



PERTH BIODIVERSITY PROJECT

Councils Caring for their Natural Communities

Capacity of Perth's Local Governments to conserve biodiversity

Survey Analysis Report:

2002

The Perth Biodiversity Project is supported by:



Executive Summary

The Perth Biodiversity Project involves thirty Local Governments with a range of biodiversity conservation needs and capabilities. To further investigate these needs and capabilities a survey of Local Government Biodiversity Conservation Capacity was undertaken, with some key results illustrated below. The survey questions were based on six key requirements for best practice biodiversity conservation:

- Biodiversity conservation is appropriately resourced;
- Staff, Councillors and the community are appropriately aware and skilled to make a positive impact on biodiversity;
- Biodiversity conservation measures are strategic and well planned;
- Legislation and policy mechanisms are available and used to protect local biodiversity;
- Information on local biodiversity is collected and used to guide planning and decision-making;
- Local Government is well networked and works in partnership with key stakeholders to conserve biodiversity.

A more detailed report and analysis of Local Government biodiversity conservation capacity can be obtained from your Council's Environmental Officer or equivalent.

Resource Allocation

During the period 2000-01 Perth Local Government's spent a total of \$5.14 million on salaries and activities related to biodiversity conservation.

Local Governments attracted \$660,000 in external grant funding for biodiversity conservation activities, which represents a direct Local Government contribution of \$8 for every \$1 of grant funding received. The survey showed that whilst about 37% of bushland managed by Local Government was regionally significant, most Local Governments received no special assistance from the State Government for management of these sites.

Eleven out of 30 Local Governments currently employ both an Environmental Officer (EO) and a Bushcare Officer (BO), with another 10 having either an EO or BO. Nine Councils currently have neither an EO nor a BO within their staff structures. The role of EO's can be summarised as securing protection of biodiversity, with BO's having the responsibility of managing protected biodiversity.

Perth Council's dedicate 41 Full-time equivalent officers to on-ground bush regeneration. There is an obvious disparity between the amount of biodiversity managed by Local Government and the amount of financial and human resources dedicated to biodiversity conservation, which is best evidenced by the fact that half of these officers (22) are employed in 5 Councils, where a Bushland Team or crew has been formed and given recognition.

Education, Awareness and Training

The survey identified Councillors as being key decision-makers in relation to biodiversity conservation matters and found a high level of awareness of biodiversity issues amongst senior management.

Councillors were identified as having the greatest direct responsibility for decision making related to biodiversity protection and management (31%), compared with Parks and Gardens staff (19%) senior management (16%) and Environmental Officers 16%.

Over half (57%) of local governments provide and/or fund biodiversity conservation related training opportunities for their Local Government staff. Environmental Officers (EO), Parks and Gardens (P&G) staff and the community are the major groups who undertake training.

Almost all of the respondents to the survey saw value in their Council providing additional on-going training for staff involved in bushland management and biodiversity conservation.

Biodiversity and Land use Planning

Currently, 63% of Local Governments have a Greening or biodiversity-related plan for the biodiversity areas they manage. Biodiversity plans were seen as important for raising awareness of biodiversity issues within Council, identifying priority sites and providing recommendations for the future management of these sites. These Plans should be more strongly promoted and will generally require revision once Local Biodiversity Planning Guidelines have been released through the Perth Biodiversity Project.

Many areas of valuable habitat and biodiversity exist on private property. One third (86,000ha) of bushland in the Perth Metropolitan Area is on private land. Of this, 81,400 hectares are local biodiversity areas and 4,600 hectares are regionally significant (Bush Forever sites). The following types of incentives are being provided by the region's Councils to encourage conservation on private land:

- Free advice on bushland, wetland and waterway management
- Free seedlings for revegetation activities
- Rate relief for conservation landowners

Legislative and Policy Instruments for the Protection and Management of Biodiversity

Town Planning Schemes are the primary legal mechanism applied by Local Governments for conserving or threatening biodiversity. Approximately 20 (67%) Councils in the Perth Metropolitan Region are currently reviewing their TPS. Of the 13 Councils having between 100-30,000ha of local biodiversity on private land, 11 are currently undergoing a review of their schemes. There is a widely held view amongst Local Government environmental professionals that existing provisions in TPS are difficult to enforce and administer and provide insufficient protection of biodiversity values.

Currently only 8 (21%) Councils have guidelines in place for assessing the potential impacts of development on native vegetation and biodiversity values. Local biodiversity on private land is the most susceptible to development pressure and of those Councils having the greatest area (500-30,000ha) on private land, only 4 out of 10 Councils have guidelines for assessing the potential impacts of development on native vegetation.

Partnerships

Working in partnerships with other stakeholders is widely accepted by Local Government and is essential for biodiversity conservation. Twenty-three Local Governments are actively involved in regional natural resource management. Up until recently, biodiversity conservation planning and management has been generally confined to individual Local Government boundaries, with the exception being the WESROC greening plan. Other Local Governments are becoming more aware of the need to consider biodiversity conservation beyond administrative boundaries, with 17 Local Governments having identified existing and potential ecological linkages that extend beyond their boundaries. Through the PBP's devolved grants program, several of the metropolitan Councils are planning and implementing joint projects to achieve regional biodiversity outcomes.

Eighty percent of Local Governments have indicated that there was a need for a regional biodiversity strategy to provide overarching objectives and targets for the region to assist in promoting consistency in biodiversity conservation planning, identifying regional and local ecological corridors and providing a context for combining the aims of Bush Forever and local level actions.

Local Government acknowledges the role it has in developing and implementing management plans for Bush Forever sites managed by or vested in Local Government. However, it was highlighted that this is not the sole responsibility of Local Government and that State funding should support their efforts and uphold their commitment to conserving regionally significant bushland.

Recommendations and Conclusion

The degree to which any Local Government will need to allocate resources to any one of the above aspects of capacity, will depend on a number of factors, including the size and value of its biodiversity resource and the opportunities available in their area. However, all Local Governments, regardless of their location, need to be active in all of the above areas to some degree.

