

# **Merri Creek Management Committee Inc**



## **Submission**

**to**

### ***Inquiry into Impact of the State Government's decision to change the Urban Growth Boundary***

**Outer Suburban/Interface Services and Development  
Committee**

**October 2009**

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**Merri Creek Management Committee (MCMC)'s mission**

*MCMC respects and honours the spirit of the land and its peoples, indigenous plants and animals, and works with the community to preserve, restore and promote the Merri Creek, its catchment and neighbouring region as a vital living system.*

**Merri Creek Management Committee (MCMC) prize winner**

MCMC was awarded the 2002 National Riverprize for excellence in waterway management.

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## Executive Summary

The proposed expansion of the Urban Growth Boundary (UGB) and associated development of the OMR/E6 transport corridor in the Northern Melbourne (Hume/Mitchell/Whittlesea) Growth Area, if implemented, will result in urbanisation of most of the Merri Creek catchment. Merri Creek Management Committee (MCMC) thus has a vital interest in the proposal and its potential impact on waterways, biodiversity, landscape and open space.

The upper Merri is a discrete and biophysically distinctive area. The overall landscape context of its biodiversity contrasts to that of growth areas in the west of Melbourne. It contains distinctive features that are either not present or are poorly represented in the west.

The process for considering the growth of Melbourne has been severely constrained by the lack of proper consideration of the need for UGB expansion and associated transport corridors, and the subsequent lack of analysis of any alternatives. The process has been characterised by very short timelines and limited community consultation, especially compared to the original Melbourne 2030 process, and by weaknesses in the background ecological data and analysis.

The proposed UGB expansion will significantly impact biodiversity in the upper Merri, both on nationally significant communities and species and on matters of state significance. Urbanisation will also impact on waterways of the catchment, on landscape values and on local communities who have been closely involved in biodiversity conservation.

The eastern part of the Merri catchment, including the Donnybrook and Merriang areas, has the highest concentration of biodiversity values and is the most sensitive to the impacts of the UGB expansion and the proposed E6 freeway. There is no clear rationale for the E6 as a freeway, rather than an arterial road and no obvious rationale for its extension north of Bridge Inn Road.

The key deficiencies in the UGB expansion and its assessment to date (i.e. the state government's Strategic Impact Assessment (SIA)) relate to:

- Poor background ecological data;
- Lack of recognition of the biogeographic distinctiveness of the upper Merri;
- Lack of analysis of, and commitment to, maintaining ecological connectivity (habitat corridors) across the catchment;
- Proposed destruction of areas of nationally significant Grassland and Grassy (Red Gum) Woodland;
- No acknowledgement of the value of smaller reserves for biodiversity;
- Location of offsets for clearance of native grassland to the west of Werribee rather than within the Merri catchment;
- Lack of analysis of impacts of key infrastructure;

- Over reliance on Precinct Structure Planning process to 'fine-tune' biodiversity protection and offsets. Much more needs to be done at the strategic level and potentially through the Growth Area Framework Plans;
- Lack of analysis of impacts of urbanisation on hydrology and water quality;

Many of these issues show up as inadequacies in the proposed mitigation for nationally (EPBC) listed communities and species. The mitigation actions proposed by the state government for biodiversity impacts need to be significantly strengthened.

Key areas in the north-eastern part of the upper Merri catchment should be excluded from the UGB expansion because of their environmental sensitivity.

# 1. Introduction

## 1.1 Merri Creek Management Committee

Merri Creek Management Committee Inc. (MCMC) is an environmental coordination and management agency formed in 1989<sup>1</sup> to achieve a shared vision for the waterway corridors of the Merri catchment. Its members include all municipalities in the catchment: Darebin, Hume, Moreland, Whittlesea, Yarra and Mitchell, plus the Friends of Merri Creek and the Friends of Wallan Creek. Representatives of these member groups form the Committee of Management that guides MCMC's policies, strategies and activities.

MCMC employs specialist and dedicated staff with expertise in the management and restoration of riparian and grassland areas, in Golden Sun Moths and other grassland, riparian and instream fauna, and in the delivery of community education and engagement programs focused on local biodiversity and stream health. MCMC's programs are funded by its Council members, by state and federal grant programs, by competitively won tenders, by grants from philanthropic organisations and through sponsorship.

In 2008-09 MCMC employed over 20 staff and had an operating budget of \$1.3 million.

MCMC's primary purpose is:

*"to ensure the preservation of natural and cultural heritage, and the ecologically sensitive restoration, development and maintenance of the Merri Creek and tributaries, their corridors and associated ecological communities".*

Furthermore MCMC's statement of purposes says

*"in order to achieve its primary purpose, MCMC:...*

- participates in strategic and statutory planning and development assessment processes,*
- advocates for policy, development and resource allocation decisions that are complementary to the primary purpose,...*
- seeks the consolidation and expansion of public open space along the Creek corridor, particularly in urban and urban fringe areas..."*

The statement of purposes identifies the geographic coverage of the organisation as *"the Merri Creek and its catchment including its tributaries and their subcatchments."*

MCMC is therefore affected by the proposal to extend the UGB and construct freeways within the catchment.

MCMC's legal standing is acknowledged in the Environmental Significance Overlays along Merri Creek in the cities of Yarra, Moreland, Darebin, Whittlesea and Hume which state that responsible authorities "must consider as appropriate... the views of the Merri Creek Management Committee".

In 2009 MCMC published the Merri Creek and Environs Strategy 2009-2014. The Merri Creek and Environs Strategy (MCES) is a document intended to give direction to managers of the waterway corridors of the Merri catchment. As the title indicates, it has

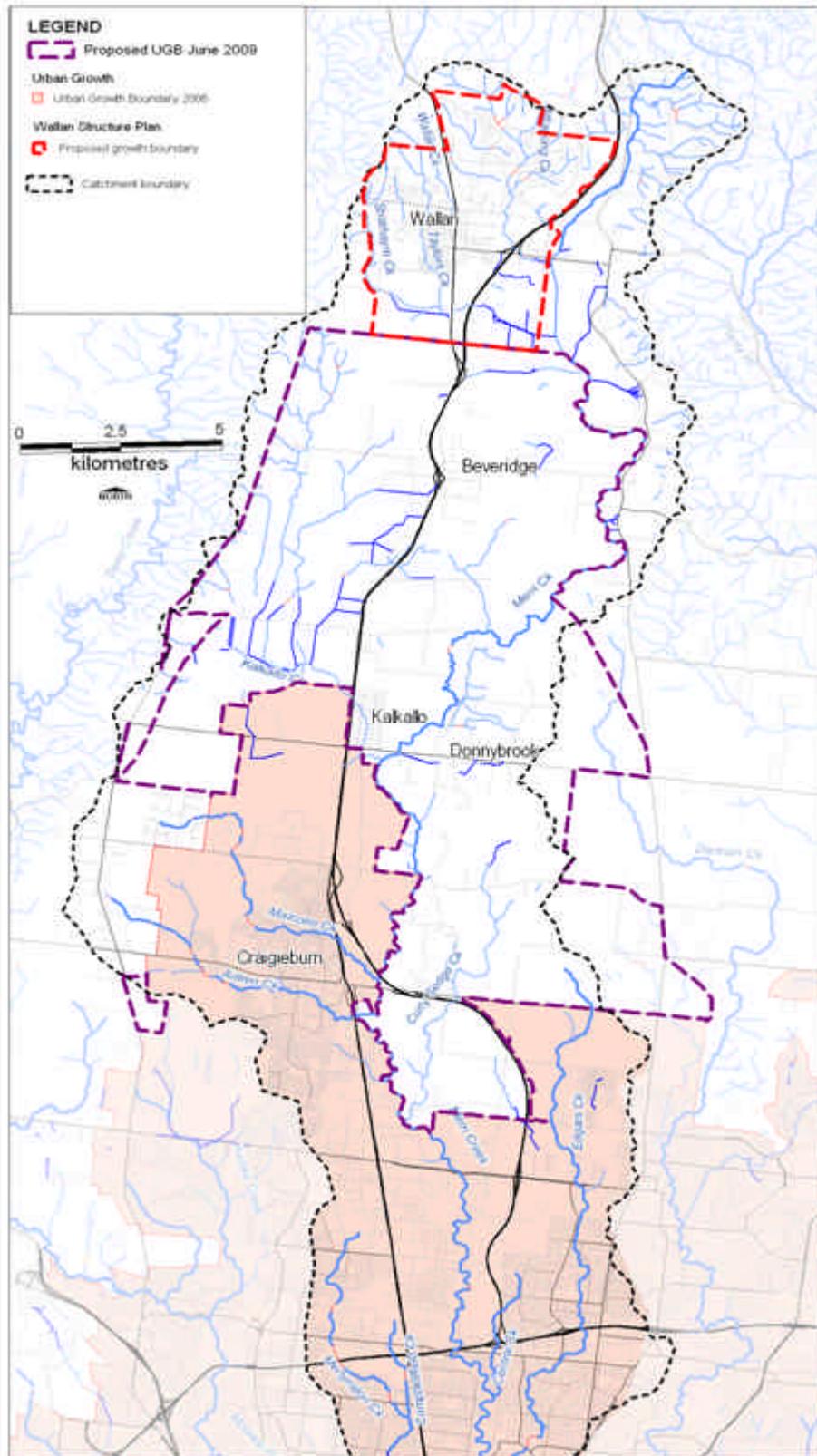
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<sup>1</sup> Merri Creek Management Committee was incorporated under the Victorian Associations Incorporation Act (No A0018144A) in 1989.

a strategic intent; however it also captures some important, often site-specific actions, which underpin its strategic direction. The Strategy is mentioned in some or all of the above planning schemes. The Merri Creek and Environs Strategy 2009-2014 is available from MCMC's website [www.mcmc.org.au](http://www.mcmc.org.au) .

