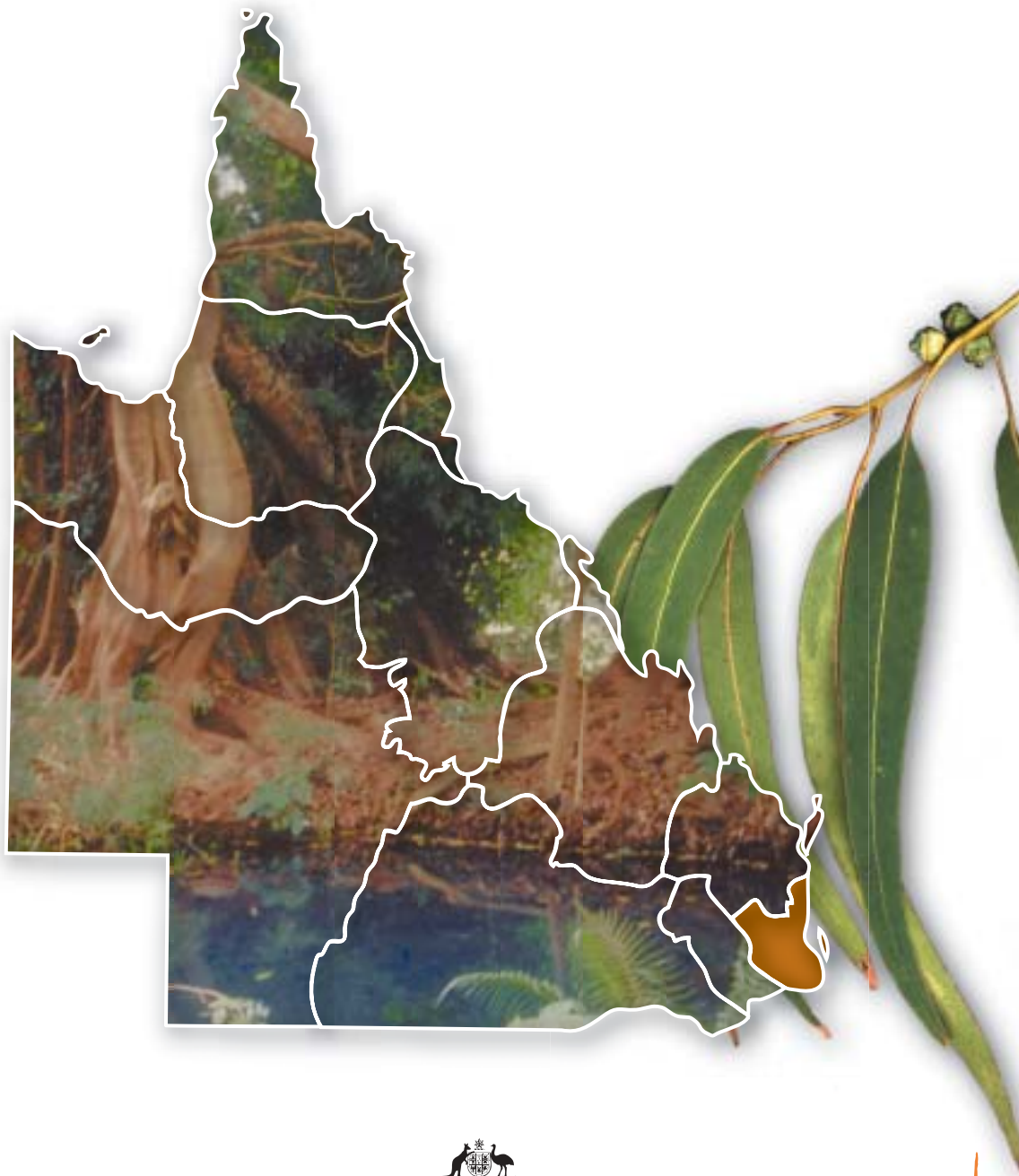


## BUSHCARE SUPPORT 2003

# *Native Vegetation Management*

*A needs analysis of regional service delivery in Queensland - South East*

growing the future together



# SOUTH-EAST QUEENSLAND

## Regional context

### Regional profile

- Area - 2.25 million hectares
- 14 major catchments
- 18 local authorities
- 1.97 million people (June 2001, ABS)

The South-East Queensland Region extends from the Noosa River catchment to Yarraman in the north-west, follows the Great Dividing Range to the New South Wales border, and then extends east to the Moreton Bay islands. The region is highly urbanised along its coastline and contains several major catchments including the Brisbane, Logan, Bremer, Stanley, Pine, Noosa and Maroochy/Mooloolah river systems. This region comprises the southern portion of the South-East Queensland bioregion, which also includes the Mary/Burnett.