- Local Governments that do not have an Environmental Officer or Bushcare Officer should explore opportunities to share staff resources with other Local Governments or provide training to existing staff.
- The employment of Bushcare officers and Bushcare Teams (qualified in bush regeneration) in Councils with over 10 ha of bushland in local reserves should be brought forward as a priority, especially where there is little bushland in private ownership.
- There is a need to establish standards for bushland management in Perth, including accreditation of contractors working in bushland, best practice bush regeneration methodologies for different plant communities, and possibly benchmarking systems. Councils are encouraged to require all contractors working in bushland areas to be accredited under the Australian Association of Bush Regenerators (AABR). Local Government need to be better informed as to the specialist skills required for bushland management and the range of contractors having the appropriate skills, knowledge and experience.

- Incentives need to be directed by Commonwealth and State Governments to outer metropolitan Councils (rural and regional) in particular for employing appropriately skilled staff to manage bushland reserves.
- Local Government need to be better informed as to the specialist skills required for bushland management and the range of contractors having the appropriate skills and knowledge.
- Delivery of specifically designed training, tailored to the needs of Councillors is required to ensure that those having the greatest decision making responsibility are appropriately informed, aware and committed to biodiversity conservation.
- The benefits to the wider community of private land conservation need to be recognised and supported by Governments (Local, State and Commonwealth) with the provision of incentives for private land conservation targeted at those areas of high conservation value and having future security.
- Those 20 councils currently reviewing their Town Planning Scheme should consider the development of a Local Biodiversity Plan as an important component of their Local Planning Strategy and TPS.
- A regional biodiversity strategy should be developed to provide overarching objectives and targets for the region. This will assist in promoting consistency across Local Governments in biodiversity conservation planning, identifying regional and local ecological corridors and providing a context for combining the aims of Bush Forever and local level actions.
- Governments (State and Commonwealth) should provide greater support to those Local Governments managing Bush Forever sites.

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Introduction

The Perth Biodiversity Project involves thirty Local Governments with a range of biodiversity conservation needs and capabilities. To further investigate these needs and capabilities a survey of Local Government Biodiversity Conservation Capacity was undertaken during April 2002 to:

- Generate information suitable for developing an action plan for enhancing the capacity of each participating Local Government to protect and manage its local biodiversity areas. This will enable the PBP to tailor its services to the requirements of each Local Government;
- Provide data and information so that a 2002 baseline could be established with respect to the three year targets being set for the PBP;
- Increase awareness and involvement of Local Government in the PBP.

The survey focused on those key elements required for promoting best practice biodiversity conservation.

Part A – Resource allocation

- Adequate levels of financial and human resources

Part B - Education, awareness and training

- Appropriate skill/awareness levels amongst Councillors, senior management and staff

Part C – Biodiversity Management Activities

- Local provenance seed and weed management
- Provision of Incentives to private landholders to conserve biodiversity

Part D - Biodiversity Planning

- Good biodiversity conservation is based on sound planning

Part E - Legislative and Policy instruments for Protection and management of Biodiversity.

- Town Planning Schemes should be pro-active in recognising and protecting native vegetation and encouraging use of local species for revegetation
- Council policies should re-enforce biodiversity conservation objectives

Part F - Information and monitoring

- Council's need general and specific information on local biodiversity resources for both strategic biodiversity plans and on-ground management activities.

Part G - Partnerships

- Councils need to work in partnership with their communities, other Local Governments, regional NRM bodies and State and Federal Governments to meet biodiversity conservation objectives.

The degree to which any Local Government will need to allocate resources to any one of the above, will depend on a number of factors, including the size and value of its biodiversity resource and the opportunities available in their area. However, all Local Governments, regardless of their location, need to be active in all of the above areas.

Part A – Resource Allocation

This section of the survey explored the level of resources committed by Local Government to biodiversity conservation.

Biodiversity Expenditure

During the period 2000-01 Perth Local Government's spent a total of \$5.14 million on salaries and activities related to biodiversity conservation. This represents 0.58% of total Local Government Budget expenditure in the Perth Metropolitan Region for that period. These Council's spent an estimated \$21 million on other environmental protection and an estimated \$16 million on natural resource management activities (Determined from interpretation of data prepared by ABS, 2001).

A component of this biodiversity expenditure was on management of bushland reserves (bushland, wetland, waterways and coastal landscapes). Work by the Australian Association of Bush Regenerators (AABR) has confirmed costs of managing bushland in good condition as being in the order of \$0.05-\$0.50/m²/yr versus costs for ovals and parks being in the order of \$0.90 - \$3.50/m²/year (Kaesehagen 2001). Generally, the better the condition of the vegetation (less weed infestation), the lower the management inputs required. Conversely, the better the condition of active open space, the higher the management cost. Nevertheless, Councils need to budget for on-going management of bushland areas in the same way that on-going expenditure is allocated to ovals and parks.

Grants

In 2000-2001, 40% of Councils received some sort of revenue/income from rates, fines, grants and/or other. The most common source of income for biodiversity conservation was through grants.

Since the introduction of the Natural Heritage Trust (NHT) funding in 1997, Australian Local Governments have received only 7.5% of total NHT funding up to the end of 2001 (Environment Australia, 2002). In the Perth Metropolitan Region, Environmental Officers (EO's) (5%) and Bush care Officers (BO's) (3%) dedicated very little time to the development of grant applications in 2000-01. Local Governments attracted \$660,000 in external grant funding for biodiversity conservation activities. The grants emanated from a range of sources including the national Coastcare and Bushcare programs, Swan-Canning Urban Landcare Program and the Gordon Reid Foundation. As mentioned previously Local Government invested \$5.14 million into biodiversity projects during the same period - this represents a direct Local Government contribution of \$8 for every \$1 of grant funding received.

The relatively small distribution of NHT funding to Local Government nationally and locally could be indicative of a number of factors, including:

- Local Government being poorly positioned to attract NHT funds;
- Lack of skills and experience in preparing successful grant submissions
- Reflection of the small amount of time dedicated by Local Government to the development of grant applications (and the relatively large amount of time spent on other activities).

The survey suggests that Perth Local Governments have the potential to lever more external funds, although innovative and collaborative projects will be required.