The information in this submission is drawn largely from Merri Creek Management Committee's detailed submission to the state government's Urban Growth Boundary Review in July, available from MCMC's website.

Map 1 - Merri Creek Catchment and the proposed expansion of the Urban Growth Boundary



## **1.2 Background on the Merri Catchment**

The main stem of Merri Creek rises in the foothills of the Great Dividing Range, north of Melbourne, around Heathcote Junction. It winds some sixty kilometres south to its junction with the Yarra River at Dights Falls in Abbotsford. It is one of the Yarra's major tributaries draining water from a catchment covering some 390 square kilometres.

The catchment consists of nine major tributary systems including: Wallan, Taylors, Kalkallo and Curly Sedge Creeks in predominantly rural areas; Aitken and Malcolm Creeks which drain the expanding suburb of Craigieburn; and Merlynston, Central and Edgars Creeks which flow predominantly through established urban areas (see Maps 1 & 2).

The eastern half of the proposed expansion of the UGB encompasses the mainstem of Merri Creek and minor tributaries; the western half includes almost all of the sub-catchment of Kalkallo Creek, a major tributary of the Merri. The sub-catchment of Curly Sedge Creek is also within the expanded UGB.

Much of middle and upper reaches of the catchment is rural and includes the rapidly growing town of Wallan, outside the proposed UGB, the small townships of Beveridge and Kalkallo, within the proposed UGB, and extensive extractive industry areas, both current and proposed (see Map 3). Further south, on the urban fringe, are the residential and industrial areas of Craigieburn and the new suburb of Aurora (North Epping). The southern part of the catchment, south of the Western Ring Road, is entirely urban.

The catchment includes parts of the municipalities of the Mitchell, Whittlesea, Hume, Moreland, Darebin and Yarra.

### **1.2.1 Land**

Land uses through the Merri catchment include pastoral, and increasingly industrial, extractive and urban/residential. Issues affecting the creeks reflect this changing pattern of land use.

Cultural heritage sites, both Aboriginal and non-Aboriginal, are plentiful along the waterways.

Most native vegetation in the catchment has been cleared but what remains, mostly in the northern part of the catchment, is highly significant. The Volcanic Plain Grassland and Grassy Woodland remnants in the catchment are communities which are threatened nation-wide as are the small areas of Plains Grassy Wetland. A few areas have been reserved for conservation purposes but much of these remnants remain on private land. A range of nationally significant species occur associated with remnant vegetation and waterbodies in the catchment.

The catchment's geology is dominated the basalt plain formed by lava flows from geologically recent (Quaternary) volcanic eruptions. Together with the adjacent Darebin Creek catchment and part of the Plenty catchment, the basalt forms the eastern-most portion of the vast Victorian Volcanic Plain. Many of the eruption points are indicated on Map 2.

Pest plants and animals are major issues in the catchment. Erosion and salinity are issues also.

There are many opportunities to extend and improve conservation areas along the waterways and to link these to wider areas of biodiversity significance.

Further detail on all of these characteristics can be found in the Merri Creek and Environs Strategy 2009-2014.

### **1.2.2 Water**

The low relief of the Merri catchment and the impeded drainage resulting from successive lava flows has led to the relatively low incision of the waterways and the numerous swamps. Map 2 shows the historical location of major swamps.

Many of the creeks are seasonal in flow and the wetlands ephemeral; even the Merri itself, upstream of urban areas, contracts to a series of pools during dry periods.

Like many tributaries of the Yarra River, Merri Creek contributes significant sediment, nutrients, contaminants and litter loads to inner Melbourne and ultimately to Port Phillip Bay from its rural and urban sub-catchments.

Water quality and litter in the waterways are major issues for users of the waterway corridors, as well as for the ecological health of the creek. Rural and urban land uses have had major detrimental effects on the waterways in the catchment.

Merri Creek often floods, and the protection of people and assets from flooding by the Creek is an important objective.

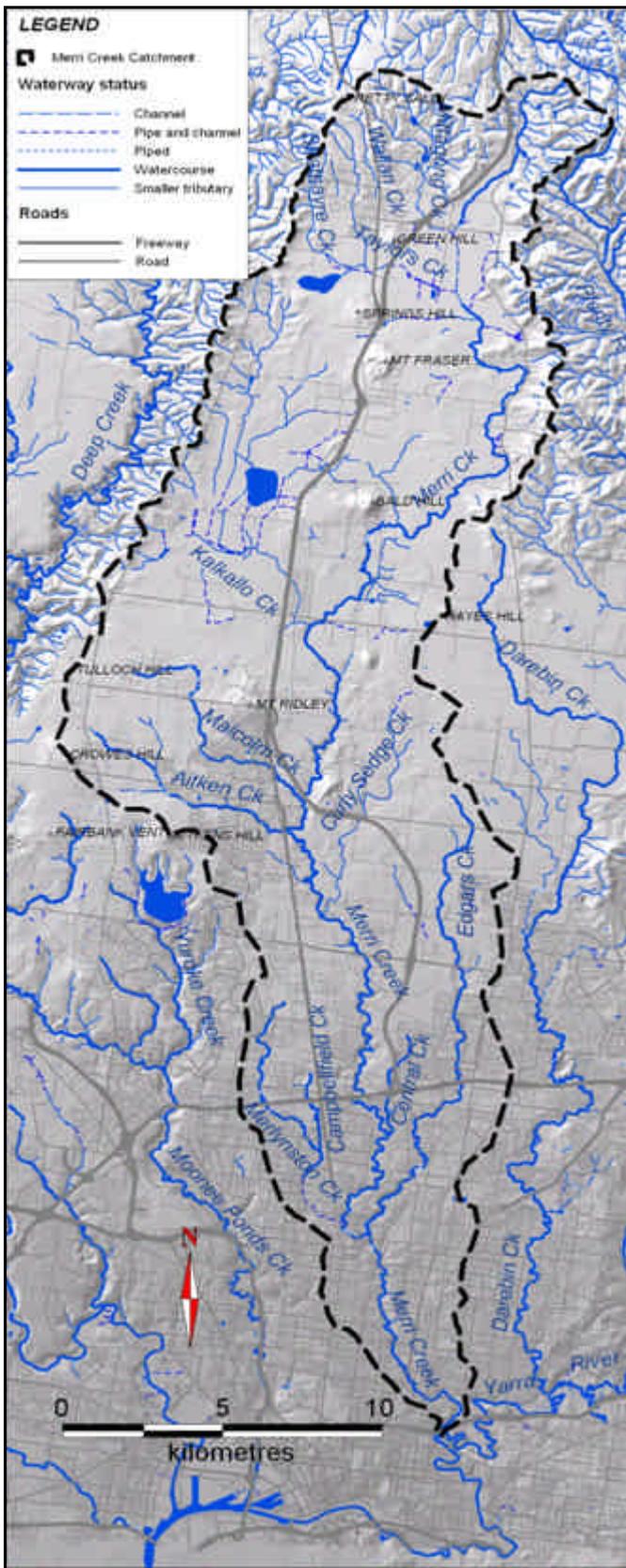
### **1.2.3 Community**

Within the Merri catchment a high proportion of the population belong to culturally and linguistically diverse communities.

There are many opportunities and benefits to the community to be gained from the ongoing development of creek corridors in the Merri Catchment as open space corridors. These corridors have the potential to:

- 'green' the northern suburbs;
- provide city to country open space links;
- offer a source of healthy recreation; and
- provide an educational asset.

Much of the catchment outside the urban growth boundary is currently rural, and through these areas Merri Creek and its tributaries are in private ownership.



Map 2 - The Merri catchment waterways and local relief of the catchment

## 2. Proposed UGB expansion – E6 & Urban Consolidation

The process for determining expansion to the Urban Growth Boundary (UGB) has been characterised by very short timelines and limited community consultation, especially compared to the original Melbourne 2030 planning process, and a lack of detailed information and clear rationale for some of the proposals.

### 2.1 E6 Freeway

Merri Creek Management Committee and its member body, the City of Whittlesea, oppose the proposed E6 Freeway. The freeway is considered excessive and it is believed that an arterial road extending from the Metropolitan Ring Road to Bridge Inn Road, as previously planned, would be sufficient to cater for future needs if combined with planned upgrades to other roads.

