

Western Sydney Growth Centres

An assessment of the proposal to confer biodiversity certification on State Environmental Planning Policy (Sydney Region Growth Centres) 2006 under section 126G of the Threatened Species Conservation Act 1995

Department of **Environment & Climate Change** NSW



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Abbreviations

CAP	Catchment Action Plan
DEC	Department of Environment and Conservation (now DECC)
DECC	Department of Environment and Climate Change
DoP	Department of Planning
EEC	Endangered ecological community
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
EPI	Environmental planning instrument
GCC	Growth Centres Commission
HMV	Higher Long Term Management Viability
HNCMA	Hawkesbury-Nepean Catchment Management Authority
KTP	Key threatening process
LMV	Lower Long Term Management Viability
Minister	Minister Assisting the Minister for Climate Change, Environment and Water (Environment)
NPWS	National Parks and Wildlife Service (now part of DECC)
NRC	Natural Resources Commission
SEPP	State Environmental Planning Policy
SIC	Special infrastructure contribution
TSC Act	<i>Threatened Species Conservation Act 1995</i> (NSW)
VCA	Voluntary conservation agreement

Note on references to NSW authorities:

Over the period in which the biodiversity certification proposal was prepared, publicly exhibited and assessed, there have been a number of structural changes to agencies involved in the planning for the Growth Centres. Hence, the former Department of Environment and Conservation is now the Department of Environment and Climate Change. Similarly, there has been a re-allocation of Ministerial portfolios and responsibilities.

In this report, most references to agencies and Ministers are based on current names. However, in some instances (particularly when referencing published material) it has been necessary and more logical to refer to previous titles.

Executive summary

This report provides an assessment of the proposal to confer biodiversity certification on State Environmental Planning Policy (Sydney Region Growth Centres) 2006 under section 126G of the *Threatened Species Conservation Act 1995* (TSC Act). The justification and rationale for the proposal are detailed in the draft Growth Centres Conservation Plan, which has been prepared and publicly exhibited by the Growth Centres Commission (2007a).

The report examines the proposed biodiversity certification in light of the requirements of the TSC Act, the working draft guidelines for biodiversity certification (DECC 2007b), public submissions and a range of other relevant matters. Specific consideration is given to whether the SEPP, and associated conservation measures, will lead to the overall improvement or maintenance of biodiversity values. This is the fundamental test in determining whether biodiversity certification may be granted.

The Growth Centres SEPP is the first planning instrument to be considered for biodiversity certification under the TSC Act and (if approved) only the second example of the granting of biodiversity certification. The process for preparing and assessing a certification proposal is therefore relatively new. The specific requirements for achieving certification of environmental planning instruments will always need to reflect different local and regional circumstances. There is currently, therefore, no standardised or generic approach to assessing whether an improve or maintain outcome can be achieved at the strategic planning scale. In this context, the following report has been mindful of the unique conservation and planning circumstances that apply to the Cumberland Plain of western Sydney, within which the Growth Centres are located.

The biodiversity certification proposal has many, and at times overlapping, strands. While every attempt has been made to structure this report as logically as possible, some repetition is inevitable. There is also extensive cross-referencing between sections and discussion of issues raised in public submissions.

The report is divided into the following sections:

1. **Introduction** – provides an overview and background to the proposal
2. **Growth Centres conservation package** – details the conservation outcomes proposed both within and outside the Growth Centres
3. **Steps towards certification** – examines the proposal in light of the steps detailed in the working draft guidelines for biodiversity certification
4. **Assessment of improve or maintain outcomes** – examines the criteria and methods used in the draft Conservation Plan to test the improve or maintain requirement
5. **Matters for consideration** – addresses the heads of consideration specified in the TSC Act as well as a range of other matters relevant to biodiversity certification of the SEPP
6. **Submissions** – provides discussion of the key themes from the public submissions on the draft Conservation Plan
7. **Final conclusion and recommendation** – provides a final view on the proposal.

The conclusion of this report is that State Environmental Planning Policy (Sydney Region Growth Centres) 2006 is suitable for biodiversity certification under section 126G of the TSC Act on the basis that it, and the associated conservation package, will lead to the overall improvement or maintenance of biodiversity values. The report provides a number of recommended conditions of certification that are considered necessary to ensure that this outcome will be achieved.

1. Introduction

This section provides an overview of the biodiversity certification proposal for State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (hereafter referred to as the 'Growth Centres SEPP'). It also outlines the statutory and non-statutory matters to be considered in the assessment of this proposal.

1.1 Purpose of the report

This report provides an assessment of the proposal to confer biodiversity certification on the Growth Centres SEPP under section 126G of the *Threatened Species Conservation Act 1995* (TSC Act). The report will be provided to the Minister Assisting the Minister for Climate Change, Environment and Water (Environment) (hereafter referred to as the 'Minister') to assist in making that decision.

The report addresses the following matters:

- the requirements for biodiversity certification
- background to planning and development of the Growth Centres
- details of the conservation package for the Growth Centres presented in the draft Conservation Plan
- determination of whether the Growth Centres SEPP, and other elements of the conservation package, will lead to the overall improvement or maintenance of biodiversity values
- consideration of other relevant issues, including the matters specified in the TSC Act and the public submissions on the draft Conservation Plan
- conclusions and recommendations to the Minister.

1.2 Background to biodiversity certification

Under section 126G of the TSC Act the Minister may confer biodiversity certification on an environmental planning instrument (EPI) if satisfied that the EPI, in addition to any other relevant measures to be taken, will lead to the *overall improvement or maintenance of biodiversity values*. Biodiversity values are defined in section 4A of the TSC Act as including 'the composition, structure and function of ecosystems, and includes (but is not limited to) threatened species, populations and ecological communities and their habitats'.

Once the Minister is satisfied that an EPI demonstrates an overall improvement or maintenance of biodiversity values, the Minister must then consider the following matters listed in sections 126G and 126N of the TSC Act before granting certification:

- the likely social and economic consequences of implementation of the EPI
- the most efficient and effective use of available resources for the conservation of threatened species, populations and ecological communities
- the principles of ecologically sustainable development
- conservation outcomes resulting from any reservation or proposed reservation of land under Part 4 of the *National Parks and Wildlife Act 1974* or the entering into of a conservation agreement relating to the land under that Act, or resulting from any other action to secure the protection of land for conservation purposes

- conservation outcomes resulting from the operation outside the area of operation of the EPI of strategies, plans, agreements and other instruments (whether or not they are EPIs)
- the objects of the TSC Act
- the conservation benefits that will result from a voluntary action that is being undertaken as part of a concurrence granted by the Director General (as if those benefits would result from the implementation of the EPI).

The main practical effect of certification is that it removes the need to undertake threatened species assessments for developments or activities within the area subject to certification. This means that there would be no requirement to address the assessment of significance required under section 5A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (the ‘7-part test’), prepare species impacts statements or obtain the concurrence of the Department of Environment and Climate Change (DECC) or Minister.

An EPI cannot be certified unless public notice is given of the proposed biodiversity certification and copies of any submissions provided to the Minister.

The TSC Act also includes provisions regarding:

- the public exhibition of a certification proposal
- conditions that may be applied to certification
- the period over which certification can be applied
- the reassessment and extension of certification
- mechanisms to suspend or revoke certification.

1.3 Guidelines for biodiversity certification

The TSC Act (section 126G(5)) provides that the Minister may issue guidelines to assist in preparation of EPIs for certification.

DECC (2007b) has issued working draft guidelines that outline the proposed framework for preparing an EPI for certification. The working draft version acknowledges that the guidelines are general in nature and that biodiversity certification is a new process. It also notes that the requirements for achieving certification will need to reflect unique local and regional circumstances. There is currently, therefore, no ‘one-size-fits-all’ approach to assessing certification proposals and determining whether the improve or maintain approach can be met at a strategic planning scale.¹

In addition, the working draft guidelines provide important contextual information regarding the introduction of the biodiversity certification provisions into the TSC Act. In summary, recent reforms to the TSC Act, including powers relating to biodiversity certification and the BioBanking scheme, represent a shift in approach to the conservation of biodiversity. The broad intent is to move the focus away from isolated, site-by-site decision-making towards mechanisms that protect and restore biodiversity at a landscape scale, making the best use of available information and resources. The ability to confer biodiversity certification on EPIs is one of the key tools available to give effect to this renewed focus on strategic planning.

¹ However it is acknowledged that at the time of writing, DECC had just released a Draft Biobanking Assessment Methodology (DECC 2007a) which proposes an approach to measuring the biodiversity losses and gains that result from development projects. This is discussed more in Section 5.3 of this report.

The working draft guidelines outline a step-by-step process for an EPI to progress towards certification. Consideration of these steps with respect to the Growth Centres SEPP is provided in Section 3 of this report.

The working draft guidelines also provide further elaboration on the requirement to achieve an overall improvement or maintenance of biodiversity values. The guidelines state that proposals that will impact on 'viable patches with high biodiversity value will not be able to meet the improve or maintain threshold', and hence would not meet the requirements for certification. Appendix 1 of the guidelines provides a definition of 'high biodiversity value'.

In areas not considered to be of high biodiversity value, development may be able to proceed subject to biodiversity losses being counter-balanced by positive actions taken elsewhere to protect biodiversity values. The guidelines provide for considerable flexibility in determining whether any such offsets are adequate to meet the improve or maintain requirements for certification. They do not, therefore, specify required offset ratios, standards or definitive outcomes. Instead, reference is made to a set of offset principles that are to be used as a guide.

Section 4 of this report uses the working draft guidelines to assess whether the Growth Centres SEPP, and the related conservation package, can demonstrate an overall improvement or maintenance of biodiversity values.

Apart from the improve or maintain test, the working draft guidelines also provide direction on the types of additional matters that must or can be considered by the Minister. These include the matters listed under sections 126G and 126N of the TSC Act (as noted above), but may also include consideration of a range of other relevant information including statewide natural resource targets and standards, catchment action plans, recovery plans and public submissions.

A range of matters that are considered relevant to the Minister's decision are considered in Section 5, while the public submissions are addressed in Section 6. In addition, issues raised in the public submissions are also considered where relevant throughout the report.

1.4 Western Sydney Growth Centres

In December 2004, the NSW Government announced a new approach to land release for urban development. A feature of that approach was the identification of the North West (NW) and South West (SW) Growth Centres as a major source of greenfields housing and employment growth over the next 25 to 30 years. Structure planning work for the Growth Centres, including biodiversity assessments, had already been undertaken in 2003.

The role of the Growth Centres in Sydney's future planning was reinforced by the Metropolitan Strategy (DoP 2005).

A Growth Centres Commission (GCC) has been established to coordinate the land use and infrastructure planning for the Growth Centres. Infrastructure worth \$4.5 billion will be provided to support the new communities, which are expected to comprise 115,000 new dwellings in the SW and 66,000 dwellings in the NW. A special infrastructure contribution (SIC) will apply to development in the Growth Centres and will fund a significant proportion of the regional infrastructure costs. The new communities will have access to recycled water and all new dwellings will have to comply with the BASIX requirements for reducing water consumption and greenhouse gas emissions.

1.5 Growth Centres SEPP

The Growth Centres SEPP was gazetted in July 2006 (Appendix I). The SEPP establishes the broad framework for development of the Growth Centres over the next 30 years, as outlined in a Structure Plan that accompanies the SEPP.

At this stage, the only land use zones introduced by the SEPP are for environment conservation and open space. The SEPP also identifies flood-prone lands and 'transitional lands' (where some development may be possible but the priority is the retention of vegetation). In addition, clause 23 of the SEPP introduces development controls to limit the extent of vegetation clearance in these areas.

Land uses, zonings and development controls in the remainder of the area covered by the SEPP (i.e. the developable lands) will be determined through finer-scale precinct plans (also referred to as 'indicative layout plans'). Once precinct plans have been prepared they will be incorporated into the SEPP as amendments. To date, several precincts have been released and commenced precinct planning. Two precinct plans in the SW – for Oran Park and Turner Road – are well advanced and are expected to be incorporated as gazetted amendments to the SEPP late in 2007.

The precinct planning process is subject to the provisions of a Development Code. The Code specifies the full range of matters to be addressed during preparation of a precinct plan. These include demonstration of how the biodiversity values of areas identified by the SEPP will be protected and maintained; retention and enhancement of existing vegetation and habitat within the development precincts; and protection of riparian corridors.

1.6 Growth Centres Conservation Plan

The GCC has prepared and publicly exhibited a draft Conservation Plan for the Growth Centres. The Plan provides the basis for the proposal to confer biodiversity certification on the Growth Centres SEPP.

In summary, the draft Plan:

- identifies the biodiversity values within the Growth Centres
- outlines planning and offsetting proposals for the Growth Centres
- assesses whether the SEPP and conservation funding package can deliver an overall improve or maintain outcome for biodiversity values
- considers the assessments that are required under section 126G of the *Threatened Species Conservation Act 1995* in order for certification to be granted.

The draft Plan was exhibited for public comment between February and April 2007. Over 200 submissions were received by the GCC.

1.7 Final request for biodiversity certification

Following the end of the exhibition period for the draft Conservation Plan, the GCC (2007b) undertook a review of all public submissions and identified a number of key recommendations and commitments to be implemented as part of biodiversity certification.

By letter dated 19 July 2007, the Minister for Planning formally requested the Minister Assisting the Minister for Climate Change, Environment and Water (Environment) to confer biodiversity certification on the Growth Centres SEPP (Appendix II). That request is based on:

- the draft Conservation Plan (GCC 2007a)
- the Report on Public Submissions (GCC 2007b).

The proposals in the draft Conservation Plan, the submissions report and the request from the Minister for Planning are discussed in detail in the following sections of this report.

2. Growth centres conservation package

As noted above, the request for biodiversity certification has been made on the basis of a conservation package comprising a number of elements. This section provides a more detailed overview of those elements, which are intended to meet the improve or maintain test by protecting viable areas of high biodiversity value, while offsetting the losses of other areas.

2.1 Protection of biodiversity values *within* the Growth Centres: Vegetation

Growth Centres proposal

The Growth Centres currently contain 3868 ha of high quality native vegetation comprising of seven endangered ecological communities (EECs) (Table 1 of draft Conservation Plan). High quality vegetation refers to native vegetation in good condition, which excludes scattered trees where canopy cover is less than 10%. The use of canopy cover and other surrogates is discussed in Section 3.2 of this report.

Of this 3868 ha of vegetation, up to 1867 ha is likely to be cleared within the urban precincts. If vegetation with less than 10% canopy cover were considered (i.e. scattered trees), the total vegetation to be cleared in the Growth Centres would be 5395 ha.² As indicated below, this is an over-estimate of the vegetation to be cleared as some of this vegetation will also be retained through the precinct planning process.

Around 1999 ha of high quality vegetation is proposed to be protected within the Growth Centres. Protection of this vegetation is to be achieved by the following mechanisms (summarised in Table 4 of the draft Conservation Plan):

Zoning and tenure: 643 ha of high quality vegetation is zoned by the SEPP as either Environment Conservation, Public Recreation – Regional or Public Recreation – Local. The stated objectives for all these zones are to protect and manage these areas to restore environmental values. The two Public Recreation zones also enable land to be used for open space or recreation purposes that are consistent with protection of natural and cultural values.