Human Resources

Eleven out of 30 Local Governments currently employ both an EO and a BO, with another 10 having either an EO or BO. The majority of Environmental Officer time is dedicated to a number of different activities, with strategic planning (23%) consuming most of their time.

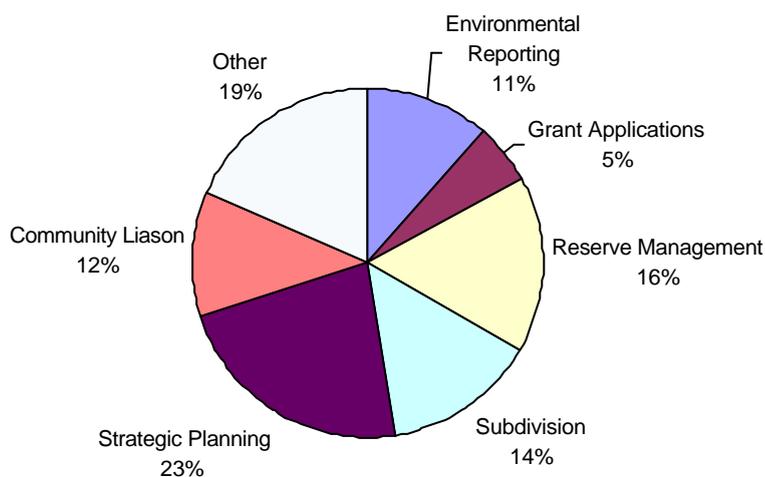


Figure 1: Percent of time Local Government Environmental Officers spend on various activities.

Of the activities undertaken by EO's, reserve management (16%) and grant applications (5%) were the most directly relevant to on-ground biodiversity conservation. It can be inferred from the above results that on average, EO's dedicate approximately 1 day a week to biodiversity conservation. Bushcare Officer time on average is dedicated to reserve management (30%), community liaison (19%) and grant applications (3%) all of which would have direct relevance to biodiversity conservation.

Table 1: Local Government resource allocation to biodiversity conservation based on the area of remnant vegetation managed by Local Government.

Categories by area of remnant vegetation in LG Reserves	% of total remnant vegetation in LG reserves	No. of LG's	Avg No. FTE's dedicated to bush regeneration per LG	No. of LG's having an EO	No. of LG's having an BO	Avg Expenditure on Biodiversity Conservation	Avg % of total operating budget dedicated to Biodiversity Conservation
0-10ha	0	14	1	5	3	\$70,000	0.34
10-200ha	6	5	1.8	2	4	\$310,000	0.98
200-500ha	24	5	2.6	5	4	\$420,000	0.87
500-2000ha	70	6	0.8	6	4	\$135,000	0.54

Councils should recognise the complementary roles of Environmental Officers and Bushcare Officers. Environmental Officers have an important strategic role in planning for biodiversity conservation, commenting on both strategic and statutory land use plans and ensuring that biodiversity is built into the Council structures and policies. Their role can be summarised as SECURING PROTECTION OF BIODIVERSITY. Bushcare Officers have the responsibility of managing biodiversity and the processes that threaten biodiversity (dieback, weeds, inappropriate use etc). Their role can be summarised as MANAGING PROTECTED BIODIVERSITY.

Environmental and Bushcare Officers are important ambassadors of Local Governments efforts to conserve biodiversity. This is best demonstrated by the fact that EO's and BO's dedicate 12% and 19% of their time respectively to community liaison.

Nine Councils currently have neither an EO nor a BO within their staff structures. These Councils are all located within 15 km of the Perth Central Business District and have between 0-10ha of remnant vegetation under their care and control. There is a total of approximately 16ha of bushland in these Councils and at least 5km of river foreshore, which is mainly managed through their Parks and Gardens sections. This may pose a restriction on the ability of these Councils to adequately address biodiversity conservation and other environmental related issues. Two options that may be appropriate for these Councils to improve their capacity to manage for biodiversity outcomes may include the sharing of staff resources between Councils or providing training and time allocations to existing staff.

Perth Council's dedicate 41 Full-time equivalent officers to on-ground bush regeneration (includes staff that are full-time, part-time, casuals, apprentices). Half of these officers (22) are employed in 5 Councils, where a Bushland Team or crew has been formed and given recognition.

Employment of Bushcare Officers and bushland teams in Councils having large areas of bushland in Local Reserves remains a significant need. Currently, 74% of the bushland in Local Reserves (across 6 Councils) is managed by 4.2 FTE's, whilst 36.9 FTEs manage 26% of the bushland resource (across 24 Councils).

The disparity between the amount of biodiversity managed by Local Government and the amount of financial and human resources dedicated to biodiversity conservation should be considered an issue for the whole of Government and not just an issue for individual Councils. Incentives need to be directed by Commonwealth and State Government to outer metropolitan Councils (and rural and regional Councils) in particular for employing appropriately skilled staff to manage bushland reserves. Whilst bushland in outer metropolitan, rural and regional Councils will face different threats to urban bushland, work is nevertheless required to manage weeds, feral animals, grazing, plant diseases, public access, and monitor condition.

Consultants were the preferred form of skilled labour for undertaking surveys, research and mapping of threatened species, wetlands, native vegetation and weed invasion. Consultants were used 54% of the time, with Local Government officers undertaking the activities 24% of the time. Given that consultants undertake the majority of mapping and research, it is important to develop a brief or guidelines for consultancy work and other channels used by Local Governments to ensure that the skills and service of the consultancy are appropriate.