### 2.2 Impact of UGB expansion on urban consolidation initiatives

Earlier this year, the Merri Creek Management Committee (MCMC) wrote to the Victorian Minister for Planning (29.04.09) stating MCMC's concern that the need for expansion of the UGB had not been adequately established, as follows:

*A key principle of Melbourne 2030 was that the percentage growth in greenfield areas would decrease, not increase, over time. Although recent population forecasts suggest the assumptions underpinning Melbourne 2030 need to be revised, this is not an adequate justification for abandoning the key principle of containing growth.*

*The state government's response to a more rapidly growing population needs to involve a thorough and complete strategic review, including serious consideration of a more targeted and active program to increase growth within established areas. Such planning should include an integrated infrastructure delivery plan.*

*Complementary to this, strategies for increasing lot yields per hectare in growth areas need to be implemented. Statistics provided to us indicate that if a yield of 15 lots per hectare in the existing Growth Areas were achieved, there would be enough development land within the current UGB to last for over 15 years. With a density of 20 lots/ha there could be enough for 25 years.*

We also draw attention to the views of two of our member bodies, the Cities of Moreland and Whittlesea. Moreland Council's submission to the state government in July this year states that:

*"..extension to the Urban Growth Boundary is contrary to the urban consolidation objectives at the core of Melbourne 2030"*

and continues with

*"The City of Moreland is concerned that extensive State Government resources are being channeled into provision of new infrastructure at the edges of Melbourne rather than into improvements within the Activity centre locations."<sup>2</sup>*

The City of Whittlesea, whilst not opposed to the expansion of the UGB, identified in its submission that:

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<sup>2</sup> Moreland City Council submission on Urban Growth Boundary Review, letter to Hon Mr Justin Madden from Roger Collins, Director City Development 16/7/09.

*“The State Government’s commitment to Melbourne 2030 urban consolidation policies in established areas must be prioritized above further expansion of Melbourne’s growth areas.”<sup>3</sup>*

Whittlesea Council also stressed that rezoning of land within the UGB should not occur until such time as clear and enforceable Growth Area Framework Plans had been prepared and that development within the UGB:

*“..should not be entertained until there is commitment to provision of the Epping North rail extension concurrent with development.”*

Merri Creek Management Committee supports these views.

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<sup>3</sup> City of Whittlesea Submission on Delivering Melbourne’s Newest Sustainable Communities July 2009, p.26.

### 3. Upper Merri Biodiversity Network Plan

In February 2009 Merri Creek Management Committee submitted the Upper Merri Biodiversity Network Plan to the Victorian Growth Areas Authority, in response to the call for submissions to the *Melbourne @5 Million* report which had identified much of the upper Merri catchment as a Growth Investigation Area.

The details of the Plan area available from MCMC's website [www.mcmc.org.au](http://www.mcmc.org.au) and are summarized below and in Map 3.

#### 3.1 Biodiversity Network Design Principles

The Biodiversity Network is based on four design principles:

1. Protect important biodiversity sites as the key 'nodes' of the Biodiversity Network;
2. Protect waterways, floodplains and wetlands, including buffer areas and adjoining habitats, in the Biodiversity Network;
3. Protect habitat connectivity as part of the Biodiversity Network, both within the catchment and to habitat networks beyond the catchment; and
4. Encourage complementary biodiversity management on adjacent land to strengthen the ecological functioning of the Biodiversity Network.

#### Key Intent of the Biodiversity Network Plan

The key intent of the Biodiversity Network Plan is:

- **To secure key biodiversity sites** that contain highly significant habitat; and
- **To link** key biodiversity sites with **secure habitat corridors**.

#### Key Recommendations

The key recommendations made to the state government in February were as follows:

##### The Upper Merri Biodiversity Network area:

- **Should be actively managed for conservation and restoration of biodiversity values;**
- **Should not be utilised for urban or industrial purposes;**
- **Should be strengthened through complementary biodiversity management on adjacent land;**

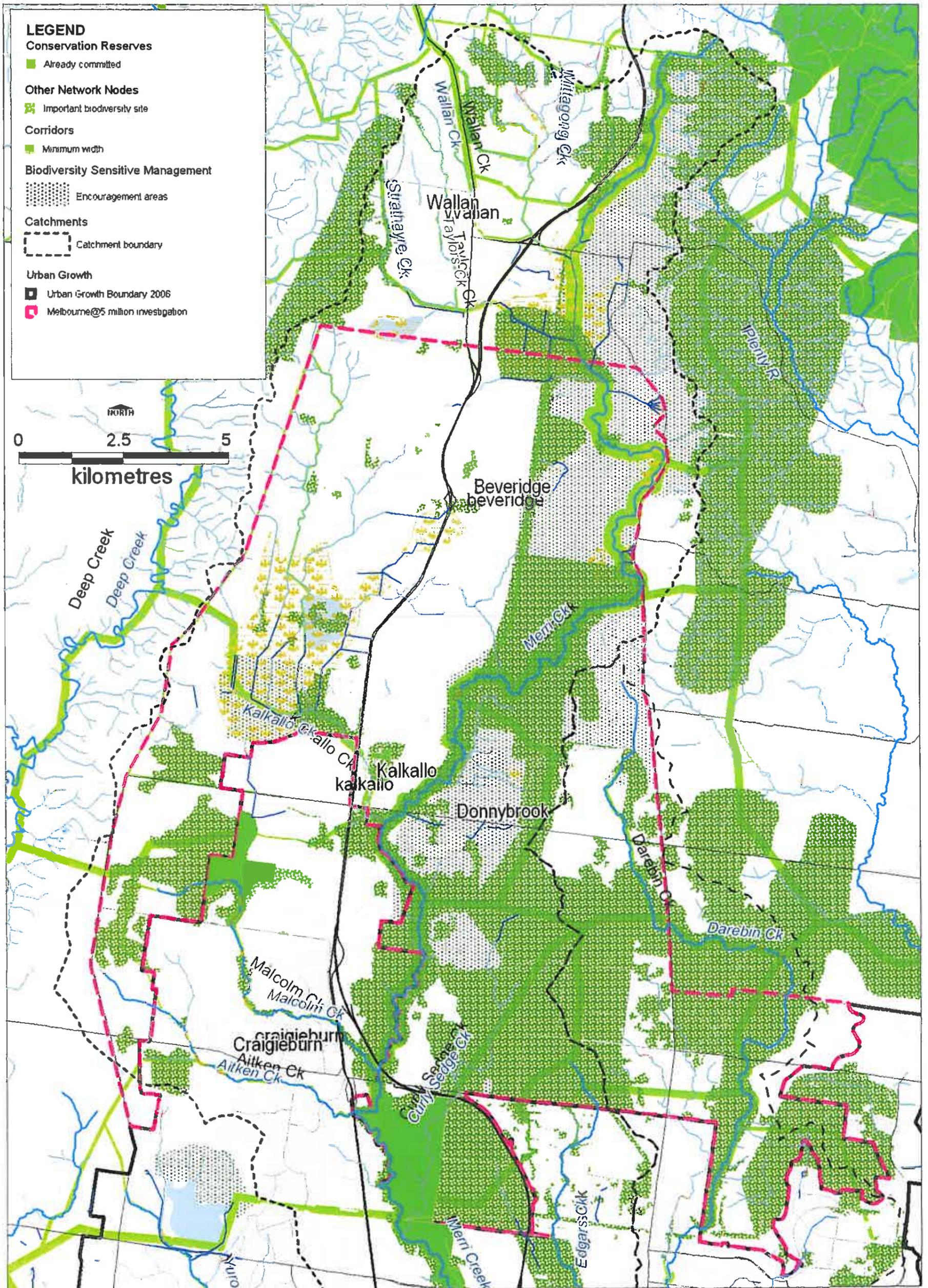
It is considered that these key recommendations can be achieved through appropriate management of both private and public land.

**Recommendation 1:** Land identified as part of the Upper Merri Biodiversity Network Plan

- (1). should not be rezoned to Urban Growth Zone;
- (2). should be rezoned to a zoning which gives priority to conservation uses of the land, such as a Rural Conservation Zone, or a specially created new zone;
- (3). should be subject to an Environmental Significance Overlay.

These controls should be established at the same time as any land is rezoned Urban Growth Zone and/or a new UGB is established.

# Upper Merri Biodiversity Network Plan



Map 3 - The Upper Merri Biodiversity Plan

## 4. Impacts of UGB expansion on biodiversity and waterways

This chapter outlines the key limitations in the planning for expansion of the UGB and issues that Merri Creek Management Committee (MCMC) believes have been inadequately addressed and/or need clarification. A number of these comments relate specifically to impacts and mitigation described in the state government's Strategic Impact Assessment Report (SIA)<sup>4</sup>. Other comments relate more generally to the UGB Review documents and the OMR/E6 planning documents.

### 4.1 *Inadequate ecological information base*

For the upper Merri, the following background studies have provided the basis for the state government's assessment of impacts on biodiversity. These include:

- the SMEC Report on biodiversity constraints of the Northern Investigation Area<sup>5</sup>;
- the Birds Australia Report<sup>6</sup>; and the
- Brett Lane & Associates Flora and Fauna Report on the OMR/E6 transport corridor<sup>7</sup>.

Both the consultants who undertook these studies and those who have reviewed the reports have commented on the limitations of the reports.

In MCMC's view, the information base used for the strategic impact assessment of the UGB on matters of national environmental significance is clearly inadequate.

Problems with each of the consultant's reports are summarised below.

#### 4.1.1 Limitations of SMEC analysis

A number of ecological consultants were contracted by the Growth Areas Authority to provide advice on the biodiversity values of each of the Investigation Areas under consideration for development through the expansion of the Melbourne Urban Growth Boundary.

There were general limitations to all the studies. These include limitations due to:

1. datasets and data provided by DSE (Native Vegetation and flora and fauna);
2. lack of access, particularly to private land, for ground-truthing the presence, type and quality of native vegetation;
3. the timing of the assessments, potentially resulting in misleading results;
4. the incomplete alignment of DSE vegetation assessment methodology and classification with EPBC listed communities.