Land within all these zones is subject to the acquisition provisions of clause 15 of the SEPP, meaning that they are ultimately intended to be in public ownership. As discussed in Section 2.3, funding for the purchase of these lands will partly come from the conservation fund established through the special infrastructure contribution.

Development controls: 880 ha of high quality vegetation is protected by the SEPP within flood-prone and major creeks land and the transitional land at North Kellyville and Lowes Creek. The SEPP includes the following controls on developments within these areas:

- clause 20 – requires consent authorities to consider whether development in flood-prone and major creeks land will cause destruction of riparian vegetation
- clauses 21-23 – require consent to be obtained for the clearing of native vegetation within the above zoned lands, flood-prone and major creeks lands, and transitional lands. Clause 23 requires consent authorities to be satisfied of certain outcomes prior to the granting of such consent, including the minimisation of impacts to bushland, the re-instatement of vegetation or offsetting of impacts to avoid net loss of bushland, and a cap on clearing of ‘no more than 0.5 ha of bushland’ unless it is essential for a previously permitted use of the land.

² Refer to table on p. 55 of the draft Conservation Plan.

Protection through existing reservations, zonings or related measures: 476 ha of high quality vegetation within the Growth Centres is already protected by initiatives pre-dating the SEPP. These include:

- existing public reserves either in council or state government ownership
- existing zoned lands within the Edmondson Park release area (which is part of the SW Growth Centre but has already been subject to a fine-scale rezoning process)
- areas identified as offsets from the impacts of the M7 road construction.

Taken together, the above elements comprise the ‘protected lands’ mapped in Figures 4 and 5 of the draft Conservation Plan.

It should be noted that the Growth Centres conservation proposal should not be interpreted as meaning that no development can proceed in the protected lands. The area occupied by the protected lands far exceeds the 1999 ha of vegetation proposed for retention. This is because the protected lands include extensive areas of flood-prone land that are currently devoid of vegetation.

Rather, the intent is that the existing vegetation, or at least the overall quantum of existing vegetation, that falls within the protected lands – which amounts to 1999 ha – will be retained. This may mean that there is some flexibility in how this outcome is delivered. This is discussed in later sections of this report.

In addition to the protected lands, further areas of conservation value will be retained during the precinct planning process. As noted in Section 1.5, the Growth Centres Development Code lays out the process by which precinct planning will occur for the developable areas, including requirements to retain native vegetation where possible through options such as incorporation into open space and landscaping. However for the purposes of analysis, the draft Conservation Plan adopts a worst-case scenario and assumes that no vegetation will be retained outside of the protected lands. This is appropriate given that it is not possible to estimate how much additional vegetation would be protected via the precinct plans. In reality, the extra protection achieved through precinct planning will likely reduce the estimated losses of 1867 ha of high quality vegetation.

Submissions on the draft Conservation Plan

A number of submissions were critical of the above protection mechanisms. Common points of objection were:

- the security of ‘protected’ areas is poor and variable
- existing protected and zoned areas should not be included or counted as part of the conservation outcome
- environment protection zonings should be applied to all protected areas instead of open space zonings
- the protected areas are based on flooding and slopes, not flora and fauna values.

Conclusions

While it is agreed that the protection mechanisms proposed do vary, it is not accepted that the overall outcome for protected areas within the Growth Centres is inadequate or ‘poor’. As is made clear in the working draft guidelines, there are a range of options and mechanisms that can be put forward by planning authorities to achieve an overall improve or maintain outcome for biodiversity. It is generally accepted that in many cases there will be a mix of approaches used, as no one single solution will be available that suits both conservation and other

planning objectives. This is not unique to the issue of biodiversity certification but is a practical reality of most land-use planning processes.

On this basis, it is therefore legitimate to apply a range of land-use zonings and development controls to protect biodiversity values. The fundamental test in doing so is whether a satisfactory level of protection is provided by this mix. In the current case, it is considered that the protection mechanisms proposed to retain vegetation within the Growth Centres are adequate (i.e. to protect the stated 1999 ha). The public recreation zones, for example, are clearly weighted in favour of conservation. Hence, recreation uses are only possible in these zones if they are compatible with conservation values.

Further, the provisions of clauses 21-23 of the SEPP are relatively strong in comparison to mechanisms used in other EPIs or even the clauses now available in the Standard LEP. In particular, the fact that clause 23 requires the consent authority to be 'satisfied' of certain outcomes before granting consent, rather than just having to 'consider' certain matters, is of significant merit. Similarly, the restriction on clearing no more than 0.5 ha of bushland under clause 23 is seemingly unique. DECC is unaware of any other EPI that has such a specific numerical restriction in place.

With respect to the inclusion of existing zoned and protected areas within the Growth Centres package, it is noted that there may be some discrepancy with the offset principles detailed in the working draft guidelines. One of those principles states that 'offsets must be supplementary', that is they must go beyond existing requirements and should not typically include areas such as public reserves. These principles are further discussed in Section 4 of this report.

In the current case it is considered that there is some logic in including existing zoned areas in the overall assessment as it presents an accurate picture of the overall level of vegetation protection to be achieved within the Growth Centres. Given that delivery of a landscape-scale conservation outcome is a main driver of the introduction of biodiversity certification powers into the TSC Act, it therefore makes sense for existing protected areas to be considered and taken into account. This is particularly the case for areas that have been zoned as a direct consequence of the Growth Centres SEPP, such as the 560-ha Air Services Australia site at Shanes Park which has been rezoned from Special Uses to Environment Conservation.

On the final point of whether the protected lands are simply made up of flood-prone and slope affected lands, this is clearly not the case. As noted in Table 4 of the draft Conservation Plan, while the flood prone and major creek lands make up the major portion of the total area covered by the protected lands (4048 ha out of 7337 ha), they only contain 754 ha of high quality vegetation out of the 1999 ha. As noted above, the protected lands contain extensive areas that are devoid of vegetation, hence the difference between total area (7337 ha) and the amount of vegetation they contain.

2.2 Protection of biodiversity values *within* the Growth Centres: Flora and fauna species

Growth Centres proposal

The draft Conservation Plan identified a number of threatened flora and fauna species that may be affected by the development of the Growth Centres.

Of the 18 threatened flora species that may be impacted, the draft Plan considers that nine will be supported through the protected lands and actions to be undertaken outside of the Growth Centres (see Section 2.3). The draft Plan details additional management considerations and actions that will be undertaken for the remaining nine species to meet the improve or maintain test (Table 7). In summary, these mostly involve:

- checking to confirm the presence of species at targeted sites
- if present, confirming the adequacy of current protection and management measures
- if measures are not adequate, either address protection requirements in the precinct plan or provide support to improve protection and management.

It is therefore expected that the assessments and any necessary conservation actions will be defined through the precinct planning process.

Of the 22 threatened fauna species identified as potentially affected by development only one, the green and golden bell frog, is considered to require similar investigation and conservation action during precinct planning. The draft Conservation Plan contends that the remaining species are adequately addressed through the protected lands and offset actions beyond the Growth Centres.

Submissions on the draft Conservation Plan

As discussed in Section 3.2 below, a number of submissions addressed issues concerning flora and fauna species. In most cases, the submissions were generally critical of the lack of site-specific site survey for threatened flora and fauna. There were also a number that argued for the protection of all populations of threatened species.

Conclusions

Issues concerning the level of assessment undertaken are addressed in Section 3.2.

With respect to the proposed mechanisms for protection, it is broadly agreed that a number of species will be conserved by virtue of the retention of suitable habitat within the protected lands. For those species targeted for further investigation, it is also considered that this would most appropriately occur during precinct planning when opportunities to include confirmed populations will be most readily available (e.g. as part of decision-making on open space layout for the precinct).

2.3 Protection of biodiversity values *outside* the Growth Centres

A key requirement of the working draft guidelines is that planning authorities demonstrate how they propose to offset any loss in biodiversity value to meet the improve or maintain requirements for certification. This is reinforced in the provisions of the TSC Act, which explicitly allow the Minister to take into account the most efficient and effective use of available resources for conservation and the conservation outcomes that would result from strategies, plans, agreement and other instruments operating outside of the area subject to the EPI proposed for certification (section 126G).

Growth Centres proposal

The implementation of an offset scheme focusing on lands outside of the Growth Centres is a major feature of the overall conservation package. The proposal involves:

- establishment of a \$530-million conservation fund generated from part of the special infrastructure contribution that will apply to development in the Growth Centres
- 75% of the fund used to secure biodiversity offsets outside of the Growth Centres (the remaining 25% is allocated towards purchase of lands identified in the SEPP for acquisition – see Section 2.1)

- biodiversity offsets outside the Growth Centres achieved via either direct purchase or conservation agreements with private landowners (e.g. a BioBanking agreement) with in either case landowners participating on a voluntary basis
- maintenance of the value of contributions over time through rate indexation, thus protecting the purchasing power of the conservation fund.

The draft Plan proposes that a minimum of 2300 ha of priority, high quality vegetation will be secured outside the Growth Centres using the conservation fund. However, the location of offset areas for purchase or conservation agreement outside the Growth Centres has not been precisely mapped or identified. Instead, the draft Conservation Plan specifies that areas will be targeted in western Sydney and the Sydney Basin that possess particular attributes. These include:

- large vegetated remnants with long-term viability
- vegetation communities under-represented in the protected area system
- areas of like-for-like value to that cleared within the Growth Centres
- sites that provide habitat for threatened species
- areas that provide the best value for conservation investment.

On this last point, the draft Plan contends that significant conservation outcomes will be achieved by the investment of the conservation fund in areas beyond the current urban fringe, that are subject to less development pressure and speculation.

The draft Plan does not outline a timeframe for the commencement of the conservation fund or the establishment of offsets. However, it does note that there is likely to be a lag between the impacts of development and the undertaking of offset actions, with the extent of the gap dependent on factors such as where development commences (e.g. in areas of high versus low biodiversity value) and where the offsets are initially targeted (e.g. at expensive or cheaper land).

Submissions on the draft Conservation Plan

The establishment of the conservation fund and plans for offsets beyond the Growth Centres were the focus of substantial comment in the submissions. These ranged from concerns from landowners that they would be forced to give up their lands for offsets, to numerous issues regarding the location of offsets, the timing of delivery and use of BioBanking. Common points included:

- offsets should be located in the Cumberland Plain, not in the broader Sydney Region
- offsets should be in place prior to development commencing and match the rate of development
- detail should be provided on what will be protected, when and how
- landowners to be targeted as offset sites should be informed
- unclear how offset sites will be managed into the future
- no commitment to ensuring the offset values are equivalent to the values lost by development
- offsets should only be located in areas that are also at risk of development
- concerns that financial issues have too great an influence on the choice of offsets.

Conclusions

The proposal to establish a \$530-million conservation fund to either purchase or place lands under conservation agreement is unprecedented in western Sydney and, indeed, NSW. The scale of the proposal dwarfs any other biodiversity offset scheme or arrangements ever entered into, but is appropriate given the extent of proposed clearing and the state and national significance of the biodiversity values to be impacted.

The intention to target the larger, higher quality remnants as offsets is consistent with the conservation philosophy that has emerged in western Sydney during the last several years. That approach is informed by many years of experience in dealing with the site-by-site and development-by-development approach that has been prevalent to date. Clearly, that approach has not been successful or responsive enough in confronting the challenges to biodiversity conservation.

While small remnants in the Growth Centres undoubtedly do have value, particularly for flora species, the reality is that their prospects for long-term survival once surrounded by intensive development are significantly less than for the larger remnants located in settings that are under far less threat. Given the extent of private ownership of such small remnants, and the extreme costs of land purchase and management in an urban environment, it is arguable that the best and most efficient use of conservation resources would also be made by targeting areas beyond the Growth Centres.

The emphasis on targeting key remnants is supported by the Hawkesbury-Nepean Catchment Action Plan (HNCMA 2006), which identifies a number of western Sydney priority sites. Similarly, the Western Sydney Conservation Alliance has proposed a Cumberland Conservation Corridor to protect and link key large remnants, including areas within and adjoining the Growth Centres. Recent assessments of the fauna values of southern Sydney also apply criteria based on size and connectivity to identify significant habitat areas (DEC 2005b – see Appendix III).

On the broad question of offsetting outside the Growth Centres, based on targeting lands with the attributes discussed above, the approach outlined in the conservation package is therefore supported.

However, it is clear that successful implementation of such an offset scheme will require more detailed consideration and planning. In particular, consideration will need to be given to:

- the process and timing for collection and allocation of funds: In this regard, it is the view of DECC that the GCC should have primary responsibility for ensuring that funds are collected and made available in a timely manner. While there will be some time-lag, as the funds rely on development proceeding, that lag should be minimised so that the establishment of offsets can broadly keep pace with the loss of biodiversity within the Growth Centres.
- the location and specific biodiversity values of offset areas: This will need to include a mechanism for prioritising western Sydney areas, prior to looking at sites elsewhere in the Sydney Region.
- the specific mechanisms and systems for purchasing or placing lands under conservation agreement.

These matters are considered in more detail in Section 4 of this report.

2.4 Extent of certification and review mechanisms

Growth Centres proposal

Biodiversity certification is primarily being sought for those lands considered developable within the Growth Centres. In these areas, the intent is that no further threatened species assessments would be required for future development applications or proposed activities.

This would not include any lands identified within the ‘protected lands’ discussed above. Any development proposed in these areas would be subject to the development controls within the SEPP and the normal threatened species assessment requirements of the EP&A Act.

The proposal also seeks ‘conditional’ certification to address situations where major infrastructure may be required that affects biodiversity values within the flood-prone or transitional lands. In these circumstances, it is proposed that any unavoidable impacts from such projects would be offset by other positive actions within the precinct (e.g. protection of other vegetation).

In addition, the draft Conservation Plan acknowledges that it will be necessary to regularly review progress in implementation of the conservation package. The draft Plan proposes reviews associated with the gazettal of SEPP amendments (i.e. as the zonings and controls for each precinct are added to the SEPP), together with a separate four-year review of overall progress. The draft Plan suggests that the Minister could condition the certification to ensure that the value of offsets equal or exceed the ecological values of losses occurring as precinct plans are finalised.

Submissions on the draft Conservation Plan

None of the submissions appear to provide comment on the conditional certification proposed for infrastructure projects impacting on biodiversity values within the flood-prone or transitional lands.

However, some comment was provided on the process for implementation on the proposed monitoring and review systems. In general, while there was support for regular review, as well as some concern that insufficient baseline data was available and that there was no mechanism for dealing with new listings or species not originally found but detected at a later stage. In addition, as noted above, many submissions argued for greater level of detail on the framework for undertaking land purchase for offsets.

Conclusions

The proposal to limit certification to the developable areas is supported. Conversely, it is also agreed that the protected lands should not be subject to broad certification. This is considered necessary to support the retention of biodiversity values within the protected lands.

However, it is acknowledged that there will be some limited circumstances where impacts on biodiversity in the protected lands may be unavoidable. The example of essential infrastructure presented in the draft Conservation Plan is one such situation.

