision proposals would need to address the range of constraints applicable to the land. The Terramatrix assessment (2012) identified 32 indicative dwelling envelopes which took account of factors such as slope, vegetation, compliance with buffers and BMO requirements. Multiple envelopes were identified for the following seven properties:

Lot	Area	No of Envelopes identified
Lot A	71.0ha	7
Lots B/C	32.35ha /30.3ha	4
Lots E/G/ H/ I	23.9ha/ 20.5ha/ 20.0ha/ 18.4ha	2

Table 2 Lots with multiple dwelling envelopes identified in the Terramatrix 2012 report

The Panel is conscious that the six hectare minimum lot size has not been justified, beyond being the lot size generally adopted in Moorabool for land in the RLZ. Similarly, there is no specific justification for the nomination of 20 additional lots, beyond it providing one

additional dwelling for each lot with an existing house that is 12 hectares or more, and the current landowners in the CRG state that they are satisfied with this level of additional development. While the owners of some lots in the Amendment Area that were not identified for additional dwellings submitted in support of the Amendment, all of these landowners did not present their views to the Panel. We also recognise that the 2012 Terramatrix analysis could support an argument that more dwellings could be accommodated in locations where key constraints would be addressed.

Nevertheless, the Panel considers the level of development facilitated by the Amendment should be in the order of 20 additional lots for the following reasons:

- The Amendment was exhibited and submissions have been made on this basis.
- The minimum lot size is just that, a minimum, and it is quite reasonable for a lower yield to result in order to satisfy the variety of objectives that are relevant to the area.
- The protection of the treed rural living character may not be dependent on a specific density of development, but the level of development foreshadowed would maintain vegetation and limit the dominance of built form which underpins this valued character.
- Additional dwellings would place greater pressures on significant vegetation; in order to manage bushfire risk and due to more intensive residential use.

The Panel agrees with submissions from Boral that the *'indicative dwelling envelope plan'* in the proposed DDO5 suggests excessive flexibility as the assessment of the Amendment has been on the basis that the dwelling envelopes represent the level of development to be facilitated. The designation of envelopes should provide a level of confidence that the various constraints affecting the Amendment Area will be appropriately addressed. The words 'indicative' should be removed and other wording strengthened, whilst still providing some flexibility for alternative locations where justified.

The Panel supports the strengthening of certainty provided by DDO5 regarding the level of development allowed in the Amendment Area, to ensure that the character of the area is maintained and the interaction of significant constraints are addressed (bushfire risk, significant vegetation, extractive industry interface, and erosion risk). We consider the planning scheme mechanisms to achieve this objective in Chapter 8.

Panel conclusions

The Panel concludes that:

- In view of the range of planning objectives and the constraints affecting the area, it is appropriate that the planning framework for the Amendment Area provides greater certainty about the level of development allowed.
- The extent of development facilitated by the Amendment should be in the order of 20 additional dwellings (the number of dwelling envelopes shown on the proposed DDO5 map plus dwellings on vacant lots of less than 12 hectares)

3.4 Panel recommendation

1. **Revise the schedule to the proposed Schedule 5 to the Design and Development Overlay to provide greater certainty that the dwelling envelopes shown on the map to the overlay indicate the limit of additional development.**

2. **Show dwelling envelopes for lots of less than 12 hectares that do not currently have a dwelling on them on the Dwelling Envelopes Plan that forms part of the proposed Schedule 5 to the Design and Development Overlay.**

4 Bushfire risk

4.1 The issues

- What is the risk of bushfire?
- Should rural residential development be directed to lower risk locations?
- Will mitigation measures achieve an acceptable residual bushfire risk?

This chapter has a particular focus on the land to which the BMO applies.

4.2 Bushfire policy and planning scheme provisions

Planning policy

State planning policy [15] makes it clear that the risk to life and property from bushfire is to be minimised, the protection of human life is to take priority over other policy considerations, and biodiversity and environmental objectives in the planning scheme are to be compatible with planned bushfire protection measures. Both local and broader bushfire risk is to be addressed in planning decisions and, where appropriate, the *'precautionary principle'* should apply.

State policy also indicates that zones are to provide for use and development in a manner compatible with the risk from bushfire. Policy does not prevent development in bushfire areas but seeks to ensure that the risk is mitigated to an acceptable level. Site-based assessment is to be undertaken to identify appropriate bushfire protection measures in areas identified in the planning scheme as being affected by bushfire hazard. It is policy to:

> *Only permit development where:*
>
> - *the risk to human life, property and community infrastructure from bushfire can be reduced to an acceptable level;*
> - *bushfire protection measures, including the siting, design and construction of buildings, vegetation management, water supply and access and egress can be readily implemented and managed within the property;*
> - *the risk to existing residents, property and community infrastructure from bushfire is not increased.*

The Moorabool Municipal Strategic Statement[16] recognises bushfire as a key issue and includes an objective to minimise risk of wildfire damage. However, both Council and the CFA identified a need for greater recognition of the bushfire risk, and responses to it, in the Local Planning Policy Framework.

[15] Clauses 11.05 Regional development, 13.05-1 Bushfire.
[16] Clause 21.02 Natural Environment.

Central Highlands Regional Growth Plan

The *Central Highlands Regional Growth Plan* (May 2014)[17] reinforces State planning policy to prioritise the protection of human life over other policy considerations and adopt a precautionary approach. It states in relation to bushfire risk:

- *Take a precautionary approach in planning new developments by avoiding locations that pose an extreme risk from bushfire or flood.*
- *Carefully consider development in locations where there is significant flood or bushfire risk that cannot be avoided.*

and:

- *Direct rural residential development to areas where it will minimise exposure to natural hazards …*

Regional Bushfire Risk Assessment

The *Regional Bushfire Planning Assessment Grampians Region* (April 2012)[18] was prepared to inform strategic land use and settlement planning. The Amendment Area is in a mapped area described as *'larger rural residential lots to the north of Merrimu are in the bushfire hazard area associated with Lerderderg State Park to the north*'.

The Victorian Fire Risk Register depicts Coimadai as an area of *'Extreme'* bushfire risk.[19]

Ministerial Direction 11

Ministerial Direction 11 specifically requires planning authorities to evaluate how any proposed amendment addresses any relevant bushfire risk.

Planning scheme provisions – the BMO and Clause 52.47

The BMO, and therefore Clause 52.47 (Planning for bushfire), applies to 377 hectares in the north and west of the Amendment Area (69% of the Amendment Area). The purposes specific to the Clause 52.47 are:

> *To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.*
>
> *To ensure that the location, design and construction of development appropriately responds to the bushfire hazard.*
>
> *To ensure development is only permitted where the risk to life, property and community infrastructure from bushfire can be reduced to an acceptable level.*
>
> *To specify location, design and construction measures for a single dwelling that reduces the bushfire risk to life and property to an acceptable level.*

Clause 52.47 includes detailed objectives, approved measures, alternative measures, decision guidelines and application requirements that distinguish between dwellings in

17 Refer to Annexure C, Central Highlands Regional Growth Plan.
18 Refer Annexure B – relevant pages from Grampians RBPA.
19 Refer Annexure D - Map from Victorian Fire Risk Register.

existing settlements. Measures in this Clause relate to matters such as landscape, siting and design, defendable space and construction, water supply and access.

This Clause requires an application to subdivide land zoned for residential or rural residential purposes to be accompanied by a plan that shows, amongst other things, a dwelling envelope on each lot that meets specified measures relating to defendable space (within the subdivision boundaries), vegetation management, water supply and vehicle access.

It is noted that during the Amendment process for the current RLZ proposal, VC109 changed BMO provisions. Changes of relevance to the consideration of the Amendment include:

- The outer zone defendable space provisions[20] were removed and adjoining land can be included as defendable space where there is reasonable assurance about ongoing management of that land.
- The calculation of the *Bushfire Attack Level* (BAL) for planning purposes is based on a *Fire Danger Index* (FDI) of 100, not FDI 120.
- Landowners can choose to build to BAL Flame Zone rather than clear vegetation to meet the minimum defendable space requirements, and to build the dwelling to the next lower corresponding BAL rating by providing defendable space and a private bushfire shelter.
- The BMO permit is the only permit required for vegetation removal to facilitate the provision of defendable space.
- Fire authorities became recommending agencies for single dwelling and subdivision applications, rather than referral authorities with veto power.
- A new single dwelling can be built on infill lots within an existing subdivision in the RLZ (and other zones); these applications are required to meet the bushfire construction standard but are not assessed against the broader landscape hazard.
- Other applications for a permit must be accompanied by a bushfire hazard landscape assessment, a bushfire hazard site assessment, and a bushfire management statement.

Planning Practice Note 64 Local Planning for Bushfire Protection (July 2014)

Planning Practice Note 64 emphasises the need to consider the bushfire hazard early in the planning process. It indicates:

> *Directing development to the lowest risk locations is the most effective way to prioritise the protection of human life. This should be the key strategy to*

[20] *Advisory Note 44 Defendable space in the BMO* (February 2012) related to defendable space provisions that were implemented by VC83 in 2012 in response to the 2009 Victorian Bushfires Royal Commission. The defendable space provisions applied prior to VC109 were the outcome of analysis by the University of Technology Sydney:

> *The defendable space requirements in Table 2 of Clause 52.47 ensure that a building is located so that it is not exposed to a radiant heat flux more than 10kw/m2, based on the AS3959-2009 Method B approach using an FFDI of 120 and a flame temperature of 1200Kelvin. This standard is considered the most suitable performance requirement because:*
>
> - *it is the maximum a fire fighter in personal protective equipment can be exposed to for a short period of time (less than 10 seconds), providing some potential to evacuate or defend buildings occupied by people with special needs*
> - *it aligns with the criteria for Neighbourhood Safer Places in Victoria*
> - *it provides a conservative approach for determining defendable space for uses at particular risk.*

> *enhance resilience to bushfire. Alongside this is the need to avoid future development in extreme risk locations. Due to the devastating impacts of bushfire there are some locations where the bushfire risk cannot be reduced to an acceptable level.*

Planning Practice Note 64 sets out the approach that should be adopted in assessing bushfire risk. It also provides guidance on the translation of bushfire mitigation measures into the planning controls and the tools that can be used including development plan overlay controls and schedules to the BMO (see discussion in Chapter 8).

4.3 Terramatrix assessment methodology

Terramatrix completed technical reports relating to bushfire risk, including risks associated with the landscape context:

- *Bushfire Development Report for the proposed rezoning of properties in Camerons Road, Bacchus Marsh*, November 2012, Terramatrix.
- *Supplementary Report on Landscape Risk for the proposed rezoning of properties in Camerons Road Bacchus Marsh,* August 2013, Terramatrix.
- *Bushfire Development Report for the proposed rezoning of properties in Camerons Road, Bacchus Marsh*, January 2015, Terramatrix (which consolidated and updated earlier reports).

The approach undertaken in assessment of and response to bushfire risk included:

- Site visits and fieldwork (June and August 2012).
- Landscape-scale assessment of the bushfire hazard and risk to the study area, including determining credible fire scenarios that might impact the area.
- Identifying and mapping the classified vegetation present across the study area and 150m beyond it, based on an assessment of aerial photography, GIS analysis of vegetation cover, and field work to determine the fuel hazard.
- Mapping slope classes across the study area by GIS analysis (10m contour data).
- Correlating slope analysis with classified vegetation to defendable space distances for potential future dwelling construction in accordance with *AS 3959-2009 Construction of building in bushfire prone areas*, and the Planning Scheme. *'Indicative dwelling envelopes'* were identified to avoid slopes of greater than 20%, avoid and minimise native vegetation removal and impacts, and meet the requirements of the proposed DDO5.
- The assessment did not address potential *'Indicative dwelling envelopes'* for properties in the north-west of the Amendment Area and the indicative envelope on Lot N (the northern most lot) was also deleted from the study area in 2013 (see Figure 2). While some of these sites are greater than 12 hectares and could be subdivided under the proposed RLZ, they are immediately adjacent to and entirely within the 500m buffer to the Lerderderg State Park, are heavily vegetated, and have steeper slopes.

Indicative dwelling envelopes were identified for lots with an area of more than 12 hectares. Each envelope:

- Had an area of 30m x 40m (1,200m^2)
- Would achieve a maximum BAL29 construction standard and commensurate defendable space within the boundary of the new allotment

- Avoids slopes greater than 10^0
- Avoids and minimises native vegetation removal
- Generally accords with relevant development buffers.

Thirty-one indicative dwelling envelopes were analysed, including multiple envelopes for seven properties (see Chapter 3). Subsequent Terramatrix reports and the proposed DDO map (see Figure 2) show 20 indicative dwelling envelopes. The envelopes were selected from the potential envelopes identified in the 2012 Terramatrix report in consultation with owners.

4.4 Evidence

Mr Allan of Terramatrix presented evidence relating to the bushfire issues based on the update Terramatrix report. This report consolidated the two previous technical reports and took account of changes introduced by VC109. His evidence addressed:

- Vegetation types, fuel hazards, topography and potential risks to proposed development in the study area.
- Credible bushfire scenarios that could impact the study area.
- Dwelling envelopes, including defendable space, for future dwelling construction in accordance with *AS 3959-2009 Construction of building in bushfire prone areas*, and the Planning Scheme.

Mr Allan's evidence is summarised below.

Risk from the broader landscape

Mr Allan identified the risk to the Amendment Area from the surrounding landscape as High to Very High fire risk, stating:

> *The bushfire risk to the northern and western most parts of the study area that abut the Lerderderg State Park, could under severe bushfire weather conditions be extreme. The landscape beyond the study area in these directions, provides the potential for very long fire runs from the north and west, over some areas of steep or very steep terrain. Outside the study area this landscape has the potential to generate extreme fire behaviour, which may be beyond the BMO parameters.*
>
> *However, the vegetation and topography within the study area and the 150m assessment zone around it, is substantially more benign and would produce fire behaviour that is likely to be within the parameters of the BMO/AS 3959 2009 model.*

Of the four landscape types presented in Planning Practice Note 65 (Preparing and Assessing a Planning Application under the Bushfire Provisions in Planning Schemes, September 2014), Mr Allan considered the study area overall best correlates with 'Broad Landscape Type Three' which is defined as having the following attributes:

- *The type and extent of vegetation located more than 150 metres from the site may result in neighbourhood scale destruction as it interacts with the bushfire hazard on and close to a site.*
- *Bushfire can approach from more than one aspect.*

- *The site is located in an area that is not managed in a minimum fuel condition.*
- *Access to an appropriate place that provides shelter from bushfire is not certain.*

During questioning from the Panel and others, Mr Allan expressed the view that, while the Amendment Area is subject to High to Very High fire risk, unlike other parts of the State where development has been approved, it is not subject to extreme risk. However, he noted that wind effects channelling out of the gorge could be very significant in this locality.

Mr Allan noted that the last kilometre is critical in determining impacts, and fires can drop out and quite quickly become benign. In this case, fuel loads within the Lerderderg State Park in the vicinity of the Amendment Area are lower than some parts of the Park and there is a relatively low level of ladder fuel in the Amendment Area.

Mr Allan also highlighted that the landscape risk along a significant portion of the southern part of the western boundary of the Amendment Area is reduced due to horticultural and other low risk activities along the Lerderderg River valley between the Amendment Area and the Lerderderg State Park. He expressed the view that despite being within the park buffer, this separation from the main fire hazard in the Park meant the development of dwelling envelopes fronting Lerderderg Gorge Road (Lots A, O and J) are likely to be capable of meeting BMO objectives and standards to provide an acceptable outcome from a fire risk perspective. The CFA acknowledged that the bushfire risk of this relatively flat land is lower than for some land beyond the 500 metre buffer to the Park.

Fuel load

Although *AS 3959* criteria would indicate classification of much of the treed areas as *'Forest'* based on foliage cover (greater than 30%), the actual overall average fuel load in the Amendment Area and adjoining land was assessed as a 'Woodland' classification for bushfire risk assessment purposes. The 'Very High' average overall fuel hazard that was adopted is conservative. *'Worst case scenario' v*egetation of 16-25 tonnes/hectares was adopted, whereas the fuel load on private properties in the Amendment Area is below or at the low end of the range, due to grazing, clearing of vegetation or inhibited recruitment.

Access

Access to and egress from the Amendment Area is generally poor from a bushfire safety perspective.

If a bushfire approached from the north or north-west, the safest and most likely option for residents to leave would be via Camerons Road and then Lerderderg Gorge Road to the south. If this route was not possible and/or if fire approached from the southwest, the shortest way out of the area would be approximately 3.5km via the potentially hazardous Seereys Road to the east, through a forested landscape to Russells Road and then to Bacchus Marsh via Gisborne Road. An unmade road reserve approximately half way along Camerons Road could provide informal emergency access to the east, but residents and others may not be familiar with the 'track' and its use is likely to be very hazardous in extreme conditions. Also, the condition of the Goodmans Creek crossing on this route may be problematic.

Indicative dwelling envelopes

The basis for identifying indicative dwelling envelopes is set out in Chapter 3.2. Mr Allan's evidence identified *'important qualifications'* and the need for confirmation in the field. These qualifications related to:

- The extent of defendable space was based on 10m contour data.
- The envelopes, which were based on landscape-scale GIS analysis of vegetation and contour data, do not guarantee a house can be sited in a location, and are not necessarily the best or only envelope location.
- The Lerderderg State Park and SUZ buffers shown on the maps were created by horizontal GIS buffering and may not precisely match an *'on the ground'* measurement.
- While the most recent available aerial photography was used, it may not accurately represent current conditions *'on the ground'*.

Mr Allan responded to questions, that the work to date constitutes a thorough preliminary assessment. Nevertheless, he indicated that verification of conditions and the location of some dwelling envelopes should occur, with Lot Q identified as an example.

Mr Allan concluded that it is likely that all properties in the study area that are over 12 hectares in size and outside the 500m Lerderderg State Park and SUZ setbacks, could be subdivided to create at least one additional lot with a dwelling, and comply with BPA and BMO requirements without significant impact on native vegetation.

4.5 Submissions

What is the risk of bushfire?

The CFA submission to the Panel identified the risk from the bushfire hazard affecting the Amendment Area as follows:

> *40. The bushfire risk to the subject land is significant, with the potential for extreme bushfire behaviour to impact on all properties. The main bushfire risk is from the Lerderderg State Park to the north and west with the potential for long fire runs in the unmanaged vegetation. The unmanaged vegetation extends approximately 38km northwest to Daylesford, 25km north-northwest to Trentham and 30km north-northeast to Mount Macedon.*
>
> *41. The vegetation in the Lerderderg State Park includes stringybark and ribbon bark eucalypts that characteristically produce masses of embers and firebrands that can cause spot fires over long distances. Overall fuel hazard within the Lerderderg State Park generally ranges between 'Very High' and 'Extreme', with overall fuel loads typically between 20 and 30 t/Ha – dependent on time since the last burn. A 600 ha area of public land to the north of the subject land was fuel reduced in 2012, with more burns planned to the north-west of the subject land by the Department of Environment, Land, Water and Planning (DELWP) over coming years. There is scattered vegetation throughout the subject land which is contiguous with the Lerderderg State Park, providing the potential for this vegetation to act as a wick and carry the fire into the subject land.*

42. *Notwithstanding that fuel loads are generally moderate within the subject land, the potential intensity of a major and likely bushfire from the broader landscape is expected to impact on the subject land. This includes massive ember attack, significant fire-driven winds and radiant heat and flames from localised fuels.*

43. *The topography in the broader landscape includes steep ridges and valleys with the potential to produce extreme fire behaviour including convection columns. The topography on the subject land is less complex than the surrounds, with a ridge to the west of Camerons Road generally running north-south through the subject area, with steeper slopes to the west of Camerons Road at the southern end of the subject area. Land to the east of Camerons Road is generally flat to undulating before sloping down steeply to Goodmans Creek at the eastern boundary of the subject site. The topography and vegetation within the subject land would still influence fire behaviour and is capable of carrying a fire coming out of the Lerderderg State Park …*

45. *The key factors associated with this landscape that directly contribute to this bushfire risk in and around the subject land are as follows:*
    - *High to extreme fuel loads in forested vegetation contiguous to the subject land, the quantity and availability of which increases in drought conditions, and with time since previous fuel reduction burns.*
    - *A propensity to recurrent drought which, when combined with seasonal hot dry winds, creates a regular pattern of extreme fire weather.*
    - *Large areas of continuous forest cover and the potential for long fire runs leading up to the site. This situation can produce massive convection columns, creating powerful fire induced winds, exacerbated by often steep, dissected topography that can channel and strengthen winds.*
    - *Steep terrain and heavily vegetated forests that significantly limit the ability of fire services to effectively intervene in the suppression of a bushfire within the state parks.*
    - *The substantial area of woodland within the subject site will allow any fire front to penetrate deeply into the study area unless significant vegetation management is undertaken.*

The CFA also highlighted that improvement in the condition of *'significant vegetation'* recommended by the Oekologie flora and fauna assessment would, potentially, increase fuel loads and create greater connectivity between vegetation on the Amendment Area and the main hazard in Lerderderg State Park.

The CFA tabled likely scenarios predicted by the Phoenix computer model[21] for a fire that starts at 11.00am in the Lerderderg State Park approximately 2km north-northwest of the Amendment Area. The model showed steady development of the fire and by:

- 1.30pm: spotting occurring in the forest to the west of the subject area
- 3.00pm: the fire extended south in the forest to the southern extent of the subject site with spotting impact into the subject area
- 4.00pm: the fire has entered the subject site from the north and west
- 5.00pm: the fire has crossed Camerons Road in several places
- 7.00pm: all parts of the subject area have been impacted by fire.

The Council identified bushfire risk as the most significant issue raised by the Amendment. The CRG relied on the evidence of Mr Allan relating to bushfire risk, and that analysis also informed Council's submission.

Submissions from a number of residents highlighted the measures they have taken to mitigate the risk of bushfire to an acceptable level. This included measures such as sprinklers and higher construction standards than required under building regulations and the BMO. Some residents suggested to the Panel there is potential for fire escape routes via a private property to the east of the Amendment Area. There was also reference to the relatively recent approval of applications for dwellings on land with higher bushfire risk than applies in the Amendment Area.

Should rural residential development be directed to lower risk locations?

The CFA's primary submission was that Amendment C58 should be abandoned on the basis that it does not satisfy policy to avoid or minimise bushfire hazard, or prioritise the protection of human life over other policy considerations. The CFA submitted:

> *Given the level of landscape risk and the potential scale and intensity of bushfire impacting the subject land, the Proponent has not provided sufficient justification for a Scheme amendment that seeks to intensify residential use and development.*

The CFA argued that Council and the CRG's cases in support of the Amendment focussed on how to ensure that bushfire hazard reduction measures mitigate the risks to acceptable levels, but overlooked the overarching strategic question of the suitability of the rezoning of all properties within the Amendment Area (more than 500ha) for more intensive residential development, having regard to the significant risk of bushfire. The CFA submitted that this strategic question is of greater significance in the evaluation of an amendment than a planning permit for the development where the existing zoning anticipates residential development.

The CFA expressed particular concern about the following matters:

[21] The Phoenix computer based model is regularly used by Victoria's Fire Services to predict the impacts of a fire in a given situation. The assumptions used in the modelling in this case were:
- There is no recent fire history (full forest regrowth), to simulate possible maximum fuel conditions in the Public Land.
- Weather conditions are as per Ash Wednesday (16 February 1983) in the local area.
- There is no suppression of the fire – no safe road access for ground crews and no aerial suppression.

- The proposed rezoning of sites in the north-west of the Amendment Area which are closest to hazard and subject to the highest risk. It submitted that the exhibited documents do not provide an adequate assessment of these properties. Although the Terramatrix reports excluded approximately eight lots from their 'study area' and consideration of mitigation measures, these lots are included in the proposed rezoning (without indicative dwelling envelopes) and have the potential for further development.
- *'Indicative dwelling envelopes'* within the 500m buffer to Lerderderg State Park. While the primary purpose of the park buffer relates to public land management, both the CFA ad the 2014 Terramatrix reports identify this buffer as *'a significant additional safety measure'* to address landscape-scale risk. During discussion at the Hearing, Mr Boatman expressed a level of comfort relating to development in the locations identified by the indicative envelopes in this buffer area (lots A, J and O).

The CRG submitted that:

> *The primary consideration for the Panel is not whether development should be prevented in areas at risk from fire - as this is not what State policy says. The primary consideration is <u>whether the risk can be mitigated to an acceptable level</u> and where it will maintain the primacy of human life over other policy considerations. An ideal outcome is not required by the Planning and Environment Act 1987.*

The CRG argued that the site is at the periphery of the BMO and therefore at the periphery of higher risk areas, with a third of the land, and around 80% of Camerons Road as it traverses the area, not affected by the BMO. The CRG stated:

- Mr Allan's assessment has informed the Amendment provisions. It has identified indicative dwelling envelopes, which are shown on the plan in the proposed DDO, and are located to mitigate risk to an acceptable level.
- Each permit application for subdivision and a dwelling will need to respond to fire risk in more detail.

Council adopted a similar view to the CRG, submitting that the planning framework *'does not require the Amendment site to be completely free of bushfire risks, rather it is necessary to demonstrate that the bushfire risks have been contained or managed to an acceptable level'*. Council also largely relied on the updated Terramatrix reports and the evidence of Mr Allan, noting that the potential bushfire risk is lower than in the abutting Lerderderg State Park because of the lower fuel loads of the Grassy Woodland vegetation on the land and may be within the parameters of the BMO/AS3959-2009 model.

Will mitigation measures achieve an acceptable residual bushfire risk?

The CFA submitted that the exhibited documents do not provide enough detail to satisfy it that the amendment has adequately addressed the bushfire risk for the potentially large number of additional lots, or how bushfire mitigation measures might be appropriately accommodated. It submitted:

> *… The DDO attempts to provide a framework for guiding new development, but it is unclear in practice how the competing objectives relating to vegetation protection and bushfire will be prioritised. There seems to be a*

> *focus on conserving native vegetation and providing a buffer from extractive industry without due consideration of how bushfire risk will be addressed. While the BMO will trigger referral to CFA of a permit application, there is no assurance of the practicality of implementing bushfire mitigation measures at this stage.*

The CFA also highlighted that there is no discussion of how the recommended improvement in the condition of 'significant vegetation' would be reconciled with BMO objectives and requirements at permit stage.

The CRG argued that Mr Allan's assessment has informed the Amendment provisions and the location of indicative dwelling envelopes shown on the plan in the proposed DDO which mitigate risk to an acceptable level. It noted that each permit application for subdivision and a dwelling will need to respond to fire issues in more detail.

Other bushfire related matters

The CFA expressed concern that the proposed DDO5 does not address how the potentially competing objectives (retention of native vegetation and implementation of bushfire mitigation measures) will be reconciled, the subdivision Clause does not address bushfire risk and mitigation and the decision guideline on bushfire is unclear. However, if contrary to its primary submissions the Amendment proceeds, the CFA sought the following changes to DDO5:

- The inclusion of a design objective which acknowledges the need to resolve bushfire mitigation and environmental values.
- Application requirements that include the identification of overarching vegetation management objectives for the subject land.
- A minimum separation distance from Lerderderg State Park should be mandated for new dwellings that can be incorporated into future subdivision plans. Dwelling envelopes within the 500m buffer should be deleted (addressed earlier).
- The inclusion of a statement in the decision guideline on bushfire about maximising separation from the bushfire hazard (as per Clause 52.47).
- The inclusion of consideration of bushfire risk and mitigation in the subdivision section.

The CRG responded by supporting the addition of a new DDO design objective and a requirement for a Bushfire report under subdivision, although it was noted that this is not consistent with the general convention that individual overlay controls should be allowed to perform their function, rather than duplicating them in multiple local provisions. The design objective and subdivision requirement put forward were:

> - *To identify areas where bushfire protection measures, including the siting of buildings, vegetation management, water supply and access and egress can be readily implemented and managed within the property without significant environmental impacts.*
> - *A Bushfire Development Report that addresses the requirements of the Clause 52.47 of the Moorabool Planning Scheme.*

Revised documentation put forward by Council at the Hearing on a 'without prejudice' basis included the following additional measures to mitigate the bushfire risk:

- A requirement in the DDO (with a comparable requirement in a DPO):

All new buildings proposed to be used for a purpose listed under Clause 44.06-1 must be constructed to comply with a bushfire attack level of 29 in accordance with Sections 3 and 7 of AS.3959-2009' was put forward by Council with a comparable requirement in a new DPO.

However, the CFA did not support mandating such a requirement as it would interfere with the operation of the BMO.

- A requirement in a new DPO relating to the subdivision layout plan:

  The plan must be generally in accordance with Maps 6 to 11 in the Bushfire Development Report (Terramatrix; January 2015), but modified to show the following details …

4.6 Discussion

4.6.1 The variation in bushfire risk across the Amendment Area

There is substantial variation in the bushfire risk across the Amendment Area due to both the characteristics of the Amendment Area itself and the risk associated with the broader landscape.

The land to the east of Camerons Road is subject to the lowest bushfire risk as it has lower fuel loads, is separated by at least 150 metres from classifiable vegetation within the Amendment Area and is more remote from the landscape-scale hazard. This is reflected in the application of the BMO to only part of the area.

There was broad consensus that moderate fuel loads and other characteristics within most of the remainder of the Amendment Area are likely to be within the parameters anticipated by BMO provisions. However, evidence and CFA submissions included that the landscape outside the study area may create fire conditions that are beyond the BMO parameters. Further, access is an issue of concern throughout the Amendment Area, and particularly in relation to lots in the north of the Amendment Area. The Panel's inspection confirmed the CFA and Mr Allan's view that Seereys Lane would be a hazardous alternative escape route in extreme fire conditions.

This risk from the broader landscape hazard is greatest in the north-west of the Amendment Area, which is also more remote from low risk areas where people would evacuate to in the event of fire. We also note the CFA view that substantial areas of woodland within the Amendment Area will allow a fire front to penetrate deeply into the Area.

The Panel accepts the consistent view in the evidence and submissions from the CFA that the landscape to the north and west of the Amendment Area presents a risk of neighbourhood scale destruction from bushfire, although the CFA identified the hazard as being of a somewhat higher level than Mr Allan.

While the CFA's written submission expressed specific concerns relating to residential development of land within the buffer to the Lerderderg State Park, at the Hearing, both the evidence and the CFA acknowledged that the attributes of land fronting Lerderderg Gorge Road that forms part of the river valley and is upslope from fuel within the Amendment Area produce a lower fire risk than some other parts of the Amendment Area. We observe that the proposed Amendment is likely to have limited implications for the primary purpose of the buffer to the Park, namely the management of potential impacts from the proposed use

of land in the buffer on the park, and notice provisions enable consultation regarding specific proposals.

The Panel considers the landscape-scale risk warrants specific consideration of whether development should be precluded and mitigation measures that may include measures beyond the standards established by the BMO.

4.6.2 Should rural residential development be directed to lower risk locations?

Firstly, the Panel notes that there is policy support for additional rural lifestyle opportunities in Bacchus Marsh, and there are few unconstrained 'lower risk' alternative areas for rural residential development in the municipality (see Chapter 2), outside of SWSCs. However, this policy support needs to be balanced with other policy objectives, in particular minimising risk to life and property from bushfire. Notably, the protection of human life is explicitly accorded priority over other policy considerations. Unlike the protection of life, there is no policy imperative to expand rural residential opportunities in this locality.

Planning Practice Note 64 identifies an important role for strategic planning in addressing bushfire risk. It states:

> *Directing development to the lowest risk locations is the most effective way to prioritise the protection of human life. This should be the key strategy to enhance resilience to bushfire. Alongside this is the need to avoid future development in extreme risk locations. Due to the devastating impacts of bushfire there are some locations where the bushfire risk cannot be reduced to an acceptable level.*

Dwelling envelopes are not identified in the proposed DDO for properties in the north-west of the Amendment Area (which were excluded from the Terramatrix assessment) or lot N (which was excluded from the identified development opportunities in 2013). We understand that opportunities for further development of this land were not identified due to the *prima facie* assessment that further residential development presents unacceptable bushfire risk due to the proximity of the land to a major fire hazard, access and the attributes of the land.

The Panel agrees with the consensus view at the Hearing that north-west of the Amendment Area should not be developed for further housing. We share the CFA's concern that, even if indicative dwelling envelopes are not shown, the proposed rezoning of that land to RLZ sends at least, mixed messages regarding the potential for further residential development (see further discussion in Chapter 8). The subsequent discussion of bushfire risk excludes this area.

We have previously identified that the level of bushfire risk declines with distance from the hazard to the north, north-west and west, and that egress routes become shorter in the southern end of Camerons Road and along Lerderderg Gorge Road.

The submissions and evidence did not suggest that land to the east of Camerons Road is subject to a level of bushfire risk that justifies precluding development in that area. Further, as already noted, despite being within the buffer to the Lerderderg State Park, the attributes

of land fronting Lerderderg Gorge Road produces a lower fire risk than some other parts of the Amendment Area.

The Panel considers further development should not be precluded due to fire hazard at a strategic level, except in the north-west of the Amendment Area. However, particular consideration is required of whether the risk from the broader landscape can be mitigated to an acceptable level. This applies to the land to the west of Camerons Road on lots with longer access routes, more extensive vegetated areas and steeper topography.

4.6.3 Can mitigation measures achieve an acceptable residual bushfire risk?

Access to and Egress from the Amendment Area

The Panel's inspection confirmed the CFA and Mr Allan's view that Seereys Road would be a hazardous alternative escape route in the event of a fire. Access to and egress from the Amendment Area is poor, particularly the northern end of Camerons Road. This presents a significant bushfire safety issue.

We note that an alternative route across adjoining farmland to the east was put forward by some submitters. However, the Panel is not prepared to support the reliance on or promotion of public egress routes over private land. There are too many uncertainties and hazards, particularly in potentially extreme smoke-filled conditions where unformed routes are across unfamiliar and hilly to steep paddocks. Such routes may also present a fire hazard associated with road vehicles on grassed paddocks.

The issue of egress routes in the event of fire needs to be addressed through:

- Bushfire management plans that are required by the proposed DDO, including *'leave early'* strategies.
- The location of dwelling envelopes (discussed below).
- Improvements in the safety of dwellings as refuges while a fire front passes.

Compliance with BMO requirements

The Panel notes that the BMO, which applies to more than two thirds of the Amendment Area, provides a mechanism to address bushfire risk through development features and ongoing management. Further, the BMO appears to have been applied conservatively, perhaps as a response to the landscape-scale risk of fire. For example, the BMO applies to land beyond the *'ember protection buffer of 150m'* from a large patch of classifiable vegetation (lots C and P, which are to the east of Camerons Road)[22].

Although verification will be necessary, the Terramatrix assessment provides an appropriate level of confidence that dwelling envelopes can be identified for potential new lots in the Amendment Area that will enable BMO standards to be met.

However, the indicative dwelling envelopes do not all maximise the separation from the bushfire hazard or locate them as close as practicable to road access (as required by Clause 52.47 AM2.2). It is understood that landowners selected a preferred envelope from options

[22] See *Advisory Note 46 Bushfire Management Overlay Mapping Methodology and Criteria August 2013*. The Panel does not challenge the basis for the BMO mapping as issues such as landscape-scale hazard are clearly relevant.

identified in the Terramatrix analysis. There are examples where potential envelopes closer to Camerons Road were not adopted and where driveways to proposed envelopes are hundreds of metres long, in some cases traversing quite steep land. There was a level of consensus at the Hearing that a development setback for dwellings of 30 metres rather than 50 metres (but 50 metres for outbuildings) from Camerons Road would be appropriate and the Panel endorses this change for safety reasons.

The Panel is not in a position to undertake a detailed analysis of each indicative dwelling envelope or the optimum potential dwelling envelope for each lot. Before the Amendment is finalised, we consider the CFA and Council, in consultation with respective landowners and their bushfire expert (if necessary), should review the location of potential envelopes of lots on the western side of Camerons Road that rely on Camerons Road for access (Lots A, Q, H, I, L and G), to identify optimum development envelopes. Given the variation in risk across the Amendment Area, this process should take account of the specific risk applicable to land. It should also continue to ensure that envelopes avoid existing native vegetation and minimise losses.

In the event of a dispute arising from the recommended review of optimum dwelling envelopes, consideration could be given to referring the contentious envelopes back to the Panel for consideration in an Addendum Report.

Does landscape-scale risk justify mitigation measures in addition to BMO standards?

As there was consensus that the characteristics within the Amendment Area are consistent with assumptions underpinning the BMO, it is the implications of the risk from the broader landscape that warrant specific consideration.