SMEC undertook the biodiversity assessment for the Northern Investigation Area. MCMC sought advice from consultants, Ecology Australia, as to the adequacy of the SMEC report. Ecology Australia's full comments are presented in Appendix 1.

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<sup>4</sup> DSE (August 2009) Delivering Melbourne's Newest Sustainable Communities Strategic Impact Assessment Report for the Environment Protection and Biodiversity Conservation Act 1999.

<sup>5</sup> SMEC (2009) Analysis of the biodiversity constraints within the investigation areas of Melbourne. Report to growth Areas Authority. SMEC Australia Pty Ltd, Melbourne.

<sup>6</sup> Birds Australia (2009) Planning for the conservation of birds in relation to Melbourne Strategic Plan. March 2009. Unpublished report prepared for the Department of Sustainability and Environment.

<sup>7</sup> Brett Lane & Associates (2009) Outer Metropolitan Ring Road and E6 Transport Corridor: Flora and Fauna Desktop Report. Report to VicRoads, Report No. 8245, June 2009.

Ecology Australia detailed a range of deficiencies in the SMEC Report and concluded that:

*“Overall, the SMEC report is completely inadequate for its intended purpose. It is essentially a desktop review of readily available data sets, confused by technically flawed categories and classifications developed by the authors. It adds little to our knowledge and lacks any analysis of the pre-eminent biological issues and the main legislative and policy drivers.”*

Some of these limitations are acknowledged in the SMEC report itself. As consequence SMEC have identified the need for targeted flora and vegetation community assessment in almost all the sub-areas of the Northern Investigation Area.

**The information that such targeted surveys would provide is precisely the kind of information needed to properly undertake a strategic assessment of biodiversity impacts. The information would be particularly useful for designing a connected network of biodiversity protected areas across the landscape of the Northern Investigation Area (upper Merri).**

#### **4.1.2 Limitations of Birds Australia Report**

Birds Australia was commissioned by DSE to write a report to inform planning for the conservation of birds in relation to the development proposals encompassed in the Program. MCMC has undertaken a detailed review of the Birds Australia Report. Overall, MCMC's review concludes that the uneven quality of data and analysis in the Birds Australia Report limits its usefulness and accuracy in planning for the conservation of birds in the proposed expansion of Melbourne's urban growth boundary. In particular:

- There are major deficiencies in the structure of the Report. It has no aims, objectives or methodology and lacks a distinct limitations section. This makes it impossible to assess the reliability of the Report's determination of areas of biodiversity importance.
- There is no description of where the bird records were sourced, what the limit of their currency was (i.e. how old the oldest records were), no distinction between what might be considered 'vagrants' from regularly occurring species, nor how the significance of a species occurrence within the area was determined.
- Conclusions regarding ephemeral wetlands that may be significant for Latham's Snipe are based on an unnuanced use of the proposed 'significance threshold' for this species.
- The analysis of Grassland species is far less comprehensive than that for Woodland species and as a consequence the Native Grassland Specialist Species section of the Report provides an inadequate basis for making bird biodiversity planning decisions for Native Grasslands.
- By comparison the overall analysis of Woodland species is relatively robust and recommendations reasonably well-grounded.

The Report itself states that it should be viewed as *“..an incomplete assessment, with the understanding that data is insufficient to meaningfully assess the importance of many areas.”*

Further, the Report states that bird distribution, abundance, habitat requirements and tolerance to urbanisation is poorly understood within much of the area where urban development is proposed. It strongly encourages field surveys and further desk-top review.

Given the acknowledged limitations of the Birds Australia Report, and in particular the lack of attention to Grassland species, MCMC is extremely concerned that:

- the Strategic Impact Assessment Report appears to rely heavily on the recommendations of the Birds Australia Report;
- the Strategic Impact Assessment Report represents some of the Birds Australia Report's statements in what appear to be a misleading manner; and
- there is no proposal to undertake further surveys for planning for bird conservation at the strategic level.

#### 4.1.3 Brett Lane & Associates Flora and Fauna OMR/E6 Report

##### Lack of field survey of flora and fauna

The flora and fauna impact assessment for the OMR/E6 transport corridor is based strictly on a desktop study with serious limitations: *"The analysis of the location and area of native vegetation provided in this report must therefore be considered preliminary"* (p.8)<sup>8</sup>. The analysis of species impacts (which found no evidence of significant species occurring on the alignment in the Merri Catchment) merely highlights the lack of on-ground survey work carried out along the alignment.

Within the Merri catchment, the area west of the Hume Highway and south to Mickleham Road has never had a detailed on-the ground survey. No conclusion is really possible about whether the species do or don't occur along the alignment, but given the lack of survey it is highly likely that there will be a higher impact on significant species than is identified in the report.

This lack of previous ground surveys on which to base the desktop assessment is not acknowledged in the Brett Lane Report.

**In summary, MCMC's concern is that decisions about the location of the expanded UGB and new urban growth areas have been made based on inadequate ecological information. We are aware that further surveys are being undertaken this spring and summer and believe that decisions on the new UGB and new urban growth zones should be delayed so that this information can be considered in an appropriate strategic manner**

Recommendation 2: Targeted flora and fauna surveys should be undertaken to provide the information needed to properly undertake a strategic assessment of biodiversity impacts. The information should be used to design a connected network of biodiversity protected areas across the landscape of the Northern Investigation Area (upper Merri/Darebin) before final decisions are made about the UGB and urban growth zones.

## 4.2 Impacts on Biodiversity

### 4.2.1 Impacts on national and state matters

For the Northern Investigation Area, the Strategic Impact Assessment (SIA) Report states that 233ha of Grassy (Red Gum) Woodland and 185ha of Native Grassland may

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<sup>8</sup> Ibid

be destroyed<sup>9</sup> as well as 55ha of other native vegetation. Impacts on certain nationally (EPBC) listed species are also stated as likely or possible. These include the Striped Legless Lizard, Golden Sun Moth, Growling Grass Frog and Matted Flax-lily.

In addition to the above matters of national environmental significance, it is of great concern to Merri Creek Management Committee that the state government has not provided an analysis of the impact of the expanded UGB and transport infrastructure on biodiversity matters of state significance. Neither the UGB Review Report nor the Background Technical Reports address state matters.

All of the Ecological Vegetation Classes (EVCs) listed for the Victorian Volcanic Bioregion which occur within the Merri catchment meet the criteria set out in the *Port Phillip and Western Port Native Vegetation Plan*<sup>10</sup> for the highest level of protection. In addition to those EVCs equivalent to the EPBC listed communities (i.e Grassy (Red Gum) Woodland and Native Grassland), some of these include:

- EVC 895 Basalt Escarpment Shrubland;
- EVC 649 Stony Knoll Shrubland;
- EVC 68 Creekline Grassy Woodland; and
- EVC 124 Gray Clay Drainage-line Complex.

#### **4.2.2 Lack of recognition of biogeographical distinctiveness of the Merri**

Together, the upper Merri and upper Darebin catchments represent a biogeographically distinct sub-region of the wider Victorian Volcanic Plain Bioregion. The lack of recognition of this distinctiveness has led to fundamental flaws in the strategic impact assessment (SIA), in particular the unsubstantiated assumption that grasslands and grassland species in the Merri/Darebin are equivalent to, and can be substituted for, grassland communities and species in the proposed western grassland parks. In particular the proposed expansion of the UGB and the proposed measures in the SIA Report:

- Fail to ensure that the native Grasslands and grassland species of the Merri/Darebin are given adequate and representative protection in the Merri/Darebin;
- Fail to provide for connectivity (habitat corridors) of protected nationally (EPBC) listed communities and species in the Merri/Darebin; and
- Fail to ensure that offsets for any clearance of native grasslands and endangered species habitat are achieved within the Merri/Darebin.

Unlike the western area, virtually all of the Volcanic Plain Bioregion of the upper Merri/Darebin is included in the extended UGB. Other than very small fragments, there are no grassland remnants outside the expanded UGB in the upper Merri/Darebin and thus no opportunity to create a Merri Grassland Park outside the proposed UGB.

**Recommendation 3: Offsets for clearance of any native vegetation and endangered species habitat should be achieved within the Merri/Darebin**

<sup>9</sup> According to the SIA Report a total of 5,197ha of Grassland is likely to be cleared, 617ha for the OMR/E6 transport corridor, 81ha for the Regional Rail Link, 834ha within the existing UGB and the remainder, 4,409ha in new growth areas (p.6).

<sup>10</sup> Port Phillip and Westernport Catchment Management Authority (2006) *Port Phillip and Western Port Native Vegetation Plan*.

### 4.2.3 Ecological and social value of small 'urban' grasslands

Merri Creek Management Committee's experience demonstrates that sustainable management and enhancement of small grassland reserves is feasible; these areas can provide important biodiversity value and important opportunities for local communities to connect with grassland ecology. The 'mitigation' and 'prescriptions' proposed by the state government in the SIA report would inappropriately result in the destruction of many smaller areas of native grassland.

### 4.2.4 Important biodiversity areas slated for development.

Merri Creek Management Committee is extremely concerned that a number of recognised biodiversity areas<sup>11</sup> have been slated for urban development without any transparency as to the basis for these decisions. Public documents do not give any detailed ecological assessment of the areas, nor is there clear analysis of key criteria which have been used to identify these areas as necessary for urban development.

