



MEMORANDUM OF ADMINISTRATIVE
ARRANGEMENT FOR THE PROVISION OF COMMUNITY
SERVICE OBLIGATIONS BY FORESTRYSA
ANNUAL REPORT 2010/2011



Government
of South Australia



ForestrySA

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INTRODUCTION

As a government business enterprise ForestrySA manages State owned commercial plantations and associated native vegetation for the benefit of the people and the economy of South Australia. ForestrySA operates in two regions; (Mount Lofty) Ranges including the Mid-North, and the Green Triangle. In addition to its commercial obligations, ForestrySA is also charged with undertaking a number of non-commercial activities and receives a community service obligation (CSO) contribution for these from the Government. These include¹:

- > Native forest management
- > Community use of forest reserves
- > Forest industry development
- > Community protection (including fire) and forest industry support activities, and
- > Other activities as directed by the Minister.

GOVERNANCE

ForestrySA is governed according to the following requirements which cover both legal governance and policy positions.

- > The **Charter of the South Australian Forestry Corporation (SAFC)** outlines ForestrySA's strategic commercial direction (commercial operations) and community service obligations to manage native forests, provide for community use of its forests, conduct forest industry development (primarily research) and provide community fire protection.
- > The **Public Corporations Act 1993** states that as a public corporation, ForestrySA must perform its commercial operations in accordance with prudent commercial principles and perform its non-commercial operations in an efficient and effective manner consistent with the requirements of its Charter.
- > ForestrySA fulfils its statutory functions to be a business enterprise according to the **South Australian Forestry Corporation Act 2000**.
- > A **Memorandum of Administrative Arrangement (MoAA)** outlines the agreement between ForestrySA and PIRSA for the provision of specific business functions and recognises the business relationship that exists with PIRSA.

REPORTING

Each year ForestrySA works with PIRSA to develop an annual works program including projects to address areas of specific need and special events such as the provision of field days.

Progress against the annual program in terms of measures, targets and actions is reviewed and reported to PIRSA quarterly. The annual planning process also identifies potential priority actions and projects for the coming year.

This annual report is an overview of the community service obligations (CSOs) undertaken by ForestrySA as measured against the requirements of the MOAA that exists between ForestrySA and PIRSA for the provision of these functions.

¹ As determined by the Charter of the South Australian Forestry Corporation.

HIGHLIGHTS



ForestrySA has been progressively working toward the full integration of conservation and recreation functions into forest districts for a number of years. With the completion of state-wide forest management plans and some organisational realignment, accountability and management of a "triple bottom line" (economic/ social/environment) is now a shared function across the organisation.

In 2010/11 ForestrySA made significant steps towards the formal addition of 4 200 ha of native vegetation (Wirrabara Range, Spaniards Gully & Mount Lyon) to the Native Forest Reserve estate, with gazettal plans now registered and approved by the Land Office ahead of a Cabinet submission. At the completion of this process, this will increase ForestrySA's area of protected native forest by approximately 20% to around 20 000 ha.

A major achievement for the forestry industry development program in 2010/11 was the release of the Young Age Fertiliser Response Prediction Tool (EM188A). This tool provides plantation managers with a probability table of young age plantation fertiliser response for use in the Green Triangle Region. At its core is data from ForestrySA's young age growth plot measurement program, fertiliser records, Bureau of Meteorology 30 year average rainfall isohyets and ForestrySA soils and site productivity geographic data bases. A fertiliser priority ranking is then assigned for each site. Recommendations from this report have been applied by ForestrySA for its 2010 and 2011 fertiliser program. Although this was developed with a regional focus, ForestrySA has received additional requests from Victoria, Queensland and Western Australia plantation forestry managers.

This year's mild fire season provided favourable conditions to significantly increase planned (prescribed) burning with a total of 686 ha achieved state-wide compared with 444 ha burnt in 2009/2010. Burning targets are developed on the principle of a rolling average, and seasons like 2010/11 provide rare opportunities to significantly increase areas of fuel modification.

Across all its operations, ForestrySA remains committed to achieving the greatest benefit from its plantation and native resource for the people of South Australia. This report is a synopsis of the ForestrySA's CSOs conducted throughout 2010/11.

OVERVIEW OF PROGRAMS



NATIVE FOREST MANAGEMENT

This program manages the quality and distribution of native forest reserves through the development and implementation of landscape scale measures that protect and enhance biodiversity and heritage values. This includes not only the native forests themselves, but more broadly the protection of both indigenous and European heritage sites that provide connections between people, events and our estate.

