Perth NRM

WALGA

THE LOCAL GOVERNMENT ENVIRONMENT AND SUSTAINABILITY CAPACITY ASSESSMENT SURVEY

2017

EXECUTIVE SUMMARY

Perth NRM's and WALGA's first joint Local Government Environment and Sustainability Capacity Assessment Survey was conducted in November 2017. Natural resource management (NRM) is delivered by multiple stakeholders with various responsibilities and interests, therefore any efforts to better coordinate delivery of NRM requires an understanding of those stakeholders and their capacity to deliver. In 2017, 37 individuals representing elected members and operational, planning and corporate staff from 35 local government authorities participated in the survey.

Qualitative and quantitative questions were asked about responsibility for decision making, availability of resources, including budgets, and strengths in environmental management and sustainability programs. The 2017 survey defined 50 skills and knowledge areas across five management categories to enable respondents to rate how well their organisation is addressing environmental management and sustainability and to provide more detailed information about their organisational strengths and professional development needs. Respondents identified if a topic was managed as best practice, whether it was being addressed or recorded it as a capacity gap. Participants were also asked to identify the usefulness of programs delivered by WALGA and the seven NRM organisations in Western Australia. The 2017 survey responses have been compared to the results of the 2015 survey to build a longer-term picture of capacity for NRM, and will be used by Perth NRM and WALGA to coordinate training events to enhance knowledge and skills of local government staff and councillors.

Key findings
• There is support for a regular, joint environmental management and sustainability survey of local governments by WALGA and NRM organisations
• Natural areas management is a competent skill and knowledge area in local government and reported some of the highest scores for the adoption of best practice
• Prominent capacity gaps were identified in the areas of State of the Environment monitoring and reporting (36%) and changing community behaviour (32%).
• Current levels of financial and human resources limit the ability of local government to effectively conduct environmental management and sustainability programs
• Direct financial support, together with investment in skills development, could leverage the current knowledge and commitment of staff to more effectively manage the State's natural resources
• Resources provided by WALGA and Western Australia's seven NRM organisations are highly valued.

Executive Summary Table: Key findings of the Local Government Environment and Sustainability Capacity Assessment Survey 2017

Natural areas management (NAM) reported some of the highest scores for the adoption of best practice. Respondents were confident in their council's ability to address the strategic NAM areas of bushfire risk management (31%), bushland restoration (31%) and biodiversity conservation (27%). Strong scores for flora and fauna identification (23%) and the use of herbicides and pesticides (23%) indicate a confident and systematic focus on these field-based aspects of NAM.

In contrast, six skills and knowledge areas relating to Organisational Sustainability were recorded as being gaps in capacity for local government. The greatest capacity gap was reported for State of the Environment reporting (36%), followed by an inadequate proficiency to change community behaviour (32%). This gap in influencing behaviour and changing attitudes was reflected in the limited capacity to successfully embed sustainability practices within their own local government organisations (24%). Adoption and application of technology is an area for further investigation and investment in developing knowledge and skills. Respondents identified that there were gaps in capacity to manage integrated transport systems (28%), effectively utilise technological tools for environmental management (28%) and to capitalise on citizen science initiatives (24%). Many of these capacity gaps have a strategic component and would benefit from a collaborative approach to identifying effective ways to address them and the subsequent implementation of knowledge exchange and training programs.

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Local government authorities reported that the top issues they are currently dealing with include urban forest management, retention of native trees, biodiversity retention, lowering of the water table, availability of water, impact of climate change on the foreshore and coast, and waste management. In addition, they articulated that natural area management and urban planning required a progressive approach to effectively address the wide range of issues associated with these areas.

Local governments use a variety of networks and tools to assist them with their environmental management decisions. Staff are an important source of knowledge and were the primary resource for operational decision making (94%), whilst consultants had a significant role to play in development of strategies and reports (88%). Commonwealth and State Government agencies also make a considerable contribution to reports and strategies (> 75%).

Information resources, forums and tools supplied by WALGA, Perth NRM and the regional NRMs were highly valued by the local government participants. The Natural Area Management Network (NAMN) professional development forums delivered by WALGA, and the EcoNews Environmental Publication, were highly valued by > 80% of respondents, followed closely by Climate Change Collaborator (70%) and Sustainability Officer Network Group meetings (67%). Perth NRM's professional development workshops and programs coordinated by the Regional NRMs were also recorded as useful or very useful by respondents (> 65%). Policy support, particularly the WALGA Local Government Biodiversity Planning Guidelines and the WALGA Climate Change Policy Statement, were rated highly (> 65%).

In the 2015 and 2017 surveys, participants reported that the current levels of financial and human resources limited their ability to effectively conduct environmental management and sustainability programs. They identified the need for greater skills and knowledge to prepare environmental budgets and observed that the current levels of financial and human resources limit their ability to effectively conduct environmental management and sustainability programs. State and federal grants were again the most common external funding sources. Some local governments reported that they had been successful in attaining philanthropic grants in 2016/17, and that licences continue to provide a small proportion of their externally sourced income.

There was support for an ongoing joint Environment and Sustainability survey of Local Government by WALGA and NRM organisations. Further work is required to refine the questions to ensure that accurate data is received for quantitative financial questions. Mechanisms to increase participation in the survey by elected members and executive level staff will also help to better identify the organisational strengths, capacity gaps and the suite of emerging issues. Participants' desire to increase capacity across natural, human, social, organisational and financial capital areas indicated that direct financial support, together with investment in skills development, could leverage the current knowledge and dedication of staff to more effectively manage the State's natural resources.

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METHODOLOGY

The Local Government Environment and Sustainability Capacity Assessment Survey 2017 was developed by the WA Local Government Association (WALGA), in partnership with Perth NRM. It follows a similar Perth NRM survey undertaken in 2015 and WALGA's Emerging Environmental Issues 2010 survey, and the Capacity of Perth's Local Government to Conserve Biodiversity 2007 and 2002 surveys.

A simplified survey was undertaken in 2017 to collect targeted data that could be readily used by Perth NRM and WALGA to inform their environmental management and sustainability programs. The single, streamlined survey comprised of 12 questions and was designed to ensure that it was quick (approximately 10 minutes) to complete and straightforward for local government staff and elected members to use.

The target audience for the assessment was Local Governments across Western Australia, including Perth NRM's management area the Swan Region. Personnel with direct strategic, policy and operational responsibility for environmental management were asked to participate, including Environmental and Sustainability teams, Town Planners, Management staff and Elected Members.

Information was collected on:

Decision making responsibility

Determined who has the main responsibility for the development and implementation of the local government policy, strategy and operational decisions.

Capacity to undertake environmental management

Gathered information about the extent to which local government is addressing major environmental management and sustainability areas and identified best practice management or capacity gaps.

Current and emerging issues facing local government

Identified the current and emerging environmental management and sustainability issues addressed by local government, ranked the top five issues currently facing each local government, and the key anticipated future issues. It was compared to the information received on best practice management and capacity gaps.

Communication and support

Determined the action required to adequately address the key environmental issues and capacity gaps facing each local government. Also identified the programs, policy statements, planning tools and support provided by WALGA and NRM organisations that are of most assistance.

Resources

Determined the local government budget for the 2016/17 financial year, external funding sources for environmental programs and investigated the appropriateness of the budget. The use of internal and external information and human resources to assist local government, and the type of assistance required was investigated.

Assessment Methodology

The methodology used to collect survey data was via Survey Monkey online surveys. An online survey was used to collect and analyse data in a cost-effective way, while at the same time allowing respondents to add additional comments to open-ended questions. All individual survey results were anonymous, with data reported as a summary.

The survey was undertaken between October and November 2017. The survey link was included in WALGA's targeted Newsletters to Local Government personnel, through Perth NRM's newsletters and communications, and emails were also sent directly to individuals from Perth NRM's database.

Limitations

The 2015 survey cannot be used as a direct comparison to the 2017 survey, as the 2015 surveys were tailored to four individual groups (environmental teams, town planners, executive leadership teams, Elected Members) and compared their responses on resource allocation; education, awareness and training; information and monitoring; and partnerships. The 2015 survey does however provide a point of comparison across the major areas of resource allocation and capacity gaps and highlights the areas for further training and professional development. Completion of the survey was voluntary, and respondents could remain anonymous.

This assessment is intended to be used by WALGA and Perth NRM to better understand and prioritise capacity building needs and efforts. Potentially, it will also help Local Governments to identify opportunities for collaboration and innovation to achieve their environmental management objectives.

SECTION 1: BACKGROUND INFORMATION

1. Position

Thirty-seven individuals from local government completed the survey, representing elected members and operational, planning and corporate staff. Individuals with leadership and decision-making responsibilities were major participants of the survey (Appendix 1). Responses included feedback from eight elected members and two executives, but the majority were received from staff responsible for the planning, coordination and delivery of a diverse range of programs within the environmental management and sustainability areas.

Levels of involvement by elected members was much greater in the 2015 survey, with 32 members participating compared to eight in 2017. The lower response rate may be partially due a single survey rather than individual tailored surveys for each of the four target respondent groups in 2015, and that local government elections which were held in late October 2017.

Local governments have a high degree of diversity in their structure, in relation to placement of environmental management and sustainability within their organisation. Twenty-five different departments were identified, and included council, strategic planning, statutory services, safety, health, infrastructure and engineering, as well as, conservation, parks and sustainability (Appendix 1).

2. Participating Local Government Area

Thirty-six local government entities participated in the survey. Twenty-six were from the Swan NRM Region, and 10 were south-west based shires, with two being major regional cities (Bunbury and Albany).

Participating Local Government Authorities		
City of Albany	City of Nedlands	Shire of Plantagenet
City of Armadale	City of Rockingham	Shire of Quairading
City of Bayswater	City of Subiaco	Shire of Serpentine Jarrahdale
City of Belmont	City of Swan	Shire of Tammin
City of Bunbury	City of Wanneroo	Town of Claremont
City of Canning	Shire of Augusta-Margaret River	Town of Cottesloe
City of Cockburn	Shire of Bridgetown-Greenbushes	Town of Mosman Park
City of Fremantle	Shire of Chapman Valley	Eastern Metropolitan Regional Council (EMRC)
City of Gosnells	Shire of Dundas	
City of Joondalup	Shire of Manjimup	Western Suburbs Regional Organisation of Councils (WESROC)
City of Kalamunda	Shire of Merredin	
City of Kwinana	Shire of Mundaring	South East Regional Energy Group
City of Melville	Shire of Peppermint Grove	

NRMs Represented		
Perth NRM	Northern Agricultural Catchment Council	South West Catchment Council
Peel-Harvey Catchment Council		Wheatbelt NRM
	South Coast NRM	

Table 1 List of participating local governments or local government organisations.

In addition, two regional councils and one voluntary council partnership participated, including the Eastern Metropolitan Regional Council (EMRC), Western Suburbs Regional Organisation of Councils (WESROC), and the South East Regional Energy Group (comprised of the Cities of Gosnells and Armadale and Shire of Serpentine Jarrahdale).