### Principal land uses

Principal landuses include:

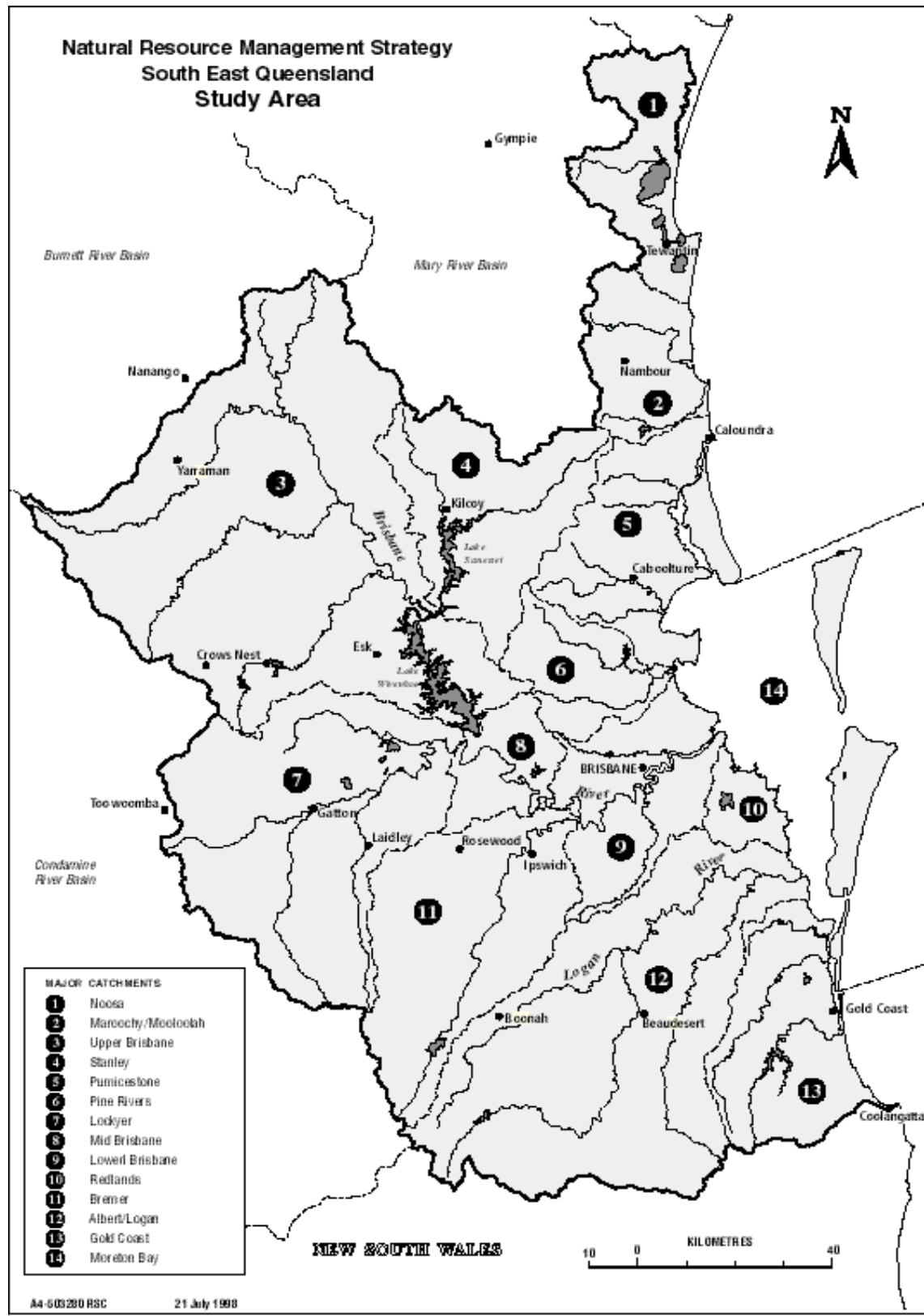
“intensive horticulture (fruit, vegetable, nursery and flower) crops, sugar cane, broad-acre grain crops, peanuts and oil seed, tree crops, as well as beef cattle production, dairying, pigs, poultry and other miscellaneous stock enterprises. The region also sustains a large area of native and plantation forestry and is an important area for marine and freshwater fisheries and aquaculture. Associated with these land uses and rural industries are processing plants or value-adding facilities. The economies of many towns in the region are virtually dependent on the viability and sustainability of these industries....” (pg5, DNRandM 2000).