ForestrySA manages 15 994 ha of Native Forest Reserves gazetted under the *Forestry Act (1950)* and a further 9 275 ha of other native forest areas. They are managed for the conservation of biodiversity to ensure their long-term future. Most of the native forests are integrated as a mosaic with the commercial softwood plantations in the three core ForestrySA regions; the (Mount Lofty) Ranges, Mid-North, and the Green Triangle. There is no harvesting of timber from native forests managed by ForestrySA and these areas contribute significantly to biodiversity conservation in South Australia, with a variety of plant associations providing habitat for many listed species of flora and fauna.

The majority of native forests have individual resource documents which detail fauna and flora species lists and management actions as well as other information. Such reference material is regularly updated as further surveys are undertaken, and ForestrySA maintains a state wide register for flora and fauna identified. Overarching regional forest management plans are being developed that set the direction for conservation in each region. Plans for the Northern Forests, and all three districts of the Green Triangle are now complete, with the (Mount Lofty) Ranges Plan ready for public consultation at the time of this report. As plans are finalised, they are made available on the ForestrySA website.

Works carried out in Native Forest Reserves and native forest include pest plant and animal control, fire control measures, prescribed burning, revegetation and the provision of natural history information to the public.

COMMUNITY USE OF FOREST RESERVES

The management of public access and recreation in the State's forest reserves and encouragement of community participation through engagement is central to this program. ForestrySA manages and makes available its forests for recreational use by the community. Recreation is managed to balance public use with ongoing commercial forestry operations and conservation requirements. Forest Reserves play host to a wide range of recreation activities including walking, nature study, picnicking, camping, cycling, cave diving, horse riding and motor sport events.

Substantial forest recreation information and educational materials are provided to the public via forest signs, brochures and maps and via ForestrySA's website. Facilities include forest information centres and roadside stops, trails, camping and picnic areas, as well as world class purpose built facilities such as the Cudlee Creek mountain bike trails. Public access to ForestrySA land has enabled the development of high profile events such as the Bundaleer Forest Weekend and a number of well-attended car rallies and horse endurance rides.

ForestrySA's community engagement program provides school groups and a number of other partner organisations assist in the management of native forests in a voluntary capacity, and are integral to the ongoing management of these areas.

OVERVIEW OF PROGRAMS



FOREST INDUSTRY DEVELOPMENT

ForestrySA continues to be nationally recognised by the forest industry for developing and maintaining a forest research capability of a higher standard and breadth than it would otherwise undertake as a purely commercial business. Research undertaken as a CSO represents about 40% of ForestrySA's total forest research budget. Aspects included are the research and dissemination of information for the benefit of the State and forestry industry, including forestry demonstration and gene conservation plantings.

The forest industry development program also supports various forest industry research strategy and/or priority documents that are regularly compiled or updated by organisations around Australia e.g., research priority areas published by the Research Priorities and Coordination Committee; a subcommittee of the Forest and Forest Products Committee (FFPC), and other documents that identify current and likely future research needs in the forest and forest products industry.

Areas of research conducted under the MOAA include environmental impact, tree improvement and genetics, product improvement and innovation, and climate change and bio energy.

COMMUNITY FIRE PROTECTION

A component of ForestrySA's fire preparedness and suppression expenditure program (about 30%) is defined as being the proportion beyond that needed for protection of ForestrySA's own commercial assets and above the level provided by equivalent forestry companies in the private sector.

ForestrySA contributes directly to the protection of a number of local and regional communities in South Australia, through implementing a range of fire protection related policies. These vital activities include fire detection, fire suppression outside of Forest Reserves, fire protection works on public land, and a number of other fire related sundry services².

Overall fire protection of the community is significantly enhanced through the annual programs of fire break maintenance and protection work which are carried out on main roads, council roads, power line easements, and other public land. This on-the-ground work comprises slashing, grading, ploughing and/or the use of herbicides to reduce potentially dangerous fuel loads. Discontinuance of these activities would put a range of community assets, including various public utilities, at much greater risk of significant fire losses.

² Ecological burning is encompassed by the Native Forest Management CSO.

ACHIEVEMENTS OF 2010/11



COMMUNITY FORESTRY

PUBLIC ACCESS AND RECREATION

Visitor activities and events

The proximity of Adelaide to the Mt Crawford and Kuitpo forest reserves means they effectively serve as Adelaide's backyard for many people, and are especially suitable as locations for events such as the Australian Orienteering Championships (August 2010) and SA Endurance Riders Association – Kuitpo 100 (May 2011). Wirrabara is also a popular horse riding destination and hosted the Riverland and Mallee Horse Trial (August 2010). The Mount Lofty Ranges in particular continues to be a favorite location for orienteering with numerous events held throughout the year.