Sixty-five percent of the local government authorities within the Swan Region participated, a slightly higher response rate to the 2015 local government survey (56%). Six of the regional NRM groups in Western Australia were represented by at least one local government authority. Only Rangelands NRM Western Australia, which incorporates the Kimberley, Pilbara, Gascoyne-Murchison and Goldfields-Nullarbor areas, was not represented.

3. Decision making responsibility

Participants were asked to identify where responsibility sits for major operational, policy and strategy decisions within the environmental management and sustainability areas for local government (Figure 1). Elected members were reported as having primary responsibility for policy (68%) and strategy (65%), whilst the environmental managers were seen to have the main accountability for operational decisions (77%). CEOs were seen to have a high level of responsibility across all three areas.

The results mirror the 2015 Survey and demonstrate that local governments staff and elected members understand their major areas of responsibility for environmental management and sustainability. The role of senior managers was highlighted in the written responses and the importance of Directors in facilitating decision making and quality control mentioned. It was recommended that this group be specifically identified in future surveys.

Overall, fewer responses were recorded against the responsibility of Planning Managers, and the highest level of the unsure (26%) response was against this organisational role. The structure of the current survey does not enable relationships between this result and the environmental management and sustainability capacity of local government to be examined but it may be an area for future investigations.

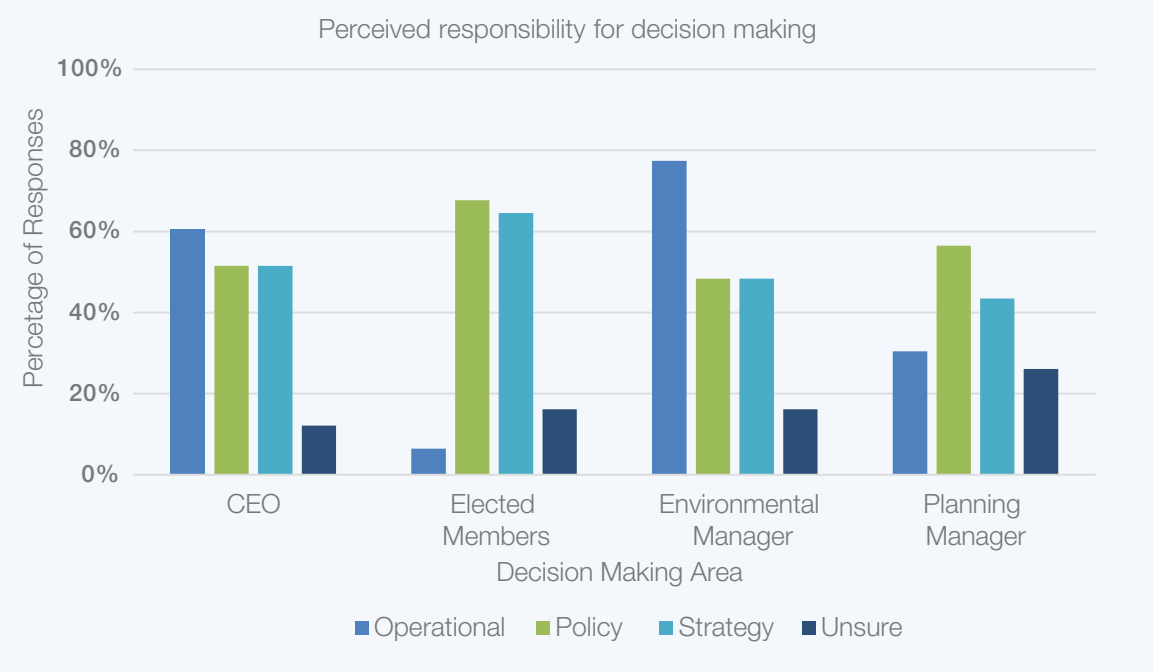

Figure 1: Participants identified responsibility for operational, policy and strategy decisions.

SECTION 2: CURRENT AND EMERGING ENVIRONMENTAL ISSUES

4. Addressing environmental management and sustainability issues or capacity gaps

Participants nominated the effectiveness of their local government at addressing 50 environmental management and sustainability areas across five management categories - 1) urban planning and climate change, 2) natural area management (NAM), 3) water management, 4) soil and waste management, and 5) organisational sustainability.

Overall, respondents identified that local government exhibited high levels of best practice in bushfire risk management (31%) and bushland restoration (31%) and that chemical use of herbicides and pesticides was adequately addressed (54%). The biggest capacity gaps were identified in the areas of State of the Environment monitoring and reporting (36%) and generating behaviour change (32%). Fourteen major capacity caps were identified (≥ 20%) and six of these were in Organisational Sustainability (Table 2).

Area of Management	Capacity Gap	Percentage %
Organisational Sustainability	State of the Environment monitoring and reporting	36
Organisational Sustainability	Behaviour change/environmental psychology	32
Organisational Sustainability	Effective environmental management budgeting	28
Organisational Sustainability	Technological tools for environmental management	28
Urban Planning and Climate Change	Integrated transport systems	28
Strategic Areas in Natural Area Management	Citizen Science	24
Organisational Sustainability	Embedding sustainability in Local Government	24
On-ground Natural Area Management	Threatened species management	23
Soil and Waste Management	Acid Sulphate Soils	20
Strategic areas in Natural Area Management	Biosecurity Management	20
Urban Planning and Climate Change	Climate change adaptation and liability	20
Soil and Waste Management	Contaminated sites (soil and water)	20
Organisational Sustainability	Environment management systems/ accreditation	20
Strategic Areas in Natural Area Management	Protection of roadside vegetation	20

Table 2: Major capacity gaps ≥ 20% identified by respondents to the survey

Urban planning and climate change

The majority of respondents identified capacity gaps rather than best practice by local government in addressing urban planning and climate change (Figure 2). The greatest areas of need for increased knowledge and support to enable effective management were integrated transport systems (28%) and climate change adaptation and liability (20%). Interestingly, 42% of respondents indicated that monitoring of air quality was not addressed and a further 13% reported it as a capacity gap. This may be due, in part, to the role of the Department of Water and Environmental Regulation in strategic, technical, and policy advice on matters relating to air quality matters. Limited awareness of the work of other departments within LGA could also have contributed to these responses. No local government identified their organisation as being best practice at addressing integrated transport or sustainable building design.

Climate change mitigation and renewable energy (80%) and sustainable building design (76%) were consistently reported as being adequately or somewhat addressed. These areas have received high levels of attention in recent years and continue to be a focus of all levels of government and the private sector.

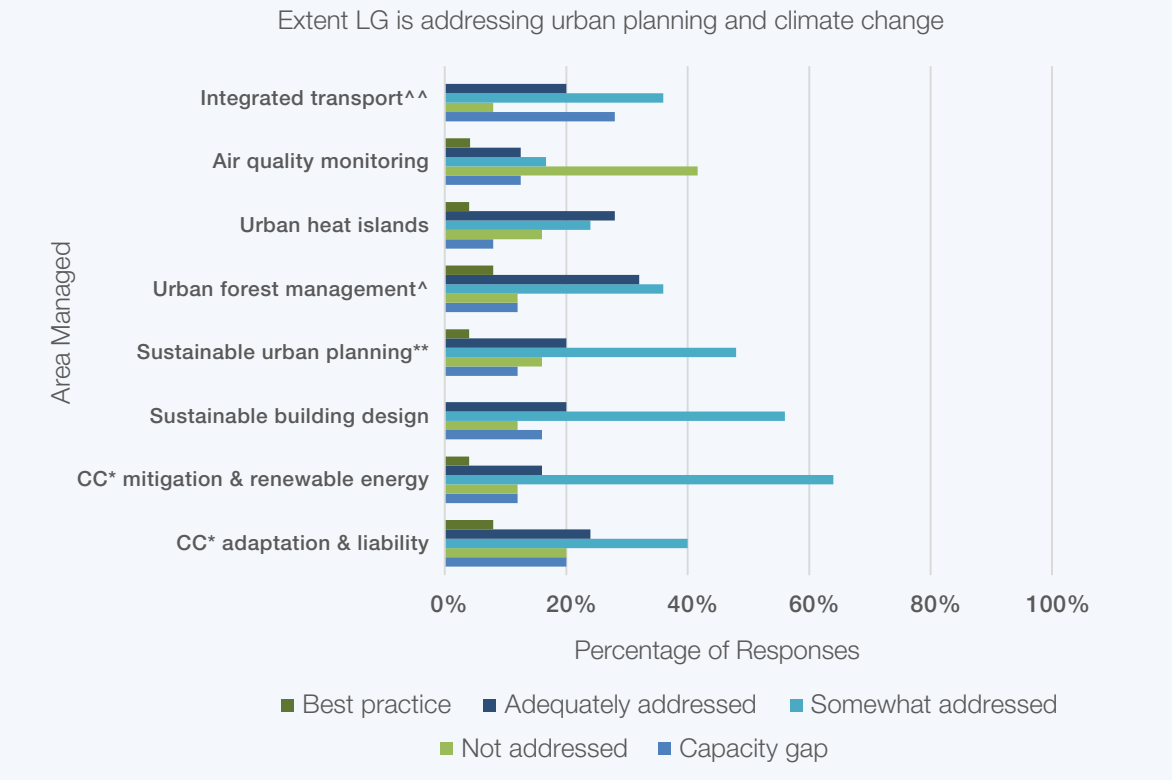

Figure 2: Extent to which local government is addressing urban planning and climate change

Area managed – full survey titles include ^^ Integrated transport systems; ^ Urban forest management/tree preservation; ** Sustainable urban planning and development; * Climate change

Natural Area Management

Eighteen different topics areas were assigned to natural area management (NAM). These were categorized into strategic planning or on-ground management for reporting purposes. Sixteen of the 18 NAM topics were recorded as being consistently addressed or somewhat addressed by local government (≥65%).

Strategic planning for bushfire risk management (31%), bushland restoration (31%) and biodiversity conservation (27%) were identified as areas of best practice and were amongst the highest performers for this survey question (Figure 3). The reporting of best practice was higher for the strategic planning of NAM compared with on-ground management. However, management of herbicide and pesticide chemicals (23%) and conducting of flora and fauna surveys (23%) were identified as areas of high capacity (Figure 4).

Most participants identified that greater capacity was needed in almost all areas associated with managing natural areas. Aboriginal Cultural Heritage, in NAM, was reported as not being addressed by almost one fifth (19%) of respondents. The emerging area of citizen science was reported as a capacity gap (24%) or not addressed (28%) (Figure 3). Threatened species management (23%) and feral animal control (19%) were areas identified as requiring greater knowledge and skills (Figure 4).