Important Biodiversity Areas in the upper Merri are listed in Table 1 and their location shown on Map 4.

These areas, which have documented biodiversity values, should not be rezoned to Urban Growth Zone with the proclamation of the new UGB. Some of them should probably be excluded from the urban growth area, others should be placed in the 'constrained' (not for urban development) category. At the very least, these areas should be designated as 'subject to further ecological investigation' before any decision is made about their future.

**Recommendation 4:** The biodiversity areas A, B, C, E & G identified in Table 1 and Map 4 should not be rezoned to Urban Growth Zone with the proclamation of the new UGB. The areas should be designated as 'subject to further ecological investigation and assessment' and placed in the 'constrained' zoning category.

### 4.2.5. Important habitat corridor connections<sup>12</sup> slated for urban development include

Important habitat corridor connections slated for urban development include:

- North-south link between Craigieburn East Grassland/Grassy Woodland and the Grassland/Woodland areas north of Donnybrook (nb. this link is not along Merri Creek but further to the east) (see area H);
- An east-west link from the Kalkallo Retarding basin: west to remnant vegetation on the Old Sydney Rd ridge line, and east along Kalkallo Creek to Merri Creek (area I).

**Recommendation 5:** The habitat links H, I & K identified in Table 1 and Map 4 should not be rezoned to Urban Growth Zone with the proclamation of the new UGB. The areas should be designated as 'subject to further ecological investigation and assessment' and placed in the 'constrained' zoning category.

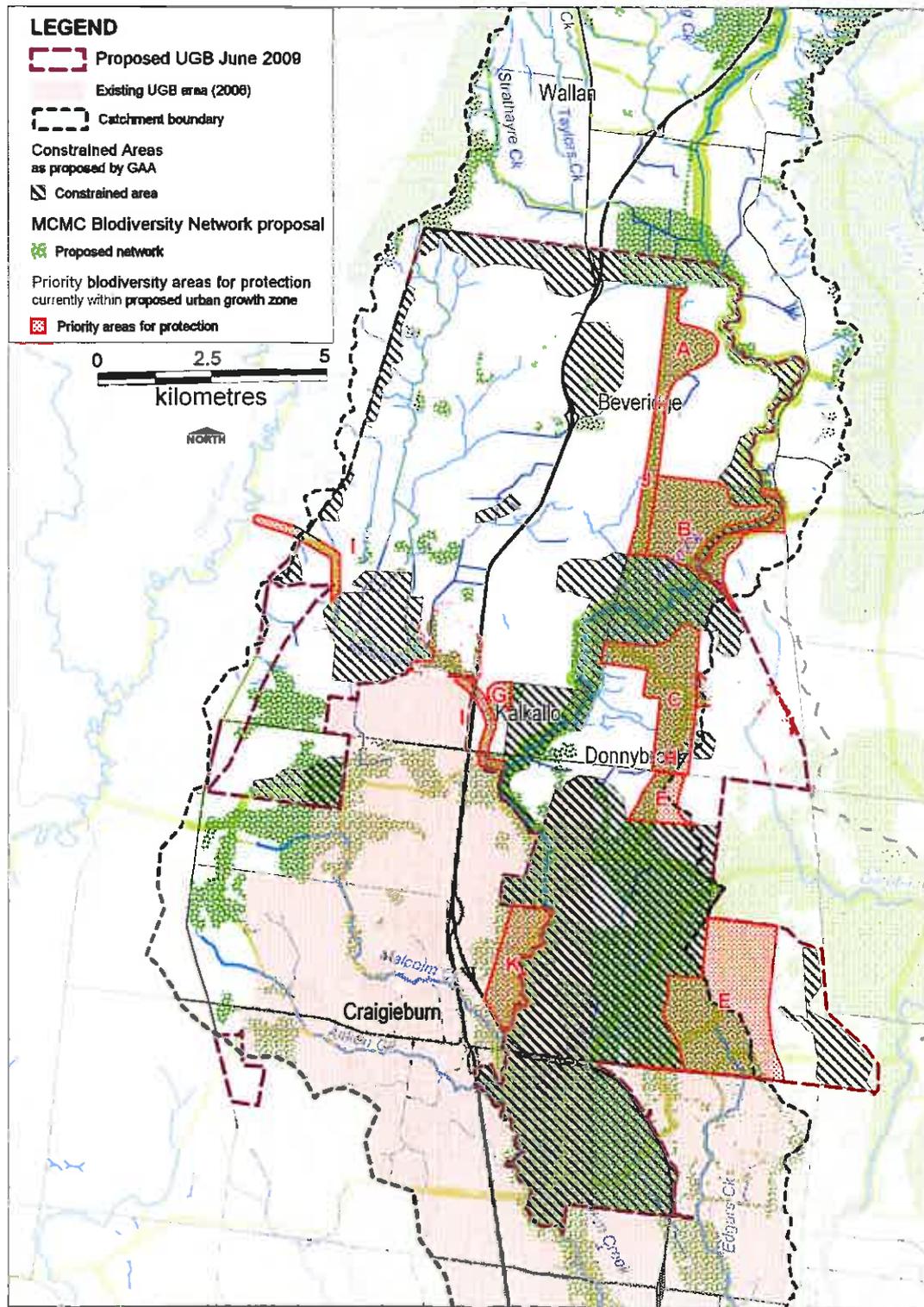
<sup>11</sup> Based on DSE Biosites and mapping of native vegetation in the SMEC report and the Strategic Impact Assessment Report. These areas are also identified in MCMC's Upper Merri Biodiversity Network Plan, Feb 2009. Many of these areas require rigorous ground-truthing.

<sup>12</sup> As identified in MCMC's Upper Merri Biodiversity Network Plan, Feb 2009. See: <http://www.mcmc.org.au/content/view/321/1/>

Table 1 Important Biodiversity Areas and Links within upper Merri/Darebin proposed for Urban Growth Zone

Ref	Site	Significance	Vegetation	Proposed Landuse	Further comments
A	Camoola Swamp	Biosite (State)	Grassy Wetland	Intermodal and Logistics Terminal,;	Includes Beveridge – Wallan Rail Reserve site, currently managed by MCMC for biodiversity values
B	Northern half of Bald Hill Grassland	Biosite (National)	Grassland	Intermodal and Logistics Terminal	Grassland areas within part of this site were identified as high priority offset sites for the rail passing lane project. Further details of Biosite values at: <a href="http://www.mcmc.org.au/content/view/250/334/">http://www.mcmc.org.au/content/view/250/334/</a>
C	Southern part of Bald Hill Grassland	Biosite (National)	Grassland	Urban Development	MCMC believes that up to 70% of this site consists of high quality <i>Poa labillardieri</i> tussock grassland Matted Flax Lily & Golden Sun Moth: Areas of High Contribution to Persistence;
E	Edgars Creek Headwaters & Summerhill Rd	Biosite (State) Biosite (State)	Grassland, Grassy Woodland, stony rises	Urban Development	Golden Sun Moth: Areas of High Contribution to Persistence
G	Kalkallo Common extension	High quality grassland (DSE data)	Grassland	Urban Development	Extremely high quality grassland with cryptogammic crust; MCMC currently manages contiguous Kalkallo Common Crown Land area Matted Flax Lily & Golden Sun Moth: Areas of High Contribution to Persistence
H	North-south eastern habitat link			Urban development	
I	Kalkallo habitat link			Urban development	
K	Craigieburn North Grassland	High quality grassland (DSE data)	Grassland, Grassy Woodland	Inside current UGB, zoned Urban Growth Zone, identified as non-urban development in current Hume Growth Area Plan	Golden Sun Moth: Area of High Contribution to Persistence

# Upper Merri Unprotected Areas



Workspace X \GIS\rebuild conservation network-calculation.WOR Date 29/7/09 Merri Creek Management Committee Inc

**Map 4 Upper Merri biodiversity areas within proposed Urban Growth Zone**  
 (priority biodiversity areas are in red; see Table 1 for description of sites)

#### **4.2.6 No acknowledgement of previous investment into Merriang biodiversity**

The Merriang area is on the basalt plain north from Donnybrook Road to Beveridge Road and east from the Hume Freeway to Epping-Kilmore Road and includes the Bald Hill Biosite.

The Merriang Local Area Biodiversity Plan was funded by the Natural Heritage Trust and auspiced by the Victorian Department of Sustainability & Environment (DSE) as part of its biodiversity action planning process. Together, a range of groups and individuals including private landholders, the Merriang & District Landcare Group, other volunteers, DSE and MCMC, contributed a considerable amount of investment over the last few years to on-ground works, to landholder capacity building and to biodiversity planning<sup>13</sup> in the Merriang area.

Merri Creek Management Committee is concerned that the proposed UGB expansion into this area ignores the major input by the community through the Merriang Local Area Biodiversity Action Plan and the efforts of other landholders in the wider area who have worked to conserve biodiversity on their land. Much of this investment stands to be destroyed, yet there is no acknowledgment of this in the SIA Report, the UGB Review Report or any of the background reports.

The Merriang Local Area Biodiversity Plan area includes 41 rural properties owned by 22 landholders. The Plan aims to promote a coordinated approach to conserve the systems that maintain biodiversity across 5,000 hectares of farmland in the district. The Plan identifies on-ground management actions at the specific property level as well as for the local area. Much work has been done by some of the landowners to protect the conservation values on their lands.