Each year, the Kona Dirty Weekend Mountain Bike Challenge event (16-17 April 2011), is held at Cudlee Creek. In addition to sponsorship of this annual event, ForestrySA also provides accommodation for event organisers who make good use of the Thomas Hill Study Centre, conveniently located at the trailhead of several descending routes.

In the Green Triangle, the annual Pines Enduro is normally a messy affair, but 32 mm of rain in 24 hours turned this year's event (September 2010) into a mud bath. Organizers of the Pines Enduro say the wet weather created the event's the most challenging conditions in its 33 year history.

In the Mid North, the historic Bundaleer forest once again played host to the biennial Bundaleer Festival (April 2011), attracting upwards of 3000 people to several events over the weekend including an additional Friday night concert which alone drew over 800 people.

Provide information to visitors and the community

Forest information centres took around 5 000 enquiries from visitors over the year, in person, via email and telephone. However, as website hits are not currently monitored, it is difficult to ascertain how many more visitors gain their information through electronic media. Better capture and analysis of visitor numbers was an objective of a Customer Survey project for 2010/11, although the results of this study will not be available until September 2011.

Enforce compliance with the *Forestry Act 1950* and associated *Regulations*

Through its Ranger services, ForestrySA enforces the requirements of the *Forestry Act (1950)* and associated *Regulations*. For the period 2010/11, 55 compliance events in total were recorded. The Ranges Region recorded 41 or 75% of all incidents, reflecting the high level of patronage experienced in the Adelaide Hills, associated with proximity to a large centre of population. Almost half (21 incidents) involved people entering or remaining in the forest at night. Only one incident involved wilful damage to vegetation. While evidence to date is anecdotal the increasing use of surveillance cameras, now numbering 12 in the Green Triangle region, has significantly aided the management of problem areas.

Plan, develop and maintain agreed visitor facilities

In 2009/10 ForestrySA developed a rehabilitation plan for Mount Gambier's Valley Lake Wildlife Park which has been renamed as Valley Lake Conservation Park in recognition of the change of focus. The year 2010/11 has seen several smaller, component projects implemented in accordance with the plan, along with a commitment from the City of Mount Gambier to assign a project manager, which should ensure the majority of the remaining works are addressed in a scheduled and timely manner. Additional signage work is nearing completion. After completion, ForestrySA hopes to use this high visitor use site to point visitors to other forest experiences in the Green Triangle.

³ Implementation of the Visitor Infrastructure and Investment Plan on hold pending resolution of proposed forward sale.

ACHIEVEMENTS OF 2010/11



BIODIVERSITY AND HERITAGE

Assess and extend biodiversity values and develop management plans

Systematic conservation planning provides a clear, comprehensive and cost-effective method to determine the biodiversity of forests. Measurements of biodiversity, using field sampling strategies, combined with different data treatment methods feed information directly into the native forest resource documents thus assisting in identifying conservation area priorities and underpinning district forest management plans.

The completion of the Mount Gambier and Penola Forest Management Plans following a period of 8 weeks consultation, and the drafting of the (Mount Lofty) Ranges Plan, marks an important milestone in the progress toward estate wide landscape planning commenced in 2007. This integrated approach to planning not only meets the requirement of the Charter of the South Australian Forestry Corporation, but is crucial in meeting environmental performance criteria of ForestrySA's Australian Forestry Standard (AFS) certification. In addition it is an explicit demonstration of ForestrySA's commitment to environmental stewardship for the broader community.

In 2010/11 gazettal plans were registered with Land Services Group (Department of Transport, Energy and Infrastructure) ahead of a Cabinet submission to gazette an additional 4 220 ha of native forests (Wirrabara Range, Spaniards Gully and Mount Lyon).

Comprehensive fauna and flora work this year included a survey and report produced for management of the Square-tailed kite within Mt. Crawford and Kuitpo Forest Reserves. In addition Mt Crawford and Kuitpo staff have participated in regional monitoring of Yellow-tailed Black cockatoos. Digging surveys by DENR in Springs Road Native Forest Reserve confirmed the continued presence of the Southern Brown bandicoot.

Flora surveys with DENR, Threatened Plant Action Group and Native Orchid Society of SA revealed nine plant species previously not recorded in Mount Lofty Ranges (MLR) forest reserves, including *Rorippa laciniata* (Jagged bitter-cress) in Chookarloo, previously thought to be extinct throughout MLR; *Amphibromus pithogastrus* (Plump swamp wallaby grass) in Mount Gawler and Kersbrook NFR previously not recorded in the Southern Mount Lofty region.

