

Bushland and Biodiversity

2015 Annual Report

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Annual Report 2014-2015

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Photo: Tawny Frogmouth – credit Alex Sen Gupta

1.0 Introduction and Context

Hornsby Shire covers 50,874 hectares of which approximately 67% is bushland. Council manages 278 natural areas (bushland and wetlands). Other functions include on ground bush restoration and regeneration; upgrade and maintenance of walking tracks, providing free guided bushwalks and the Hornsby Mountain Bike Trail; management of a large volunteer Bushcare Program; management of bushfire risk in reserves and actively participating in bushfire risk management in the Shire; providing assessment and advice on large areas of private bushland. These activities are guided by legislation, the adopted Biodiversity Conservation Strategy, Plans of Management and other strategies adopted by Council. The Branch undertakes specific management roles in Berowra Valley National Park. The more significant bushland reserves are:

Arcadia: Arcadia Park, Calabash Road Bushland, Calabash Point Bushland, Halls Creek Bushland

Asquith: Michigan Avenue Bushland, Mills Avenue Bushland

Beecroft: Beecroft Reserve, Byles Creek, Chilworth Reserve, Castle Howard Bushland, Edwards and Lamorna Bushland, Fearnley Park, Observatory Park

Berowra: Berowra Community Centre Bushland, Combora Circuit Bushland, Evanda Street Bushland

Berowra Creek: Bar Island, Neverfail Bay Bushland

Berowra Heights: Berowra Park, Cunio Point Bushland, Turner Road Bushland

Berowra Waters: Furber Park

Berrilee: Bay Road Bushland, The Woolwash

Brooklyn: Brooklyn Park, Brooklyn Railway Bushland, McKell Park, Seymours Creek Bushland

Canoelands: Pumpkin Point Creek Bushland

Carlingford: Ray Park

Castle Hill: Upper Pyes Creek Bushland

Cheltenham: Cheltenham Bushland

Cherrybrook: Kanangra Crescent Bushland, Lakes of Cherrybrook, Pyes Creek Bushland

Dangar Island: Kiparra Park

Dural: Muraban Road Bushland, Pyes Creek Bushland

Epping: Dence Park, Midson & Plympton Road Bushland, Terrys Creek Bushland, Vimiera Park

Fiddletown: Bloodwood Road Aboriginal Area, Calabash Point Bushland, Collingridge Bushland, Sunnyridge Road Bushland

Galston: Fagan Park (including Carrs Bush), Galston Park, Galston Recreation Reserve and Hayes Park, Knights Road Bushland

Glenorie: Campbell Crescent Bushland, Glenorie Park

Hornsby: Florence Cotton Reserve, Hornsby Park, Manor Road Bushland, Reddy Park, Rosemead Road Bushland, Waitara Creek Bushland

Hornsby Heights: Crosslands, Ginger Meggs Park, Rofe Park Bushland, Somerville Road Bushland

Laughtondale: One Tree Reach Wetland

Maroota: Molesworth Reserve, Wisemans Ferry Lookout Bushland, Wisemans Ferry Tip (decommissioned – bushland parcel)

Middle Dural: Forsters Reserve

Mount Colah: Berry Park Bushland, Bimbil Avenue, Excelsior Bushland, Judith Ave Bushland, Murralong Road Bushland, Oxley Drive Park, Sue Place

Mount Ku-ring-gai: Mount Ku-ring-gai Park

Pennant Hills: Azalea Grove Bushland, Britannia Street Bushland, Observatory Park, Tristania Way Bushland

Normanhurst: Begonia Road South Bushland, Kenley Park, Normanhurst Park, Pine Street Bushland, Waitara Creek Bushland

North Epping: North Epping Oval, Woods Street Oval

Thornleigh: Dog Pound Creek Bushland, Larool Crescent Childrens Centre (bushland parcel), Larool Creek Bushland

Westleigh: Dog Pound Creek Bushland, Quarter Sessions Road Bushland, Western Crescent Playground (bushland parcel)

West Pennant Hills: New Farm Road Bushland

Wisemans Ferry: Singleton Mill Road Bushland and Wisemans Ferry Cemetery (bushland parcel)

2.0 Biodiversity Planning and Management

2.1 Biodiversity Conservation Strategy

The **Hornsby Shire Biodiversity Conservation Strategy** (2004, updated 2006) guides Council's priorities for undertaking conservation actions. Its objectives are to:

- *Conserve* species, populations and communities of native plants and animals, and allow for their continued evolution and survival in the Hornsby Shire in context of the region.
- Achieve an *improvement* in the quality and extent of existing indigenous vegetation in Hornsby Shire.
- Collect and update biodiversity conservation *information*.
- Develop key community incentive and *partnership* programs to maintain biodiversity on private properties in the Hornsby Shire.
- Ensure Council activities *integrate* with other agencies to achieve biodiversity conservation outcomes.