### Principal environmental issues

Principal environmental issues include urbanisation, balancing the management of agricultural and grazing land with conservation priorities, fragmented bushland and ecosystems, inappropriate fire regimes, weeds and water quality. Many urban communities are actively responding to these issues through a developed community structure. However, most rural communities are struggling with poor farming returns and only basic social services.

The Moreton Region also covers the ancestral homeland estates of more than 20 Indigenous Traditional Owner groups. Representative groups such as the South-East Queensland Traditional Owner Advisory Group have provided input into the Strategic Guide for Natural Resource Management and the Regional Nature Conservation Strategy.

Regional map



## Key statistics

### *Number of projects in region*

One Billion trees/ Save the Bush/ Natural Heritage Trust Year	Number of projects
1993	34
1994	20
1995	15
1996	4
1997	30
1998	33
1999	41
2000	19
2001	22
Total Natural Heritage Trust (Phase One)	218
2002	57 (Envirofund)

### *Type of assistance required*

While many extension services exist within South-East Queensland, there remains a need to provide a wide range of support for new project applicants. In particular:

- project planning, design and implementation;
- seed collection, distribution and propagation;
- plant identification, especially support with botanical inventories;
- information on major species associations and the conservation status of remnant bushland;
- discussing, developing and implementing appropriate monitoring and evaluation techniques throughout the lifecycle of vegetation management projects;
- providing training workshops that can assist groups with implementing activities within their projects;
- providing application support for groups developing new vegetation management proposals under Envirofund or Natural Heritage Trust (Phase Two); and
- advice on appropriate rehabilitation frameworks for varied forest communities.

### *Training opportunities*

Focus areas or fields where training could be provided include:

- monitoring and evaluation of vegetation management projects;
- frameworks for rainforest and dry sclerophyll rehabilitation;
- wetland ecology, design and construction;
- community and organisational change (foundation skills in facilitation and working with small groups);
- designation and conservation status of regional ecosystems;
- off-park conservation incentives for private landholders; and
- conservation and recovery of threatened flora species.

## Key natural resource management challenges

### *Vegetation Summary*

- 10 listed 'endangered' regional ecosystems;
- 40 listed 'of concern' regional ecosystems;
- 148 regional ecosystems;
- 4000+ native plant species;
- 32 listed endangered plant species (Queensland); and
- 56 listed vulnerable plant species (Queensland).

### *Population Expansion*

South-East Queensland is the fastest growing region in the state, with the total population expected to reach three million by 2011. Projections indicate that 29 per cent of Australia's total population growth will occur in the region between 1991 and 2011. This is placing substantial pressure on scarce land and water resources. In some communities, major land use changes have occurred without adequate planning to minimise impacts on natural resources.

### *Weeds and Feral Animals*

Most common threatening flora species are lantana (often infesting stands of previously logged forest, intact forest margins, and disturbed remnants) tree weeds such as camphor laurel and Chinese elm (a major problem along waterways), understorey weeds such as ochra, privet, and crofton weed, and exotic vines such as cats claw creeper, madeira vine, morning glory, climbing asparagus and Dutchman's pipe. Exotic grasses affecting remnant bushland include green panic, rhodes grass, red natal grass and para grass (especially in disturbed waterways).

Problem fauna include cane toads, deer, pigs, dogs, cats, foxes, hares and rabbits. For example, pigs cause damage to soil substrates, stream banks and plant roots. Many feral animals have a direct impact on native fauna through habitat disturbance and predation; these impacts also indirectly affect forest structure by altering ecological processes such as pollination and seed dispersal. Furthermore, inappropriate grazing can alter vegetation structure by facilitating the spread of exotic flora, inhibiting the recruitment of natives and breaking down forest edges.