The State level guidance relating to planning for bushfire risk indicates there are circumstances, due to the attributes of the land and/or the broader landscape, where the assumptions underpinning the BMO are exceeded. For example:

> *The bushfire protection measures within the BMO and Clause 52.47 of planning schemes should be considered in the context of both the site-based risk and the broader landscape risk. …*
>
> *As the landscape risk increases, so will the level of assurance required. This is because the base modelling assumptions in the Bushfire Site Assessment and AS 3959-2009 in some instances may underestimate the impact of a bushfire in severe landscapes. The Bushfire Site Assessment and AS 3959-2009 use models to calculate bushfire risk. The inherent assumptions and inputs of these models may not be the best reflection of risk for a particular circumstance.*[23]

Planning Practice Note 64 clearly envisages that there may be circumstances where development can be permitted with standards in excess of the usual BMO provisions and identifies a schedule to the BMO as a mechanism to achieve this: it recognises that local

[23] *Planning for Bushfire Victoria – Guidelines for Meeting Victoria's Bushfire Planning Requirements* (CFA 2012). It is noted that these guidelines predate changes to implement less demanding bushfire provisions in the planning scheme in 2014.

conditions in a discrete area can influence bushfire behaviour, and it identifies a schedule to the BMO as a mechanism to modify standard measures to achieve acceptable mitigation where:

> *A schedule could address a particular neighbourhood, township or rural settlement. A schedule could be appropriate in the following circumstances:*
>
> *…*
>
> *2. A local analysis of bushfire behaviour demonstrates how an area varies from the 'assumed' bushfire behaviour supporting the statewide standards. It will include an analysis of the bushfire hazard (vegetation, topography, weather and fire history) on a local and landscape scale, assess the potential exposure of a location to this hazard, and develop an understanding of what this means for the standards in Clause 52.47.*
>
> *3. Implementing policy decisions on how bushfire considerations are to apply. This may include the consideration of the bushfire risk on a landscape-scale or the role of existing or planned State, regional or local bushfire management and prevention actions on the level of risk.*
>
> *Varying the relevant requirements of Clause 44.06 will implement decisions linked to either modified standards in Clause 52.47 or policy decisions about how bushfire protection measures can be delivered through planning schemes (including provisions other than the Bushfire Management Overlay).*
>
> *A schedule may vary the Bushfire Management Overlay by:*
>
> - *specifying additional permit exemptions in Clause 44.06-1, particularly where bushfire matters are addressed in other parts of the planning scheme or following a risk assessment of development where other measures are in place to reduce the risk to an acceptable level*
> - *…*
> - *including additional permit conditions in Clause 44.06-3*
> - *….*
> - *including additional decision guidelines for exercising discretion in Clause 44.06-7.*

In response to the CFA's concern that insufficient information is provided on individual building envelope sites, we note that the rezoning process precedes the detailed planning necessary at the permit application stage. It is common practice to proceed on the basis that the necessary detailed assessments will occur at the application stage.

Planning Practice Note 64 also supports the identification and securing of measures to address bushfire risk at the Amendment stage. It states:

> *Some mitigation can be secured through subsequent permit approvals (for instance, planning permits for subdivision) but essential bushfire protection measures should be secured at the planning scheme amendment stage and not deferred for subsequent consideration. It is also important to ensure that the planning scheme provisions which apply to land clearly set out the*

expectations for future development and do not create conflicts between the provisions that apply.

The evidence and submissions do not indicate that the broader landscape presents an extreme risk to the Amendment Area, as may be the case in some densely forested areas in some parts of the State. However, it is an area that the landscape assessment indicates there is a high to very high risk with the potential for extreme fire behaviour, particularly in the north-west of the area. Planning Practice Note 64 and CFA guidelines anticipate that the assumptions and inputs underpinning the BMO responses may underestimate the impact of fires in some circumstances. Mr Allan's evidence and the CFA submission suggest that this is the case in at least in parts of the Amendment Area.

The Panel's consideration of the submissions and evidence presented at the Hearing relating to the bushfire risk indicates that a precautionary approach should be adopted in recognition of the landscape-scale risk to the Amendment Area and recent changes to BMO provisions in the planning scheme, which no longer address vegetation management in the former 'outer zone'.

The Panel sees merit in enhancing the safety and resilience of new housing by adopting the following approach:

- While the southern part of this area to the east of Camerons Road is in a bushfire prone area and is not subject to the BMO, bushfire risk mitigation measures that would apply under the BMO should apply as a means of mitigating landscape-scale risk. The attributes of this area mean that this should not impose onerous additional requirements.
- In areas where the BMO applies, the review of dwelling envelopes before the Amendment is finalised (as discussed above) should include consideration of requiring a more generous combination of defendable space and construction standard than would normally be required under the BMO. For example, a construction standard of BAL29 with the defendable space that would otherwise allow construction to BAL19. In addition to reducing risks from ember attack, more extensive defendable space would also improve safety for people by reducing the threat from radiant heat to the building and for people accessing the dwelling as a refuge while the fire front passes. The efficacy of such an approach should be evaluated on a site by site basis that recognises the differences in bushfire risk across the Amendment Area.

4.6.4 Mechanisms to implement bushfire mitigation measures

Mr Merrett rightly highlighted the usual practice of avoiding duplication of provisions in planning schemes. However, in this case the Panel considers the DDO should address bushfire issues and mitigation measures to promote an integrated approach to planning and decision making that takes into account the specific circumstances applicable to this area, and the pre-conditions for approval of the Amendment. In this case, the interaction between bushfire risk and the native vegetation of very high conservation significance warrant specific consideration. Further, the bushfire risk from the broader landscape justifies consideration of measures beyond those normally applied under the BMO in parts of the area to which the DDO would apply.

At the Hearing, the possibility of utilising a schedule to the BMO was canvassed. While this is a mechanism designed to enable variation of the generic BMO requirements, the Panel accepts that the DDO is the mechanism that was exhibited and it also promotes an integrated approach to the range of considerations that apply to the Amendment Area.

The Panel comments in relation to the DDO design objective that, rather than just identifying areas where bushfire protection measures can be readily implemented, the objective should be to direct development to appropriate areas, ie '*To ~~identify~~ direct development to areas where bushfire protection measures, …'*

We also suggest that to avoid potential confusion, the DDO should refer to slope in terms of both percentage (%) (which is used elsewhere in the planning scheme) and degrees (which is used in bushfire provisions).

The Panel agrees with the CFA that:

- The DDO subdivision Clause should address bushfire.
- Panel recommendations extend beyond the requirements of Clause 52.47 and this would need to be reflected in the additional subdivision provision.
- The focus of the decision guideline relating to bushfire *'on avoiding or minimising the removal of vegetation'* neglects a key consideration relating to mitigating bushfire risk to an acceptable level.
- The decision guideline should refer to *'maximising separation from the bushfire hazard'*.

The map in DDO5 serves an important role in illustrating the extent and location of additional residential development to be facilitated. We consider the identification of dwelling envelopes should be reviewed to identify optimum locations on the map to be included in the approved DDO. These dwelling envelopes should be identified for all lots, including vacant lots of less than 12 hectares where subdivision is anticipated.

The DDO map will serve an important function in establishing development expectations and a high degree of certainty about the basis for assessment of applications. However, the Panel considers some discretion should be maintained to enable the consideration of an alternative dwelling envelope location if it is supported by strong justification from first principles.

Revisions to DDO5 that are supported by the Panel are illustrated in Appendix C.

Panel conclusions

The Panel concludes that:

- The bushfire risk across the Amendment Area varies.
- Conditions within most of the Amendment Area are within the parameters anticipated by BMO provisions, however, there is potential for extreme fire behaviour and the risk of neighbourhood scale destruction due to the fire hazard in the landscape to the north and north-west.
- The Panel does not endorse the concept of community egress from the Amendment Area in extreme conditions via routes across private land or via an unmade government road.
- The land in the north-west of the Amendment Area, which was excluded from the technical assessment by Terramatrix plus lot N which was excluded in 2013, has the

highest bushfire risk and the planning framework should not provide for additional housing in this area.

- Mitigation of bushfire risk should be able to produce an acceptable outcome in other parts of the Amendment Area.
- The Terramatrix assessment provides an appropriate level of confidence that dwelling envelopes can be identified for potential new lots in the Amendment Area that will enable BMO standards to be met.
- It is appropriate to explicitly address the mitigation of bushfire risk and identify dwelling envelopes in the proposed DDO to ensure an integrated approach is adopted to the range of relevant considerations.
- Before the Amendment is finalised, the CFA and Council, in consultation with landowners and their bushfire expert, should identify the optimum location of potential dwelling envelopes. This process should consider the particular circumstances of each lot and whether a more generous combination of defendable space and construction standards than would normally apply under the BMO should be required to mitigate the landscape-scale bushfire risk. The dwelling envelopes identified should continue to ensure existing native vegetation is avoided and loses are minimised.
- In bushfire prone areas that are not subject to the BMO, bushfire risk mitigation measures that would apply under the BMO should apply as a means of mitigating landscape-scale risk.

The Panel observes that a number of recent Panels have grappled with the issue of when the bushfire risk from the broader landscape reaches a threshold that justifies precluding residential development or imposing requirements that exceed those that would apply under the BMO. In some cases, concerns have been raised by the CFA and expert witnesses that the risk of fire exceeds the parameters underpinning the BMO provisions, and that this justifies additional mitigation measures. Changes introduced by Amendment C108 (see table 1) appear to have contributed to these concerns.

The Panel considers there would be significant benefit in relevant stakeholders - including the CFA, the DELWP, Planning Panels Victoria and VCAT, Councils in areas subject to extreme bushfire risk and technical specialists in fire behaviour and risk mitigation - developing further explicit guidance on acceptable risk thresholds and potential measures to address specific circumstances where the combination of conditions in the broader landscape and on the site produce a risk that exceeds the parameters underpinning the BMO.

4.7 Panel recommendations

3. **Review the location of indicative envelopes for lots subject to the Bushfire Management Overlay that rely on Camerons Road for access (Lots A, C, P, Q, H, I, L and G) to identify optimum development envelopes. This review should occur before the Amendment is adopted and should:**
   a) **Ensure long driveways are avoided and the separation from the fuel hazardis maximised.**
   b) **Consider whether there should be a combination of more generous defendable space and more robust construction standard than is normally required by the BMO to address the risk of fire from the landscape.**

c) Continue to preclude further residential development in the north-west of the Amendment Area, being the land that was excluded from Terramatrix assessments and Lot N.

4. Change the proposed Schedule 5 to the Design and Development Overlay as illustrated in Appendix C, including:

a) Explicitly address the landscape scale bushfire risk by indicating that:

i. Bushfire protection measures in excess of those required under the Bushfire Management Overlay may be required where that Overlay applies.

ii. Bushfire protection measures specified under the Bushfire Management Overlay apply to Bushfire Prone areas on the eastern side of Camerons Road.

b) Add an objective, subdivision requirement and decision guideline that focus on the mitigation of bushfire risk and integrating this consideration with responses to other environmental issues.

c) Explicitly indicate that the Dwelling Envelopes Plan shows the number and location of additional dwellings to be accommodated.

d) Specify a minimum setback of dwellings from a road of 30 metres and 50m for outbuildings.

e) Refer to slope in terms of both percentage (%) and degrees (^{0}).

5 Protecting extractive industry buffers

5.1 The issues

- Should the requirement for new houses to be at least 500m from the land zoned for quarrying be mandatory?
- Is rezoning to RLZ acceptable if further encroachment of sensitive uses into the buffer to quarries to the east does not occur?

5.2 Quarries in the locality

Quarries immediately to the east of the Goodmans Creek valley, have operated at least since the 1970s. These quarries are strategically important as major suppliers of sand and stone to Melbourne and surrounding areas. The Boral quarry alone supplies around 1 million tonnes per year of product, and is one of the largest sand quarries in Victoria.

The quarries are highly visible from the 147 hectares (27%) of the Amendment Area that is east of Camerons Road. Most of this portion of the Amendment Area is within 500m of the quarries (see Figure 4).

Sand extraction and processing operates 24 hours per day on weekdays. Blasting and removal of between 8 to 15 metres of basalt rock is required for to enable sand extraction. This occurs as needed at the Boral quarry, for example, between 10am and 4pm (as needed) and is anticipated to occur for the lifetime of the quarry (20 to 30+ years). Each blasting event removes around 100,000 tonnes of rock.

5.3 Planning context

5.3.1 Planning policy

The Moorabool Planning Scheme[24] and other relevant guidelines recognise the importance of quarries in the vicinity of the Amendment Area. For example, State and regional policy and strategies[25] encourage exploration and extraction of natural resources and various strategies are identified to protect both resource extraction operations and surrounding land uses from impacts associated with quarrying. These include:

> *Protect the opportunity for exploration and extraction of natural resources where this is consistent with overall planning considerations and application of acceptable environmental practice.*
>
> *Provide for the long term protection of natural resources in Victoria.*

The MSS *states 'Planning to manage off-site impacts and avoid conflict with sensitive uses is required to realise economic development opportunities'*, while State policy identifies recommended separation distances[26] and indicates that buffer areas between extractive uses and sensitive uses are to be provided to afford protection from the encroachment of

[24] Clauses 14.03 Resource exploration and extraction, 11.06 Central Highlands, 21.01-2 Key Issues.
[25] Clauses 14.03 Resource exploration and extraction, 11.06 Central Highlands.
[26] Clause 13.04-2 Air quality.

sensitive uses[27]. These buffers should be determined on basis of the following considerations:

- *Appropriate limits on effects can be met at the sensitive locations using practical and readily available technology.*
- *Whether a change of land use in the vicinity of the extractive industry is proposed.*
- *Use of land within the buffer areas is not limited by adverse effects created by the extractive activities.*
- *Performance standards identified under the relevant legislation.*
- *Types of activities within land zoned for public use.*

5.4 Special Use Zone Schedule 2 - Earth and Energy Resources Industry

The importance of the quarries is also identified through the Special Use Zone - Schedule 2 Earth and Energy Resources Industry (SUZ2), which has the following purposes:

> *To recognise or provide for the use and development of land for earth and energy resources industry.*
>
> *To encourage interim use of the land compatible with the use and development of nearby land.*
>
> *To encourage land management practice and rehabilitation that minimises adverse impact on the use and development of nearby land.*

5.5 Clause 52.09 Stone Extraction and Extractive Industry Interest Areas

The particular provision Clause 52.09 Stone Extraction and Extractive Industry Interest Areas seeks in part '*to ensure that standard and stone resources that may be required by the community for future use are protected from inappropriate development*'. This applies to applications for stone extraction and for the use and development of land within an '*Extractive Industry Interest Area*' or within 500 metres of stone extraction The Clause establishes decision guidelines for these planning permit applications which relate to, amongst other things:

> *The effect of vehicular traffic, noise, blasting, dust and vibration on the amenity of the surrounding area* [28].

5.6 EPA recommended separation distances

The EPA document titled '*Recommended Separation Distances 2013'* has recently replaced a previous 1990 version on the same topic which is cited as a reference document in the planning scheme[29]. The document nominates a recommended separation distance of 500 metres for a quarry with blasting[30].

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[27] Clause 21.01-2.

[28] Designation as an Extractive Industry Interest Area applies to land that has been identified as being likely to contain stone resources of sufficient quantity and quality to support commercial extractive industry operations.

[29] Clauses 13.04-2, 17.02-1 and 17.02-2.

[30] Section 7.

The State government document titled '*Environmental Guidelines for Ground Vibration and Air Blast Limits for Blasting in Mines and Quarries 2001'* recommends limits for ground vibration and air blast that are designed to minimise annoyance to people from quarry blasting at new and existing sites, and new sensitive uses close to existing mines or quarries.

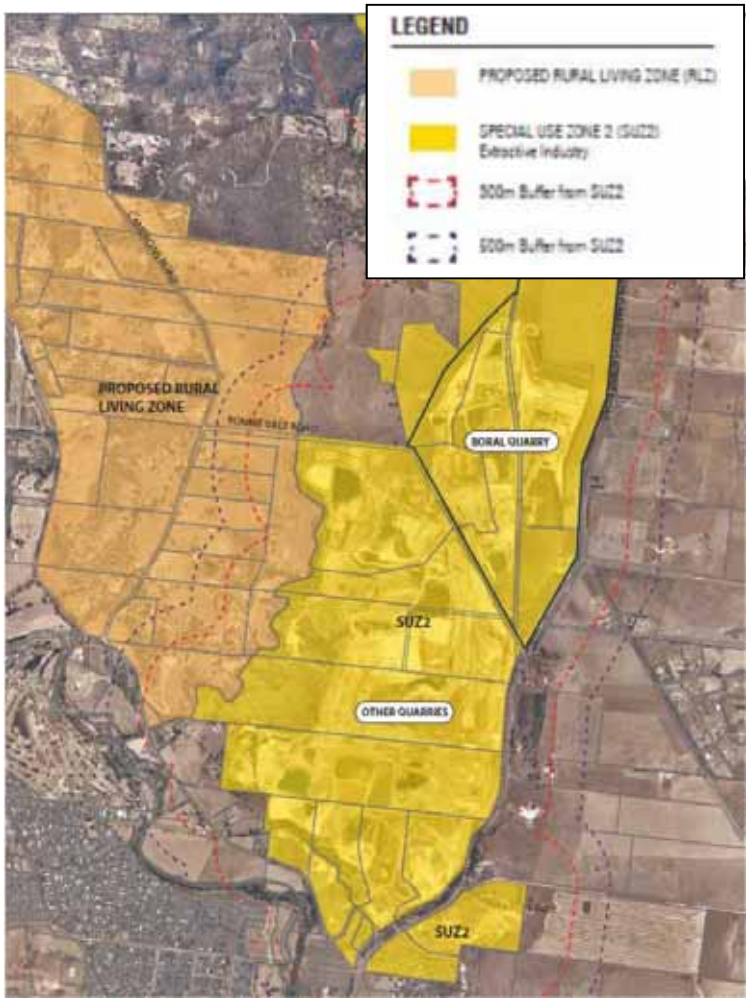

Figure 4 Quarry Buffers (300m and 500m)

5.7 Submissions

Boral submitted that the existing FZ (or the RCZ) is appropriate at the interface to the SUZ as the zone does not facilitate intensification of residential uses.

Boral argued against rezoning the land east of Camerons Road to RLZ, and the further subdivision and an increased number of dwellings that would result, on the basis that:

- It is inconsistent with Clause 14.03 policy to protect the significant resource and quarry operations within the SUZ2.
- It is inconsistent with the strategic direction of the area.
- It creates unreasonable and potentially false development expectations. As most properties east of Camerons Road are largely within 500m of the quarries' western boundaries, and given other planning constraints such as the proposed six hectare minimum lot size, Boral questioned whether any additional dwellings would be possible.

The positions of Hansen and (the former) Department Of State Development, Business And Innovation, which oversees extractive industries in Victoria, and the EPA, largely align with that of Boral.

The CRG and individual submissions in support of the Amendment[31] argued that there have been no conflict issues between the landowners east of Camerons Road and quarry operations, with few, if any, complaints made about the quarrying operations. They claim that:

- Existing residents co-exist well with the quarries. Residents have the opportunity to locate sheds and grow plants to screen views to the quarry.
- The quarry has a limited life and will be rehabilitated.
- Only three additional houses are proposed on the eastern side of Camerons Road and they comply with the 500m buffer requirement.
- Any new residents coming into the area would understand what they were buying into.
- The blasting of overburden and other quarry operations have no adverse impact on the residents or their land.
- The residents and lands use in the area have no adverse impacts on the quarries.

As noted in Chapter 1.7, it was established at the start of the Hearing that a 500 metre buffer from the quarries to the east should apply. The pre-hearing DDO5 provisions that new dwellings '*should*' be at least 500m from the extractive industries and should be located within identified indicative dwelling envelopes, would allow a permit to be issued for a dwelling within the 500m buffer or in locations other than the designated dwelling envelopes. Boral maintained its primary position that the land should not be rezoned. However, if the rezoning proceeds, Boral and the Council argued for the certainty that would be provided by replacing '*should*' with the mandatory '*must*'.

5.8 Discussion

As noted in Chapter 1.3.2, since 1999 three Panel and Advisory Committee assessments of proposals to designate the Amendment Area for rural residential development have highlighted the constraint associated with the land's proximity to the sand quarries to the east. The Panel considers that the concern relates primarily to the land to the east of Camerons Road, being over 60% of the Amendment Area.

Quarries are associated with significant two way implications for local land use and operations:

- Operations at the quarries can impact on the amenity experienced on the adjacent and other nearby lands, and the suitability of land for a range of sensitive uses.
- Sensitive uses on adjacent or nearby land can create sources of complaints, limits on quarry operations, and potentially the longevity of the quarries.

Land use planning endeavours to minimise the potential for conflict between incompatible uses. The planning scheme and associated documents (referred to above) establish an expectation that a 500m buffer should apply around quarries and specific consideration is required to justify departures from that level of separation between incompatible uses. Consistent with this, all indicative dwelling envelopes identified on the proposed DDO map

[31] Including Mr Mundy, Mr Williams, Mr and Ms Taylor, Ms Green.

and in expert evidence considered at the Hearing are either outside the buffer, or able to be relocated to outside the buffer.

We accept that, while housing has occurred within the quarry buffer in the past, residents within the 500m buffer area are a potential source of complaint that could constrain quarry operations. Also, while there have been few complaints made in recent years about quarry operations, we do not accept that a history of limited complaints justifies additional houses encroaching into the buffer. The amenity expectations of new residents, of both existing houses and new housing that would be facilitated by the proposed rezoning, may be higher than in the past.

The Panel considers that a mandatory provision requiring the development of all new dwellings and other sensitive uses to be at least 500m from the boundary of the SUZ2 would ensure further encroachment of sensitive uses into the extractive industry buffer does not occur. The indicative dwelling envelopes would also serve this purpose. While theoretically most land east of Camerons Road could still be subdivided into two or more smaller lots that satisfy the proposed minimum lot size, in practice subdivision to create new lots would be unlikely to be sought or supported where the 500m buffer precludes the construction of a dwelling[32] .

We have some sympathy with Boral's argument for the retention of the FZ and against rezoning to RLZ due to the purposes and the scope of permitted and prohibited uses of the respective zones. We also agree with Boral that application of the RLZ within the buffer area would inappropriately reinforce potential for residential use and associated amenity expectations. However, residential uses already occur and, provided the rezoning does not result in additional residential uses within the buffer area, we consider the RLZ with the application of a 500m extractive industry development buffer provides an acceptable outcome.

Panel conclusions

The Panel concludes that:

- A mandatory provision requiring the development of all new dwellings and other sensitive uses to be at least 500m from the boundary of the SUZ2 should apply to ensure that further encroachment of sensitive uses into the extractive industry buffer does not occur.
- Provided additional dwellings are not allowed within the extractive industry buffer, the application of the RLZ to the part of the Amendment Area east of Camerons Road is acceptable.

5.9 Panel recommendation

5. Revise the proposed Schedule 5 to the Design and Development Overlay to prohibit development of dwellings and other sensitive uses within 500 metres of the Special Use Zone to the east of the Amendment Area.

[32] Unlike in productive agricultural land, the creation of lots without housing to add to agricultural operations is unlikely to occur in the Amendment Area.

6 Protecting biodiversity assets

6.1 The issue

- Will the Amendment facilitate development that would have adverse impacts on significant biodiversity values?

The proposed rezoning does not in itself propose vegetation removal. However, it facilitates development with potential for impacts on native vegetation, depending on the detail of subdivision, access tracks and the location of dwelling envelopes on a site by site basis.

6.2 Policy and planning scheme provisions

Native vegetation provisions are contained in State and local planning policy, zones, overlays, and the State-wide particular provisions of the Planning Scheme. For the current rezoning proposal they are tightly linked with provisions relating to bushfire risk (see Chapter 4).

The main vegetation specific content of the planning scheme is as follows:

- Clause 12.01(Biodiversity) aims to protect and conserve Victoria's biodiversity, including strategically valuable biodiversity sites. Evaluation of impacts of any change in land-use or development that may affect the biodiversity value of nationally significant sites is required in the permit application process. State policy adopts an approach which requires offsets to be provided for native vegetation removal so there is *'no net loss'* in the contribution of native vegetation to Victoria's biodiversity. The offset requirement is calculated when a development application is made and a permit condition is then required to ensure that the required offset is provided before development starts.
- Clause 52.17 (Native Vegetation) requires a planning permit to remove, destroy or lop native vegetation, however exemptions may apply. This Clause is associated with Clause 12.01 in that it provides for the determination of offset requirements for native vegetation losses, through the incorporated document titled '*Permitted Clearing of Native Vegetation - Biodiversity Assessment Guidelines*'. These guidelines apply if a proposal triggers the need for a planning permit under Clause 52.16 Native Vegetation Precinct Plan or (more commonly) Clause 52.17.
- In the Amendment Area an ESO applies along Goodmans Creek and requires a permit to remove, lop or destroy Victorian native vegetation. However, exemptions may apply in areas where the BMO applies. It is noted that Goodmans Creek is within the 500m extractive industries buffer and, as residential development will not be facilitated by the Amendment in this area, associated vegetation loses are unlikely.

These provisions are subservient to State bushfire planning policy, strategies and principles which prioritise the protection of human life over other policy considerations. Clause 52.48-5 provides exemptions from permit requirements to remove destroy or lop native vegetation in order to create defendable space for a dwelling approved under the BMO (Clause 44.06).

Other main Commonwealth and State legislation with potential particular relevance to biodiversity and the current rezoning proposal include the following:

- The EPBC Act applies to developments and associated activities that have the potential to significantly impact on matters protected under the Act. Where an action may or will have significant impact on a matter of national environmental significance, the action must be referred to the relevant Australian government Minister, for a determination of whether the action is a '*controlled action*'.
- The *Flora and Fauna Guarantee Act 1988* provides for the conservation of threatened species and communities and for the management of potentially threatening processes. As the Amendment Area is privately owned and is not declared '*critical habitat*' a protected flora permit is not required. The presence of listed threatened flora and habitat for listed threatened fauna will be considered by the Council in determining any application for vegetation clearance under Clause 52.17.

6.3 Biodiversity assessment and evidence

The firm Oekologie was commissioned by the CRG via Terramatrix Pty. Ltd to assess flora and fauna in the Amendment Area. This occurred in two stages:

- The first report of November 2012 was prior to the introduction of Amendment VC105 into the planning scheme. Its purpose was to identify biodiversity values within the Study Area that could inform planning processes and address concerns raised during previous assessments of the rezoning proposal.
- An addendum report that considered the proposed rezoning in context of the updated native vegetation and biodiversity provisions found that the proposed rezoning satisfies the requirements and decision guidelines introduced in Amendment VC105.

The flora and fauna assessments mapped patches[33] of native vegetation considered potentially likely to be impacted by future works associated with the rezoning, the condition of the vegetation was determined, and habitat values were investigated. The reports stated that the seasonality of the assessment did not adversely impact the assessment of the biodiversity values, and that the survey effort was sufficient to assess the general values of the site and determine the potential impacts of the proposed zoning.

The assessment found that no individual species of fauna or flora significance were recorded in or immediately around the review area, although the area does support habitat for some such species:

The following were identified as characterises of the Amendment Area:

- Overall, the vegetation quality is more influenced by perennial species than by annual species, and the understory across much of the area is degraded, highly grazed and often subjected to other forms of pressure (including motor vehicle trafficking). As a consequence it is unlikely that many, if any, annual species of significance persist.
- Native vegetation is largely classified as either EVC64 Rocky Chenopod Woodland, or EVC175_1 Grassy Woodland[34].

[33] A 'patch' is a vegetation area where indigenous flora account for greater or equal to 25% of total vegetation cover.

[34] We note that for fire rating purposes (to satisfy bushfire protection measures) a different vegetation classification system is recognised. For that purpose three foliage cover classes are identified: Group A 'Forest': Typically dominated by Eucalypts, 30-70% foliage cover (may include understorey of low trees, tall

- Properties east of Camerons Road generally, support less native vegetation than those to the west, and support highly modified exotic vegetation over most of their area.
- Native vegetation that is of High to Very High Conservation Significance is mainly west of Camerons Road.
- The Area supports extensive areas of Degraded Treeless Vegetation (i.e. areas where the quality of the vegetation is not required it to be taken into account under the Guidelines).

The following broadly describes the vegetation in the wider area beyond the Amendment Area:

- To the east and south, the Amendment Area is bounded mostly by highly modified landscapes
- To the north and west the Amendment Area is mainly bounded by relatively intact native vegetation in the Lerderderg State Park, with some disturbed agricultural landscapes in the valley between the State Park and the southern part of the review area.

6.3.1 Main EVC's in the Amendment Area

Rocky Chenopod Woodland (EVC64) has 'Vulnerable' EVC status and 'Very High' minimum local conservation significance, apart from one very small area of 0.37 hectares which has 'High' conservation status. It is an ecosystem of national importance, and some in the Amendment Area is considered to meet the criteria of the national ecological community Grey Box dominated Rocky Chenopod Woodland. As this community can be protected under the Federal EPBC Act, the Panel directed the Proponents to clarify with the Commonwealth Government if the rezoning proposal is to be regarded as a '*controlled action*' under the EPBC Act which would require Federal ministerial approval. This was investigated, but is not required, as no areas of Grey Box Grassy Woodland are currently proposed to be removed. If modifications that could impact on Grey Box Woodland were to be proposed, say to achieve fuel management targets, such change could trigger need for action under the EPBC Act. As that is not an issue in the rezoning proposal, this specific matter is not discussed further in this report. However, the Panel has taken into account the significance of this vegetation.

Within the Amendment Area the Rocky Chenopod Woodland is mainly in patches west of Camerons Road with a canopy largely dominated by Greybox *(E macrocarpa*). Groundcover within the EVC is sparse and highly degraded resulting from a combination of understory clearing, grazing pressure, vehicular traversing, and mechanical soil disturbance. The Oekologie report provides a detailed description of understorey species found in this EVC.

Grassy Woodland (EVC175) covers about 125 hectares of the Amendment Area. Its conservation status is *'endangered'* and its conservation significance ranges between *'High'* and *'Very High'* within the Central Victorian Uplands Region. Some 'Grassy Woodland' areas may be secondary, recolonising vegetation and therefore may be deemed to be '*Degraded Treeless Vegetation*'.

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shrubs or grass); Group B - 'Woodland': Typically trees up to 30m high with 10-30% foliage cover dominated by Eucalypts; Group G - 'Grassland': Less than 10% over storey foliage cover.

Grassland areas in the study area were generally found to be 'grasslands' derived from Rocky Chenopod Woodland. They generally contain opportunistic species that are typical of areas altered by agricultural land use. It is probable that they have no intrinsic ecological value.

The following applies from Dr Birtchnell's assessment of all properties investigated:

- Without intervention, degradation of the Rocky Chenopod Woodland will continue, and its vegetation will further decline or at best be maintained.
- The vegetation that may be removed as a consequence of the rezoning proposal rezoning is less significant than that being retained.
- The potential for improving biodiversity values as a consequence of the rezoning proposal exceeds the potential impacts of vegetation loss likely to occur as a consequence of subdivision under the proposed rezoning.
- Active pest plant and animal management and cessation of understory clearing is needed to improve the condition of the Woodland within the study area.
- The proposed rezoning is likely to offer one of the few mechanisms and opportunities for conserving and rehabilitating the Amendment Area's vegetation (and hence) ecological qualities, subject to implementing sensitive management under a LMP.
- Subject to the application of adequate local controls to promote better management of retained vegetation, native vegetation offsets would be required as part of a planning permit application where Clause 52.17 applies.

Other matters also identified as important in Oekologie reporting, if the proposed rezoning is to occur include the following:

- The siting of access points to additional lots created should avoid removal of roadside native vegetation as road reserves in the Amendment Area support remnant vegetation and significant floral species.
- With sensitive siting most properties in the Amendment Area could support an additional dwelling envelope or envelopes that would be of 'low risk' under the DEPI Guidelines.
- Targeted surveys for threatened taxa would be required at the planning permit application stage if significant species are considered likely to occur in or around proposed construction and dwelling envelopes.

Dr Birtchnell also identified that an ephemeral drainage/creek line running north-south to the west of Camerons Road contained higher species diversity than in the general woodland areas. The drainage line was not specifically studied as it was considered unlikely to be affected directly or indirectly by the rezoning proposal. However, it would need to be considered within future LMPs.

Overall, Dr Birtchnell concluded that, subject to the application of adequate controls that promote better management of retained vegetation, the potential to improve biodiversity values exceeds the potential impacts of vegetation loss likely to occur as a consequence of subdivision under the proposed rezoning. Native vegetation offsets would be required as part of a planning permit application where Clause 52.17 applies. Dr Birtchnell considered outcomes would be strengthened by a requirement for on-title LMPs. The proposed rezoning offers opportunity to enhance biodiversity conservation outcomes without increasing pressures on vegetation of higher significance.

6.4 Discussion

The assessment of biodiversity issues affecting the Amendment Area was not challenged, nor did any cross examination from other parties challenge Dr Birtchnell's evidence. The Panel considered Dr Birtchnell to be a credible witness and largely accepts her evidence.

We are satisfied that the biodiversity assessments demonstrate that the development that would be facilitated by the Amendment can avoid significant vegetation and only very limited removal of native vegetation would be required. We also note that while legislation is intended to control native vegetation loss, it does not preclude losses provided that '*no net loss'* provisions are met. We are satisfied that offsets can be implemented in accordance with the legislative requirements. As noted during discussion at the Hearing, offsets from within the Amendment Area and elsewhere may result in resources being available to landholders to assist in the enhancement of significant vegetation.

We consider that if the review of building envelopes recommended in Chapter 4 requires more extensive areas of defendable space to be established on some lots to address landscape scale bushfire risk, the building envelopes should continue to avoid significant native vegetation, some of which is potentially of national significance. If acceptable bushfire mitigation cannot be achieved while protecting significant vegetation, then additional development opportunities should not be identified for that lot.

The Panel concludes from Dr Birtchnell's evidence that the proposed rezoning should be accompanied by ecological enhancement provisions, in particular a requirement for LMPs attached to land title through Section 173 Agreements. We have not accepted this on face value, nor do we accept the view expressed at the Hearing that new owners of land rezoned to rural living would necessarily have an interest or experience in managing rural land and native vegetation communities to enhance ecological values. No evidence has been put forward to substantiate such an assertion.

The proposed imposition of LMPs as Section 173 inclusions on land titles requires detailed consideration. This is relevant to a range of matters apart from biodiversity management and enhancement, including but not limited to land condition and fire management. It is evident that for ecological enhancement, the content of LMPs will need to include matters such as the exclusion of livestock grazing from native vegetation areas, the control of pest plants and animals, and the management and improvement of land degradation including soil erosion. LMPs are discussed more fully in Chapter 7.

Panel conclusions

The Panel concludes that:

- The biodiversity assessments demonstrate that, subject to the application of appropriate requirements, the rezoning of the Amendment Area to facilitate rural living development will not have an adverse impact per se on the biodiversity values across the land. The development that would be facilitated by the Amendment can be located to avoid significant vegetation.
- The review of indicative building envelopes should continue to avoid significant native vegetation. If acceptable bushfire mitigation cannot be achieved while protecting

significant vegetation, then additional development opportunities should not be identified for that lot.

- A requirement to prepare LMPs will be important for the enhancement of biodiversity assets and values and there is also potential for vegetation offsets from within the Amendment Area and elsewhere to achieve environmental gains.

7 Land management plans

The exhibited DDO5 required a LMP under subdivision, which states that a permit application must be accompanied by plans and information comprising (in part) the following:

> *A land management plan which addressees the ongoing management of, pest plants and animals, appropriate drainage and access provisions, screening vegetation, and any other matter considered to be of relevance to the Responsible Authority.*

Revisions canvased at the Hearing included extending the same requirement to buildings and works (put forward by the CRG) and in a DPO (put forward by Council).

7.1 Policy and planning scheme provisions

LMPs can be required by planning permit conditions and may be attached to land titles under the *Planning and Environment Act* 1987 via Section 173 Agreements[35]. The process is often used for LMPs or Environmental Management Plans, particularly at sensitive sites or where assets require permanent protection.

7.2 Submissions

The submission at the Hearing from Professor Lindsay Turner described the geological history of the land. This, together with the agricultural capability assessment of Phillips Agribusiness, provided an understanding of the reasons for the poor production quality of the Amendment Area, and in particular the steeper land mainly west of Camerons Road. In summary, Camerons Rd sits on or near the east of a rounded ridge. The rise is formed of conglomerate rock that was pushed up by ancient glacial action. Transferred alluvial soils have been deposited in the valley areas. The land profile contains layers of gravel and loams of varying thicknesses but poor water holding capacity due to low clay content. The surface soils set hard and form a barrier to water penetration. These characteristics cause high water shedding during rain, particularly where the soil surface is bare. It is also difficult on hard-setting surface soils for seed to establish and hence for natural regeneration of bushland to occur. The loamy soils in the Amendment Area are also readily subject to soil erosion where the surface is broken and water channelling occurs.

The Panel was anecdotally informed that despite the above, farming was practiced across the Amendment Area until the 1970's, with grain crops primarily on the eastern side and grazing, including a dairy farm, on the western side.

We further note that in many parts of Victoria, forest was left by early settlers on the poorest agricultural land, both because the land was poor for agriculture, and because timber was also needed for construction and fuel purposes. Woodlands also often provided protection for livestock in inclement weather. We expect this to have been the case in the Amendment Area.

[35] Section 173 provides for Responsible Authorities to enter into agreements with an owner of land covered by their planning scheme. Such agreements may be recorded on land title by the Registrar of Titles.

At the end of the Panel Hearing the content and scope of LMPs was discussed.