- Ensure environmental *planning* instruments and processes provide a strategic approach to achieving biodiversity conservation outcomes.
- Maintain and improve the management of biodiversity on *publicly owned land* in Hornsby.
- Effectively *mitigate threats* to conserving biodiversity in Hornsby.
- Conserve and recreate *connectivity* across fragmented landscapes.
- Develop and implement effective *systems* to fund and manage biodiversity conservation actions.

Hornsby Shire has over 1,000 native plants and 388 terrestrial vertebrate animals. Of these, there are 26 threatened plants and 42 threatened fauna known or likely to occur.



Photo: Nursery volunteers

Annually ten high priority actions are implemented from the Biodiversity Conservation Strategy

Major achievements and issues for 2014-15 included:

Conservation – Council is to accept transfer of 29 lots of bushland (74ha) in Epping, Beecroft, Galston and Cowan.

Bushland restoration – 204 ha or 15.7% of Council bushland, a 9% increase from last year-

Contract bush regeneration restored 145 ha in 68 reserves a 14%, through Council and grant funds, an increase in the area regenerated in 2014-15.

Catchment remediation vegetation - maintenance of native vegetation landscaped zones at 18 sites was a 13% increase from last year.

608 Bushcare volunteers restored 77 ha at 101 sites, with 111 new members joining.

Community nursery propagated 38,438 tube stock plants for restoration. 6,143 free native plants were provided to 954 properties at 4 open days promoting biodiversity in local gardens. 38,689 plants were supplied for the Catchment Remediation Rate program, National Tree Day, Council bushland and Bushcare sites, advanced street trees, landscape projects and schools.

Knowledge - Eastern Pygmy Possum ongoing monitoring assisted in adapting to Climate Change. A 10/50 tree canopy loss study was commenced.

Partnerships -

Bushcare volunteers worked in Council bushland for 12,500 hours valued at \$437,500.

47 Nursery volunteers did 3,229 hours of plant production, a 7% increase from last year valued at over \$113,015.

Guided bushwalks 378 residents attended 30 free walks

Rural community 3 workshops were delivered on advanced horse property management (2) and native grasses (with Still Creek Landcare Group)

Floating Landcare 7 events at Bar Island had 58 volunteers undertaking 348 hours of bushland restoration with Bushcare volunteers and LLS.

Hornsby Mountain Bike Trailcare Program – 106 registered volunteers in program, attended 6 work days and contributed 173 hours valued at \$6055.

Bushland Management Advisory Committee – community representatives met 4 times and inspected 4 sites.

1116 community members attended displays, stalls, seminars, tours, talks and training, an 87% increase in attendance.

Integration with agencies - Berowra Valley Working Group - Council managed Bushcare and bush regeneration contracts in Berowra Valley National Park and worked with NPWS.

Planning -

- Significant tree canopy loss following the introduction of 10/50 vegetation clearing legislation. Council made submissions to the Rural Fire Service and held a public meeting.
- Three offsets valued at \$136,279 were negotiated to offset the loss of Blue Gum High Forest and Turpentine Ironbark Forest.
- Second Biobank site negotiated at Dog Pound Creek.

Minimised threats to native flora and fauna -

Development Applications - 242 DAs and Tree Applications were assessed with over 100 additional formal responses to developments, assessments and breaches.

Environmental impact assessments - 7 EIAs were prepared for Council projects and assessed 10 EIA including 2 major infrastructure projects.

Noxious Weeds -

- 1226 property inspections
- 32 km of weed pathways inspected
- 133 'seek cooperation' to control noxious weed letters/ notices issued
- 1 Section 64 Certificates issued
- Tussock Paspalum, African Olive, Pampas Grass and Boneseed controlled on public land

Bushland recreation

- Hornsby Mountain Bike Trail was used for 2 club events and user numbers average 3,300 per month or 39,500 per annum.
- Upgrades of 3 tracks -Reddy Park, Blue Gum Track and Callicoma Track
- 12 tracks over 49 kms in length with interpretive signs were audited and maintained

Bushfire mitigation undertaken -

- 41 Asset Protection Zones and Works Access Lines maintained over 5 ha protection 220 houses
- Bushfire Education – 4 events were held with 80 residents
- \$10,709 grant for asset protection
- 21 km of Council Fire Trails
 - 2 Fire Trails had significant upgrades.
- 12 burns in Hornsby Local Government Area
- 847 permits to burn issued for private land a 33% increase since last year
- 5 hazard complaints addressed
- Introduction of 10/50 vegetation clearing legislation for fire management in August 2014.