**Recommendation 6:** This work of local community and the investment by the commonwealth in the Merriang area through NHT funding of the Merriang Local Area Biodiversity Action Plan should be supported by retaining this area as rural land, allowing specific biodiversity values to be protected and adjacent land to be managed in a complementary manner to these biodiversity values.

#### **4.2.7 No analysis of the rural landuse ‘matrix’ within which the ‘retained’ biodiversity grassland and grassy woodland is located**

The ability to maintain biodiversity values in the upper Merri is influenced by interface landuse, extent of buffers and the wider ‘matrix’ in which the areas are located. The surrounding rural land, which constitutes the current ‘matrix’, contributes significantly to overall habitat and biodiversity values in the landscape and to the ability of species to move in the landscape and to use habitat corridors. Key points are:

- Pastoral land in the upper Merri provides habitat for many species throughout the landscape.

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<sup>13</sup> For example see the ‘Wildlife & Habitat Guide for Merriang Landholders’ produced by MCMC <http://www.mcmc.org.au/content/view/215/298/>

- It provides habitat connectivity for more mobile or less sensitive species throughout the entire landscape.
- Large grazing properties, due to their structural similarity to the original native grassland vegetation, reduce edge effects throughout the landscape.
- Many such properties adjoin some of the key biodiversity sites and so reduce edge effects on these areas.
- Rural properties have the potential to protect sensitive habitats such as Stony Knolls, creeksides, hollow trees and Wetlands, with many landholders already having made efforts at protecting these areas through fencing and weed control works.

**Recommendation 7:** The intent of the Merriang Local Area Biodiversity Action Plan should be supported by retaining this area as rural land. This will allow specific biodiversity values to be protected and adjacent land to be managed in a complementary manner to support these biodiversity values

#### **4.2.8 Location of biodiversity protected areas**

In the Northern Growth Area approximately 6,000 ha or 38% of the expanded urban growth area has been identified by the state government as 'significantly constrained land'<sup>14</sup> or 'Proposed Non-urban areas (development avoided)'<sup>15</sup>. In the first instance, maps showing this non-urban land give the impression that large areas have been committed to biodiversity. However the 'constrained' land has a wide range of purposes including :

- Flood-prone land and retarding basin land;
- Quarries and their buffers;
- Utility land (sewage treatment, power station);
- Land with landscape values (volcanic cones, hills); and
- Land with biodiversity values.

Map 5 shows the 'constrained land' overlain with areas dedicated to infrastructure and quarry tenements and their buffers. The latter information is based on information in the Background Technical Report on Land Capability<sup>16</sup>.

Once infrastructure and quarrying landuses are taken into account, there is remarkably little biodiversity land (based on mapped native vegetation) included in the 'retained' areas. This is not to say that biodiversity values cannot be retained on land primarily required for other purposes, but the situation should be made explicit .

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<sup>14</sup> UGB Review Report

<sup>15</sup> SIA Report

<sup>16</sup> Background Technical Report 1: Land Capability



#### 4.2.9 Maintenance of connectivity

There is no analysis in the SIA Report of the adequacy of connectivity between proposed 'non-urban' areas for biodiversity purposes. Further, there is no discussion or commitment to maintaining connectivity between biodiversity areas once major new transport corridors and urban development are in place. It is vital that this is specified: 'greenways', bridges, tunnels etc are needed for fauna use, and significant bridging and/or tunnelling is needed to minimise fragmentation.

#### 4.2.10 OMR/E6 severing of habitat corridors

The OMR and the E6 bisect the Merri and Darebin catchments and therefore have the potential to sever a number of the strategic habitat corridors identified in the Merri Creek and Environs Strategy. These habitat corridors are:

- From Mt Ridley west to Deep Creek;
- From Kalkallo Creek west to Deep Creek;
- Along Kalkallo Creek to Deep Creek;
- From Merri Creek north along the Northern Rail Line;
- Along Merri Creek; and
- East from the Bald Hill Grasslands towards Woodstock.

There is no specification of mitigation measures in the OMR/E6<sup>17</sup> report to provide in the design phase for retention or improvement of these strategic corridors. It is essential that mitigation to retain and improve these strategic corridors is included in design of the OMR/E6.

**Recommendation 8:** A clear commitment to connectivity between biodiversity areas across the landscape of the upper Merri/Darebin should be given, particularly in view of major transport infrastructure. Mitigation measures designed to retain and improve the strategic habitat corridors specified in the Merri Creek & Environs Strategy should be specified as a requirement in the design phase of the OMR/E6 transport corridor.

#### 4.2.11 Protection of the Merri corridor

The Merri corridor is a key habitat link through the upper Merri catchment. The SIA Report appears to recognise this, describing the Merri Creek corridor as a one of the "Key areas retained for conservation purposes.." (p.6, p.207).

This corridor along Merri Creek is shown as a 'non-urban' area. The width is substantial but indicative only. It is not shown as extending into the current UGB (i.e. areas subject to future precinct plans). There is no specific mention in the text of the width of the corridor. The only specific mention of a width that would apply to the Merri Creek corridor is a general reference to 200m buffers for water-bodies with Growling Grass Frogs and 100m buffers along connecting waterways<sup>18</sup>..

As proposed in the Merri Creek & Environs Strategy, there needs to be an unambiguous minimum 200m protected corridor on both sides of Merri Creek, along its entire length through the Investigation Area and in those areas within the UGB subject to future PSP,

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<sup>17</sup> See Table C-1, p 225 of the Planning Assessment Report – Outer Metropolitan Ring/E6 Transport Corridor

<sup>18</sup> Mitigation Objectives for Growling Grass Frog, p.180, SIA Report

irrespective of current biodiversity values within the corridor area. The total corridor would thus be a minimum 400m wide. Some interface landuses are far more suited to managing and maintaining biodiversity values than others and guidelines for the surrounding context and 'buffers' should be specified, as they should be for all biodiversity areas.

**Recommendation 9:** There needs to be an unambiguous minimum 200m protected corridor on both sides of Merri Creek, along its entire length through the area of the Program, irrespective of current biodiversity values within the corridor area. The total corridor would thus be a minimum 400m wide. Guidelines for the surrounding context and 'buffers' should be specified.

#### **4.2.12 Impacts of additional transport infrastructure**

The state government has not provided any analysis of the possible or likely route/s for the high capacity public transport corridor/s referred to in the UGB Review Report. The alignment could include areas which have been identified as 'constrained' or even go through areas that have been excluded from the UGB. The City of Whittlesea's submission to the GAA specifically identifies land between Summerhill Rd and Donnybrook Rd as potentially being needed for future rail infrastructure. Rail infrastructure in this location would traverse areas earmarked as 'not for urban development'.

Thus it seems that even areas not zoned for urban growth have the potential to be directly impacted by 'urban' infrastructure.

**Recommendation 10:** The routes and impacts of major transport infrastructure associated with future urban development in the upper Merri should be specifically identified and assessed as part of consideration of the analysis of the impacts of the expanded UGB.

#### **4.2.13 Future of Extractive Industry**

The future of current extractive industry areas within the 'constrained land' is not clear. Will land be retained as 'open space' once quarrying is exhausted or will it be developed? The potential impact of new extractive industry areas is not discussed, e.g. Boral's quarrying area of interest at the Bald Hills grasslands. Important biodiversity areas, woodlands and grasslands are located within the quarry tenement areas and quarry buffers.

**Recommendation 11:** The future status of biodiversity areas within quarry tenement and buffer areas needs to be specified.

### **4.3 Impacts on Water and Waterways**

Urbanisation typically leads to major changes in two fundamental features of waterways, water quality and hydrology, both of which lead to degradation in stream health. Changes in hydrology can also lead to geomorphic instability of waterways, subsequent erosion and loss of habitat, and to deterioration in riparian condition. Of particular concern is the impact that these changes could have on the nationally listed Growling Grass Frog and on riparian ecological communities).

#### **4.3.1 Urban Stormwater**

In Victoria the quality of urban stormwater in new residential developments is regulated through Clause 56 of the Planning Scheme which requires adherence to the Best Practice Stormwater Guidelines. What is often not understood is that even full compliance with these Guidelines will not ensure that water quality in newly urbanised areas is as good as the pre-development rural condition. Both the *Better Bays and Waterways* water quality plan<sup>19</sup> and Melbourne Water's *Waterways Water Quality Strategy*<sup>20</sup> suggest the need to review the performance objectives of the Best Practice Stormwater Guidelines to better protect waterways. What's more, Clause 56 only applies to residential sub-divisions. A much needed addition to planning schemes is an equivalent clause for industrial, business and mixed use zones.

#### **4.3.2 Industrial Stormwater**

In addition to subdivision level water quality requirements, industrial areas need additional permit conditions, at the individual lot scale, to specifically address the high potential for contaminated stormwater runoff. It is well recognised that the cumulative effects of quite minor work practices can lead to a build up of heavy metals and other contaminants on surfaces exposed to rainfall and runoff. Hume Council's *Industrial Stormwater Code of Practice*<sup>21</sup> (2009) details the particular allotment level planning controls that are needed to ensure that surfaces stormwater runoff from industrial areas is of an equivalent quality to residential stormwater runoff. These requirements are yet to be codified into the planning scheme.