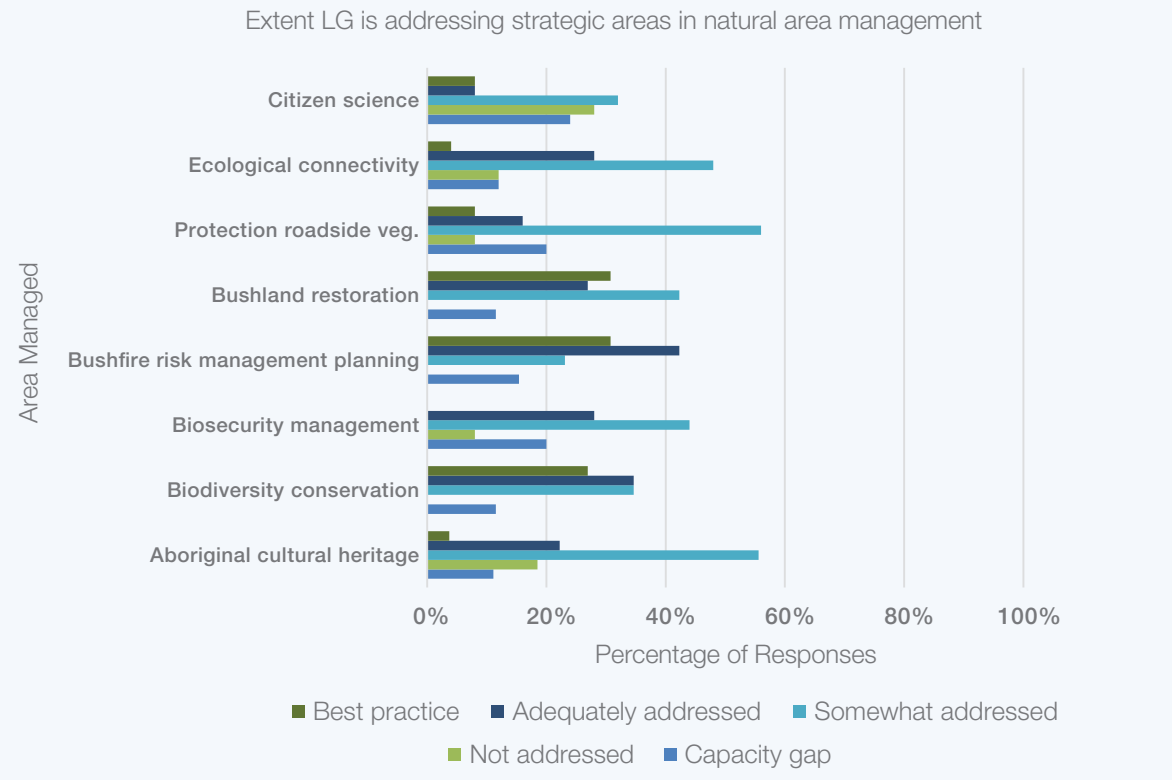

Figure 3: Extent to which local government is addressing strategic planning for natural area management

Figure 4: Extent to which local government is addressing on-ground natural area management

Area managed – full survey titles include ^^Threatened species management; ** Direct seeding techniques (topsoil transfer); ^Seed collection including provenance; *Chemical use (herbicides, pesticides)

Water Management

Water management covers a wide range of areas, and in this survey sediment and management of the coastal zone were included. Management of the quality of waterways and wetlands, and the quality and management of storm water were considered best practice management by 16% participants (Figure 5). For those local governments where foreshore and/or coastal zones management is undertaken, almost 20% reported best practice methods were adopted.

Water sensitive urban design recorded the least variation in responses, with almost equal numbers of respondents reporting that it is an area of best practice (12%), a capacity gap (16%) or not addressed (20%) by local government (Figure 5). This result may reflect the variety of organisations that participated, their geographic location and level of urbanization. Irrigation and use of water resources in parks and public open space is an on-going concern for park mangers. Respondents to the survey reported that the wise use and conservation of water in areas of public open space was mostly being addressed or was somewhat addressed (84%).

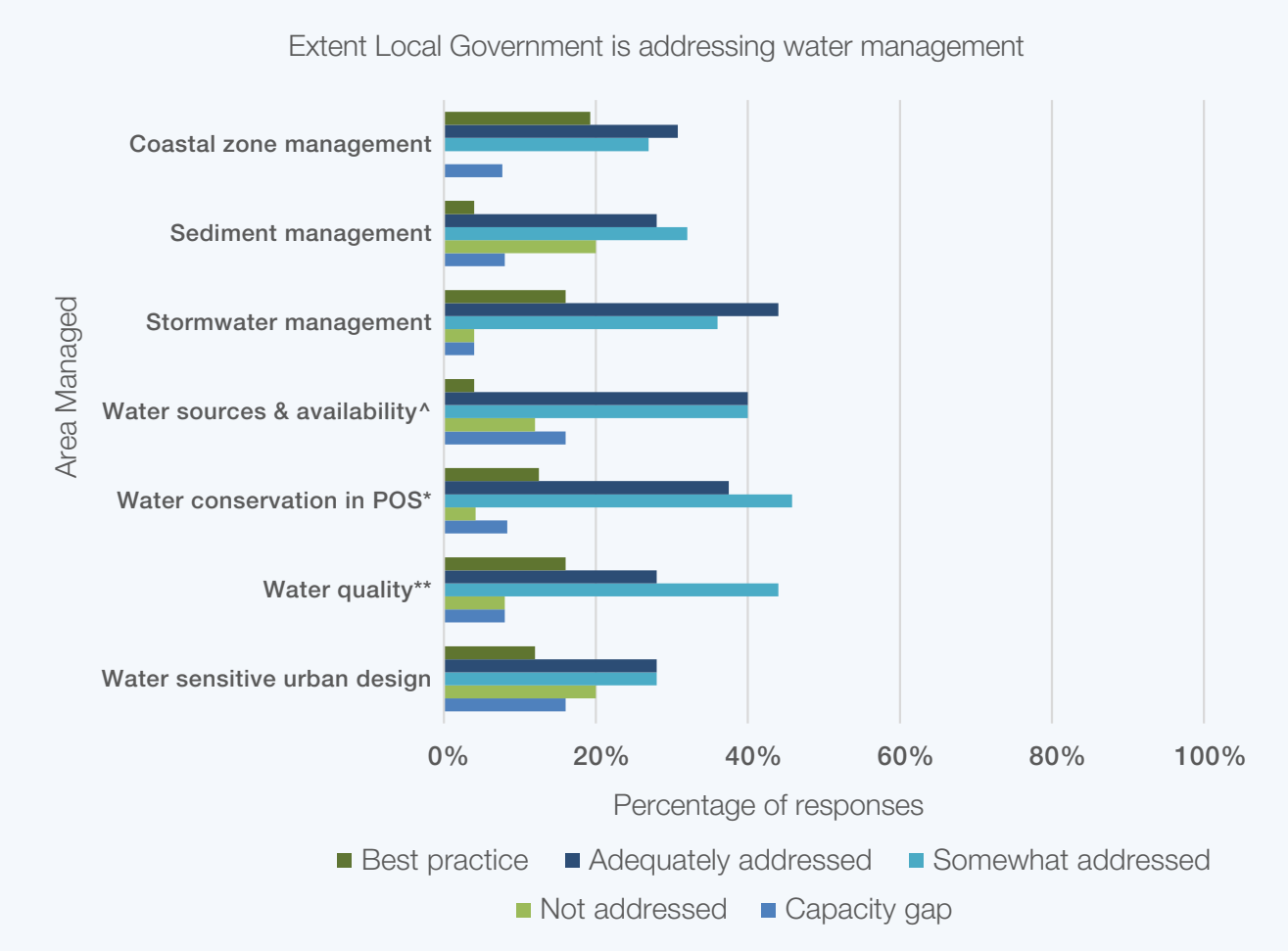

Figure 5: Extent to which local government is addressing water management

Area managed – full survey titles include ^^ Foreshore and coastal zone management, ^ Water availability and alternative water sources, * Water conservation in public open space and ** Water quality of stormwater, wetlands and waterways.

Soil and Waste Management

Management of littering and illegal rubbish dumping was identified as an area for improvement, being somewhat addressed (< 55%). Similarly, some participants reported management of illegal rubbish dumping as a capacity gap (19%).

Management of contaminated sites and acid sulphate soils was reported as a capacity gap (20%) or as areas that were not addressed. The areas that require technical management and regulation generally reported lower levels of capacity in their management (< 55%). Mining and management of salinity were not applicable to 68% and 28% of authorities respectively, but management of mining (e.g. fracking, uranium extraction) was seen to be capacity gap for those that must address it.

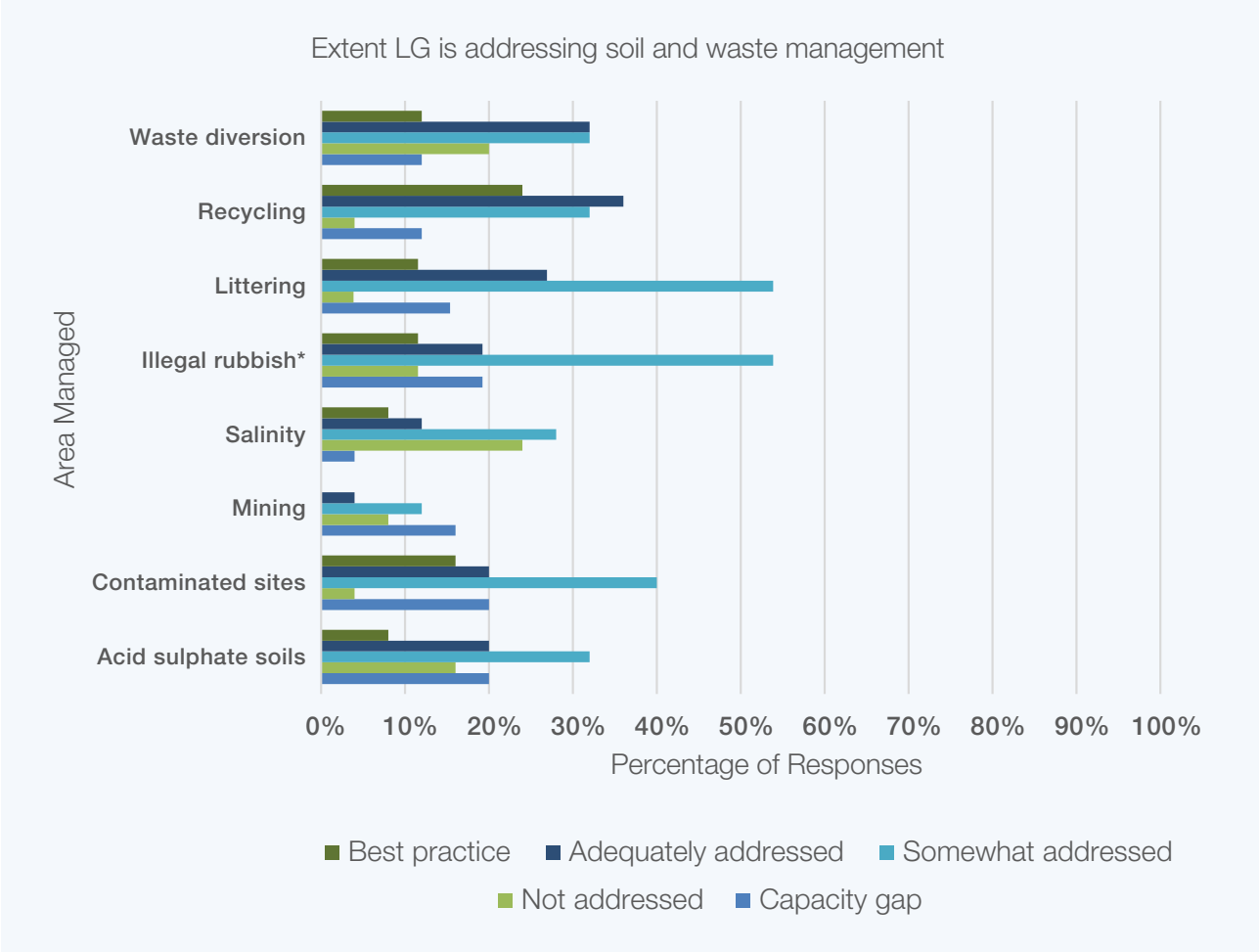

Figure 6: Extent to which local government is addressing soil and waste management

Area managed – full survey titles include *Illegal rubbish dumping

Organisational Sustainability

A diverse range of planning, policy, regulation areas and human capital were included in the organisational sustainability. Many of the activities require specialist technical knowledge or skills and this may account for more participants identifying perceived capacity gaps. State of the Environment reporting and monitoring (36%), managing behavior change (32%), effective budgeting for environmental management (28%) and the use of technological tools for environmental management (28%) were amongst the largest capacity gaps identified in the survey.