Roadside vegetation: Council maintained 11 sites of remnant and endangered vegetation that forms habitat links.

Riparian and estuarine vegetation: 0.7 ha was restored at Brooklyn Park and the foreshore of Bar Island and Fishermans Point through grant funding.

Habitat Connectivity and Rural Lands Incentives Programs: 1.5 ha of private bushland was restored at Cherrybrook Technical High School, Benedictine Monastery at Arcadia and Marymount Mercy College, Castle Hill.

Funding - Achieving additional income and commitments of \$4,337,931 to achieve bushland management, restoration and enhanced recreational experience of Hornsby Shire’s bushland.

Revegetated 4,136 sqm (4,370 in 2013/14) compared to 3,222 sqm (10,868 in 2013/14) lost to development being a net increase of 914 sqm – this excludes 10/50 clearing and unauthorised clearing.

Connectivity –



Photo: *Corybas* and *Cryptostylis* orchids in an urban bushland reserve

2.2 Plans of Management for Natural Areas

In the 2014-2015 year, actions identified in Plans of Management for natural areas covering 276 Bushland Reserves were implemented.

Wisemans Ferry Cemetery Bushland

The entrance to the upper section of the cemetery has been upgraded using crushed sandstone. The new surface provides all weather access for maintenance and fire crews and improved pedestrian access.

One Tree Reach Wetland

Council has been undertaking ongoing weed management throughout the wetland and adjacent forest. These ongoing works have contributed to improved fauna habitat resulting in increased bird activity including Great Egret, Osprey, Swamp hen, White-faced Heron and Pacific Black Ducks frequent the site. Recent observations of frogs throughout the wetland fringe have also been a recent addition to the fauna of the site.

In addition to the recently completed boardwalk a crushed sandstone walk through the Swamp Mahogany Forest

has been completed with a small car park, seating and picnic area. Interpretive signage design has been completed and is currently in construction awaiting installation in September 2015.

The weir has undergone modifications to repair scouring of the sediment from the channel. Additional piles have been placed both up and downstream of the weir and filled with sandstone boulders to improve energy dissipation during tidal flows through the weir. Additional lantana removal has also occurred on the adjacent private property.

The works fulfil a major objective of the Plan of Management for the wetland and will be of great recreational benefit to rate payers that want to explore the northern extent of the Hornsby Shire



Photos: Forest walk – One Tree Reach Wetland, Loughtondale

2.3 Development Applications and Environmental Assessments

91 Development Applications (DA) and 151 Tree Application (TA) responses were provided, being more than last year's 84 DAs and 140 TAs, and greater again than 12-13's 70 DAs and 112 TAs. As a result over 100 additional formal responses were provided by the Branch, and numerous on-site and office meetings with applicants and Council staff.

The continuing most significant issue facing biodiversity and DA assessment is the increasingly limited amount of land available for providing a complying building envelope in minimum sized lots constrained by the presence of large remnant isolated EEC trees, threatened species or remnant roadside vegetation. These impacts are also experienced with larger commercial and industrial developments. Therefore, a majority of the subdivision and dwelling house applications request the removal of singular isolated trees and roadside vegetation in addition to having cumulative impacts on remaining trees. These impacts are often poorly addressed in consultant reports which fail to recognise the cumulative impacts of each DA removing singular trees from isolated patches, or patches of EEC's, and are overall having a significant impact upon the local population of EEC's.

Subdivisions:

Numerous subdivision applications were assessed on complex sites within adjoining bushland. There is an ongoing trend of subdivision application for larger urban properties with steep topography and bushland in urban areas with impacts on significant wildlife corridors and habitat, endangered ecological communities and urban habitat refugia resulting in loss of remnant native trees and hollows, clearing for Asset Protection Zones, increased sedimentation and weed growth. The introduction of the 10/50 bushfire code resulted in significant numbers of circumstances where land owners were clearing trees using the Code to facilitate private development. This has included some highly contention development applications in Beecroft which has raised public concerns and Councillor involvement.