7.3 Discussion

The agricultural land capability study of Phillips Agribusiness[36] acknowledged the management challenges associated with the land in the Amendment Area. The report identifies that, for the most part, the Amendment Area is Class 5 Agricultural Land. The category statement for Class 5 lands is:

> *Class 5: Land unsuited to agriculture. Constraints may be steepness of slope, shallow, sandy or rocky soils, high erosion susceptibility. Environmental stability may be best achieved through isolating areas and strictly controlling, or eliminating agricultural land uses.*

It is clear that the land across Amendment Areas is difficult to manage. This was agreed by the landowners who presented to the Panel and was also confirmed during the Panel's site inspections from the roads and on individual properties. While it is acknowledged that our inspections occurred in mid-summer, the above difficulties were witnessed as:

- Evidence of past and current soil erosion, including surface wear and loss from vehicle trafficking (probably motor bikes).
- Very sparse to no lower-storey ground cover of native vegetation or other material in many woodland areas.
- Seemingly unsustainable land use in some areas, potentially including excessive stocking rates.
- Poor natural regeneration capacity.

The Panel concluded from all of the above that the land in the Amendment Area will respond poorly if new owners do not have skills, interest or resources to manage the land and its associated biodiversity assets sustainably. As previously noted, the Panel was provided with no evidence, and is not aware of any evidence from elsewhere, that subdivision of land into smaller parcels necessarily results in improved land management. We do not accept the proposition put to us by the CRG that it does.

The Panel therefore believes that if land within the Amendment Area is to be further subdivided, it is appropriate that a requirement for an LMP over any created land parcels be applied, and that this be via Section 173 Agreements.

The application of the Section 173 process generally, and for LMPs specifically, requires careful consideration as such agreements place permanent ongoing obligations on both land owners and Councils. In questioning at the Hearing, Council indicated that it does not currently oversee LMPs within the municipality. The Panel therefore sought response from the Council as to whether it could realistically manage recurrent requirements associated with the implementing LMPs. The Council's subsequent written response on this matter was as follows:

> *Council currently has very few Land Management Plans or Environmental Management Plans in place. A requirement for Land Management Plans in the proposed RLZ area would place some additional burden on Council*

[36] *Land Capability and Farming Practice in the Moorabool Shire* Phillips Agribusiness, 2001.

resources, including site-by-site consideration at the planning application stage, together with monitoring and enforcement. However the administrative burden would be manageable due to the limited number of sites.

The Panel acknowledges this advice from Council to be a positive response for the application of LMPs via Section 173 Agreements on title. This constitutes a significant recurrent administrative and regulatory obligation for Council, on an important sustainability matter.

The structure of required LMPs should be established by the Council and be consistently applied across the Amendment Area. An LMP should be submitted with the planning permit application for any subdivision proposal to create an additional parcel(s) of land such that the Section 173 agreement and the accompanying LMP is in place prior to the sale of the land.

Content of LMPs

The Panel also notes that the former Ministerial Direction No 6 relating to the rezoning of rural land for rural living required demonstrating that the amendment:

- *does not compromise the sustainable future of existing natural resources, including agricultural land, water, mineral and energy resources.*
- *protects existing visual and environmental qualities of the area such as landscape, water quality, native vegetation, habitat and biodiversity; and*
- *avoids predictable adverse environmental processes and effects, such as flooding, erosion landslip, salinity or wildfire.*

The replacement *Planning Practice Note 37 – Rural Residential Development* contains a similar set of considerations for rural residential development. It requires a site analysis which documents the opportunities and constraints of the site in terms of land for vegetation coverage and surrounding land uses, and an explanation of how the proposal responds to the site analysis with regard to road access, fire hazard, significant environmental features, vegetation category, soil capability, available infrastructure and adjoining land uses.

The above requirements are broadly consistent with the structure that should be adopted in LMPs.

In addition to the requirement for an LMP, DDO5 requires a proposed subdivision layout plan to include:

- *Configuration of lot(s) to maximise the retention of contiguous native vegetation and detailing a potential future location for a dwelling (including outbuildings and wastewater treatment system) site that is consistent with the setback requirements of this Schedule.*
- *Setback distances of the future dwelling site from extractive industries (as defined by the Special Use Zone Schedule 2), Goodmans Creek, Lerderderg River and Lerderderg State Park.*

- *A Flora and Fauna assessment prepared in consultation with the Department of Environment and Primary Industry (DEPI) if native vegetation is to be removed.*

A key purpose of the LMP will be to enhance the land and its biodiversity assets and values, but this was not identified as part of the scope of the LMP in the DDO provision put forward by Council. We consider that the text covering the content of the LMP in the DDO5 should be revised to the following:

A Land Management Plan which includes:

- *Description of natural and associated features of the land including topography, soils, vegetation type, land use potentials, and threats to the sustainability of the land and its associated biodiversity values.*
- *Management requirements to achieve sustainable land use covering:*
  - *access provisions;*
  - *pest plants and animals control;*
  - *biodiversity management including the protection/enhancement of native vegetation;*
  - *drainage and soil conservation;*
  - *screening vegetation (if required); and*
  - *any other matter considered to be of relevance to the Responsible Authority.*

While the land has clear stocking rate limitations, we accept that this can be in part overcome by providing supplementary food. For this reason we prefer that the focus of the LMP should be on land management outcomes, rather than prescriptive management measures.

Fire management is also an important component of land management. This is discussed in Chapter 4 of this report. Revisions to the proposed DDO include a requirement for a fire plan for individual properties and the LMP will need to be consistent with the provisions of that plan.

The Panel agrees with Council that the LMP for any created parcel of land should be prepared by the subdivision Proponent as a requirement within the planning permit application for the subdivision. By this means a prospective owner would be clearly aware of his or her obligations in purchasing the land.

The decision guidelines therefore need to be expanded to include:

Whether the submitted LMP is adequate to provide for the ongoing sustainable use of the land.

Panel conclusions

The Panel concludes that:

- The land and biodiversity assets in the Amendment Area are difficult to manage, and this justifies a requirement for LMPs as a condition of any planning permit to create new lots in the Amendment Area.

- The required LMPs should be prepared by the permit applicant and secured by a Section 173 Agreement.
- The scope of LMPs should extend to biodiversity management including the protection and enhancement of native vegetation.
- The decision guidelines in the DDO5 should include the requirement for the LMP to satisfy the Responsible Authority regarding the sustainable ongoing use of the land.

7.4 Panel recommendations

6. **Require a Land Management Plan to be submitted with planning permit applications for land subdivision and new dwellings.**

7. **Revise the text relating to Land Management Plans in proposed Schedule 5 to the Design and Development Overlay to the following:**

   A Land Management Plan which includes:

   Description of natural and associated features of the land including topography, soils, vegetation type, land use potentials, and threats to the sustainability of the land and its associated biodiversity values.

   Management requirements to achieve sustainable land use covering:
   - ***Access arrangements***
   - ***Pest plants and animals control***
   - ***Biodiversity management including the protection/enhancement of native vegetation***
   - ***Drainage and soil conservation***
   - ***Screening vegetation (if required)***
   - ***Any other matter considered to be of relevance to the responsible authority.***

8. **Include a decision guideline in proposed Schedule 5 to the Design and Development Overlay relating to whether a Land Management Plan contributes to the sustainable ongoing management of the land.**

8 Proposed planning scheme mechanisms and drafting

8.1 The issue

- Is the RLZ or the RCZ the most suitable zone?
- Should the land in the north-west of the Amendment Area be rezoned?
- Do the DDO provisions adequately address relevant matters?
- Should DDO indicative dwelling envelopes be mandatory or discretionary?
- Should a DPO apply, in addition to a DDO?

8.2 Is the RLZ or the RCZ the most suitable zone?

8.2.1 Submissions

Council's submission advised that officers had suggested to the Proponents that the Rural Conservation Zone (RCZ) could provide an appropriate planning framework for rural living development in the Amendment Area for the following reasons:

> *… An RCZ is likely to have fewer potential problems with Clause 52.47.*
>
> *24.8 The purposes of the RCZ include conserving the environmental significance and landscape values of the site and the biodiversity of the area.*
>
> *The advantage of the RCZ is that a permit is required to construct a dwelling, which must be the only dwelling on the lot, and it has a comprehensive list of decision guidelines, thereby giving greater control over what happens in this sensitive location and which is more in line with the environment and scenic qualities of the land.*
>
> *24.9 Given that one of the major driving forces of this Amendment is to take advantage of the rural and scenic landscape that the Land offers, it is appropriate to protect the very thing that motivates the Amendment.*
>
> *24.10 The issue for the Panel to decide is whether the biodiversity and landscape values of the land justify the application of the purposes of the RCZ which include:*
>
> *'To conserve and enhance the cultural significance and character of open rural and scenic, non urban landscapes.'*
>
> *...*
>
> *24.12 The Rural Strategy Plan 2009 recommendations included:*
>
> *Rezone land that has significant stands of remnant vegetation in the Wombat and Lerderderg forest interfaces to Rural Conservation Zone (p4)*
>
> *This was one of the recommendations Council rejected on 4 August 2010. Council declined to extend the use of the RCZ within the Shire except for a few nominated areas including the northern portion of Camerons Road which is heavily vegetated, but declined to extend the RCZ over the southern part.*

At the Hearing Mr Merrett also acknowledged that the RCZ may be appropriate but advised that the RCZ was not put forward in view of councillor concerns and the recommended use of this zone being a significant reason why the *Draft Rural Strategy Plan 2009* had not progressed to implementation.

As discussed in Chapter 5, Boral opposed rezoning to RLZ of the land within the 500 metre buffer to the extractive industry SUZ. Boral proposed that it is inappropriate to apply a zone that facilitates additional residential development, and could raise expectations that the protection of rural living amenity would be accorded greater weight than under the current FZ.

8.2.2 Discussion

The Panel considers that, in view of the bushfire risk and environmental challenges in the Amendment Area, the RCZ would provide a more appropriate planning framework than the RLZ for land on the western side of Camerons Road. In this area, the RCZ has the following advantages over the RLZ:

- While many of the provisions in the RLZ and RCZ are common, the RLZ has a specific purpose to provide for residential use in a rural environment and this establishes a strong predisposition in favour of residential development. On the other hand, the RCZ purposes and decision guidelines have a considerably stronger focus on protecting and enhancing the environmental and landscape qualities of the site and its surrounds. This is appropriate for the Amendment Area for the land west of Camerons Road in view of the environmental sensitivity, bushfire risk, the intention to protect landscape values, and land management challenges.
- Use as a dwelling does not need a permit in the RLZ (if conditions relating to matters such as lot size and setbacks are met), whereas a permit is required in the RCZ. In the RCZ the starting point is not that a dwelling is *'as of right'*, rather, the discretion under this zone allows consideration of whether the use and development of a dwelling is acceptable having regard to bushfire risk, the impacts of a proposal on landscape and environmental values.
- The Clause 52.47 exemption from permit requirements to remove native vegetation to meet bushfire provisions do not apply in the RCZ. While the Panel in no way wishes to imply that measures to mitigate bushfire risk should not be accorded priority, this is an area with significant vegetation and decisions about whether development should occur or not should take impacts on significant vegetation into account. The evaluation of the Amendment has been on the basis that the development envelopes will avoid significant vegetation. The DDO is intended to provide a level of certainty about the location of development envelopes and the use of the RCZ would support that intent.

The use of the RCZ would be consistent with the intent expressed by the CRG for the properties where indicative dwelling envelopes were shown in the proposed DDO.

However, the Panel is conscious that the decisions of the landowners who are not represented by the CRG about whether to submit or appear at the Hearing were on the basis of the exhibited (and re-notified) documents and they have not had the opportunity to present their views on the option of the RCZ rather than the exhibited RLZ.

The Panel does not consider the application of the RCZ would constitute a level of transformation of the Amendment that would warrant re-exhibition. However, if it is determined that the RCZ should apply and further exhibition should occur, it would be reasonable for the process to rely on the documentation already provided (with revisions recommended by the Panel, including review of the location of dwelling envelopes).

To the east of Camerons Road, the bushfire risk and environmental constraints are less severe. The Panel considers the RLZ in this area, with a prohibition under the DDO on additional dwellings within the 500 metre buffer to the SUZ to the east, recognises the rural living character and function of the area, while addressing the incompatibility of residential and quarry uses by precluding further encroachment in to the buffer.

Panel Conclusions

- In view of the bushfire risk and environmental challenges in the Amendment Area, the RCZ would provide a more appropriate planning framework than the RLZ for land on the western side of Camerons Road.
- To the east of Camerons Road, the Panel considers the RLZ should apply, with a prohibition under the DDO on further residential development within the 500 metre buffer to the SUZ.

8.3 Should the land in the north-west of the Amendment Area be rezoned?

8.3.1 Submissions

As discussed in Chapter 4, the CFA and Council raised particular concern about the proposed rezoning of the land in the north-west of the Amendment Area due to the bushfire risk affecting that area.

8.3.2 Discussion

As discussed in Chapter 4, the Panel does not support the facilitation of additional residential development in the north-west of the Amendment Area. The Panel notes that the *Draft Moorabool Rural Strategy Plan 2009* identified this land for rezoning to RCZ. We consider that the application of the RCZ, together with the existing overlays which include the BMO, would provide an appropriate planning framework for this area for the reasons discussed above.

8.4 Is the proposed six hectare minimum lot size appropriate?

8.4.1 Submissions

The CFA questioned the basis for the proposed six hectare minimum subdivision lot size.

The 'workshopping' of Amendment provisions at the end of the Hearing canvassed this issue, including the option of applying an average lot size to realise potential environmental gains. The Panel invited the parties to provide further written submissions on this issue after the Hearing. These further submissions argued that an averaging provision is not required, highlighting that the RLZ head clause allows averaging of lot sizes provided that the number of lots is no more than would result if the minimum lot was adopted. If the Panel advanced a specific provision relating to averaging of lot size provision:

- Council put forward potential wording of a schedule provision which set a minimum lot size of 3 hectares and prevented further subdivision of the larger lots (i.e. they were to be deemed to be nine hectares).
- Mr Merrett put forward on behalf of the CRG the following additional condition in the schedule to the RLZ:

> *Lots less than 6 hectares may be created where significant vegetation is contained in one lot and a lot less than 6 hectares is created for a dwelling.*

8.4.2 Discussion

The Panel agrees with submissions that that the RLZ provides for lot size averaging. We see merit in linking this provision to a condition relating to environmental gains, as suggested by Mr Merrett, but other potential land management measures should also be noted. We also agree with Council that a minimum lot size should apply. However, we consider that if lot size averaging is adopted to maintain larger vegetated 'balance' lots, a two hectare minimum could allow relevant objective to be achieved (e.g. effluent disposal, protection of rural living character). The merits of a particular proposal would be considered at the subdivision permit application stage.

The above conclusion should not be considered a precedent by Council or others for application at other locations in the Shire. The proposal here is a direct response to the specific characteristics of this Amendment Area.

We have recommended that the RCZ should apply to land west of Camerons Road. However, unlike the RLZ, this zone does not provide for lot size averaging. As Dr Birtchnell advised in response to questions from the Panel, there could be significant environmental benefits from the consolidation of significant vegetation in a large block, with potentially smaller lots that do not meet the six hectare minimum lot size. Lot A was discussed as an example. We consider the RCZ should include a lot size averaging provision as discussed for the RLZ. AS noted above, such averaging should not be regarded as a precedent for other areas.

Conclusions

- Both the RLZ and the recommended RCZ should include a lot size averaging provision which:
  - Is linked to environmental gains
  - Specifies a two hectare minimum lot size for the smaller lot subject to requirements
  - Precludes further subdivision of the larger lot.

8.5 Do the DDO provisions address the relevant matters?

The proposed DDO provisions and recommended revisions to address bushfire risk and land management are addressed in Chapters 4 and 7 respectively. The DDO changes recommended by the Panel are incorporated in the revised DDO schedule in Appendix C.

8.5.1 Is a Development Plan Overlay needed to achieve greater certainty regarding dwelling envelopes?

8.5.2 Submissions

As noted in Chapters 3 and 4, the Council and CFA sought greater certainty relating to:

- The extent of development allowed by the Amendment
- The location of dwelling envelopes that would satisfy planning objectives generally, and bushfire planning provisions in particular.

At the Hearing, Council emphasised the need for an assurance that key responses to constraints will be implemented and advocated the use of a DPO in addition to the DDO. Council submitted:

> *26.1 As early as 2004, the Moorabool MSS Review Project (No 3) recommended the land be rezoned to RLZ with a Development Plan Overlay.*
>
> *26.2 The problem with the DDO5 is that the building envelopes are locked into the DDO Schedule, which will give rise to expectations that those envelopes can accommodate the requirements of Clause 52.47. Clearly, the building envelopes are indicative only and will have to be validated by further assessment.*
>
> *26.3 A Development Plan Overlay is necessary to ensure that building envelopes actually have the capacity to satisfy the requirements of Clause 52.47-4.*
>
> *26.4 The required further assessment can be undertaken as part of the preparation of an approved Development Plan, which will show building envelopes with the capacity to be compliant with the requirements of Clause 52.47. The details of the requirements would be imposed by a CFA condition on a planning permit.*
>
> *26.5 As the Panel reporting to Amendment R213 of the Greater Geelong Scheme noted, A DPO provides an appropriate mechanism to ensure that development proceeds in accordance with approved criteria. This will ensure that the preconditions for rezoning are not challenged or undermined at the permit stage. Inclusion of criteria in the DPO provides a transparent means of establishing criteria for development (p23 of Panel Report, Amendment R213 Greater Geelong Planning Scheme).*
>
> *26.6 Where land in high bushfire risk areas is proposed to be rezoned for residential use, it is customary to apply a Development Plan Overlay over the Amendment Area to ensure that future subdivision has the*

capacity of satisfying Clause 52.47 requirements to reduce the risk to acceptable levels. There has to be a connect between the strategic rezoning planning process and the statutory permit processes because, unless it can be demonstrated at the rezoning stage of the process that future subdivision has the potential to comply with Clause 52.47 requirements, there is no point in rezoning the land.

26.7 It is customary in these circumstances for the Development Plan Overlay to require the approval of a development plan that sets out bushfire mitigation requirements such as:

- *Bushfire Attack Levels (BALs);*
- *building envelopes with defendable areas as required by Clause 52.47;*
- *providing for a range of lot sizes with lot sizes generally increasing in size closest to the source of the most severe bushfire hazard;*
- *a conceptual layout for future internal roads;*
- *an overarching vegetation management plan for the whole area; and*
- *all outbuildings and other ancillary structures and fencing to be constructed of non-combustible materials.*

26.8 Maps 6-11 in the Terramatrix report could be attached to a DPO, which would require further investigation before the building envelopes were approved as part of the Development Plan approval process. This will ensure the proper siting of building envelopes via a transparent process.

8.5.3 Discussion

As discussion in Chapters 3 and 4, the Panel agrees with Council and the CFA that the planning framework for this area should provide certainty bout where development will occur within the Amendment Area. This is because the technical assessments relating to bushfire and native vegetation assessment and the proposed responses to these and extractive industry buffer issues were critical to the Panel's evaluation of the Amendment, and should not be undermined at the permit stage.

However, provided the recommended review of dwelling envelopes occurs before adoption of the Amendment, the Panel considers that the DDO and permit process can fulfil the functions envisaged by Council for a DPO. In the Amendment Area multiple-lot subdivisions with new roads are not envisaged. Therefore, the common functions of a DPO to address issues such as road, drainage and open space connections do not arise. We consider the DDO is capable of achieving the necessary assurances that key issues are addressed though permit processes, without the need for a Development Plan.

The Panel considers the map in the DDO showing buffers and dwelling envelopes fulfils an important function to deliver certainty. We also note that a Development Plan can be varied

at any time with agreement from Council, whereas a change to the map in the DDO would require a planning scheme amendment.

Conclusions

- Provided that optimum indicative dwelling envelopes are determined before approval of the Amendment, the DDO provides sufficient certainty about development outcomes and a DPO is not necessary.

8.6 Panel Recommendations

9. **Apply the Rural Conservation Zone to land in the Amendment Area to the west of Camerons Road.**

10. **Include in the schedules to the Rural Living Zone and the recommended Rural Conservation Zone a lot size averaging provision which:**

    - **Is linked to environmental gains**
    - **Specifies that no lot should have an area of less than two hectare**
    - **Precludes further subdivision of the larger lot(s).**

Appendix A List of Submitters

No	Submitter
1	Heather Mundy
2	Robyn Dodd
3	Rebecca Miles
4	Doug Grieve
5	Max Grieve
6	Brett Williams
7	Moira Smith
8	Catherine & Stephen Pope
9	Janet Taylor
10	Roy Taylor
11	Scott & Sharron Keating
12	Tony Dix
13	Joanne and Peter Coulton
14	Bob Mundy
15	Maree Dix
16	Scott Lyle
17	G & S Georgeallis
18	Phillip & Emma Winter
19	Greg Popple
20	Karen Popple
21	Dr L W & W J Lyle
22	D lan McNamee
23	Joseph Spiteri
24	Charlie Saliba
25	Stephen & Kaye Biram
26	Patrick W Green
27	Barbara Green
28	Darren & Kerry Lyle
29	Mr Gabriel Dellios
30	Mr A Scott
31	Adrian Della Bosca

32	Shirley V Stone
33	Matthew Della Bosca
34	Dannielle McGrath
35	Janelle Meddick
36	Kathy and Taki Arzanov
37	G & K Saksida
38	Peter & Teresa Signorello
39	Mr & Mrs P Della Bosca
40	Hansen Heidelberg Cement Group
41	Ms L Fang
42	Russell Dickson
43	Warren & Deborah Blight
44	Sonja Bartels
45	Tracy Dickson
46	Mrs Carla Gatti
47	R Guy & G Vlassopoulos
48	Tract / Boral
49	CFA
50	Ron Guy
51	John Dean Bielecki
52	Ben and Carmel Ognjanov
53	Janelle Meddick
54	CRG / Isis
55	Stewart Decker
56	Arthur Gatti
57	Vince Lopardi
58	Michelle Lang
59	EPA
60	Lynn Edwards
61	Ken & Kelly Taylor
62	Western Water
63	Carmel Shea

Appendix B EPBC Act referral issues

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5 December 2014

Laura Agius
Planning Panels Victoria
PO Box 2392
MELBOURNE 3001

Dear Laura

Re: Amendment C58
Moorabool Planning Scheme

I act for the Camerons Road Group (CRG) who is the proponent for this amendment.

In response to Direction 2(b) please find attached the following:

- *Bushfire Development Report, Camerons Road Bacchus Marsh*, Terramatrix December 2014
- *Supplementary Report on Landscape Risk, Camerons Road Bacchus Marsh*, Terramatrix December 2014
- *Amendment VC105 Addendum, Preliminary Flora and Fauna Assessment, Camerons Road Coimadai*, Oekologie December 2014

Please note the *Oekologie* report must be read in conjunction with the parent report that was exhibited. The CRG submission to the amendment noted the *Oekologie* report would be provided once the mapping had been amended to reflect the 500m buffer from the extractive industries. The *Oekologie* addendum now reflects the 500m buffer on all mapping and is consistent with mapping now used in the updated December 2014 *Terramatrix* reports.

To provide some context to the changes that have occurred in each of the *Terramatrix* reports the following is provided:

<u>BDR Terramatrix December 2014</u>

- These replace all previous versions.
- Text and maps amended in accordance with 500m SUZ buffer as opposed to 300m buffer.
- Text and maps amended to show updated study area boundary ending at Hornell Lane (deletion of Property 'N'), including reduced study area and statistics (e.g. new Table 1)
- Extent of mapped classified Woodland (see Map 4) reduced to account for minor clearing since last report.
- Aerial photography in maps and figures updated with 27/1/14 imagery.

- Updated content to reflect guidance provided in Planning Practice Note 46 *Strategic Assessment Guidelines for preparing and evaluating planning scheme amendment*, Planning Practice Note 64 *Local Planning for Bushfire Protection* and Planning Practice Note 65 *Preparing and Assessing a Planning Application Under the Bushfire Provisions in Planning Schemes*.
- Re write of Section 4 Planning and building controls including to account for VC109 changes.
- Proposed new DDO5 objective addressing bushfire (2nd dot point section 4.3.3)
- Updated extent of BPA area (see map 5) to account for changes in BPA - all of the study area is now in BPA.
- Rewrite of Section 5 to respond to VC109 changes.
- New mapping in Section 5 to show anticipated extent of defendable space around each indicative envelope and extent of 150m BMO assessment zone.
- Section 5 maps amended to also show generally only the one envelope per new lot.

Landscape Risk Assessment Terramatrix December 2014

- Text and maps amended in accordance with 500m SUZ buffer as opposed to 300m buffer.
- Text and maps amended to show updated study area boundary ending at Hornell Lane (deletion of Property 'N'), including reduced study area and statistics (e.g. new Table 1)
- Aerial photography in maps and figures updated with 27/1/14 imagery.
- Updated content to reflect guidance provided in Planning Practice Note 46 *Strategic Assessment Guidelines for preparing and evaluating planning scheme amendment*, Planning Practice Note 64 *Local Planning for Bushfire Protection* and Planning Practice Note 65 *Preparing and Assessing a Planning Application Under the Bushfire Provisions in Planning Schemes*.

In response to Direction 2(c) and a concern expressed by the CFA it is proposed to add a new design objective (refer below) to the DDO schedule (attached). We do note however that this is not consistent with the general convention that individual overlay controls should be allowed to perform their function, as the BMO would in this instance for bushfire risk. The map/figure as part of the schedule has been replaced with the version from Page 29 of the *Terramatrix BDR* December 2014 that removes Property N. This DDO5 version carries forward the changes proposed as a result of the CRG submission to the amendment.

New design objective

To identify areas where bushfire protection measures, including the siting of buildings, vegetation management, water supply and access and egress can be readily implemented and managed within the property without significant environmental impacts

Should you wish to discuss this further please contact me on 0428 132713.

Yours sincerely

David Merrett
Director
Our ref. 09-005
Enc.

Appendix C Recommended DDO5

DDO SCHEDULE RECOMMENDED BY THE PANEL
Changes are not 'tracked' as this schedule incorporates provisions drawn from various documents provided during the Panel process.

SCHEDULE 5 TO THE DESIGN AND DEVELOPMENT OVERLAY

Shown on the planning scheme map as **DDO5**

CAMERONS ROAD BACCHUS MARSH - RURAL LIVING AREA

1.0 Design objectives

- To provide for limited rural living development of the land.
- To protect the water quality of Goodmans Creek and the Lerderderg River.
- To retain and protect remnant native vegetation and wildlife habitat on the land.
- To protect the treed landscape values of the land.
- To protect the nature conservation values and habitat values of the adjacent Lerderderg State Park.
- To ensure residential development does not create additional constraints on the ongoing operation of the extractive industries to the east as defined by the Special Use Zone Schedule 2 or encroach into the associated separation distance requirements.
- To ensure that dwellings are only developed where bushfire risk associated with site, the immediate area and the broader landscape is mitigated to an acceptable level.
- To direct dwellings to locations where appropriate bushfire protection measures can be readily implemented without adverse impacts on environmental values.

2.0 Buildings and works

A planning permit is not required for the following buildings and works:

- Any buildings or works associated with the use of an existing dwelling
- Any buildings or works associated with the existing use of the land for agriculture.

All new buildings must be sited at least 500 metres from the extractive industries as defined by the Special Use Zone Schedule 2. A permit cannot be granted to vary this requirement.

All new buildings should be sited:

- At least 100 metres from Goodmans Creek or the Lerderderg River;
- At least 500 metres from the Lerderderg State Park except that new dwellings located on Properties A, O and J shown on Figure 1 attached to this schedule may be located within the 500 metre setback to the Lerderderg State Park if the written consent of DELWP is provided.
- At least 30 metres for a dwelling and 50 metres for other buildings from a road boundary and 10 metres from other boundaries; and
- To avoid slopes of greater than 20% (11^{o}) where possible.

All new dwellings should be sited generally in accordance with the dwelling envelope locations in accordance with Clause 5 and Figure 1 of this schedule.

Application Requirements

A permit application must be accompanied by plans and information comprising the following:

- A site analysis and design response which shows relevant site features and constraints and the proposed design responds to those features and constraints. Constraints to be addressed, as relevant, include separation from extractive industry, bushfire risk, significant native vegetation, topography and erosion risk.
- A proposed development plan showing:
  - Proposed dwelling and outbuilding location
  - Elevations of proposed buildings, materials and colours
  - Site contours
  - Waterways, drainage lines and dams
  - The access point and internal driveway alignment that is suitable for emergency vehicles and minimises the distance to the road
  - Existing native vegetation
  - Proposed landscaping and tree planting
  - The location of wastewater treatment systems and effluent disposal field, sited so as to avoid and minimise the removal of native vegetation, and so as to protect water quality in waterways;
  - Setbacks from the Lerderderg State Park, Special Use Zone 2 (Earth and Energy Resources Industry), waterways, roads and lot boundaries
  - The location of water storage for fire fighting purposes of at least 10,000 litres within 60 metres of the dwelling, or as required by the Country Fire Authority.
- A flora and fauna assessment if native vegetation is to be removed
- A Bushfire Development Report as required under Clause 4 of this schedule
- A Land Management Plan as set out in Clause 6 of this schedule
- A Land Capability Assessment, to demonstrate how wastewater can be treated and disposed of within the boundaries of the allotment.

Note: At the discretion of the responsible authority, a Flora and Fauna Assessment, Land Management Plan or Land Capability Assessment may not be required, if the proposal is consistent with any such documents which may have been approved under Schedule 4 to Clause 43.04 of this planning scheme or endorsed under a previous permit.

A permit application for buildings and works is exempt from the notice requirements of Section 52(1)(a), (b) and (d), the decision requirements of Section 64(1), (2) and (3) and the review rights of Section 82(1) of the Act if the setback requirements detailed in this clause are met.

Notice of an application must be given in accordance with Section 52(1)(c) of the Act to the person or body specified as a person or body to be notified in the Schedule to Clause 66.06.

3.0 Subdivision

Application Requirements

A permit application for subdivision of land must be accompanied by plans and information comprising the following:

- A site analysis and design response which shows relevant site features and constraints and how the proposed design responds to those features and constraints. Constraints to be addressed, as relevant, include separation from extractive industry, bushfire risk, significant native vegetation, topography and erosion risk.
- A proposed subdivision layout plan which shows the following details:
  - Existing title boundaries
  - Proposed lot boundaries (including approximate areas for each lot) providing for a site responsive and functional subdivision configuration
  - Site contours
  - Waterways, drainage lines and dams
  - Existing native vegetation
  - Road and driveway alignments suitable for emergency vehicles
  - A dwelling envelope for each proposed lot which must be sited generally in accordance with Clause 5 and the dwelling envelope locations shown in Figure 1 of this schedule
  - Defendable space for each dwelling envelope, based on the Bushfire Development Report required under Clause 4 of this schedule
  - An effluent disposal envelope for each proposed lot, sited so as to protect surface water quality,
  - The location of water storage for fire fighting purposes of at least 10,000 litres within 60 metres of each building envelope, or as required by the Country Fire Authority.
- A Flora and Fauna Assessment prepared in consultation with the Department of Environment, Land, Water and Planning if native vegetation is to be removed.
- A Land Management Plan as set out in Clause 6 of this schedule.
- A Land Capability Assessment, to demonstrate how wastewater can be treated and disposed of within the boundaries of the proposed lots. The land capability assessment must recommend a location and dimensions of an effluent disposal envelope for each lot.

  Note: At the discretion of the responsible authority, a Flora and Fauna Assessment, Land Management Plan or Land Capability Assessment may not be required, if the proposal is consistent with any such documents which may have been approved under Schedule 4 to Clause 43.04 of this planning scheme, or endorsed under a previous permit.

The formal plan of subdivision submitted for certification must include a restriction showing a dwelling envelope and effluent disposal envelope for each lot. The restriction shall be to the effect of:

- *"The registered proprietor shall not allow a building to be constructed except within the dwelling envelope shown hatched.*

  A 'building' includes any structure except a fence."

- *"The registered proprietor shall not allow an effluent disposal field to be constructed except within the effluent disposal envelope shown cross-hatched."*

- Where a subdivision creates a lot(s) of less than 6 hectares and a lot(s) of 12 hectares or greater then the permit must include the following condition:
  - *Before a statement of compliance for the subdivision issues, the owner of the land must enter into an agreement with the Responsible Authority pursuant to section 173 of the Planning and Environment Act 1987, covenanting that any further subdivision will only provide for the creation of a lot for a dwelling shown on the Dwelling Envelope Plan attached to schedule 5 to Design and Development Overlay in the Moorabool Planning Scheme. The owner must pay all costs in relation to the preparation and registration of the agreement, and must provide evidence that the agreement has been registered on title, before the issue of a statement of compliance*.

4.0 Bushfire Development Report

A Bushfire Development Report must be prepared to the satisfaction of the Responsible Authority, to ensure appropriate bushfire risk mitigation measures are incorporated in the development and implemented on an ongoing basis.

To take account of bushfire risk in both the immediate area and the broader landscape:

- Bushfire protection measures in excess of those required under the Bushfire Management Overlay may be required on land where that overlay applies.
- Bushfire protection measures specified under the Bushfire Management Overlay apply to Bushfire Prone areas on the eastern side of Camerons Road.

The siting of buildings, vegetation management, water supply and access and egress measures should be able to be readily implemented and managed within the property without significant environmental impacts.

In assessing the Bushfire Development Report the responsible authority will consult with the Country Fire Authority and have regard to their views.

5.0 Dwelling Envelopes

Figure 1 (Dwelling Envelope Plan) attached to this schedule identifies the number and location of additional dwellings to be accommodated.

New dwellings should be located generally in accordance with the dwelling envelope location shown in Figure 1 (Dwelling Envelope Plan). A permit can only be issued for an alternative dwelling envelope location if it is demonstrated that all objectives and provisions of this overlay and other parts of the planning scheme are met.

NOTE: The Dwelling Envelopes indicate the maximum number of dwellings allowed and have been sited to minimise the impacts of environmental constraints, comply with the extractive industry buffer and to mitigate bushfire risk from the site, the immediate area and the broader landscape.

The dwelling envelope(s) must:

- Be at least 500 metres from the extractive industries to the east as defined by the Special Use Zone Schedule 2.
- Meet the requirements of the Bushfire Development Report required by Clause 4 of this schedule.

A permit cannot be granted to vary these requirements.

The dwelling envelope(s) should:

- Avoid significant native vegetation
- Avoid slopes of greater than 20% (11^{o}) where possible.
- Be at least 100 metres from Goodmans Creek or the Lerderderg River;
- Be at least 500 metres from the Lerderderg State Park except that new dwellings located on Properties A, O and J shown on Figure 1 attached to this schedule may be located within the 500 metre setback to the Lerderderg State Park with the written consent of DELWP.
- Be at least 30 metres for a dwelling and 50 metres for other buildings from a road boundary and 10 metres from other boundaries.

6.0 Land Management Plans

A Land Management Plan should form part of an application to subdivide land or develop a dwelling and should include:

- A description of natural and associated features of the land including topography, soils, vegetation type, land use potentials, and threats to the sustainability of the land and its associated biodiversity values.
- Management requirements to achieve sustainable land use covering:
  - Access arrangements
  - Pest plants and animals control
  - Biodiversity management including the protection/enhancement of native vegetation
  - Drainage and soil conservation
  - Screening vegetation (if required)
  - Any other matter considered to be of relevance to the responsible authority.

Before a statement of compliance for the subdivision or the certificate of occupancy for a new dwelling is issued, the owner of the land must enter into an agreement with the responsible authority pursuant to section 173 of the *Planning and Environment Act 1987*, covenanting that the land will be managed in accordance with the endorsed Land Management Plan. The owner must pay all costs in relation to the preparation and registration of the agreement, and must provide evidence that the agreement has been registered on title, prior to the issue of a statement of compliance.

7.0 Decision guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- Whether the proposed development and associated defendable space, vehicle access and other infrastructure will avoid and minimise the need for the removal of native vegetation.
- Whether the siting and design of proposed development will be in keeping with the landscape character of the area.
- Whether the proposed development is appropriately sited and designed to avoid erosion.
- Whether the specified setbacks have been provided from the Lerderderg State Park, Special Use Zone 2 (Earth and Energy Resources Industry), waterways and lot boundaries.

- Whether the proposed buildings or building envelopes are generally in accordance with the dwelling envelopes identified in Figure 1 of this schedule.
- Whether the bushfire risk from the site, the immediate area and the broader landscape has been mitigated to achieve an acceptable level of residual risk.
- Whether the specified setbacks have been provided from the Lerderderg State Park, waterways and lot boundaries.

UPDATED DWELLING ENVELOPE PLAN TO BE INCLUDED AFTER RECOMMENDED REVIEW

Attachment - Item 10.2.8(b)

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22 June 2015

Lisa Gervasoni
Manager Strategic Planning
Moorabool Shire Council
PO Box 18
BALLAN 3342

MOORABOOL SHIRE COUNCIL
CENTRAL RECORDS
26 JUN 2015
File No. 13/06/054

Dear Lisa

Re: Amendment C58
Moorabool Planning Scheme

Thank you for the opportunity to meet with you and Rod Davison last week to discuss the *Terramatrix* response to Recommendation 3 of the Panel for Amendment C58.

As you are aware I have a period of extended leave commencing this week. Hamish Allan from *Terramatrix* will be the contact point for fire related issues and I will be contactable on email and mobile phone however reception cannot be guaranteed. Mr Allan has had contact with Michael Boatman of the CFA and I understand he will provide a response to Council in the next 2-3 weeks.