### *Inappropriate Fire Regimes*

In South-East Queensland the traditional conflict between protection (hazard reduction and fire suppression) and ecological fire management objectives (enhancing and maintaining plant and animal diversity) is exacerbated by over-burning of bushland reserves. In the last 20 years, local fire management plans have emerged to actively manage vegetation using fire. However, while the prescription for 'protection management' is clear, the ecological information required to develop fire management guidelines for the maintenance of biodiversity is largely incomplete. The recently established Fire and Biodiversity Consortium is beginning to address knowledge gaps in fire ecology.

### *Logging and Clearing*

Most South-East Queensland forest types have been extensively affected by logging and/or clearing for agricultural, pastoral development and plantations. This impact has been particularly severe in dry rainforests and eucalypt woodland on alluvial flats. Some forest systems have been logged for valuable timber species (e.g. *Toona ciliata* and *Grevillea robusta*), others cleared for agriculture and dairying (more than 100,000 hectares of *Araucarian microphyll* vine forest has been cleared for pasture development and cropping), and littoral rainforests in particular have been extensively cleared for residential development. Remnants that remain are severely threatened by weed invasion and secondary impacts such as changes in water use, water flows, water quality and adverse hydrological effects.

## Regional Response

### *Protection of /remnant vegetation or revegetation activities*

South-East Queensland has a significant number of existing programs, structures, and organisations working independently or in partial collaboration towards implementing vegetation management in the region. Key organisations include Sustainable Future South-East Queensland (South-East Queensland Regional Body), Moreton Bay Waterways and Catchments Partnership, catchment groups and landcare groups, environmental groups (such as Wildlife Preservation Society of Queensland, World Wide Fund for Nature, Greening Australia, and the Society for Growing Australian Plants), Bushcare, Coastcare and Waterwatch groups, traditional owners, industry groups, landholders, local and State Government Agencies, local individuals and community groups. Recent major projects include the Fire and Biodiversity Consortium, South-East Queensland Rainforest Recovery Project, several on-ground nature conservation projects, Catchment and corridor-based programs, Food for Wildlife, sustainable native forest management and farm forestry.

The Strategic Guide to Natural Resource Management in South-East Queensland (2000) is a non-statutory guide that provides guidance for the management and conservation of natural resources, including remnant vegetation, in the region. The opportunity exists for vegetation managers to build on what has been achieved through the first stage of Natural Heritage Trust, invest strategically and work together with other stakeholders. The benefits of this regional approach include:

- development of collaborative broad-based partnerships to implement vegetation management at a regional level via State and local government, community groups, individual landholders, industry groups, tourism, research bodies and indigenous communities;
- refinement of natural resource management priorities for the region through stakeholder consultation, the strategic investment of resources to address those regional priorities and integrating science into the priority setting process;
- better integration of catchment and other natural resource management strategies into planning schemes and operational plans of government;
- the delivery of better incentive schemes for land-holders;
- a community owned and driven process; and
- improved involvement of non-government organisations, local government and traditional owners in natural resource management planning and implementation.

In addition, the equivalent of 17 full-time equivalent facilitators and coordinators have been engaged under interim Natural Heritage Trust funding to contribute to the development of regional plans, and involve the community and other stakeholders in regional implementation activities for National Action Plan and Natural Heritage Trust (Phase Two). These positions are supported by State Agency staff and provide advice and coordination to over 360 landcare and catchment groups that work with projects valued in excess of \$5.7m. Until June 2003, both the Bushcare facilitator and the Moreton Bushcare Support officer will continue to provide support to new Envirofund projects and approximately 12 Bushcare funded groups completing Natural Heritage Trust (Phase One) projects.

### **Key documents**

*Common Nature Conservation Classification System* (Chenoweth 2001).

*Landcare Support Strategy* (Qld Dep't Natural Resources and Mines 2002).

*Landcover Change in South-East Queensland 1988-1997* (Qld Dep't Natural Resources and Mines 1999).

*Regional Nature Conservation Strategy for South-East Queensland* (Qld Environmental Protection Agency 2003).

*Remnant Bushland in South-East Queensland in the 1990's: It's Distribution, Loss, Ecological Consequences and Future Prospects* (Griffith University 1993).

*South-East Queensland Regional Framework for Growth Management* (Qld Dept Local Government and Planning 2000).

*State Coastal Management Plan – Queensland's Coastal Policy* (Qld Environmental Protection Agency 2001).