In addition, it is noted that the vegetation in the protected lands is very dispersed and fragmented, and is likely to be found to be of variable quality once subject to further site assessment. There may, therefore, be instances where a better conservation outcome can be achieved by allowing some of the vegetation in the protected lands to be cleared in exchange for conservation of other areas. This could be via a direct swap (i.e. protection of an area elsewhere in the precinct that would otherwise be developable) or by enhancement or restoration works (e.g. to link up and improve the viability of two small remnants within the protected lands). As noted in Section 2.1, the overall requirement should nevertheless be to

ensure that the total quantum proposed – 1999 ha of vegetation within the Growth Centres – is delivered.

This option will be further considered in Section 7 of this report. However, it should be made clear at this point that any such flexibility will not extend to areas of Higher Long Term Management Viability identified within the Growth Centres. These areas are discussed in Section 4 of this report and must be retained in order to meet the improve or maintain test. There is no flexibility, offset or trading opportunities available for these lands.

2.5 Summary of conservation package

Based on the above detailed outline, the Growth Centres conservation package therefore comprises the following key elements:

- retention of 1999 ha of high quality vegetation *within* the Growth Centres
- protection of threatened flora and fauna populations either *within* the protected lands or via specific assessment and management recommendations to be addressed during precinct planning
- use of part of the special infrastructure contribution to establish a \$530-million conservation fund to be used to purchase lands *within* the Growth Centres identified for acquisition by the SEPP, and to either purchase or place conservation agreements over lands *outside* of the Growth Centres.

Taken collectively, this suite of measures is presented as the means by which an overall improvement or maintenance of biodiversity values will be achieved. The degree to which they meet this fundamental test for biodiversity certification is considered in Section 4 of this report.

3. Steps towards certification

As noted above (Section 1.3), the working draft guidelines for biodiversity certification propose a series of steps that should be applied in preparing an EPI for certification. This section considers each of these steps with respect to the proposed biodiversity certification of the Growth Centres SEPP. It also identifies relevant issues raised in the public submissions on the draft Conservation Plan.

3.1 Step 1: Determine whether the EPI is suitable for certification

Working draft guidelines

The working draft guidelines indicate that biodiversity certification will be a particularly useful option in new development areas such as greenfield sites and for EPIs that apply to large areas (rather than small spot rezonings). Based on the criteria set out in the guidelines, the following matters are relevant to determining whether the Growth Centres SEPP is suitable for certification:

- The SEPP and planning process for the Growth Centres is being administered by an authority (the GCC) that is willing to seek and meet the requirements for certification. The GCC also has control over the means to deliver a range of conservation outcomes to support certification, through provisions in the SEPP itself and the precinct planning process and via the allocation of funds from the SIC to provide offsets.
- The Growth Centres are clearly experiencing high development pressures that will impact on biodiversity values. The NSW Government has a commitment to progress the planned development of the Growth Centres as a major part of Sydney's future land supply program.
- There is good biodiversity data and information for areas within the Growth Centres, particularly from existing vegetation mapping and knowledge of threatened species distributions.
- Certification of the Growth Centres SEPP provides a major opportunity to consider the cumulative long-term impacts of development, determine appropriate strategic responses to those impacts and streamline the planning assessment and approvals process. It offers scope to deliver conservation outcomes that will be viable into the future, thereby assisting ongoing recovery efforts, and at the same time increase efficiencies for landowners and planning authorities. In this sense it therefore offers the potential to deliver a high level of conservation and development certainty.
- Consistent with the working draft guidelines, certification can apply in areas where an EPI is already gazetted and development planning is well-advanced. This is the case for the Growth Centres SEPP.

Conclusions

Given the above, it is considered that the Growth Centres SEPP is both suitable and a high priority for certification.

3.2 Step 2: Determine and assess the information needed for certification

Working draft guidelines

The working draft guidelines state that biodiversity certification must be based on the best available ecological information. Two interrelated levels of assessment are envisaged to support certification:

- **regional biodiversity assessments**, which use broad data and focus on vegetation as the surrogate for biodiversity
- **local biodiversity assessments**, which consider more specific information on threatened species and ecological communities within the area proposed for certification.

The guidelines also note that in most cases the combination of vegetation and targeted species assessment will provide sufficient information to prepare an EPI to be considered for certification. Such data layers can be combined to provide information on the overall levels of biodiversity and identify relative differences in value between areas.

Where regional-scale information is available, the guidelines acknowledge that the role of the local assessment will largely be one of assessing losses from development against gains from offsets, and verification of the accuracy of regional assessments with any required additional targeted assessments (e.g. specific threatened species that were not dealt with at the regional scale).

Significantly, the guidelines are not definitive or prescriptive regarding the exact assessments that should be undertaken. Rather they provide an outline of the types of assessments that can be undertaken to support certification and describe the basic data that is available to support this process. The final decision on what assessment is to be undertaken is always subject to consideration of the circumstances of the particular EPI (e.g. the area involved, existing information and knowledge, and regional conservation priorities).

Growth Centres proposal

The identification and assessment of biodiversity values undertaken in the Conservation Plan for the Growth Centres are mainly based on the extent of endangered vegetation and the reported occurrence and known distributions of threatened flora and fauna. The Plan argues that using these features as surrogates for biodiversity is an accepted and commonly used practice given that it is not possible to define an absolute measure of biodiversity or obtain complete knowledge prior to making planning decisions.

With specific reference to the use of endangered vegetation as a key surrogate, the Plan contends that this is justified, given that virtually all native vegetation remaining within the Growth Centres is endangered.

In summary, the Plan therefore uses the following information:

- the published native vegetation mapping for the Cumberland Plain (NPWS 2002)
- known records of threatened flora and fauna species on the Wildlife Atlas database
- expert opinion on threatened flora and fauna species known or likely to occur within the Growth Centres (including survey of some targeted sites).

Other relevant assessments

The Growth Centres fall within the Cumberland Plain of western Sydney. This area is fortunate to have been subject to a number of significant biodiversity assessments in recent years. This includes the regional-scale native vegetation mapping noted above.

Other key assessments are discussed and summarised in Appendix III. These have all been considered during the assessment of the Growth Centres certification proposal and preparation of this report. In broad terms, the assessments highlight that the biodiversity values of the Growth Centres are generally not considered to be of the highest priority when placed in a regional or sub-regional context.

Submissions on the draft Conservation Plan

As noted in the Report on Public Submissions prepared by the GCC (2007b), the majority of submissions on the draft Plan included criticism of the methodology used to identify and assess biodiversity values. Key comments included:

- lack of ground-truthing, particularly from landowners disputing the presence of conservation values on their land
- reliance on regional-scale vegetation mapping, which itself is derived from aerial photography
- low level of survey undertaken in comparison to that required for smaller scale development applications
- use of endangered vegetation as a surrogate for biodiversity values
- lack of knowledge of threatened flora and fauna
- inconsistency with the working draft guidelines
- no assessment of likely persistence of biodiversity values
- no systematic survey or habitat modelling undertaken
- amalgamation of the assessments for the NW and SW not appropriate – each should be considered separately
- inconsistency with the BioBanking approach.

Many of the submissions also critiqued the criteria and methods used to assess whether the SEPP would deliver an improve and maintain outcome for biodiversity. These issues are considered more fully in Section 4 of this report.

Conclusions

The Growth Centres cover an area of approximately 27,000 hectares, incorporating multiple local government areas. The proposal to certify the Growth Centres SEPP is likely to be the largest in scale to be considered in the foreseeable future.

The scale of the area subject to a certification proposal is an important consideration in determining whether an appropriate level of assessment has been undertaken. Clearly, the intent of the introduction of biodiversity certification powers into the TSC Act was to provide better opportunities for conservation decisions to be made at the strategic planning scale, recognising that the DA-by-DA process has not been responsive enough to the broader challenges and threats to biodiversity. When operating at this scale, therefore, it will not be feasible or practical to undertake detailed site surveys for every parcel of land.

In this context, the use of surrogates becomes an important decision. As noted above, the Growth Centres are located in a landscape with good information on vegetation, particularly endangered ecological communities. Similarly, while the information on threatened flora and fauna is not exact and precise down to a property-scale, there is sufficient information available to inform strategic decision-making.

There will always be differing views about the extent of assessments that should be undertaken. There will also almost always be conjecture about the results and meaning of assessments, and the use of such information by decision-makers.

In determining whether there is sufficient information available and whether it has been adequately taken into account in preparation of the Growth Centres biodiversity certification proposal, the following conclusions are made:

- The use of endangered ecological communities as a key surrogate for biodiversity is considered legitimate and appropriate. This is a long-standing practice in western Sydney and acknowledges the fact that virtually all vegetation in this area is listed as endangered. In addition, while there are inevitably some limitations to using the regional-scale vegetation mapping, experience across western Sydney suggests that the maps are generally sufficiently accurate.
- The use of condition measures to differentiate areas of higher and lower vegetation quality is a valid approach. In this case, the draft Conservation Plan has used a 10% canopy cover threshold to draw a distinction between high and low quality. This effectively excludes scattered trees which, although they will have some biodiversity value (especially for some bird species), are not considered as significant as patches of intact remnant vegetation. As with the use of endangered ecological communities (EECs) as a surrogate, this is also a common and accepted approach applied in western Sydney.
- The use of threatened flora and fauna as a further surrogate, based on existing data on occurrences and expert knowledge, is similarly appropriate. This is supported by information from key regional assessments such as the Terrestrial Vertebrate Fauna Survey of the Southern Sydney Region (DEC 2005b) and the Cumberland Plain Fauna Survey (DEC 2006a, which examined overall fauna values of selected forested lands not just threatened species) (see Appendix III). The Conservation Plan also acknowledges that there are several areas that will require further assessment at the precinct plan stage to determine the presence of specific species.
- Given the scale of the planning area and the emphasis of the certification process on delivering landscape level conservation outcomes, it is not considered necessary to undertake detailed site-based surveys equivalent to those that may occur at a development application stage.
- The purpose of the Conservation Plan is to inform decision-making for the Growth Centres as a whole, not to decide the future land-use options for every single property. In the developable lands, the mechanisms available through the Development Code and precinct planning process will allow further consideration of biodiversity values at a local scale.
- The available information, both from the draft Conservation Plan and other sources listed at Appendix III, provides a sufficient basis for making strategic decisions about areas of conservation value, their relative significance, and long-term priorities.

On this basis, it is considered that sufficient information is available to support decision-making on the biodiversity certification proposal for the Growth Centres SEPP. As noted above, the methods used to undertake the improve or maintain assessment are subject to separate discussion in Section 4 below.

3.3 Step 3: Identify and evaluate land-use planning options

Working draft guidelines

The guidelines acknowledge that land-use planning is concerned with finding the optimal outcome when faced with a range of (at times) competing objectives. Planning authorities are encouraged to ensure that a range of land-use options are evaluated and tested in determining the planning package that is eventually presented for certification.

Growth Centres proposal

Planning for the Growth Centres has been under way for several years. During this time there have been numerous iterations of proposed development and conservation footprints. Key steps have included:

- the undertaking of week-long ‘inquiry-by-design’ workshops that brought together all agencies, councils and key stakeholders to assess, test and debate land use scenarios
- the release of a draft SEPP and Structure Plan in 2005 which included identification of proposed ‘Landscape and Rural Lifestyle’ areas (often referred to as the ‘green zones’), together with a funding package of \$315 million (sourced from development contributions) to support private landowner conservation incentive schemes;
- following exhibition of the draft SEPP, a decision not to proceed with the establishment of the ‘Landscape and Rural Lifestyle’ areas with funding instead totalling \$530 million committed to offset actions within and outside the Growth Centres
- development of infrastructure plans and the special infrastructure contribution requirements needed to support delivery.

The final adopted SEPP and associated planning documents represent the culmination of this work.

Conclusions

Based on the extensive work that has been undertaken over many years, it is considered that there has been sufficient assessment of the land-use options for the Growth Centres. It is also noted that this process has involved extensive community consultation with numerous stakeholders during this time.

3.4 Step 4: Prepare and gazette the EPI

Working draft guidelines

The biodiversity certification process does not change the normal steps that must be undertaken during preparation of an EPI, as specified in the EP&A Act. Rather, certification provides a formal mechanism for biodiversity issues to be fully incorporated into the plan-making process and to allow testing of whether an improve or maintain outcome can be achieved.

As stated in section 126G(4) of the TSC Act, an EPI cannot receive certification unless notice of the proposal was given during public exhibition of the EPI *or* by public exhibition following a procedure that substantially accords with that process. In addition, copies of all submissions must be provided to the Minister.

While biodiversity certification can only apply to an EPI, the Minister is able to take into account other plans, agreements and strategies that form part of the overall planning package prepared for an area.

Growth Centres proposal

The Growth Centres SEPP was gazetted in July 2006. This followed public exhibition of a draft SEPP in early 2006 and consultation with DECC as per the requirements of section 34A of the EP&A Act.

Public notice of the proposal to confer biodiversity certification on the SEPP, and exhibition of the draft Conservation Plan, was given by newspaper advertisements placed during a two-week period from 15 to 28 February 2007. A list of newspapers used and the advertisement are included in Appendices A and B of the GCC public submissions report (GCC 2007b).

The exhibition period ran for eight weeks from 5 February to 18 April 2007. It was originally planned for four weeks but this was extended. Given the complexities of the proposal and level of community interest, submissions were accepted for a limited period after the formal closing date. Extensions were also granted by the GCC to a number of specific requests to provide submissions after the closing date.

Electronic and hard copies of the draft Conservation Plan were made available for review. Exhibition venues are listed in the GCC public submissions report (GCC 2007b).

Copies of all 200 submissions were provided to DECC shortly after the end of the exhibition period. In addition to formal submissions on the draft Conservation Plan, comments on the Growth Centres proposals were also separately received by DECC and Minister. Issues raised in those submissions were also considered during preparation of this report.

Submissions on the draft Conservation Plan

Many of the submissions from landowners raised concerns regarding the length of time available to comment on the draft Plan and perceived lack of consultation. In addition, a number of landowner submissions were also critical of the fact that they had not been personally notified of the exhibition period given that their level of interest and contact details were well known to the GCC from previous submission processes.

One submission argued that certification could not be granted to the SEPP in anticipation of forthcoming amendments to reflect the Conservation Plan.

Conclusions

On the basis of the requirements specified in the working draft guidelines and section 126G of the TSC Act, it is considered that the requirements for public notification of the biodiversity certification proposal and the provision of public submissions to the Minister have been complied with.

Clearly, the certification proposal is complex and, given its scale and implications, it has attracted significant community interest. The extension to the original exhibition timeframe is noted and supported. While consultation processes can always improve, the steps undertaken in this case as summarised above and in more detail in the GCC submissions report are considered sufficient and appropriate.

On a final point, and for the avoidance of doubt, it should be clearly understood that the certification proposal is being considered on the basis of the existing SEPP as gazetted in July 2006. As discussed previously, the SEPP already zones certain lands for conservation, open space and applies development controls to limit vegetation clearance. If certification is conferred, future amendments to the SEPP (such as inclusion of zones and development

controls within the individual precincts) will be considered as per section 126K of the TSC Act.