Asset Protection Zones:

Compliance with APZ requirements as prescribed by Planning for Bushfire Protection, AS 3959-2009 Construction of Buildings in bushfire prone areas and the NSW Rural Fire Service created a conflict between clearing and conservation of vegetation. The majority of the Shire is mapped as 'Bushfire Prone Land' which places potentially significant implications for management of bushland including threatened species, populations, Endangered Ecological Communities and other native vegetation in the vegetated buffers between residential and other development and remnant bushland.

The Natural Resources Strategy Unit managed the APZ implementation and revegetation works for the Hornsby Aquatic Centre. This included installation of 250m of wallaby-proof fencing, 5,000 sqm of bank stabilisation and installation of over 12,000 tube stock plants from Council's Community Nursery and weed control.

Conditions of development consent

Numerous development applications that were approved for development due to the general compliance with Council's planning requirements resulted in negotiation of financial off-site offsets in accordance with Council's Green Offsets Code (2013).

Ensuring compliance with approved Vegetation Management Plans and bushland protected on private property with a covenant on the title of the property (s.88b of *Conveyancing Act 1919*) has been difficult.

The Strategy Unit (biodiversity planning) has been involved in numerous post approval certification and compliance inspections to ensure certain conditions have been met prior to release of subdivision certificates.

Significant infrastructure and other projects

Environmental assessments were reviewed for:

- NorthConnex – connection between the M2 and Sydney-Newcastle freeway; placement of nest boxes throughout Waitara Creek; biobanking negotiations
- North West Rail Link - ongoing works at Cheltenham site; management of the *Hibbertia*; reuse of timber from trees removed ; biobanking negotiations

Involvement with these projects required review of the environmental assessment reports and consultation with state government authorities, utilities and contractors. Negotiations have sought to limit potential impacts upon local biodiversity on private and Council land.

Ten environmental assessments reviewed included Reviews of Environmental Factors, Environmental Impact Statements, Assessment of Significance and ecological reports including three state government projects.

Seven environmental impact assessment reports were prepared by the team for Council projects including Catchment Remediation Devices (Terrys and Abuklea), Park Upgrade Works (lighting and cark parks), Rural Roads Restoration Program (Works Division) and Men's Shed (Cowan and Mt Ku-ring-gai), Hull Road Reserve, Reddy Park upgrade, Hornsby Park, Pennant Hills Playing Field, Brickpit telecommunications.



Photo: Monitor, Muogamarra Nature Reserve, Cowan

2.4 Illegal Land Clearing and Tree Loss

82 breaches or complaints were investigated by Biodiversity Planning staff for any instances of small scale vegetation clearing within private and public lands. In addition to these the Biodiversity staff assisted Council's Tree Management Officers to assess the impacts of tree removal on trees that form part of Critically Endangered Communities (CEECs) or Endangered Ecological Communities (EECs), such as Blue Gum High Forest or Turpentine-Ironbark Forest.

Some of the key issues for conservation are that CEECs and EECs occur primarily on private land, are often heavily impacted and their condition severely compromised by urban development, are poorly represented in Council's parks and reserves and National Parks estate and there is little suitable area for replanting to offset their loss. Unfortunately there are regular occurrences of trees being illegally removed in urban and rural areas of the Shire, with particular difficulties in monitoring and addressing compliance matters in the rural districts.

The 10/50 Bushfire Code legislation had a significant impact on the number of native trees cleared on private property. This included trees belonging to EECs listed under the NSW Threatened Species Conservation Act and the Commonwealth Environment Protection and Biodiversity Conservation Act that would previously have been protected unless they were deemed an imminent threat to life and property. Council received numerous complaints from residents observing the removal of large native trees for reasons other than bushfire protection. The assessment of DA impacts was further complicated by this legislation as the assumption that a DA applicant would voluntarily remove large trees within 10 metres of a dwelling could not be mitigated by a condition of consent.

The newly introduced legislation and its relationship with EPA&A Act was tested in a Land and Environment Court challenge of Council's refusal of a subdivision proposal involving Blue Gum High Forest removal in Beecroft. The court dismissed the appeal for based upon Council's ecological concerns, and this judicial interpretation of legislative change became a consideration for future DA assessments by Councils. Council made two

submissions to the Rural Fire Service, held a public meeting and commenced monitoring tree loss.