#### **4.3.3 Hydrology**

Currently, the only regulatory requirement for hydrological performance of new urban areas is that they do not increase the downstream flood risk above that of the previous rural condition, for a 1:100 event. This control is usually achieved through the construction of retarding basins by Melbourne Water.

In urban catchments, the increased amount and frequency of runoff can be just as degrading to stream environments as the decrease in water quality. The extensive impermeable surfaces of urbanised catchments usually lead to an increased 'flashiness' of stream flows after rain. Even quite minor rain events can generate flow peaks whereas under pre-development conditions such rain events would infiltrate into the soil.

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<sup>19</sup> The *Better Bays and Waterways* water quality plan, for Port Phillip and Western Port Bays, has been established by Melbourne Water and EPA Victoria, working together with support from the Australian Government's Coastal Catchments Initiative.

<sup>20</sup> Melbourne Water (2008) *Waterways Water Quality Strategy*.

<sup>21</sup> Hume City Council (2009) *Industrial Stormwater Code of Practice*.

This 'flashiness' can lead to increased erosion of bed and banks, to geomorphic instability of the waterway, and reductions in aquatic vegetation diversity, all of which could impact on stream health.

The term 'effective imperviousness' (EI) is used to describe the proportion of hard surfaces of the catchment directly connected via conventional stormwater pipes to the stream.

An EI above 0.5% leads to a 'detectable impact' on streams and above 5% to a 'likely severe impact'.

The upper Merri currently has an EI of between 0.5-5%, and this is anticipated to rise to the 5-10% range which equates to 'likely severe impact' when the current level of proposed urban development is considered<sup>22</sup> (i.e. this is not taking into account the proposed expansion of the UGB). The state government's assessment reports have not provided any analysis of the expected change to EI with the expanded UGB.

It is possible for rigorous implementation of water sensitive urban design (WSUD) to mitigate these effects but the current Clause 56 is not sufficient for this, particularly because it does not have a flow frequency objective. The *Waterways Water Quality Strategy* identifies the need to update the best practice objectives with flow frequency and erosion potential objectives.<sup>23</sup>

#### 4.3.4 Salinity-adapted riparian vegetation

Specialised salinity-adapted ecological plant communities occur in the riparian rural reaches of the Merri Creek<sup>24</sup>. The impact of changed hydrological conditions and water quality on these specialised plant communities has not been assessed by the state government. In the Merri, stormwater runoff from urban areas results in lower salinity levels in urban areas compared to rural reaches and water quality data for the Merri demonstrate a decrease in salinity downstream with increased urbanisation<sup>25</sup>. If the expansion of the UGB generates similar changes, the effect on salinity-adapted plant communities will be adverse.

#### 4.3.5 Transport Corridor/freeway stormwater runoff

The OMR/E6 report states that "*The treatment of stormwater before discharge into receiving waterways would be subject to detailed design, which would require the approval of the relevant Catchment Management Authorities.*" Much of the runoff from the northern sections of the OMR/E6 freeways will end up in Kalkallo Creek, Merri Creek and Darebin Creek, and contribute flow to known habitat of Growling Grass Frogs. It will also flow past the National Estate listed Craigieburn to Cooper Street Grasslands.

An extremely high standard of Water Sensitive Road Design needs to be incorporated in the OMR/E6 proposal and into other new or upgraded roads. This should include both water quality and hydrology objectives, as described above, in order to minimise impacts on waterways and Growling Grass Frogs.

**Recommendation 12: It is essential that water quality and hydrology objectives be set for new urban areas including roads and transport corridors, with the aim of maintaining a re-urban (rural) pattern of hydrology and water quality for waterways.**

<sup>22</sup> Melbourne Water (2008) *Waterways Water Quality Strategy*, Figs. 3&4, p.9.

<sup>23</sup> Ibid. Appendix 1, p.21

<sup>24</sup> GHD (2004) Report for Yarra Valley Water Aurora Treatment Facility Ecological Risk Assessment p.8, & D.Frood, pers.com.

<sup>25</sup> Both Melbourne Water data and MCMC's own quarterly data demonstrate this.

#### 4.3.6 Stormwater outfalls

Irrespective of the type of stormwater treatment that eventuates in the new growth areas, stormwater outfalls to waterways will be required. In MCMC's experience the location of these outfalls and associated works within creek reserves has not been sufficiently sensitive to environmental values and there have been a number of instances in recent years where native vegetation has been destroyed.

**Recommendation 13:** Stormwater outfalls to waterways and associated drainage works must be specified as soon as possible. Inevitably some of these works and structures will be located within 'retained' biodiversity areas. There must be explicit requirements and assessment of impacts regarding stormwater and other infrastructure in both the Biodiversity Conservation Strategy and in Precinct Structure Plans. This is of great relevance to the Merri Creek itself.<sup>26</sup>.

The failure to describe, analyse and mitigate the potential for adverse impacts on the waterways of the upper Merri through changes to water quality and hydrology is a major failing of the state government's assessment of the UGB expansion. This is especially important given the widespread occurrence of the Growling Grass Frog through the upper Merri.

#### 4.3.7 Potential impact of new Sewage Treatment Plant (STP).

The proposed location of a new STP, in Kalkallo, is adjacent to Merri Creek and a known significant population of Growling Grass Frogs. Whilst it is proposed that the STP will also include a water treatment facility for provision of recycled water to new developments, the question as to whether there will be a discharge to Merri Creek and what impacts that might have has not been addressed. The Background Technical Report on Drainage states that "...the release of even small volumes of reclaimed Class A water could have a significant impact on receiving water ways and such release could negate, in part at least, the benefits of nutrient reduction achieved by stormwater treatment wetlands or other WSUD measures."<sup>27</sup>

**Recommendation 14:** The question of possible discharge from the new Kalkallo STP to Merri Creek and its impacts must be addressed. This part of the creek contains significant Growling Grass Frog habitat. There should be no STP or reclaimed water discharge unless it can be demonstrated that there will be no adverse effect on Merri Creek.

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<sup>26</sup> In MCMC's experience the detailed location of stormwater infrastructure, including outfalls, is not dealt with by Precinct Structure Plans or through Native Vegetation Precinct Plans. Unless the constraints are identified very early on in the planning process, there is often no option but to destroy native vegetation in order to appropriately locate outfalls etc.

<sup>27</sup> Delivering Melbourne's Newest Sustainable Communities Background Technical Report: 3 Drainage. Beveridge Williams & Co, June 2009.

#### **4.4 Impacts associated with the development of the Freight Logistics Precinct**

A huge area of 1,000ha in the north-east part of the Merri catchment has been identified for a future freight logistics precinct, although the area required for the inter-modal terminal itself is considerably smaller than this. The construction of the terminal is said to be at least 20 years away (pers.com Dept Transport).

Merri Creek Management Committee (MCMC) is concerned that the impact of this proposal has not been adequately assessed. A freight logistics precinct is likely to have a much higher proportion of hard stand impermeable surfaces than other urban development areas and a corresponding smaller amount of area devoted to open space. It is likely to be busy and noisy, 24 hours per day.

The proposed location is, in part within two Biosite areas and is bordered to the east by Merri Creek and known habitat for the Growling Grass Frog. MCMC is aware, through direct observation, of remnant grassland vegetation in the southern portion of this area (part of Bald Hill Biosite) and to some extent in the Camoola Swamp Biosite. We have only been able to view a limited part of the latter Biosite from the adjacent rail reserve and are not aware of any ecological assessment of this area.

Given the likely scale of the impacts of this specific development, potentially well beyond the expected impacts of other urban areas, and in part related to the inherent inflexibility regarding the location of key aspects of the infrastructure, it is of extreme concern that there is no particular analysis of ecological impacts or ecological information provided about this area. Nor is there any analysis of why this proposal is needed, given the commitment to develop at least two other inter-modal freight terminals in the greater Melbourne area (to the west and in Dandenong) and the presence of an existing intermodal freight terminal in the north of Melbourne at Somerton.

MCMC is also extremely concerned about the implications of rezoning this area to 'urban growth zone' for ongoing good management of this rural land and its biodiversity values when the time frame for development of the precinct is more than 20 years.

**Recommendation 15: The area designated for a future Freight Logistics precinct should not be included within the UGB and should be subject to more specific analysis.**

#### **4.5 Limited analysis of climate change**

The management of the biodiversity risks and uncertainties associated with climate change is discussed in the SIA report in relation to the large proposed western grassland parks which, incidentally, are in a rain-shadow area (500-550mm rainfall) to the west of Werribee. The value of retaining grassland reserves in the upper Merri - a geographically distinct location with slightly higher rainfall (600-650mm) - to increase resilience in the face of climate change is not discussed. The susceptibility of bird species such as Painted Snipe, which are known to utilise the scattering of [ephemeral] grassy wetlands in the proposed western grassland reserves, and which potentially utilise similar habitat in the upper Merri, is not discussed.

There is no analysis of the confounding effects of climate change and urbanisation on stream hydrology and the threat this poses to instream ecology. Of particular concern is the impact on Growling Grass Frogs (GGF). Climate change is predicted to lead to decreased stream flow and less filling of temporary water-bodies. Urbanisation typically leads to decreased base flow in streams, thus exacerbating effects of climate change. Current habitat for Growling Grass Frogs in Merri Creek and associated with the wider creek environs is at risk.