Key themes from the submissions are discussed in more detail in Section 6 of this report.

3.5 Step 5: Submit the EPI to the Minister for certification

Working draft guidelines

The guidelines detail the range of information that should be provided to the Minister as part of the formal request for certification. These include:

- responses to conservation goals in any applicable strategy or assessment
- information on how assessments were undertaken and identification of areas of biodiversity value that will be lost to development
- decisions and trade-offs, including offset schemes, proposed to improve biodiversity in other areas
- mechanisms for funding conservation outcomes
- information addressing the matters for consideration listed in the TSC Act
- copies of the public submissions.

Growth Centres proposal

As noted in Section 1.7, the Minister received a formal request to confer biodiversity certification on the Growth Centres SEPP in July 2007. That request is supported by a package of information including the draft Conservation Plan (GCC 2007a) and Report on Public Submissions (GCC 2007b).

Conclusions

Given the nature and scale of the proposal, the extent of public interest and the conservation values involved, it is considered that the information provided in support of the request is sufficient to support the Minister's decision on whether to confer biodiversity certification to the Growth Centres SEPP.

3.6 Overall conclusions

On the basis of the above, DECC is satisfied that the proposal for biodiversity certification has satisfactorily addressed the steps detailed in the working draft guidelines.

4. Assessment of improve or maintain outcomes

Under the provisions of section 126G of the TSC Act, the ability to deliver an overall improve or maintain outcome for biodiversity is the primary and fundamental consideration in determining whether to grant biodiversity certification to an EPI. The following section examines whether the Growth Centres proposal meets this requirement and, hence, whether the Growth Centres SEPP is capable of being considered for biodiversity certification.

4.1 Working draft guidelines

As noted in earlier parts of this report, the guidelines state that an EPI that proposes development that will degrade or impact ‘viable’ patches with high biodiversity value will **not be able to meet the improve or maintain threshold** and will be unable to be certified. The basic requirement, therefore, is that all areas that are considered viable *and* of high biodiversity value **must** be retained.

On the other hand, the draft guidelines provide that development may be able to proceed in areas not deemed to be of high conservation value. However, any losses of biodiversity in these areas would nevertheless need to be counter-balanced by positive actions taken elsewhere.

In summary, therefore, meeting the improve or maintain test requires protection of all areas of high value while ensuring that suitable offsets are provided for areas of lower value that will be cleared.

Appendix 1 of the working draft guidelines provides more detail on how to determine which areas are of ‘high biodiversity value’. For vegetation, these are defined as areas that support:

- threatened ecological communities or highly cleared communities (greater than 70% cleared), *and*
- that are in a patch size and configuration that is considered to be ecologically viable in the long term.

For threatened species, high biodiversity value areas are those that support a population of threatened species that cannot withstand or recover from a loss of habitat at a sub-regional level.

Areas of lower biodiversity value are essentially considered to be those that do not meet the above definitions.

While Appendix 1 also notes that work is continuing on developing methods for delineating high biodiversity values, there are currently no immediately accessible and working tools that can readily be applied at the scale of the Growth Centres.

Similarly, while the guidelines specify that patch size, configuration and long-term viability should be taken into account in defining areas of high biodiversity value, they do not prescribe the exact criteria to be used in measuring these attributes. It is therefore left open to planning authorities, in consultation with DECC, to interpret these and how they should be applied in the assessment of high biodiversity value.

4.2 Growth Centre proposal

The draft Conservation Plan includes the following improve or maintain assessments.

Native vegetation of 'high biodiversity value'

The term 'high biodiversity value', as described in the DECC draft certification guidelines, is equivalent to the term 'Biodiversity Value – Higher Long Term Management Viability' (HBMV) used in the draft Conservation Plan. The draft Plan identifies areas of HBMV as being native vegetation that meets *all* of the following criteria:

- **status** – vegetation that is within an ECC
- **condition** – good quality vegetation (i.e. greater than 10% canopy cover)
- **size** – vegetation remnants at least 4 ha in size
- **connectivity** – remnants where there is 30% or greater vegetation cover within 0.55 km and 1.75 km of the remnant
- **threats** – remnants with good edge-to-area ratios that remain above 4 ha once a 50-metre disturbance buffer is applied.

In summary, this means that an area of vegetation is considered to be HBMV if it is an ECC, in good condition, greater than 4 ha, with good connectivity and less likely to be impacted by surrounding land use threats.

On the basis of these criteria, the draft Plan identifies 584 ha of HBMV within the Growth Centres. The areas of HBMV vegetation are shown in Figures 6 and 7 of the draft Plan.

DECC's draft certification guidelines require these areas of HBMV vegetation to be retained. Of the 584 ha of HBMV identified, 557 ha is within the protected lands (see Section 2.1). The remaining 27 ha consists of lands adjoining the Air Services Australia site. The draft Plan recommends that these areas be further examined and ground-truthed during precinct planning to confirm whether these are areas of HBMV and should be retained.

The draft Plan also indicates that other factors can be taken into account in determining whether an improve or maintain outcome can be met. In this case, the draft Plan particularly indicates that even though the Air Services Australia site at Shanes Park contains areas of low biodiversity value, which would in theory be available for development and offsetting, because of the overall size, resilience, integrity and condition of this site and its proximity to other key areas, protection of the whole site (not just the HBMV areas) should be a priority.

Other native vegetation

As indicated above, native vegetation **not** of high biodiversity value may be cleared, but any losses would need to be offset in order for an improve or maintain outcome to be achieved. Native vegetation not of high biodiversity value is termed Lower Long Term Management Viability (LLMV) vegetation in the draft Conservation Plan.

The Growth Centres contain 3284 ha of LLMV vegetation with 1841 ha of this proposed to be cleared and the draft Plan acknowledging that suitable offsets will be required to counter-balance these losses. The draft Plan then considers the general offset principles provided in Appendix 2 of the working draft guidelines (p. 29). As discussed in Section 2 of this report, the offsets essentially include securing and managing areas within the protected lands and areas outside of the Growth Centres.

The areas to be secured and actively managed to improve biodiversity values *within* the Growth Centres are identified and zoned for Environment Conservation, Public Recreation – Regional and Public Recreation – Local in the Growth Centres SEPP. These areas contain 643 ha of native vegetation. These lands will be publicly acquired in accordance with the acquisition provisions in the SEPP and managed as public reserves for the primary purpose of protecting biodiversity values.

In addition to the above offset areas, the conservation plan also identifies an additional 880 ha of LMV vegetation that is protected through development control requirements in the SEPP, but without provisions for active long-term management. This vegetation is located within the flood-prone land and adjoining major water courses, or is within the transitional lands at North Kellyville and Lowes Creek.

The offset areas *outside* the Growth Centres have been modelled for the purposes of the draft Conservation Plan, based on the amount of available funding and the costs of suitable land within western Sydney. The modelling indicates that it is feasible to protect and manage at least 2300 ha of land outside the Growth Centres with the available funds. These areas will be secured through public reserves under the *National Parks and Wildlife Act 1974* or through in-perpetuity conservation agreements such as biobanking agreements.

Although just a scenario, and not a definitive identification of offset areas outside the Growth Centres, the 2300 ha of vegetation have been identified in consultation with DECC and are considered to be conservation priorities. The final choice of external offset areas would be based on consideration of key factors such as availability of land and the willingness of landowners to either sell properties or enter into conservation agreements.

Offsetting 'like-for-like' vegetation

The draft Plan proposes a method to 'lump' different types of vegetation into broad categories of 'conservation value' to enable ready comparison of potential offsets. This is presented as a means to test whether a like-for-like offset can be achieved at a broader level than just comparing losses in a particular EEC (e.g. Cumberland Plain Woodland) for gains in the same EEC. As an example, the draft Plan considers that 'high conservation value' areas for the purposes of assessing offset outcomes comprise all EECs that have less than 15% extant vegetation in formal reserves, are over 70% cleared and have less than 1000 ha remaining. The loss of EECs in this category is therefore to be compared against gains in EECs in this category. The outcomes of this analysis are presented in Table 6 of the draft Plan.

Threatened flora

The draft Plan states that where threatened flora will be impacted by development within the Growth Centres, the improve or maintain test will be met if the species is likely to persist at the sub-regional level, that is, if habitat is secured within the Growth Centres protected lands or through the scenario offset areas outside the Growth Centres.

As discussed in Section 2.2, of the 18 threatened flora species identified as potentially affected by the Growth Centres, the draft Plan contends that the conservation of nine will be supported by the protected lands or scenario offset areas. This is based on consideration of known populations, expected losses, and likely habitat in the protected lands and scenario lands, as detailed in the table on pp. 46-51 of the draft Plan.

For the remaining nine species, additional requirements are identified to meet the improve or maintain outcome. These typically include site assessment at the precinct plan scale to confirm the presence of the species and, if it is present, to provide protection in the precinct plan. The exceptions to this are:

- *Cynamchum elegans* – which will require protection of known populations of habitat in offset areas outside the protected lands (but which was not identified in the scenario lands)
- populations of a number of species at Heath Road, North Kellyville – because of the location of this area at the transition to sandstone soil types, these species do not occur elsewhere in the Growth Centres or in the scenario lands. Protection will need to occur through the precinct plan process for these populations.

Threatened fauna

Similar to threatened flora, the draft Plan considers that where impacts occur to threatened fauna improve or maintain will be met if the species is likely to persist at the sub-regional level, i.e. habitat is secured in the Growth Centre protected lands or in the scenario offset areas.

As noted above, the draft Plan considers that only one of the 22 species considered – the green and golden bell frog – will not be supported through the protected lands or scenario offsets. The draft Plan proposes investigation of the potential population of this species at Riverstone at the precinct planning stage and, if found to be present, that its habitat either be protected or the presence of the species or potential habitat be confirmed elsewhere within the protected lands (e.g. the Air Services Australia site).

4.3 Submissions on the draft Conservation Plan

Numerous submissions raised issues concerning the ability of the conservation initiatives proposed in the draft Plan to meet the improve or maintain outcome. In summary, key points included:

- The loss of EECs, particularly 1867 ha, cannot be considered compatible with the improve or maintain test or recovery objectives.
- The assessment of HVM and LMV is inappropriate and the methodology should be appropriate to the urban landscape and sensitive to the needs of different EECs.
- The area under protection is small and should be increased.
- High conservation value lands need to be given full environment protection through zoning or inclusion in the reserve system.
- The 4-ha threshold for determining HVM is not justified or backed up by scientific literature – small remnants remain important and should be protected.
- High conservation areas should be identified now and not left to the precinct plans.
- There is a misleading emphasis on the viability of habitat fragments which downplays their significance.
- There is a failure to assess biodiversity values beyond a small subset of listed species – this does not meet the improve or maintain test for ‘biodiversity’ and does not apply the precautionary principle.
- There is an inconsistency between the improve and maintain standard between rural and urban areas.
- Proposed offsetting strategy will not meet the improve or maintain test as it involves only acquisition and not management (i.e. improvement) and because clearing one patch and protecting another is a net loss.
- Protection in the western side of the NW Growth Centre is unfairly subsidising development in the rest of the Growth Centres.
- The criteria for flora and fauna are inadequate and do not use total available data, are arbitrary and use the biometric tool inappropriately.

In addition, there appeared to be considerable confusion in many submissions regarding the use of different terms and analyses in the draft Plan, particularly between the meaning of high quality vegetation, HVM/LMV and conservation value.

As discussed in Section 2.3 above, many submissions also commented on the proposed offset arrangements. A common theme was that there should be clear information on where the

offsets would be specifically located and that offsets should be in place prior to development commencing.

4.4 Comments

The improve or maintain test, as it applies to biodiversity certification, requires an ‘overall’ outcome for biodiversity values. It is not a prescriptive test that requires an absolute improve or maintain result for every individual biodiversity element, whether that be each EEC, individual threatened species or non-threatened species. To achieve this would be extremely difficult when dealing with land-use planning proposals of the scale of the Growth Centres and in a fragmented landscape like the Cumberland Plain.

Hence, the requirements for biodiversity certification – which operates at the strategic land-use planning level – and the provisions of the working draft guidelines clearly acknowledge that there will be some impacts on biodiversity from planning decisions. A major consideration is the overall conservation and development outcome, and the balance between these.

It is clear that there are differences between how the improve or maintain test is being applied in rural areas compared with the proposals for the Growth Centres. In rural areas, the system for assessing improve or maintain at a property scale is well developed and supported by the provisions of the native vegetation legislation. However that legislation does not apply in large parts of the urban and coastal strip, including the Growth Centres, nor is that system immediately transferable to the scale at which biodiversity certification is operating. This last point has been recognised by the Natural Resources Commission (NRC 2007) which has proposed reforms to the native vegetation system operating in rural areas, including moving beyond the individual property scale, to more fully embrace a landscape approach to natural resource management.

The development of the BioBanking scheme will ultimately provide a much clearer system for delivering an improve or maintain result in urban areas, but the full activation of that scheme is yet to occur and it is subject to ongoing field trials. A Draft Biobanking Assessment Methodology has been released for review (DECC 2007a). This is discussed in Section 5.3 of this report.

Given this reality, and the fact that land-use decisions will and are being made within the Growth Centres within the short term, it is considered entirely appropriate that the draft Conservation Plan sought to identify suitable criteria by which an improve or maintain assessment could be undertaken at this time. In this regard, it is critical to note that the working draft guidelines clearly state that long-term ecological viability, and not just the actual presence of an EEC, must be considered in determining areas of high biodiversity value.

As noted above, the criteria used to test viability included condition, patch size (4 ha minimum), connectivity and surrounding threats. While there was much concern in the submissions regarding the 4 ha patch size and the connectivity thresholds, DECC considers these to be legitimate and appropriate for use in the context of the Growth Centres. While the draft Conservation Plan may have made reference to only limited background sources to support the choice of this criteria (e.g. Drinnan 2005), there is a wealth of other published information relating to patch size analysis that recognises that larger areas of vegetation are more likely to retain their biodiversity values over time (e.g. Rothley et al 2004; Bennett 1999)³ and that examines the importance of patch size (e.g. Parkes et al 2003⁴). It is worthwhile to note that conservation initiatives for other major Australian cities, such as Perth, have similarly recommended that planning for local conservation reserves should not result in

³ As referenced in DEC (2005a)

⁴ Ibid

natural areas smaller than 4 ha and with a compact shape (Western Australian Local Government Association 2004).

In addition, the recent assessment of the fauna values of the Greater Southern Sydney Region (DEC 2005b, pp. 101-02) also identifies a range of relevant scientific literature and notes that while remnant size is important for fauna, these publications emphasise that connectivity between patches is also very critical. Indeed, for some species it is more important than size and disturbance. That assessment notes that many of the smaller remnants in Southern Sydney no longer support populations of any threatened fauna.

In its identification of Grassy Box Woodland⁵ remnants in Southern Sydney that are best able to support fauna, DEC (2005b) also uses what it terms a 'conservative' minimum patch size of 50 ha for 'core remnants' and an absolute minimum patch size of 10 ha for remnants within 1 km of a core remnant. As noted in Appendix III, the study identifies only one area of Grassy Box Woodland that falls within the Growth Centres, at Kemps Creek.

