



GROWTH AREA FRAMEWORK PLANS

INITIAL SUBMISSION

SUMMARY

This submission elaborates on the following points:

1. VC68 has zoned the majority of high conservation value sites inside the expanded UGB, as Urban Growth Zone, including those sought to be protected by the VNPA.
2. VNPA welcomes the proposed establishment of the large western grassland reserves, largely of the dry EVC variant but notes that there is extreme variation in the quality of the grassland they contain.
3. The VNPA submits that these large grassland reserves will be no substitute for some of the high species-diverse grassland sites at the western and northern edges of Melbourne, particularly those of higher rainfall and different species composition.
4. In addition, the EPBC target for protecting 80% of Grassy Eucalypt Woodland inside the expanded UGB needs to be addressed. EPBC listed Grey Box Grassy Woodland overlooked and must be addressed.
5. VNPA believes that the Framework Plans, and associated Biodiversity Strategies will play a pivotal role in protecting biodiversity and natural amenity values within Melbourne's urban growth areas.
6. These instruments could have an important role in establishing a spatial framework and prescriptions to protect biodiversity values in subsequent Growth Area Plans and Precinct Plans, provided that they are strengthened in the following ways:
 - aims
 - scope
 - timeframe
 - public review and ministerial approval
 - enforceable status
 - consultation
7. There have been major deficiencies and gaps in Strategic Impact Assessment (SIA) Process particularly for EPBC listed grassland and other EPBC-listed species, leading to very limited on-ground survey work, and often grossly inaccurate vegetation mapping. Because of the critical role of Framework plans to be based on this information, this inadequacy must be addressed.

8. There will be an inadequate time-frame for Biodiversity Strategies developed from the SIAs to feed into Framework Plans
9. The VNPA has a strong preference for public ownership of retained reserves. It is crucial that effective arrangements, and funding, are identified early in the planning process for the conservation management of reserves.
10. The VNPA reiterates the need to protect the high conservation value sites zoned for urban development by VC68 listed in its previous submission and relists them by growth area in this submission.

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1. Introduction

The Victorian National Parks Association is Victoria's peak advocacy body for nature conservation, with an interest in protecting remnant vegetation and habitat at the urban fringe as well as in largely natural landscapes. VNPA made a comprehensive submission to the Strategic Impact Assessment (SIA) Report for the urban growth boundary expansion, in conjunction with environment groups and ecologists in each of the growth areas.

In this submission we argue for a strong conservation planning role for the Framework Plans, to identify important urban habitats early in the planning process when they are most easily protected. Growth area Biodiversity Strategies and sub-regional species strategies currently being prepared by DSE have potential to provide the management detail for this – at least for woodland and wetland biodiversity. Much will depend on the adequacy of survey work and ecological assessment, and integration of state and regionally significant vegetation and species.

For grasslands however given serious short-comings in the EPBC Strategic Assessment Process we argue it is essential that Framework Plans and Biodiversity Strategies are given a more proactive and enforceable role in identifying urban grassland reserves up-front, in accordance with Victoria's Native Vegetation Framework. VNPA provided a briefing to the previous Commonwealth Environment Minister last year, setting out effective, practical measures for urban conservation planning – see appendix. With a few exceptions such an approach is not currently intended under the EPBC prescriptions, and current planning for urban grassland reserves is very uncertain and piecemeal, especially in the west.

In our submission to the SIA report VNPA listed many of the high conservation value habitats and links in each growth area, and we highlight these again here as needing protection under the Framework Plans. Most of these habitats have now been zoned for urban development, and DSE has indicated to us that decisions about the extent of protection has in most cases still to be decided, through the Biodiversity Strategies and Framework Plans, or subsequent application of EPBC prescriptions. VNPA is concerned that the important values of these sites will be lost, or only a small part will be retained, unless they are clearly identified for protection early in the planning process, as part of a coherent urban reserve network.

In this submission we also highlight additional important grassland sites now zoned for urban development, which were identified by detailed survey reports withheld during the Strategic Assessment consultation process.