Respondents indicated that grant writing was sufficiently addressed within local government and that local government managed partnerships effectively (>65% adequately address or best practice, Figure 7).

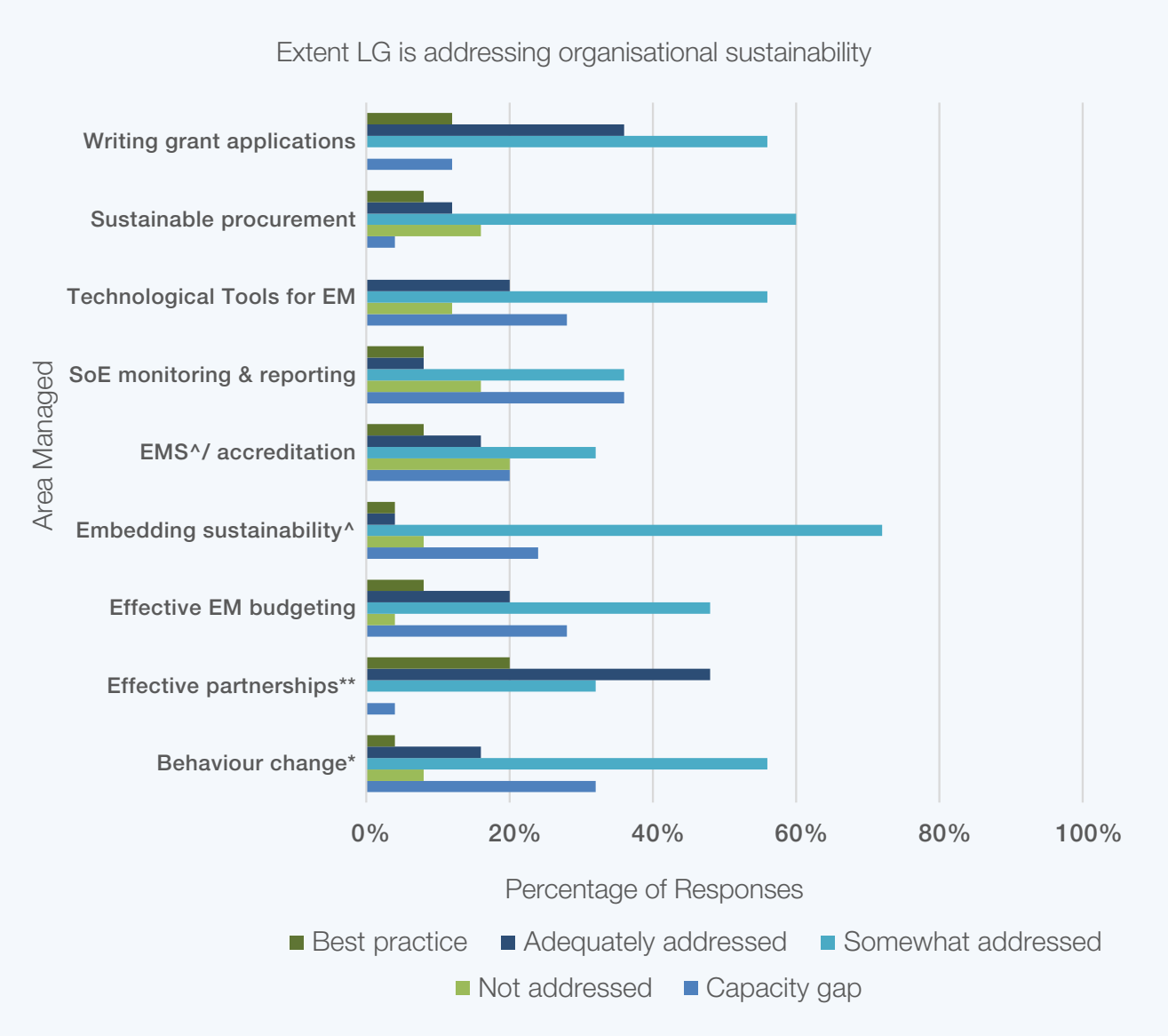

Figure 7: Extent to which local government is addressing organisational sustainability

Area managed – full survey titles include Environmental Management Systems ^/accreditation, ^ Embedding sustainability in local government; ** Building and sustaining effective partnerships (community and government); * Behaviour change/environmental psychology; EM = Environmental Management

5. Main issues currently facing Local Government

Twenty-five respondents identified 119 issues facing local government, when asked to list the top five issues facing the authorities. These were collated into the areas of urban planning and climate change, natural area management (NAM), water management, soil and waste management, and organisational sustainability, and consolidated. The main five issues are presented in Table 3 and the collated list presented in Appendix 2. In many cases the previously identified capacity gaps or areas not adequately addressed by local government were raised as issues and more detailed examples provided, in the table's text (Table 3).

Urban planning and climate change

Urban forest management, the retention of native vegetation and trees, particularly on private property rated highly as issues for local government. The theme of green infrastructure and related concerns were consistently rated as the top two issues. Correspondingly, 60% of respondents identified management of urban forest as a capacity gap, not addressed or only somewhat addressed by local government (Figure 2). Climate change and related impacts was also listed as a major issue.

Natural Areas Management

Biodiversity retention and weed management rated as the top issues for NAM. This included the loss of habitat for threatened species and the control of pest animals and plants that impact on the condition of native flora and fauna. Threatened species management, control of weeds and feral animal control were identified as areas where further skills and knowledge are required to effectively address challenges for NAM (Figure 4).

Water Management

Lowering of the water table and the availability of water rated highly as issues, along with the related subject of the need for better examples of water sensitive urban design. The survey responses indicated a need for improved water sensitive urban design and management of access to water (Figure 5).

The need for attention to the coastal zone and requirement to address impacts of climate change on the foreshore and coast was mentioned. Although management of the coastal zone was not applicable to some participants (27%) and recognised as an area of best practice (19%) by others, it was identified as an important issue for further consideration.

Management of Waste and Soil (Environmental Regulation)

Waste management was commonly listed top issue for local government. Recycling and diversion of waste and litter management rated highly and reflect the capacity gap or reflection that they are only partially addressed by some authorities. Conservation of natural reserves and their protection from mining and impacts of vandalism were listed as main issues.

Organisational Sustainability

Resourcing of environmental management and sustainability was the most commonly identified issue within the area of organisational sustainability. Respondents suggested that there is a need to increase the capability to effectively budget for environmental management, aligning with the listing of resourcing as a major issue (Table 3). The adequacy of environmental management budgets is discussed in Section 3.

The need for improved platforms for reporting was identified and reflected the observation that the use of technological tools for environmental management is only somewhat addressed in local government (Table 3, Figure 7).

Main issues facing Local Government in key areas
Management Area
Urban Planning and Sustainability
Climate Change and related impacts
Urban Forest Management Plan required
Urban forest management/preservation of trees or vegetation on private land
Loss of vegetation - native vegetation and tree cover on private property (incl. planning control issues)
Urban forest selection, maintenance, succession planting
Natural Areas Management
Biodiversity retention
Weeds
Feral Animal Control
Loss of habitat for threatened Black Cockatoo species (3 species)
Pest plants and animals
Water
Water table lowered
Water Availability and Quantity
Coastal Hazard Risk Management Adaption Planning and funding
More best practice WSUD examples in new subdivisions
Climate change - Dune protection - rising sea levels
Environmental Regulation Issues (e.g. waste, soil)
Recycling waste including. capacity to carry it out
Waste diversion and landfill management
Mining of natural areas identified for preservation
Controlling vandalism in and around reserves
Litter
Organisational Sustainability
Data platforms for accurate reporting
Resources, on-going funding
Resources - insufficient HR resources & budget for environmental management
Resources - insufficient available for weed control
Resources inadequate to restore degraded natural areas

Table 3: Top five local government issues identified in the main areas of environmental management and sustainability

6. Key future issues for Local Government

There was a high degree of similarity between the top five issues identified (Section 2.4) and emerging key future issues for environmental management and sustainability. The comments were reviewed and the points that were not previously identified, uncommon or presented through an alternative lens have been reported as future environmental issues in Table 4.

Social capital and related themes, such as supporting volunteers, enabling behaviour change (changing attitudes) and community education were identified as areas that will need to be addressed by local government or would benefit from strategic planning for future environmental and societal health.

Efficient use of resources and need for collaboration amongst government and land managers were mentioned often. Interestingly, some of the issues also presented possible solutions to assist local government improve environmental management. This included providing networking for staff to support the exchange of knowledge and skills between different local government authorities.

Natural area management and urban planning featured strongly as needing a progressive approach. Respondents recognised future conservation issues, such as herbicide resistance, as well the need for coordinated approaches to effectively manage across boundaries.

Future Environmental Issues
Behaviour change to prioritise environment for urban sustainability
Climate change and funding mitigation measures
Community education to increase understanding of environmental management
Community recognition of urban forests
Continued investment in roads and parking
Coordinated weed management by all landowners
Cost shifting from other tiers of government
Creating social capital
Herbicide resistant weeds
Local provenance of plants in developed areas
Maintaining liveable communities
Networking opportunities for officers
Regional organisation and LGA competing for the same resources
Resources to identify and manage environmental impacts of development
Rising sea level
Supporting and growing volunteering

Table 4: List of the emerging issues for local government – presented in alphabetical order

SECTION 3: RESOURCES

Participants were asked a series of questions about the access to finance, information management systems and human resources to assist management of environmental and sustainability programs. Elected members and some staff reflected that some of the information that was sought, such as operational budget information, was not readily available to them. This corresponded to the lower response rates for the resource-based questions and by the higher recording of an answer of Unsure. Similar low rates of confidence of reporting on the budget were recorded in the 2015 survey, with over 35% of elected members reported they were unsure of the environmental management budget.