2.5 Flora and Fauna

The NPWS Wildlife Atlas indicates that 24 threatened fauna species (seven bats, four other terrestrial mammals, ten birds, two frogs and one reptile) listed under the NSW Threatened Species Conservation Act 1995 reside within the bushland of Hornsby Shire and a further ten threatened species occasionally visit. To better understand, manage and conserve the Shire's flora and fauna, a monitoring study was undertaken this year.

Eastern Pygmy Possum:

Biodiversity planning unit staff undertook a long term monitoring study using the threatened Eastern Pygmy-possum as a baseline indicator. A total of 50 specially made nest boxes (made from salvaged hollow timber) were installed across ten (10) sites in the Shire in consultation with Dr. Brad Law (Senior Ecologist, Forests NSW) and Paul Burcher (Aquila Ecological). The trial from the previous 2011-2014 period was so successful in detecting the targeted threatened species that the program will become a long-term monitoring study. Remote sensing techniques including camera traps, song meter and anabat will also be used to record other fauna that may be using these sites and to increase Council's knowledge of biodiversity in the Shire.

It is envisaged that the presence of this threatened species will be a good ecological indicator and assist with the way Council manages its bushland resources including implementing appropriate fire regimes.

2.6 Biodiversity Preservation in Hornsby LEP & DCP

Staff contributed to the update of the Hornsby LEP and DCP to improve interpretation and implementation of biodiversity elements.

During the year the monitoring of tree canopy loss due to Council's amended Tree Preservation Order that protects only indigenous trees of Hornsby Shire and trees in Heritage Conservation areas, was placed on hold due to the introduction of 10/50 legislation. The Smith and Smith study assessed tree removal 2 years before and 2 years after the amended TPO. It is planned to recommence the study in 2015-16.

2.7 Acquisition of Bushland

Council has resolved to accept transfer of 29 parcels of bushland from the Minister for Planning and Environment valued at over \$22 million. The land will be utilised for bushland conservation and will form part of Sydney's Green Grid.

The 74ha of bushland adjoins areas managed by Council and transfer consolidates reserve boundaries and provides improved bushland conservation opportunities.

Key areas include Terrys Creek Epping, land at Epping near Devlins Creek south of the M2, land near Beecroft and Chilworth Reserves, and significant bushland at Galston Gorge.



Photo: *Darwinia biflora* offset at Berry Park, Mount Colah



Photo: Darwinia biflora offset at Ern Holmes (Wood Street) Oval, North Epping

2.8 Offsets

In the 'Bushland Shire' there are significant areas of bush on private land and it is inevitable that development will have cumulative losses of native vegetation. Council's Green Offsets Code assists in providing an offset where there is no possibility of a development avoiding an impact on native vegetation. The policy has been regularly reviewed. The principles of this policy are to 'Avoid, Minimise and Mitigate' impacts of a development that must be fully exhausted before examining the option to seek an offset. Some development proposals submitted to Council suggest that this is often ignored, by seeking an offset without any discussion of avoidance or alternative options as required under this policy.

Throughout 2014-15 over 90 applications for development that impact on native vegetation were referred to the Natural Resources Branch. In the majority of cases vegetation impacts were minimal and offsetting could occur on site through appropriate landscaping. A minority of developments had a larger impact on native vegetation and these impacts were able to be mitigated on site through approved Vegetation and Restoration Management Plans. For these and more significant impacts Natural Resources have utilised the Code and other guidelines to avoid, minimise or mitigate development impacts.

One of the offsetting options within this policy is the use of Voluntary Planning Agreements (VPA). VPA's enable the land owner to offset the loss by providing practical, managerial and financial offsets through a legally binding agreement. In accordance with the Code, if impacts cannot be offset on-site then offsets on other land or financial contributions for conservation require a legally binding agreement (ie: a Voluntary Planning Agreement).

Three offsets were negotiated during the year – one at 30-34 Keeler Street & 4 Hepburn Avenue, Carlingford, 12B Surrey Street, Epping, and 186b Beecroft Road, Beecroft, for the restoration of Blue Gum High Forest and Sydney Turpentine Ironbark Forest. The financial value of

these offsets is \$47,049, \$69,722.40 and \$19,507.97, totalling \$129,938.97 through voluntary planning agreements.

2.9 Biobanking

Council created 2 Biobank Agreement (BA) sites known as Upper Pyes Creek and New Farm Road Bushland (BA 142), and Dog Pound Creek (BA 172). A Biobank Agreement is a site permanently set aside for conservation where 'biodiversity credits' are created.

