

# Capacity of Perth's Local Governments to Conserve Biodiversity

Survey Analysis Report 2007



PERTH  
BIODIVERSITY  
PROJECT

Councils Caring for their Natural Communities



WALGA





Councils Caring for their Natural Communities

## Survey Analysis Report:

Capacity of Perth's Local Governments  
to Conserve Biodiversity

2007

The Perth Biodiversity Project is supported by:



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## **Executive Summary**

The Perth Biodiversity Project (PBP) involves 29 Local Governments in the Perth Metropolitan Area and the Shire of Chittering. The Project was established in 2001, to assist Local Governments with the challenging task of conserving the native vegetation under their management, and provide a means for strategically planning for the retention, protection and management of Perth's biodiversity by developing Local Biodiversity Strategies through the process developed in the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region*. In the preparation of this document, PBP undertook the 2002 Local Government Biodiversity Conservation Capacity Survey, in an effort to determine the capacity of Councils to conserve biodiversity, and gauge how best to assist Local Governments in the strategic protection of their remnant native vegetation.

Five years on, PBP has again undertaken the Local Government Biodiversity Conservation Capacity Survey, to establish how Local Government capacity to conserve biodiversity has changed since 2002, assess the impact of the *Guidelines*, PBP services, and other conservation initiatives, and help determine the future direction of the Project. 24 Local Governments responded to this survey.

### **Resource Allocation**

During the 2005-06 financial year Local Government spent a total of more than \$6.75 million, or an average of \$321,556 each, on salaries and activities related to biodiversity conservation. This represents approximately 0.76% of their total expenditure for that period.

Councils received a total of more than \$1.05 million in biodiversity related grants, which represents a direct Local Government contribution of approximately \$6 for every \$1 received in grant funding.

Eleven Local Governments currently employ both an Environmental Officer (EO) and a Bushcare Officer (BO), 7 Councils employ only an EO, 1 employs only a BO, and 5 have neither (although 2 have other equivalent officers with specific responsibilities for environmental resource issues). Councils dedicate 35.2 Full Time Equivalent staff to on-ground bush regeneration (or an average of 1.5 FTE's for each Local Government). On average, the majority of EO and BO (or equivalent officer) time was spent doing reserve management.

### **Education, Awareness and Training**

Major responsibility for undertaking the day-to-day on-ground activities was vested in Bushcare Officers (42%), Council Parks and Gardens staff (23%) and Environmental Officers (16%).

Twenty three Local Governments believed there was value in providing ongoing training for staff in bushland management/biodiversity conservation, and 22 currently provide and/or fund biodiversity conservation related training opportunities for their staff. Training was most frequently made available to Environmental Officers, Parks and Gardens staff, works crews, and the community.

### **Biodiversity Management**

Eighty eight percent of Local Governments incorporate local provenance seed in their revegetation activities, and on average 47.5% of all Local Government revegetation activities utilise local provenance seed. There is a trend toward Councils outsourcing their seed and plant supply.

More than 90% of specialist weed contractors engaged by Local Government have experience in identifying native plant species and were familiar with weed control techniques in native bushland areas.

Twenty three Local Governments have identified existing and potential ecological linkages within their boundaries, and 78% of those recognised linkages that could/do extend beyond Local Government boundaries. The amount of revegetation undertaken for the establishment or enhancement of linkages in the 3 years prior to the survey was approximately 169ha, and in the next three years around 190ha of revegetation will be undertaken.

Fifteen Local Governments currently offer incentives to private landholders to promote voluntary conservation of biodiversity on private land. The most common type of incentive offered was technical advice (10 Councils) and 8 Local Governments indicated that they offered “other” kinds of incentives, which included free training, local native plant sales, free or subsidised plants and seedlings, and supply of seedlings and mulch for revegetation activities.

### **Legislative and Policy Instruments for Protection and Management of Biodiversity**

Currently, 12 Local Governments are consolidating their Local Planning Scheme (formerly Town Planning Scheme) or preparing a report on its operation. On average, the Schemes were last reviewed 6 years ago, although this figure ranged from less than 1 year to 19 years.

Issues relating to protection of native vegetation are considered in Local Planning Schemes (14 Local Governments), as well as Statutory Planning (17 Local Governments) and Strategic Planning (16 Local Governments), however in 5 local Government these issues were not considered through any of these means. 7 Local Governments have provisions in their LPS that specifically state that a development application needs to be submitted for the clearing of native vegetation, and 10 Local Governments have guidelines in place to assess potential impacts of development on native vegetation. Developers may be required to assess vegetation at the stage of district planning (3 Local Governments), local planning (12 Local Governments), subdivision planning (10 Local Governments), structure planning (1 Local Government), or not at all (6 Local Governments).

Thirteen Local Governments currently use environmental mapping datasets to assist with assessing the implications for native vegetation of development applications, subdivisions and Scheme amendments. 15 Local Governments have Local Planning Policies that relate to native vegetation protection/management.

Ten Local Governments have undertaken activities requiring permits under the State legislation to control clearing of native vegetation, most commonly for the purpose of road construction and widening and development of recreational facilities.

### **Information and Monitoring**

Experts and GIS represented the information source most regularly consulted by Local Government for dealing with biodiversity conservation issues relating to strategic planning, statutory planning, operational decisions, Councillor briefings and public enquiries. 22 Local Governments use GIS or cartographic software, and in 15 Councils all staff had access to it.

Local Governments have collected information about the vegetation condition (92% of Councils), weeds (92%), vegetation type/community (88%), flora (75%), dieback (71%) and fauna (54%) on some or all of their reserves.

### **Partnerships**

Twenty three Local Governments have “Friends of” or community environmental groups. Of these 23 Councils, 20 maintain an inventory of the groups and the reserves they manage. Councils support these groups in a variety of ways.

Eighty three percent of Local Governments are involved in regional natural resource management, and 14 Councils felt that their Local Government would be prepared to invest in regional biodiversity initiatives that include areas outside Council boundaries.

Seventy one percent of Councils worked with community environmental groups, Catchment groups, Commonwealth, State, and other Local Governments regarding biodiversity conservation. Other collaborations included Greening Australia (46% of Local Governments), regional organisations (42%), non-government organisations (36%), and industry (21%).

Ten Local Governments use the Regional Strategy for Natural Resource Management to guide decisions relating to local biodiversity conservation and management.

Six Councils have received support from the State Government for the protection and management of Bush Forever sites within their boundaries.

### **Local Biodiversity Strategies and the PBP**

Fourteen Local Governments are in the process of producing a Local Biodiversity Strategy (LBS) that applies to all of the natural areas they manage, 1 is in the preliminary stages of setting up an LBS, and a further 2 Local Governments intend to create a Local Biodiversity Strategy in the future. The PBP is currently actively supporting 4 Local Biodiversity Strategies (involving 6 Local Governments who are producing Discussion Papers) and in the coming year will commit resources to assist 3 more Local Governments to undertake strategic biodiversity conservation planning projects.

Thirteen Local Governments are using the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region* as a guide to creating their Biodiversity Strategy, and it is anticipated that in 2008, 10 Local Biodiversity Strategies will have been produced with the help of the *Guidelines*, with a further 1 anticipated in 2009.

Ratepayers, community members and community groups, Councillors, and Local Government senior management staff are seen as the most influential stakeholders when it came to conserving biodiversity in their area. The main impediments to implementing Local Biodiversity Strategies (or Greening Plans) were seen to be lack of resources (time, money, staff, land availability) and lack of support and understanding from Council, community and land developers.

Eighteen Local Governments were aware of the PBP's Milestones for Local Biodiversity Planning Program, and 10 of these are currently working toward achieving one or more Milestones.

Between 2003 and 2007, 16 Local Governments had used the NAIA templates to assess reserves, and 8 of these had used them to assess all (100%) of the natural areas they manage.

Twenty two Local Governments have applied for Targeted Grants funding, 21 of who have received some kind of funding since the program began in 2002.

Twenty four percent of Councils ranked mapping/GIS/data support as the most important PBP service for their Local Government. Other important services included technical assistance with the NAIA templates (17%), the NAMN Forum (14%) and the NAMN newsletter (14%).

The perception of the role of the PBP and its future varied greatly among the survey respondents.