Please find attached the *Terramatrix* report and the proposed schedule for the Rural Living and Rural Conservation zones. Unfortunately I do not have access to the word version of the DDO5 supported by the Panel. Further in this letter we recommend to Council to include both the overall plan and the property specific plans that provide the additional level of detail requested.

The Panel report contains ten recommendations. The CRG response to these is provided below:

1. We maintain the position we put at the hearing that it is not possible to provide more certainty with the building envelopes as the nature of construction is not known for each of the envelopes. The *Terramatrix* report maintains this position. Council should be comfortable with this outcome as there is a further level of detailed assessment that will occur when permit applications are lodged for subdivision/dwelling proposals. The Rural Conservation Zone (RCZ) requires a permit for all dwellings irrespective of the lot size. In regard to the number of total number of dwellings that could be facilitated by the amendment, on the basis lots in excess of 12 hectares could be subdivided to provide a vacant lot for a dwelling, there will be 17 possible new dwellings. When combined with dwellings possible on vacant lots less than 12 hectares (Panel recommendation 2) that are located west of Property D, the total number of dwellings is 18 (ie only one vacant property).
2. The *Terramatrix* report now shows one building envelope west of Property D on vacant lots less than 12 hectares. This is now reflected in the map attached to DDO5.

3. We note that Property K should have been included in Recommendation 3 if the criteria for further assessment was used (ie K is west of Camerons Road and affected by the BMO). Property K is reviewed in the *Terramatrix* report. You will note in the Terramatrix report that alternative envelopes have been shown for Properties A, C, H, I, L and Q. We accept that this should have been raised at the panel hearing however it has only come to light that for some properties the indicative envelopes are particularly problematic. For instance, the envelope for Property L is located directly over a horse corral and arena. Given the cost to demolish and relocate it is requested that consideration be given to the alternative envelope. Access to this envelope could be via an existing sealed/unsealed driveway along the northern boundary. We acknowledge that Council has asked for a review by *Oekologie* of any potential flora and fauna issues and are currently seeking a response on this matter. Identifying alternate envelopes is also consistent with Clause 5.0 of DDO5 that allows for the consideration of alternate envelopes.

4 - 8 The CRG accepts the recommended changes to the DDO5 that are contained in Appendix C of the Panel Report (with mapping changes noted below).

9. While the RCZ has presented the CRG with some difficulties in understanding its implications the CRG accepts that this is core recommendation of the Panel. This includes the land further west of those lots with subdivision/dwelling potential.

10. The text proposed by the CRG for the RCZ and RLZ is:
Lots less than 6 hectares (but not less than 2 hectares) may be created where the subdivision creates a lot that contains significant vegetation in one lot or other environmental gains or creates independent access for each lot and prohibits further subdivision.

The addition of the access text is provided on the basis of our discussions last week.

Mapping changes to DDO5
As mentioned above we believe it would be appropriate to add the detail property maps contained in the *Terramatrix* further assessment to the DDO5. This reinforces the work completed as a result of Panel recommendation 3 and provides a level of detail that would not be possible on the broad plan that covers the whole area.

Yours sincerely

David Merrett
Director

Our ref. 09-005
C/- CRG

With Compliments

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Lisa

I will email you the copy of the DDO5 with the maps attached.

Regards

Dan

terramatrix

Further investigation of proposed 'indicative' building envelopes for the proposed rezoning of properties in Camerons Road, Bacchus Marsh VIC 3340 Moorabool Planning Scheme Amendment C58

Commissioned by the

Camerons Road Residents Group

June 2015

Project: CRG-2015-01 MPSA_C58-Bacchus Marsh
Report prepared by Terramatrix for Camerons Road Residents Group

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Approvals

Accountability	Name
Site Assessment	Hamish Allan John Eastwood
Report compilation	Hamish Allan Manager, Bushfire Planning & Design
Peer Review and QA	John Eastwood Analyst

Version Control

Version	Date	Comments	Distribution
1.0	12 June 2015	Draft Report	David Merrett & CRG
1.1	22 June 2015	Final Report - minor mapping changes	CFA & David Merrett

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1 Introduction

Moorabool Planning Scheme Amendment C58 (MPSA C58) proposes to:

- Rezone approximately 547ha of land from the Farming Zone (FZ) to the Rural Conservation or Rural Living Zone (RCZ or RLZ) with a 6 hectare minimum lot size for subdivision;
- Modify the Clause 21.07 Bacchus Marsh Framework Plan to refer to the Camerons Road rural living area;
- Apply the Design and Development Overlay - Schedule 5 (DDO5) to the rezoned area to guide future development; and
- Amend the schedule to Clause 66-06 to identify notice requirements to the Department of Environment, Land, Water and Planning (DELWP) for proposed dwellings within 500 metres of the Lerderderg State Park.

The study area comprises approximately 547ha of land bound by Lerderderg Gorge Road and the Lerderderg State Park to the west; land immediately to the north of Hornell Lane; and land along Camerons Road south of Seereys Road and Goodmans Creek (see Map 1).

Following a panel hearing held on 27-29 January 2015, the panel produced their report (Planning Panels Victoria, 2015), which contains a number of findings and recommendations including in relation to bushfire risk. Recommendation 3 of the Panel was to:

'Review the location of indicative envelopes for lots subject to the Bushfire Management Overlay that rely on Camerons Road for access (Lots A, C, P, Q, H, I, L and G[1]) to identify optimum development envelopes. This review should occur before the Amendment is adopted and should:

a) Ensure long driveways are avoided and the separation from the fuel hazard is maximised.

b) Consider whether there should be a combination of more generous defendable space and more robust construction standard than is normally required by the Bushfire Management Overlay to address the risk of fire from the landscape.

c) Continue to preclude further residential development in the north-west of the Amendment Area, being the land that was excluded from Terramatrix assessments and Lot N' (Planning Panels Victoria, 2015).

This report has been prepared in response to the panel recommendation above. It includes:

- The determination, assessment and mapping of classified vegetation, slopes, and commensurate extent of defendable space required around the indicative envelopes

[1] The Panel used two criteria to identify those properties that required further assessment: location west of Camerons Road and those within the BMO. Recommendation 3 did not require a further review of Property K, however, as this property is both west of Camerons Road and within by the BMO, Property K has also been included in this review.

proposed, in accordance with AS 3959-2009 *Construction of building in bushfire prone areas*, and *Clauses 44.06 'Bushfire Management Overlay'* (BMO) and *52.47 'Bushfire Protection: Planning Requirements'* in the Moorabool Planning Scheme;

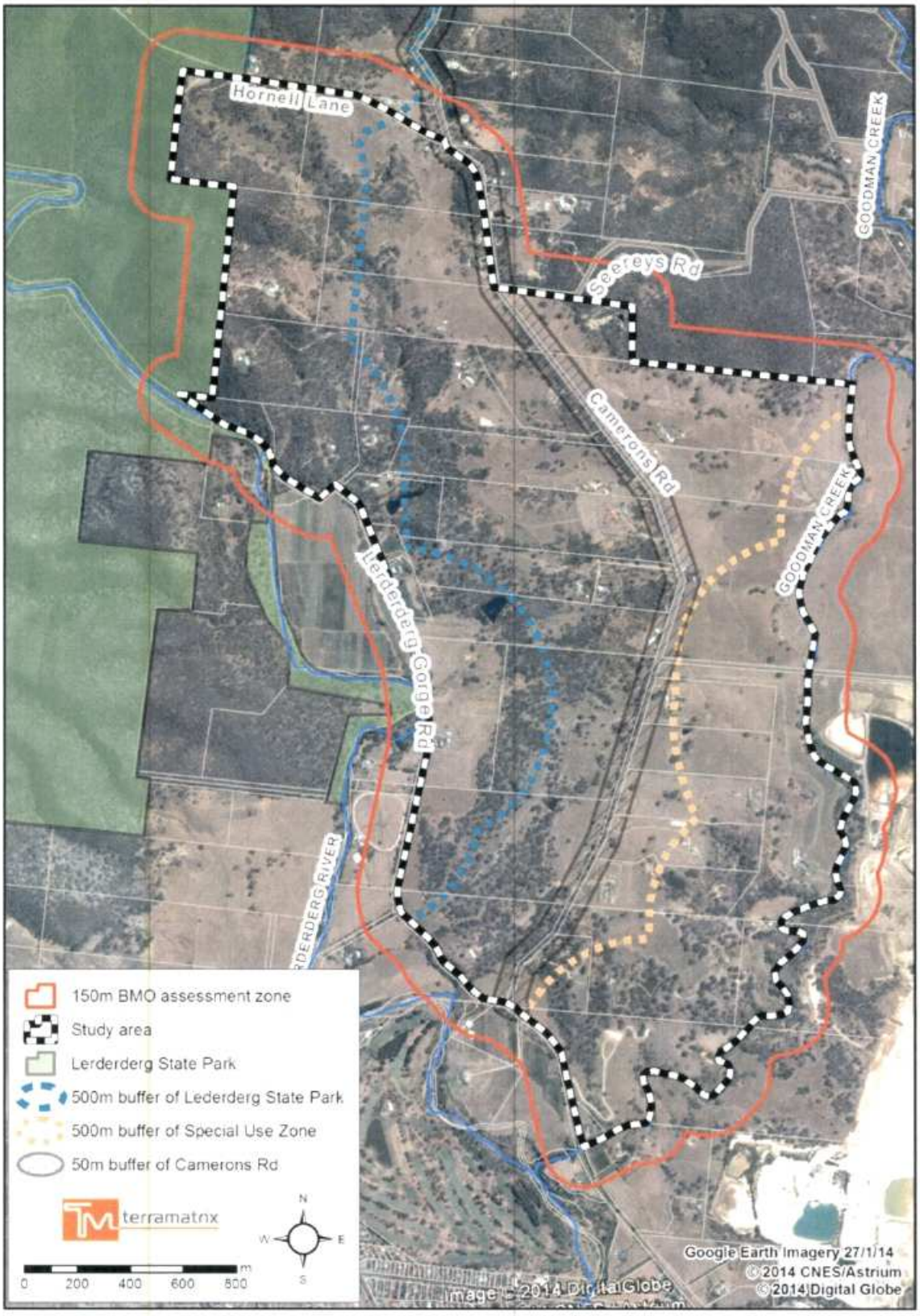
- The identification of some potential 'alternative indicative envelopes'; and
- The identification of potential indicative driveway alignments and calculation of approximate driveway lengths.

2 Methodology

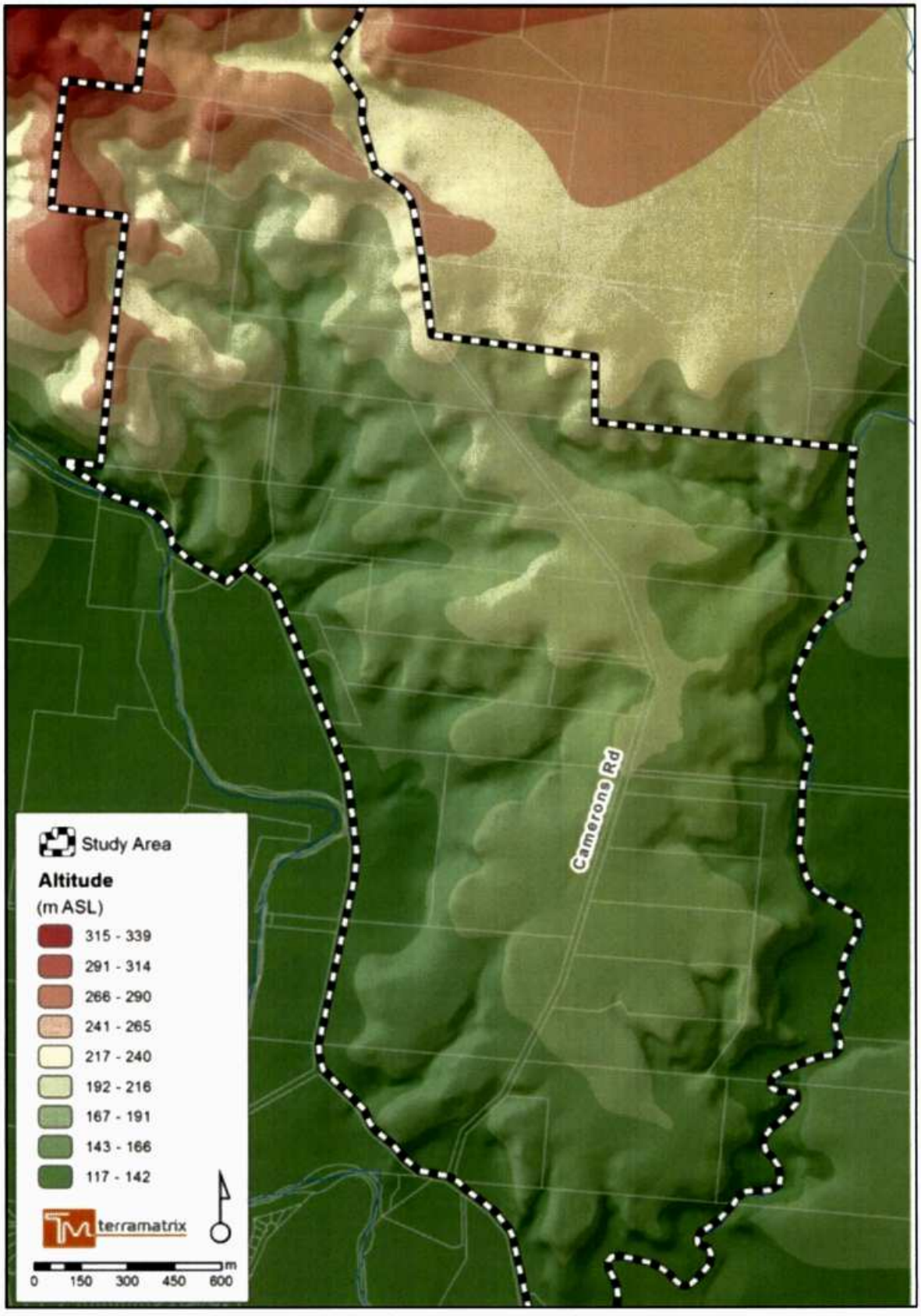
The approach undertaken in this study has included:

- Site visit and envelope assessments on 1 June 2015;
- Locating each envelope on site using hand held mapping quality GPS;
- Identifying/confirming the classified vegetation up to 150m around each indicative envelope;
- Identifying/confirming the applicable effective slope class for each indicative envelope; and
- Production of maps showing identified envelopes, indicative driveways and applicable extent of defendable space for both a BAL-19 and BAL-29 construction standard, consistent with the requirements of *Clause 52.47 Planning for bushfire* (Moorabool Planning Scheme, 2014).

3 Study area location



Map 1 - Study area location.



Map 2 - Study area topography.

3.1 Location

The study area comprises 547ha of land approximately 2km north of Bacchus Marsh (see Map 1). The area is bounded to the east by Goodmans Creek and an extractive industry area (sand mining) whilst to the north Hornell Lane, Camerons Road and Seereys Road form the northern boundary. To the south and west the study area boundary is Lerderderg Gorge Road and the Lerderderg State Park. Camerons Road runs approximately north-south, through the middle of the study area.

3.2 Topography

To the east of Camerons Road the land is undulating to flat, before sloping steeply down to Goodmans Creek, which forms the eastern boundary of the study area. To the west of Camerons Road the land slopes relatively gently up to a flat ridge that runs approximately north-south through the study area, and then slopes more steeply down to the west and at the southern end of the area, to the Lerderderg River and Lerderderg State Park. Overall the land rises gently upwards from 115m AHD in the southeast to 340m AHD in the northwest (see Map 2).

A slope analysis of the study area and the 150m BMO assessment zone around it, was undertaken to determine slopes under the classified vegetation. This is for the purposes of determining 'effective slope' and applicable defendable space distances; as well as to identify areas of slope in excess of 20% that the proposed DDO8 requires dwelling sites to avoid. The percentage of land in each slope class is provided in Table 1.

Table 1 - Land area and percentages by slope class.

Slope class (degrees)	Land area (ha)	% of study area and 150m BMO assessment zone
0 (flat)	277.8	37.6
> 0 to 5	85.5	11.6
> 5 to 10	147.6	20.0
> 10 to 15	122.7	16.6
> 15 to 20	66.2	9.0
> 20	38.1	5.2

It can be seen that more than two thirds (69.2%) of the area (and most of the cleared, developed and 'developable' land) comprises land with a slope of less than or equal to 10 degrees. Only 5.2% of the land in the study area and the 150m assessment zone around it has a slope that exceeds 20 degrees.

4 Indicative envelopes

Map 3 shows those properties within the study area that are greater than 12ha in size, and which could therefore potentially be subdivided under the rezoning proposal, to create at least one additional lot. Note that some properties have been excluded from consideration, as whilst they are greater than 12ha they are immediately adjacent to the Lerderderg State Park, heavily vegetated, with steeper slopes and are entirely within the 500m State Park buffer area. This has been supported by the Panel.

Maps 4-13 show those indicative building envelopes that have been reviewed in accordance with the panel's recommendation. The criteria used were achieving a maximum BAL-29 construction standard and commensurate defendable space within the boundary of a new allotment (BAL-19 is also shown). Thus each 30m x 40m (1,200m^2) envelope shown is located to:

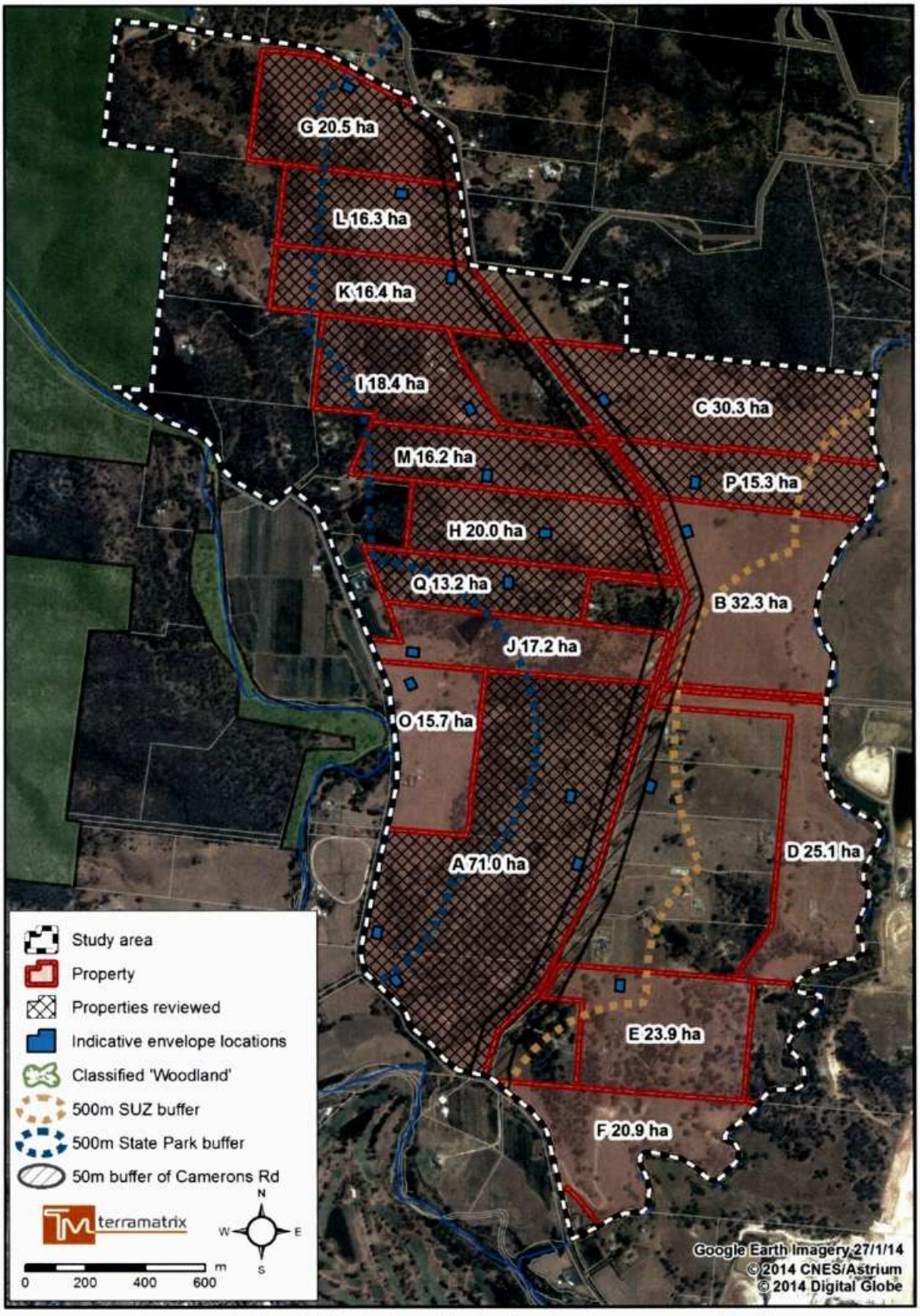
- Enable compliance with the requirements of the Bushfire Management Overlay;
- Avoid slopes greater than 10°;
- *Avoid* and *minimise* native vegetation removal; and
- Accord with all development buffers as appropriate.

IMPORTANT QUALIFICATIONS:

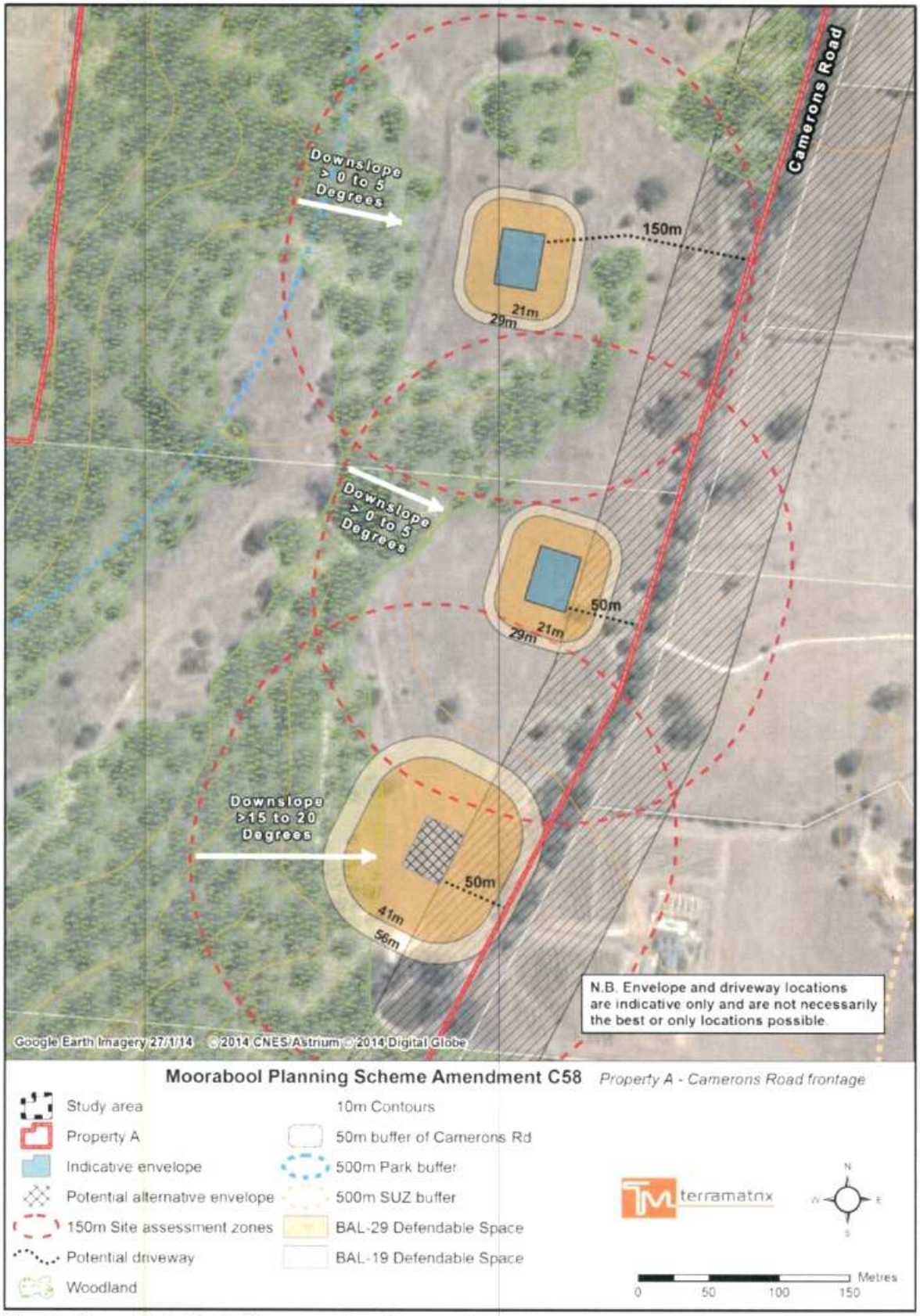
- The maps show the extent of defendable space around the envelopes based on the most conservative (precautionary) effective slope class. The extent of defendable space is shown in bold black text - this is in response to Woodland vegetation and the slope class shown in the maps, unless otherwise stated e.g. some envelopes only need to respond to Grassland.
- The envelopes are *indicative only*. **They do not guarantee a house can be sited in a particular location, nor do they necessarily show the best or only location for a development envelope**. As noted above, further more detailed work will be required at subdivision stage, to determine the exact location and size of future envelopes (including driveways), that provide the required defendable space, *avoid* and *minimise* native vegetation removal and impacts, and achieve the objectives and requirements of the proposed DDO5. Other issues that also need to be accounted for at the development stage include the siting of effluent envelopes if required, and confirmation of driveway alignments.
- The 500m Lerderderg State Park and SUZ buffers shown on the maps were created by horizontal GIS buffering. Therefore they may not necessarily match an 'on-the-ground' measurement that would include differences in elevation.

- The aerial photography originally used in the analysis is the most recent Google Earth imagery available (dated 27/01/14) however, it may not accurately represent current conditions 'on the ground'.

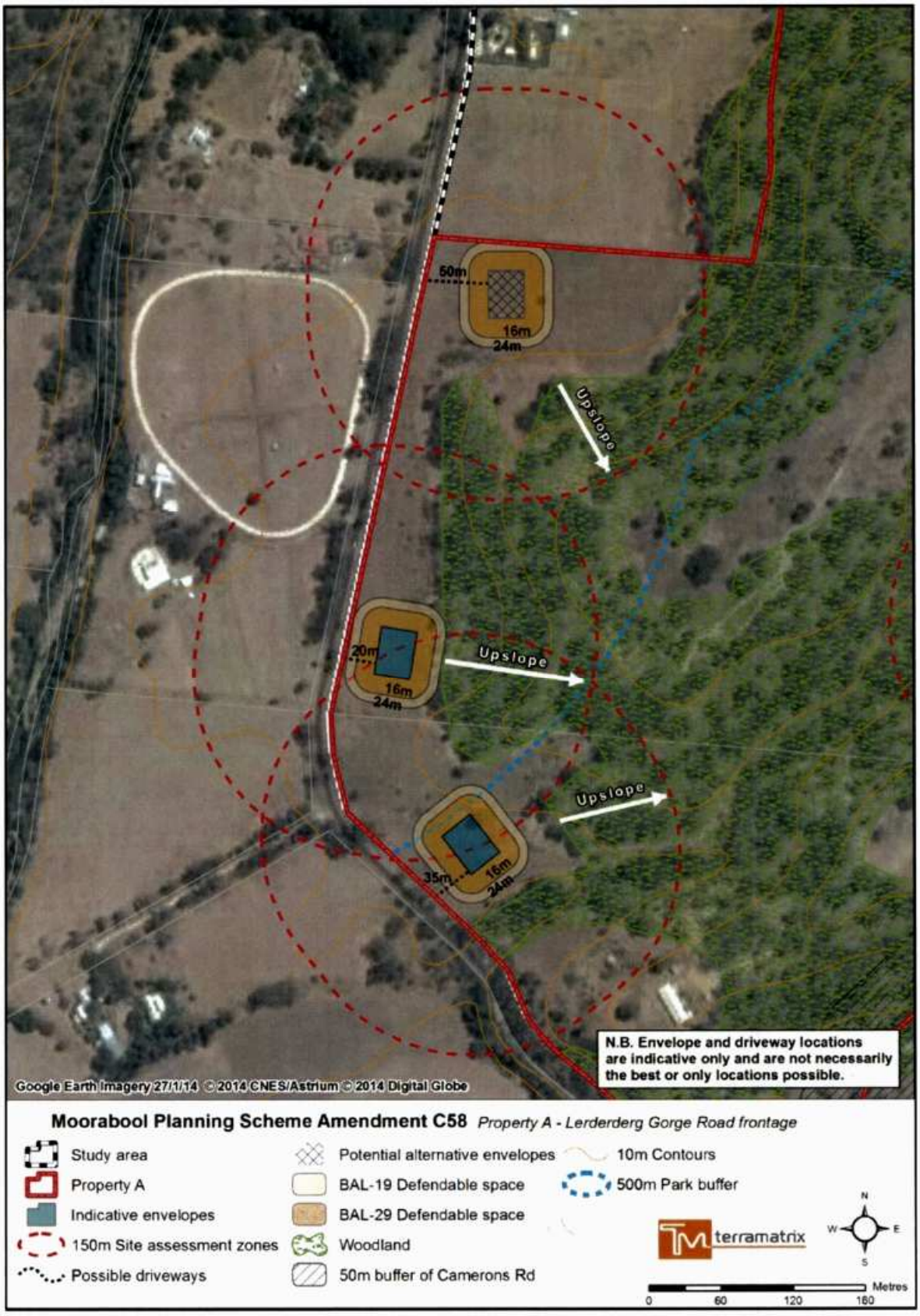
Property sizes shown are based on the cadastral parcel size and may vary slightly from title details. Properties are labelled in alphabetical order according to property size i.e. Property A is the largest property, property Q the smallest.



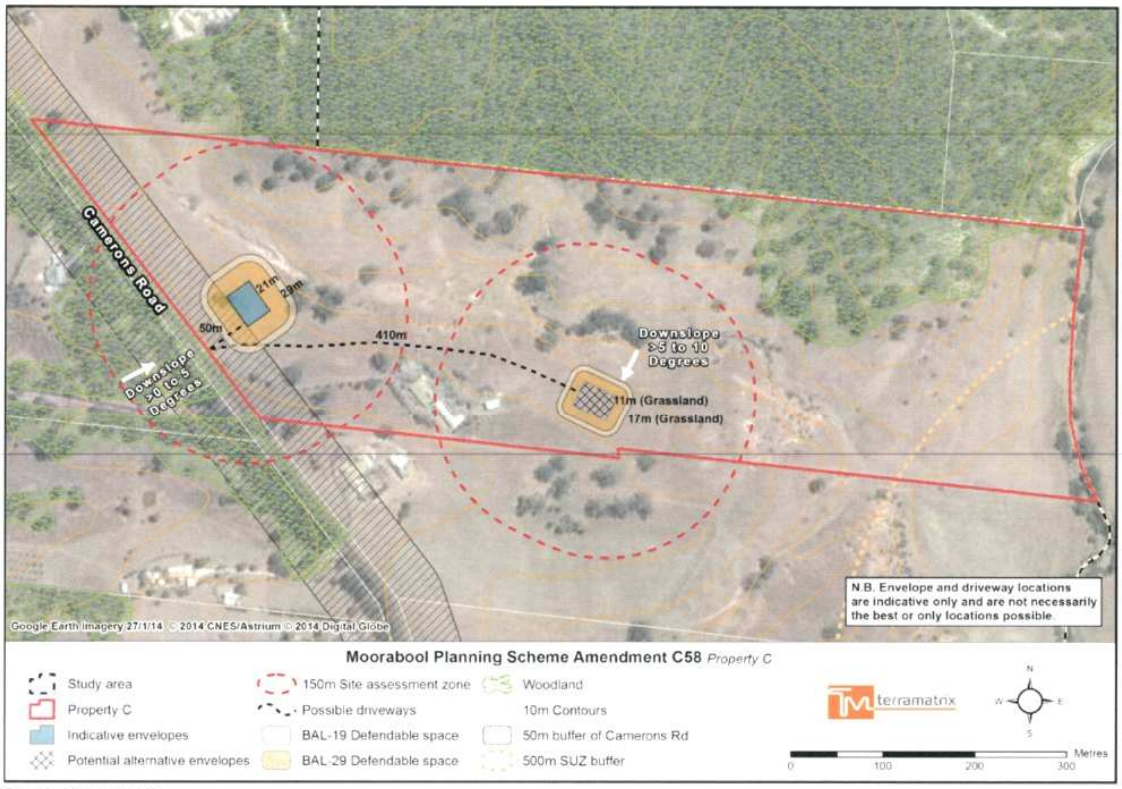
Map 3 - Properties potentially subdividable and 'indicative development envelopes'.



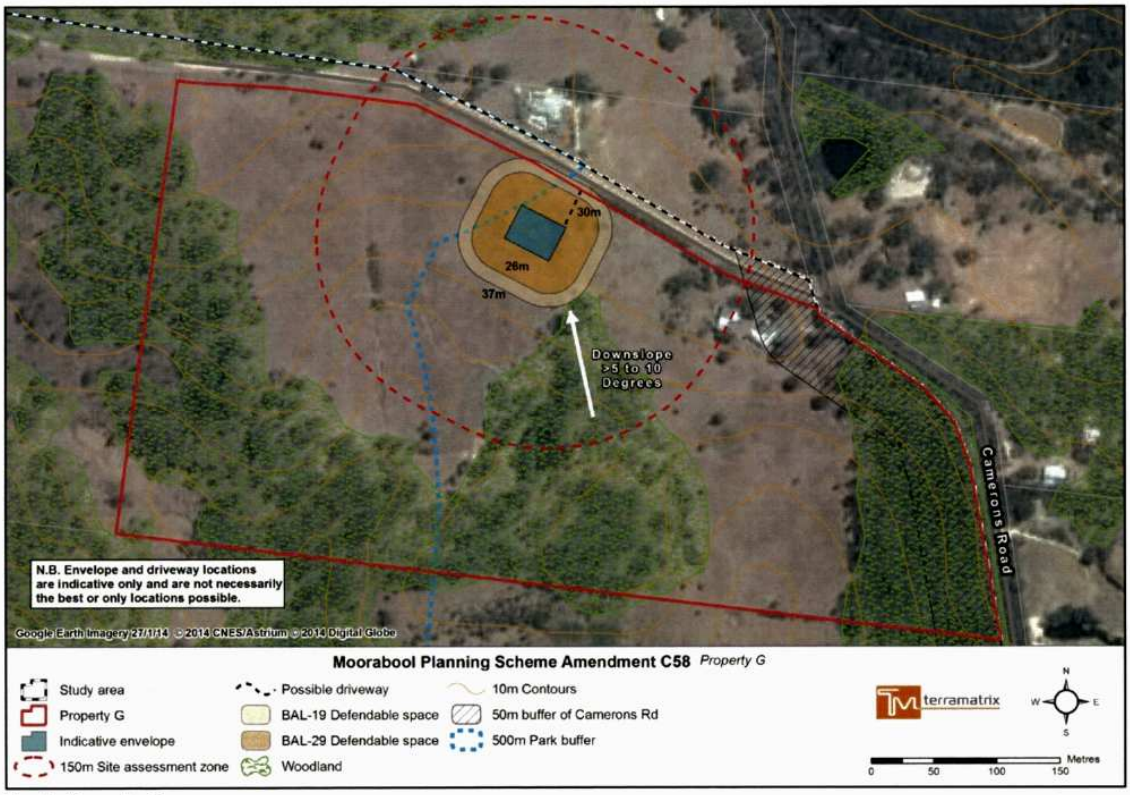
Map 4 – Property A (East - Camerons Road frontage).