As discussed above, the patch size requirement for HMV in the Growth Centres is 4 ha and there are two connectivity criteria (based on achieving 30% vegetation cover within 0.55 km and 1.75 km of a patch). The Growth Centres approach therefore has significantly lower patch size thresholds than the Southern Sydney assessment (meaning more would be included as HMV) but stronger connectivity requirements. The criteria requiring 30% vegetation cover within a certain distance of a patch is considered justified given the existing evidence regarding the importance of connectivity between large remnants and noting that biodiversity values are considered to decline significantly once vegetation loss is greater than 70%.

In the case of flora values, it is acknowledged that there is evidence to support the view that small remnants that have not been overtaken by weeds and other impacts are able to support threatened flora populations, at least in the short to medium term (Tozer 2003). However, given the provisions of the SEPP and the commitments in the Metropolitan Strategy, it is clear that development in the Growth Centres will proceed in one form or another. Decisions therefore need to be made regarding the long-term viability of remnants if they were to be retained within and surrounded by areas of intensive urban development. In this case, DECC agrees with the use of edge-to-area ratios and 50-metre development impact buffers as criteria.

The harsh reality is that the prospects for long-term survival of small remnants once surrounded by urban development are limited, especially given that there is little prospect that they could all be purchased and placed under public management or provided with sufficient management funding in-perpetuity. The future for small remnants must also be considered in the context of the likely impacts of climate change, which would be expected to place additional stress on these patches, further reducing their habitat value and viability.

Issues concerning the use of EECs and threatened species as a surrogate for biodiversity values have already been discussed in Section 3.2 of this report. The only additional comment provided here is to note that given the scale of the Growth Centres proposal and conservation package, it would seem logical to group EECs into categories of relative conservation value for the purposes of assessing broad offset options. At the strategic landscape scale this creates a useful common 'currency', rather than applying a strict approach requiring absolute offsetting of equivalent value (e.g. requiring the loss of an EEC to be offset by exactly the same type of EEC). This provides more flexibility in delivering the best and most resource efficient 'overall' biodiversity outcome. It is also similar to the approach that is being developed for the BioBanking scheme, whereby impacts in one vegetation community will in

⁵ According to DEC (2005b), 'Grassy Box Woodland' is the highest priority fauna habitat in the Greater Southern Sydney Region. It is a broad classification that includes a number of vegetation communities, such as Cumberland Plain Woodland, Cooks River Castlereagh Ironbark Forest and Shale/Gravel Transition Forest.

some cases be able to be offset by positive conservation actions in a choice of a number of other communities.

On the matter of whether some parts of the Growth Centres are being unfairly targeted for protection – and hence allegedly ‘subsidising’ development in other areas – it is considered that there is little basis for this argument. The assessment of the Growth Centres proposal has considered both the SW and NW Growth Centres as a package, based on identification of biodiversity values in a tenure and location neutral approach. Hence, the biodiversity values simply occur where they occur. The specific comment in some submissions that the west of the NW Growth Centre is being unfairly treated ignores the fact that the bulk of this area is actually within the protected lands due to its flood-prone nature rather than its biodiversity values.

As noted in Section 2.3, a more critical matter to consider is whether the mechanisms proposed to offset the loss of biodiversity are sufficiently robust and secure, and can be delivered in a timely manner concurrent with the loss occurring. There are two key aspects to consider in this regard.

Firstly, for those areas of HVM that have been identified (i.e. 584 ha), it is clear that the majority of these areas (557 ha) are included within the protected lands and subject to strong and enduring protection mechanisms. In the NW, for example, all of the HVM within the Air Services Australia site has been zoned Environment Conservation. As noted in the draft Plan, the LMV within this site should also be protected and this too has occurred through the Environment Conservation zoning. This means that the entire 560 ha Air Services Australia site is protected by the zoning and acquisition provisions of the SEPP.⁶ This level of protection also means that there is no urgency to immediately bring this land into public ownership in the short to medium term.

For the remaining 27 ha of HVM not currently protected in the NW, DECC agrees with the conclusion of the draft Plan that it is appropriate to further investigate this at the precinct-plan stage. If these areas are contiguous with the HVM on the Air Services site, and of comparable quality and shape, then they should be retained.

In the SW, the HVM areas are all included in the protected lands. The majority of these are within the Kemps Creek Nature Reserve, which is reserved under the National Parks and Wildlife Act.

Secondly, for those areas of LMV that have been identified (i.e. 3284 ha), approximately 1443 ha will be retained in the Growth Centre protected lands. Offsets provided outside of the Growth Centres are intended to counter-balance the loss of the remaining LMV. The main issues in this regard, as noted above and in many of the public submissions, are where, how and in what timeframe the offsets outside the Growth Centres will be delivered.

At the broadest level it is clear that public commitments to provide funding for these offsets have been made, both in the draft Conservation Plan and in the GCC’s Special Infrastructure Contribution Practice Note (GCC 2006). However, DECC is of the view that accountabilities for the collection and use of the funds need to be more explicit to provide the necessary certainty for certification to be granted. There also need to be mechanisms to address any short-fall in meeting the offset commitments over time.

These matters, and others, are addressed in the recommended conditions of certification in the order to confer biodiversity certification submitted to the Minister. In preparing the recommended conditions regarding funding, DECC has been particularly mindful of:

⁶ It is also understood that the Commonwealth Government has an existing commitment to establish a conservation agreement over this site under the EPBC Act (Minister for the Environment and Heritage 2004)

- ensuring that the conservation funding for offsets outside the Growth Centres is delivered in a timely and regular manner, and broadly concurrent with the progress of development and loss of biodiversity with the delivery of offsets therefore commencing as soon as possible and delays to funding for this purpose in the medium or long term
- ensuring that the accountability for obtaining and providing the funding for offsets rests with the GCC which DECC considers is necessary as the GCC is effectively the 'proponent' for certification and has primary responsibility for overseeing the planning and development of the Growth Centres.

The recommended conditions of certification also address the locations in which offset funding may be spent and the types of conservation values that should be included in the offset areas. In this regard, DECC does not consider it feasible or prudent to publish a map or to otherwise publicly identify targeted lands at this stage. As already noted above and in the draft Plan, there will be many factors that determine which lands may be suitable as offsets, either to be directly acquired or placed under conservation agreement with willing landowners. There is also some risk that the identification of lands now may distort future market negotiations with interested landowners or create unrealistic expectations from landowners that their lands will be immediately purchased or invited to enter into a BioBanking agreement.

Nevertheless, it should be noted that there is some guidance available regarding areas that are likely to be considered for the location of offsets. The Hawkesbury-Nepean Catchment Action Plan (CAP), for example, identifies priority fauna habitats in western Sydney and across the catchment (HNCMA 2006). In addition, the Cumberland Conservation Corridor proposal (Western Sydney Conservation Alliance 2006) also identifies important areas. Information from both these sources, and other considerations detailed in the recommended certification conditions, will all need to be considered during the final choice of offset areas outside of the Growth Centres.

It should also be noted that there is no intention to compulsorily acquire land under the offset arrangements. All purchases of land, and participation in conservation agreements, to offset the loss of biodiversity values will be on a voluntary basis with willing landowners.

4.5 Conclusions

Based on the above assessment, the proposals in the draft Conservation Plan and after review of the submissions, it is considered that the Growth Centres SEPP and the accompanying conservation package will lead to an overall improvement or maintenance of biodiversity values.

In forming this view DECC is satisfied that:

- 557 ha of 'high biodiversity value' vegetation, consistent with the definition in the DECC draft guidelines, will be retained and protected. The recommended conditions of certification (in the order to confer biodiversity certification submitted to the Minister) require the remaining 27 ha of high biodiversity value vegetation in the Growth Centres (adjoining the Air Services Australia site) to be subject to further consideration to satisfy the improve or maintain test.
- The 1867 ha of other vegetation not of 'high biodiversity value' to be cleared in the Growth Centres will be offset by securing and actively managing approximately 2943 ha of native vegetation. 643 ha of this vegetation is located within the Growth Centres and will be acquired and managed as public reserves. This vegetation is predominantly of high biodiversity value. A further approximately 2300 ha of vegetation is to be protected and managed outside the Growth Centres through new reserves or in-perpetuity conservation agreements (e.g. BioBanking agreements).

The recommended conditions of certification prioritise offsets outside the Growth Centres to large areas of high conservation value vegetation on the Cumberland Plain. Offsets that include high conservation value vegetation within the broader Sydney Basin will also be considered if no suitable and cost-effective lands are available within the areas of first preference.

- Of the 40 threatened species potentially occurring within the Growth Centres, the potential losses to populations of 30 of these species will be offset by protection of other populations of the same species. This will occur within the land to be protected within the Growth Centres or the targeted offset areas outside the Growth Centres. The remaining 10 species require further consideration to satisfy the ‘improve or maintain’ test. The recommended conditions of certification require actions to confirm the presence of the species and if present, protection of the populations through the precinct planning process.

In determining that biodiversity values will be improved or maintained, DECC has also noted that:

- an additional 880 ha of native vegetation is protected through development control provisions in the Growth Centres SEPP, but without provisions for long-term active management
- 476 ha of native vegetation within the Growth Centres is already protected through existing reservations, zonings or commitments.

The recommended conditions of certification require this vegetation to be retained or, in exceptional circumstances, to be offset by the protection or restoration of an equivalent or greater area of land within the Growth Centres.

5. Matters for consideration

Having satisfied the improve or maintain test, the TSC Act (sections 126G and 126N) requires that consideration be given to certain matters before a final decision on whether to confer biodiversity certification is made. These matters are discussed in Appendix 1 of the draft Conservation Plan and considered below.

In addition, this section also examines a range of other matters that are considered relevant to the Growth Centres proposal. This is consistent with the provisions of the working draft guidelines.

Where the submissions provide comment in respect of the following matters, these will also be considered below. However, as noted earlier in this report, issues raised in the submissions have been considered throughout the report and will be specifically discussed in Section 6.

5.1 Matters under section 126G of the TSC Act

Likely social and economic consequences of the implementation of the EPI (section 126G(2)(a))

The working draft guidelines acknowledge that biodiversity conservation is only one matter that is to be considered in preparing an EPI. Land-use planning is therefore concerned with balancing the full range of environmental, economic and social objectives. It is standard planning practice to weigh up and consider the implications of various land-use options, including conservation opportunities, in determining optimal planning outcomes.

The draft Conservation Plan only briefly considers this matter. In essence, the draft Plan notes that the Growth Centres are a major part of the NSW Government's response to Sydney's future growth.

DECC broadly agrees with this conclusion. The Metropolitan Strategy (DoP 2005) provides the endorsed framework for managing that growth, which is expected to see Sydney expand by another 1.1 million people by 2031. This population increase, together with declining household size, will mean that 640,000 new dwellings will be required in this timeframe.

According to the Metropolitan Strategy, two key themes that emerged from the Community Forums were constraining the growth of the urban area to protect the natural environment and 'smarter' urban planning and development. At the Forums the natural environment was identified as Sydney's greatest asset.

The Metropolitan Strategy responds to these issues by placing major emphasis on minimising the urban footprint and concentrating future growth in identified centres and corridors. The Strategy seeks to provide 60-70% of new housing in existing urban areas, with 30-40% in greenfield areas.

The Growth Centres are intended to provide the bulk of the 195,000 greenfield dwellings required. Establishment of the Growth Centres Commission, gazettal of the SEPP and major commitments in infrastructure provision have been put in place to support the roll-out of the Growth Centres. A development contribution scheme has been established to support early infrastructure delivery and there is a clear intent to pursue sustainable urban development within the Growth Centres through improved public transport access, urban design, and water and energy management.

It is therefore considered that the major positive socio-economic consequences of the Growth Centres SEPP will be to support implementation of the Metropolitan Strategy and the NSW Government's adopted approach to managing Sydney's future growth. As noted above, the Growth Centres are clearly a key plank in delivering new and affordable housing.

While there will be some socio-economic impacts from the expected loss of vegetation within the Growth Centres – including loss of amenity, ecosystem services and use and non-use benefits⁷ – on balance it is considered that those impacts are justified in the light of the overall approach to addressing the growth of Sydney and considering the conservation package that is proposed for the Growth Centres. In this regard, it is noted that the protection of areas of biodiversity both within and outside the Growth Centres will have significant positive long-term social and economic consequences for the broader community.

Most efficient and effective use of available resources for the conservation of threatened species, populations and ecological communities (section 126G(2)(b))

The working draft guidelines state that the Minister will consider whether the best use of available conservation resources is being made across the area covered by the EPI. Reference is also made to the NSW Biodiversity Strategy (NPWS 1999), which acknowledges that collective action will be required from all stakeholders to conserve biodiversity.

The Growth Centres conservation package will provide and deliver resources to conserve biodiversity through a range of mechanisms. These include funds from the special infrastructure contribution to acquire and place conservation agreements over priority areas, and protection of additional areas through the precinct planning process. In some cases, this latter outcome will be funded by developer contributions for open space under section 94 of the EP&A Act.

As discussed in Section 2.3 of this report, the commitment to provide \$530 million to support biodiversity conservation is the major feature of the conservation package. There has never been a biodiversity offset scheme of this scale provided in NSW.

The proposal to use 75% of this funding to target the largest, most intact and important vegetation remnants outside of the Growth Centres is strongly supported. Clearly such lands not only provide the most significant remaining areas of biodiversity value in the region but are also more likely to be capable of being protected and managed at far less cost than lands of smaller size within the Growth Centres or closer to existing urban areas.

DECC is therefore broadly satisfied that the resources to be made available under the Growth Centres conservation package will be used in the most efficient and effective way to deliver the maximum conservation return. As noted in Section 4.3, it will nonetheless be necessary to include clear guidance in any conditions of certification to ensure that resources are secured and progressively applied over time to meet the desired offset requirements.

Principles of ecologically sustainable development (section 126G(2)(c))

While only a handful of submissions specifically discussed the application of ESD principles, virtually all of the issues raised are relevant to consideration of these. The principles of ESD are detailed in section 6 of the *Protection of the Environment Administration Act 1991*, as follows:

Ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable

⁷ 'Use' benefits are those that accrue from the physical use of biodiversity resources such as visiting a bushland area or harvesting native species, while 'non-use' benefits refer to the benefits that individuals may obtain from those resources without directly using or visiting them (e.g. 'existence value' which relates to the welfare obtained from the knowledge that a biodiversity resource exists, such as a threatened species population) (Commonwealth of Australia 1995)

development can be achieved through the implementation of the following principles and programs:

- (a) *the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
- (i) *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
 - (ii) *an assessment of the risk-weighted consequences of various options*

Comment

With respect to the precautionary principle, DECC considers that without the proposed offset measures there would be a case to argue that development of the Growth Centres presented a threat of serious environmental damage. The expected impacts on biodiversity have already been discussed elsewhere in this report, with particular attention given to the likely loss of endangered vegetation. While many submissions argued that insufficient analysis and survey had been undertaken, and hence implied that the true extent of biodiversity loss was not known, it is considered that sufficient information is available to inform the decision-making process for certification. This matter is further discussed in Section 3.2 of this report.