## Conclusions and Recommendations

The capacity of Local Governments to conserve biodiversity has, on the whole, increased over the last 5 years, and positive outcomes and improvements have occurred in many areas. However, some key issues and recommendations include:

- There is a disparity between the amount of remnant vegetation managed by Local Governments and the resources dedicated to its protection and management. The Councils managing 500-2000ha of native vegetation may need greater support from the State and Commonwealth Governments, and continued support from the PBP, for the protection and management of their reserves.
- Councillors, senior management and planning staff receive less biodiversity related training than other Council staff and the community. It is recommended that training be specifically targeted to them.
- It is important that enhancement and establishment of ecological linkages be undertaken, and it is recommended that this be planned and budgeted for well in advance, to ensure the supply of appropriate seeds and seedlings.
- There is a need for more innovative and extensive use of incentives among Councils, especially in the 4 Local Governments with 5,000-35,000ha of privately owned remnant vegetation. Private landholder conservation incentives are an important means of protecting remnant vegetation on private land, but it is also essential to integrate biodiversity conservation into Local Planning Schemes, for the protection of privately owned bushland.
- Local Planning Schemes are being under utilised as a legal means through which biodiversity can be protected, especially on privately owned land. It is therefore essential to develop greater biodiversity conservation awareness among planning staff, and encourage greater communication between planners and Environmental/Bushcare Officers.
- With increased use of GIS by Local Government, it is important for the PBP to work with State agencies to collect, verify and disseminate biodiversity information to Local Government, and to assist Local Government with the use of this data.
- Greater, ongoing support from the State Government for the management and protection of Bush Forever sites, and clearer information about where Local Government responsibility lies in relation to Bush Forever, would be of great help to those Local Governments managing Bush Forever sites. There is also need for PBP to negotiate with and develop a better relationship with the Bush Forever office within the DPI.
- The PBP should continue to develop and provide the services that Local Government felt were most important and build the profile of those lesser known services. The PBP should also ensure that all Local Governments are familiar with the Milestones for Local Biodiversity Planning, Natural Area Initial Assessment templates and Targeted Grants Programs, and how these can be used by and potentially benefit their Council, especially those with large amounts of remnant bushland, and where development pressures are greatest.
- The PBP Targeted Grants program should be focused towards achieving some of the recommendations made in this report.

- The PBP should continue to assist, where possible, the Local Governments who are in the process of producing a Local Biodiversity Strategy using the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region* (especially those 9 Councils that the PBP is currently/will be actively supporting).
- As 16 Councils have used the NAIA templates to assess some/all of their reserves, the PBP should deliver the planned Access database for Councils to store and access this information and enable easy and consistent reserve prioritisation.
- PBP must provide Local Government with clear information about its future role and direction.



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## 1.0 Introduction

The Perth Biodiversity Project involves 29 Local Governments in the Perth Metropolitan Area and the Shire of Chittering. These Councils are responsible for managing more than 6861ha of bushland and wetland areas (Perth Biodiversity Project unpub. 2007a and 2007b), and so play an essential role in the protection and conservation of Perth's biodiversity. The native vegetation of the Perth Metropolitan Area forms part of the South West Botanical Province of Western Australia, which has been identified as one of the top 25 biodiversity hotspots in the world (Myers et al 2000). Recent analysis has revealed that more than 3989ha of remnant vegetation was cleared in the Perth Metropolitan area between 2001 and 2005 (Perth Biodiversity Project unpub. 2007a), so biodiversity conservation must be considered a priority issue if we are to retain Perth's unique biodiversity assets.

The Perth Biodiversity Project (PBP) was established in 2001, to assist Local Governments with the challenging task of conserving the native vegetation under their management, and provide a means for strategically planning for the retention, protection and management of Perth's biodiversity by developing Local Biodiversity Strategies through the process developed in the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region* (Del Marco et al 2004). In the preparation of this document, PBP undertook the 2002 Local Government Biodiversity Conservation Capacity Survey, in an effort to determine the capacity of Local Governments to conserve biodiversity in the Perth region, and gauge how best to assist Local Governments in the strategic protection of their remnant native vegetation.

Five years on, PBP has again undertaken the Local Government Biodiversity Conservation Capacity Survey, to determine how Local Government attitudes, resources, and strategies toward biodiversity conservation have changed since 2002, and assess the impact of the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region* (the *Guidelines*), PBP services, and other conservation initiatives. Importantly, this survey will also help determine the future direction of the Project as it continues to strive to assist Local Government to increase their biodiversity conservation capacity.

The survey focuses on seven important areas:

- Resource Allocation
- Education, Awareness and Training
- Biodiversity Management
- Legislative and Policy Instruments for Protection and Management of Biodiversity
- Information and Monitoring
- Partnerships
- Local Biodiversity Strategies and the PBP

The composition of the Local Governments contributing to the Local Government Biodiversity Conservation Capacity Survey has changed slightly since it was originally undertaken. In 2002, the PBP surveyed 30 Local Governments in the Perth metropolitan area to gauge their biodiversity conservation capacity. Since then, Serpentine Jarrahdale Shire (once part of the PBP) has subscribed to the South West Biodiversity Project, the Shire of Chittering has joined the PBP, and the Town of Mosman Park has chosen not to subscribe. Further, another 5 Councils chose not to participate in the 2007 survey. This gives a total of 24 Councils whose responses have been included in this report.

## **2.0 Resource Allocation**

### **2.1 Biodiversity Expenditure**

During the 2005-06 financial year the 21 of the 24 Perth Local Governments spent a total of more than \$6.75 million on salaries and activities related to biodiversity conservation. This represents approximately 0.76% of their total expenditure for that period<sup>1</sup>. In the 2000-01 financial year, this figure was \$5.14 million, or 0.58% of total Local Government expenditure<sup>2</sup>, so biodiversity expenditure (as a proportion of total expenditure) has increased by around one third in the last 5 years. On average, in 2005-06 each Local Government spent \$321,556 on activities related to biodiversity conservation. This is an increase from 2000-01, when average biodiversity conservation expenditure was \$171,333 for each Local Government.

Of the total amount spent on activities related to biodiversity conservation by all Local Governments, an average of 52% was spent on bushland conservation and management, 15% was spent on coastal conservation and management, and 33% was spent on river and foreshore conservation and management.

### **2.2 Biodiversity Income**

In 2005-06 15 of the 24 Local Governments (65%) received some sort of revenue or income related to biodiversity, almost all of which was sourced through grants. These 15 Councils received a total of more than \$1.05 million in biodiversity related grants, or an average of approximately \$44,000 over the 24 Local Governments, from sources such as the PBP, the Department of Defense, Swan Alcoa Landcare Program, the Threatened Species Network, Department of Environment and Conservation, Riverbank, Coastwest, and Envirofund. This is an increase from 2000-01, when 40% of Councils received a total of \$660,000 in grant funding for biodiversity related activities, or an average of around \$22,000 over all Local Governments. The analysis of the 2002 Local Government Conservation Capacity survey suggested that there was potential for Local Governments to lever more external funding for biodiversity conservation, and it would seem that this potential is being realised, however there are still many Local Governments who do not receive any biodiversity related income.

On average, Environmental Officers and Bushcare Officers dedicated 5% and 3% respectively of their time to the development of grant applications in 2002, and this figure was similar in 2007 (8% and 4% respectively) (Table 1). Although the increase in EO/BO time spent on grant applications was only very slight, there has been a considerable increase in the number of Councils receiving funding, and in total amount of money received in grant funding for biodiversity conservation.

As mentioned, 21 Local Governments invested a total of \$6.75 million into biodiversity projects in 2005-06. These 21 Councils received a total of more than \$1.04 million in biodiversity related revenue<sup>1</sup>. This represents a direct Local Government contribution of approximately \$6 for every \$1 received in grant funding. In 2000-01 this figure was approximately \$8 of Local Government contribution for every \$1 of grant funding received.

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1 Three Local Governments did not give information on their biodiversity expenditure for 2005-06, so have not been included in this analysis.

2 All data relating to the 2000-2001 financial year has been sourced from the Survey Analysis Report of the Perth Biodiversity Project's 2002 Biodiversity Conservation Capacity Survey (Perth Biodiversity Project 2002).