New significant large populations of the State Endangered, *Diuris brevifolia* (Short-leaf donkey-orchid) were found in Meadows Flat (nearly 1,000 flowers) and in Chookarloo (600+ flowers); and the State Rare and Regionally Endangered, *Gastroides sesamoides* (Potato orchid) in Headquarters locality at Kuitpo, (nearly 2,000 flowers).

The area recognised as occupied by the Nationally Critically Endangered plant, *Veronica derwentiana* ssp. *homalodonta* (Derwent speedwell), was extended within riparian zones in Devils Gully through extensive surveying. Weed control is continuing to remove wild pine and blackberry.

The *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* is the Australian Government's central piece of environmental legislation. All areas of EPBC listed Fleurieu Swamps located within Second Valley Forest Reserve have now had some level of initial weed control implemented. The highest conservation value areas within Schultz' and Martins are now into a weed maintenance phase after six years of consistent Bushcare management. Improved integrated weed management within plantation areas adjacent to swamps has helped reduce external weed threats.

Protection of a large population of *Schoenus latelaminatus* (Medusa bog-rush), in a plantation re-establishment area in The Avenues at Kuitpo has been achieved through the establishment of an exclusion/buffer zone. This species is rated Vulnerable for the State.

While CSO funding has provided the primary source of funding to support native forest management, from time to time ForestrySA has been successful in attracting additional sources of revenue to enhance these core works. For example, in 2010/11 additional funding of \$30 000 was secured in partnership with Friends of Para Wirra and Kersbrook Landcare Group for a project in Para Wirra Recreation Park and for rehabilitation work in Leg of Mutton Gully within Old Kersbrook Forest.

Implement programs for pest plant & animal control, fire management and site rehabilitation

The control of wild pine is a major program, often implemented in conjunction with community engagement programs. Treatment of significant areas of the ranges (Old Kersbrook, Leg of Mutton Gully-22ha; Cudlee Creek, Ramseys and Mount Misery-30ha; Christmas Hill, CH11 and CH8-12ha; Second Valley Forest-Jaggers, Morris and

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Fleurieu Swamps within Middle Fence, Mount Hayfield, Schultz and Foggy Farm-15ha) were only achievable with the significant contribution of work experience people and training partnerships.

To assist with fauna monitoring, ForestrySA has invested in a number of portable sound recorders, primarily for the monitoring of birds. This has resulted in the discovery of several previously unknown occurrences of the white throated night jar and the powerful owl. Surveillance cameras have also assisted in improvements in ability to monitor pest animals such as wild pigs in the Green Triangle.

ForestrySA completed 14 prescribed burns in its native forest reserves in the Green Triangle this season, covering a total of 375 ha. Another 15 burns, covering some 311 ha of ForestrySA land were undertaken in the Mount Lofty Ranges and Mid North, making a combined total of 686 ha which compares with 444 ha burnt in 2009/2010.

ForestrySA is a member of the Mount Lofty Prescribed Burning Cooperative. The Cooperative, which also includes the Department of Environment and Natural Resources (DENR) and SA Water, jointly plans and conducts prescribed burns across the public land estate which they manage.

In early April, a joint agency burn in the Southern Flinders Ranges resulted in 140 ha of ForestrySA land and about 180ha of adjoining DENR land being prescribed burnt at Wirrabara. This was a significant area (320ha total) which involved a considerable amount of planning and coordination to achieve, and was conducted over several days.

Provide natural history information to the public

ForestrySA has embarked on a review of all the printed material it provides to the public. As a result a new hierarchy of brochures has been developed, including three regional brochures, supported by detailed information sheets for each forest district (Wirrabara, Bundaleer, Crawford, Kuitpo and the Green Triangle). The new brochures with an improved layout, provide updated information, and will be made available in hard copy and on line.

The completion of the signs manual will bring together a number of previously separate ForestrySA documents and now closely aligns with the DENR manual released last year.

Identify and protect natural and cultural heritage

In May 2011, the Noolook Bark Mill achieved provisional state heritage listing, one of just two nominated in the State. The site consisting of a stone built office and residence are the only relics remaining from a once thriving wattle bark industry. Bark from local wattle trees was crushed for local and overseas markets, being one of the basic ingredients used for tanning leather. The mill operated from the 1890s to 1960. At the time of writing, this nomination is out for public comment before a decision is made on whether to permanently list the site.

Hells Hole in the Mount Gambier Forest District has been the site of numerous and frequent acts of vandalism in recent years, including illegal dumping. By denying vehicle access to the sinkhole, re-routing the walking trail, instigating regular patrols and installing surveillance cameras, the incidence of vandalism has been reduced to zero in the last six months. ForestrySA appreciates the work of the Cave Diving Association of Australia (CDAA) which continues to provide expertise in regular rubbish removal activities. ForestrySA has also provided an access platform and stairs at Pines cave diving site.