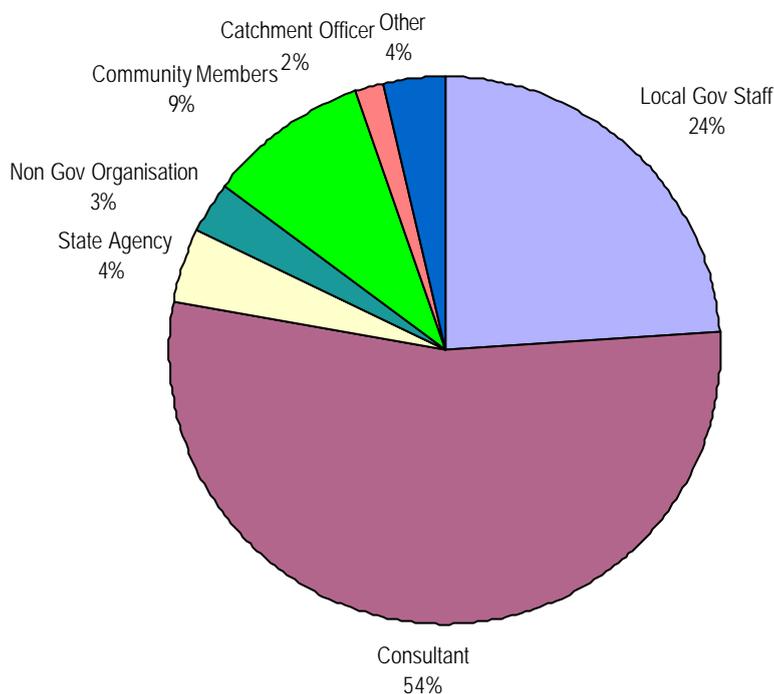


Figure 2: How Councils on average access skills for conducting various biodiversity management activities.

Part B – Education, awareness and training

The purpose of this section was to determine the level of skill and knowledge that Local Government has in relation to activities and responsibilities associated with the conservation and management of biodiversity.

Overview

Sound biodiversity management requires an understanding and commitment to biodiversity needs across all sectors of Local Government.

Councillors should:

- A) Know where biodiversity sits as a priority amongst Federal and State Governments (statutory and policy);
- B) Listen to community views and provide leadership to their communities; and
- C) Be adequately informed to set Council policy and make decisions.

Senior management needs to:

- A) Be adequately informed to ensure Council policy is implemented;
- B) Ensure that biodiversity conservation is incorporated into Council's corporate plans: Principle Activities Plans, Strategic Plans
- C) Ensure that Council meets all statutory obligations in terms of protection of native plants and animals

Planners, Strategic Planners, Engineers and parks staff should:

- A) Understand the fundamental requirements of biodiversity conservation;
- B) Understand how their activities impact on biodiversity
- C) Understand Council's policies related to biodiversity conservation.
- D) Understand when they need to seek advice from Environmental Officers;

- E) Understand their statutory obligations with respect to biodiversity conservation

Environmental Officers and Bushland Management Officers should:

- A) Develop strategies and plans to assist the Council to meet biodiversity conservation objectives; (including budgeting proposals, forward plan work schedules)
- B) Ensure the Council has access to adequate advice to ensure all statutory requirements are met;
- C) Advise senior management and Council on statutory obligations
- D) Have adequate skills to implement reserve management plans and carry out or supervise bushland management activities (weed control, dieback management, public use management)

Councillors are key decision makers

The survey has identified Councillors as being key decision-makers in relation to biodiversity conservation matters and found a high level of awareness of biodiversity issues amongst senior management. Nearly all Local Governments (83%) have at least one Councillor that actively demonstrates a commitment to biodiversity conservation. Currently, there are 2 Local Governments where all Councillors actively demonstrate a commitment to biodiversity conservation. Only one Local government has no Councillors that currently demonstrate a commitment to biodiversity conservation. It is important that Councillors within each Local Government have a knowledge of and commitment to biodiversity conservation. Councillors were identified as having the greatest direct responsibility for decision making related to biodiversity protection and management (31%), compared with Parks and Gardens staff (19%) senior management (16%) and Environmental Officers 16%.

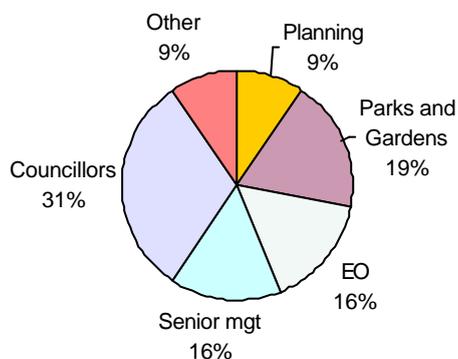


Figure 3: Local government staff who have direct responsibility for decision making for biodiversity protection and management.

Most Local Governments don't offer specialist biodiversity conservation training opportunities to Councillors, with two exceptions being Mundaring and South Perth where councillors have undertaken training in bush regeneration. The lack of training opportunities provided to Councillors will be partly addressed through a PBP-funded project in the Eastern Metropolitan Region of Councils. The project will design and deliver targeted training in biodiversity conservation to Councillors and staff from six Local Governments.

Local Government Environmental and Bushcare Officers

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

- Site assessment and planning;
- Weed identification and recognition
- Weed control techniques
- Native plant identification
- Revegetation
- Plant propagation
- Communication with community groups/friends of groups

Generally, Environmental Officers acknowledged that they had a good level of bushland management skills, with more than 60% of Local Government Environmental Officers having skills relevant to site assessments,

weed and native plant identification and communication with the community and friends groups. Skills in revegetation, plant propagation and weed control techniques were less prevalent amongst Environmental Officers, but this is not surprising given that reserve management only takes up 16% (or about 1 day per week) of and EO's time on average.

Bushcare Officers (BO) of Local Government were generally highly skilled with greater than 70% having site assessment, weed and native plant identification, revegetation, weed control and communication skills relevant to community groups. Approximately 60% of Parks and Garden staff have weed identification skills and less than 50% have skills in revegetation and native plant identification.

The key message is that management of bushland, wetlands and waterways for biodiversity outcomes requires specialised skills. Council's should have access to Bushcare Officers (shared with other Council's may be an option) or contractors with the equivalent skills if they are to manage the environment and meet biodiversity objectives.