## 2.3 Human Resources

Eleven of the 24 Local Governments (46%) currently employ both an Environmental Officer (EO), and a Bushcare Officer (BO). 7 Councils (29%) employ only an EO, 1 employs only a BO, and 5 (21%) have neither. Of the 5 Local Governments with neither and EO or BO, 2 have other equivalent officers with specific responsibilities for environmental resource issues. The presence of Environmental and Bushcare officers has increased since 2002, when 37% of Local Governments employed both an EO and BO, 33% employed either an EO or BO, and 30% of Councils had neither.

On average, the majority of Environmental Officer (or equivalent officer) time was spent doing reserve management (26%) and strategic planning (20%), which together with subdivision and development advice (13%) and community liaison and coordination (13%) made up the bulk of the EO's activities (Table 1). This allocation of time showed a very similar pattern to that of the 2002 survey, with the most significant difference being a 10% increase in the amount of time dedicated to reserve management. Bushcare Officers (or equivalent officers), on average, spent the majority of their time undertaking reserve management (54%), and community liaison and coordination (21%). As for EO's, this also shows a large increase in time dedicated to reserve management since 2002 (Table 1).

Table 1: A comparison of the average percent of Local Government Environmental Officer (EO) and Bushcare Officer (BO) time spent on various activities in 2002 and 2007.

Activity	% of EO time 2002	% of EO time 2007	% of BO time 2002	% of BO time 2007
State of the Environment Reporting	11%	5%	3%	1%
Preparing Grant Applications	5%	8%	3%	4%
Reserve Management	16%	26%	24%	54%
Subdivision and development advice	14%	13%	13%	6%
Strategic Planning	23%	20%	8%	6%
Community Liaison and Coordination	12%	13%	19%	21%
Other	19%	15%	30%	8%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

In 2007 Perth Councils dedicated 35.2 FTE (Full Time Equivalent) staff to on-ground bush regeneration (or an average of 1.5 FTE's for each Local Government). This has changed only slightly since 2002 when, on average, 1.4 FTE officers were dedicated to on-ground bush regeneration in each Local Government.

The accessing of skilled people for undertaking various biodiversity management activities such as conducting surveys, research and/or mapping of threatened species, wetlands, native vegetation, weed invasion, coastal ecosystems etc. has changed somewhat since the survey was last conducted (Figure 1). Although Local Government Officers, on average, undertook approximately the same proportion of these biodiversity management activities in 2002 and 2007 (24% and 25% respectively), the use of Community Members, Landcare/Catchment Officers, Non-Government Organisations, and State Agencies increased. Combined, these groups were used in a total of 18% of biodiversity management activities in 2002, and this increased to 30% in 2007. At the same time, reliance on consultants has decreased, from 54% in 2002 to 43% in 2007, however consultants are still the preferred form of skilled labour for undertaking biodiversity management activities such as surveys, mapping and research.

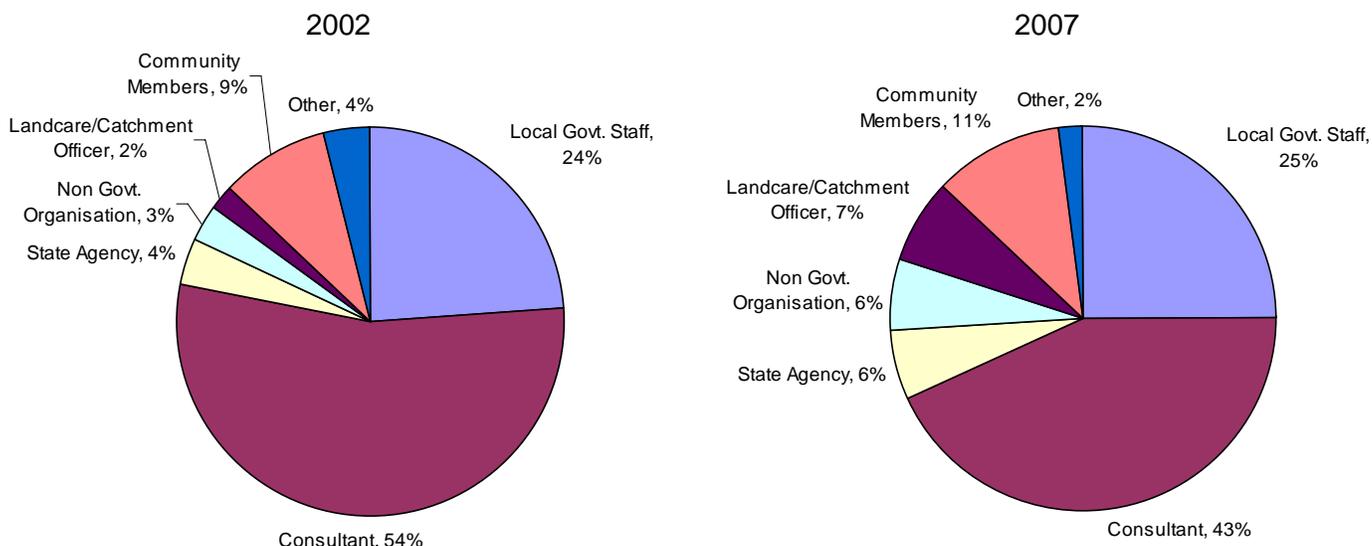


Figure 1: A comparison of how Councils (on average) access skills for conducting various biodiversity management activities (e.g. conducting surveys, research and/or mapping of threatened species, wetlands, native vegetation, weed invasion, coastal ecosystems etc.) in 2002 and 2007.

In 2002, Councillors were identified as having the greatest responsibility for decision making related to biodiversity protection and management (31%), compared with Parks and Gardens staff (19%), Senior Management (16%), Environmental Officers (16%), Planning staff (9%), and others (9%) .

In 2007, this decision making responsibility was shared almost equally between Environmental Officers (25%) and Councillors (21%), with a trend towards decreasing responsibility for Parks and Gardens staff (12.5%) and Senior Management (12.5%), and increasing responsibility for Planning staff (12.5%) and others (12.5%). It would seem that there is an increasing presence of Environmental Officers in Local Government (EO's were found in 75% of Local Governments in 2007, compared with 60% in 2002), and they are taking on more decision making responsibility in relation to biodiversity protection and management.

For the Local Governments who manage between 0ha and 500ha of remnant vegetation, there is a general trend that the more remnant vegetation Local Governments manage, the more resources are dedicated to biodiversity conservation (in the form of average annual expenditure on biodiversity conservation, average percent of total operating expenditure dedicated to biodiversity conservation, and the number of staff dedicated to bush regeneration and management). However, the Local Governments who manage the greatest amount of remnant vegetation (500-2000ha) dedicated less financial and human resources to biodiversity conservation than those managing 10-200ha (Table 2).

This disparity between the amount of biodiversity managed by Councils and the amount of human and financial resources dedicated to biodiversity was recognised in the 2002 survey, and the situation has improved somewhat since then. For the Local Governments managing 500-2000ha of remnant vegetation, the average number of full time equivalent staff dedicated to bush regeneration was 0.8 in 2002, and average annual expenditure on biodiversity conservation was \$135,000 (or 0.54% of total operating expenditure). All of these figures have increased in the last 5 years (Table 2). However, these large, outer metropolitan Local Governments may require additional assistance, from the Commonwealth and State Governments, to further protect and manage the native vegetation within their reserves.

Table 2: Local Government resource allocation to biodiversity conservation based on the area of remnant vegetation managed by Local Government, 2007.

Categories by area of remnant vegetation in Local Govt. Reserves	Number of Local Govt.'s	Average number of FTE's dedicated to bush regeneration per Local Govt.	Number of Local Govt.'s with an EO	Number of Local Govt.'s with a BO	Average expenditure on Biodiversity Conservation 2005-06*	Average percent of total operating expenditure dedicated to Biodiversity Conservation 2005-06*
0ha	2	0	0	0	\$24,000	0.15%
1-10ha	6	1.0	5	1	\$203,893	0.68%
10-200ha	5	1.8	4	4	\$345,725	0.89%
200-500ha	5	2.6	4	4	\$614,000	0.98%
500-2000ha	6	1.2	5	3	\$307,718	0.62%

\* Three Local Governments did not give information on their biodiversity expenditure for 2005-06, so have not been included in this expenditure analysis.