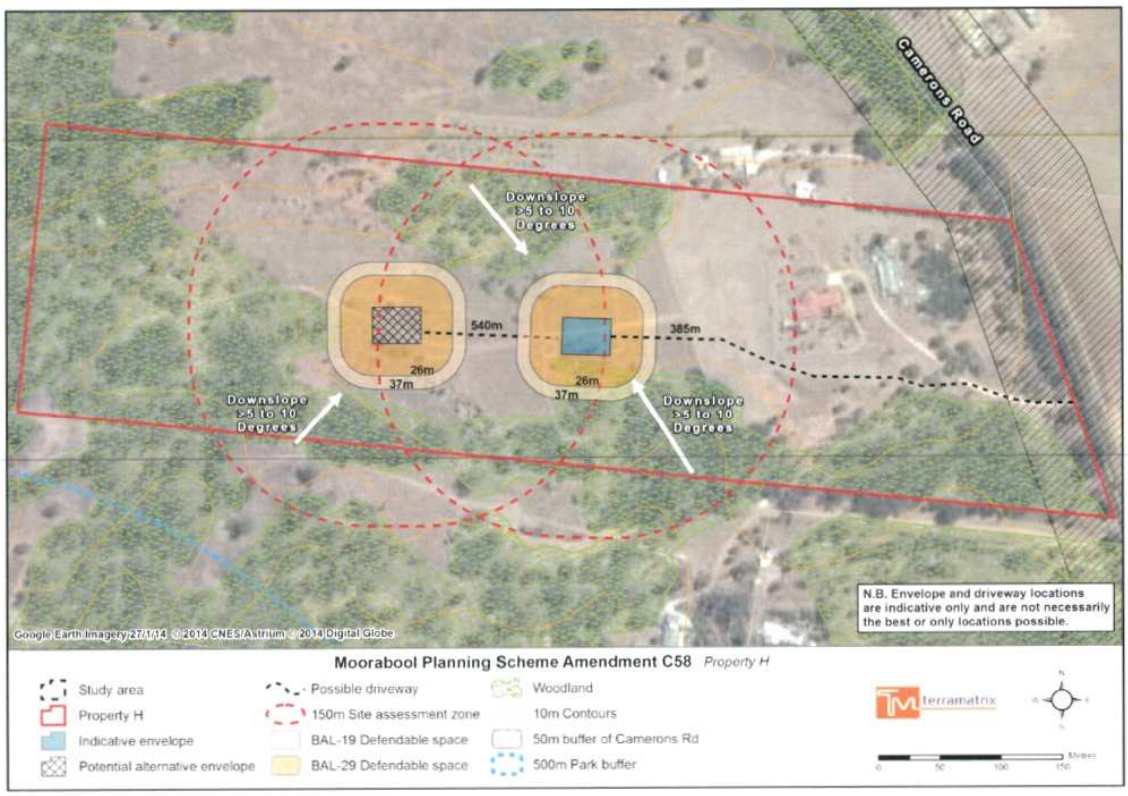
Map 5 - Property A (West - Lerderderg Gorge Road frontage).



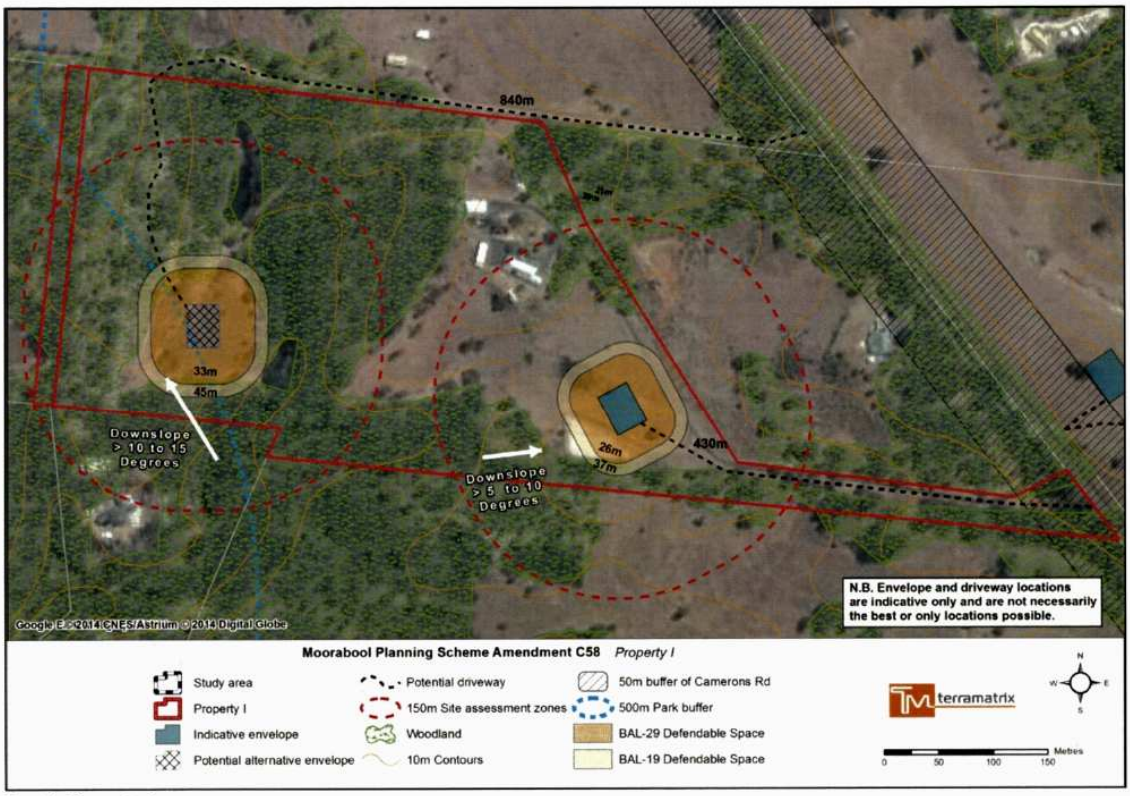
Map 6 - Property C.



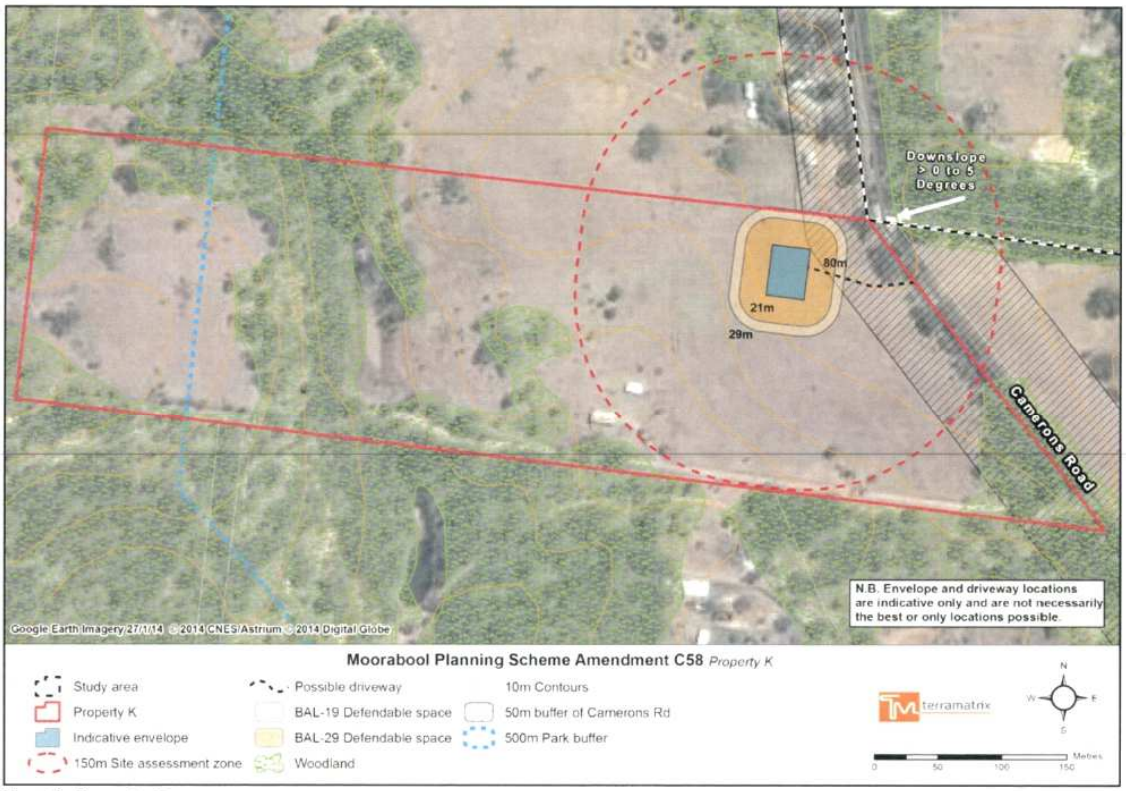
Map 7 - Property G.



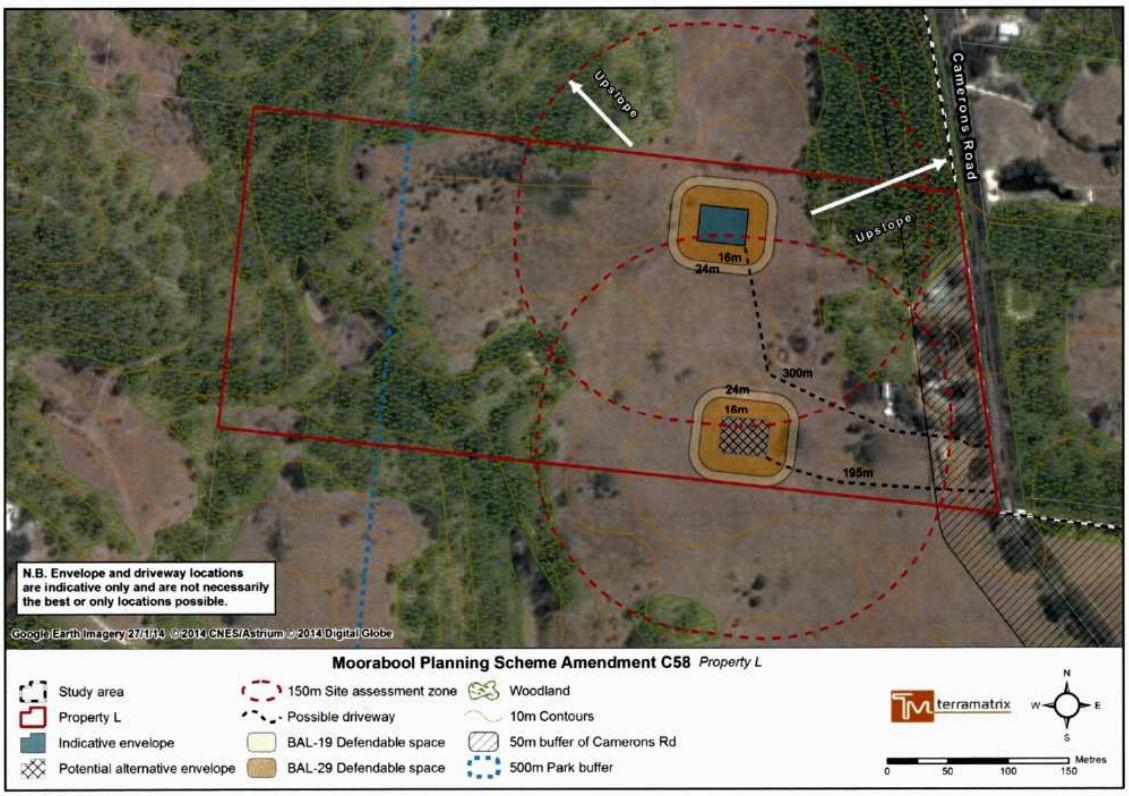
Map 8 - Property H.



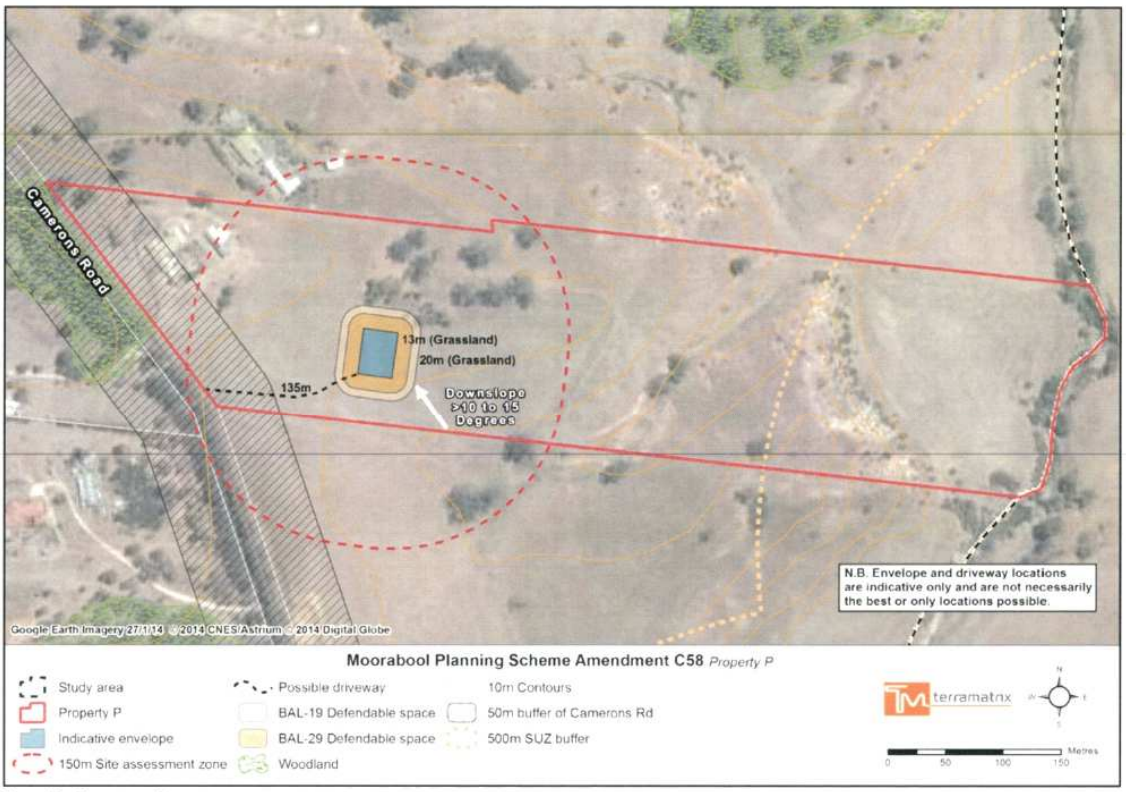
Map 9 - Property I.



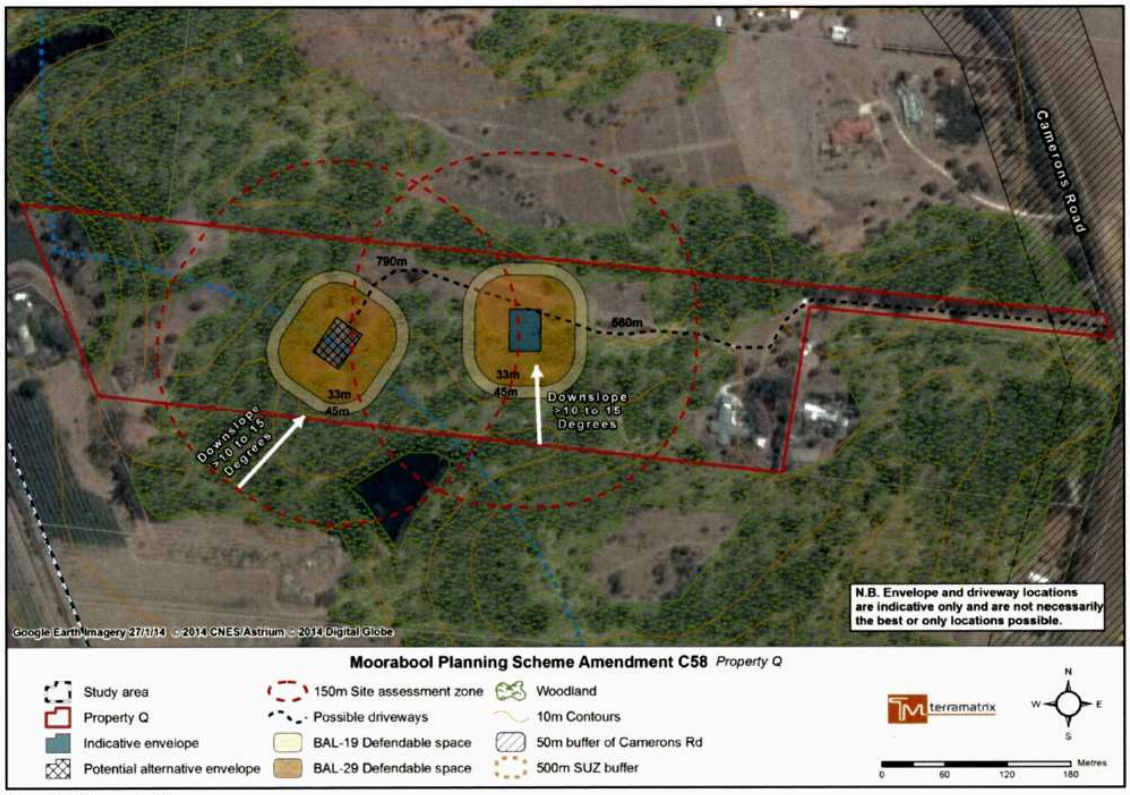
Map 10 - Property K.



Map 11 - Property L



Map 12 - Property P.



Map 13 - Property Q.

5 Conclusion

It is considered that if a dwelling was to be constructed on the identified indicative envelopes, it could achieve a BAL-29 or even BAL-19 defendable space setback from hazardous vegetation, without significant native vegetation impacts (some lots may be able to achieve BAL-12.5 defendable space).

Most dwellings could be sited in reasonable proximity to a road, although some envelopes may require long driveways. Where longer driveways are required the driveway routes would largely be through lower hazard vegetation such as grassland and/or away from the direction of most probable bushfire attack i.e. egress towards the south and/or east.

Each envelope can:

- Meet or exceed the compliance requirements of the Bushfire Management Overlay;
- Avoid slopes greater than 10°;
- *Avoid* and *minimise* native vegetation removal; and
- Generally accord with all development buffers as appropriate.

Further more detailed design work will be needed at the planning permit stage to finalise envelope sizes and locations including driveway alignments.

*N.B. Envelopes and driveways shown are **indicative** only and are not necessarily the best, or the only possible locations, for future dwellings.*

6 References

Moorabool Planning Scheme (2014) *Clause 52.47 Bushfire Protection: Planning Requirements,* Department of Transport, Planning and Local Infrastructure (DTPLI). Viewed November 2014 at <http://planningschemes.dpcd.vic.gov.au/schemes/moorabool>.

Planning Panels Victoria (2015) *Panel Report Moorabool Planning Scheme Amendment C58 Camerons Road Proposed Rural Living Zone* 31 March 2015.

-/-/2015
C58

SCHEDULE TO THE RURAL CONSERVATION ZONE

Shown on the planning scheme map as **RCZ**.

Conservation Values

To protect land of environmental significance.

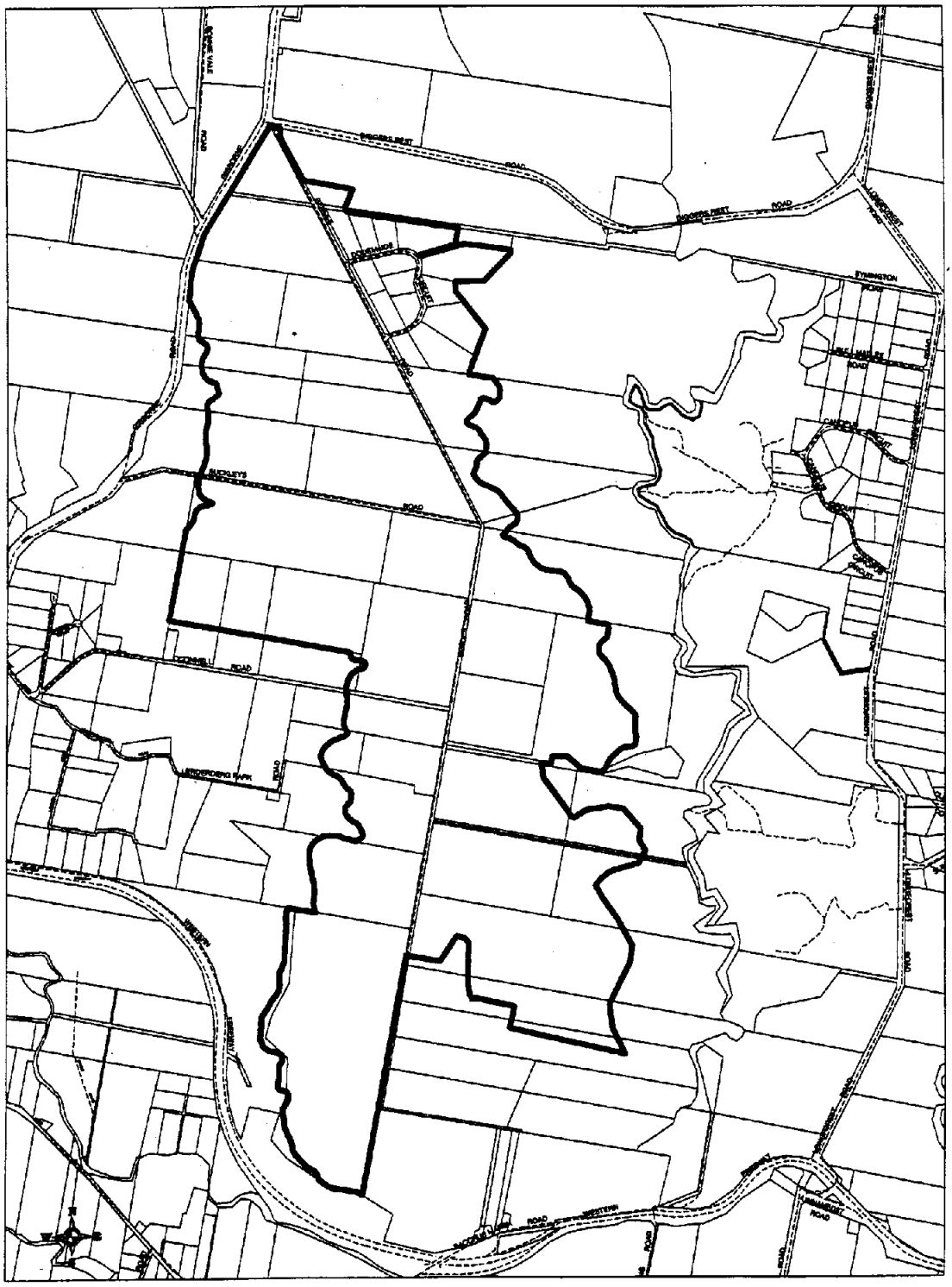
To ensure that the location, siting and design of any development does not adversely impact upon sensitive environments nearby.

	Land	Area/Dimensions/Number
Minimum subdivision area (hectares).	Land shown on Map 1 to this schedule.	0.75 hectare, with the average lot size to be 1hectare or greater. Lots in excess of 2.25 hectares must be excluded from average lot size calculations.
	Land shown on Map 2 to this schedule.	0.6 hectares
	Land shown on Maps 3, 4, 5, 6, 7 and 8 to this schedule.	6 hectares
	Add description (eg Camerons Road rural living area identified in Map 1 attached to this schedule OR refer to each lot description	Lots less than 6 hectares (but not less than 2 hectares) may be created where the subdivision creates a lot that contains significant vegetation in one lot or other environmental gains or creates independent access for each lot and prohibits further subdivision.
	Any other land not shown on the maps to this schedule.	100 hectares
Maximum floor area for which no permit is required to alter or extend an existing dwelling (square metres).	None specified	
Maximum floor area for which no permit is required to construct an out-building associated with a dwelling (square metres).	None specified	
Maximum floor area for which no permit is required to alter or extend an existing building used for agriculture (square metres).	None specified	

Permit requirement for earthworks	Land
Earthworks which change the rate of flow or the discharge point of water across a property boundary.	All land
Earthworks which increase the discharge of saline groundwater.	All land

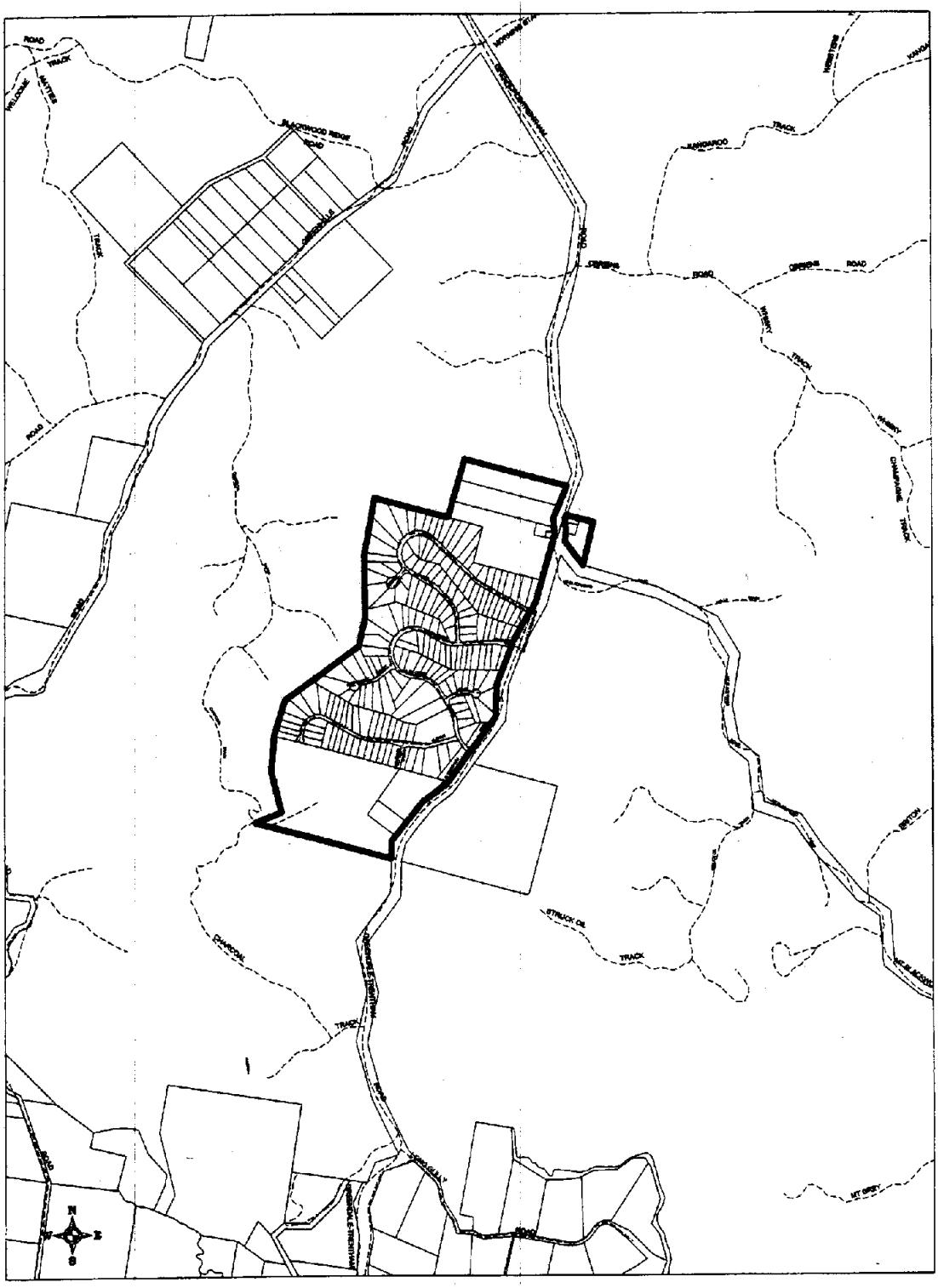
Map 1 to the Schedule to the Rural Conservation Zone

Bences Road



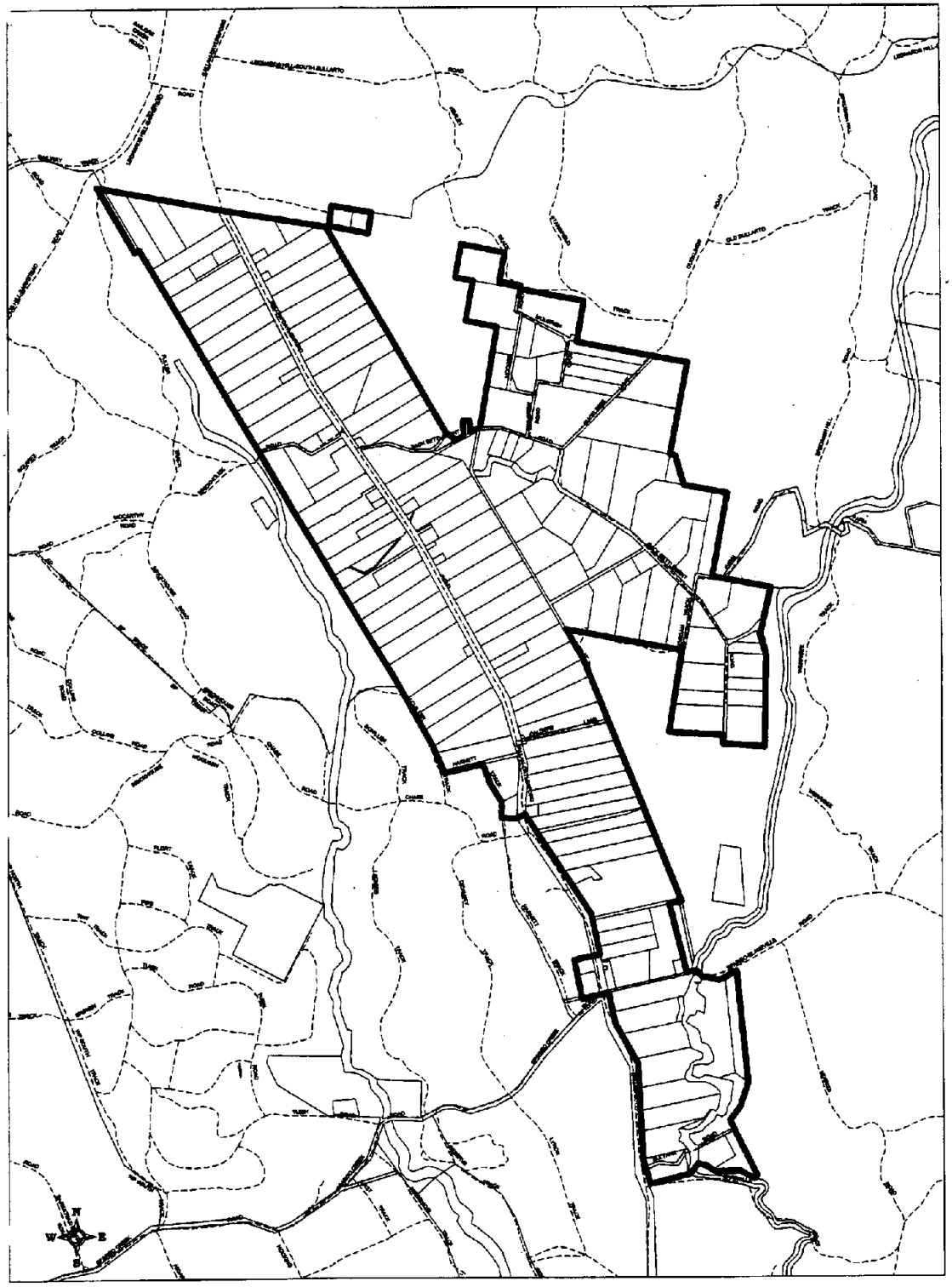
Map 2 to the Schedule to the Rural Conservation Zone

Dale's Creek



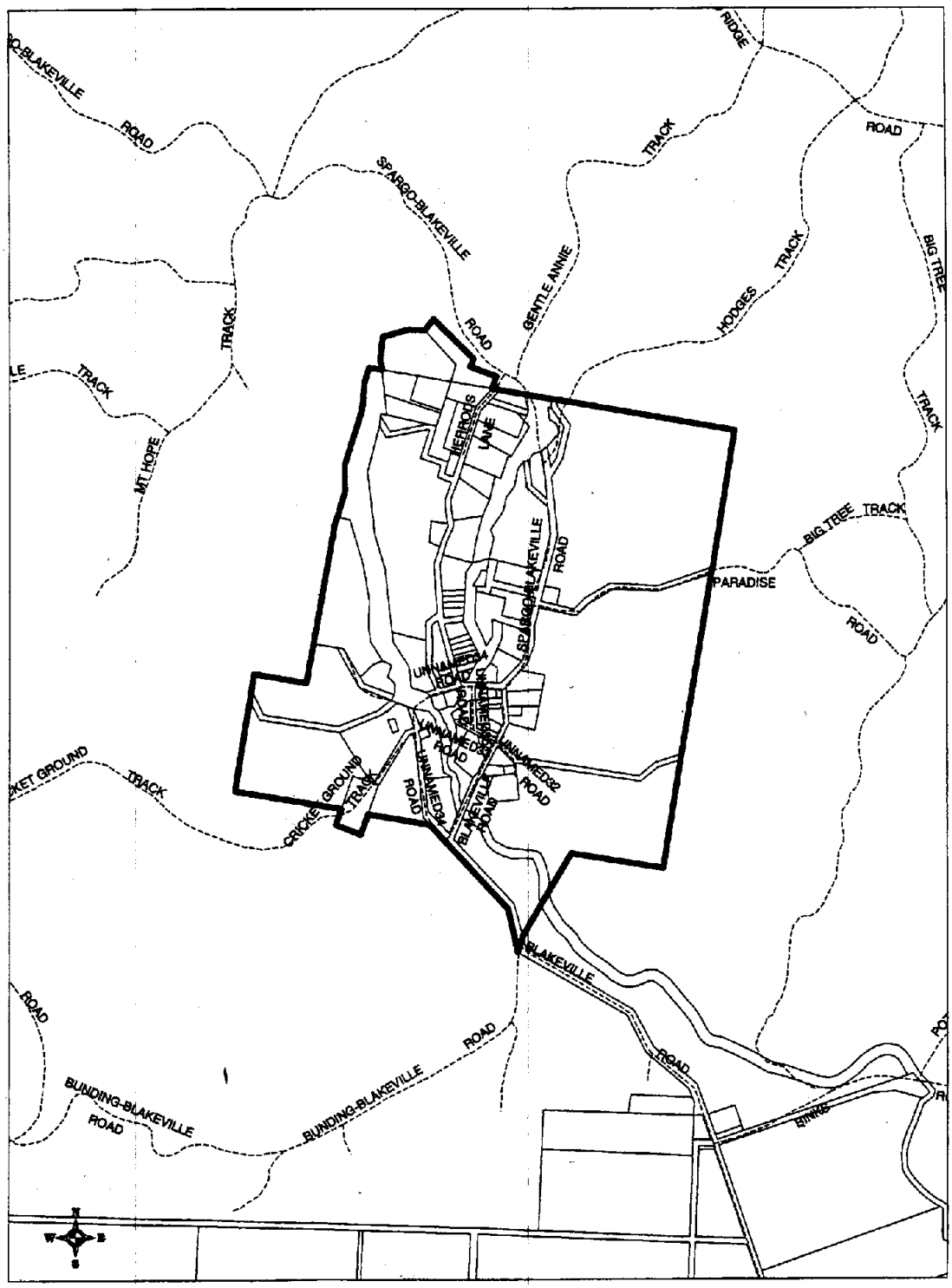
Map 3 to the Schedule to the Rural Conservation Zone

Korweinguboora



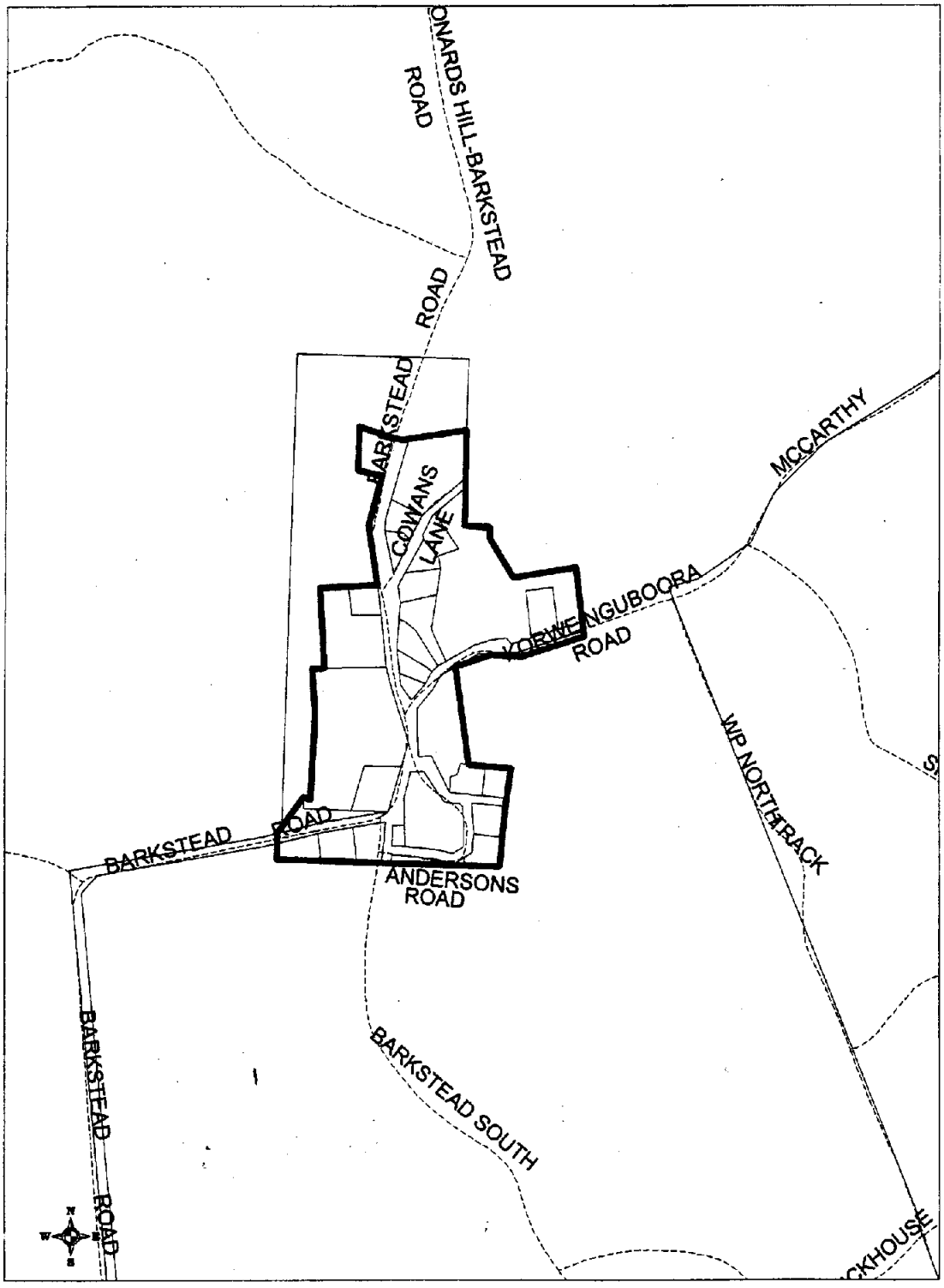
Map 4 to the Schedule to the Rural Conservation Zone