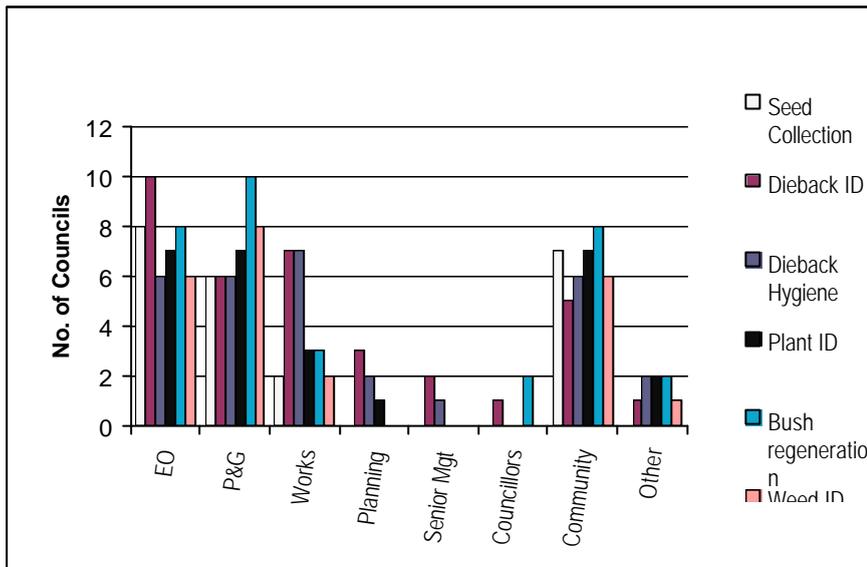


Figure 4: Staff training opportunities provided/funded by Local Governments.

Over half (57%) of local governments provide and/or fund biodiversity conservation related training opportunities for their Local Government staff. Figure 1 illustrates the types of training opportunities provided and who undertakes them. Environmental Officers, Parks and Gardens (P&G) staff and the community are the major groups who undertake training. The most common types of training completed were bush regeneration, dieback identification, seed collection and weed identification and control.

Community awareness and involvement

The Perth Biodiversity Project acknowledges the important part that the community plays in biodiversity conservation, such as the work of 'Friends of groups in managing bushland. Unfortunately, assessing types and levels of community support were outside of the scope of this survey.

Part C – Biodiversity Management Activities.

The purpose of this section is to identify the type and extent of management activities undertaken by local government for the conservation of biodiversity.

Local Provenance Seed

The availability and use of local provenance seed for plant propagation and direct seeding has long been recognised as important for biodiversity conservation in Perth (Seabrook J 1987; Powell 1990). Sound biodiversity management requires the use of local provenance seed and plant stock for revegetation purposes. In Perth, this often means collecting seed and plant material on the actual reserve for which plants are required given that there can be high endemism over short distances (Hopper, pers. comm.). Currently, 67% of Local

Governments incorporate local provenance seed in some of their revegetation activities, with on average approximately 35% of all Local Government revegetation activities utilising local provenance seed.

The demand for local provenance seed will increase dramatically in the future with the revegetation activities for enhancing ecological linkages by councils expected to nearly double in the next 3 years (365ha) compared to the previous 3 years (190ha). A good practice is to prepare a seed resource management strategy, such as has occurred in the City of South Perth. Ideally these strategies would be linked to a local biodiversity plan and include seed supply and demand (species and quantities), location and quantities of seed required for strategic revegetation projects, and collection schedule to target species as they become available. Regardless of whether a Council uses staff or contractors to collect seed and propagate plants, a seed collection strategy should be prepared by Councils as a priority.

There is a growing range of seed and plant suppliers in the Perth area. Four Local Government nurseries currently provide 33% of local provenance seed with the remaining 77% provided mainly by the APACE and Men of the Trees nurseries. This manner in which Local Government source seed will need to be considered in Council revegetation and seed collection strategies as part of their Local Biodiversity Plan. The fact that skills in plant propagation are quite low with only 38% of Environmental Officers, 64% of Bushcare Officers and 36% of Parks and Gardens staff having those skills is a reflection of the small number of Local Government plant nurseries existing in the Perth region and the lack of training provided in this area.

Weed Management

Specialist environmental weed control services are limited in Perth. However, eighty-seven percent of Councils in the Metropolitan Region reported that they engage specialist weed control contractors. Of those 80% state that their contractors have experience in identifying native plant species and are familiar with weed control techniques in bushland areas. Fourteen (14) different contractors were identified in the survey as having experience with identifying native plant species and are familiar with weed control techniques in bushland areas. Of those 14 contractors identified in the survey only 5 of them are recognised by the Australian Association for Bush Regenerators as preferred weed control contractors or environmental consultants. It is evident from the above that some Local Governments require more assistance to ensure that contractors have the specialist skills required for environmental weed control.

Private Landholder Incentives for biodiversity conservation

Conservation of biodiversity requires an integrated and consistent approach across public and private lands, especially in the Perth Metropolitan Region where many areas of valuable habitat exist on private property. One third (86,000ha) of bushland in the Perth Metropolitan Area is on private land. Of this, 81,400 hectares are local biodiversity areas and 4,600 hectares are regionally significant (Bush Forever sites).

The influence that private landholders have on the continued existence and management of biodiversity is paramount. However there is limited incentive for private landholders to protect and manage these areas for public benefit. In many cases, the costs of managing an area outweigh the immediate benefits to the landholder. The benefits to the wider community of private conservation need to be recognised and supported by governments with the provision of incentives for private land conservation (Cripps *et al.* 1999).

Incentives need to be targeted towards areas of high conservation value to ensure that governments are making sound investments. They also need to be targeted at areas that have future security.

Private landowner incentives could be targeted at two major groups. The first group is the 'land use change' group where the Metropolitan Region Scheme (MRS) land zoning is rural and significant potential for biodiversity conservation exists. Incentives for biodiversity conservation in these areas may include rate relief, and subdivision/development based incentives for conservation. These financial-based incentives need to be pursued vigorously to respond to the high speculative land development market in the Perth Metropolitan Area.

The second group is the 'land management group'. This includes urban, special rural and all other land uses outside of rural land. Incentives in these areas need not be direct financial incentives. They may include voluntary programs such as 'Land for Wildlife', recognition awards or education programs.

Thirteen thousand hectares of bushland in Perth is under direct threat of being lost due to current zoning of land for urban, urban deferred, industrial and commercial zonings. Most of this bushland is in private ownership.

Options for protection of biodiversity in these areas are limited to that bushland identified for retention as part of the public open space requirements of new subdivisions and developments. It is important that in determining the areas of bushland to be set aside as Public Open Space (POS) that consideration be given to the appropriateness of the POS to act as a linkage between other bushland areas.