### 3.0 Education, Awareness and Training

#### 3.1 Bush Management Skills

The survey gauged the extent of staff skills in the following operational bushland management areas:

- Site assessment and planning;
- Weed recognition and identification;
- Weed control techniques in native bushland areas;
- Native plant identification;
- Revegetation;
- Plant propagation; and
- Communication with community/friends groups.

Forty-two percent of Local Governments acknowledged Council bush regeneration/ Bushcare Officers as having major responsibility for undertaking the day-to-day on-ground activities of bushland management, and the Bushcare Officers themselves were found to dedicate 54% of their time, on average, to reserve management. All Local Governments who have a Bushcare Officer identified them as having some or all of the bushland management skills mentioned above. The Bushcare Officers were generally strong in all skill areas except plant propagation.

Environmental Officers, identified as most responsible for undertaking day-to-day on-ground bushland management by 16% of Councils, had a similar skill set to Bushcare Officers, and were also generally strong in all skill areas except plant propagation. There was a low prevalence of plant propagation skills for both EO's and BO's, however as only 5 Local Governments have their own nurseries, and most source plants and seeds from outside sources (see 4.1 Native Plant and Seed Sourcing), there is perhaps not a high need for this skill amongst these officers.

Council Parks and Gardens staff were found to have major responsibility for undertaking day-to-day on-ground bushland management by 23% of Councils. These staff were most strongly skilled in the areas of weed recognition and identification and native plant identification, and had some skills in revegetation, weed control techniques in native bushland areas, communication with the community and Friends groups, and plant propagation. They were generally lacking site assessment and planning skills, however these activities are probably generally outside the scope of their daily responsibilities.

### **3.2 Biodiversity-related Training**

Twenty three of the 24 Local Governments believed there was value in providing ongoing training for staff in bushland management/biodiversity conservation. The most common reason sighted for this was the need to ensure staff were up to date with best practice techniques, and kept improving their skill and knowledge in the areas of bushland management and biodiversity conservation. Only 1 Local Government, with 0ha of remnant vegetation under its management, did not support the idea of ongoing bushland management/biodiversity conservation training for its staff.

Twenty two (or 92%) Local Governments currently provide and/or fund biodiversity conservation related training opportunities for their staff. This is a considerable increase from 2002, when only 57% of Local Governments provided and/or funded such training opportunities. In 2007, weed identification and control techniques, bush regeneration, dieback identification and management and dieback hygiene practices were the most common types of training available, and training was most frequently made available to Environmental Officers, Parks and Gardens staff, works crews, and community members (Figure 2). Both the training types offered and the staff accessing the training show a similar pattern to 2002 the survey, except that in 2002 seed collection was also one of the most common training types (offered by 23 Councils), whereas in 2007 it was the least common (offered by 13 Councils).

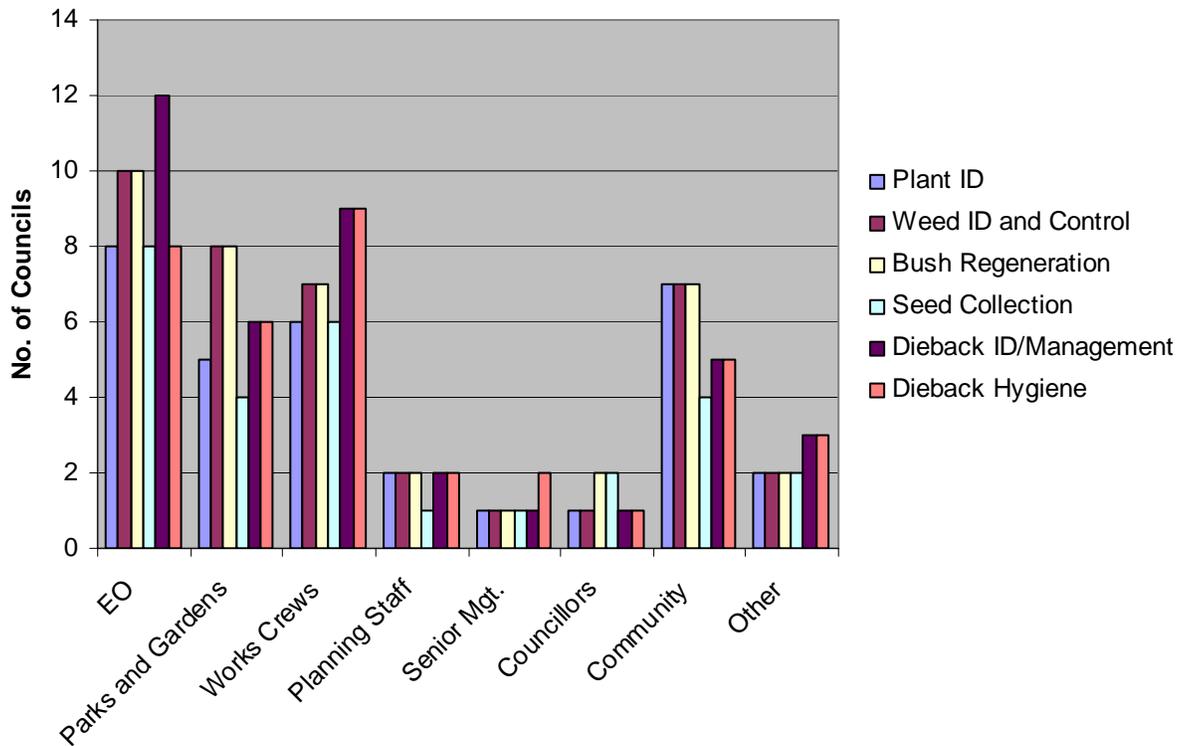


Figure 2: Biodiversity conservation related training opportunities provided and/or funded by Local Government in 2007.

## 4.0 Biodiversity Management

### 4.1 Native Plant and Seed Sourcing

Five Local Governments currently have a community nursery, an increase from 4 Local Governments in 2002. These nurseries operated in different ways, and for different purposes. Nurseries were run by both community volunteers and paid staff, and at some nurseries plants were grown from locally collected seed, whereas at others only seedlings are grown (seeds were propagated at other nurseries). The plants grown in the Council nurseries were used in community, local school and Council revegetation projects, and to supply trees for park and street landscaping.

In 2002, 67% of Local Governments incorporated local provenance seed in their revegetation activities, and on average 35% of all Local Government revegetation activities utilised local provenance seed. The 2007 survey revealed an increase in both of these figures. 88% of Local Governments now incorporate local provenance seed in their revegetation activities, and on average 47.5% of all Local Government revegetation activities utilise local provenance seed.

There are a number of different places from which Local Governments can source seeds and plants for revegetation activities. 70% of Local Governments used “other” sources, which included local commercial nurseries, local schools, the Wildflower Society, bush regeneration contractors, TAFE nurseries and Men of the Trees. 42% of Local Governments sourced seed and plants from the APACE nursery, and only 25% of Local Governments sourced seed and plants from Council/community nurseries, utilising either locally collected seed or seed sourced from outside the local area.

It would seem, therefore, that there is a trend toward Local Governments outsourcing their seed and plant supply, as seed collection training has become less common since 2002, there is a low prevalence of plant propagation skills amongst EO's and BO's, and only 5 Local Governments have their own nurseries. This highlights the need for good quality suppliers and nurseries.

#### **4.2 Weed Management**

The 2002 survey acknowledged that some Local Governments required more assistance ensuring that contractors have the specialist skills required for environmental weed control. In 2002, 87% of Local Governments engaged specialist weed contractors, of which 80% had experience in identifying native plant species and were familiar with weed control techniques in native bushland areas. The 2007 survey found while the proportion of Local Governments engaging specialist weed contractors had remained unchanged (87%), more than 90% of these contractors have experience in identifying native plant species and were familiar with weed control techniques in native bushland areas.

#### **4.3 Ecological Linkages**

Lack of connectivity between areas of bushland affects both flora and fauna, and fragmentation is one of the major disturbances threatening Perth's bushland (Scheltema 1995). Ecological linkages within Local Governments are important for maintaining bushland connectivity at both the regional and local scale. Ideally, ecological linkages connect natural areas in ways that allow flora (pollen, seeds etc.) and fauna to move between areas of remnant vegetation, and this helps ensure the viability of these areas and the continued survival of connectivity-sensitive species (Del Marco et al. 2004).