Upper Pyes Creek and New Farm Road Bushland Biobank Agreement conserves Blue Gum High Forest, a critically endangered ecological community. The site provides habitat for range of native fauna and a wildlife corridor to Berowra Valley National Park. The Biobanking Agreement created biodiversity credits and identified the costs to manage the land. The Agreement includes a plan of management actions and a payment is received annually to carry out the work. Upper Pyes Creek and New Farm Road Bushland are some of the larger remaining areas of Blue Gum High Forest in public ownership. Their restoration commenced and is managed by Council using contract bush regenerators to complement the work of the New Farm Road Bushcare Group.

All the biodiversity credits were sold to Transport for NSW to offset the loss of vegetation from the North West Rail Link and the Epping to Thornleigh Third Track Project, for over \$2.5 million which funds Council to restore and manage the bushland to conserve its biodiversity in perpetuity.

The second Biobank Agreement site includes Dog Pound Creek, Florence Cotton Reserve and part of Ginger Meggs Park. The vegetation communities include Blue Gum High Forest (diatreme form), Blackbutt Gully Forest and Peppermint Angophora Forest. The diatreme forest is the largest and best remaining known example. All the biodiversity credits created were sold to the Linking Landscapes grant project for over \$1.27 million.

3.0 Bushfire Management

The Natural Resources Branch has a significant responsibility for bush fire management in Hornsby Shire. Bushfire Prone Mapping (2014) indicates that 20180 properties in the Shire being designated as bushfire prone.

A large proportion of Hornsby Shire has been rated as having extreme or very high bushfire risk and a 47 km interface occurs between public land and developed areas in the Hornsby LGA, with 27 km being Council managed bushland. Council is the local authority under the Rural Fires Act and is responsible for the prevention, mitigation and suppression of bush fires in the LGA, which is delegated to the RFS through a service agreement. Council is also a member of the Bush Fire Management Committee (BFMC) responsible for identification, planning and treatment of bush fire risk management through the Bush Fire Risk Management Plan and the Annual Fuel Management Program.

The Natural Resources Branch is responsible for addressing the bush fire risk on land owned or managed by Council and for controlling burning on private land through the issue of permits.

3.1 Bush Fire Risk Management Plan

The Hornsby Ku-ring-gai Bush Fire Risk Management Plan was implemented through the H-K Bushfire Management Committee's Annual Works Program for 2014-2015. Council implemented the plan and program on its land by preparing for hazard reduction burns, manual fuel reduction, education and fire trail works. The following activities undertaken in the Hornsby LGA during the year and were assisted by grant funding of \$10,709.

A review is currently being undertaken in conjunction with all land managers on the Risk Management plan which will detail Bushfire Management works (Manual Hazard Reduction, Fire Trail Maintenance and Community Education) for the next 5 years. This review is expected to be completed by late-2015.

Manual hazard reduction

Works identified in the Hornsby Shire Council Bushfire Risk Mitigation Manual Works Program 2010-2015 were carried out by Council contractors. Manual works were scheduled and undertaken with assistance of grant funding from the Bushfire Mitigation Fund:

Treatment of 31 Asset Protection and 10 Works Access Lines were maintained, covering a total area of over 5 hectares and affording protection to 220 properties immediately adjoining Council bushland.

Hazard reduction burns

During the year Council undertook environmental assessments of 10 sites and on-ground site preparation for identified burns.

Climatic windows, environmental constraints and resourcing issues have limited the possibility of scheduled Hazard Reduction Burns during 2014-2015. Combined, Land Managers completed twelve hazard reduction burns within Hornsby Shire Local Government Area:

- Short Street Forest Glen (Crown Lands – 84 Hectares protecting 50 assets)
- Canoelands (RFS – 92 Hectares protecting 30 assets)
- Berowra West (NPWS - 12 Hectares protecting 71 assets)
- Smugglers Ridge (NPWS – 457 Hectares protecting 5 Major assets)
- Forest Glen (RFS – 6 Hectares protecting 6 assets)
- Burke Place Mt Colah (NPWS – 3 Hectares protecting 50 assets)
- Berowra Valley NP – Wallaby (NPWS – 80 Hectares protecting 210 assets)
- Bujwa Creek (NPWS – 5 Hectares protecting 1 major asset)
- Cumbora Circuit (Hornsby Council Land – 1 Hectare protecting 24 assets)
- Lonsdale Avenue (Crown Lands – 5 Hectares protecting 30 assets)
- Beaumont Road (Crown Lands – 0.4 Hectare protecting 1 major asset)
- Pacific Hwy (Crown Lands – 0.3 Hectare protecting 3 major assets)

Community Education

Council conducted four community events with the Bushfire education trailer, helping residents with their Bushfire Survival Plans. Events were held at Clovelly Road, Hornsby; Arionga Road, Hornsby; Begonia Road, Thornleigh; Judith Avenue, Mount Colah with representatives from the NSW rural Fire Service and Fire and Rescue NSW. Over eighty 80 residents were assisted with bushfire awareness at these activities.