COMMUNITY ENGAGEMENT & PARTICIPATION

Liaise with community groups and with agencies delivering complementary programs

The following list shows the range and diversity of groups and agencies ForestrySA continues to maintain working relationships with:

- > Adelaide Hills Council
- > AMLR NRM Board
- > Bicycle SA
- > City of Mount Gambier
- > Cromer Biodiversity Precinct Project
- > CSIRO
- > Department of Correctional Services
- > Families SA
- > FITNET
- > Fleurieu Swamps & MLR Southern Emu-wren Recovery Program
- > Green Triangle Regional Plantation Committee
- > Greening Australia

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- > HETA
- > High schools (x3)
- > Horse SA
- > Individual volunteers
- > K&H services
- > Mission Australia
- > MLR Bandicoot Recovery Program
- > Mount Bold/Scott Creek Hot Spots Project
- > Northern Yorke NRM Board
- > Primary schools (x4)
- > Sixth Creek Catchment NRM Group
- > South East Environmental Educators Working Group
- > South East Wetland Working Group
- > South Para NRM Group
- > Southern Cross University
- > Southern Lofty Threatened Orchid Recovery Program
- > TAFE Institutions (x2)
- > University of Adelaide
- > WalkingSA

As an example of liaison, each year the critically endangered Southern Bent Wing Bat over winter in Mount Burr's Bat Cave as well as Snake Hill, Gran Gran, Wandilo and Dry Creek, before returning to maternal caves along the Glenelg River and the Naracoorte Caves. ForestrySA continues to work closely with the DENR and other agencies to ensure a regional approach to protection and conservation is implemented through coordinated and regular monitoring. The work includes ensuring cave entrances are kept weed free and accessible, and regularly patrolled to prevent them from being disturbed during the wintering period.

Work with forest users and stakeholders to plan appropriate management strategies

Draft forest management plans are made available for public comment for a period of eight weeks to allow for community input. Targeted stakeholders were also approached directly and invited to provide comment. This process has been well received by the community with feedback being used to guide the production of the final documents.

Promote and manage volunteer participation

2010/11 saw over 32 000 hours of community engagement contribution and continued consolidation of the community engagement program to better reflect the major market sectors of the program (volunteers, work experience and training, and education) with work experience and training now accounting for approximately 70% of the program. The education program, which includes primary, secondary and tertiary institutions, has continued to expand this year.

Co-ordinate program resources and support on-site activities

Once again Bundaleer Forest, south of Jamestown played host to the biennial "Bundaleer Forest Weekend" attracting upwards of 3000 people to enjoy a selection of outdoor musical events against the backdrop of mature hardwood plantations. The community engagement program played a significant role in ensuring the site was safe and well prepared ahead of the crowds, putting in many hours in the weeks leading up to the event.

Support forest education programs

ForestrySA shared its scientific knowledge and skills with Mount Gambier students during the CSIRO's Scientists in Schools (SiS) event from May 19 to 27. The SiS is a national initiative that promotes science education in primary and secondary schools by engaging students in hands-on experiences, and aims to broaden their awareness of the types and variety of exciting science-based careers available. Over 300 students participated in the event which provided an opportunity for students to become involved in some of the active research and environmental programs undertaken by ForestrySA.

In addition to internal programs, ForestrySA also makes contributions of work skills/training through the Green Triangle Regional Plantation Committee (GTRPC) community engagement subcommittee and membership of FITNET (Forest Industry Training Network). In the Mid North, Jamestown Area Schools students from the pre-apprenticeship training program "Pathways to Construction" (which is linked to a TAFE based training package) assisted with restoration work at Bundaleer Cottage. And next year it is hoped, art students from the same school will be involved in the restoration of the musical sculptures in the Bundaleer Forest.

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FOREST INDUSTRY DEVELOPMENT

ForestrySA has a long and proud history of conducting applied research to help develop and support the plantation industry. The quality of this research continues to be recognised both nationally and internationally. This program aims to provide up to date information to both the forest industry and the broader community to inform business decisions and the development of a sustainable tree based enterprises. The following is a summary of agreed programs completed in 2010/11, according to areas of research interest to PIRSA.

ESTABLISHMENT AND MID ROTATION SILVICULTURE

Forest and Wood Products Australia Limited (FWPA) is the forestry and wood product industry's service provider, investing in research and development, and providing research results to the forest and wood products industry in Australia. ForestrySA continues to play a lead role in the FWPA "Australian Forestry Industry Herbicide Research Consortium". In addition, ForestrySA fills the South Australia grower representative role on the national steering committee.