Twenty three Local Governments (96% of those surveyed) have identified existing and potential ecological linkages within their boundaries, and 78% of those identified linkages that could/do extend beyond Local Government boundaries.

In 2002, Local Governments had undertaken 190ha of revegetation activities for enhancing or establishing ecological linkages in the 3 years prior to the survey, and were anticipating embarking on a further 365ha in the next three years. In 2007, the estimation of the amount of revegetation undertaken in the previous 3 years had decreased slightly (approximately 169ha), and in the next three years around 190ha of revegetation will be undertaken, although 4 Local Governments were unable to provide an estimate of future revegetation work in linkages. The most revegetation work was being done by the Local Governments who manage 1-10ha and 200-500ha of remnant vegetation.

#### **4.4 Private Landholder Incentives for Biodiversity Conservation**

There is 263,017ha of remnant vegetation in and around the Perth Metropolitan Area (including the Shire of Chittering). 81,169ha of remnant vegetation is on private land, and of this 5545ha are regionally significant Bush Forever sites (Perth Biodiversity Project unpub. 2007a and 2007b). Private landholders, therefore, play an important part in the management and protection of Perth's biodiversity, and vegetation on private land must play a part in Local Government's overall strategy for biodiversity conservation.

One way of encouraging better management of biodiversity on private land is through the offering of incentives. 15 of the 24 Local Governments currently offer incentives to private landholders to promote voluntary conservation of biodiversity on private land (Table 3), the same number as in 2002. The most common type of incentive offered was technical advice (10 Councils) and financial grants (3 Councils), and 1 Local Government offered private landowners Environmental Management Agreements. 8 Local Governments indicated that they offered “other” kinds of incentives, which included free training, local native plant sales, free or subsidised plants and seedlings, and supply of seedlings and mulch for revegetation activities. None of the 4 Local Governments with the most privately owned remnant vegetation (5000-35,000ha) offered conservation incentives to private landholders, however 2 of these Councils are currently developing private land conservation schemes through the WWF pilot incentives scheme (Table 3).

Table 3: Number and type of incentives for biodiversity conservation offered to private landowners by Local Government, 2007.

Amount of privately owned remnant vegetation	Number of Local Govt.'s	Number of Local Govt.'s offering Incentives	Type of incentives being offered
0ha	3	3	Annual Native Plant Subsidy Scheme; subsidised local native plants for private gardens; local plant sale to residents.
1-100ha	9	5	Technical advice; plants to residents program; seedling subsidy scheme; supply of seedlings and mulch.
100-500ha	2	2	Technical advice.
500-5000ha	6	5	Grants; technical advice; free training to landholders; Environmental Management Agreements.
5000-35 000ha	4	0	NOTE: 2 Councils are currently developing private land conservation schemes through the WWF pilot incentives scheme.
<b>TOTAL</b>	<b>24</b>	<b>15</b>	

## **5.0 Legislative and Policy Instruments for Protection and Management of Biodiversity**

### **5.1 Local Planning Schemes**

Under Section 68 of the Planning and Development Act 2005, all Town Planning Schemes are now referred to as Local Planning Schemes (LPS). The Act also requires Local Governments to consolidate their LPS within 5 years of the last Town Planning Scheme review, and report to the Minister on the operation of the LPS within 6 months of this consolidation. Currently, 12 Local Governments are consolidating their Local Planning Scheme or preparing a report on its operation. On average, the Schemes were last reviewed 6 years ago, although this figure ranged from less than 1 year to 19 years. 6 Local Governments were using/intended to use data to assess the conservation value of native vegetation in the LPS consolidation/report.

At the Local Government level, Local Planning Schemes are main legal means through which biodiversity can be conserved, especially with regard to privately owned natural areas. Issues relating to protection of native vegetation are considered in Local Planning Schemes (14 Local Governments), as well as Statutory Planning (17 Local Governments) and Strategic Planning (16 Local Governments), however in 5 Local Government these issues were not considered through any of these means.

LPS (formerly TPS) mechanisms used by Councils to protect native vegetation included conservation zonings (4 of the 24 Local Governments), provisions for giving additional bonus or tradeable development rights to land developers for the protection of conservation values within the landholding (1 Local Government), the creation of special control areas and/or areas of landscape protection (13 Local Governments), and having land zoned “special rural” (or equivalent) which has provisions for protection of native vegetation such as building envelopes, restriction on uses, and fire breaks (10 Local Governments). 12 Local Governments have provisions within the LPS for tree preservation/ conservation orders.

Local Planning Schemes also help determine the method by which development applications are submitted and assessed, and the extent to which developers have to give consideration to biodiversity conservation. 7 Local Governments have provisions in their LPS that specifically state that a development application needs to be submitted for the clearing of native vegetation, and 10 Local Governments have guidelines (e.g. provisions, policies, management plans, or other guidelines) in place to assess potential impacts of development on native vegetation. Developers may be required to assess vegetation at the district planning stage (3 Local Governments), the local planning stage (12 Local Governments), the subdivision planning stage (10 Local Governments), the structure planning stage (1 Local Government) or not at all (6 Local Governments). The 6 Local Governments where developers were not required to assess vegetation all had less than 10ha of remnant vegetation in Council reserves, and less than 30ha in private ownership.

Thirteen Councils currently use environmental mapping datasets to assist with assessing the implications for native vegetation of development applications, subdivisions and Scheme amendments. The data sets most commonly used were aerial photography, Bush Forever mapping, PBP bushland mapping and linkages, DEC Declared Rare Flora and Threatened Ecological Communities, and the Department of Water Groundwater Atlas.

## 5.2 Local Government Policy

Fifteen Local Governments have Local Planning Policies that relate to native vegetation protection/management. These policies were generally associated with:

- native vegetation (tree preservation, street trees, road verges and landscaping, conservation of remnant vegetation);
- public open space (and its development and rezoning);
- development (e.g. subdivision and development application approvals, residential development in environmentally sensitive areas, development envelope locations);
- water management (watercourses and flooding, drainage, water sensitive design);
- rural issues (development and subdivisions, developers responsibilities, stock, tourist accommodation, environmental protection); and
- other issues (e.g. raw materials and extractive processes, weeds, fire).

No Local Governments currently offer differential rates for land of high conservation value, but 7 would consider it.

### 5.3 Native Vegetation Clearing

In 2004 the State Government introduced the Environmental Protection (Clearing of Native Vegetation) Regulations 2004, which required Local Governments to obtain permits for clearing vegetation under certain conditions. 10 Local Governments (42% of respondents) have undertaken activities requiring permits under the State legislation to control clearing of native vegetation, most commonly for the purpose of road construction and widening and development of recreational facilities. 7 of these reported that they were generally successful in obtaining permits, and 1 Local Government's application was still being reviewed. Local Governments suggested that they would be assisted in completing the permit application process if:

- They had assistance in preparing "group" permits (i.e. doing just one permit for several project areas to allow enough lead in time for construction works).
- The native vegetation protection unit (State government) was better resourced.
- Clearing permit requirements were identified in strategic planning processes and linked to the Council's Local Biodiversity Strategy.

## 6.0 Information and Monitoring

### 6.1 Information

In 2002 published reports represented the information source most regularly consulted by Local Government for dealing with biodiversity conservation issues relating to strategic planning, statutory planning, operational decisions, councilor briefings and public enquiries. In 2007, experts and GIS were the information sources consulted most often. The *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region*, published by the PBP in 2004, are now regularly consulted by many Local Governments, most commonly for strategic planning purposes and operational decisions.

In 2002 63% Local Governments had access to GIS or cartographic software, but in 2007 this increased to 92%. In 15 of the 22 Local Governments who do use GIS or cartographic software, all staff had access to it. Corporate specific software (such as Intramaps and GeoSamba) was the most commonly used (in 68% of Councils), followed by MapInfo (36%) and ArcGIS (27%). The GIS datasets utilised by Local Governments included aerial photography (96% of Councils), cadastral and tenure (92%), LPS (formerly TPS) zoning (83%) and data sets provided by the PBP (46%).

### 6.2 Monitoring

One of the important biodiversity management activities undertaken in Local Government reserves is the collection of information about vegetation, fauna, weeds, and dieback. This kind of surveying and monitoring helps establish the existing threats and condition of bushland in reserves, and determine management actions and priorities.