*Strategic Guide to Natural Resource Management Strategy in South-East Queensland* (Qld Dept Natural Resources and Mines 2000).

*The Conservation Status of Queensland's Bioregional Ecosystems* (Qld Environmental Protection Agency 1999).

*The National Strategy for the Conservation of Australia's Biodiversity* (Commonwealth Dep't Environment Sport and Territories 1996).

Plus numerous catchment management strategies.

### Existing regional resources and infrastructure

Community Nursery	Capacity (plants/yr)	Tubestock	Genetic integrity	QA/Standard
Barung Landcare	80,000	80%	90%	High standard
Brisbane Rainforest Action and Info. Network	7,000	100%	100%	High standard
Bulimba Creek CCC	1,500	100%	100%	High standard
Downfall Creek Bushland Centre	1,000	100%	100%	Florabank
Greening Australia	100,000	99%	100%	Florabank
Indigescares Nursery	2,000	100%	100%	Florabank
Lockyer Catchment Centre	1,500	90%	90%	Florabank
Moggill Creek Catchment Nursery	5,000	95%	100%	High standard
Noosa Landcare	29,000	78%	99%	Florabank
Pine Rivers Shire Community Nursery	40,000	95%	90%	Florabank
SCRUB	4,000	100%	100%	High standard
Wallum Action Group	30,000	95%	100%	High standard

In addition, 'Barb's Trees' operates as an important collecting and disseminating point for tubestock within the greater Brisbane area.

## Commercial nurseries

Capacity mixed, but all meet Queensland Nursery Association Standards. Genetic integrity, or provenance, is generally unknown. All carry tubestock, most of which is readily available but in limited quantities. Specialised stock is available seasonally, usually by prior arrangement. Commercial nurseries include:

- Bowerbird Native Nursery;
- Bremer Native Plant Nursery;
- Bush Nuts Native Nursery;
- David Somerville Nursery;
- Fairhill Native Plants and Botanic Gardens;
- Gilston Nursery;
- Golden Valley Nursery;
- Narangba Garden Centre;
- Neilsen's Native Nursery;
- Oakey Field's Nursery;
- Parson's Nursery;
- Pisces Enterprises (aquatic species);
- Queensland DPI Forest Service Nursery;
- Rainforest Seclusion;
- Rainforest World;
- Samford Rainforest Nursery;
- Scrub Turkey Enterprises;
- Theo's Discount Nursery;
- Toona Rainforest Nursery; and
- Wellington Point Nursery.

## Seed Suppliers

Seed Suppliers in this region include:

- Australian Grass Seeds;
- Barung Landcare;
- Brisbane City Council (via Natural Area Coordinators, but limited);
- Greening Australia Queensland;
- Heritage Seeds;
- Native Seeds;
- Noosa Farm Forestry Nursery;
- Q-Hort;
- Queensland Tree Seed Centre;
- Redlands Shire Council (limited); and
- Scrub Turkey Enterprises.

## Technical/Operational Expertise

Key Skilled People	No.
Vegetation Management	16
Botanists	10
Farm Forestry	2
Facilitators/Coordinators	20+

### *Losses*

Due to the delay in signing the bilateral agreement between the Commonwealth and Queensland, there have been dramatic losses in experienced extension staff across the region. Perhaps more disconcerting is the loss of community goodwill (skilled volunteers losing heart and willingness to be involved) because of the subsequent lack of direction and funding for vegetation management proposals.

### *Securing people*

It is increasingly difficult to engage high quality extension staff due to the disparity in salaries associated with funded project work compared to those offered by State and local government and private enterprise. In addition, professional development opportunities are limited by budgetary constraints and are compounded by the lack of opportunity to advance careers.

### *Recognition*

There is good recognition amongst existing peer networks including many staff from the public sector. Funding restrictions and rapid staff turnover remain the major factors affecting recognition. The capacity of local authorities to implement natural resource management and conservation has substantially increased in recent years and has in turn led to the recognition of vegetation management activities at a catchment and local group level.

## Commercial Organisations/Individuals

Key Skills	No.	Description
Botanists	4	Many consultancy companies include environmental scientists with some botanical skills
Vegetation management	5	
Farm forestry	5	
Direct seeding infrastructure	1+	Greening Australia Queensland, plus several hydro-mulching contractors.
Vegetation management training	22	Refer details below.