To date, a total of four interim reports on two herbicide screening trials established on ForestrySA land in 2010 trial have been completed and released to Consortium members. ForestrySA has also been contracted to establish a further three sites (two *Pinus radiata* & one *Eucalyptus globulus*) in the Green Triangle Region in 2011.

In 2010 a priority list of operational trials for herbicide usage was compiled by the Consortium, and ForestrySA was appointed to provide trial data and reports, and establish trials on the following:

- > Herbicide policy and regulation impacts on plantation production and profitability
- > Eucalypt coppice control at harvesting using chemical delivery via harvesting machinery and,
- > Under canopy woody weed control using boomless sprayer technology.

ENVIRONMENTAL IMPACT

In the Mount Lofty Ranges Watershed Protection Area (MLRWPA) ForestrySA operates under an Environmental Protection Agreement with the Environment Protection Authority (EPA) by which it regularly monitors water quality associated with herbicide application at the establishment

phase of commercial plantations. Water monitoring for herbicide movement in MLRWPA takes place each month and an annual report submitted to the EPA (EM 181).

In 2010/11, results from *Screening of Haloxyfop methyl for its potential for offsite movement in surface water* (EM199) along with hydrological and rainfall records were submitted to the EPA to form an application to add Haloxyfop to Schedule 1 (the approved list of chemical for use inside the MLRWPA) of the Agreement. The application was endorsed by the EPA which has added an approved grass specific herbicide to the approved list for use in the Mount Lofty Ranges water catchments, giving forestry operations in that area a greater range of options for targeted weed control.

TREE IMPROVEMENT AND GENETICS

The *Multi species second year herbicide screening trial* (LT270) has been assessed for chemical phytotoxic impacts on growth and form, with final measurement due to be completed in July 2011. A total of 10 native species (6 000 trees) including eucalypts, casuarinas and acacias of interest to the plantation, farm forestry and environmental groups have been included. Results from this trial will be used to identify farm tree species that can be utilised to provide shelter, fuel wood, pulp for paper production and sequester carbon.

The 5 yearly site inspections of *Monterey provenance of radiata pine gene conservation plantings* (EM176 & EM177) at Noolook Forest Reserve, Second Valley Forest Reserve, Kuitpo Forest Reserve and Mt Crawford Forest Reserve were completed in January 2011, with all plantings in good health and no management issues.

ALTERNATIVE SPECIES, PRODUCTS AND SERVICES

Eucalyptus leucoxylon seed source trial establishment (EM210) was completed in 2011. The aim of this trial was to determine whether *Eucalyptus leucoxylon* (South Australian Blue Gum) is a suitable farm forestry plantation species with regards to form and growth. Seed collected from native populations across South Australia was collected for PIRSA by ForestrySA staff and seedlings raised at the State Flora Nursery Murray Bridge. Four trial sites on ForestrySA land in the Green Triangle, Mount Lofty Ranges and Mid North were planted and first and second year weed control completed. Trial assessments of survival, form and growth will be conducted in 2015 after which the trial sites will be converted into seed orchards.

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Currently, data from the South Australian Farm Tree Improvement Project Trials (which contain native species of *acacia*, *casuarina*, *eucalyptus*, *grevillea* and *melaleuca* growing across a range of sites) is being re analysed and checked against original data sources by ForestrySA. The aim is to produce an accurate report on species performance for publication. The Project was established in 1992 to assess the suitability of different seed sources of selected species for farm forestry use across a range of soil types and climatic conditions.

PRODUCT IMPROVEMENT AND INNOVATION

The Young Age Fertiliser Response Prediction Tool (EM188A) was released to the public by PIRSA Forestry early 2011. EM188A is an investigation aimed at producing a young age fertiliser response prediction tool for use in the Green Triangle Region. It uses data from the ForestrySA young age growth plot measurement program, fertiliser records, Bureau of Meteorology 30 year average rainfall isohyets and the ForestrySA GIS soils and site productivity geographic data bases.

The tool provides a probability table of young age fertiliser response based upon growth plot data collected from plantations established between 1993 and 2006 using soil type, soil characteristics (depth, drainage, inherent fertility and pH) and associated rainfall zone. Potential fertiliser response is ranked as either none, very low, low, medium or high. A fertiliser priority ranking of none, low, medium or high is also included which is based upon the inherent fertility of the soil type and the probability of a fertiliser assisted growth response.