The survey identified the following types of incentives being provided by the region's Councils:

- Free advice on bushland, wetland and waterway management
- Free seedlings for revegetation activities
- Rate relief for conservation landowners

The three Councils that have the greatest area of local biodiversity on private land (5000–30000ha) offered some form of incentive to private landholders to promote biodiversity conservation. The incentives were in the form of either technical advice, provision of subsidised or free seedlings for revegetation activities. Approximately 38% (11 Councils) of Councils offer technical advice to promote biodiversity conservation. Eight Councils to date have not provided any incentives to private landholders for biodiversity conservation.

Table 2: Number of Local Governments offering incentives to private landholders based on the area of local biodiversity on private land.

Categories by Area of Local Biodiversity on Private land. (ha)	No. LG's	No. of LG's offering incentives.
0-100	17	7
100-500	3	2
500-5000	6	3
5000-30000	4	3
TOTAL	30	15

All Councils should be offering incentives for biodiversity, even inner urban Councils. For example, the City of Nedlands is going to offer subsidised local provenance seedlings to residents for planting in gardens. A number of other Local Governments provide either free or subsidised seedlings to residents. The opportunity exists for those Local Governments not currently providing free or subsidised seedlings to residents to do so and for those that are, to also target those landholders that have existing stands of remnant vegetation or are appropriately located to contribute to the formation of an ecological linkage.

There were only two Local Governments that currently offer incentives that directly contribute to the protection of bushland for the long-term. They were the Shire of Serpentine-Jarrahdale and the City of Swan. One of these Councils offers 3 landowners 50% off their rates while the other Council has exempt a wildlife sanctuary from rates. Rate relief in Serpentine-Jarrahdale is linked to Conservation Zoning in their Town Planning Scheme. Fifty percent of those Councils having greater than 500ha of local biodiversity on private land would consider offering differential rating to landholders who were protecting and actively managing local biodiversity areas.

Part D – Biodiversity Planning

The purpose of this section was to identify how Local Government plans for biodiversity conservation.

Good biodiversity conservation is based on sound planning

Currently, 63% of Local Governments have a Greening or biodiversity-related plan for the biodiversity areas they manage. Of the 19 Councils that have a biodiversity or green plan, only 3 are not currently being implemented. It is assumed that while some Councils have identified linkages that straddle private property boundaries, most plans at this stage do not include vegetation on private land. The importance of greening/biodiversity plans in guiding Local Government's management of biodiversity is highlighted by it being identified as one of the most common methods by which Local Government prioritises resources for addressing threatening processes to biodiversity (20%), the other being site assessments (20%).

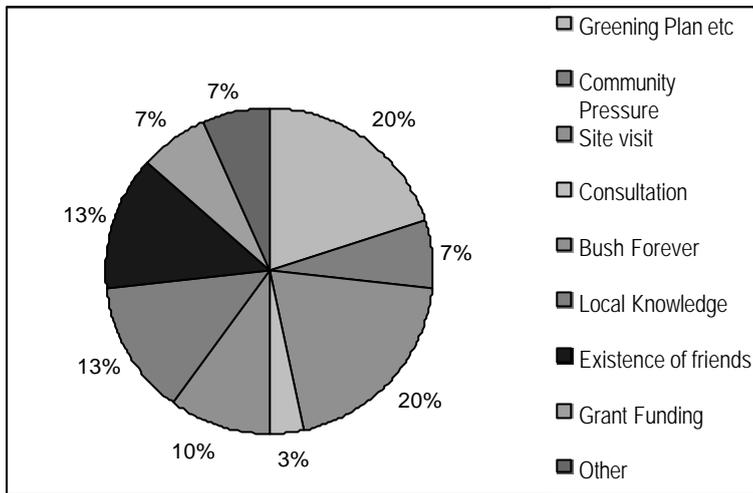


Figure 5: Basis upon which Perth metropolitan Councils prioritise resources to address threatening processes to biodiversity

Ninety percent of Local Governments recognised the need for guidelines for preparing local biodiversity plans, to not only guide development of new plans but to also provide a tool for evaluating existing plans. There was also a belief that guidelines would provide a framework for ensuring planning and determination of priorities for biodiversity conservation is consistent across the metropolitan region. Biodiversity plans were seen as important for raising awareness of biodiversity issues within Council, identifying priority sites and providing recommendations for the future management of these sites.

Processes for identifying and prioritising local biodiversity areas and their threatening processes, data collection standards, key performance indicators, regional corridors, faunal habitat requirements, budgeting and calculation of costs for on-going works and methods for and circumstances in which site assessments are undertaken, were identified by Local Government as the key features that should be addressed by the PBP in preparing biodiversity planning guidelines.

Part E – Legislative and Policy instruments for Protection and management of Biodiversity.

The purpose of this section was to review the legislative policy tools that are used for the protection and conservation of biodiversity; these include Town Planning Schemes, Local Government Act and Local Government Policies.

Overview

Biodiversity conservation is a legitimate land use and public good which requires greater recognition in both the State's Town Planning and Development Act and Council Town Planning Schemes.

At the State Government level Perth's native vegetation is given statutory protection under the *Soil and Land Conservation Act*, *Wildlife Conservation Act* and *Environmental Protection Act*. Proposed amendments to the Environmental Protection Act will substantially increase the State Government's powers to control clearing of bushland. At a policy level, the Cabinet-endorsed Bush Forever Report gives limited extra protection to bushland sites recognised as being of regional significance. One of the outcomes of Bush Forever will be an Urban Bushland Statement of Planning Policy and the imposition of special control areas over Bush Forever sites to give added protection to these sites.

At the local level, Town Planning Schemes are the primary legal mechanism for conserving or threatening biodiversity. Town Planning Schemes guide subdivision, lay out the potential uses for each land parcel in a Local Government area and set development standards for each land use type. With 86,000 hectares of bushland in private ownership, Town Planning Schemes are a key to protecting a large portion of biodiversity in Perth.