2. Important conservation role for Framework Plans

VNPA believes that the Framework Plans, and associated Biodiversity Strategies should play a pivotal role in protecting biodiversity and natural amenity values within Melbourne's urban growth areas. As argued in our submission to the SIA report it is essential that important remnant vegetation and habitat is identified early in the urban planning process, and protected as part of an ecologically functional, landscape-wide urban reserve network. Management and funding arrangements for urban reserves must also be determined early on. In contrast at the precinct planning stage, development expectations will severely limit the extent of land which can be reserved, though refinement of reserve boundaries may be possible

2.1 VC68 has zoned most high conservation value sites inside the UGB for urban development

The conservation role of the Framework Plans is made all the more important by the fact that VC68 has zoned the majority of high conservation value sites inside the expanded UGB, as Urban Growth Zone. Whilst we welcome the application of the Rural Conservation Zone to a few significant

habitats such as Clarke Road grassland, and grassland and grassy woodland sites in the Merri catchment, most high quality grassland sites in particular have been zoned for urban development, and some have been zoned as quarry buffer and urban holding zone. This includes the majority of sites identified in our submission to the SIA report – see discussion of individual sites below.

VNPA strongly supports the proposed Western Grassland Reserve and Grassy Woodland Reserve. However we note that these will not replace the values of high quality and species rich grassland sites at the western and northern edges of Melbourne.

3. EPBC Biodiversity Strategies and sub-regional species strategies – focus on woodland and wetland habitats

VNPA understands that the Growth Areas Authority will use the Biodiversity Strategies and sub-regional species strategies prepared by DSE as the main input for determining conservation open space in the Growth Area Framework Plans.

As such it is essential that these strategies are based on adequate on-ground survey work and ecological assessment, given this did not occur in the SIA report, and allow for independent expert review and community input. The timelines for preparing the Framework Plans should be extended to enable this. The Biodiversity Strategies should provide for a viable, inclusive and connected urban conservation reserve network.

For Volcanic Plains Grassland however, especially in the western growth areas, EPBC approved planning processes do not provide scope for adequate reserves inside the expanded UGB, and instead are likely to result in the loss of most high quality grassland sites. This is discussed further in the next section.

3.1 EPBC requirements for Framework Plans and Biodiversity Strategies

VNPA notes that the EPBC prescriptions and Program Report require conservation planning for urban woodland, wetland and riparian biodiversity through the Biodiversity Strategies, which is to be reflected by the Framework Plans. This includes planning for the following:

- Viable, connected habitat networks for Growling Grass Frog and Southern Brown Bandicoot;
- Grassy woodland habitat links, and conservation management arrangements for retained woodland inside the UGB;
- Important wetland habitats for migratory bird species.

The target for protecting 80% of Grassy Eucalypt Woodland inside the expanded UGB needs to be addressed by the Framework Plans if this is to be achieved in practice.

3.2 Integrating state and regionally significant biodiversity, and waterway corridors

The EPBC Program Report requires that Biodiversity Strategies will outline how areas of state and nationally significant biodiversity will be managed. In the growth areas most of the vegetation communities are endangered at a state bioregional level. Examples which are non-EPBC listed, and have significant / high quality remnants in the growth areas include:

- Plains Grassy Wetland (EPBC nominated);
- Floodplain Riparian Woodland;
- Streambank Shrubland;
- Rocky Chenopod Open-scrub (FFG listed);
- Lignum Swamp;
- Swamp Scrub;
- Swampy Riparian Woodland;

- Plains Grassy Woodland (Gippsland Plains).

Most of these communities are associated with waterways, wetlands and escarpments, and they provide habitat for a diverse range of native fauna, including both EPBC listed and state significant species. Examples of the latter include: Growling Grass Frog (EPBC); Grassland Earless Dragon (EPBC, potentially in Rocky Chenopod Open-scrub near Sunbury); Swamp Skink (FFG) and Glossy Grass Skink (DSE) in the southeast; many listed species of wetland birds.

Protecting ecologically functional habitat corridors along waterways is key to conserving these communities and the species they support. VNPA appreciates that Urban Floodway or Rural Conservation Zone buffers have been marked along the main waterways by VC68, however we understand that the buffer width has still to be decided in most cases. Along the major perennial waterways such as Merri Creek and Kororoit Creek, and waterways supporting significant populations of Growling Grass Frog, buffers should be at least 200m from each bank. Along intermittent streams buffers should be at least 100m from each bank, and buffers should be widened to incorporate adjacent remnant vegetation and wetlands.