Recommendations from the EM188A report have been utilised by ForestrySA for its 2010 and 2011 fertiliser program. Requests for copies of the Young Age Fertiliser Response Prediction Tool have come from Victoria, Queensland and Western Australian plantation forest managers. It is envisaged that this model will in time be extended to take in plantations in the Mount Lofty Ranges.

LOW RAINFALL FORESTRY

In 2010/11, ForestrySA commissioned CSIRO to conduct a study into the potential effects of climate change on the South Australian forestry plantations "*Climate change and South Australia's plantations: impacts, risks and options for adaptation*" (EM204). ForestrySA had considerable involvement in the development of this document, supplying both data and critical review of the report,

including forest health, hydrology and herbicide expertise. This report was released in June 2011 and will be made available on the PIRSA Forestry website.

COMMUNICATING RESEARCH

In April 2011, ForestrySA conducted an autumn forest weed species identification and control method field day. Attendees included industry representatives from Hancock Victorian Plantations (HVP), Australian Blue Gum Plantations (ABP), Green Triangle Forest Products (GTFP), ForestrySA, PIRSA Forestry, PIRSA Rural Solutions, in addition to weed control contractors and the public.

In late 2010, ForestrySA, at request of Forest Stewardship Council (FSC) accredited plantation growers conducted a field trip to select trial sites in the Green Triangle Region to raise awareness of the potential impacts of FSC forest chemical policy on the plantation industry as well as the regional economy. ForestrySA also participated as an invited technical advisor to a meeting of FSC certified forest owners in western Victoria. A power point presentation on the Australian Forest Industry Herbicide Consortium was given and trial site visits conducted with the FSC International Head of Policy and Technical Standards Chemical Regulation.

ForestrySA continues to be involved in local NRM issues with a presentation demonstrating ForestrySA best practice herbicide use including buffer guidelines, environmental monitoring, research trials and operational practice given to South East NRM and Forestry Industry Network and several South Australian forest growers. This was followed by a field trip to visit ForestrySA field trials.

October 2010 saw a return to Mount Gambier of the biennial Australian Forest Growers (AFG) National Conference. Six ForestrySA research and operations personnel presented at both field days and the conference venue and many others were involved behind the scenes on the organizing committee. Presentations covered site establishment regimes with different planting stock (cutting/seedling/containerized plants), insect pests and control, best practice herbicide use and trends, remote sensing, carbon markets and fertilizer practice. The conference was attended by over 200 people from Australia and New Zealand.

ACHIEVEMENTS OF 2010/11



COMMUNITY FIRE PROTECTION

FIVE YEAR PRESCRIBED BURN PLAN

Prescribed burning is the most effective broad scale tool available to reduce the threat of bushfires to life, property and the environment. Prescribed burning reduces fuel loads and increases the likelihood of successful fire suppression efforts.

Work has commenced on the preparation of a five year plan to guide prescribed burning in ForestrySA managed native forest reserves. The plan will consider the strategic value of burns, the overall fuel hazard within forest areas and the time since areas were last burnt and will have an overall aim of establishing a range of age classes since last burnt within each forest reserve at the end of the period. The aim is to complete the plan prior to the start of the 2011/12 fuel reduction burning season.

FIRE TOWER MAINTENANCE

An engineer's report on the structural condition of the seven fire towers operated by ForestrySA was completed in February 2010. Maintenance work identified in the report has been scheduled to be completed over a three to four year period.

Extensive maintenance was undertaken on the Furner fire tower prior to the start of the 2010/11 fire season. This essential maintenance will ensure the continued operation and safety of this tower. Work on the Mt Benson tower commenced at the conclusion of the 2010/11 fire season and will be completed prior to the start of the next season. Maintenance of the remaining towers will be completed over the next three years.

Despite 2010/11 being a mild fire season, the ForestrySA fire towers continue to play an important role in the early detection of bushfires and a rapid initial response. The towers provide detection coverage to ForestrySA plantations, other plantation owners and surrounding communities.

HELICOPTER SURVEILLANCE

ForestrySA is now able to operate a helicopter at fire incidents, to allow for improved fire management, with the development of a new standard operating procedure for helicopter operations during fire suppression. The procedure was developed in conjunction with the CFS aerial services branch.

AERIAL IGNITION

Aerial incendiaries can be used to ignite prescribed burns as an alternative to ground based ignition by fire crews. Aerial ignition allows for precise ignition patterns and reduces the need for fire crews to navigate through dense vegetation.

A *Raindance Systems* aerial incendiary machine was purchased prior to the commencement of the spring fuel reduction burning program. Two staff members were trained as aerial incendiary bombardiers. The machine is mounted in a contract helicopter for use. The incendiary machine was used extensively in the Green Triangle during both the spring and autumn prescribed burning programs. Some 344 ha out of the 375 ha burnt in the Green Triangle in 2010/2011 were ignited using the incendiary machine.