Local Government is required under Section 7AA(1) of the Town Planning and Development Act 1928 to review their Town Planning Schemes every 5 years. In reality, Scheme reviews are occurring about every ten years, with the survey finding that it had been up to 16 years since the review of some schemes. These reviews provide an opportunity to incorporate biodiversity conservation into the Scheme and the Council's Local Planning Strategy.

Town Planning Schemes

Approximately 20 (67%) Councils in the Perth Metropolitan Region are currently reviewing their TPS. Only seven of these 20 are using data to assess the conservation value of native vegetation. Of the 13 Councils having between 100-30,000ha of local biodiversity on private land, 11 are currently undergoing a review of their schemes.

It is imperative that the PBP work with each of the twenty Councils currently reviewing their Schemes. This is especially important for the thirteen Councils having more than 100 ha of bushland in their Local Government area.

Biodiversity conservation mechanisms in Town Planning Schemes

The manner in which Local Government utilise their Town Planning Scheme for the protection of biodiversity is variable and generally under-utilised. Currently only the Shires of Serpentine-Jarrahdale and Kalamunda have a conservation zoning within their Scheme and no Local Governments have created special control areas for protection of remnant vegetation. Swan and Kwinana have areas or zones of Landscape Protection, which require Council approval prior to clearing of vegetation, development, or the alteration of a wetland. Thirteen Local Governments currently have clause/s relevant to tree preservation. Tree preservation within schemes varies and includes the following approaches:

- a) Includes all native vegetation with specific exemptions;
- b) Give Local Government the authority to place preservation orders on trees or groups of trees worthy of preservation and to list them in a register for trees, and
- c) General requirement giving Local Government the power to require the preservation of trees of significance when considering a development application.

Nine Local Governments have a schedule or appendix within their Scheme that affords protection to places containing biodiversity of significance, which in some instances may be referred to as 'Conservation & preservation of places of natural beauty and historic buildings and objects of historic or scientific interest' or 'places and objects having significance for the purpose of protection of the landscape or environment'. Generally the schedules of these schemes are very under utilised, in most circumstances areas already afforded protection such as national parks and foreshore reserves are listed, examples of private land being listed are not known.

Twenty-three percent of Local Governments have provisions within their schemes that require Council approval to undertake clearing of vegetation outside of the building envelope of specified zones (eg special rural, rural zones). Similarly twenty-three percent of local governments have specific provisions that state a Development application is required to be submitted for the clearing of vegetation. The provisions vary greatly with some only being applicable to a particular zone (eg rural, resource etc) and others only applicable to a certain size of vegetation (eg No tree with a trunk circumference in excess of 0.6 metres measured at a height of one metre from the ground shall be removed without the prior written approval of the Council). Hopefully the review of the Model Scheme Text and the introduction of clearing permits as a component of the Environmental Protection Amendment Bill will promote greater consistency in the manner in which clearing of vegetation is dealt with in the future.

Currently only 8 (21%) Councils have guidelines in place for assessing the potential impacts of development on native vegetation. Local biodiversity on private land is the most susceptible to development pressure and of those Councils having the greatest area (500-30,000ha) on private land, only 4 out of 10 Councils have guidelines for assessing the potential impacts of development on native vegetation. The City of Rockingham has a statement of planning policy that outlines the process to be undertaken in assessing those applications impacting native vegetation.

Policy

The majority of Local Governments (19) are considering biodiversity in their policy development through having biodiversity related policies. Ten Local Governments have a policy for the retention/preservation of existing native vegetation, while 8 Local Governments have a general biodiversity policy and/or a policy to encourage the planting of local native species. 11 Local Governments had more than one policy relating to biodiversity conservation. Currently 11 Councils have no biodiversity related policy. The PBP will be consolidating those policies already developed by Local Government, in the Biodiversity Planning Guidelines, thus providing some generic policies for biodiversity conservation that can be adopted by other Local Governments where appropriate.

Part F - Information and monitoring

The purpose of this section was to gain a better understanding of the information and monitoring activities undertaken by Local Government and how these activities are integrated to better protect and manage biodiversity.

Information Sources

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, councillor briefings and public enquiries. Technical experts and unpublished reports were information sources consulted by at least 60% of Local Government, whilst GIS and databases were utilised by less than 50% of Local Governments for dealing with biodiversity conservation issues relating to strategic planning, statutory planning, operational decisions, councillor briefings and public enquiries. The relatively low usage of GIS is probably a reflection of an absence of good quality data relating to biodiversity conservation and not Local Government GIS capacity as 19 Local Governments currently have GIS.

Part G: Partnerships

The purpose of this section is to examine the partnerships and interactions occurring between Local Government and other stakeholders involved in biodiversity conservation and management.

Working in partnerships is widely accepted by Local Government and is essential for biodiversity conservation. Local Government has a range of partnerships with a diversity of different stakeholders and these are outlined below.

Friends Groups

Twenty-eight Local Governments have friends of/community environmental groups within their areas, which they support through assistance with on-ground works, provision of resources and attendance at meetings. Of those Local Governments having friends groups 23 of them maintain an inventory of friends groups and the reserves they manage. It is important that the activities and work done by friends groups is accurately recorded and recognised by Local Government. The way in which Local Governments currently record the activities and efforts of friends groups is varied with some having regular contact through the Environmental Officer or Council committees, others undertake an annual survey and work plan and some produce newsletters to inform the community of the efforts of friends groups.

Regional Natural Resource Management

Twenty-three Local Governments are actively involved in regional natural resource management. The best examples at present are those projects facilitated by the Eastern Metropolitan Regional Council involving all 6 of their member councils in the development and implementation of their Regional Environment Strategy. Catchment management issues have in the past been a driver for cross-boundary Local Government partnerships, with the Eastern Hills Catchment management Project involving Swan, Mundaring and Kalamunda and the Upper Canning Southern Wungong Catchment Project involving Gosnells and Armadale.

Biodiversity conservation planning and management at present is generally confined to Local Government boundaries, with the exception being the WESROC greening plan (involving Claremont, Cottesloe, Mossman Park, Peppermint Grove, Subiaco and Nedlands). Other Local Governments are becoming more aware of the need to consider biodiversity conservation beyond administrative boundaries, with 17 Local Governments

having identified existing and potential ecological linkages that extend beyond their boundaries. Additionally there was Local Government Officer support from 12 Local Governments of preparedness to invest resources in biodiversity conservation outside of their Local Government boundary for the purpose of contributing to the formation of ecological linkages. Furthermore 63% of Local Governments identified the need for the establishment of formal organisations of Councils to deal with natural resource management (NRM) issues.