Application of the precautionary principle requires decision-makers to adopt a cautious approach when assessing potential environmental harm. In the face of uncertainty and risks, priority must be given to avoiding impacts. Where impacts are unavoidable, they should be mitigated as far as possible. It is in this context that offsets become an important consideration.

Clearly, the likely impacts on biodiversity have been a major factor in the planning for the Growth Centres. The SEPP, for example, has already identified and protected areas of biodiversity value through various mechanisms. In addition, the Development Code makes provision for further consideration of conservation options at the precinct planning stage.

However, given the major commitments by the NSW Government to proceed with the Growth Centres, it is also clear that impacts on biodiversity, including some EECs and threatened species, will be unavoidable. This is exacerbated by the fragmented nature of vegetation, which means that it is not possible to deliver a sustainable urban form without biodiversity impacts. The conservation package, and in particular the \$530 million in funding, are a direct response to this expected impact.

Importantly, the precautionary principle does not dictate that there should be no impacts. Rather, as noted above, it places the onus on decision-makers to assess the risks, acknowledge uncertainties and take steps that avoid damage where practicable.

On balance, DECC is satisfied that sufficient steps have been undertaken to understand the likely extent of biodiversity impacts, avoid those impacts where possible and offset them where they cannot be avoided.

- (b) *inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generation,*

Comment

As noted above, the conservation package includes major commitments to protect lands of biodiversity values both within and outside the Growth Centres. Taken as a whole these measures will deliver significant long-term benefits for future generations, particularly via the targeting of the largest and best condition remnants outside of the Growth Centres. This will

ensure the continued existence of these areas into the future. In addition, the protected lands within the Growth Centres will also provide a significant biodiversity and recreational resource that will benefit future communities.

Although not specifically required, consideration has also been given to the principle of intra-generational equity. In this regard, it is considered that appropriate measures have been put in place to ensure that the burden of delivering the desired conservation outcomes is shared – namely via the special infrastructure contribution and the acquisition provisions for certain lands in the SEPP – and does not fall unequally on any one group or section of society. Similarly, the benefits of conservation will also accrue on a shared basis to the community.

- (c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*

Comment

Clearly, impacts on biodiversity and measures to offset these have been a major feature of the planning for the Growth Centres and are the primary focus of this report. Many of the expected impacts will affect EECs and threatened species, which are regarded as priorities for conservation. This has been openly acknowledged in the draft Conservation Plan.

As noted already, the SEPP and Development Code incorporate measures to protect biodiversity within the Growth Centres. Where losses occur, these are to be offset by conservation within the protected lands and via the allocation of \$530 million in conservation funding, the bulk of which will be used to target priority lands outside of the Growth Centres.

As also discussed above, DECC is satisfied that the biodiversity values of the Growth Centres have been adequately assessed for the purposes of biodiversity certification, that the likely impacts are sufficiently understood and that steps have been taken to minimise and counter-balance those impacts.

- (d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:*
- (i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
 - (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
 - (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

Comment

The conservation package for the Growth Centres embraces the broad notion of ‘polluter pays’. In particular, the provision of conservation funding through the special infrastructure contribution means that in effect the cost of offsetting biodiversity losses will be spread across all future developers and landowners. This is appropriate given that ultimately these are the same people that will enjoy the benefits resulting from the clearing of vegetation and habitat for housing, jobs, transport and open space.

In addition, as discussed above, the targeting of larger and higher quality vegetated remnants outside the Growth Centres will ensure that available resources are used in a cost-effective way. Similarly, there is scope that the funding to be used for conservation agreements outside of the Growth Centres, such as through the BioBanking scheme, could be via an auction or

tender process (i.e. where interested landowners 'bid' for the funds to be used to purchase the biodiversity credits from their properties). If that option is pursued, it would further support the most effective use of available resources.

DECC is therefore satisfied that the Growth Centres conservation package incorporates mechanisms to reflect the intent of this ESD principle.

Conservation outcomes from any reservation or proposed reservation of land under Part 4 of the NPW Act or the entering into of a conservation agreement for land under that Act, or resulting from any other action to secure the protection of land for conservation purposes (section 126G(2)(d))

At this stage no specific parcels of land either within or outside the Growth Centres have formally been considered for reservation under the NPW Act. However, it is likely that this will occur in the future. This could include the possible reservation of important lands within the Growth Centres at Shanes Park (the Air Services Australia site) and lands zoned for Public Recreation – Regional at Kemps Creek. Outside of the Growth Centres those areas that are purchased using the conservation funding are also likely to be strong candidates for inclusion in the conservation reserve system under the NPW Act. The final choice of whether lands will be reserved in this way depends on a range of factors, including standard DECC reserve assessment procedures.

Similarly, although no individual sites have been identified for conservation agreements, the clear intention is that part of the conservation funding to be applied outside the Growth Centres will be used for this purpose.

Other actions to conserve biodiversity values in the protected lands have been discussed elsewhere in this report.

Conservation outcomes resulting from operation outside the area of operation of the EPI of strategies, plans, agreements and other instruments (whether or not they are EPIs) (section 126G(2)(e))

As noted above, the provision of funding for biodiversity conservation initiatives outside of the area subject to the Growth Centres SEPP is a major feature of the certification proposal. Those funds (approximately \$397.5 million) will be used to either acquire high priority lands or enter into conservation agreements with willing landowners.

This aspect of the proposal has therefore been extensively considered throughout this report.

Objects of the TSC Act (section 126G(3))

The objects of the TSC Act are as follows:

- (a) to conserve biological diversity and promote ecologically sustainable development, and*
- (b) to prevent the extinction and promote the recovery of threatened species, populations and ecological communities, and*
- (c) to protect the critical habitat of those threatened species, populations and ecological communities that are endangered, and*
- (d) to eliminate or manage certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities, and*
- (e) to ensure that the impact of any action affecting threatened species, populations and ecological communities is properly assessed, and*

(f) to encourage the conservation of threatened species, populations and ecological communities by the adoption of measures involving co-operative management.

Many of the submissions on the draft Conservation Plan raised issues regarding the impacts on biodiversity and the risks of development to the long-term survival of EECs and threatened species. A small number also specifically referred to the ongoing development of the Cumberland Plain recovery plan and argued that no decisions on certification should be made in the absence of that plan.

In considering the conservation package, DECC has been particularly mindful of the conservation values currently present within the Growth Centres and the potential implications of biodiversity loss within these areas for recovery efforts across the rest of the Cumberland Plain. In addition, it is clearly understood and acknowledged that the clearing of native vegetation is a key threatening process (KTP) and that the effect of other KTPs within the Growth Centres, such as removal of dead wood and trees and those related to pest and weed species, would be exacerbated by vegetation loss. The proposed listing of the loss of hollow-bearing trees as a KTP has also been noted.

In considering these matters, DECC is satisfied that the likely impacts on EECs and threatened species have been adequately assessed for the purposes of biodiversity conservation. DECC is also satisfied that measures have been provided in the conservation package to support the co-operative management of threatened species. The proposal to use part of the \$530 million funding for conservation agreements (such as under the BioBanking scheme) is a clear example of this.

Nevertheless, despite all the measures in the conservation package (both within and outside the Growth Centres) it is agreed that the loss of biodiversity from the development will, at least initially, increase the risk of extinction to some EECs and threatened species. No critical habitat will be affected as there is none declared within the Growth Centres.

The offset package, through the protected lands and \$530 million, is considered to be a crucial mechanism in mitigating this risk. By seeking to retain almost 2000 ha of endangered vegetation within the Growth Centres and allocating considerable resources to protect the best and most viable remnants outside, the package will provide a major boost for the long-term survival of EECs and threatened species in the Cumberland Plain. As noted in earlier parts of this report, this package is unique in scale and, if delivered to its full extent, will ensure the protection of significant areas in-perpetuity.

DECC does not agree with the view that no decisions should be taken until the Cumberland Plain recovery plan is completed and publicly available. That plan remains in development and in the meantime it is incumbent on decision-makers to make decisions on the best available information and taking into account current legislative and policy requirements.

As a final comment, it is again noted that the intent of the biodiversity certification provisions of the TSC Act is to enable consideration of biodiversity issues to shift away from the individual property scale to the landscape level. This will make it possible to understand the cumulative impacts of decisions much more fully and create new opportunities for broad conservation actions that range across the landscape and over time. The value of the landscape approach has also been recognised by the Natural Resources Commission (2007).

The conservation package for the Growth Centres is the first such proposal to be considered for certification. Although there will be impacts on biodiversity, the overall outcome can be seen to support the objects of the TSC Act by providing a basis to deliver outcomes that over time will secure areas of major biodiversity value that otherwise would remain susceptible to current and future development pressures.

5.2 Matters under section 126N of the TSC Act

Conservation benefits that will result from a voluntary action being undertaken as part of a concurrence granted by DECC (as if those benefits would result from the implementation of the EPI)

The working draft guidelines note that under existing development assessment requirements the concurrence of DECC is required when, after consideration of a species impact statement, it has been determined that a development will have a significant effect on threatened species. Under section 126N of the TSC Act, concurrence may be granted on the condition that certain voluntary actions are taken by the proponent for the development, such as the reservation or protection of land, restoration actions and contribution of funds.

At the time of preparation of this report there was no formal concurrence process involving such voluntary actions underway within the Growth Centres.

5.3 Other relevant matters

As noted above, the following are matters that are also considered germane to the Minister's consideration of the proposal to grant biodiversity certification to the Growth Centres SEPP. Where discussion has already occurred elsewhere in this report (e.g. Appendix III), it is not repeated here.

Offset principles

Appendix 2 of the working draft guidelines provide a set of principles that are to be used as a guide when negotiating and developing biodiversity offsets. The guidelines note that the appropriateness of offsets will need to be determined with regard to the circumstances of each case and the need to achieve an improvement or maintenance of biodiversity values.

The offset principles have been considered during the preparation of this report and the assessment of the conservation package for the Growth Centres. On balance, it is considered that the offset proposal seeks to address the principles as much as is practicable, given the circumstances of the Growth Centres. These include by:

- avoiding impacts first, as much as possible within the context of providing for future urban development to meet housing supply requirements under the Metropolitan Strategy
- fulfilment of regulatory requirements
- complementing other government programs
- use of sound ecological principles to identify offset requirements
- provision of enduring offsets (e.g. via purchase or conservation agreement)
- targeting of offsets to achieve a like-for-like or better outcome.

However, it is acknowledged that there is not strict adherence to all the stated offset principles. For example, it is not possible to agree on the exact location and timing of offset delivery, and there will be some time-lag between the loss of biodiversity and implementation of offset arrangements. That time-lag is inevitable when operating at the scale of the Growth Centres, but the recommended conditions in the order to confer biodiversity certification submitted to the Minister seek to minimise the risks from this. In addition, it is not possible to be precise about the quantum of offsets that will be delivered, especially outside the Growth Centres, as this is dependent on fluctuating variables such as landowner interest and the availability of land.

Overall, DECC is of the view that the conservation package for the Growth Centres has responded to the offset principles as far as possible within the constraints and unique circumstances of the Growth Centres. As noted above, the draft certification conditions provide more rigour and transparency around the operation of the offset framework.

Draft BioBanking Assessment Methodology

As noted earlier in this report, DECC (2007a) has released the draft methodology for public review. The methodology seeks to provide a set of consistent rules to determine whether a development proposal can improve or maintain biodiversity values. In summary, it does this by measuring the impacts from proposed development and assessing these against the gains in biodiversity values from undertaking management actions on another site. The draft Methodology proposes a system for determining values and losses, as measured by calculated biodiversity 'credits'.

Many of the public submissions on the Growth Centres biodiversity certification proposal raised concerns regarding potential inconsistency in the way the improve or maintain test is being applied, compared to what is proposed in the BioBanking scheme.

However, it should be noted that at the time the Growth Centres proposal was developed and placed on public exhibition the BioBanking Methodology was still in preparation. In addition, the focus of the Growth Centres certification process has been on strategic land-use considerations, using the working draft certification guidelines, rather than property-scale decision-making.

The draft BioBanking Methodology has therefore not been applied to the Growth Centres biodiversity certification proposal. If it were applied at this scale of decision-making, it is likely that it would trigger a number of 'red flags' under the methodology. In essence, red flags signal that on first considerations a development cannot be regarded as improving or maintaining biodiversity values. Red flags arise in situations such as when a development will impact on an endangered ecological community, and where the vegetation is not in 'low condition'.

The draft methodology acknowledges that there will need to be flexibility in dealing with red flag areas. It therefore includes provisions that enable an assessment to be made that a proposed development will improve or maintain biodiversity values – in effect allowing for variation of the red flag outcomes. In order to implement such a variation, specified assessment protocols must be met and certain other matters considered.

The assessment protocols to vary red flags are discussed in Section 2.3.2 of the draft methodology and focus on the following matters as determinants of the viability of biodiversity values on a development site:

- **current or known future land uses surrounding the development site** – small areas of vegetation (a few hectares) surrounded by intensive land uses have low viability
- **size and connectivity** – small patches of isolated vegetation have low viability
- **condition** – degraded condition vegetation can have low viability or not be viable
- **management resources** – small areas requiring high management input have low viability compared to larger, less isolated areas in better condition.

As discussed in Section 4 of this report, these same types of considerations have also been examined and tested in assessing whether the Growth Centres proposal will maintain or improve biodiversity values.

According to the draft BioBanking Methodology, if the biodiversity values on a site are assessed as having low viability then consideration may also be given to the following matters in deciding whether there will be improvement or maintenance of biodiversity values:

- **The areas and percent remaining of native vegetation, vegetation type, EECs or threatened species habitat** – In the case of the Growth Centres proposal, the presence of identified priority areas for protection elsewhere in the Western Sydney region (see Section 4 and Appendix III) would provide support to vary any red flags (if they applied).
- **Whether the proposed development is in accordance with an approved regional plan** – As noted earlier in this report, the development of the Growth Centres is a key feature of the Metropolitan Strategy and has been given force through various initiatives, such as the Growth Centres SEPP, establishment of the Growth Centres Commission and recent changes to the procedures for collection and use of infrastructure levies.
- **Whether an additional environmental contribution has been made to the offsets required for the development** – The overall outcome for biodiversity is discussed in the conclusion to Section 4 of this report. In summary, virtually all of the areas of higher biodiversity value are to be retained, and substantial offsets are proposed for the loss of vegetation not considered to have high value. In the broadest terms, the loss of 1867 ha of vegetation will be countered by the protection of 4300 ha either within or outside of the Growth Centres.

Under the draft methodology, the final test in varying red flags is a demonstration that the avoidance of impacts on red flag areas would, in the particular case, be ‘unreasonable and unnecessary’. For the Growth Centres it is arguable that this test would be met based on consideration of the clear commitments in the Metropolitan Strategy, the emerging emphasis on landscape-scale conservation outcomes in the Cumberland Plain and elsewhere, and the challenges of delivering meaningful conservation outcomes in a fragmented highly urbanised area.