Local Governments have collected information about the vegetation condition (92% of Councils), weeds (92%), vegetation type/community (88%), flora (75%), dieback (71%) and fauna (54%) on some or all of their reserves. The most common survey methods used were Keighery, Kaesehagen and the PBP Natural Area Initial Assessment (NAIA) templates, which form part of the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region*. 20 of the 24 Councils were aware of the NAIA templates, and 80% of these had used them to assess some or all of their reserves. As mentioned previously, consultants and Local Government Officers most commonly undertake

biodiversity management activities such as conducting field surveys, and in relation to these surveying activities specifically, 3 Local Governments used their own Officers, 5 used consultants, and 13 used a combination of both. Monitoring and surveys were also undertaken by university students, community members, Parks and Gardens staff, bush crews, State government and non-government agencies, and Landcare Centre staff.

## 7.0 Partnerships

### 7.1 Friends and Community Environmental Groups

Twenty three of the 24 Local Governments have “Friends of” or community environmental groups. Of these 23 Councils, 20 maintain an inventory of the groups and the reserves they manage. Information about the activities undertaken by Friends Groups is collected and validated in a variety of ways, including producing Friends Groups manuals, collecting statistics in a database, annual surveys and reports, community information evenings, mapping of activities, senior Friends Groups members briefing Local Government Officers prior to commencing works, Local Government Officer supervision of works, or in an informal manner. Councils support these groups in a variety of ways (Table 4).

Table 4: Ways in which Local Governments support “Friends of” or community environmental groups.

<b>Number of Local Govt.’s</b>	<b>Support for “Friends of” or community environmental groups</b>
22	Assistance with on ground works
20	Resources
14	Public meetings
10	Strategic planning
6	Other forms of assistance

### 7.2 Regional Partnerships

Biodiversity does not begin and end at Local Government boundaries, and there is an increasing awareness of the importance of a regional approach to biodiversity conservation. 83% Local Governments are involved in regional natural resource management (compared with 77% in 2002), and 78% of the Local Governments who have identified existing/potential ecological linkages have identified linkages that could or do extend beyond their boundaries. 14 Councils (58% of respondents) felt that their Local Government would be prepared to invest in regional biodiversity initiatives that include areas outside Council boundaries. The most common reason for this was for the establishment of ecological linkages (10 of the 14 Councils).

Given this trend, it is interesting to note that only 46% of Local Governments saw the need for the establishment of a formal Regional Organisation of Councils to deal with natural resource management (NRM) issues. This has decreased since 2002, when 63% of Local Governments identified this as necessary. This may mean that, although a high proportion of Local Governments view participation in regional natural resource management as important, they feel there are already enough opportunities to do so, without the establishment of a formal Regional Organisation of Councils.

Seventy one percent of Councils worked with community environmental groups (Landcare and Coastcare groups), Catchment groups, Commonwealth, State, and other Local Governments regarding biodiversity conservation. Other collaborations included Greening Australia (46% of Local Governments), regional organisations (42%), non-government organisations (36%), and industry (21%). Local Governments are taking part in a diverse range of regional initiatives, such as WESROC, North Metro Conservation Group, South East Regional Urban Council, joint Local Biodiversity Strategies with neighbouring Councils, Regional Park Committees, the Eastern Hills Catchment Management Program, and Cities for Climate Protection.

Ten Local Governments (or 42%) use the Regional Strategy for Natural Resource Management to guide decisions relating to local biodiversity conservation and management. On a scale of 1 to 5, with 1 being “little influence” and 5 being “extremely influential” those Local Governments who use the Strategy rated it, on average, 3. Councils used the Regional Strategy for Natural Resource Management as a reference document, to strengthen grant applications, as a guideline/set of parameters for projects and onground works, and to identify potential synergies and partnerships. The targets in the Strategy were used for goal setting and State of Environment report development. It also provided a template for future and current decision making, affected resource allocation, and was used as an educational tool for elected members to enable them to gain a perspective of how planning and decision making forms part of a larger, regional picture.

### **7.3 Bush Forever**

21 of the 24 Local Governments (88%) have Bush Forever sites within their reserves, and together they manage 2,363ha of Bush Forever land. 6 of these Councils have received support from the State Government for the protection and management of Bush Forever sites within their boundaries. This was in the form of funding (for projects such as seeding and revegetation), bushcare workers to undertake onground works, and technical support, but in all cases was relatively limited, and not ongoing.

Metropolitan Local Governments perceived their role in the implementation of Bush Forever in a great variety of ways. Some felt Local Government’s responsibility lay in areas such as:

- managing and protecting Bush Forever sites (on Local Government reserves and/or private property);
- implementing the necessary on ground actions to meet the goals of Bush Forever;
- providing advice to landowners regarding the requirements of Bush Forever sites;
- considering Bush Forever in the development of their own Local Biodiversity Strategies;
- participating in regional Bush Forever initiatives; and
- managing surrounding landuse and providing linkages to Bush Forever sites through Council managed land (e.g. parks, road reserves).

However, other Local Governments felt that that, as Bush Forever was a State Government initiative, Local Government should have only limited responsibility, and the State Government should be managing, or supplying funding to Local Governments for the management of Bush Forever sites (especially on private land). There was some confusion, as Local Governments felt that their role in relation to Bush Forever had not been clearly defined.

There was also some uncertainty regarding PBP's relationship with Bush Forever, although most Local Governments felt there was (or should be) a strong link between the two organisations. Local Government suggested many different ways that the PBP could be involved with Bush Forever, including:

- sourcing or providing funding for management of sites;
- providing information, advice, guidelines, support and resources (e.g. for revegetation activities) to Local Governments, and training for private landowners of Bush Forever sites;
- acting as a liaison/facilitator between State and Local Governments, especially in regard to regional goal setting/targets and protection mechanisms;
- assistance with management plans for Bush Forever sites;
- increasing the profile of Bush Forever sites and their importance; and
- ensuring that Bush Forever sites are protected, through legislation and their inclusion in Local Biodiversity Strategies.

## 8.0 Local Biodiversity Strategies and the PBP

### 8.1 Local Biodiversity Strategies and the *Guidelines*

The importance of biodiversity/greening plans in guiding Local Government management of biodiversity has increased in the last 5 years. In 2002 20% of Councils identified Greening Plans/Local Biodiversity Plans/Weed Strategies as the most common method by which they prioritised resources for addressing threatening processes to biodiversity, but in 2007 this figure had increased to 54% (Figure 3). It is important, therefore, that the Local Biodiversity Strategies, Greening Plans and similar strategies are thorough, strategic, and based on sound information.

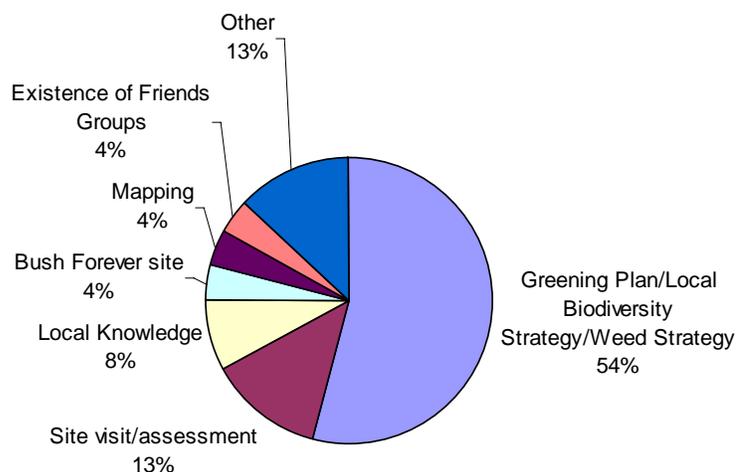


Figure 3: Basis on which Local Governments prioritise resources to address processes threatening biodiversity.<sup>3</sup>

3 "Other" included prioritisation according to a reserves prioritisation report/bushland priority system, and specific recommendations arising from management plans.

The 2002 survey revealed that 90% of Local Governments recognised the need for a set of guidelines that would guide the development of new local biodiversity strategies, provide a tool for evaluating existing plans, and ensure local biodiversity strategies were developed in a consistent manner across the metropolitan area. To fulfill this need, the PBP produced the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region* (the *Guidelines*) in 2004.