Blakeville



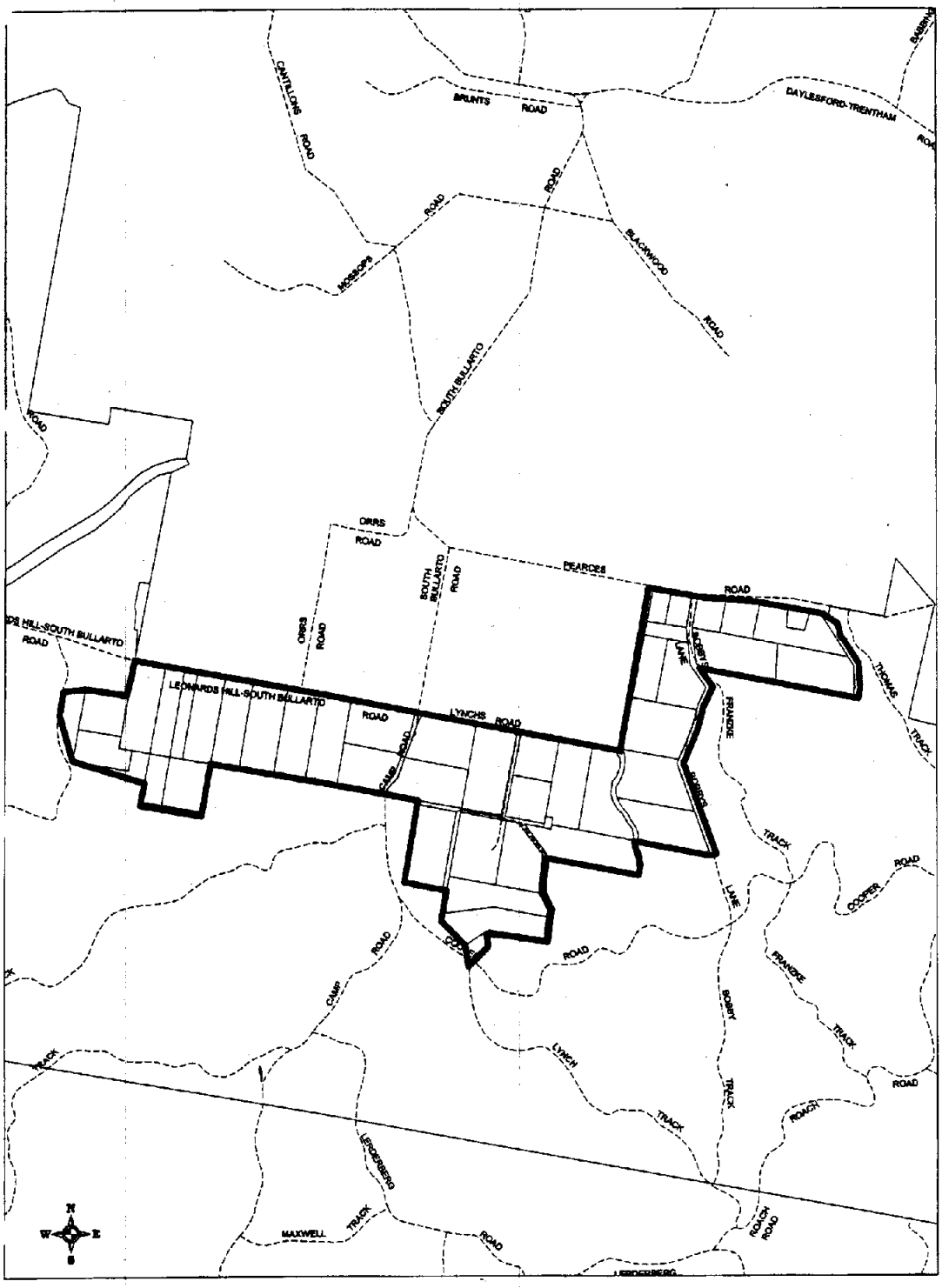
Map 5 to the Schedule to the Rural Conservation Zone

Barkstead



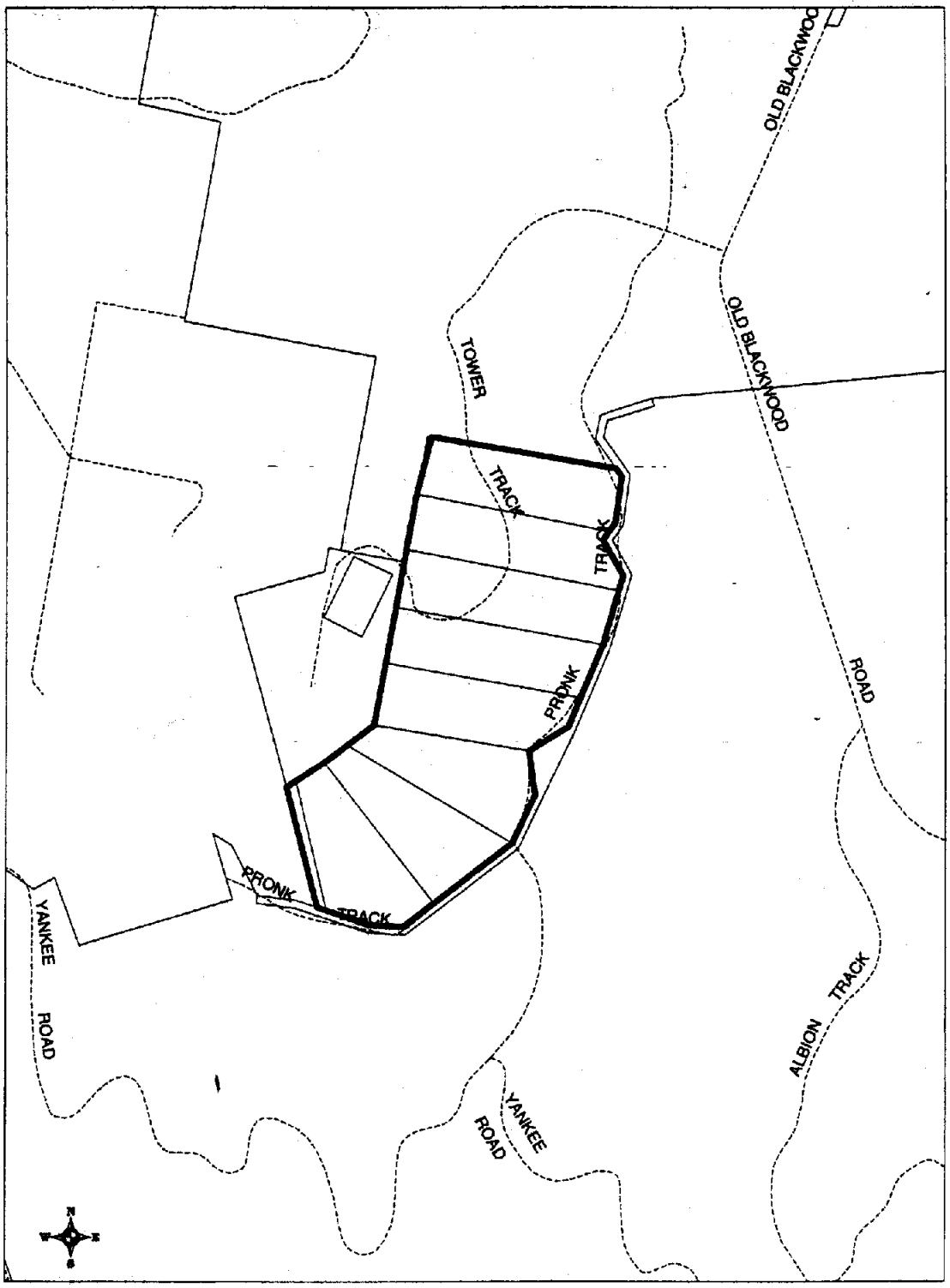
Map 6 to the Schedule to the Rural Conservation Zone

Bullarto South



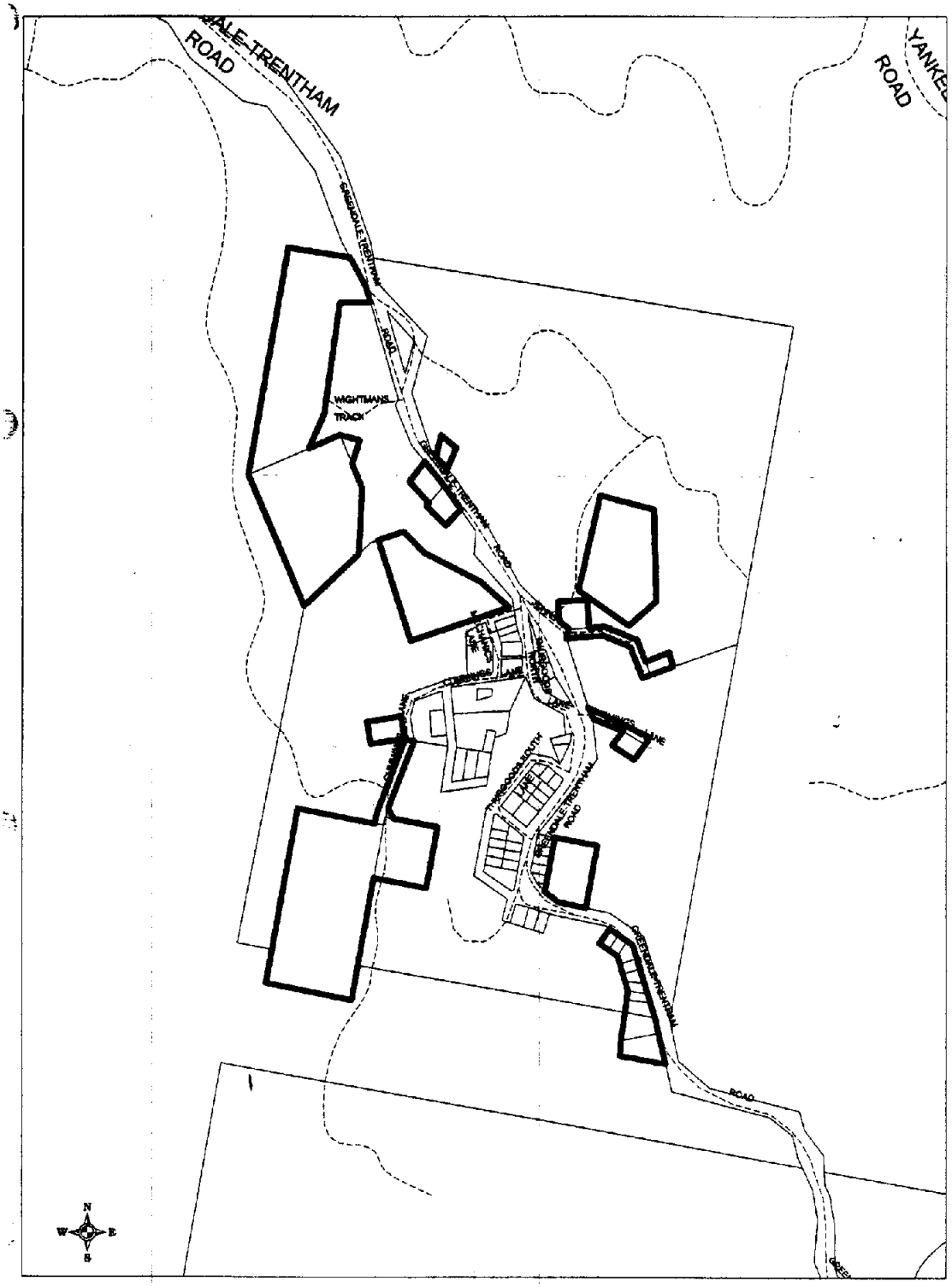
Map 7 to the Schedule to the Rural Conservation Zone

Newbury



Map 8 to the Schedule to the Rural Conservation Zone

Barry's Reef



SCHEDULE 5 TO THE DESIGN AND DEVELOPMENT OVERLAY

Shown on the planning scheme map as **DDO5**

CAMERONS ROAD BACCHUS MARSH - RURAL LIVING AREA

1.0 Design objectives

- To provide for limited rural living development of the land.
- To protect the water quality of Goodmans Creek and the Lerderderg River.
- To retain and protect remnant native vegetation and wildlife habitat on the land.
- To protect the treed landscape values of the land.
- To protect the nature conservation values and habitat values of the adjacent Lerderderg State Park.
- To ensure residential development does not create additional constraints on the ongoing operation of the extractive industries to the east as defined by the Special Use Zone Schedule 2 or encroach into the associated separation distance requirements.
- To ensure that dwellings are only developed where bushfire risk associated with site, the immediate area and the broader landscape is mitigated to an acceptable level.
- To direct dwellings to locations where appropriate bushfire protection measures can be readily implemented without adverse impacts on environmental values.

2.0 Buildings and works

A planning permit is not required for the following buildings and works:

- Any buildings or works associated with the use of an existing dwelling
- Any buildings or works associated with the existing use of the land for agriculture.

All new buildings must be sited at least 500 metres from the extractive industries as defined by the Special Use Zone Schedule 2. A permit cannot be granted to vary this requirement.

All new buildings should be sited:

- At least 100 metres from Goodmans Creek or the Lerderderg River;
- At least 500 metres from the Lerderderg State Park except that new dwellings located on Properties A, O and J shown on Figure 1 attached to this schedule may be located within the 500 metre setback to the Lerderderg State Park if the written consent of DELWP is provided.
- At least 30 metres for a dwelling and 50 metres for other buildings from a road boundary and 10 metres from other boundaries; and
- To avoid slopes of greater than 20% (11^{o}) where possible.

All new dwellings should be sited generally in accordance with the dwelling envelope locations in accordance with Clause 5 and Figure 1 of this schedule.

Application Requirements

A permit application must be accompanied by plans and information comprising the following:

- A site analysis and design response which shows relevant site features and constraints and the proposed design responds to those features and constraints. Constraints to be addressed, as relevant, include separation from extractive industry, bushfire risk, significant native vegetation, topography and erosion risk.
- A proposed development plan showing:
  - Proposed dwelling and outbuilding location
  - Elevations of proposed buildings, materials and colours
  - Site contours
  - Waterways, drainage lines and dams
  - The access point and internal driveway alignment that is suitable for emergency vehicles and minimises the distance to the road
  - Existing native vegetation
  - Proposed landscaping and tree planting
  - The location of wastewater treatment systems and effluent disposal field, sited so as to avoid and minimise the removal of native vegetation, and so as to protect water quality in waterways;
  - Setbacks from the Lerderderg State Park, Special Use Zone 2 (Earth and Energy Resources Industry), waterways, roads and lot boundaries
  - The location of water storage for fire fighting purposes of at least 10,000 litres within 60 metres of the dwelling, or as required by the Country Fire Authority.
- A flora and fauna assessment if native vegetation is to be removed
- A Bushfire Development Report as required under Clause 4 of this schedule
- A Land Management Plan as set out in Clause 6 of this schedule
- A Land Capability Assessment, to demonstrate how wastewater can be treated and disposed of within the boundaries of the allotment.

Note: At the discretion of the responsible authority, a Flora and Fauna Assessment, Land Management Plan or Land Capability Assessment may not be required, if the proposal is consistent with any such documents which may have been approved under Schedule 4 to Clause 43.04 of this planning scheme or endorsed under a previous permit.

A permit application for buildings and works is exempt from the notice requirements of Section 52(1)(a), (b) and (d), the decision requirements of Section 64(1), (2) and (3) and the review rights of Section 82(1) of the Act if the setback requirements detailed in this clause are met.

Notice of an application must be given in accordance with Section 52(1)(c) of the Act to the person or body specified as a person or body to be notified in the Schedule to Clause 66.06.

3.0 Subdivision

Application Requirements

A permit application for subdivision of land must be accompanied by plans and information comprising the following:

- A site analysis and design response which shows relevant site features and constraints and how the proposed design responds to those features and constraints. Constraints to be addressed, as relevant, include separation from extractive industry, bushfire risk, significant native vegetation, topography and erosion risk.
- A proposed subdivision layout plan which shows the following details:
  - Existing title boundaries
  - Proposed lot boundaries (including approximate areas for each lot) providing for a site responsive and functional subdivision configuration
  - Site contours
  - Waterways, drainage lines and dams
  - Existing native vegetation
  - Road and driveway alignments suitable for emergency vehicles
  - A dwelling envelope for each proposed lot which must be sited generally in accordance with Clause 5 and the dwelling envelope locations shown in Figure 1 of this schedule
  - Defendable space for each dwelling envelope, based on the Bushfire Development Report required under Clause 4 of this schedule
  - An effluent disposal envelope for each proposed lot, sited so as to protect surface water quality,
  - The location of water storage for fire fighting purposes of at least 10,000 litres within 60 metres of each building envelope, or as required by the Country Fire Authority.
- A Flora and Fauna Assessment prepared in consultation with the Department of Environment, Land, Water and Planning if native vegetation is to be removed.
- A Land Management Plan as set out in Clause 6 of this schedule.
- A Land Capability Assessment, to demonstrate how wastewater can be treated and disposed of within the boundaries of the proposed lots. The land capability assessment must recommend a location and dimensions of an effluent disposal envelope for each lot.

  Note: At the discretion of the responsible authority, a Flora and Fauna Assessment, Land Management Plan or Land Capability Assessment may not be required, if the proposal is consistent with any such documents which may have been approved under Schedule 4 to Clause 43.04 of this planning scheme, or endorsed under a previous permit.

The formal plan of subdivision submitted for certification must include a restriction showing a dwelling envelope and effluent disposal envelope for each lot. The restriction shall be to the effect of:

- *"The registered proprietor shall not allow a building to be constructed except within the dwelling envelope shown hatched.*

  A 'building' includes any structure except a fence."

- *"The registered proprietor shall not allow an effluent disposal field to be constructed except within the effluent disposal envelope shown cross-hatched."*

- Where a subdivision creates a lot(s) of less than 6 hectares and a lot(s) of 12 hectares or greater then the permit must include the following condition:

  - *Before a statement of compliance for the subdivision issues, the owner of the land must enter into an agreement with the Responsible Authority pursuant to section 173 of the Planning and Environment Act 1987, covenanting that any further subdivision will only provide for the creation of a lot for a dwelling shown on the Dwelling Envelope Plan attached to schedule 5 to Design and Development Overlay in the Moorabool Planning Scheme. The owner must pay all costs in relation to the preparation and registration of the agreement, and must provide evidence that the agreement has been registered on title, before the issue of a statement of compliance*.

4.0 Bushfire Development Report

A Bushfire Development Report must be prepared to the satisfaction of the Responsible Authority, to ensure appropriate bushfire risk mitigation measures are incorporated in the development and implemented on an ongoing basis.

To take account of bushfire risk in both the immediate area and the broader landscape:

- Bushfire protection measures in excess of those required under the Bushfire Management Overlay may be required on land where that overlay applies.
- Bushfire protection measures specified under the Bushfire Management Overlay apply to Bushfire Prone areas on the eastern side of Camerons Road.

The siting of buildings, vegetation management, water supply and access and egress measures should be able to be readily implemented and managed within the property without significant environmental impacts.

In assessing the Bushfire Development Report the responsible authority will consult with the Country Fire Authority and have regard to their views.

5.0 Dwelling Envelopes

Figure 1 (Dwelling Envelope Plan) attached to this schedule identifies the number and location of additional dwellings to be accommodated.

New dwellings should be located generally in accordance with the dwelling envelope location shown in Figure 1 (Dwelling Envelope Plan). A permit can only be issued for an alternative dwelling envelope location if it is demonstrated that all objectives and provisions of this overlay and other parts of the planning scheme are met.

NOTE: The Dwelling Envelopes indicate the maximum number of dwellings allowed and have been sited to minimise the impacts of environmental constraints, comply with the extractive industry buffer and to mitigate bushfire risk from the site, the immediate area and the broader landscape.

The dwelling envelope(s) must:

- Be at least 500 metres from the extractive industries to the east as defined by the Special Use Zone Schedule 2.
- Meet the requirements of the Bushfire Development Report required by Clause 4 of this schedule.

A permit cannot be granted to vary these requirements.

The dwelling envelope(s) should:

- Avoid significant native vegetation
- Avoid slopes of greater than 20% (11^{o}) where possible.
- Be at least 100 metres from Goodmans Creek or the Lerderderg River;
- Be at least 500 metres from the Lerderderg State Park except that new dwellings located on Properties A, O and J shown on Figure 1 attached to this schedule may be located within the 500 metre setback to the Lerderderg State Park with the written consent of DELWP.
- Be at least 30 metres for a dwelling and 50 metres for other buildings from a road boundary and 10 metres from other boundaries.

6.0 Land Management Plans

A Land Management Plan should form part of an application to subdivide land or develop a dwelling and should include:

- A description of natural and associated features of the land including topography, soils, vegetation type, land use potentials, and threats to the sustainability of the land and its associated biodiversity values.
- Management requirements to achieve sustainable land use covering:
  - Access arrangements
  - Pest plants and animals control
  - Biodiversity management including the protection/enhancement of native vegetation
  - Drainage and soil conservation
  - Screening vegetation (if required)
  - Any other matter considered to be of relevance to the responsible authority.

Before a statement of compliance for the subdivision or the certificate of occupancy for a new dwelling is issued, the owner of the land must enter into an agreement with the responsible authority pursuant to section 173 of the *Planning and Environment Act 1987*, covenanting that the land will be managed in accordance with the endorsed Land Management Plan. The owner must pay all costs in relation to the preparation and registration of the agreement, and must provide evidence that the agreement has been registered on title, prior to the issue of a statement of compliance.

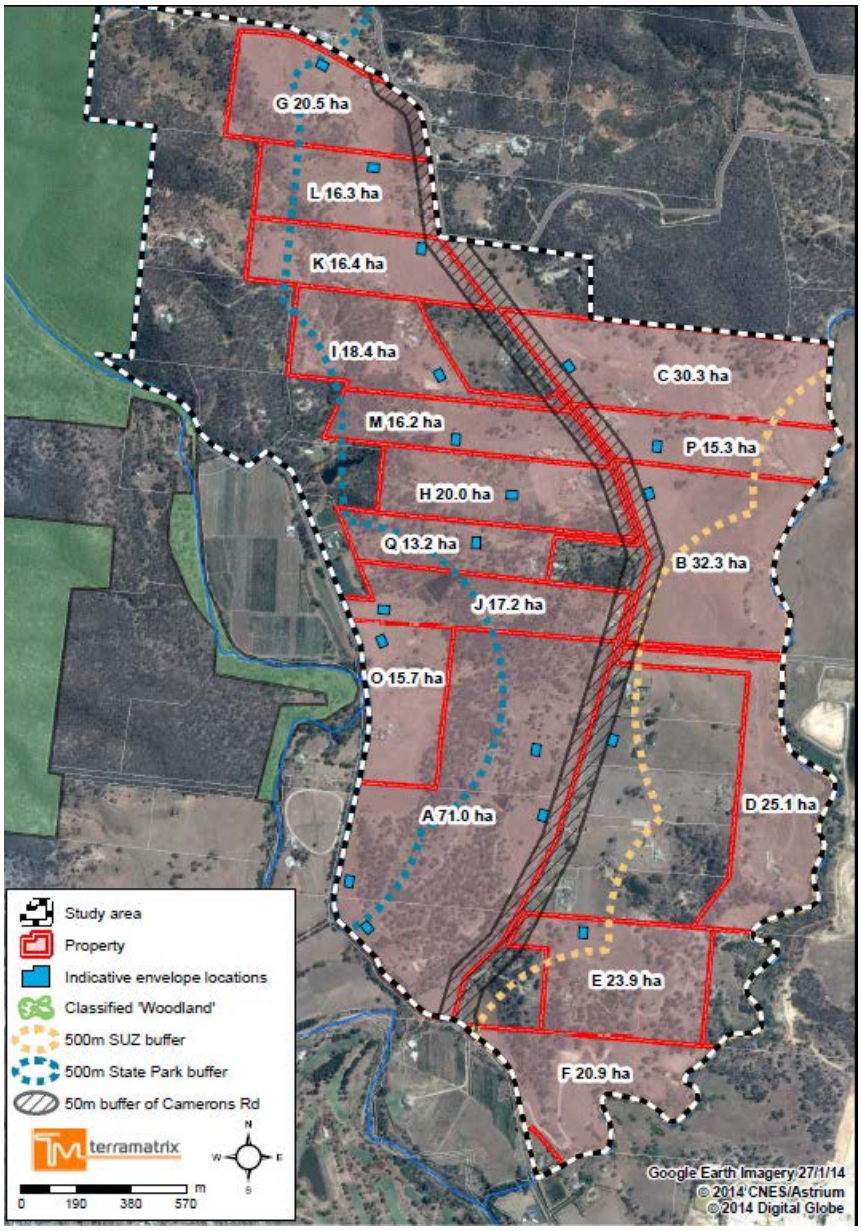
7.0 Decision guidelines

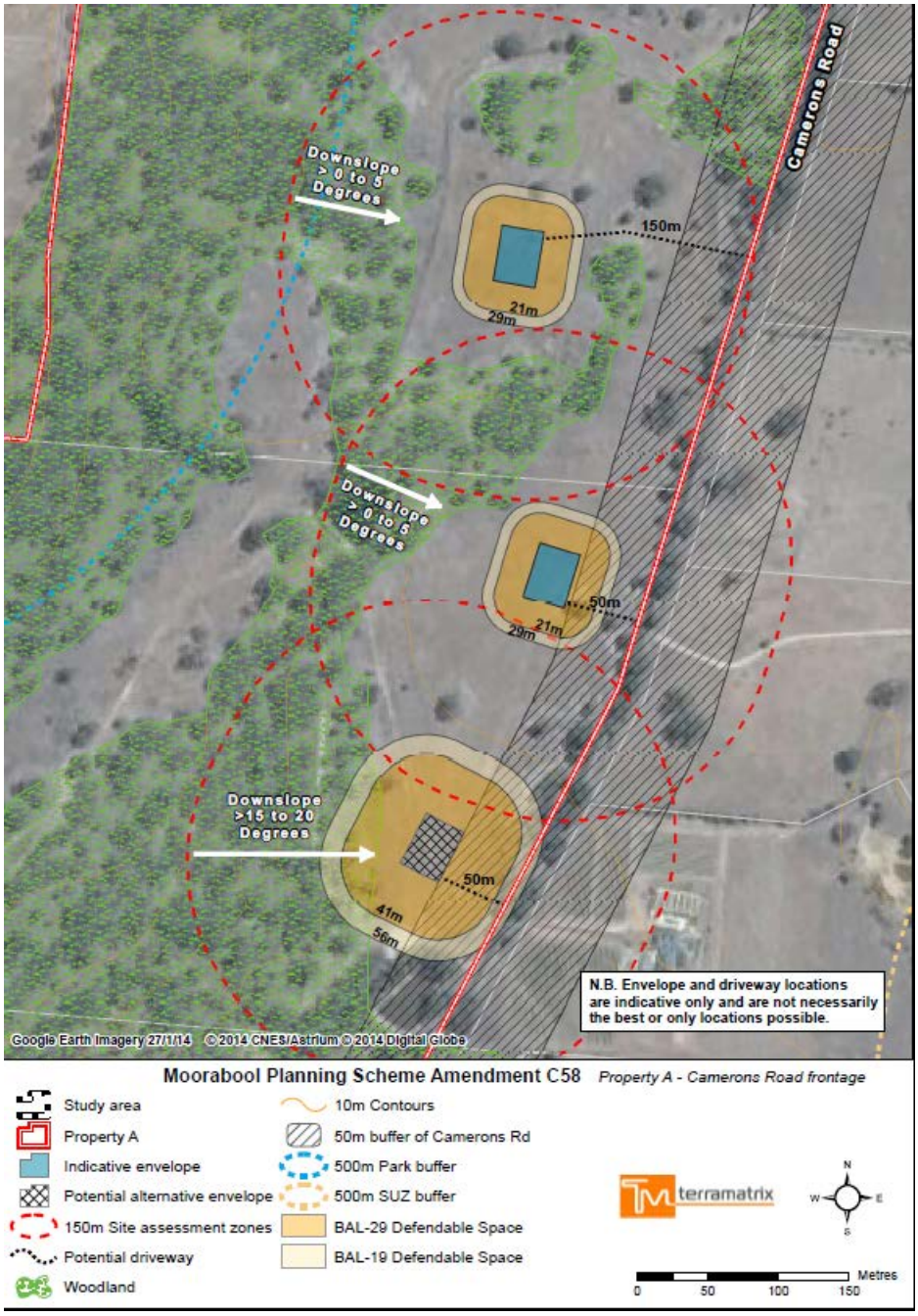
Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

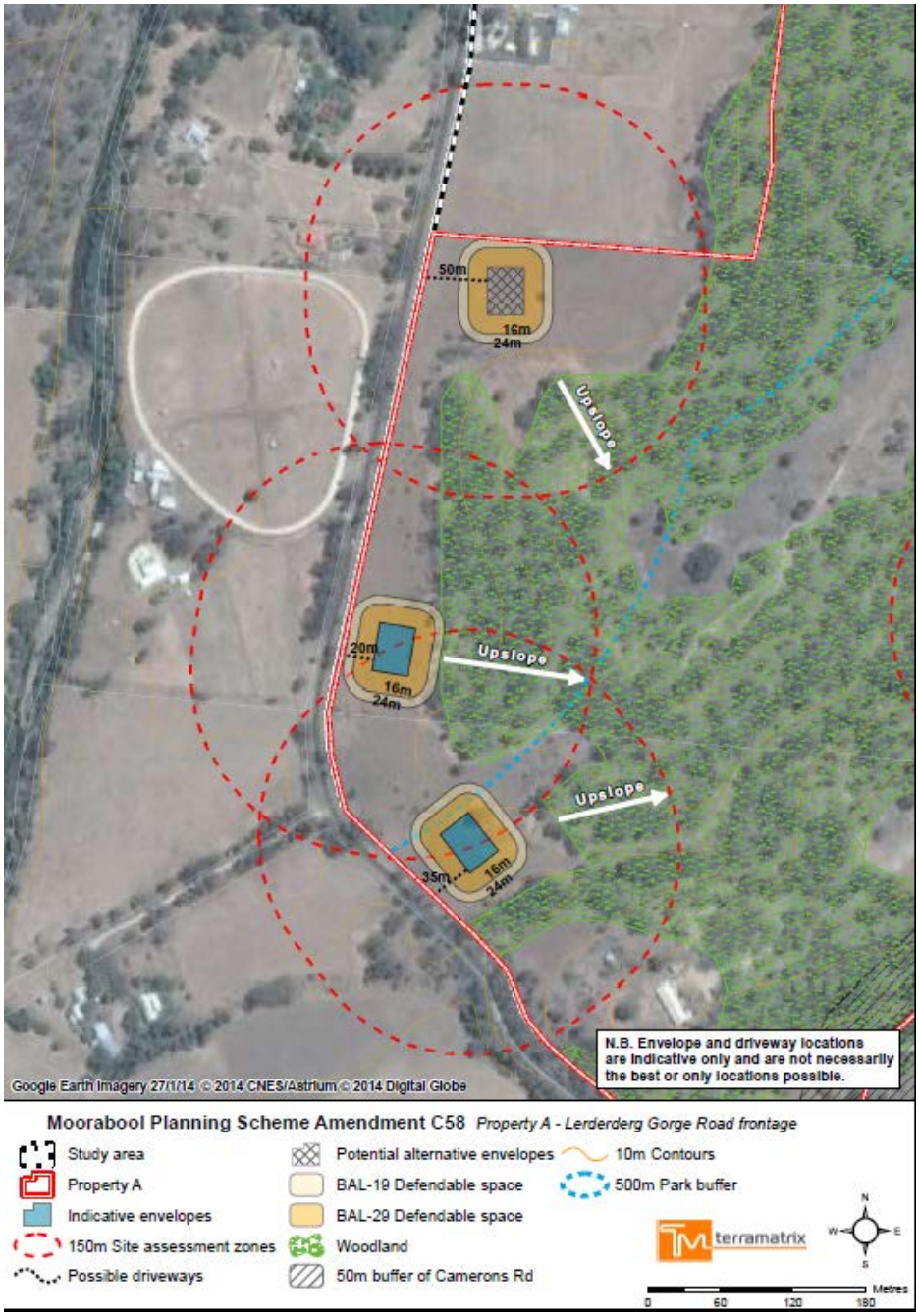
- Whether the proposed development and associated defendable space, vehicle access and other infrastructure will avoid and minimise the need for the removal of native vegetation.
- Whether the siting and design of proposed development will be in keeping with the landscape character of the area.
- Whether the proposed development is appropriately sited and designed to avoid erosion.
- Whether the specified setbacks have been provided from the Lerderderg State Park, Special Use Zone 2 (Earth and Energy Resources Industry), waterways and lot boundaries.

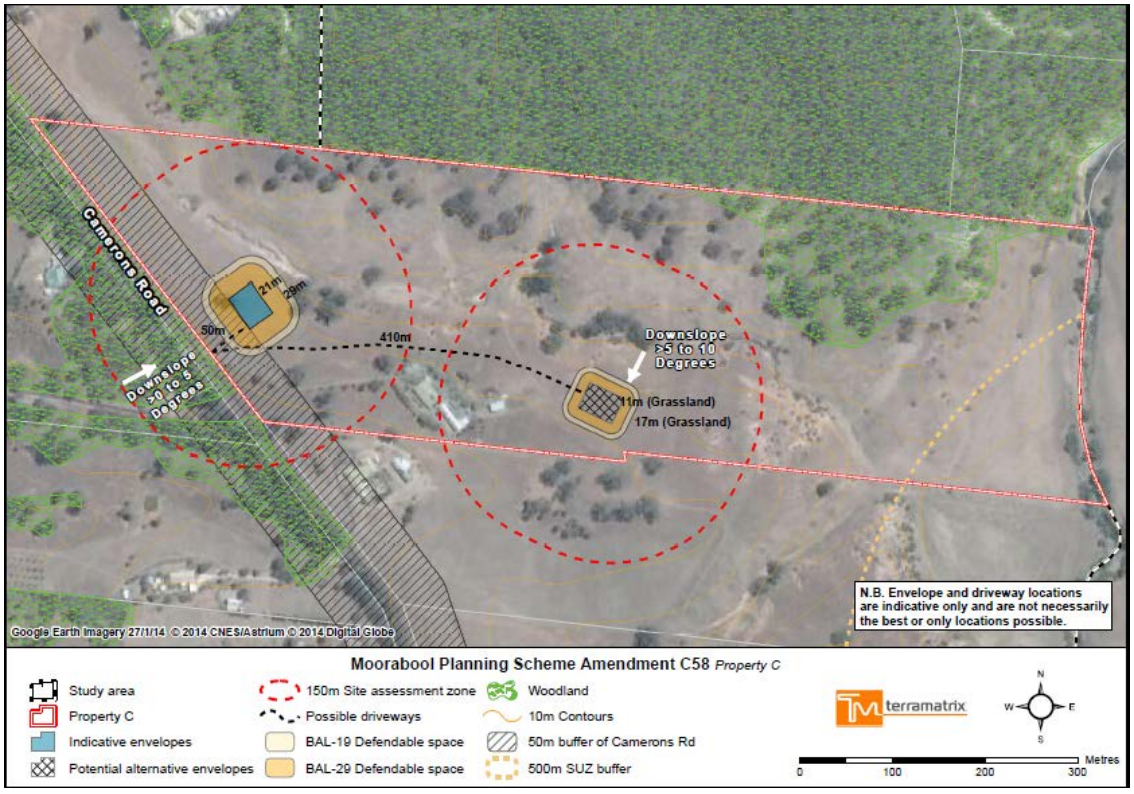
- Whether the proposed buildings or building envelopes are generally in accordance with the dwelling envelopes identified in Figure 1 of this schedule.
- Whether the bushfire risk from the site, the immediate area and the broader landscape has been mitigated to achieve an acceptable level of residual risk.
- Whether the specified setbacks have been provided from the Lerderderg State Park, waterways and lot boundaries.