In conclusion, while the draft methodology has not been used, it is considered that if it were applied and if red flags were triggered, then the variation procedures would provide sufficient scope to demonstrate that the Growth Centres outcomes are capable to improving or maintaining biodiversity values.

NSW State Plan

The State Plan (NSW Premier’s Department 2006) outlines a range of priority actions to support an improved urban environment. Priority E4 targets better outcomes for native vegetation, biodiversity, land, rivers and coastal waterways. It adopts the statewide targets for natural resource management prepared by the Natural Resources Commission (2005), including proposed increases in vegetation extent and condition; sustainable native fauna populations; and the recovery of threatened species.

The Plan details the actions already under way and new actions that will be considered to meet these targets. These include the application of new scientific information and market-based programs to promote better resource management, provision of incentive and stewardship payments to landowners through offsets, and building a comprehensive, adequate and representative reserve system.

While the Growth Centres conservation package will result in losses in vegetation extent, in time the overall outcome will see the protection of important vegetation remnants and habitats in the Sydney region. The package also embraces the move towards more market based and incentive mechanisms by the collection of funds through the special infrastructure contribution and the allocation of part of these for conservation agreements with interested and willing landowners.

Climate change implications

Based on current evidence and predictions, climate change poses a real and serious risk to biodiversity. As temperatures and weather patterns change, the location, extent and condition of vegetation cover and available habitat is also likely to change. Native species will need opportunities to move across the landscape to find refuge and buffers to those impacts.

NSW is responsible for about 28% of Australia's total greenhouse gas emissions, although it has around 33% of the population. This disparity is largely because NSW has lower industrial emissions on a per capita basis than other Australian states (DEC 2006b).

Land-use change, including the clearing of native vegetation, is a relatively small (but still important) source of greenhouse gas emissions. Emissions from land clearing declined a significant 60% between 1990 and 2002 and only contributed 5% of total emissions in 2002 (NSW Greenhouse Office 2005). In that year, around 58,000 ha of native vegetation was legally cleared in NSW, a figure that declined to 44,000 ha in 2005 (DEC 2006b).

Actions in the NSW Greenhouse Plan focus on managing native vegetation loss through the native vegetation legislation and carbon sequestration initiatives (e.g. forestry and revegetation) (NSW Greenhouse Office 2005). The vegetation reforms are expected to reduce emissions by a further 3.4 million tonnes per year by 2008 (DEC 2006b).

A number of the submissions on the draft Conservation Plan identified concerns with the potential greenhouse emissions resulting from the clearing of native vegetation in the Growth Centres. There were also related concerns at the micro-climate 'heat island effect' that could result from the loss of vegetation and the subsequent development of heat absorbing and energy-intensive urban areas. Vegetation is known to assist in decreasing energy use by providing shade and reducing winter wind speeds.

On balance, it is considered that, although the loss of vegetation will result in greenhouse emissions and may impact on local climatic conditions, the overall result will be relatively small in comparison to other emission sources. This is particularly the case considering that the annual clearance of vegetation within the Growth Centres will be a fraction of total statewide vegetation clearing, which in itself only comprises a minor portion of overall NSW emissions. It is also noted that there is likely to be significant investment in revegetation along riparian lands within the Growth Centres which will partly assist in counter-balancing the emissions from clearance of existing vegetation.

In addition, the proposal to target the largest and most intact remnants outside the Growth Centres for protection will support efforts to buffer against the worst possible impacts of climate change. These remnants have the best prospect of long-term survival, providing useful havens for fauna and a 'stepping-stone' corridor function for mobile species (especially birds and bats).

Conservation planning in the Cumberland Plain

Efforts to protect, enhance and restore the biodiversity values of the Cumberland Plain have been ongoing for many years and have involved many different stakeholders. Significant achievements have been made in reserving land in public ownership, repairing corridors and linkages, and in revegetation.

However, the historical legacy of clearing has meant that about 75% of the original vegetation has already been lost. Of the 25% that remains only about half is in relatively good condition and the remainder is generally heavily disturbed. It is generally accepted that significant declines in biodiversity occur once clearing exceeds 70%.

Given this context, and the ongoing pressures of urban growth, achieving meaningful conservation outcomes in the Cumberland Plain continues to be a major challenge. As noted above, while the Cumberland Plain recovery plan will provide direction on the key

conservation actions for EECs and some threatened species, it is yet to be finalised for public comment. It is nevertheless likely that the recovery plan will respond to the emerging emphasis on landscape-scale conservation planning and effort. This is appropriate given the highly fragmented nature of vegetation in this region, the extent of isolation and the residual presence of large, good quality remnants. Similar moves are also under way with respect to operation of the native vegetation legislation in rural and regional NSW (NRC 2007), while the Hawkesbury-Nepean Catchment Action Plan (HNCMA 2006) already embraces a suite of linked actions intended to support landscape outcomes.

As already discussed, the conservation package for the Growth Centres will support this landscape-scale focus. The biodiversity certification provisions of the TSC Act enable this to occur by moving the decision-making away from individual properties and development proposals to strategic land-use planning. In broad terms it is therefore considered that the Growth Centres proposals are consistent with and promote the emerging conservation philosophy for the Cumberland Plain.

Areas subject to existing conservation agreements or gazettals

There is currently one area within the Growth Centres, at Colebee in the NW, that is subject to a voluntary conservation agreement (VCA) under section 69B of the NPW Act. The subject land is small, between 1 and 2 ha, and has important Aboriginal heritage values. The VCA site is within an area that has already been rezoned for a golf course and residential development and will not be affected by either that proposal or the future development of the Growth Centres.

In the SW Growth Centre it appears that part of the land was subject to a proclamation in 1956 to establish a 'district (sanctuary)' under the *Fauna Protection Act 1948*. That proclamation covered an area known as Pondicherry Farm, which is at least partly within the Oran Park precinct. The proclamation had the effect of restricting the taking or killing of native fauna to a prescribed list, including sparrows, starlings, currawongs, foxes, dingoes and fruit bats (i.e. species that would have been considered pests at the time).

DECC is of the view that although it is not completely certain that the original declaration has been removed or altered by subsequent proclamations or legislative change, there do not appear to be any remaining legislative restrictions affecting the use of such 'districts'. In addition, it is clear that the original purpose of the declaration has been superseded by the passage of time and more comprehensive regulatory controls for native fauna. Given this context, and the planning and assessments being undertaken for the Growth Centres, DECC is satisfied that issues regarding native fauna have and will receive adequate consideration.

5.4 Conclusion

On the basis of the above discussion, DECC is satisfied that that the Growth Centres SEPP is suitable for biodiversity certification. Consideration of the above matters, together with comments from the public submissions, should inform the scope and nature of the certification decision and any conditions that may be applied.

6. Submissions

Details of the public notification of the proposed biodiversity certification of the SEPP are included in the Report on Public Submissions prepared by the GCC (2007b). They are also summarised in Section 3.4 above.

This part of the assessment report examines the key themes that emerged from the public notification process and exhibition of the draft Conservation Plan. It should be noted that in preparing this report, DECC has given consideration to both the public submissions on the draft Plan and separate correspondence that was made directly to the Minister during and after the exhibition period of the draft Plan.

6.1 Working draft guidelines

As discussed in Section 3.4 of this report, certification proposals must be publicly exhibited in accordance with section 126G(4) of the TSC Act and all submissions must be provided to the Minister. Although the TSC Act does not explicitly require the Minister to consider the submissions in determining whether to confer biodiversity certification, it is clear that this is the intention. This is acknowledged in Section 3.3 of the draft guidelines.

6.2 Report on public submissions

As part of the formal request to the Minister for certification of the Growth Centres SEPP, the Minister for Planning noted that the analysis of submissions in GCC (2007b) concluded that no significant changes to the Conservation Plan were warranted. However, there were a range of matters identified that either required further consideration or were recommended to be addressed as part of the certification decision (e.g. via conditions).

These matters are detailed in Section 6 of the GCC Report on Public Submissions. In broad terms they included:

- further work to agree on offset principles and programs
- mechanisms for dealing with infrastructure impacts in the protected lands
- flexibility to refine certification in the light of improved information
- clarification and mapping of areas to be subject to certification and/or requiring further investigation for threatened species
- timeframes and mechanisms for the review of certification.

The GCC Report provides significant detail on the source of submissions and their format. The majority of submissions (88%) were from landowners, followed by environment groups (6%) and government (6%). Most submissions were by e-mail, although there were also large groups of proforma submissions (24%) and letters (26%). Many landowners had also engaged consultants to examine and report on the biodiversity values of their individual properties as shown in the draft Conservation Plan.

The GCC report also examines and reports on the issues raised in each submission in close detail. It not only identifies the issues from each individual submission, it also groups issues according to their source (i.e. landowners, environment groups and government) and then provides responses to these.

6.3 Key themes and issues

Based on a review of the GCC Report on Public Submissions and examination of the 200 submissions received on the draft Conservation Plan, it is clear that a number of common and consistent themes emerged from the public consultation process. These are discussed below.

Disputed conservation values or 'errors'

Virtually all submissions from landowners contested the presence of biodiversity values on their properties, as suggested by the draft Conservation Plan. As noted above, many landowners also engaged consultants to prepare flora and fauna assessment reports on their behalf. A number of submissions also suggested that the burden of conservation was unfairly falling on smaller landowners.

A specific issue raised by some landowners (particularly from the North Kellyville area) concerned the inclusion of flood-prone areas within the protected lands. A number of form letters objected to this and argued for financial compensation to affected landowners.

Comment

The whole intent of the draft Conservation Plan is to inform decision-making at a landscape scale, based on a regional picture of biodiversity values. It is not intended to make decisions about individual properties.

It is clear that many submissions did not understand the implications of the draft Plan. This is particularly the case for areas outside the protected lands that, subject to the precinct planning process, will be available for development. Many of the submissions were from landowners in this category who, if certification is granted, will not be required to undertake future threatened species assessments.

Information provided on individual properties will nonetheless be useful at the precinct planning stage, when decisions about local open space and amenity will be made. However, it is considered that there is no need to revise the certification proposal or apply specific conditions to address this matter.

With respect to flood-prone lands, the extent of flooding and future land uses are to be determined through the precinct planning process. However, the recommended conditions of certification (in the order to confer biodiversity certification submitted to the Minister) do address the implications of proposed clearing of existing native vegetation within these areas.

Offset arrangements

A number of submissions, particularly from environment groups but also from some landowners, raised concerns with the application of offsets and how this would occur (as noted in Section 2.3 of this report). Comments focused on the lack of a clear plan for offsetting (especially BioBanking), the location of proposed offsets, whether landowners would be forced to provide land for offsetting, the time-lag between clearing and offsetting, the level of permanent protection for offset sites, and the inclusion of existing protected areas as part of the offset package.

Comment

It is agreed that the ability to deliver the improve or maintain outcome relies on the establishment of robust and accountable offset arrangements. The recommended conditions of certification (in the order to confer biodiversity certification submitted to the Minister) seek to lock in place the requirements for conservation funding and the purposes to which that funding may be used. Conditions are provided to direct the location of offset funds to the

Cumberland Plain as a priority and to ensure that there is public transparency in the collection and use of funds.

Impacts on land values and development potential

Similar to concerns regarding the presence of conservation values, some submissions also argued that there would be an associated loss in land values or development opportunity as a consequence of the draft Conservation Plan. Several submissions also contended that compensation should be provided to affected landowners.

Comment

The draft Conservation Plan is based on existing information regarding the presence of vegetation and habitat. By itself the draft plan does not determine land values or development potential: these are subject to complex market forces and land-use planning decisions. As noted above, based on the draft Plan (and subject to precinct planning) if properties are located outside the protected lands then they would in most cases be available for development without the need for further biodiversity assessment. Hence, the effect of certification for landowners in these areas would be likely to support increased land values and development opportunities.

Assessments and criteria used

As noted in Sections 3.2 and 4 above, there was extensive comment on the methods used in the draft Conservation Plan to identify and assess biodiversity values, including the criteria used to test the improve or maintain outcome. These issues were particularly covered in considerable detail by the submissions from environment groups, with a focus on the (low) level of survey that had been undertaken and the use of surrogates and criteria that were seen to under-value the biodiversity present within the Growth Centres. In addition, a number of landowner submissions were also critical of the methods used, although in this case the criticisms were targeted at the supposed over-statement of conservation values.

Comment

Issues concerning the criteria and methods used in the draft Conservation Plan have already been discussed earlier in this report. On the whole, it is concluded that sufficient information exists to support the decision-making with respect to biodiversity certification of the SEPP and that the criteria that have been applied are appropriate to the scale and context of the Growth Centres. In this regard, DECC is particularly mindful that the intent of the certification process is to enable decision-making to occur at a landscape scale (rather than property-by-property) and that the level of assessment undertaken needs to be appropriate to this. Similarly, the specific criteria used to assess improve or maintain need to take account of the regional circumstances that are evident in the area subject to the EPI. In the case of the Growth Centres, for example, that means being cognisant of some of the realities of protecting and managing small remnants when determining the criteria to be used in testing long-term ecological viability and to identify areas of high biodiversity value.

Impacts on biodiversity and the environment

Concerns regarding the biodiversity impacts of the Growth Centres SEPP were most evident in the submissions from environment groups. Common issues were: the extent of vegetation loss proposed (particularly the impacts on Cumberland Plain Woodland and Shale Gravel Transition Forest EECs); the lack of a recovery plan; the focus of protected areas within creeks and flood-prone lands; the lack of security for protected areas and offsets; and the under-statement of biodiversity loss in the draft Conservation Plan. A small number of

submissions also touched on specific issues, such as the climate change ramifications of additional vegetation clearing (including the ‘heat island effect’).

Comment

Most of these issues are addressed elsewhere in this report. As an overall comment, it is clear that the draft Conservation Plan has been open and transparent about the expected level of biodiversity impacts (based on current knowledge and information). This is especially the case for good quality native vegetation and impacts on known or potential threatened species habitat.

As discussed earlier, it is the view of DECC that there is sufficient understanding of the extent of likely biodiversity losses and there are appropriate opportunities to counter-balance those impacts, either through protection of areas within the Growth Centres or via the use of the conservation funding outside of the Growth Centres. The recommended conditions of certification (in the order to confer biodiversity certification submitted to the Minister) lock in the framework for the achievement of conservation outcomes.

The potential climate change impacts of development in the Growth Centres are discussed in Section 5 of this report.

Process, monitoring and review

A number of submissions raised concerns or queries with the practical operation of biodiversity certification and how any decision would be reviewed or amended over time. Key issues included: the length of certification versus review periods; monitoring of development impacts; implications of new threatened species listings or discoveries; relationship to Commonwealth statutory requirements; and the need for flexibility to amend boundaries. A common theme was also the need for a clear framework for monitoring and testing progress in delivering the promised conservation outcomes.

Comment

The operational issues identified in the submissions are of key importance to the successful implementation of the biodiversity conservation package for the Growth Centres. These, and related matters, are addressed by the recommended conditions of certification (in the order to confer biodiversity certification submitted to the Minister).