7. Size of 2016/17 Financial Year Environment and Sustainability Budget

Environmental budgets of participating local governments were generally less than three hundred thousand dollars. Participants were asked to report the environmental budget as a percentage of the organisational budget but only one response, of two percent, was recorded. As access to adequate financial resources and their efficient allocation to projects were identified as key issues (Table 4 and Table 5) it would be valuable to undertake further investigation into how budgets are attributed in local government and their adequacy to undertake effective management.

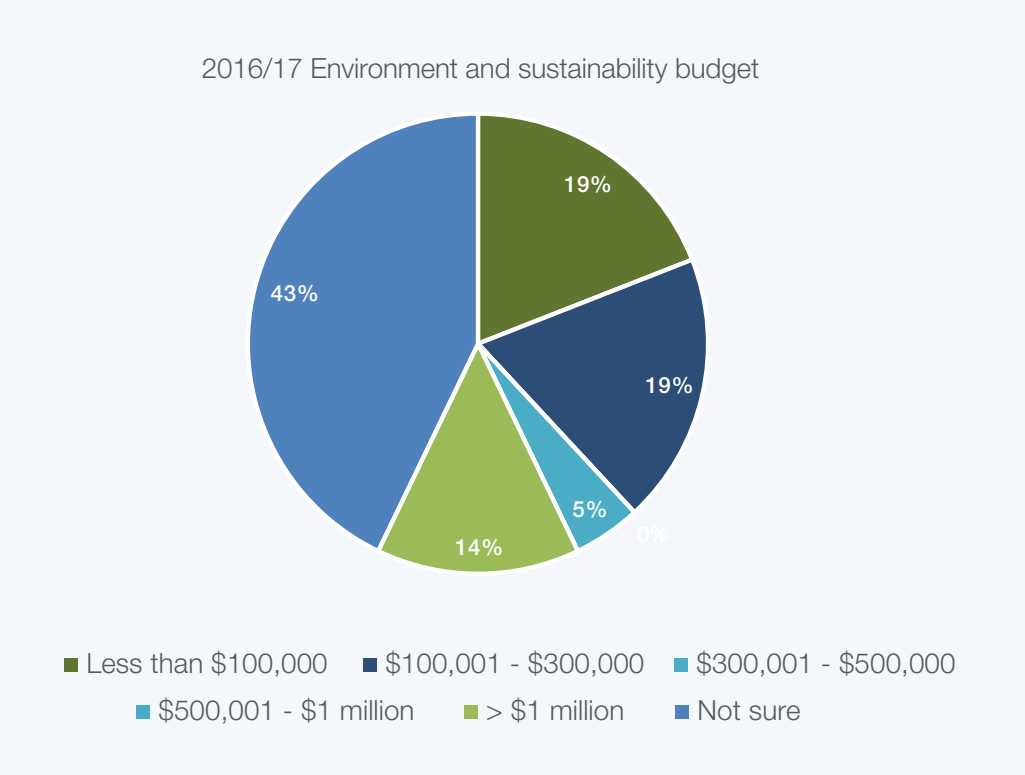

Figure 8: Size of the local government environment and sustainability budget for the 2016/17 financial year

8. External Funding Sources Received in 2016/17 to Deliver Environment and Sustainability Projects

State and Commonwealth Government grants were the most common form of external funding for environmental and sustainability projects. The majority of respondents indicated that their organisation had been successful in attaining a state government grant (82%). The Commonwealth grants directly supported landcare programs, such as establishment of a biosecurity group and direct engagement of landcare officers. As in 2015, a small amount of income is received from licences but no information on the type of licence or revenue generated was provided.

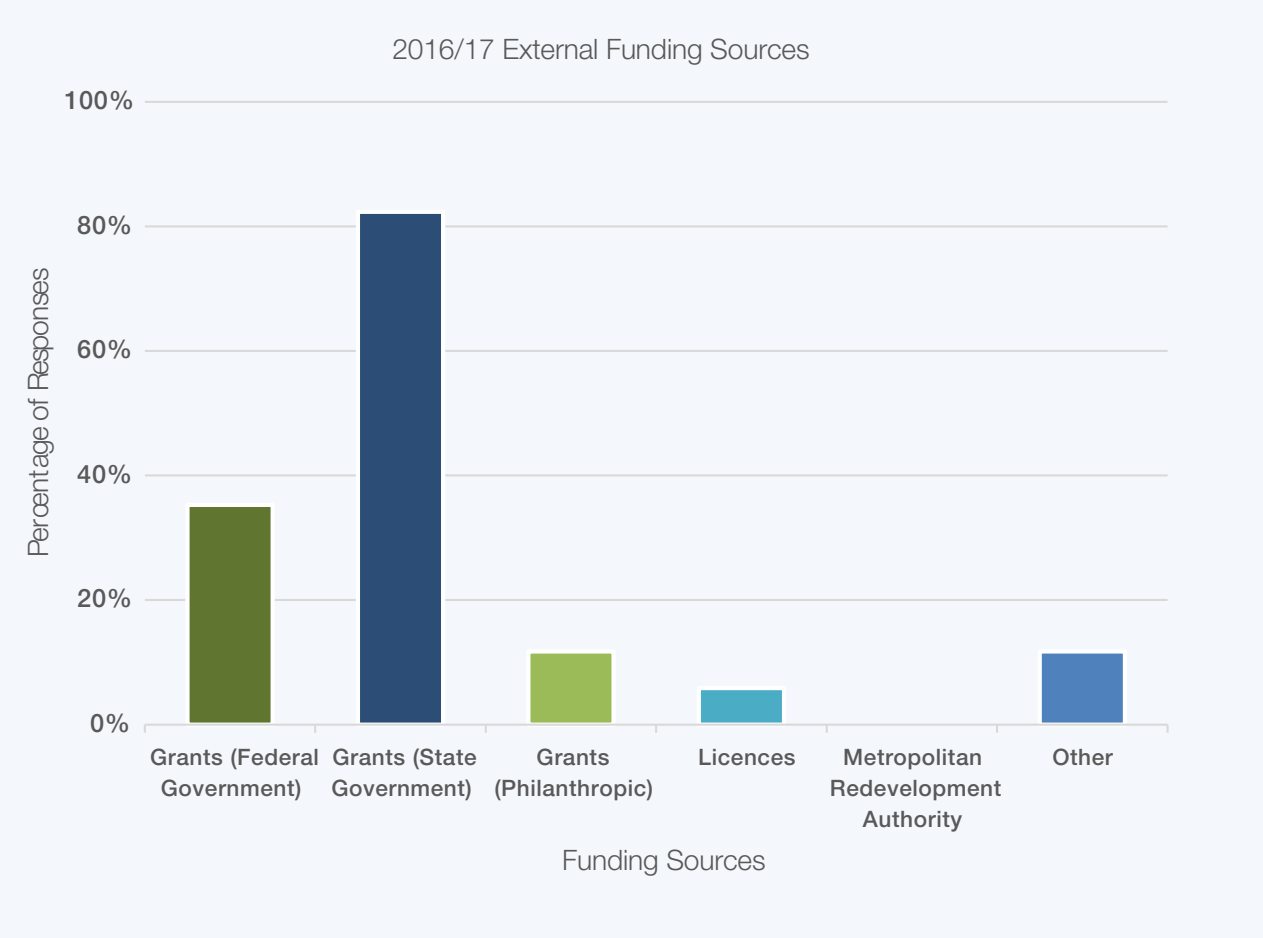

Figure 9: External funding sources received for the 2016/17 financial year to deliver environmental and sustainability projects

9. Effectiveness of the Budget in Comparison to Needs

Most participants reported that the local government budget is not sufficient to deliver effective environmental management (74%). About one-third of participants provided comments to the question, with many of these identifying that the lack of resources impeded their organisation's current delivery of operational programs and planning for emerging issues. Requirements to update infrastructure or engineering work precluded on-ground environmental work, in several cases. Insufficient staff to undertake environmental work was reported and reflected the identification of staffing as a key issue (Table 3).

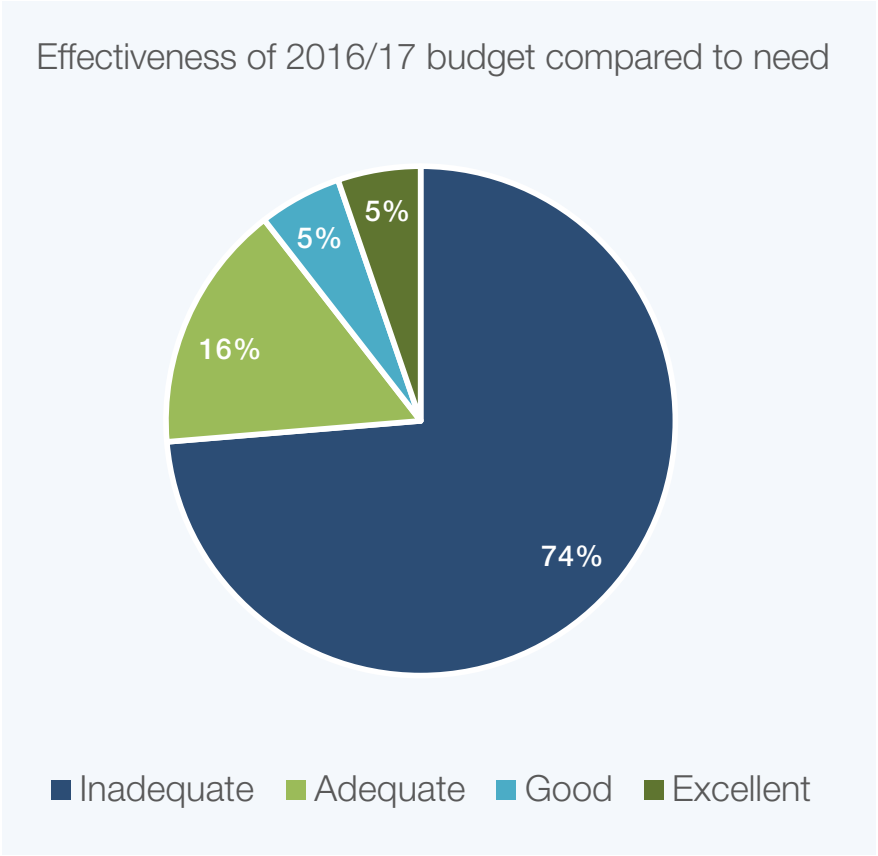

Figure 10: Perceived effectiveness of the budget in comparison to the environmental management and sustainability needs of your local government

10. Use of Resources to Assist Environmental and Sustainability Management

Local governments use a wide range of resources to support their daily work, including internal staff and systems, and members of the community on advisory groups (Figure 11). Staff provided considerable support for operational decision making (94%), and often complement their knowledge with GIS (80%) and databases (73%) for operational decision making. In comparison consultants were reported to be engaged for strategies and reports (88%) and for strategic planning (75%). Community groups were consistently engaged to help with environmental management for non-statutory requirements (Figure 11).

Nine different types of local, state, federal and non-government bodies, or their management tools, were identified as possible support resources for local government (Figure 12). Eight of these were regularly used for strategic purposes, predominately for support with strategies and reports (> 60%), and five were also used for strategic planning (>50%) purposes. The Aboriginal Land and Sea Councils and State agencies provided important support for statutory planning (40%).