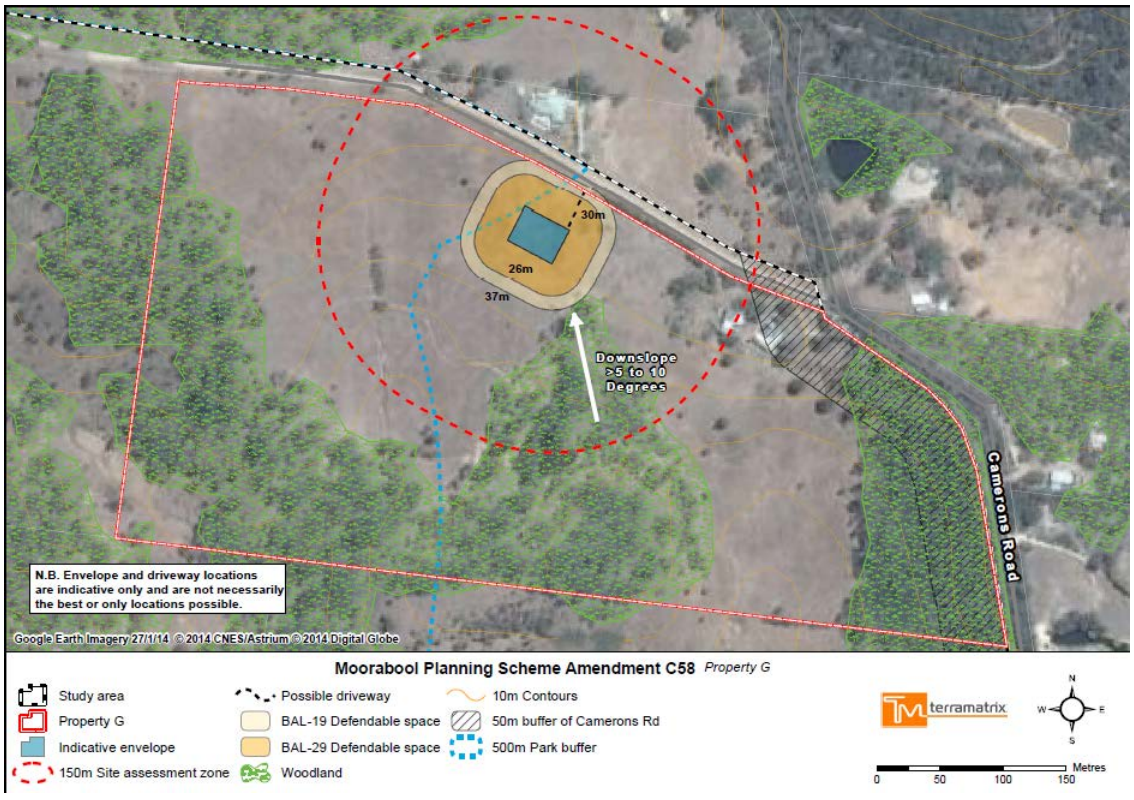
Figure 1 – Dwelling envelope plan

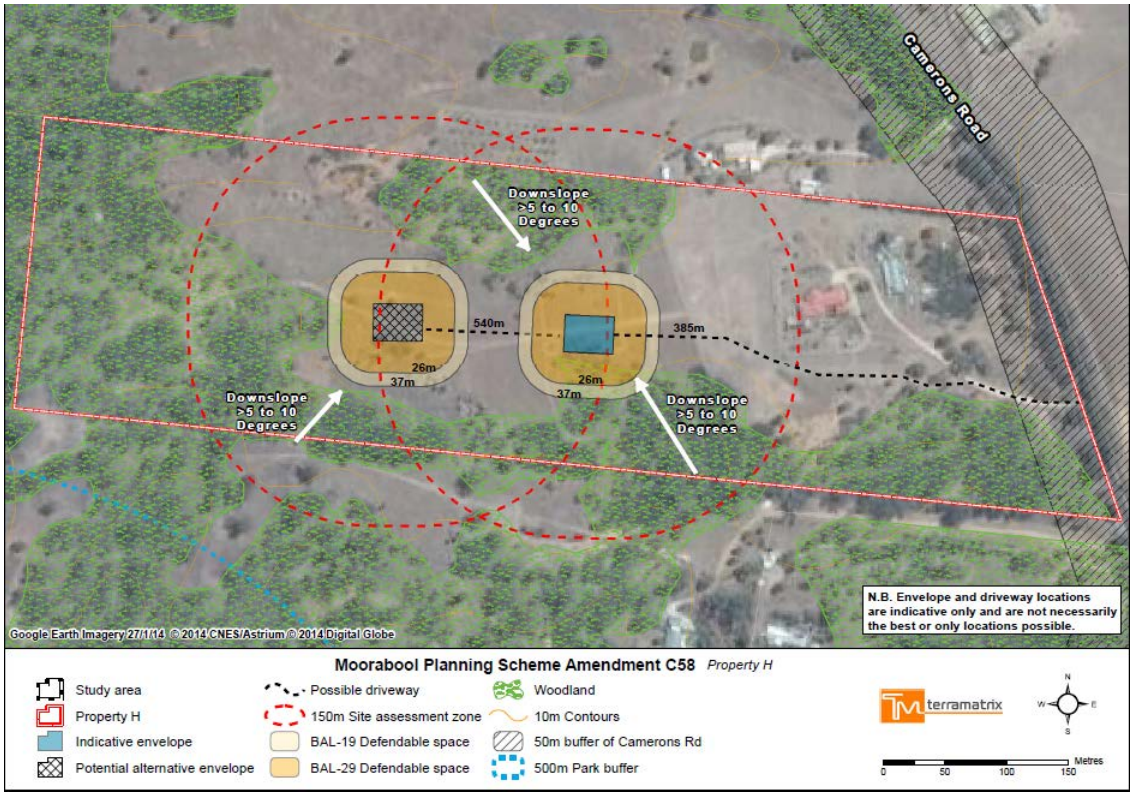


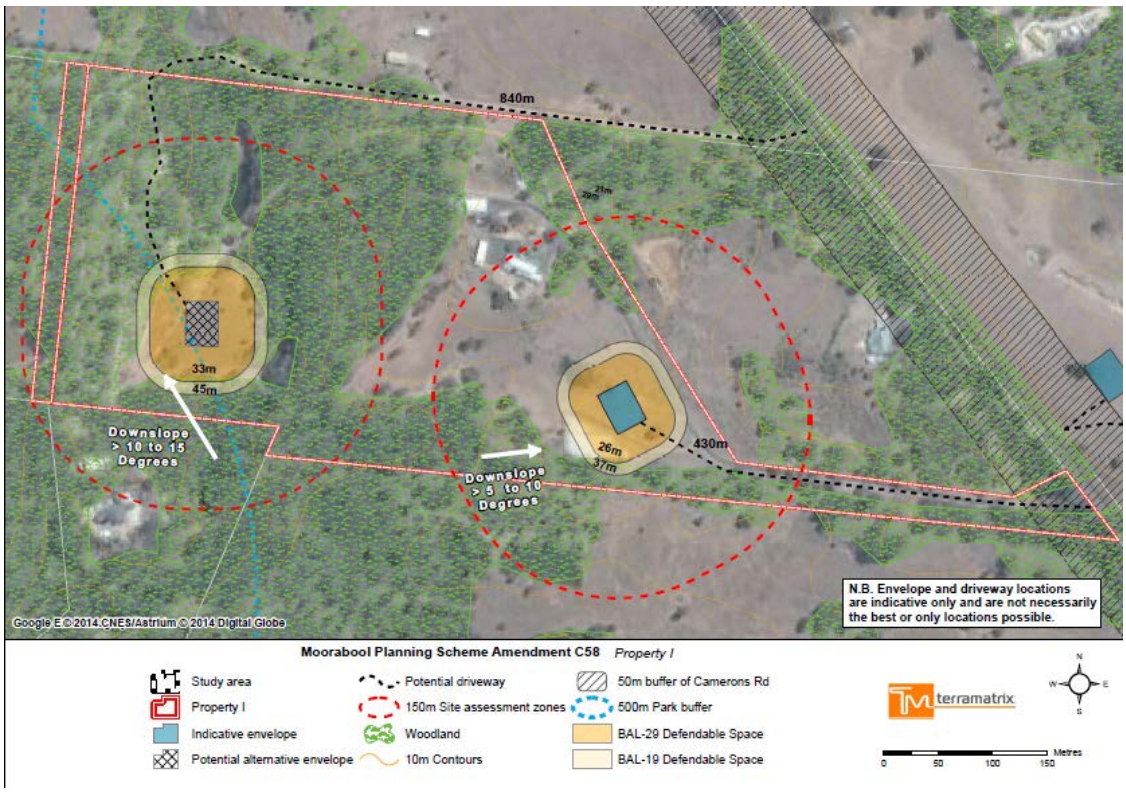

Camerons Road
Downslope >0 to 5 Degrees
150m
21m
29m
Downslope >0 to 5 Degrees
50m
21m
29m
Downslope >15 to 20 Degrees
50m
41m
56m
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58
Property A - Camerons Road frontage
Study area
Property A
Indicative envelope
Potential alternative envelope
150m Site assessment zones
Potential driveway
Woodland
10m Contours
50m buffer of Camerons Rd
500m Park buffer
500m SUZ buffer
BAL-29 Defendable Space
BAL-19 Defendable Space
terramatrix
N
W
E
S
Metres
0
50
100
150

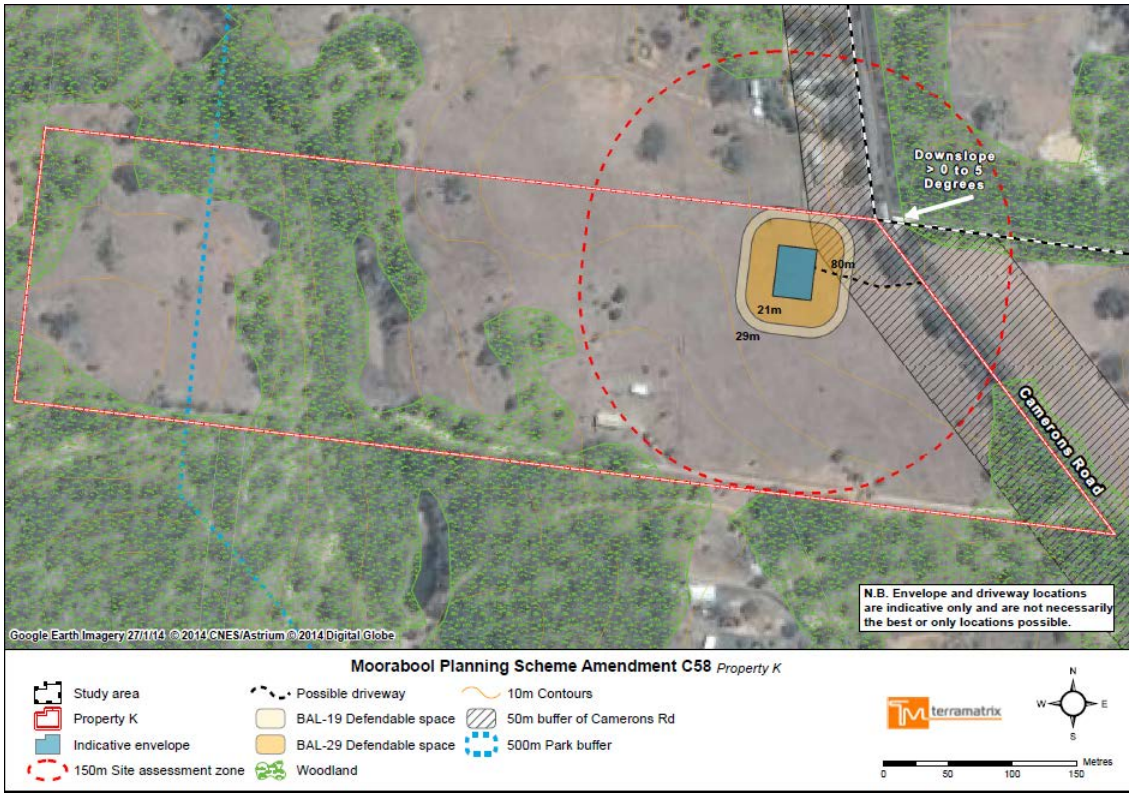

50m
16m
24m
Upslope
20m
16m
24m
Upslope
Upslope
35m
16m
24m
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property A - Lerderderg Gorge Road frontage
Study area
Property A
Indicative envelopes
150m Site assessment zones
Possible driveways
Potential alternative envelopes
BAL-19 Defendable space
BAL-29 Defendable space
Woodland
50m buffer of Camerons Rd
10m Contours
500m Park buffer
terramatrix
N
W
E
S
Metres
0
60
120
180

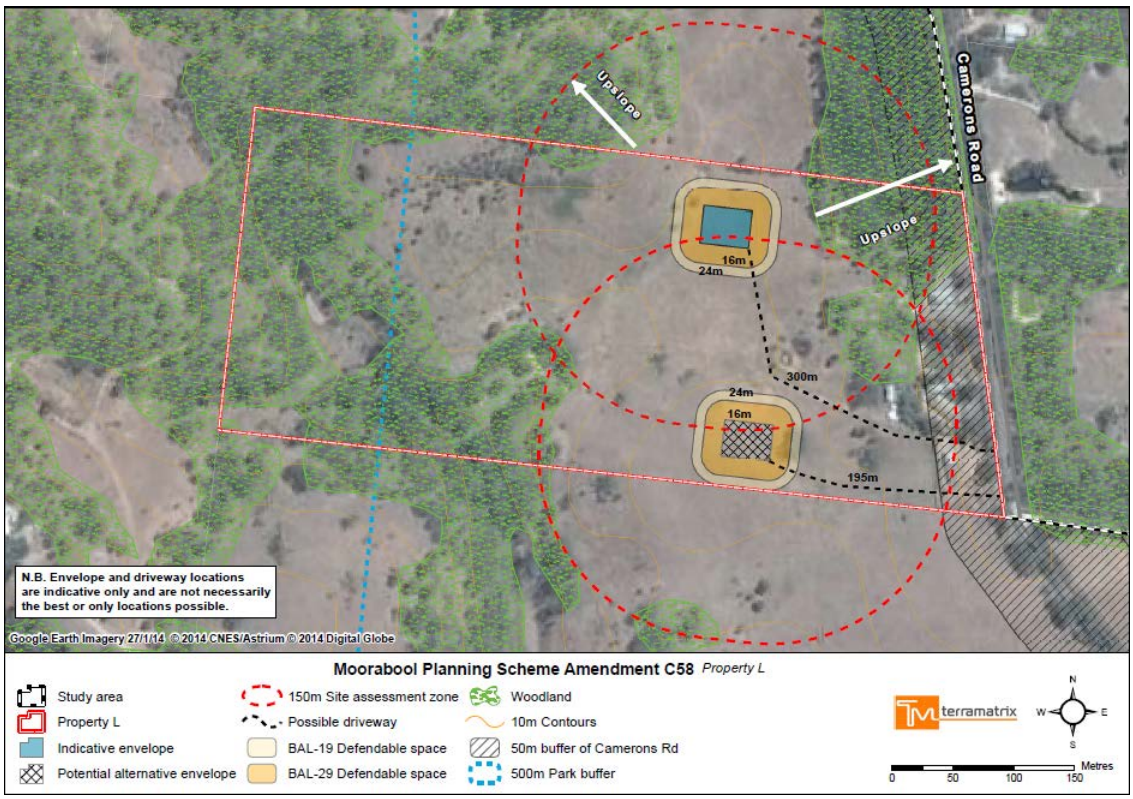

Camerons Road
21m
29m
50m
410m
Downslope >5 to 10 Degrees
Downslope >5 to 10 Degrees
11m (Grassland)
17m (Grassland)
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property C
Study area
Property C
Indicative envelopes
Potential alternative envelopes
150m Site assessment zone
Possible driveways
BAL-19 Defendable space
BAL-29 Defendable space
Woodland
10m Contours
50m buffer of Camerons Rd
500m SUZ buffer
terramatrix
N
W
E
S
Metres
0
100
200
300

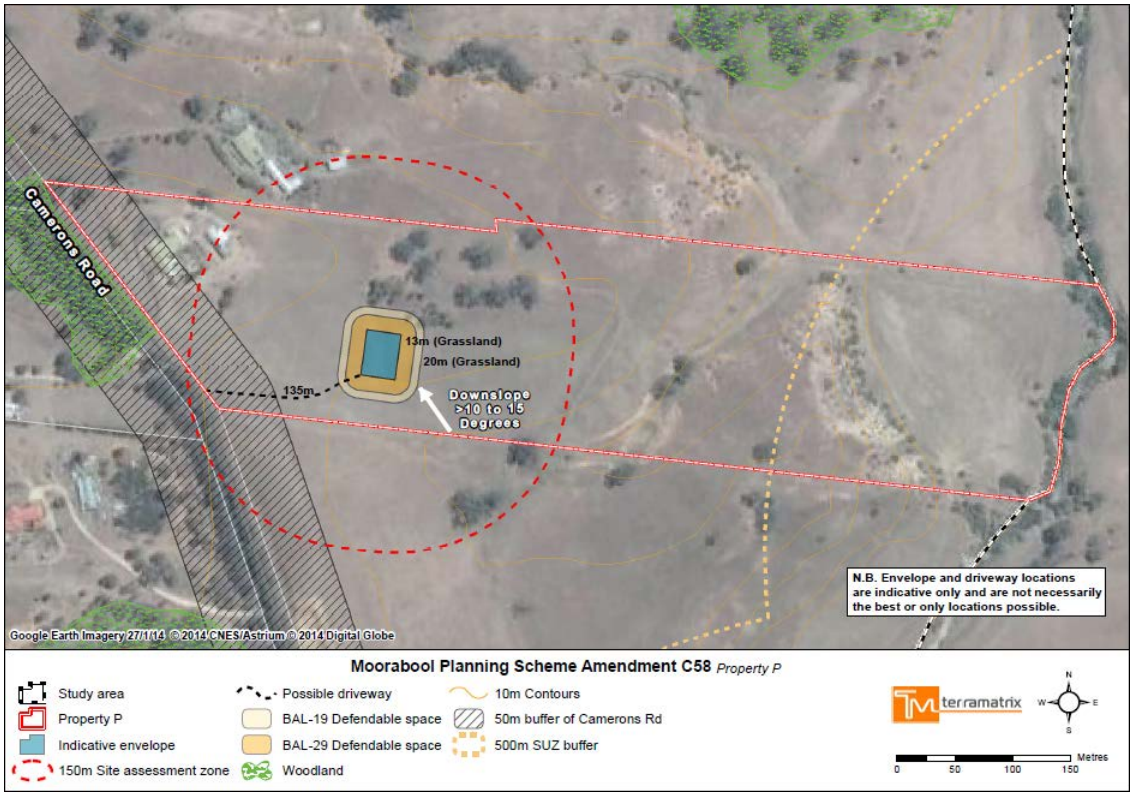

30m
26m
37m
Downslope >5 to 10 Degrees
Camerons Road
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property G
Study area
Property G
Indicative envelope
150m Site assessment zone
Possible driveway
BAL-19 Defendable space
BAL-29 Defendable space
Woodland
10m Contours
50m buffer of Camerons Rd
500m Park buffer
terramatrix
N
W
E
S
Metres
0
50
100
150

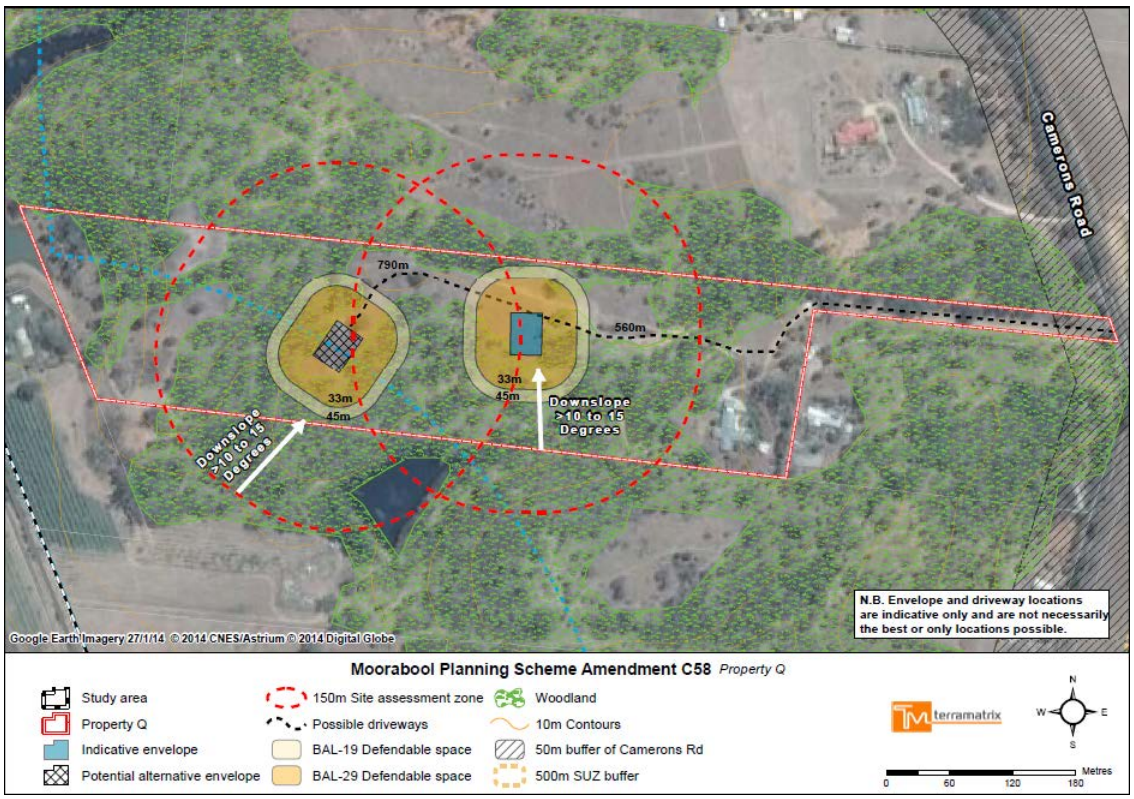

Camerons Road
Downslope >5 to 10 Degrees
540m
385m
26m
37m
26m
37m
Downslope >5 to 10 Degrees
Downslope >5 to 10 Degrees
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property H
Study area
Property H
Indicative envelope
Potential alternative envelope
Possible driveway
150m Site assessment zone
BAL-19 Defendable space
BAL-29 Defendable space
Woodland
10m Contours
50m buffer of Camerons Rd
500m Park buffer
terramatrix
N
W
E
S
0
50
100
150
Metres


840m
29m
21m
33m
45m
Downslope > 10 to 15 Degrees
Downslope > 5 to 10 Degrees
26m
37m
430m
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google E © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property I
Study area
Property I
Indicative envelope
Potential alternative envelope
Potential driveway
150m Site assessment zones
Woodland
10m Contours
50m buffer of Camerons Rd
500m Park buffer
BAL-29 Defendable Space
BAL-19 Defendable Space
terramatrix
N
W
E
S
0
50
100
150
Metres


Downslope
> 0 to 5
Degrees
80m
21m
29m
Camerons Road
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property K
Study area
Property K
Indicative envelope
150m Site assessment zone
Possible driveway
BAL-19 Defendable space
BAL-29 Defendable space
Woodland
10m Contours
50m buffer of Camerons Rd
500m Park buffer
terramatrix
N
W
E
S
Metres
0
50
100
150


Upslope
Camerons Road
Upslope
16m
24m
300m
24m
16m
195m
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property L
Study area
Property L
Indicative envelope
Potential alternative envelope
150m Site assessment zone
Possible driveway
BAL-19 Defendable space
BAL-29 Defendable space
Woodland
10m Contours
50m buffer of Camerons Rd
500m Park buffer
terramatrix
N
W
E
S
Metres
0
50
100
150


Camerons Road
13m (Grassland)
20m (Grassland)
135m
Downslope >10 to 15 Degrees
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property P
Study area
Property P
Indicative envelope
150m Site assessment zone
Possible driveway
BAL-19 Defendable space
BAL-29 Defendable space
Woodland
10m Contours
50m buffer of Camerons Rd
500m SUZ buffer
terramatrix
N
W
E
S
Metres
0
50
100
150


Camerons Road
790m
560m
33m
45m
33m
45m
Downslope >10 to 15 Degrees
Downslope >10 to 15 Degrees
N.B. Envelope and driveway locations are indicative only and are not necessarily the best or only locations possible.
Google Earth Imagery 27/1/14 © 2014 CNES/Astrium © 2014 Digital Globe
Moorabool Planning Scheme Amendment C58 Property Q
Study area
Property Q
Indicative envelope
Potential alternative envelope
150m Site assessment zone
Possible driveways
BAL-19 Defendable space
BAL-29 Defendable space
Woodland
10m Contours
50m buffer of Camerons Rd
500m SUZ buffer
terramatrix
N
W
E
S
Metres
0
60
120
180

Attachment - Item 10.2.8(c)

West Region
19 Learmonth Road, Wendouree Vic 3355
PO Box 222W, Ballarat West Vic 3350
T:03 5329 5500 F:03 5329 5582

Our Ref: **69009-688143-694496**
Telephone: **0419 489 491**
Council Ref: **C58**
Trax Ref: **lup_28**

30 September 2015

Lisa Gervasoni
Moorabool Shire Council
PO Box 18
BALLAN VIC 3342

Dear Lisa,

CAMERONS ROAD, BACCHUS MARSH

The Moorabool Planning Scheme Amendment C58 Panel Report provided a recommendation (recommendation no. 3) that the location for indicative envelopes for lots subject to the Bushfire Management Overlay that rely on Camerons Road for access (Lots A, C, P, Q, H, I, L and G) be reviewed to identify optimum development envelopes.

Subsequent to the Panel Hearing, Hamish Allen of Terramatrix has provided a "Further Investigation report" (June 2015) with some alternative "indicative" building envelopes.

CFA met with Hamish Allen and a number of property owners in Camerons Road on 9th September 2015 to review the alternate building envelopes.

CFA has considered the suitability of alternate building envelopes in light of the Panel recommendation that they should:

a) Ensure long driveways are avoided and the separation from the fuel hazard is maximised.
b) Consider whether there should be a combination of more generous defendable space and more robust construction standard than is normally required by the BMO to address the risk of fire from the landscape.
c) Continue to preclude further residential development in the north-west of the Amendment Area, being the land that was excluded from Terramatrix assessments and Lot N.

Comment is provided below for each alternative building envelope shown on pages 11 – 21 of the June 2015 Terramatrix report.

Lot A (western side of Camerons Road) – (Map 4 - Page 12) Either of the indicative envelopes (the top two) on the western side of Camerons Road are acceptable. The potential alternative location as shown on the map does not maximise the separation from the hazard, and is not considered acceptable.

Lot A (eastern side of Lerderderg Gorge Road) – (Map 5 – page 13) Each of the three proposed building envelopes are acceptable. The potential alternative to the north seems to maximise separation from the hazard the most.

Lot C (Map 6 – page 14) - The indicative envelope closer to the road is a better location in terms of access, however the possible alternative envelope would be acceptable with access to the south of the existing dwelling. CFA understands that there may be issues with proximity to the water course for the indicative envelope.

Lot G (Map 7 – page 15) – The indicative envelope location is acceptable.

Lot H (Map 8 – page 16) – The indicative envelope closest to the road is the preferred location. The alternate location further back from Camerons Road is also acceptable.

Lot I (Map 9 – page 17) – The indicative envelope closer to the public road and further from the hazard is better than the potential alternative. CFA does not support the proposed alternative envelope at the rear of the property due to excessive travel distance (~ 850 metres), and proximity to the landscape hazard.

Lot K (Map 10 – page 18) – The indicative envelope location is acceptable.

Lot L (Map 11 – page 19) – The potential alternative envelope (to the south) is a better location due to access. The proposed envelope to the north would also be acceptable if necessary.

Lot P (Map 12 – page 20) – The indicative building envelope location is acceptable.

Lot Q (Map 13 – page 21) – The indicative building envelope is the preferred location due to the length of access.

Please feel free to contact me on 0419 489 491 if you wish to discuss this report.

Yours sincerely

Michael Boatman
Manager Community Safety
CFA West Region

Attachment - Item 10.2.8(d)

SCHEDULE 5 TO THE DESIGN AND DEVELOPMENT OVERLAY

Shown on the planning scheme map as **DDO5**

CAMERONS ROAD BACCHUS MARSH - RURAL LIVING AREA

1.0 Design objectives

- To provide for limited rural living development of the land.
- To protect the water quality of Goodmans Creek and the Lerderderg River.
- To retain and protect remnant native vegetation and wildlife habitat on the land.
- To protect the treed landscape values of the land.
- To protect the nature conservation values and habitat values of the adjacent Lerderderg State Park.
- To ensure residential development does not create additional constraints on the ongoing operation of the extractive industries to the east as defined by the Special Use Zone Schedule 2 or encroach into the associated separation distance requirements.
- To ensure that dwellings are only developed where bushfire risk associated with site, the immediate area and the broader landscape is mitigated to an acceptable level.
- To direct dwellings to locations where appropriate bushfire protection measures can be readily implemented without adverse impacts on environmental values.

2.0 Buildings and works

A planning permit is not required for the following buildings and works:

- Any buildings or works associated with the use of an existing dwelling
- Any buildings or works associated with the existing use of the land for agriculture.

All new buildings must be sited at least 500 metres from the extractive industries as defined by the Special Use Zone Schedule 2. A permit cannot be granted to vary this requirement.

All new buildings should be sited:

- At least 100 metres from Goodmans Creek or the Lerderderg River;
- At least 500 metres from the Lerderderg State Park except that new dwellings located on Properties A, O and J shown on Figure 1 attached to this schedule may be located within the 500 metre setback to the Lerderderg State Park if the written consent of DELWP is provided.
- At least 30 metres for a dwelling and 50 metres for other buildings from a road boundary and 10 metres from other boundaries; and
- To avoid slopes of greater than 20% (11º) where possible.

All new dwellings should be sited generally in accordance with the indicative dwelling envelope locations in accordance with Clause 5 and Figure 1 of this schedule.

Application Requirements

A permit application must be accompanied by plans and information comprising the following:

- A site analysis and design response which shows relevant site features and constraints and the proposed design responds to those features and constraints. Constraints to be addressed, as relevant, include separation from extractive industry, bushfire risk, significant native vegetation, topography and erosion risk.
- A proposed development plan showing:
  - Proposed dwelling and outbuilding location
  - Elevations of proposed buildings, materials and colours
  - Site contours
  - Waterways, drainage lines and dams
  - The access point and internal driveway alignment that is suitable for emergency vehicles and minimises the distance to the road
  - Existing native vegetation
  - Proposed landscaping and tree planting
  - The location of wastewater treatment systems and effluent disposal field, sited so as to avoid and minimise the removal of native vegetation, and so as to protect water quality in waterways;
  - Setbacks from the Lerderderg State Park, Special Use Zone 2 (Earth and Energy Resources Industry), waterways, roads and lot boundaries
  - The location of water storage for fire fighting purposes of at least 10,000 litres within 60 metres of the dwelling, or as required by the Country Fire Authority.
- A flora and fauna assessment if native vegetation is to be removed
- A Bushfire Development Report as required under Clause 4 of this schedule
- A Land Management Plan as set out in Clause 6 of this schedule
- A Land Capability Assessment, to demonstrate how wastewater can be treated and disposed of within the boundaries of the allotment.

Note: At the discretion of the responsible authority, a Flora and Fauna Assessment, Land Management Plan or Land Capability Assessment may not be required, if the proposal is consistent with any such documents which may have been approved under Schedule 4 to Clause 43.04 of this planning scheme or endorsed under a previous permit.

A permit application for buildings and works is exempt from the notice requirements of Section 52(1)(a), (b) and (d), the decision requirements of Section 64(1), (2) and (3) and the review rights of Section 82(1) of the Act if the setback requirements detailed in this clause are met.

Notice of an application must be given in accordance with Section 52(1)(c) of the Act to the person or body specified as a person or body to be notified in the Schedule to Clause 66.06.

3.0 Subdivision

Application Requirements

A permit application for subdivision of land must be accompanied by plans and information comprising the following:

- A site analysis and design response which shows relevant site features and constraints and how the proposed design responds to those features and constraints. Constraints to be addressed, as relevant, include separation from extractive industry, bushfire risk, significant native vegetation, topography and erosion risk.
- A proposed subdivision layout plan which shows the following details:
  - Existing title boundaries
  - Proposed lot boundaries (including approximate areas for each lot) providing for a site responsive and functional subdivision configuration
  - Site contours
  - Waterways, drainage lines and dams
  - Existing native vegetation
  - Road and driveway alignments suitable for emergency vehicles
  - A dwelling envelope for each proposed lot which should~~must~~ be sited generally in accordance with Clause 5 and the indicative dwelling envelope locations shown in Figure 1 of this schedule
  - Defendable space for each dwelling envelope, based on the Bushfire Development Report required under Clause 4 of this schedule
  - An effluent disposal envelope for each proposed lot, sited so as to protect surface water quality,
  - The location of water storage for fire fighting purposes of at least 10,000 litres within 60 metres of each building envelope, or as required by the Country Fire Authority.
- A Flora and Fauna Assessment prepared in consultation with the Department of Environment, Land, Water and Planning if native vegetation is to be removed.
- A Land Management Plan as set out in Clause 6 of this schedule.
- A Land Capability Assessment, to demonstrate how wastewater can be treated and disposed of within the boundaries of the proposed lots. The land capability assessment must recommend a location and dimensions of an effluent disposal envelope for each lot.

  Note: At the discretion of the responsible authority, a Flora and Fauna Assessment, Land Management Plan or Land Capability Assessment may not be required, if the proposal is consistent with any such documents which may have been approved under Schedule 4 to Clause 43.04 of this planning scheme, or endorsed under a previous permit.

The formal plan of subdivision submitted for certification must include a restriction showing a dwelling envelope and effluent disposal envelope for each lot. The restriction shall be to the effect of:

- *"The registered proprietor shall not allow a building to be constructed except within the dwelling envelope shown hatched.*

  A 'building' includes any structure except a fence."

- *"The registered proprietor shall not allow an effluent disposal field to be constructed except within the effluent disposal envelope shown cross-hatched."*

- Where a subdivision creates a lot(s) of less than 6 hectares and a lot(s) of 12 hectares or greater than the permit must include the following condition:
  - *Before a statement of compliance for the subdivision issues, the owner of the land must enter into an agreement with the Responsible Authority pursuant to section 173 of the Planning and Environment Act 1987, covenanting that any further subdivision will only provide for the creation of a lot for a dwelling shown on the Dwelling Envelope Plan attached to schedule 5 to Design and Development Overlay in the Moorabool Planning Scheme. The owner must pay all costs in relation to the preparation and registration of the agreement, and must provide evidence that the agreement has been registered on title, before the issue of a statement of compliance*.

4.0 Bushfire Development Report

A Bushfire Development Report must be prepared to the satisfaction of the Responsible Authority, to ensure appropriate bushfire risk mitigation measures are incorporated in the development and implemented on an ongoing basis.

To take account of bushfire risk in both the immediate area and the broader landscape:

- Bushfire protection measures in excess of those required under the Bushfire Management Overlay may be required on land where that overlay applies.
- Bushfire protection measures specified under the Bushfire Management Overlay apply to Bushfire Prone areas on the eastern side of Camerons Road.

The siting of buildings, vegetation management, water supply and access and egress measures should be able to be readily implemented and managed within the property without significant environmental impacts.

In assessing the Bushfire Development Report the responsible authority will consult with the Country Fire Authority and have regard to their views.

5.0 Dwelling Envelopes

Figure 1 (Indicative Dwelling Envelope Plan) attached to this schedule identifies the number and location of additional dwellings to be accommodated by indicative dwelling envelopes. Figures 2-11 show properties where alternative dwelling envelopes may be considered where all other provisions of this overlay cannot be met.

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New dwellings should be located generally in accordance with the dwelling envelope location shown in Figure 1 (Indicative Dwelling Envelope Plan). A permit can only be issued for an alternative dwelling envelope location if it is demonstrated that all objectives and provisions of this overlay and other parts of the planning scheme are met.

NOTE: The Dwelling Envelopes indicate the maximum number of dwellings allowed and have been sited to minimise the impacts of environmental constraints, comply with the extractive industry buffer and to mitigate bushfire risk from the site, the immediate area and the broader landscape.

The dwelling envelope(s) must:

- Be at least 500 metres from the extractive industries to the east as defined by the Special Use Zone Schedule 2.

- Meet the requirements of the Bushfire Development Report required by Clause 4 of this schedule.

A permit cannot be granted to vary these requirements.

The dwelling envelope(s) should:

- Avoid significant native vegetation
- Avoid slopes of greater than 20% (11º) where possible.
- Be at least 100 metres from Goodmans Creek or the Lerderderg River;
- Be at least 500 metres from the Lerderderg State Park except that new dwellings located on Properties A, O and J shown on Figure 1 attached to this schedule may be located within the 500 metre setback to the Lerderderg State Park with the written consent of DELWP.
- Be at least 30 metres for a dwelling and 50 metres for other buildings from a road boundary and 10 metres from other boundaries.