In the southeast growth area, Heathy Woodland remnants are at least regionally significant given the extent of clearing in this landscape, and their role in providing habitat for Southern Brown Bandicoot and a range of other fauna. Much of this vegetation has been zoned Farming Zone (quarry buffer) and we understand that much is intended to be conserved when sand quarry operations cease. Substantial remnants of Grassy Forest on hilly country north of Princes Highway are important as a relatively intact habitat, protecting erodible soils and landscape values.

3.3 EPBC listed Grey Box Grassy Woodland overlooked

Grey Box Grassy Woodlands and Derived Native Grasslands of Southeast Australia was listed as critically endangered under the EPBC Act on 1 April this year, and remnants around Sunbury and Melton are the only known examples south of the Great Divide. Whilst much of the vegetation around Sunbury, including woodland and derived grassland, has been mapped and accounted for by the SIA report as Grassy Eucalypt Woodland, it is possible, if not likely, that this classification is often incorrect.

If the Grey Box community does occur within the Urban Growth Zone at Sunbury then an EPBC prescription needs to be developed for this community, and reflected in the Biodiversity Strategy and Framework Plan for the Sunbury growth area. Accurate on-site surveys and a correct classification are needed well beforehand.

3.4 High conservation urban woodland, wetland and riparian sites identified by VNPA

In our submission to the SIA report, VNPA listed some of the most significant woodland, wetland and riparian habitats within each growth area, following consultation with relevant environment groups and ecologists (see discussion below). These sites and habitat links are within the scope of EPBC prescriptions and requirements for Biodiversity Strategies and Framework Plans.

3.5 Inadequate time-frame for Biodiversity Strategies to feed into Framework Plans

VNPA is very concerned that the Biodiversity Strategies will not be available until formal drafts of the Framework Plans are circulated for comment sometime early next year, and targeted consultation on the sub-regional species strategies may also be delayed until the start of next year. It is crucial that public consultation on the Framework Plans be extended to allow for proper consideration of these strategies.

State Government's intention to prepare the Biodiversity Strategy and Framework Plan for the western growth areas in the first half of next year, one year before the Golden Sun Moth strategy is finalised, appears to breach the EPBC Program Report – see below.

3.6 Key approach for regional biodiversity conservation strategies

The Program Report, *Delivering Melbourne's Newest Sustainable Communities*, August 2009, outlines a process for Stage 2 – Implementation (See Figure 4, page 26). It includes the proposal for Biodiversity Conservation Strategies and Sub-regional Species Strategies to be developed to feed directly into the Growth Area Framework Plans and Precinct Structure Plans. The Program Report states “*An overarching Biodiversity Conservation Strategy... will inform the preparation of Growth Area Framework Plans and ensure high level guidance. They will outline how the areas of biodiversity value within the growth areas will be managed*”.

No guidance is given on the legal status or scope of these strategies. But the strategies could be a vehicle to develop an urban conservation network and provide a regional ‘ecological’ basis for planning – a truly strategic approach.

These instruments could have an important role in establishing a spatial framework and prescriptions to protect biodiversity values in subsequent Growth Area Plans and Precinct Plans, provided that they are strengthened in the following ways:

- a) aims
- b) scope
- c) timeframe
- d) public review and ministerial approval
- e) enforceable status
- f) consultation

Detailed content is outlined below.

a) Aims of the Biodiversity Conservation Strategies should include:

- To identify significant native vegetation, threatened species habitat and other sites of biodiversity value, and specify measures to protect them
- To maintain ecological processes and landscape function across the (sub-)region
- To delineate a network of small, medium and large conservation reserves¹ in Growth Areas and adjacent Green Wedges, to include and connect key areas of each habitat type.

b) Scope of the Biodiversity Conservation Strategies should not be limited to the ‘retained’ areas excluded from urban development within the expanded Urban Growth Boundary (UGB) (as proposed in the Strategic Impact Assessment). Instead, the scope and contents should include:

- All areas of high conservation value, including
 - all public land with existing/potential biodiversity value
 - known and likely areas of regional, state and national conservation value
 - waterway corridors
 - key areas for connectivity.
- Mapping of areas to be protected in conservation reserves, including areas to be managed by local government or State Government authorities.
- Measures to protect and/or create habitat for threatened species, including wetlands for migratory species and Painted Snipe in the south-east and north.
- Links to maintain connectivity across Growth Areas to areas of biodiversity value in Green Wedges, and between related habitat types (e.g. grassland, grassy woodland, stony rises and knolls, floodplain grasslands, lignum swamps and riparian zones).