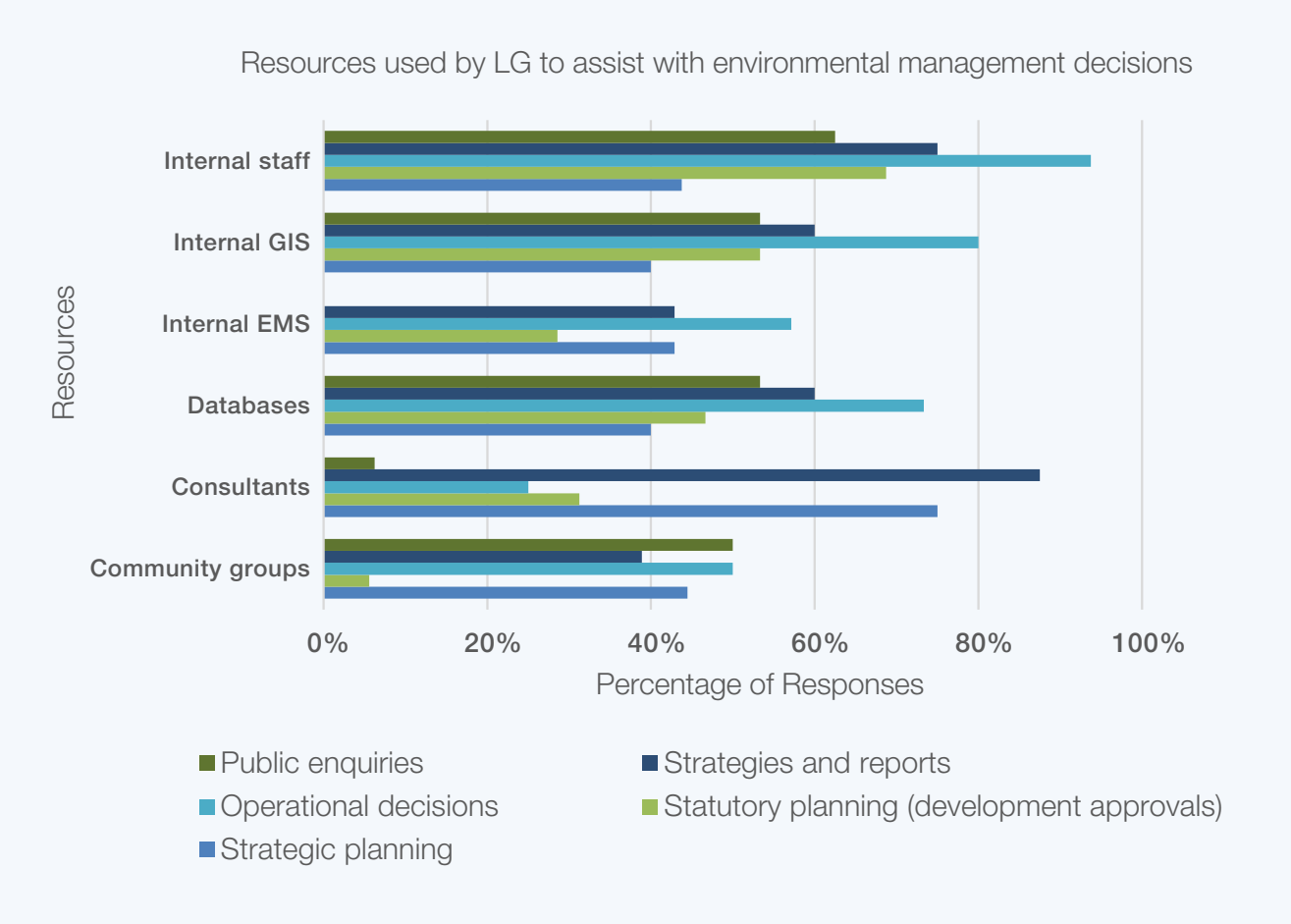

Figure 11: Resources used by Local Government to assist with environmental management decisions

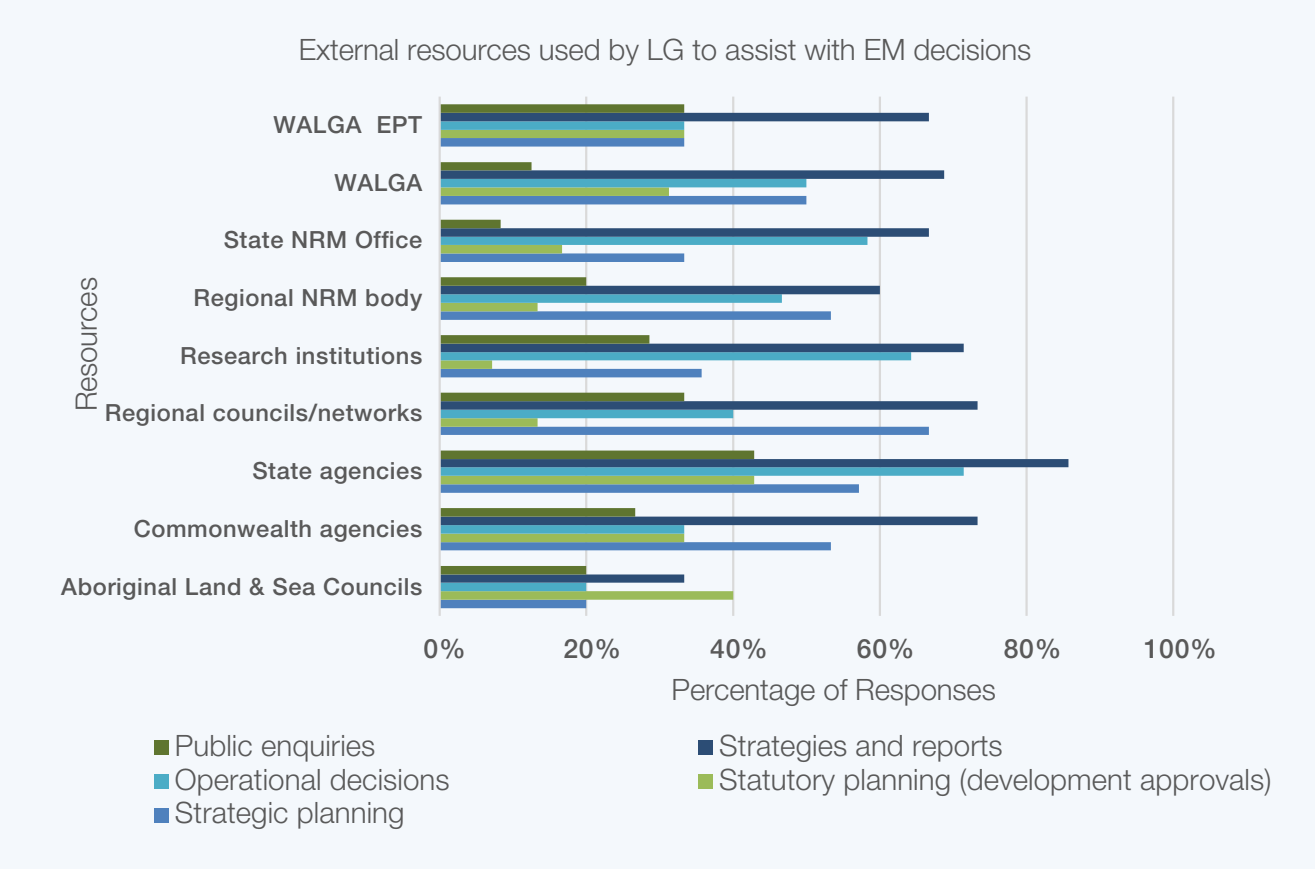

Figure 12: External resources used by Local Government to assist with environmental management decisions

11. Usefulness of Programs and Support Provided by WALGA and NRM Groups

Understanding the usefulness of the programs delivered by WALGA, Perth NRM and Regional NRMs ensures improved services and their effective delivery. Most respondents (> 65%) indicated the support received through policy, customer service and advocacy or lobbying was useful or very useful (Figure 13). The specifically identified WALGA Local Government Biodiversity Planning Guidelines were highly rated (69%, Figure 13), as was the WALGA Climate Change Policy Statement (69 %) (Figure 14).

Six of the ten specific topic meetings for Local Government officers, information forums or tools coordinated by WALGA, were reported as being highly useful (> 65%). WALGA's Natural Area Management Network (NAMN) forums and EcoNews e-newsletter were recorded as highly useful by over 80% of respondents. The Sustainability Officers Network Group (SONG) forums and Climate Change Collaborators Group which facilitate exchange of knowledge and skills and provide support networks for staff and councillors were also highly valued (Figure 14).

Perth NRM's professional development workshops and programs coordinated by the Regional NRMs were recorded as useful or very useful by many respondents (> 65%). NRM bodies are required to provide mechanisms to build the environmental management capacity of the community, and this wider audience may account for the lower number of positive responses, by local government, for the Perth NRM Newsletter and community workshops. A few participants indicated that Perth NRM's Swan Region Strategy and Sediment Taskforce were not applicable (31%) to their Council.