Currently, 14 of the 24 Local Governments are in the process of producing a Local Biodiversity Strategy (LBS) that applies to all of the natural areas they manage, 1 is in the preliminary stages of setting up an LBS, and a further 2 Local Governments intend to create a Local Biodiversity Strategy in the future. The PBP is currently actively supporting 4 Local Biodiversity Strategies, which involves 6 Local Governments who are producing Discussion Papers (3 Councils are working together to produce a joint regional strategy). In the coming year, the PBP is committing resources to assist 3 more Local Governments to undertake strategic biodiversity conservation planning projects. Of the 7 Councils not intending to create Local Biodiversity Strategies, all already had their own Local Biodiversity Strategy, Greening Plan, or a similar plan.

Of the fourteen Councils currently producing Local Biodiversity Strategies, 13 are using the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region* as a guide to creating the strategy. 100% of these identified the *Guidelines* as a useful resource. It is anticipated that in 2008, 10 Local Biodiversity Strategies will have been produced with the help of the *Guidelines*, with a further 1 anticipated in 2009.

The 2007 survey revealed that Local Governments considered ratepayers, community members and community groups, Councillors, and Local Government senior management staff as the most influential stakeholders when it came to conserving biodiversity in their area. The main impediments to implementing Local Biodiversity Strategies (or Greening Plans) were seen to be lack of resources (time, money, staff, land availability) and lack of support and understanding from Council, community and land developers.

## **8.2 Milestones for Local Biodiversity Planning**

Eighteen Local Governments (75%) were aware of the PBP's Milestones for Local Biodiversity Planning Program, and 10 of these are currently working toward achieving one or more Milestones. 12 Councils intended to participate/continue participating in the Milestone program in the future.

## **8.3 Natural Area Initial Assessment Templates**

Twenty Local Governments (83%) were aware of the Natural Area Initial Assessment (NAIA) templates, which are part of the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region*. Between 2003 and 2007, 16 Local Governments had used the NAIA templates to assess reserves, and 8 of these had used them to assess all (100%) of the natural areas they manage. Of those 16 Local Governments who have used the templates 75% found them easy to use, 75% used technical assistance from the PBP to use them, and 88% intended to use them to assess their reserves again in the future.

## 8.4 Targeted Grants

The Targeted Grants program began in 2002, and since then PBP has devolved \$693,000 to Local Government to undertake a range of biodiversity projects. Altogether, 64 biodiversity conservation projects have been funded, with the majority of projects related to ecological assessment, protection and management of natural areas, strategic conservation planning or training. Since the production of the *Guidelines* in 2004, the Targeted Grants program has focused on helping Local Governments work towards achieving Local Biodiversity Planning Milestones (as outlined on pages 264-268 of the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region*). As Local Governments develop Local Biodiversity Strategies, future rounds of PBP Targeted Grants will focus on assisting Local Governments to implement their strategies, which will ensure that funding is linked to long-term biodiversity outcomes.

The 2007 survey found that 22 Local Governments (92%) were aware of the PBP Targeted Grants program and its aims. 22 of the 24 Local Governments have applied for Targeted Grants funding, 21 of who have received some kind of funding since the program began in 2002.

## 8.5 Perth Biodiversity Project Services

In 2002: *“The perceived role and future of the PBP can be summarised as the promotion, enhancement and management of biodiversity issues from a regional perspective through encouraging increased active participation of Local Government. It was suggested that the PBP fulfill its role by providing funding, data and technical support to Local Government and also assist LG Officers to get a greater commitment from CEO’s and elected members towards addressing biodiversity issues”.*

The Perth Biodiversity Project provides a range of services to Local Government, including:

- NAMN (Natural Area Managers Network) Forum
- NAMN (Natural Area Managers Network) newsletter
- Biodiversity News
- Biodiversity Planners Network Forum
- Mapping/GIS/data support
- Technical assistance with NAIA templates
- Assistance with writing and submitting Targeted Grants applications
- The PBP website
- PBP training/workshops
- Behaviour Change/Local Nature Spot Project

Twenty four percent of Councils ranked mapping/GIS/data support as the most important PBP service for their Local Government. Other important services included technical assistance with the NAIA templates (17% of Councils), the NAMN Forum (14% of Councils) and the NAMN newsletter (14% of Councils). 15 Local Governments (63%) were aware of all of the services offered by the PBP, with the biggest gaps in knowledge relating to PBP training/workshops, and the relatively new initiatives (Behaviour Change/Local Nature Spot Project and the Biodiversity Planners Network Forum). This lack of awareness may be due in part to staff turnover in Local Government since these services/initiatives began.

Sixteen Local Governments (67%) reported that there were no other services they would like to see provided by the PBP. 8 Local Governments reported that they would like to see other services provided, and it was suggested that to be more effective in supporting Local Government, the PBP could:

- Work with the Bush Forever office to resolve issues of planning and management;
- Give assistance, advice and grants for GIS systems;
- Produce more standards/guidelines/templates for policies/strategies relating to local biodiversity conservation, and assistance with writing management plans;
- Have an advocacy role with State Government on targets and implementation mechanisms for local biodiversity conservation;
- Provide more grant funding, and assistance with applying for external grants to manage high priority natural areas;
- Produce a list of appropriate (environmentally sensitive) contractors and consultants as a reference for Local Governments;
- Hold NAMN Forums exclusively for Local Government Officers;
- Lobby and source funding from the State/Commonwealth Government for Local Government natural area management;
- Help raising political support for biodiversity conservation within Councils;
- Provide Councilor/executive management education and training regarding biodiversity conservation;
- Hold solutions-focused training workshops for managing threats to biodiversity;
- Assist/become involved in other regional initiatives (e.g. WESROC); and
- Promote understanding of the importance of the contribution of Local Governments without high levels of biodiversity (e.g. in the form of linkages, hotspots, education of workforce, residence and wider community).
- Help Local Governments achieve short term as well as long term outcomes.

## **8.6 The Future Direction of the PBP**

The perception of the role of the PBP and its future varied greatly among the 24 survey respondents. Some Local Governments felt that the PBP's overall objective was to protect Perth's biodiversity and ensure it for future generations, by keeping biodiversity conservation a priority issue in Local Government. The origins of the PBP should not be forgotten as it moves forward, and its importance could only grow. However there was also some uncertainty about the PBP's future direction.

Several Local Governments felt that the PBP's role as a facilitator and advocate for Local Government should continue and expand. The PBP has a potentially powerful role as the nexus point between State Government departments (WAPC, DPI, DEC, SCC), developers and Local Government, and as the facilitator of networking opportunities for Councils. The PBP's role as a technical advisor and knowledge bank for Local Government was also highlighted, and the continued mapping and data collection of Perth's biodiversity was seen as important. The PBP has assisted Local Government financially, directly through the devolving of Targeted Grants, and indirectly by enabling Environmental Officers to identify areas of high biodiversity conservation priority and garner larger budgets from their Council for the management and protection of these areas. These functions should continue.

Local Governments identified potential future roles for the PBP, including researching new ways of conserving biodiversity, having more involvement with Bush Forever, and the publicising of Local Government biodiversity conservation successes, to engender competition between Councils and demand for biodiversity conservation from the community. There may be a role for the PBP in the area of social marketing of biodiversity, and improving the attitude and behaviour of the community in regard to native vegetation, and the PBP could expand to involve more Local Governments, and target more services to the Local Governments with smaller areas of remnant vegetation.

## 9.0 **Conclusions and Recommendations**

The capacity of Local Governments to conserve biodiversity has, on the whole, increased over the last 5 years. Positive outcomes and improvements have occurred in the areas of:

### **Resource Allocation**

- Local Government expenditure on biodiversity conservation has increased by around one third between 2000-01 and 2006-05, to an average of \$321,556 per Local Government, or 0.76% of total annual expenditure.
- Biodiversity related income, in the form of grants, has also increased, with 15 Local Governments (65%) receiving a total of more than \$1.05 million in the 2005-06 financial year.
- There was an increase in the number of Local Governments employing Environmental Officers and Bushcare Officers, with only 2 Council's (both with 0ha of remnant vegetation) who do not have an EO, BO or equivalent officers. Environmental Officers also have more decision making responsibility relating to biodiversity protection and management.