FIRE SEASON

The 2010/11 fire season was considerably milder than the four previous seasons. The season commenced on December 30 for all ForestrySA districts. Severe fire weather was experienced on only one day for the season. The forecast fire danger rating for December 31 was Catastrophic for all forest districts. Apart from that one day, the season was predominantly cool to mild with frequent rain periods that ensured ratings remained at Low to Moderate levels.

ForestrySA crews attended ten fires during the fire season. Seven fires occurred on ForestrySA's own land and three in surrounding areas. This compares to an average of 50 fires attended each year over the previous four years. The area of ForestrySA plantation burnt this season was restricted to less than 0.1 ha.

FINANCIAL REPORT



Operating statement for the financial year ended 30 June 2011

	Community Forestry ¹	Forest Industry Development	Community Fire Protection	2010-11	2009-10
INCOME					
CSO funds	2 093 000	441 000	407 000	2 941 000	2 870 000
EXPENSES					
Salary & wages	1 097 946	237 163		1 335 109	1 316 683
Plant & equipment	33 445	3 653		37 098	92 350
Materials	34 588	27 430		62 018	124 029
Contracts & services	472 366	116 147		588 512	765 622
Vehicles	178 120	28 322		206 442	189 922
Staff related expenses	39 052	9 520		48 572	62 009
Information technology	8 450	5 746		14 197	14 196
Building & property	385 871			385 871	74 507
Administration & finance	62 200	7 008		69 208	62 187
Fire Protection (total)			931 313	931 313	867 734
	2 312 038	434 989	931 313	3 678 340	3 569 239

¹ Native forest management & community use of forest reserves combined.

AGREED PERFORMANCE MEASURES

Agreed Performance Measures		July 2010 to June 2011	July 2009 to June 2010
Community Forestry Program			
1. Public Access and Recreation	Number of recorded visitors to forests.	145 465	148 848
	Number of permits issued by category.	13 096	12 719
	Number of forest events.	353	325
	Number of compliance enforcements.	55	109
	Visitor facility planning, development and upgrade updates.	10	7
	Ranger FTE delivered.	7	7
2. Biodiversity and Heritage	Number of Forest Management Plans completed/reviewed/scheduled.	2 complete 1 draft	1 complete 2 draft
	Number of biodiversity and heritage surveys completed.	19	24
	Number of field days, tours and presentations to the public providing information and interpretation of natural history and forest management.	17	5
	Area of revegetation works planned, established and maintained (ha).	16	4
3. Community Engagement and Participation	Number of groups actively engaged.	47	44
	Hours recorded.	38 148	35 036
	Number of forest education programs supported.	12	12
4. Capital Projects	Minor capital works undertaken within operating budget. A capital funding mechanism for major works is still unresolved at this time.	Historic building restoration (X5) Horse yards Boardwalks, bridges	
Forestry Industry Development Program			
	Annual research proposals and program are agreed prior to commencement of financial year	Complete	Complete
	Milestones and performance measures identified in the annual research program are completed to the agreed timeframe and in accordance with project specifications	Refer to achievements	Refer to achievements
	Access to updated Weedchem and Plantation Forestry manual maintained	Maintained access for PIRSA Forestry to Weedchem database and Plantation Forestry Manual throughout 2010/11.	Maintained access for PIRSA Forestry to Weedchem database and Plantation Forestry Manual throughout 2010/11.
	Extension and advisory services provided to the agreed level.	Review of A3P submission to DAFF on the Policy Discussion Paper – "Better Regulation of Agricultural and Veterinary Chemicals". Herbicide cooperative	Herbicide cooperative

AGREED PERFORMANCE MEASURES

Agreed Performance Measures		July 2010 to June 2011	July 2009 to June 2010
Community Fire Protection Program	Works programs agreed prior to commencement of financial year	Complete	Complete
	Works programs completed to agreed timeframes and in accordance with specifications	Refer to achievements	Refer to achievements
	Proportion and number of staff involved in fire protection activities and trained to the CFS Basic Fire fighting 1 level	88	N/A
	Number of staff trained to participate in Incident Management teams	41	N/A
	Number of standby days in fire season	24 GT Region 48 Ranges Region	141
	Number of fire towers and days fire tower operated	24	97
	Number of incidents responded to within and beyond ForestrySA's automatic dispatch zones	10	39
	Number of fires attended off ForestrySA land	4	32
	Area burnt of native reserves burnt by wildfire (ha)	0	54