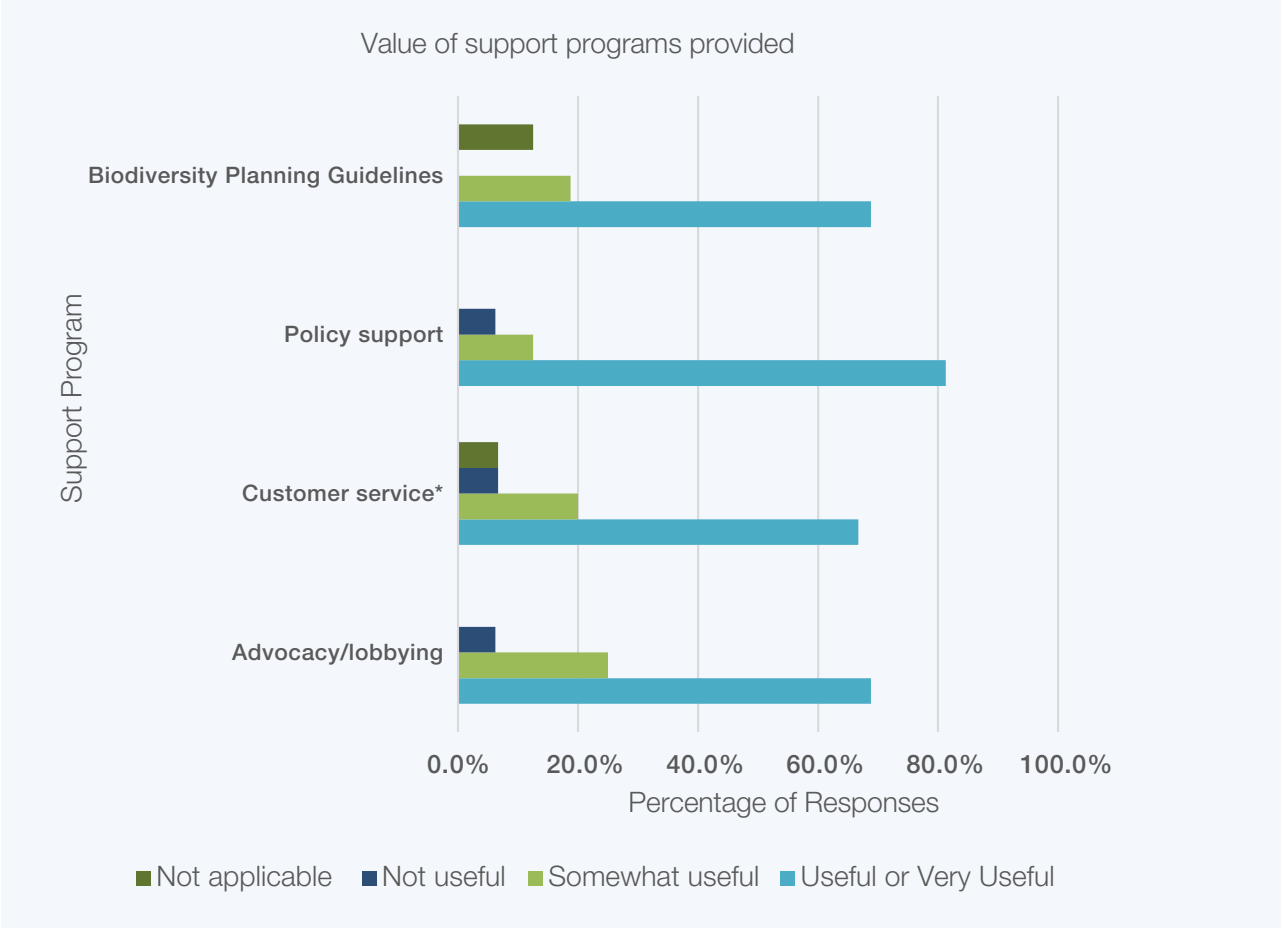

Figure 13: Value of general support programs provided by WALGA and Perth NRM

Full survey titles includes* Customer service and direct communication

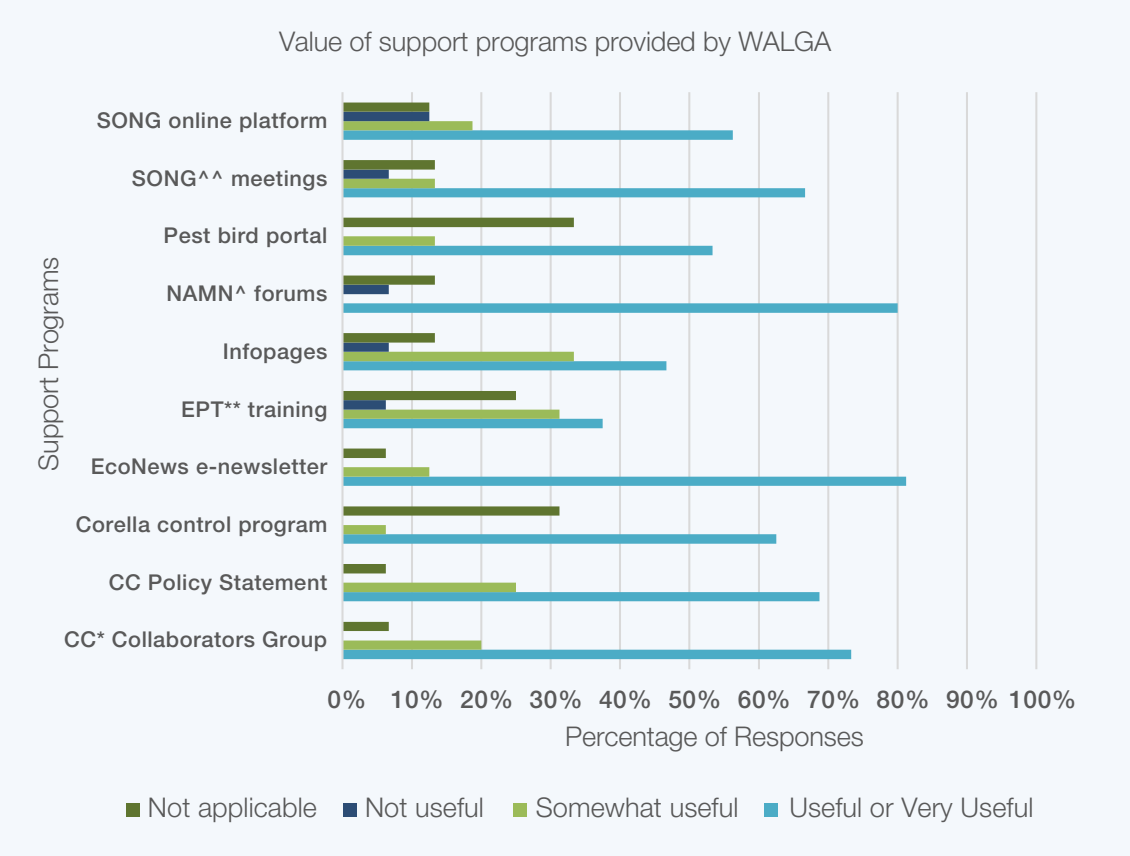

Figure 14: Value of support programs provided by WALGA

Full survey titles include ^^ Sustainability officers network group (SONG) meetings; ^ Natural Area Management Network (NAMN) forums (now renamed WALGA's Environment Event Series); ** Environmental Planning Tool training; *CC= Climate Change

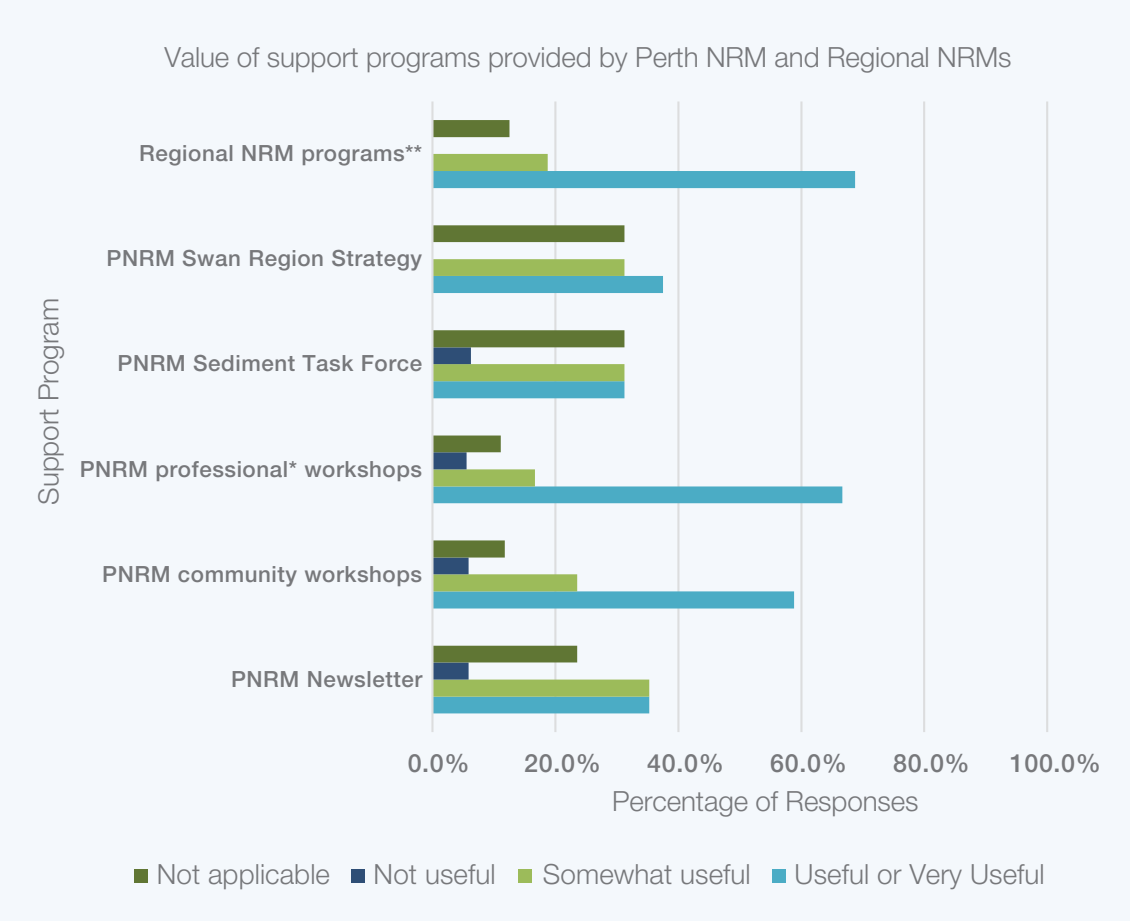

Figure 15: Value of support programs provided by Perth NRM and Regional NRMs

Full survey titles include **Regional NRM body programs and strategies; *Perth NRM professional development workshops

12. Support Actions to Address Environmental and Sustainability Issues

Actions can be undertaken by WALGA and the NRM organisations to support local government to deliver environmental management and sustainability programs. There was a strong relationship between the most frequently identified action that required attention, community education (71%), and the reported emerging issue of the need for the increased education for the wider community to better understand environmental management (Table 4).

Budget and external funding priorities reflected the reporting of and identification of resourcing for environmental management as a key issue (Table 3). Knowledge and skills actions to address capacity gaps can be supported simply through articulating best practice case studies (65%), as well as developing more applied research (59%) and scientific data (35%).

Organisational sustainability needs were recognised in the actions on staffing levels, staff training and increasing organisational leadership and support. Statutory actions around policy and legislation or regulation were important for almost 50% of respondents.

Action	Percentage of responses
Community education	71%
Availability of external funding	65%
Best practice management examples	65%
Economic valuation of environmental assets	59%
Increased budget	59%
Research that targets practical needs	59%
Change to government policy	53%
Increased staffing levels	53%
Change to government legislation/ regulation	47%
Increased cooperation between land owners & stakeholders	47%
Staff training	41%
Quantitative/scientific data	35%
Friends groups/community involvement	29%
Increased organisational leadership and support	24%

Table 5: Actions required to adequately address the environmental issues facing LG

SECTION 5: CONCLUSION

Environmental and sustainability managers oversee a complex range of strategic and operational issues in the five management categories of urban planning and climate change, natural area management, water management, soil and waste management, and organisational sustainability. Overall, the adoption of best practice was strongest for natural area management, while capacity gaps were highest in organisational sustainability. Top issues for Local Government span all five management areas, and include urban forest management, retention of native trees, biodiversity retention, lowering of the water table, availability of water, impact of climate change on the foreshore and coast, and waste management. Local governments use a variety of networks and tools to assist them with environmental management decisions, and value the resources and support provided by WALGA, Perth NRM and regional NRMs.

Further actions that can be undertaken by WALGA and NRM organisations to support local government include increasing the ability of local government to engage with and educate local communities, facilitating the exchange of best practice knowledge and skills between government and land managers, and working with stakeholders to ensure research priorities and legislative or policy reviews incorporate the needs of local government.

The 2017 and 2015 surveys demonstrated that the current budgets were inadequate or that the current structures only allow for satisfactory management or that issues were not addressed. In contrast, participants' comments indicated that they recognised the benefits of increased collaboration across tenure and addressing emerging issues through strategic planning.