### **Education, Awareness and Training**

- EO's and BO's have a good skill base when it comes to site assessment and planning, weed recognition, identification and control techniques in bushland areas, native plant identification, revegetation, and communication with community/friends groups.
- Twenty two of the 24 Local Governments currently provide and/or fund biodiversity conservation related training, a substantial increase from 2002, and 23 Councils believe in the value of providing ongoing training for their staff.

### **Biodiversity Management**

- There was a considerable increase in both the number of Local Governments using local provenance seed in their revegetation activities, and the proportion of revegetation projects in which local provenance seed was used.

### **Information and Monitoring**

- Local Government use of GIS has increased from 63% in 2002 to 92% in 2007.

### **Partnerships**

- 23 of the 24 Local Governments have and support "Friends of" or community groups.
- More Local Governments are now involved in regional biodiversity conservation initiatives.

### **Local Biodiversity Strategies and the PBP**

- The PBP, and the *Guidelines*, have made an impact on biodiversity conservation in the Perth Metropolitan area. 14 Local Governments are in the process of producing a Local Biodiversity Strategy, with a further 3 intending to do so in the near future. 13 of the 14 Councils currently producing Local Biodiversity Strategies are using the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region*.
- 16 Councils have used the NAIA templates to assess some/all of their reserves.
- Mapping/GIS/data support, technical assistance with the NAIA templates, and NAMN Forum and newsletter were identified as the most important PBP services.

However, despite these improvements, there are still some areas where progress is needed. The 2002 PBP Biodiversity Conservation Capacity Survey identified clearing for urban expansion as a key threat to Perth's biodiversity. Since then, the rate of vegetation clearing in the Perth Metropolitan area has actually increased. Around 2000ha of native vegetation was cleared between 1997 and 2000 (around 666ha per year), and a further 3989ha was cleared between 2001 and 2005 (around 997ha per year) (Perth Biodiversity Project 2000 and unpub. 2007a). Now, more than ever, the role of Local Government in the conservation of biodiversity needs to be acknowledged, supported and strengthened.

Some key issues and recommendations are outlined below:

### **Resource Allocation**

- There is still a disparity between the amount of remnant vegetation managed by Local Governments and the resources dedicated to its protection and management. Among the Councils managing the greatest amount of native vegetation (500-2000ha) there was overall improvement in the amount of financial and human resources committed to biodiversity conservation and management. However these 6 Councils still have less FTE's dedicated to bush regeneration, less average expenditure on biodiversity conservation, and a lower proportion of their total operating expenditure dedicated to biodiversity conservation than Local Governments managing much smaller areas of remnant vegetation (10-200ha).

Local Governments are sourcing more grant funding than in the past for biodiversity conservation related activities, but this has not resolved the resources disparity. The 6 Local Governments managing 500-2000ha of native vegetation may, in some cases, not require further resources, as their natural areas may already be adequately funded, however some may need greater support from the State and Commonwealth Governments, and continued support from the PBP, for the protection and management of their reserves.

### **Education, Awareness and Training**

- Councillors, senior management and planning staff receive less biodiversity related training opportunities than EO's, parks and gardens staff, works crews and community members. It may be the case that they are not offered these training opportunities, or that they are not taking them up when offered. These staff all have decision making responsibility in relation to biodiversity conservation, so it is recommended that training be specifically targeted to them. For senior management and Councillors, general awareness training in biodiversity conservation related issues may be all that is needed, but for planners specific training regarding how biodiversity protection can be integrated into the planning system may be more appropriate.

### **Biodiversity Management**

- There is a trend toward reliance on outside nurseries (especially APACE nursery) for seeds and plants for revegetation activities, a greater demand for local provenance seed, and an increasing recognition of the importance of ecological linkages and connectivity of natural areas across Local Government boundaries. However, compared with 2002, there was less revegetation activities undertaken for the purpose of enhancing or establishing ecological linkages in the three years prior to the survey, and less planned for the next three years. It is important that enhancement and establishment of ecological linkages be undertaken, and it is recommended that this be planned and budgeted for well in advance, to ensure the supply of appropriate seeds and seedlings.

- The 2002 survey recognised the need for all levels of Government (Local, State and Commonwealth) to support private land conservation through the provision of incentives for private land conservation, especially for those areas of high conservation value. There is still a need, in general, for more innovative and extensive use of incentives among Local Governments. All Local Governments, even those with no privately owned native vegetation, can offer incentives to private landholders for biodiversity conservation/enhancement. For example, all 3 of the Local Governments with 0ha of privately owned native vegetation provide subsidised plants/plant sales for private gardens. The greatest need, however, is in the 4 Local Governments with the greatest amount of privately owned remnant vegetation (5,000-35,000ha).

Currently, none of these Local Governments offers private landholder conservation incentives (although 2 are developing incentives strategies through the WWF pilot incentives scheme). There are two approaches that need to be considered by Local Government for the protection of privately owned biodiversity. Private landholder conservation incentives are an important means of protecting remnant vegetation on private land, but it is also essential to integrate biodiversity conservation into the Local Planning Schemes of all Local Governments, for the protection of privately owned bushland.

#### **Legislative and Policy Instruments for Protection and management of Biodiversity**

- Local Planning Schemes are being under utilised as a legal means through which biodiversity can be protected, especially on privately owned land. Currently 14 of the 24 Local Governments surveyed consider issues relating to the protection of native vegetation in their LPS, and only 6 were using/intended to use data to assess the conservation value of native vegetation in their LPS consolidation/report. 7 Local Governments have provisions in their LPS that specifically state that a development application needs to be submitted for the clearing of native vegetation.

It is therefore essential to develop greater biodiversity conservation awareness among planning staff, and encourage greater communication between planners and Environmental/Bushcare Officers. These staff need to work together toward biodiversity conservation in their Local Government, as while EO's and BO's have great influence over biodiversity conservation in Local Government reserves, it is through the LPS that conservation can be achieved on private land.

#### **Information and Monitoring**

- With increased use of GIS by Local Government, it is important for the PBP to work with State agencies to collect, verify and disseminate biodiversity information to Local Government, and to assist Local Government with the use of this data. GIS and data support is a PBP service which is highly valued by Councils.

#### **Partnerships**

- As in 2002, State Government does not provide adequate support to Local Governments managing Bush Forever sites. Only 6 of the 21 Councils who manage Bush Forever land had received State Government assistance. Greater, ongoing support from the State Government for the management and protection of Bush Forever sites, and clearer information about where Local Government responsibility lies in relation to Bush Forever, would be of great help to those Local Governments managing Bush Forever sites. There is also need for PBP to negotiate with and develop a better relationship with the Bush Forever office within the DPI.

## Local Biodiversity Strategies and the PBP

- Nine Local Governments were not aware of all the services offered by PBP, however these tended to be those managing smaller amounts of remnant vegetation. Several Local Governments were not aware of the PBP Milestones for Local Biodiversity Planning, Natural Area Initial Assessment templates and Targeted Grants Program.

The PBP should continue to develop and provide the services that Local Government felt were most important (namely, mapping/GIS/data support, technical assistance with the NAIA templates, and the NAMN Forum and newsletter), and build the profile of those lesser known services (especially the outcomes of the Local Nature Spot project, and the Biodiversity Planners Network).

The PBP should also ensure that all Local Governments are familiar with the Milestones for Local Biodiversity Planning, Natural Area Initial Assessment templates and Targeted Grants Programs, and how these can be used by and potentially benefit their Council, especially those with large amounts of remnant bushland, and where development pressures are greatest.

- The PBP Targeted Grants program should be focused towards achieving some of the recommendations made in this report e.g. planning outcomes and the integration of biodiversity conservation into the LPS, biodiversity conservation related training opportunities for planning staff, senior management and Councillors, and resources for reserve management for Local Governments managing the greatest amount of remnant vegetation.
- The PBP should continue to assist, where possible, the Local Governments who are in the process of producing a Local Biodiversity Strategy using the *Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region* (especially those 9 Councils that the PBP is currently/will be actively supporting). Mapping and technical assistance with the NAIA templates are an integral part of this process.
- As 16 Councils have used the NAIA templates to assess some/all of their reserves, the PBP should deliver the planned Access database for Councils to store and access this information and enable easy and consistent reserve prioritisation.
- PBP must provide Local Government with clear information about its future role and direction.

## **10.0 References**

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