Recommendation 16: (1) Analysis is needed of the confounding effects of climate change and urbanisation on stream and wetland hydrology and the risk to Growling Grass Frog, Painted Snipe and other wetland species.  
(2) Analysis of the value of retaining grassland reserves in the upper Merri which has a higher rainfall than western grassland parks should be made.

## 5. Conclusion

In conclusion, there are many aspects of the environmental impact of the proposed expansion of the Urban Growth Boundary that have not been adequately identified or assessed by the state government. Ecological information is still incomplete and proper strategic planning for biodiversity has not been undertaken.

In the upper Merri, which represents most of the Hume/Mitchell/Whittlesea growth area, the eastern part of the catchment is known to have higher landscape biodiversity values than the western part of the catchment. Parts of the eastern catchment have already been identified as being 'constrained' and will not be available for urban development. It is Merri Creek Management Committee's view that this eastern part of the catchment should not be available for urban development.

## 6. List of Recommendations

This list of recommendations includes all the recommendations included within the submission. The page references are to the original location within the text of the recommendation.

- Recommendation 1:** Land identified as part of the Upper Merri Biodiversity Network Plan (1). should not be rezoned to Urban Growth Zone; (2). should be rezoned to a zoning which gives priority to conservation uses of the land, such as a Rural Conservation Zone, or a specially created new zone; (3). should be subject to an Environmental Significance Overlay. These controls should be established at the same time as any land is rezoned Urban Growth Zone and/or a new UGB is established. .... 14
- Recommendation 2:** Targeted flora and fauna surveys should be undertaken to provide the information needed to properly undertake a strategic assessment of biodiversity impacts. The information should be used to design a connected network of biodiversity protected areas across the landscape of the Northern Investigation Area (upper Merri/Darebin) before final decisions are made about the UGB and urban growth zones. .... 18
- Recommendation 3:** Offsets for clearance of any native vegetation and endangered species habitat should be achieved within the Merri/Darebin ..... 19
- Recommendation 4:** The biodiversity areas A, B, C, E & G identified in Table 1 and Map 4 should not be rezoned to Urban Growth Zone with the proclamation of the new UGB. The areas should be designated as 'subject to further ecological investigation and assessment' and placed in the 'constrained' zoning category. ... 20
- Recommendation 5:** The habitat links H, I & K identified in Table 1 and Map 4 should not be rezoned to Urban Growth Zone with the proclamation of the new UGB. The areas should be designated as 'subject to further ecological investigation and assessment' and placed in the 'constrained' zoning category..... 20
- Recommendation 6:** This work of local community and the investment by the commonwealth in the Merriang area through NHT funding of the Merriang Local Area Biodiversity Action Plan should be supported by retaining this area as rural land, allowing specific biodiversity values to be protected and adjacent land to be managed in a complementary manner to these biodiversity values..... 23
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Recommendation 9: There needs to be an unambiguous minimum 200m protected corridor on both sides of Merri Creek, along its entire length through the area of the Program, irrespective of current biodiversity values within the corridor area. The total corridor would thus be a minimum 400m wide. Guidelines for the surrounding context and 'buffers' should be specified. ....	27
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Recommendation 12: It is essential that water quality and hydrology objectives be set for new urban areas including roads and transport corridors, with the aim of maintaining a re-urban (rural) pattern of hydrology and water quality for waterways. ....	29
Recommendation 13: Stormwater outfalls to waterways and associated drainage works must be specified as soon as possible. Inevitably some of these works and structures will be located within 'retained' biodiversity areas. There must be explicit requirements and assessment of impacts regarding stormwater and other infrastructure in both the Biodiversity Conservation Strategy and in Precinct Structure Plans. This is of great relevance to the Merri Creek itself. ....	30
Recommendation 14: The question of possible discharge from the new Kalkallo STP to Merri Creek and its impacts must be addressed. This part of the creek contains significant Growling Grass Frog habitat. There should be no STP or reclaimed water discharge unless it can be demonstrated that there will be no adverse effect on Merri Creek. ....	30
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## **7. Appendices**

### **7.1 *Appendix – Letter from Ecology Australia***



8 July 2009

Luisa Macmillan  
 Manager  
 Merri Creek Management Committee  
 2 Lee Street  
 East Brunswick 3057

Dear Luisa

**Re: Analysis of Biodiversity Constraints within the Investigation Areas in the Growth Areas of Melbourne. SMEC (2009)**

Following our meeting last week, I've briefly reviewed the above report. My comments focus on the main elements: objectives, methodology, technical content etc. rather than specifics.

Overall, the report does nothing to advance our knowledge of the areas under investigation, is technically flawed and falls well short of the stated objectives.

**Background**

SMEC fail to provide a context for the main biodiversity issues in the investigations area. These are well known by experienced biologists and their failure to do so is indicative of the technical flaws which follow. At a minimum the report requires a statement of the key issues [grasslands and grassy woodland (and component EVCs), other endangered EVCs, SLL, GSM, GGF, etc., etc.] and their relationship to the main legislative (EPBC, FFG) and policy (Net Gain) drivers.

**Methodology**

The methodology is seriously limited. There is a fundamental disconnect between the objectives and the methods employed. The report does not explain how a very basic desktop review can:

'.....determine any land, to be retained because of biodiversity significance' (Objective 1)

or

'.....inform the Governments impact report of possible change to the UGB and UGZ under the terms of the Commonwealth EPBC Act 1999 ...' (Objective 2)

SMEC's API methodology adds little to the existing information. Indeed by erecting highly questionable vegetation categories, the authors merely add a layer of confusion to the existing data. The 'rapid' field assessment to undertake some '.... on ground composition assessment ...' and '.....qualitative vegetation assessment ....' has no explanation as to what this means in terms of accepted practice.

Further, SMEC's treatment of the 'likelihood of Threatened Species' is at best preliminary:

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- The 'Habitat preference' information (Appendix E) for flora and fauna is taken only from mainstream texts, suggesting a very limited understanding of the taxa involved and the prevailing conditions in study areas.
- The likelihood categories are poorly conceived and articulated.
- There is no discussion of the relative importance of the various species to decision making.

The footnote states that the 'likelihood' section is a guide only, which further questions whether this adds anything to our current knowledge.

### **Limitations (page 19)**

This section openly reinforces the above comments. The methods are simply inadequate for the study's objectives.

### **Investigation Areas**

This section covers the nine areas under investigation. The information provided is a direct result of the limited and technically questionable methodology. The information is general, list-orientated, and provides no prioritisation of issues nor their relationship to the major legislative and policy drivers.

### **Discussion and Recommendations**

#### *Identifying Key Constraints*

SMEC base this section on their vegetation categories, likelihood of threatened species and other area attributes. Considering the technical problems with the first two categories, the basis of constraints should default to the existing data bases. The information provided is overly speculative as SMEC weight their (flawed) vegetation categories, provide scant treatment of key values nor provide recommendations for further work (although this is ultimately covered in the GAP Analysis).

The report further states that '.... SMEC recommends offsetting any further loss with appropriate revegetation work and habitat improvement works and/or the creation of biodiversity links and corridors ...' The offset policy and requirements will be set by the states' Vegetation Framework (Net Gain) and DEWRA (EPBC) – these major determinants of if, when and how offsets can proceed are simply not mentioned!

### **Planning Ecological Resilient Landscapes**

The report outlines some of the ecological principles which need to be considered, but at a very introductory level. The relevance to the investigation area of such a generalised treatment is limited, and the authors fail to comprehend that the EPBC, FFG, the capacity to offset losses (EPBC and Net Gain), and regional strategies and other interests will play a major role in influencing the outcome.

### **GAP Analysis**

This section covers the inadequacies of the balance of the report. It appears to have been written or substantially compiled by a third party. The language and technical content are at odds with the preceding chapters. It clearly articulates the issues and what is required.

The report's Executive Summary makes no mention of the GAP Analysis.

Overall, the SMEC report is completely inadequate for its intended purpose. It is essentially a desktop review of readily available data sets, confused by technically flawed categories and classifications developed by the authors. It adds little to our knowledge and lacks any analysis of the pre-eminent biological issues and the main legislative and policy drivers.

On other matters, the proposed grassland reserve to the west of Melbourne would not adequately represent the values in the Merri Creek catchment, nor satisfactorily meet EPBC and Net Gain offsets on a like-for-like basis. While this needs more careful thought the issues that come to mind include:

- Representativeness – the 'R' in the CAR reserve system, applied widely across the state as part of the RFA process. Simply, does the western grassland reserve Adequately ('A') represent the values in the northern extension encompassing the Merri Creek catchment?
- The biophysical differences: rainfall, geology, topography, etc.;
- EVCs or Floristic Communities common in the north but absent/very restricted in the west, e.g.:
  - Grassy Woodland (of the Volcanic Plain) – now EPBC listed as critically endangered;
  - Common Tussock-grass (*Poa labillardieri*) Floristic Community of the EPBC-listed Natural Temperate Grasslands and FFG-listed Plains Grassland;
  - Presence/absence or substantial differences in abundance of EPBC, FFG or Advisory list taxa, e.g. *Dianella amoena*;
  - Fauna assemblages – including the influence of the foothill habitats in the headwaters of Merri Creek.

Overall, there will be a number of biodiversity items that are well represented in the proposed Merri Creek UGB extension that are either not present or poorly represented in the west.

I hope this adds to the dialogue.

Regards



Andrew McMahon  
Director and Principal Ecologist