Importantly, the participants acknowledged the role of the community in many areas of sustainable living and conservation of the environment and identified the need to educate residents to instigate behaviour change to achieve a sustainable future. The comments suggested that local government staff and elected members were aware that community is much wider than the traditionally engaged friends' groups and those directly involved in environmental management.

The 2017 survey is an important snapshot of environmental management and sustainability issues of local governments in south-west Western Australia and highlights areas for discussion and further investigation of the allocation of funds, and methods to address capacity gaps. Overall the survey achieved the goal to determine the major capacity gaps in environmental management in Local Government and will assist WALGA and Perth NRM in directing funding for information workshops and support for policy and strategy areas that require further support.

References

Perth NRM. Local Government Environmental Management, Capacity Assessment 2015. Western Australia.

APPENDIX 1

Position and Department of Respondents within Local Government

Position	multiple responses	Department	multiple responses
Coordinator Environment		Council	8
Coordinator Environment & Sustainability		Landcare & Environment Advisory Group	
Sustainability Officer	3	Corporate Services	
Environmental Conservation Officer		Statutory Planning	
Environmental Officer		Statutory Services	
Environmental Planning Officer	3	Strategic and Organisational Development	
Environmental Project Officer	3	Strategic Planning	
Environmental Sustainability Officer		Strategic Planning & Environment	
Environmental Services Manager		Strategic Planning & Projects	
Natural Area Officer		Technical Services	2
Natural Areas Maintenance Officer		Engineering	
Natural Reserves Coordinator		Infrastructure Services	
Principal Environmental Project Officer		Community Capacity Building/ Infrastructure	
Program Coordinator		Community Safety	2
Landscape Architect		Conservation Maintenance	
Development Engineering		Environment	
Community Fire Management Officer		Environmental Services	
Fire & Emergency Management Coordinator		Health & Environment	
Manager		Infrastructure & Environment	
Deputy CEO		Natural Areas & Parks	
Councillor	6	Parks & Environment	
Shire President	2	Parks & Environmental Services	
		Parks & Landscapes	
		Operations & Environment	
		Sustainability	
		Works & Services	

Table 1 List of positions of participating local government participants and the area or departments they represent.

Please note respondents could remain anonymous and this is reflected in the number of identified positions and departments.

APPENDIX 2

Main issues facing local government in key management areas as identified by respondents

Grouping of Issues Identified - main issues facing local government		
Placement of Issue: 1 - green; 2 blue; 3 yellow; 4 grey; 5 orange		Number Mentions
Urban Planning and Sustainability		
1, 2, 5	Climate Change and related impacts	3
1, 4	Urban Forest Management Plan required	
1, 1,1, 2, 3, 5	Urban forest management/preservation of trees or vegetation on private land	6
1, 5	Loss of native vegetation/tree cover on private property (incl. Planning control issues)	2
1	Urban forest selection, maintenance, succession planting	2
1	Retaining existing trees/natural areas in high development areas	
1	Continued clearing for development, creating unconnected bush areas	
1	Urban development - managing the impacts	
1	Embedding environmental considerations into planning	
1	Reliance on private car transport	
1	LED conversion for street lighting	
1	Heat mitigation and management	
2	Poor subdivision & house design, unenforceable design guidelines	
2	Excessive clearing on private land by people misunderstanding bushfire risk	
2	Competing community needs for sport facilities and urban bushland	
2	Improved energy efficiency in existing housing	
3	Urban heat island (incl effects after clearing and development; inadequate urban canopy cover)	2
3	Urban Forest canopy loss	
3	Illegal pruning/vegetation removal by residents	
3	Sustainability training for regional councils	
3	Renewable energy a small proportion of overall energy use	
3	Upgrading electricity and waste infrastructure	
4	Energy conservation	
4	Local urban research results availability	
4	Illegal clearing - Reserves	
5	Threatened species vs recreation and development	
5	Economic valuation of environmental activities/natural areas/benefits	
5, 5	Increased urbanisation and urban infill	2

Environmental Regulation (e.g. waste, soil)		
1, 2	Recycling waste incl. capacity to carry out	2
1	Waste diversion and landfill management	
2	Mining of natural areas identified for preservation	
2	Controlling vandalism in and around reserves	
2,4	Litter	2
3	Waste minimisation	
3	Illegal dumping	
4	Waste disposal	
4	Waste to landfill & associated impacts (e.g. greenhouse gas production)	
4	Chemical use	
4	Bush Fire risk planning	
5	Bush fire management and forest conservation	
5	Regional waste facilities	
5	Issues on bush/urban interface incl. illegal waste dumping, access, dog & dog management	
5	Erosion management	
Water		
1	Water table lowered	
1,2	Water Availability and Quantity	2
1	Coastal Hazard Risk Management Adaption Planning and funding	
2	More best practice WSUD examples in new subdivisions	
2	Climate change - Dune protection - rising sea levels	
2	Coastal adaptation	
2	Salt water intrusion from river and sea	
3,4	Water conservation	2
3	Alternative water sources	
3	Upgrading water, waste water and stormwater infrastructure	
3	Salinity Management	2
3	Coastal hazards on foreshore & impacts to coastline and assets	
3	Ocean management/health (i.e. litter)	
4,5	Water efficiency - incl. improved	2
4	Transition to a water sensitive city (drainage, WSUD, alternative water supplies)	
4	Diminishing ground water for sports and recreational uses of growing demand.	
5	Parks designed adequately, to contain stormwater and providing a recreational purpose	

Natural Areas Management		
1	Biodiversity retention	
1	Weeds	
2	Loss of habitat for threatened Black Cockatoo species (3 species)	
2	Pest plants and animals	
2,4	Feral Animal Control	2
2, 3, 4	Biodiversity management (incl. bushland)	3
2, 5	Plant pathogen, identification control and treatment	2
3	Roadside conservation for wildlife corridors and vegetation	
3	Lack of understanding about why we retain bushland reserves	
3	Soil health	
4	Flora and fauna conservation & management	
4	Woody weeds	
4	Managing pests across different land tenure	
4, 5	Loss of ecological linkages/corridors	2
5	Wildlife and people concerns - ravens, ducklings, snakes	
Organisational Sustainability		
1	Data Platforms for accurate reporting	
1, 1	Resources, on-going funding	2
1, 2	Resources - insufficient HR resources & budget for environmental management	2
1	Resources - insufficient available for weed control	
2	Resources inadequate to restore degraded natural areas	
2	Environmental Education Programs	
3	Ensuring strong local laws, policy and planning for environmental compliance	
3	Environmental staff and programs non-essential when pressure is on overall budget	
3	Regional Parks that have not yet been gazetted	
3	Human impact	
3	Increased access to bushland causing environmental damage	
3	Community expectations & engagement with environment/sustainability	
4	Lack of community involvement in achieving a sustainable society	
4	Aging of environmental volunteers & loss of capacity of Friends Groups	
4	Changing staff/values towards the environment	
5	Lack of understanding of officers' responsibility outside section/department	
5	LG responsibility for natural areas suited to regional/national parks	

Local government issues identified in the main areas of environmental management and sustainability (see summary Table 3)

APPENDIX 3

Actions required to adequately address the environmental issues facing local government – detailed text

Community education (70.6%)
Behaviour change programs
Better community education is always a benefit
Community education and awareness of majority of environmental issues is required
Illegal dumping issues
Influencing for sound environmental outcomes
More capability building not necessarily just education
Prevent rubbish dumping, prevent illegal clearing, prevent vandalism, respecting and appreciating bushland
Respecting and appreciating bushland
Availability of external funding (64.7%)
Funding for waste management strategies/recycling
More flexibility to cater for specific needs
Required infrastructure spending deters spending on climate change mitigation
Yes - to cover the shortfall of funds to do on ground work
Yes - especially regional feral animal control
Yes - to match council funding to meet local, regional, state, federal objectives
Best practice management examples (64.7%)
Climate change mitigation strategies
Fauna monitoring
Training methodologies
Weed control, monitoring, and long-term planning for weed management
Woody weed control,
Yes- always useful to have these to refer to
Yes - pretty much for all environmental issues and/or programs it would be great to have easily accessible best practice examples
Yes - local policies /strategies for tree preservation and urban heat mitigation
Economic valuation of environmental assets (58.8%)
Energy audits
If the community can see a dollar value this helps to realise the value and potential loss of environmental values
Our environment does have a value but is generally over-ridden by the value placed on short term gain from mining activities
Valuation of assets and activities (e.g. active preservation of natural areas compared to no management action)
WALGA to act on request for private tree replacement policy
Yes - pretty much for all environmental issues and/or programs it would be great to have easily accessible best practice examples
Yes - local policies /strategies for tree preservation and urban heat mitigation
Interesting, would like to know more
Increased budget (58.8%)
Dedicated budget for environmental issues other than waste management
Pest plant and animal control
Proportionate increase for environment needs.
Yes - would be able to achieve more on ground actions
Yes - but would need to be accompanied by an increase in staff

Research that targets practical needs (58.8%)
Bushland burning & weed invasion - research in Perth Hills where population is at higher bushfire risk
Threatened species monitoring
Yes - but with practical applications of this research e.g. water quality/algae control
Yes - alternative weed management
Change to government policy (52.9%)
A policy for the protection of Conservation Category Wetlands and Resource Enhancement Wetlands is required. There is a current lack of direction for developers and government agencies.
Alternative ownership models for street lighting
Biodiversity conservation as a priority not an afterthought
Declared plants only weeds funded
Tree preservation on private land
Uptake of electric vehicles
Yes - e.g. wider verges to be able to allow space for more trees to be placed in the urban environment
Increased staffing levels (52.9%)
A permanent Landcare Officer on staff
More on ground work
Would be interesting to compare ha of nature reserves to staff across LG
Yes - currently have limited resources
Yes, a reduction in staff has reduced the number and breadth of issues we are able to adequately address
Yes - this would be extremely beneficial
Change to government legislation/ regulation (47.1%)
Current legislation is inadequate in preventing environmental impacts, and associated costs born by the LG. i.e. sediment control
Update Better Urban Water Management Framework to reflect more soil situations & particularly clay
Yes - better protection for the environment e.g. legislative protection for bush forever sites
Yes - to support an increase in minimum building efficiency standards
Yes - to support tree/canopy preservation
Yes - to support greater protection of conservation areas
Increased cooperation between land owners & stakeholders (47.1%)
Is always beneficial
Pest plant and animal control
Yes - state government agencies i.e. Landcorp clearing bushland in areas identified as green corridors by local governments
Quantitative/scientific data (35.3%)
Always beneficial to have scientific data backing up decisions to the community
Citizen science
Yes - to support economic valuation
Friends groups/community involvement (29.41%)
Yes - guidelines on managing community groups
Green army style work crews
Increased organisational leadership and support (23.53%)
Managers having more time

Expanded text of actions required to adequately address the environmental issues facing Local Government (see summary Table 5)

Perth Region NRM Inc
Level 2, 161 Great Eastern Highway, Belmont
(08) 9374 3333
enquiries@perthnrm.com
www.perthnrm.com