## Vegetation management training opportunities

Providers of vegetation management training include:

- Australian Centre for Mine Rehabilitation;
- Barung Landcare;
- Bremer TAFE;
- Brisbane Forest Park;
- Brisbane Rainforest Action and Information Network;
- Conservation Volunteers Australia;
- Environmental Protection Agency (Queensland);
- Farm Forestry Association of Queensland;
- Fire and Biodiversity Consortium;
- Greening Australia Queensland;
- Griffith University (including the GU Eco-Centre);
- Grovely TAFE;
- Habitat Brisbane (Brisbane City Council);
- Ithaca TAFE;
- Moreton TAFE;
- Natural Resources and Mines Department (Queensland);
- Noosa Landcare;
- Queensland Conservation Council;
- Queensland University of Technology;
- Sunshine Coast University;
- University of Queensland; and
- World Wide Fund for Nature.

## CURRENT PROVISION ISSUES

### *Summary*

There is substantial fluctuation in extension staff due to irregularity of funds, poor salaries, often difficult work conditions and few career prospects. Often the demand for extension support locally is such that skilled agency staff will struggle to meet the needs of community groups and individual landholders. There are definite provision gaps in the areas of:

- Long-term community-based extension staff (particularly in regard to retaining their experience and extensive community networks);
- Farm forestry extension (community and landholder based);
- Rivercare extension (providing support to community groups dealing with riparian-based vegetation management problems); and
- Ecosystem recovery.

In addition, the movement towards securing more off-park conservation gains necessitates the maintenance and expansion of State Agency and other staff who provide vegetation management support to landholders.

## **Key gaps and recommendations**

### **Provision of technical staff**

While substantial interim funding has been provided for Landcare and Catchment coordinators, there is no certainty that funding will be maintained post June 2003. With changes in the composition and role of vegetation management groups, there will always be a need for extension support across the region, particularly in resource deficient western areas.

#### *Recommendation*

1. Long-term funding for skilled extension staff to meet community needs.

### **Implementing a landscape ecology approach to vegetation management**

Effective vegetation management practice must be demonstrated across major natural resource management issues (including salinity, sustainable land use, nature conservation, and the management of exotic flora and fauna) at a landscape level.

#### *Recommendation*

2. Resource regional bodies with the appropriate science and conservation tools to produce this outcome.

### **Misalignment of remnant bushland and labour sources**

In South-East Queensland, there exists an inverted relationship between remnant size (largest in the west) and accessible labour forces (largest on the coast or in the east).

#### *Recommendation*

3. Develop additional mechanisms to resource nature conservation in the western component of the region. These should include labour programs and a broad range of State or Federally funded off-park incentives.

### **Effective monitoring and evaluation**

While the mandate for effective monitoring and evaluation was clear during Natural Heritage Trust (Phase One), there has been little standardisation and analysis of data collected. The commencement of Natural Heritage Trust (Phase Two) provides an ideal opportunity to standardise monitoring and evaluation methodologies, incorporate analysis and build upon the lessons of Natural Heritage Trust (Phase One).

#### *Recommendation*

4. Standardise monitoring and evaluation methodologies across programs. Provide training and assistance to project workers with data analysis.

## KEY CONTACTS

Contact	Organisation	Phone number (07)
Armstrong, Esme	South-East Queensland Regional Body	5447 0135
Borschmann, Geoff	Greening Australia Queensland	3902 4417
Gietzelt, Adam	Environmental Protection Agency	3224 8165
Gittins, Mary Lou	South-East Queensland Regional Body	5497 1018
Gregory, Mike	Environmental Protection Agency	3202 0233
Henry, John	Environmental Protection Agency	3227 6341
Hulm, Catherine	Western Catchments Group	3801 6594
Hyslop, Keryn	Threatened Species Network	3221 0573
Kent, Dave	Dep't. Natural Resources and Mines	3884 5320
McClymont, Ken	Habitat Brisbane, BCC	3407 1489
McDonald, Bill	Queensland Herbarium	3896 9326
Morton, Jane	Greening Australia Queensland	3902 4413
Noble, Bruce	Brisbane Forest Park	3300 4855
Pritchard, Tanya	Environmental Protection Agency	3202 0223
Rinehart, Chris	Dep't. Natural Resources and Mines	3884 5321
Tran, Cuong	Fire and Biodiversity Consortium	5552 8259

*Contact details for Landcare and Catchment Coordinators are numerous and can be provided on request.*