¹ We strongly object to arbitrary minimum size limits for reserves being imposed in prescriptions, as small and medium-sized reserves can sustain species and communities over the long term.

- Mechanisms by which land will be secured and managed (including tenure, responsible agency, statutory planning controls²).

c) Timeframe for both types of strategies must be sufficient to collect data, allow for public review of draft documents, and finalise considered strategies before the Growth Area Framework Plans are prepared.

d) Public review and ministerial approval: Both types of strategies should be exhibited in draft form for public comment. We recommend that the Biodiversity Conservation Strategies and Species Strategies, as well as the Growth Area Framework Plans, be subject to approval by the Federal Minister for the Environment.

e) Enforceable status: Growth Area Framework Plans and Precinct Structure Plans (and, where relevant, Conservation Management Plans) should be required by law to be consistent with the strategies. The strategies should clearly and concretely identify outcomes to be achieved, enabling consistency of the strategies to be easily evaluated.

f) Consultation: Strategies should be developed through consultation (including data sharing) with the Victorian Environment Assessment Council and the federal Department of Environment, Water, Heritage and the Arts. Consultation may include liaison, data-sharing and discussion of management recommendations. Any management recommendations must be consistent with approved conservation advice, recovery plans, threat abatement plans or wildlife conservation plans made under the EPBC Act. Where no conservation advice or plans have been approved, the Strategies should reflect the best scientific evidence available to the Commonwealth Minister on the measures for the preservation of relevant species.

4. Strategic Impact Assessment process overlooks value of urban-fringe grasslands

Unlike for woodland and wetland biodiversity, the Strategic Impact Assessment process and approvals does little to conserve the important ecological values of urban fringe grasslands.

4.1 Urban fringe grasslands have different, irreplaceable ecological values

VC68 has zoned most urban fringe grasslands for urban development, including the majority of high quality and species rich grassland sites inside the expanded UGB. Grasslands inside the UGB have differences in species composition and grassland type compared with the Western Grassland Reserves, and so are important for conserving diversity within Volcanic Plains Grassland. They provide new communities in the western growth area with a connection to the natural environment.

4.2 Major deficiencies and gaps in Strategic Impact Assessment Process

As discussed in our submission to the SIA report, there have been major deficiencies in the Strategic Impact Assessment process, particularly for EPBC listed grassland and grassland species, as well as other vegetation communities and species. These include the short time frame, very limited on-ground survey work, and often grossly inaccurate vegetation mapping. Reports of detailed grassland survey work undertaken in the west (Biosis Research, 2008, 2009)³ were not made available until after the public consultation period, and their recommendations including key ecological management areas were not discussed by the Strategic Impact Assessment Report.

4.3 EPBC prescriptions and planning processes do not protect urban fringe grasslands

Whilst EPBC approved prescriptions and conservation planning processes provide some opportunity to overcome inadequate assessment for woodland and wetland biodiversity, this is not

² The Environmental Significance Overlay for grasslands proposed in the SIA (p122) for Werribee Plains should be applicable to all native grasslands.

³ Biodiversity Assessment Report, Melton-Wyndham Investigation Area, Biosis Research (dated March 2010)

the case for listed grassland and grassland species, and especially for the western growth areas. The prescriptions for the grassland community and listed grassland species focus on offsetting into the Western Grassland Reserves, whilst doing little to account for ecological values inside the UGB. The Biodiversity Strategy for the west has been given little role in grassland conservation.

4.4 Golden Sun Moth prescription

The Golden Sun Moth prescription is that which is most likely to retain grassland inside the UGB, in particular connected areas of confirmed GSM habitat greater than 100ha in size. However VNPA understands that in most cases DSE intends to apply this prescription at later planning stages, after the completion of GSM surveys and the Biodiversity Strategy and Framework Plan for the west. This appears to be in breach of the EPBC Program Report which states that sub-regional species strategies, including for GSM, should inform the Biodiversity Strategies which in turn should inform the Framework Plans.

There is little understanding at this stage of the extent to which the GSM prescription will retain high quality grassland – highly modified *Stipa-Danthonia* grassland often supports the largest populations - and when it is applied to land zoned for urban development there is likely to be substantial disagreement between DSE, planning authorities and developers.