3.2 Bush Fire Hazard Complaints on Council Land

Four hazard complaints on council managed bushland had works undertaken.

3.3 Burning on Private Land – Clean Air Regulation

Breaches of Protection of the Environment Operations Act, (Clean Air) Regulations 2010

Permits to Burn:

847 'Approval to pile burn' permits were issued under the Protection of Environment Operations (Clean Air) Regulation 2010, being a 30% increase from last year.

Council undertook ten inspections from complaints about illegal burning during the year.



Photo: resident with Common ringtail- possum at Council bushfire education street meeting

3.4 Council Fire Trails

Fire trail works

There are over 92km of Fire trails that Hornsby Council manages and maintains which works are scheduled as part of the Bushfire Risk Management Plan. Vegetation and significant surface works were undertaken on Council land at

- Ginger Meggs Fire Trail
- Clovelly Fire Trail

3.5 Support of the Bush Fire Management Committee

The Natural Resources Branch worked closely with the BFMC in particular the NSW Rural Fire Service (RFS) and Fire and Rescue NSW in all aspects of bushfire management to ensure optimum bushfire mitigation outcomes for the communities of the shire.

3.6 Bush Fire Prone Land Mapping and 1050

Council has a requirement to review and update Bushfire Prone Land Mapping every 5 years.

An update to Bushfire Prone Land Mapping was completed and endorsed in early 2014. The latest mapping resulted in a total 20180 property in the shire classified as Bushfire Prone.

Council has a requirement to review and update Bushfire Prone Land Mapping every 5 years. An update to Bushfire Prone Land Mapping was completed and endorsed in early 2014. The latest mapping resulted in a total 20180 property in the shire classified as Bushfire Prone. On August 1st 2014 any property located within 350 meters of Bushfire Prone Land vegetation was determined by the RFS to be included in the 10/50 vegetation clearing entitlement. The 10/50 legislation is currently under review and it is recommended that the RFS online tool be used to determine the eligibility of any individual property.

3.7 Grants

Fire Mitigation Works:

Council obtained \$10,709 to fund works associated with Hazard reduction burns and manual works associated with Asset Protection Zones.



Photo: Asset protection zone

4.0 Bushland Operations

4.1 Contract and Staff Bush Regeneration Program

Council's bushland regeneration program treated 68 sites on Council owned land and Council managed Crown land, over 20% more than last year. Some sites were on Office of Environment & Heritage land that is co-managed with Hornsby Shire Council in Berowra Valley National Park under an agreement. One grant funded bushland restoration site was on private* land in conjunction with an adjacent public bushland reserve. Bush regeneration sites were contracted to 13 bush regeneration companies under the final year of a 3 year tender. Works covered approximately 145 ha restoring urban bushland remnants and mitigating weed sources that threatened larger and more pristine bushland reserves. This is a 14% increase in the area regenerated in 2014-15.