6.0 Land Management Plans

A Land Management Plan should form part of an application to subdivide land or develop a dwelling and should include:

- A description of natural and associated features of the land including topography, soils, vegetation type, land use potentials, and threats to the sustainability of the land and its associated biodiversity values.
- Management requirements to achieve sustainable land use covering:
  - Access arrangements
  - Pest plants and animals control
  - Biodiversity management including the protection/enhancement of native vegetation
  - Drainage and soil conservation
  - Screening vegetation (if required)
  - Any other matter considered to be of relevance to the responsible authority.

Before a statement of compliance for the subdivision or the certificate of occupancy for a new dwelling is issued, the owner of the land must enter into an agreement with the responsible authority pursuant to section 173 of the *Planning and Environment Act 1987*, covenanting that the land will be managed in accordance with the endorsed Land Management Plan. The owner must pay all costs in relation to the preparation and registration of the agreement, and must provide evidence that the agreement has been registered on title, prior to the issue of a statement of compliance.

7.0 Decision guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- Whether the proposed development and associated defendable space, vehicle access and other infrastructure will avoid and minimise the need for the removal of native vegetation.
- Whether the siting and design of proposed development will be in keeping with the landscape character of the area.
- Whether the proposed development is appropriately sited and designed to avoid erosion.

- Whether the specified setbacks have been provided from the Lerderderg State Park, Special Use Zone 2 (Earth and Energy Resources Industry), waterways and lot boundaries.
- Whether the proposed buildings or building envelopes are generally in accordance with the dwelling envelopes identified in Figure 1 of this schedule.
- Whether the bushfire risk from the site, the immediate area and the broader landscape has been mitigated to achieve an acceptable level of residual risk.
- Whether the specified setbacks have been provided from the Lerderderg State Park, waterways and lot boundaries.

Figure 1 – Indicative Dwelling envelope plan

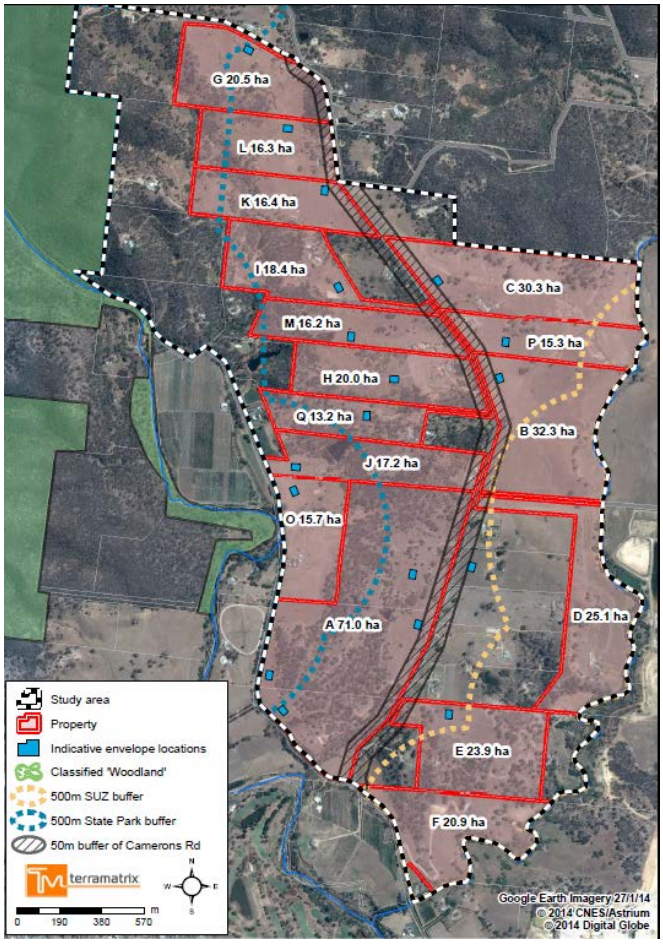

Figure 2 – Property A Indicative Dwelling envelope plan

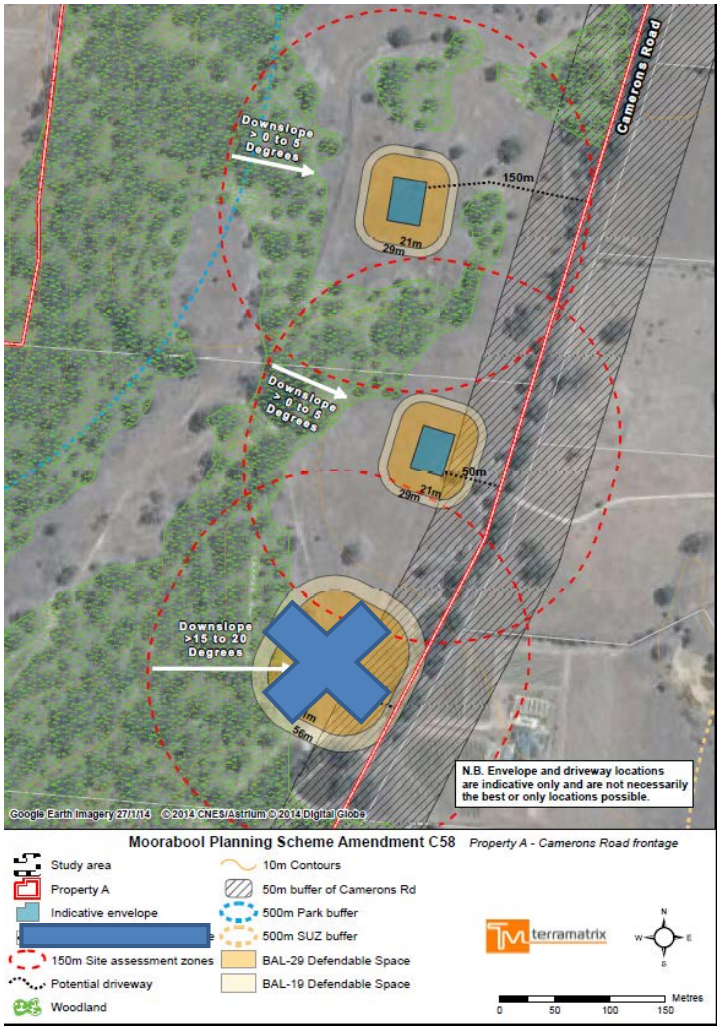

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Figure 3 – Property A Indicative and Alternative Dwelling envelope plan

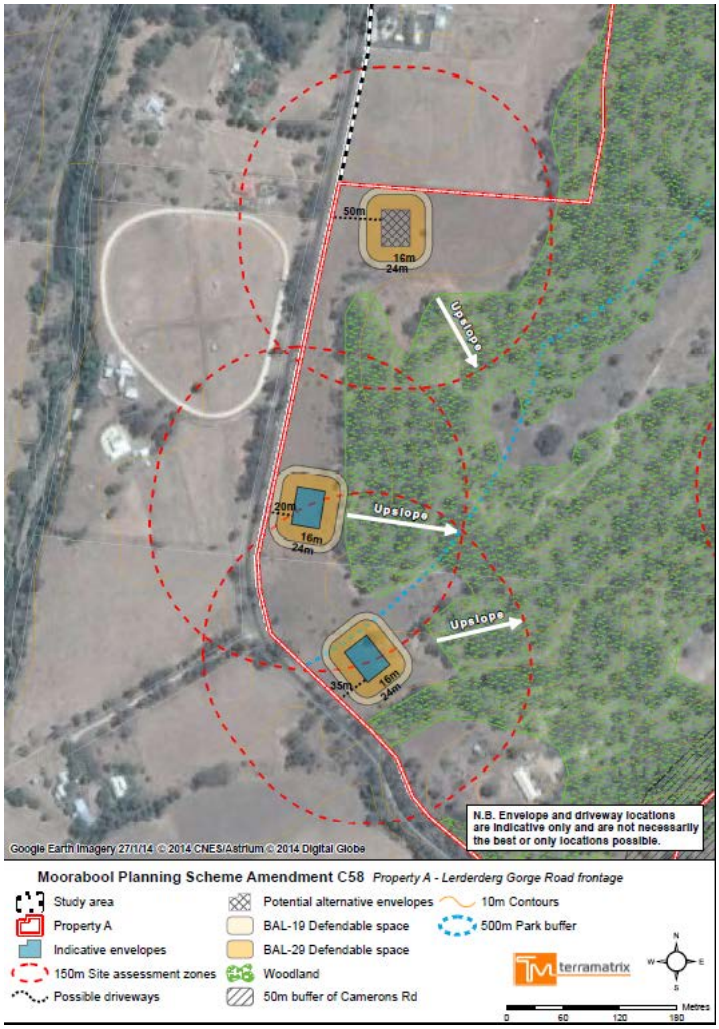

Figure 4 – Property C Indicative and Alternative Dwelling envelope plan

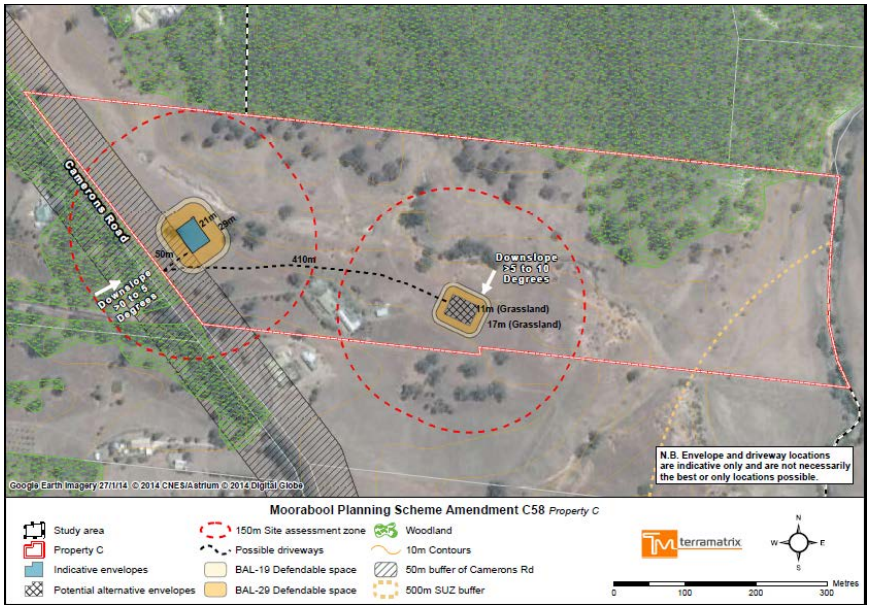

Figure 5 – Property G Indicative Dwelling envelope plan

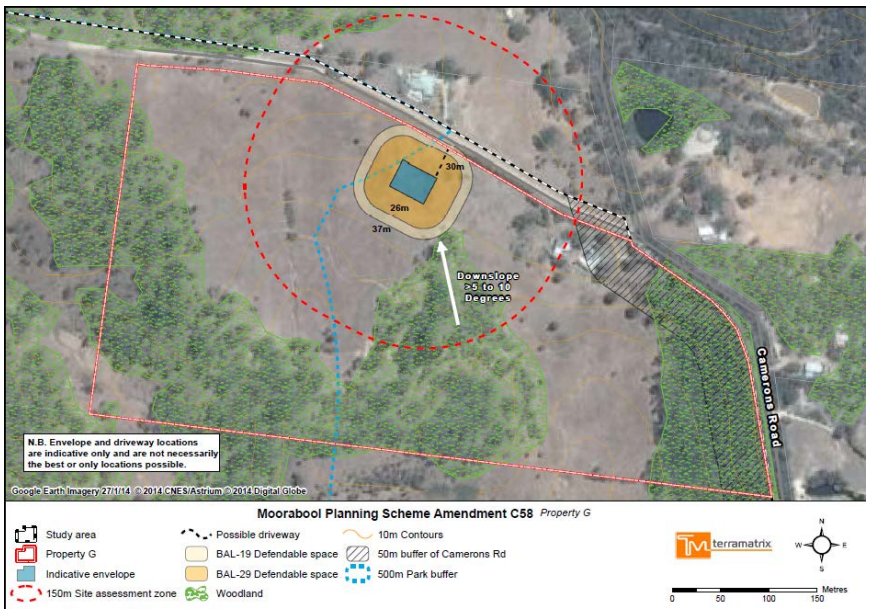

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Figure 6 – Property H Indicative and Alternative Dwelling envelope plan

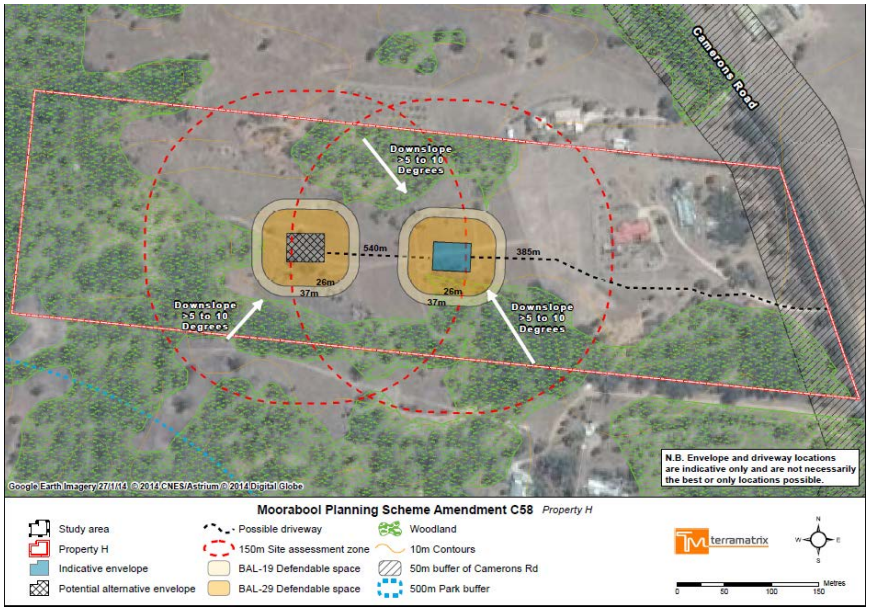

Figure 7 – Property I Indicative Dwelling envelope plan

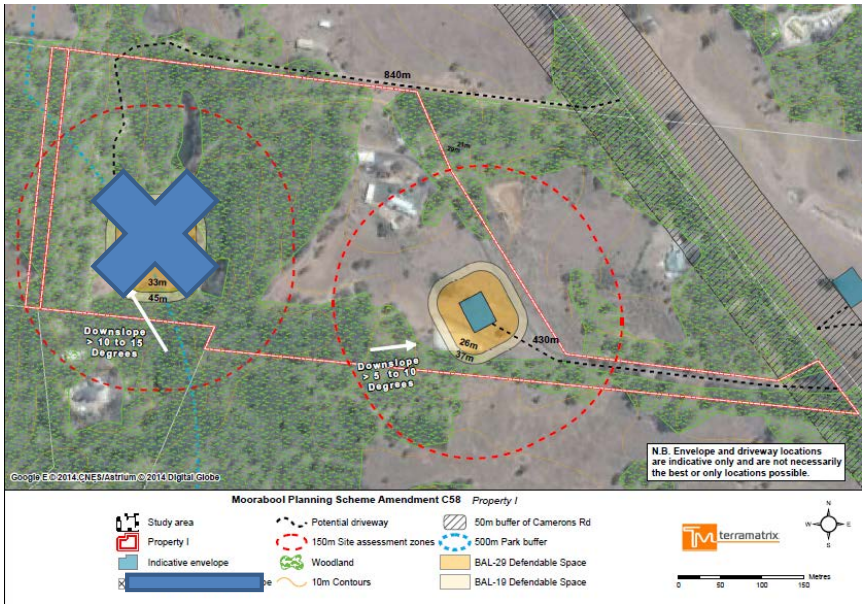

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Figure 8 – Property K Indicative Dwelling envelope plan

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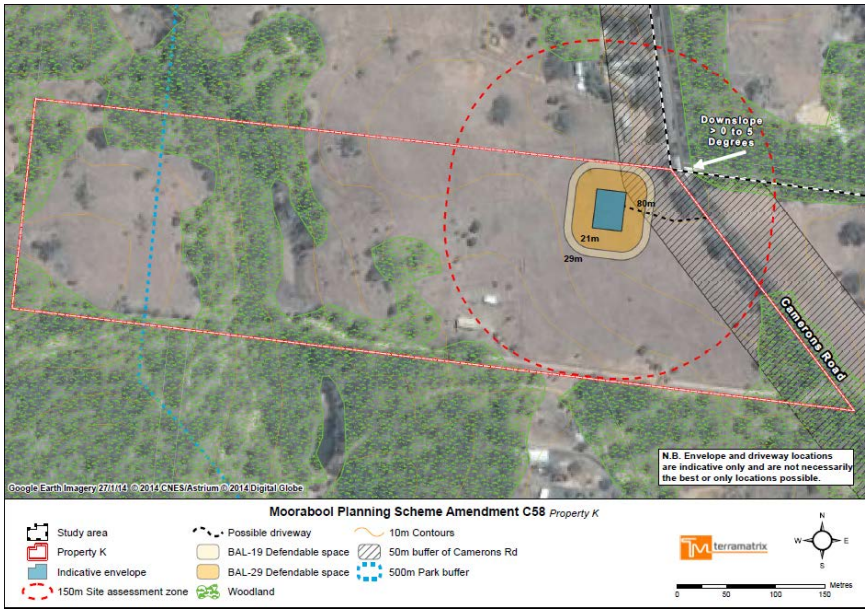

Figure 9 – Property L Indicative and Alternative Dwelling envelope plan

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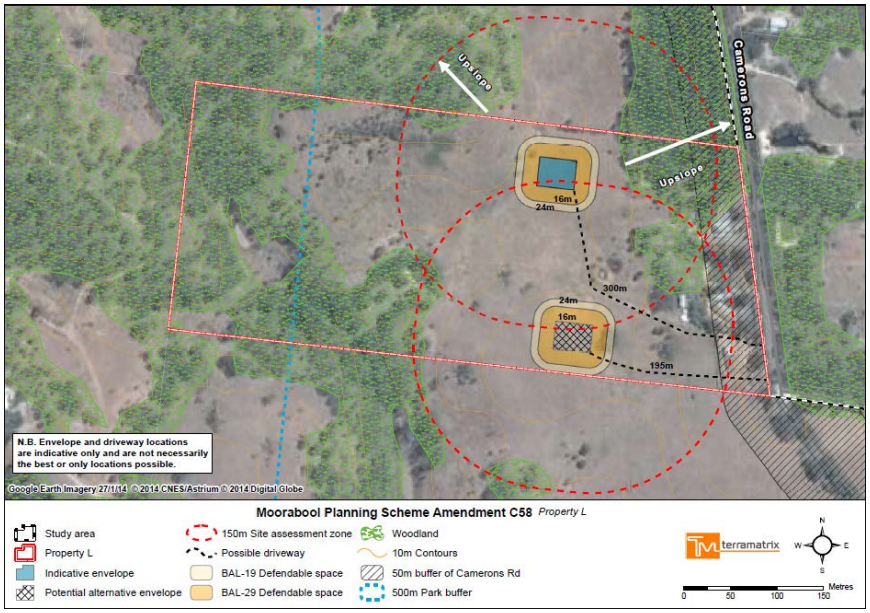

Figure 10 – Property P Indicative Dwelling envelope plan

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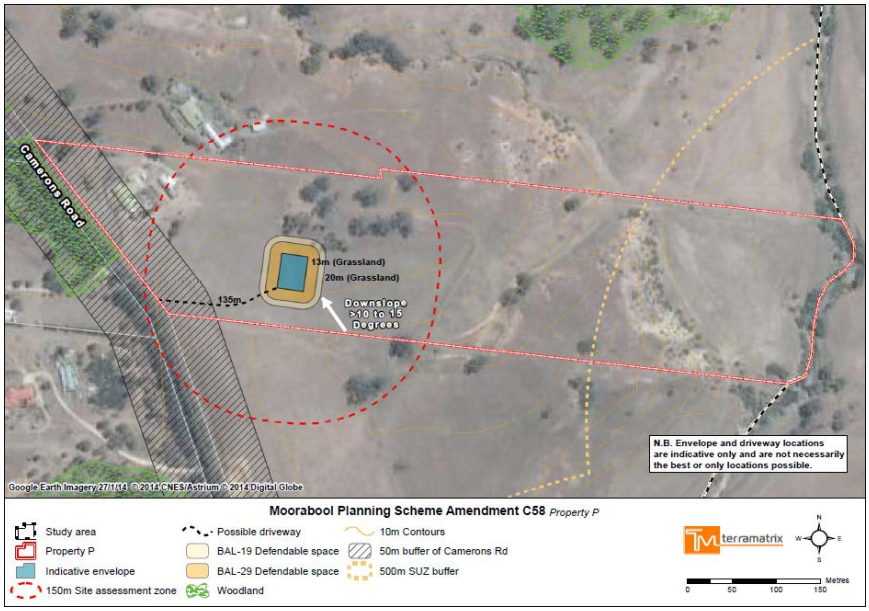

Figure 11 – Property Q Indicative Dwelling envelope plan

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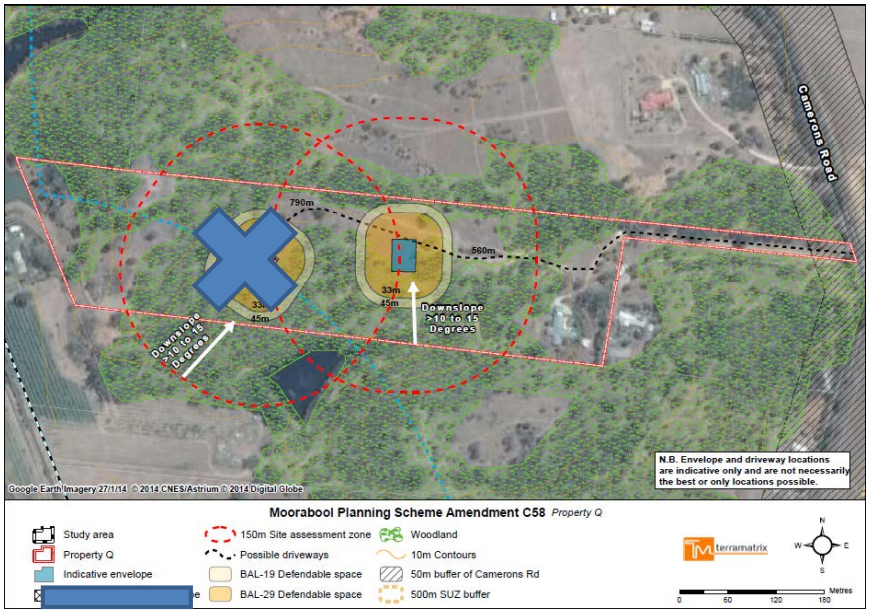
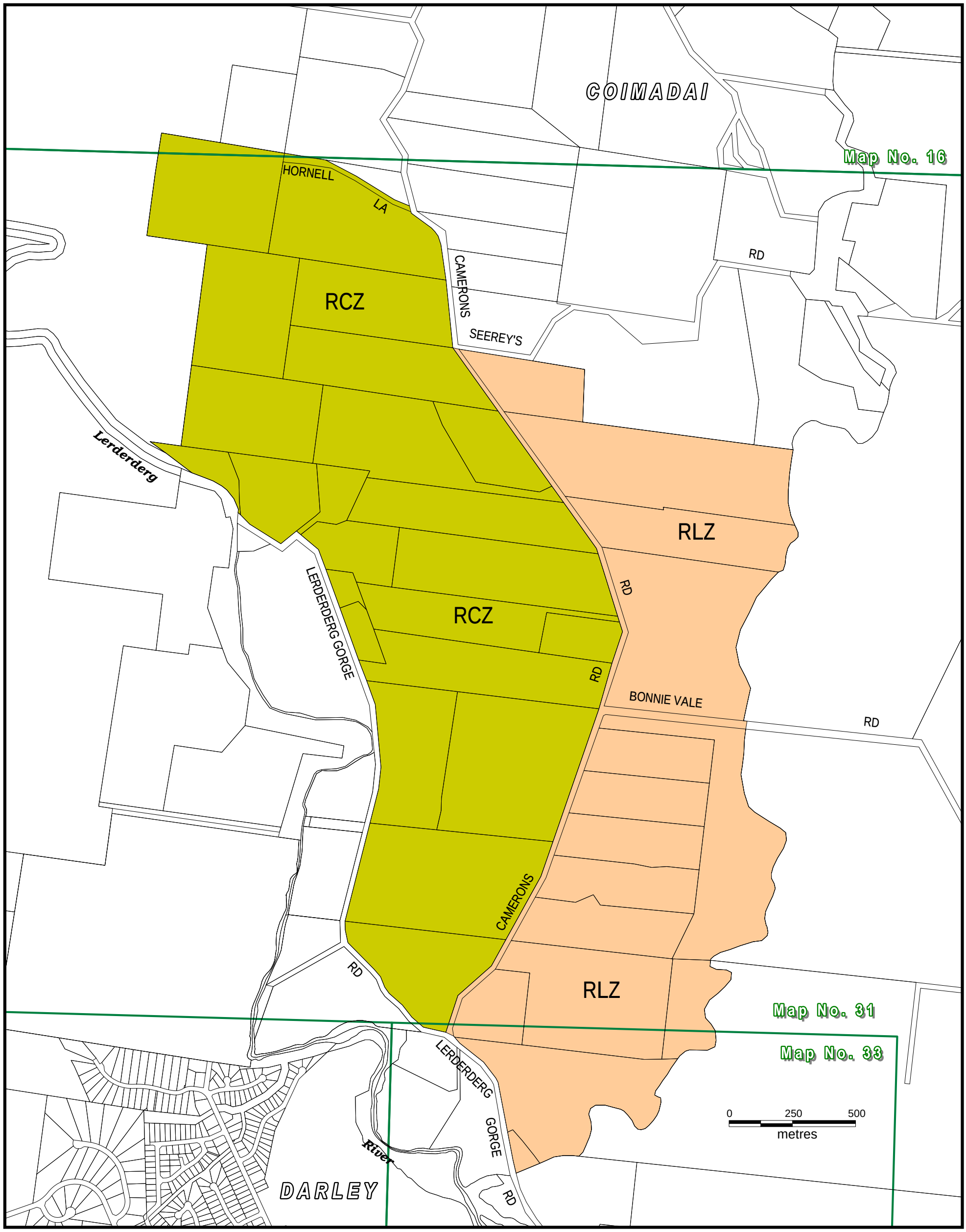


MOORABOOL PLANNING SCHEME LOCAL PROVISION



Part of Planning Scheme Maps 16,31,33

LEGEND

RLZ	RURAL LIVING ZONE
RCZ	RURAL CONSERVATION ZONE

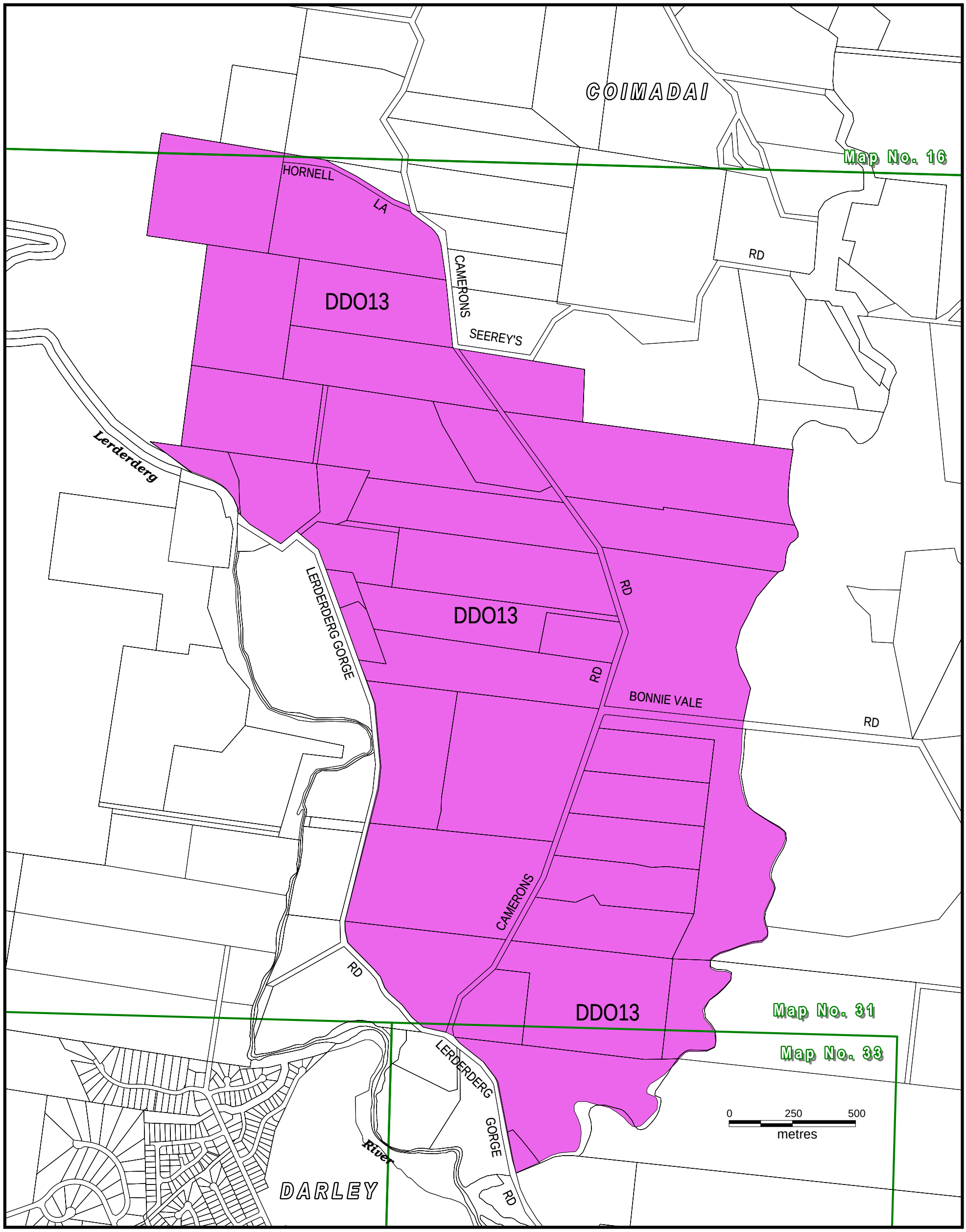
AMENDMENT C58

| Planning Mapping Services |
| Amendments Coordination Team |
| Planning & Building Systems |
| Planning, Building & Heritage |

Department of Transport, Planning and Local Infrastructure

State Government Victoria

MOORABOOL PLANNING SCHEME LOCAL PROVISION



Part of Planning Scheme Maps 16DDO, 31DDO, 33DDO

LEGEND

DDO13 DESIGN AND DEVELOPMENT ZONE - SCHEDULE 13

AMENDMENT C58

| Planning Mapping Services |
| Amendments Coordination Team |
| Planning & Building Systems |
| Planning, Building & Heritage |

Department of Transport, Planning and Local Infrastructure

State Government Victoria

002

Attachment - Item 10.2.9

Mr Phil Honeywood
Chair
Victorian Environmental Assessment Council
PO Box 500
EAST MELBOURNE VIC 3002
veac@delwp.vic.gov.au

13 November 2015
REF:
RN:
File:

Dear Mr Honeywood,

Submission on behalf of Moorabool Shire Council
Historic Places Investigation Draft Proposals Paper

Moorabool Shire Council wishes to congratulate VEAC on undertaking this investigation of the challenges and opportunities of managing public heritage. Council understands that VEAC itself has restrictions on its terms of reference. These restrictions do not apply to how the government may choose to implement the recommendations of VEAC and Council hopes that the final recommendations, where relevant, will apply to all public land managers whether they be state or local government agencies.

Background ï funding available to local government to support heritage

Local Government, like many state agencies, has responsibilities in relation to heritage management under statutes. These responsibilities are not directly referenced in the Local Government Act. Moorabool has a small rate base and a large area. Heritage studies have not been undertaken for the entire municipal area and only the 1995 Bacchus Marsh Heritage Study has been included in the planning scheme. Council finds it difficult to raise the funds to identify heritage places or to manage those places in Council ownership.

Unlike most state agencies, Moorabool Shire have many roles in relation to heritage, including:

- Legislative ï statutory function to identify places of significance.
- Decision Maker ï decision maker for applications under the Planning Scheme.
- Owner / Manager: manager of places included in the heritage overlay or on the Victorian Heritage Register.
- Promoter: Council promotes the places and stories of Moorabool through tourism and economic development activities.
- Supporter: providing assistance through information or grants to local community groups and organisations who manage heritage places on Crown Land.

There is little assistance to Councilôs to undertake these duties delegated to the sector under state statute. Councilôs expenses in managing public heritage places are capital in nature so the cost of these works increase at a rate greater than the Consumer Price Index (CPI). Rate capping based on the CPI will have significant impact on Councils ability to manage public heritage.

The great majority of these responsibilities are delegated from the State of Victoria to local government under specific statute. A recent Parliamentary Inquiry in to heritage and eco tourism provides valuable discussion of key issues. Reinstatement of the following grants would assist Local Government manage all heritage places.

- Heritage study grants (area or thematic) to identify of heritage places.

- Heritage advisor grants to provide advice to managers of heritage places.
- Conservation Management Plan grants to identify maintenance schedules and adaptive reuse opportunities.
- Capital works grants to fund works on public heritage places.
- Grants for interpretation of places / promotion of heritage trails and events.

With the introduction of rate capping and discontinuance of grant programs Local Governmentôs ability support heritage is limited. It is critical that any future public heritage fund apply to all public heritage places. Council recommends an additional recommendation be made to ensure that the Essential Services Commission must consider the cost of the management of public heritage in considering rate increases. For example, the cost of finalising the West Moorabool Heritage Study and its implementation in to the Moorabool Planning Scheme is equivalent to more than a one per cent (1%) rate rise. Management of the Bacchus Marsh Avenue of Honour over the previous decade has been the equivalent to a 0.5 per cent rate rise per annum

Background ï Moorabool Shire public heritage obligations

Heritage Victoria encourages Councils to prepare a Heritage Strategy to prioritise actions in relation to heritage. Council has no discretionary funding ability so Strategy actions focus on improving management practices and meeting statutory obligations. It identifies the preparation of Conservation Management Plans for Council owned / managed places which include multiple VHR sites as cost effective way to enhance the significance of places whilst minimising the cost of management through proactive works that reduce the need for major structural maintenance.

Regional and rural municipalities have greater land areas, higher number of heritage places to manage and a much lower rate base per square kilometre. This both increases the number of places to be managed as well as decreases the finances available to the task. A form of equalisation scheme, via non-competitive grants, will be essential. By ensuring the provision of non-competitive grants to prepare Conservation Management Plans (CMPs) for public places, and the provision of matching funds for undertaking management in accordance with CMPs will assist Councils in managing these places.

Council is generally supportive of the recommendations included in the Historic Places Investigation Draft Proposals Paper with refinement to be based on consideration of the following factors.

Differentiation between public land managers

The VEAC Act applies to Crown land (including government road reserves, seabed and river beds) and freehold land owned by State Government departments, agencies and bodies. Public land does not include land owned by local government, however, it does include Crown Land managed by local government. This is an impact on the applicability of recommendations in relation to funding.

As Local Government is established under State statute and exercises powers devolved from the State, it cannot raise funds, via charges outside the parameters set by the State. Consequently, Local Government is less able to fund the management of heritage places and, therefore, VEAC should ensure that any funding program established applies to all public land, whether it be owned / managed by State or local agencies.

Support to local government / cost of managing places
Local Government often owns or manages a range of places important to local communities, including halls, bridge, avenues, and parks. Many of these places are of local heritage significance, with some of State significance. The report addresses the challenges faced by state agencies in managing heritage, which is not seen as being "core business" despite statutory responsibility. This issue is applicable to local government.

In many instances, it is increased as communities demand local government maintain places, such as, Avenues of Honour, even if the management responsibility is with the Crown. Allocating resources to these places is a challenge for Moorabool due to high growth requiring major infrastructure investment. Rate Capping will increase the difficulty for Council to fund proactive management of heritage places. It is critical that any public heritage program apply to historic places in public ownership apply to any public land manager.

Support for local as well as state places
The report places greater emphasis on the Victorian Heritage Register (VHR). While the Bacchus Marsh Avenue of Honour is on the VHR, it does not necessarily follow that it is more significant or valued by its local community than other Avenues of Honour within the Shire.

The process of identifying local heritage places provides data for comparative analysis for consideration of "exemplars" for the Victorian Heritage Register. The most effective way to ensure that "under-represented" heritage items are identified is by ensuring, by continued heritage study funding, that all Councils have undertaken a study of all places within the municipality and that gap studies are undertaken for studies completed pre 1999. As many rural Councils have not completed a heritage study for their municipality, it will be difficult to identify state exemplars.

Support for documenting and funding best practice management
Preparation of conservation management plans for public heritage places ensures that management practices are undertaken on an ongoing basis and avoids or prolongs more costly intervention. Providing funds to all state and local agencies to prepare conservation management plans, and requiring conservation management plans for access to heritage funds would ensure best practice management and promote efficient and effective management of public land.

Council would be happy to discuss these issues in detail. If you have any queries regarding this matter, please contact Council's Strategic Planning Co-ordinator Ms Lisa Gervasoni via email at lgervasoni@moorabool.vic.gov.au

Yours sincerely,

Rob Croxford
Chief Executive Officer