Overall we will be left with the bizarre situation where highly degraded grassland is being retained as GSM habitat whilst high quality grassland sites are often being cleared, and there will be a lack of certainty for both development and conservation. The current approach is building in conflict.

5. Up-front grassland reserve planning through Framework Plans

Instead of a very uncertain and un-strategic application of the Golden Sun Moth prescription precinct by precinct, a much better conservation and urban planning outcome would be achieved if the Framework Plans identified high quality and species-rich grassland sites up-front for protection. VNPA argued strongly in our submission to the SIA report that the growth area Biodiversity Strategies need to accommodate a range of grassland conservation values, including small high quality and species rich sites, as well as larger areas of grassland habitat, as part of a connected, landscape-wide urban reserve network.

DSE's current intentions for the Biodiversity Strategies for the west fall far short of this, so VNPA urges that they be revised accordingly and that the Framework Plans include additional conservation measures as needed.

5.1 Sufficient information now to identify high quality urban fringe grasslands – less than 10% of UGZ land

There is sufficient information available now, from detailed grassland survey reports in the west, and from analysis of aerial photographs and DSE's grassland mapping, to identify the most likely areas of high quality grassland in the west. These include the sites listed in VNPA's submission to the SIA report together with a few additional sites identified by Biosis (see list below). We estimate that in total these sites will comprise less than 10% of Urban Growth Zone land inside the expanded UGB in the west. As such their protection will not compromise orderly urban planning, the provision of infrastructure or housing affordability – but they will provide much needed natural area amenity for new urban communities.

5.2 Framework Plans should identify connected urban grassland reserves

Whilst the exact boundaries of reserves should be determined on the basis of further detailed vegetation quality and threatened species surveys, the Framework Plans should flag significant grassland sites for protection, either by zoning them as Rural Conservation Zone, or at least identifying them as sites for investigation as a grassland reserves.

Effective habitat links should be provided along waterway corridors, at least 100m or 200m from each bank (as discussed above), and widened in places to incorporate adjacent grassland remnants. Some dryland grassland links should be provided through linking remnant patches (see site list below), and along transmission line easements, which should be widened in places to 150m where remnant grassland is adjacent.

Railway reserves are key grassland habitat corridors, incorporating many of the highest quality and species rich grasslands sites, and many of the known sites for listed flora species. They must be protected and appropriately managed for grassland conservation.

6. Managing and funding urban conservation reserves

It is crucial that effective arrangements are identified early in the planning process for the conservation management of reserves, and for funding this. Uncertainty about such arrangements is a major problem for the finalisation of Truganina South Precinct Plan and other current precinct plans.

6.1 Strong preference for public ownership and management of urban conservation reserves

VNPA believes strongly that urban conservation reserves should be transferred to public ownership and management. The Biodiversity Strategies and Framework Plans should set out the mechanism(s) for doing this, and the public authority/authorities involved. This may vary between precincts, and in some cases a Committee of Management may be appropriate.

6.2 Funding for acquisition and management of urban reserves

In most cases urban conservation reserves will be in addition to developer public open space contributions. Whilst in some cases the developer may agree to transfer the land to public ownership free of charge, in other cases payment to the developer will be required for land acquisition. A funding source will always be needed to implement the reserve conservation management plan.

Under current mechanisms possible funding sources include:

- offsets, if a portion of the offsets from clearing inside the UGB is directed to remain within the UGB, through Native Vegetation Precinct Plans or other means;
- developer contributions if the reserve can be regarded as a recreational asset, in which case developer contributions can cover both land acquisition and management.

VNPA also urges that State Government investigate a biodiversity levy, to apply to developers across a growth area on the basis of their developable land area, as a more equitable means of funding urban conservation reserves. Such a levy has been proposed by Wyndham Council.

6.3 Management of public utility land for conservation values

Rail reserves and waterway reserves in particular, together with some roadsides in the growth areas have important conservation values, which can often be badly damaged or lost through inappropriate management practices by the land manager. Examples include excessive herbicide spraying and vegetation removal on rail reserves, and poorly managed drainage works.

As discussed in VNPA's submission to the SIA report, enforceable management guidelines and plans should be developed for all statutory authorities, local government and utility operators who are managing public land with important conservation values. Implementation of such guidelines and plans should be a requirement of the Biodiversity Strategies / Framework Plans and Precinct Structure Plans.