On the specific issue of Commonwealth legislation, it should be clearly noted that (if granted) the biodiversity certification of the SEPP does not override or replace any current need to obtain relevant approvals from the Commonwealth Government (e.g. under the Environment Protection and Biodiversity Conservation Act). It is understood that the GCC is separately discussing the assessment and approval options for the Growth Centres with the relevant Commonwealth agency.

6.4 Conclusions

Large-scale planning proposals will always elicit a range of views from the community. The development and conservation proposals for the Growth Centres are no different – strong opinions and comment have been provided by a range of stakeholders operating from different perspectives and with various desired outcomes in mind.

Although not explicitly discussed above, the one common theme of all submissions is that they object to the proposals within the draft Conservation Plan, albeit for quite different reasons. Hence submissions from landowners are broadly concerned that the draft Plan provides for too much conservation and will impact on development opportunities and viability. Environmental groups, on the other hand, consider that the draft Plan provides for

too little protection and that the consequences for biodiversity are too great to justify an improve or maintain outcome.

The submissions have raised many important issues and points. These have all been considered and weighed during the preparation of this report and the recommended conditions of certification (in the order to confer biodiversity certification submitted to the Minister). DECC has also given consideration to the Report on Public Submissions prepared by the GCC and the recommendations therein.

Given the above, and considerations throughout this report, DECC is satisfied that the requirements for public consultation have been satisfied and that the views expressed in submissions have been adequately taken into account.

7. Final conclusion and recommendations

7.1 Context

Biodiversity certification is a new tool in the suite of available conservation options. As noted earlier in this report, the introduction of biodiversity certification powers into the TSC Act is a key plank of recent reforms to the management of biodiversity issues in NSW. Building on the lessons and experiences of the past decade, biodiversity certification provides an opportunity to move decision-making away from the individual property or development scale to encompass a broader consideration of landscape-scale conservation outcomes.

The benefits of this approach are essentially two-fold. At one level, it should produce better conservation outcomes by enabling more informed decisions regarding cumulative impact, ecological sustainability and the long-term conservation vision for an area. Secondly, by building in consideration of biodiversity issues at the earliest and highest stage in the planning process it will deliver greater certainty of land-use planning and development options. This is the common ground for both conservation and development objectives – both seek up-front certainty.

The Western Sydney Growth Centres are a logical, albeit challenging, location to apply the biodiversity certification process. Development of the Growth Centres is a major commitment of the NSW Government's Metropolitan Strategy and will provide the bulk of new greenfields development in Sydney until 2031. At the same time, the Growth Centres contain significant areas of endangered vegetation and threatened flora and fauna species. Biodiversity certification provides a clear framework to test at a broad scale the intended development and conservation outcomes, and particularly whether an overall improve or maintain result can be achieved.

In this regard, it is important to understand that the biodiversity certification process is ultimately not about deciding whether development should proceed in the Growth Centres. As noted above, the Metropolitan Strategy already commits to development in these areas. Neither the draft Conservation Plan nor the final decision regarding biodiversity certification will change this outcome. However, what they will determine is whether biodiversity values can be maintained or improved by a package of actions both within and outside the Growth Centres.

If biodiversity certification is not granted, this will simply mean that any development in the Growth Centres would have to proceed according to the existing development assessment processes operating under the *Environmental Planning and Assessment Act 1979*. Essentially, this would result in individual development applications being assessed to determine the level of impact on threatened species.

Finally, as discussed in Section 6, there are a range of strong views from various parts of the community regarding the proposed biodiversity certification of the Growth Centres SEPP. Those views are not unique to the Growth Centres and are generally indicative of the types of opinions commonly expressed with respect to new urban development proposals across Sydney. The tensions between development and conservation imperatives are therefore well encapsulated in the submissions.

7.2 Recommendation

After consideration of this report and all associated documentation regarding the proposal, and taking into account the unique circumstances of the Cumberland Plain, it is the conclusion of DECC that the Growth Centres SEPP and associated package of conservation measures will lead to the overall improvement or maintenance of biodiversity values.

In sum, DECC recommends that the Growth Centres SEPP be considered for biodiversity certification subject to conditions and the development of funding and administrative arrangements to ensure delivery of the conservation package. The range of conditions recommended and submitted to the Minister to confer biodiversity certification respond to many of the issues raised in the public submissions.

The primary reasons for the conditions are to:

- ensure that an overall improvement or maintenance of biodiversity values will be achieved
- clarify the interaction of the certification order with other statutory and non-statutory matters
- provide for appropriate future amendment and updating of the certification conditions
- identify the area subject to biodiversity certification
- establish the framework for the retention of native vegetation and specific threatened flora and fauna species within the Growth Centres
- establish the framework for the allocation and use of the \$530 million in conservation funding, including an indicative payment schedule
- provide mechanisms to address future amendments to the SEPP and new threatened species listing or discoveries
- detail the timeframe within which biodiversity certification will apply and the procedures for review.

With regard to the spatial area that will be covered by biodiversity certification, this will be shown by maps that accompany the certification order. As noted earlier in this report, certification will essentially apply to the developable lands within the Growth Centres. It will not apply to the protected lands, or areas of Higher Long Term Management Viability identified in the draft Conservation Plan. In addition, for those areas that require further consideration for threatened flora and fauna species, it will not immediately apply, although there is scope for this to be revised following completion of certain actions specified in the conditions.

The conditions are considered essential to the successful implementation of the commitments made in the draft Conservation Plan. They also acknowledge that the proposal is not without risks, and that there must therefore be provisions that seek to minimise those risks and provide 'safety nets'. One example is the condition regarding the non-delivery of the conservation funding. Another is the restrictions on clearing native vegetation in the lands identified as having Higher Long Term Management Viability in the draft Conservation Plan.

At the same time, the conditions recognise that some flexibility will be required to enable smooth ongoing practical operation of the certification order. Hence, the conditions provide for amendments and revisions and the annual updating of the indicative 10-year timetable of conservation payments. Similarly, there is flexibility concerning the location of vegetation to be retained within the Growth Centres subject to certain parameters, including the key requirement to deliver at least the quantum of 2000 ha committed by the draft Conservation Plan.

7.3 Conclusion

As noted above, it is considered that the Growth Centres SEPP is suitable for biodiversity certification under section 126G of the TSC Act on the basis that it, and the associated conservation package, will lead to the overall improvement or maintenance of biodiversity values.

The final decision of whether to confer biodiversity certification to the Growth Centres SEPP rests with the Minister. This report will be provided to the Minister to assist in that decision-making process.

**Appendix I:
State Environmental Planning Policy (Sydney Region Growth
Centres) 2006**

This is available by going to the following address:

[http://www.gcc.nsw.gov.au/information/state-environmental-planning-policy-\(sepp\).aspx](http://www.gcc.nsw.gov.au/information/state-environmental-planning-policy-(sepp).aspx)

**Appendix II:
Request for biodiversity certification**



NEW SOUTH WALES

The Hon Frank Sartor MP
Minister for Planning
Minister for Redfern Waterloo
Minister for the Arts

COPY

The Hon. Verity Firth, MP
Level 33 Governor Macquarie Tower,
1 Farrer Place,
SYDNEY NSW 2000

Dear Minister

It is with great pleasure that I write to seek biodiversity certification of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*, under Section 126G of the *Threatened Species Conservation Act 1995* (TSC Act).

Biodiversity certification, if granted, will offer a number of significant benefits from both a conservation and development perspective. It will provide better conservation outcomes because areas protected or purchased outside the Growth Centres as offsets will be of higher management viability because they are in larger areas or will be adjacent to areas already under management. A better outcome will also be provided for landowners, councils and developers as biodiversity issues are dealt with at a strategic level, rather than for each development application over the next 30 years.

The potential for biodiversity certification was made possible after the TSC Act was amended in 2004. A new provision, Section 126G, gives the Minister for the Environment and Climate Change the ability to confer certification on an environmental planning instrument (EPI) if the Minister is satisfied that it will lead to the overall improvement or maintenance of biodiversity values.

Consistent with the 'improve or maintain' criterion, a process was designed to identify areas of native vegetation to be retained and areas that are able to be offset. The proposed offset package consists of \$530 million (indexed at 05/06 values) to fund a combination of voluntary land acquisitions and voluntary Bio-Banking Agreements. In addition, areas identified for protection within the Growth Centres will be protected via existing zonings and controls in the SEPP (eg those applying to "Flood Prone and Major Creeks Land").

The proposed biodiversity certification – including the assessment process undertaken and proposed outcomes – is documented in the attached *Draft Conservation Plan*. The Draft Plan was exhibited by the GCC from 5th February to 18th April, 2007. The attached *Report on Public Submissions* provides an analysis of submissions received, including issues raised and responses to these issues.

Level 34 Governor Macquarie Tower, 1 Farrer Place, Sydney NSW 2000 Tel: (02) 9228 4700
Fax: (02) 9228 4711 Email: office@sartor.minister.nsw.gov.au

A total of 200 submissions were received from landowners, Councils, State and Federal Agencies, environmental groups and the development industry. Key issues raised by submissions ranged from support for the proposed biodiversity certification to:

- landowner objections to 'green notation' on their land,
- objections to the perceived reinstatement of the 'rural and lifestyle green overlay',
- the regional nature of mapping,
- lack of information regarding land to be acquired for offsets,
- the extent of vegetation able to be offset, and
- the consultation process undertaken.

The analysis of submissions and issues as documented in the attached submissions report concludes that no significant changes to the Conservation Plan are warranted. Nevertheless, it is considered appropriate that:

- mapping and other local context issues be addressed as part of the Precinct Planning process,
- any certification be accompanied by a much simplified map,
- negotiations be undertaken with the Department of Environment and Climate Change (DECC) and Treasury to establish the basis for the allocation of funding to secure required offsets, and
- the flexibility to modify any certification through Precinct Planning be maintained.

In view of the significant benefits offered, it is recommended that biodiversity certification be conferred upon the Growth Centres SEPP under Section 126G of the TSC Act. Please do not hesitate to contact Angus Dawson, Chief Executive Officer of the Growth Centres Commission, on (02) 9204 7511 should you require any further information or clarification.

Yours sincerely


Frank Sartor

19/7/07

Appendix III: Additional conservation reports considered in assessment of growth centres biodiversity certification proposal

Hawkesbury Nepean Catchment Action Plan – Appendix 8 Regional Corridor Assessment and Priority Fauna Habitats

DECC undertook a rapid assessment of the biodiversity of the Hawkesbury-Nepean Catchment to assist the CMA target investment in the Catchment Action Plan (CAP) (HNCMA 2006). That work identifies a network of regional corridors and priority fauna habitats in the catchment (shown in Map 9 of the CAP). These corridors are based on an assessment of the size of existing remnants and an analysis of ownership to identify the most viable network.

In western Sydney, the CAP identifies a number of priority areas. The Shanes Park Air Services Australia (ASA) site is the only specific location within the Growth Centres that is identified as a priority area. Riverflat forests along the major creeklines are also shown more generally as potential priority fauna habitats (see Map 9 on page 66 of the CAP).

As noted in the body of this report the ASA site has been zoned Environment Conservation by the Growth Centres SEPP and there is no intention that it be developed for urban purposes. The Commonwealth Government also has an existing commitment to apply a conservation agreement to this site under the provisions of the EPBC Act (Minister for the Environment and Heritage 2004).

In addition, through the protection of flood-prone lands under the SEPP, provision has been made for the majority of the Riverflat forests to be retained. This is likely to be reinforced through Part 3A approvals under the Rivers and Foreshores Improvements Act, and mechanisms at the precinct planning stage that will protect riparian corridors through public acquisition and enhancement programs.

The Growth Centres proposals are therefore considered to be consistent with the information and priorities in the CAP.

Terrestrial vertebrate fauna of the Greater Southern Sydney Region

DEC (2005b) documents the native species of the Greater Southern Sydney Region (GSSR), their habitats and management issues. The GSSR covers the SW Growth Centre.

The report identifies the top priority fauna species for the region and the priority fauna habitats. Grassy Box Woodland (GBW) is considered the highest priority fauna habitat in the GSSR. GBW is a broad category made up of a number of vegetation types, including the endangered Cumberland Plain Woodland ecological community.

The report notes that GBW has been heavily cleared, particularly in the Cumberland Plain. What remains in south-western Sydney occurs in very small patches or on the peripheries of the plain. As a consequence, many of these smaller remnants no longer support populations of any threatened fauna. The report uses filters based on habitat requirements, remnant size and connectivity to highlight the GBW in the region that is best able to support populations of declining woodland birds and other species reliant on this habitat type.

Based on this assessment, the report concludes that there are only three areas on the Cumberland Plain that emerge as important areas of GBW. Of these, only one area – at Kemps Creek in the Liverpool LGA – falls within the SW Growth Centre. The areas at Kemps Creek are largely included within the protected lands identified in the draft

Conservation Plan, including two parcels of land that have been zoned for 'Public Recreation – -Regional' under the SEPP and are to be acquired.

The Growth Centres proposals are considered to be consistent with the information and priorities in the GSSR report.

Cumberland Plain Protected Areas Plan

This unpublished report (DEC 2005a) provides an assessment of vegetated lands across the Cumberland Plain to determine their suitability for reservation under the NPW Act or management as part of a protected area network. The plan draws on earlier assessments of priorities across the Sydney Basin (DEC 2004).

The plan acknowledges the challenges of building a reserve and protected area system in a fragmented landscape, such as western Sydney. Where funding is available for acquisition, decisions need to be made on a regional basis, keeping in mind that smaller reserves in an urban context are more likely to have a greater risk of losing their conservation values over time.

The plan identifies several areas within the Growth Centres that may be suitable candidates for reservation or inclusion in a protected area network. These include well-known sites such as the Commonwealth Air Services Australia property at Shanes Park, but also a number of smaller areas.

Almost all of the areas identified in the plan as suitable candidates are within the Growth Centre-protected lands. This includes lands, such as at Shanes Park and elsewhere, that have been zoned for either environment conservation or public recreation and are subject to the acquisition provisions of the SEPP.

The Growth Centres proposals are therefore considered to be broadly consistent with the information and priorities in the plan. The remaining small areas currently not included in the protected lands within the Growth Centres will be subject to the normal precinct planning requirements of the Development Code.

Cumberland Plain Fauna Survey

This report (DEC 2006a) documents the outcomes of a rapid fauna assessment for selected forest blocks in western Sydney. It seeks to assess the overall fauna values of the blocks, rather than just using threatened species as a surrogate.

Essentially, the report confirms the fauna values of the areas considered in the Cumberland Plain Protected Areas Plan (above).

Cumberland Conservation Corridors proposal

This proposal (Western Sydney Conservation Alliance 2006) provides a concept for protecting and managing the remnant ecological communities of the Cumberland Plain. It aims to deliver a continuous connection of large bushland remnants stretching from Mulgoa Nature Reserve to Agnes Banks Nature Reserve.

The proposal argues for the use of the conservation funds from the Growth Centres conservation package to resource implementation, but also identifies lands that are in public ownership that should be included in the corridors without substantial cost. The proposal also suggests that funds should be made available now to establish the corridors, to be paid back by the Growth Centres funds, and that those funds should also be used to fund future management of purchased lands.

References

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