It must be recognised that the formality of Regional structures is expensive and the boundaries of existing regions are not necessarily the most suitable for dealing with environmental issues. It was noted from informal discussion that Local Government might also be supportive of resource sharing across councils (eg ecologist, Bush Regeneration Officer).

Regional Biodiversity Strategy

Eighty percent of Local Governments have indicated that there was a need for a regional biodiversity strategy to provide overarching objectives and targets for the region to assist in promoting consistency in biodiversity conservation planning, identifying regional and local ecological corridors and providing a context for combining the aims of Bush Forever and local level actions. The need for a regional biodiversity strategy to provide a scientifically robust strategy for biodiversity is required to ensure strategic regional investment into the Swan Catchment. This issue has been raised in the PBP's bid to the Swan Catchment Council for continuing NHT funding.

Bush Forever

Local Government has acknowledged the active role it must play in developing and implementing management plans for those Bush Forever sites managed by or vested in Local Government, however it was highlighted that this was not the sole responsibility of Local Government and that State funding should support their efforts. Additionally Local Government recognises it is well placed to educate the community of the importance of bushland.

To date, 6 Councils have received support from Bush Forever. Various Councils have received technical information in regards to the bush forever sites within their Local Government area. For one council Bush Forever has offered support in the review of a rural concept plan, which involves a significant Bush Forever site and includes surveying the area for flora and fauna. Bush Forever has also agreed to participate in a focus group for one Local Government. No financial support has been received by any Local Government for the management of Bush Forever sites vested in Local Government, however one Local Government did receive financial support for managing Bush Forever sites vested with the Department of Planning and Infrastructure.

Future of the Perth Biodiversity Project

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 fulfil this 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.

Conclusion and Recommendations

This report provides a descriptive overview and benchmarks of Local Government biodiversity conservation capacity. This information will be valuable for determining resourcing and policy decisions, which will assist the PBP and Local Government to more strategically, plan and implement biodiversity initiatives.

The clearing of bushland for urban expansion continues to be the key threat to Perth's biodiversity. New work to map Perth's bushland indicates that at least 2000 hectares of bushland has been cleared over the 4 years from 1997 and 2000¹. Another 13,000 hectares of bushland is on land already zoned for urban or other intensive development types and is therefore likely to be lost in the next five to ten years. The most significant pressure is on bushland on the Swan Coastal Plain, where most urban expansion is proposed.

Recommendations for assisting Local Government in progressing resolution of the key issues impacting on their capacity to conserve and manage biodiversity are outlined below:

Resource Allocation

- Local Government recognise the complimentary roles of Environmental Officers and Bushcare Officers with the focus of EO's being securing protection of biodiversity and for BO's the focus is on managing protected biodiversity.
- Local Governments that do not have an Environmental Officer or Bushcare Officer should explore opportunities to share staff resources with other Local Governments or provide training and time allocations to existing staff.
- Incentives need to be directed by Commonwealth and State Governments to outer metropolitan Councils (rural and regional) in particular for employing appropriately skilled staff to manage bushland reserves.
- A brief or guidelines for consultancy work and other channels be developed for Local Government to ensure that the skills and service of the consultancy are appropriate.

Education, Awareness and Training

- Delivery of specifically designed training tailored to the needs of Councillors is required to ensure that those having the greatest decision making responsibility are appropriately informed, aware and committed to biodiversity conservation.

Biodiversity Management Activities

- Local Governments should develop a seed resource management strategy that is linked to their biodiversity plan and includes seed supply and demand, location and quantities of seed required and collection schedule to target species as they become available.
- There is a need to establish standards for bushland management in Perth, including accreditation of contractors working in bushland, best practice bush regeneration methodologies for different plant communities, and possibly benchmarking systems. Councils are encouraged to require all contractors working in bushland areas to be accredited under the Australian Association of Bush Regenerators (AABR). Local Government need to be better informed as to the specialist skills required for bushland management and the range of contractors having the appropriate skills, knowledge and experience.
- The benefits to the wider community of private land conservation need to be recognised and supported by Governments (Local, State and Commonwealth) with the provision of incentives for private land conservation targeted at those areas of high conservation value and having future security.

Legislative and Policy Instruments for the Protection and Management of Biodiversity

- Those 20 councils currently reviewing their Town Planning Scheme and especially the 13 having more than a 100 ha of bushland in their Local Government area should consider the development of a Local Biodiversity Plan as an important component of their Local Planning Strategy.
- Guidelines to be developed for assessing the potential impacts of development on native vegetation.
- Existing Local Government biodiversity related policies collated by PBP, so that a range of biodiversity related policies are available to Local Government and can be adopted where appropriate.

¹

Determined by analysis of the Perth Bushland mapping dataset by the Department of Agriculture WA. Vegetation was mapped at a scale of 1:20,000 using 2001 ortho-rectified digital airphotos. There may be errors in the data, associated with interpretation and scale of mapping and therefore this can only be considered an indicative estimate. It is likely that most of the clearing mapped since 1997 is a result of pre-existing planning and development approvals. The mapping dataset used was a draft version only. It is likely that most of the clearing mapped since 1997 is the result of pre-existing planning and development approvals.

Information and Monitoring

- Local Government to be provided with baseline vegetation mapping, with appropriate frameworks and structures in place to facilitate the continual update and evolution of the mapping.

Partnerships

- A regional biodiversity strategy should be developed to provide overarching objectives and targets for the region. This will assist in promoting consistency across Local Governments in biodiversity conservation planning, identifying regional and local ecological corridors and providing a context for combining the aims of Bush Forever and local level actions.
- Governments (State and Commonwealth) should provide greater support to those Local Governments managing Bush Forever sites.
- Further funding and sponsorship be sought to continue the PBP and ensure the continuance of the devolved grants funding for supporting and encouraging the conservation initiatives of Local Government.

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