7. List of high conservation value sites zoned for urban development by VC68

7.1 Wyndham Growth Area

Grassland sites identified in previous VNPA submission:

- Geelong Railway Reserve (site 3) – high quality grassland and DSE Biosites must be protected as part of the Regional Rail Link project and urban planning
- Headwaters of Skeleton and Dry Creeks (site 5) – 200m buffers are needed from both banks of these waterways to protect escarpment habitat and adjacent grassland and stony knoll shrubland, such buffers need to be widened to incorporate adjacent high quality grassland – see below
- Lollypop creek (site 6) – a buffer of at least 100m width is needed from both banks of the creek to protect waterway habitat, it should be widened in sections to protect adjacent high quality grassland.

Additional high quality grassland sites identified from detailed Biosis survey reports

- High quality grassland on rocky rises between Ballan Rd and Werribee River
- Large area (100 – 200 ha) of unploughed grassland habitat about the headwaters of Skeleton Creek - between Middle Road and Boundary Road, and grassland patches also occurring along the southern side of Boundary Rd.
- Species rich stony knoll grasslands in the Truganina district
- Rocky grassland with a diversity of herbs adjacent to a tributary of Dry Creek

7.2 Melton-Caroline Springs Growth Area

Grassland sites identified in previous VNPA submission:

- Cluster of herb-rich Heavier Soils Plains Grassland sites, immediately west of Caroline Springs and north of Kororoit Creek (site 4);
- High quality species-rich grassland along Greigs roadside, and on private properties between Greigs Road and the proposed Western Grassland Reserve, Mt Cotterell slopes section (site 5);
- Boral quarry land (site 6)– while this has been approved for quarry expansion, State and Federal Governments should negotiate with Boral to protect as much as possible of this grassland;
- Deanside grassland site adjacent to Kororoit Creek (site 3).

Other habitats identified in previous VNPA submission;

- Deans Marsh wetland (site 2) – a state significant Biosite which lies in the proposed alignment of the OMR freeway. As much as possible of this wetland should be protected through sensitive freeway design
- Rockbank Radio Station woodland (site 1)– a relatively intact example of very rare and endangered Swampy Plains Woodland / Lignum Swamp, on the east side of Leakes road. This lies just to the south of a proposed waterway reserve and should be included within it.

Additional high quality grassland sites identified from detailed Biosis survey reports

- Species rich grassland on the north side of the Ballarat railway at Ravenhall
- Grassland biolinks between Ravenhall and Western Grassland Reserve, on the southern slopes of Mt Atkinson and adjacent to Middle Rd

7.3 Sunbury Growth Area

VNPA in conjunction with Jackson’s Creek Eco-Network has identified a number of derived grassland and other remnant vegetation sites, and habitat links, which are now zoned Urban Growth Zone. DSE has indicated that the extent of protection of these sites will depend on the extent of habitat links identified in Parks Victoria’s Linking People and Spaces Strategy and DSE’s Biodiversity Strategy. The sites include the following:

Remnant habitats:

- Shepherds Lane derived grassland on the northeastern side of Jackson’s Creek (site 3) - high quality vegetation over 120 ha in extent which adds substantially to the viability of Holden Flora and Fauna Reserve;
- Rae’s Rd grassland conservation reserve (managed by Hume Council), and high quality remnant grassland patches in the vicinity of Rae’s Road (sites 2 and 2a);
- Clarke Court grassy wetland (site 1) – adjacent to Lancefield Road;

Habitat links and buffers:

- Bendigo Railway reserve requires a buffer of at least 50m either side (site 7) - as well as being a key habitat corridor, many DSE Biosites and high quality remnant vegetation occur alongside the railway;
- 50m escarpment buffers along Jackson’s and Emu Creek (sites 13, 14 and 15) – a buffer of 50 m is required back from the top of both escarpments to protect their values as fauna habitat;
- Grassland habitat links from Bendigo railway reserve to Emu Creek and Palmers Road grassland (site 13) – these should include the fire trails, roadsides and adjacent grassland remnants and scattered large old trees;
- Buffer to western edge of Holden Reserve (site 16) –in the vicinity of Eighnane Way residential development now threatens to fragment the reserve and will be very close to Jackson’s Creek. Private allotment S6PS4040987 should be added to the reserve, together with nearby remnant vegetation to make its shape more contiguous and viable;
- A short habitat link should be established between Bendigo rail reserve south of Sunbury and the waterway reserve leading into Holden Reserve (site 12)

Woodland habitat identified from more recent survey work by DSE:

VNPA supports the inclusion of substantial woodland remnants in the vicinity of Lancefield Rd in the north of the growth area in the Rural Conservation Zone. However addition stands of scattered

Yellow Box trees near Emu Creek at the northern end of the growth area should be added to the adjacent waterway reserve.

7.4 Hume-Whittlesea Growth Area

VNPA welcomes the inclusion of significant grassland and grassy woodland sites inside the expanded UGB in the Rural Conservation Zone, including sites to the east of Merri Creek and at Mt Ridley. However as stated in our previous submission important habitats and biolinks, are now zoned for urban development.

Highly significant grassland, grassy woodland and grassy wetland sites zoned Urban Growth Zone include:

- High quality grassland immediately north of and contiguous with Kalkallo Common (site G) – this site has an intact cryptogammic crust, and has been zoned Urban Growth Zone, not a prior Mixed Use Zoning as stated by DSE;
- Over 100 ha of high quality grassland between Hume Highway and Melbourne Water’s retarding basin at Donnybrook (site F) – this area was highlighted in the Strategic Impact Assessment Report as priority habitat for at least 3 EPBC listed species: Striped Legless Lizard, Golden Sun Moth and Spiny Rice-flower;
- Southern part of Bald Hill grassland Biosite (site C) – this is high quality *Poa labillardieri* grassland which has been zoned Urban Growth Zone. It is not included in a Rural Conservation Zone as stated by DSE
- Camoola Swamp grassy wetland, east of the railway at Beveridge (site A) – this state significant Biosite has been included in the holding zone (Farming Zone) for the proposed Donnybrook rail freight interchange;
- Edgars Creek Headwaters (part) and Summerhill Road Biosites (State significance) Grassland, Grassy Woodland, stony rises - area between Craigieburn Road East and Summerhill Rd (site E);

Important biolinks zoned Urban Growth Zone

- Biolink between Bald Hill grasslands and Craigieburn East grasslands (site H);
- Merri Creek – Old Sydney Road biolink, following Kalkallo Creek to Kalkallo retarding basin, and then travelling westwards to join remnant vegetation along the ridgeline of Old Sydney Rd (site I).

7.5 Southeast Growth Area

Sites which DSE indicated would be protected at least in part.

Heathy Woodland habitat zoned as quarry buffer (Farming Zone)

- Northwest quarry – extent of habitat protection to be determined when quarry operations cease
- Southwest quarry – Environment Minister has given commitment that biodiversity conservation will be the primary objective for this area

Southern Brown Bandicoot habitat links and waterway buffers

- Cardinia Creek corridor – the SIA report states that a buffer width of 200m from each bank will be protected – this has now been zoned Rural Conservation Zone

- Clyde Creek and Un-named drainage line corridors – waterway corridors will be protected but the buffer width has not been stated.
- South Gippsland Railway Reserve – the SIA Report states that this will be protected for threatened flora, but does not indicate it will be protected as a bandicoot habitat link which it currently is.

Other bandicoot habitat links

Vegetation along Ballarto Road has been identified as a key bandicoot link between Cranbourne Botanic Gardens and populations to the east, however it has not been supported by the SIA report or DSE. If a habitat link is not provided along this road, then an alternative link must be found between the botanic gardens and the railway reserve.

A north – south bandicoot habitat link between Cranbourne Botanic Gardens and Westernport is crucial. VNPA understands that this may be considered as part of the SBB sub-regional species strategy.

Remnant vegetation in the Officer Precinct

The majority of remnant vegetation in the Officer Precinct should be protected as part of the current development of a structure plan for that area⁴. This includes:

- About 20 ha of herb-rich plains grassy wetland between Princes Freeway and the railway
- A substantial patch of Swampy Riparian Woodland / Swamp Scrub adjacent to the planned Officer Activity Centre;
- Significant remnants of Plains Grassy Woodland on the floodplain of Cardinia Creek;
- Substantial remnants of Grassy Forest on hilly country in the north of the precinct, which should be zoned as Rural Conservation Zone and preferably transferred back to the green wedge.

⁴ Since the approval of the SIA report, VNPA has been informed about proposals in the Officer Precinct Structure Plan.