BUSHLAND REGENERATION SITES

1. Appletree Bushland, Cherrybrook
2. Arcadia Park, Arcadia
3. Arcadia Road, Fagans Road, Arcadia
4. Arcadia Road, Berowra
5. Bar Island
6. Bayfield Rd, Galston
7. Beecroft Reserve, Beecroft
8. Begonia Reserve, Normanhurst
9. Benedictine Monastery, Arcadia*
10. Berowra Park Bushland, Berowra
11. Bluegum Forest, Hornsby
12. Brickpit Park, Thornleigh
13. Brooklyn Park, Brooklyn
14. Byles Creek - Britannia Street Bushland and Azalea Grove Bushland, Pennant Hills
15. Byles Creek – Malton Road Bushland, Beecroft
16. Carrs Bush, Galston
17. Carrs Road, Galston
18. Carters Road, Dural
19. Castle Howard Reserve, Cheltenham
20. Cheltenham Oval, Cheltenham
21. Cherrybrook Road, Cherrybrook
22. Cherrybrook Tech High School Bushland, Cherrybrook
23. Chilworth Recreation Reserve, Beecroft
24. Crosslands Reserve, Crosslands
25. Dog Pound Creek Bushland, Westleigh
26. Epping Road Bushland, Epping
27. Fearnley Reserve, Beecroft
28. Fishburn Road and unmade Bevans Rd Bushland, Galston
29. Flame Tree Close Bushland, Cherrybrook
30. Florence Cotton Bushland Reserve, Hornsby
31. Fullers Road Bushland, Hornsby
32. Galston Recreation Reserve, Galston
33. Greenway Park Bushland, Cherrybrook
34. Hornsby Park, Hornsby
35. Jasmine Road, Hornsby
36. Kangaroo Point , Brooklyn
37. Kenley Park, Normanhurst
38. Kent Street Reserve, Epping
39. Kirkham Road, Beecroft Reserve
40. Lakes of Cherrybrook Bushland
41. Malsbury Road and Milsons Parade, Normanhurst
42. McKell Park, Brooklyn
43. Mills Park Bushland, Asquith
44. Mountside Reserve, Mount Colah
45. Mt Ku-ring-gai Hard Fill, Mt Ku-ring-gai
46. Murralong Road Calna Creek, Hornsby Heights
47. Netherby Street Bushland, Wahroonga
48. New Farm Road, West Pennant Hills
49. Old Mans Valley, Hornsby
50. One Tree Reach Wetland, Laughtondale
51. Pyes Creek Bushland, Cherrybrook
52. Ray Park & Plympton Road Bushland, Epping
53. Reddy Park, Hornsby
54. Rofe Park Bushland , Hornsby Heights
55. Rosemead Road Bushland, Hornsby
56. Arcadia Crescent , Berowra
57. Singleton Rd, Wisemans Ferry
58. Stewart Ave Hornsby
59. The Callicoma Walk, Cherrybrook
60. Tim Brownscombe Reserve
61. Upper Berowra Creek, Pennant Hills
62. Terrys Creek Bushland, Epping
63. Vimiera Park, Epping
64. Waitara Creek Bushland and Normanhurst Park, Normanhurst
65. Westleigh Interface, Westleigh
66. Wisemans Ferry Recreation Reserve, Wisemans Ferry
67. Wongala Crescent, Pennant Hills
68. Zig Zag Creek, Pennant Hills

New Farm Road is an additional site and is part of Council's first BioBanking Agreement.

In addition to bushland regeneration works, maintenance of the native vegetation landscaped zones at 18 Catchment Remediation Rate (CRR) sites was carried out, a 13% increase from last year.

Funding included Section 94 contributions for capital upgrade of 5 sites at the cost of \$68,000. Council funds of \$64,291 were expended on ongoing bushland maintenance sites, grant and green offset funds totalling \$387,268 and CRR funds of \$51,012 for Catchment Remediation sites and of \$65,000 for Catchment Remediation riparian sites.

4.2 Tree Management in Bushland Reserves

Council's Bushland Operations Team responded to approximately 191 Customer Service Requests from residents for tree assessment in Bushland reserves across the Shire from Epping to Wisemans Ferry. Contract tree works were undertaken subject to assessment, a 43% increase from last year.

4.3 Myrtle Rust and Phytophthora

Mitigation of the positive Phytophthora (*Phytophthora cinnamomi*) results of 2014-15 was undertaken on the track near Lambe Place Cherrybrook, part of The Callicoma Walk. A raised track platform of mini mesh grating with timber edging was installed. This ensures track users do not pick up the contaminated soil and transfer it to other areas, thus spreading the pathogen. Additional areas within the Hornsby LGA have been tested positive for Phytophthora. All sites have been spatially referenced to assist with management and the prevention of spread. Council continues to adhere to hygiene protocols with staff and contractors.

4.4 Berowra Valley National Park Working Group

The park is owned and primarily managed by the National Parks and Wildlife Service (NPWS) and Council undertakes specific roles. A working group of NPWS (now part of Office of Environment and Heritage) and Council's Natural Resources Branch met regularly during the year to ensure the smooth running of the park by the two agencies for which Council prepared its annual service plan. Crosslands Reserve and its access road is managed by Council as the road and 50% of the reserve is under Council's direct ownership. Council conducted Park interface activities where Council land adjoins BVNP, including maintenance of existing and installation of four new catchment remediation devices that treat stormwater draining into the Park, training and coordination of 24 Bushcare groups within Berowra Valley Catchment, two strategic walking tracks and 6 contract bush regeneration sites.

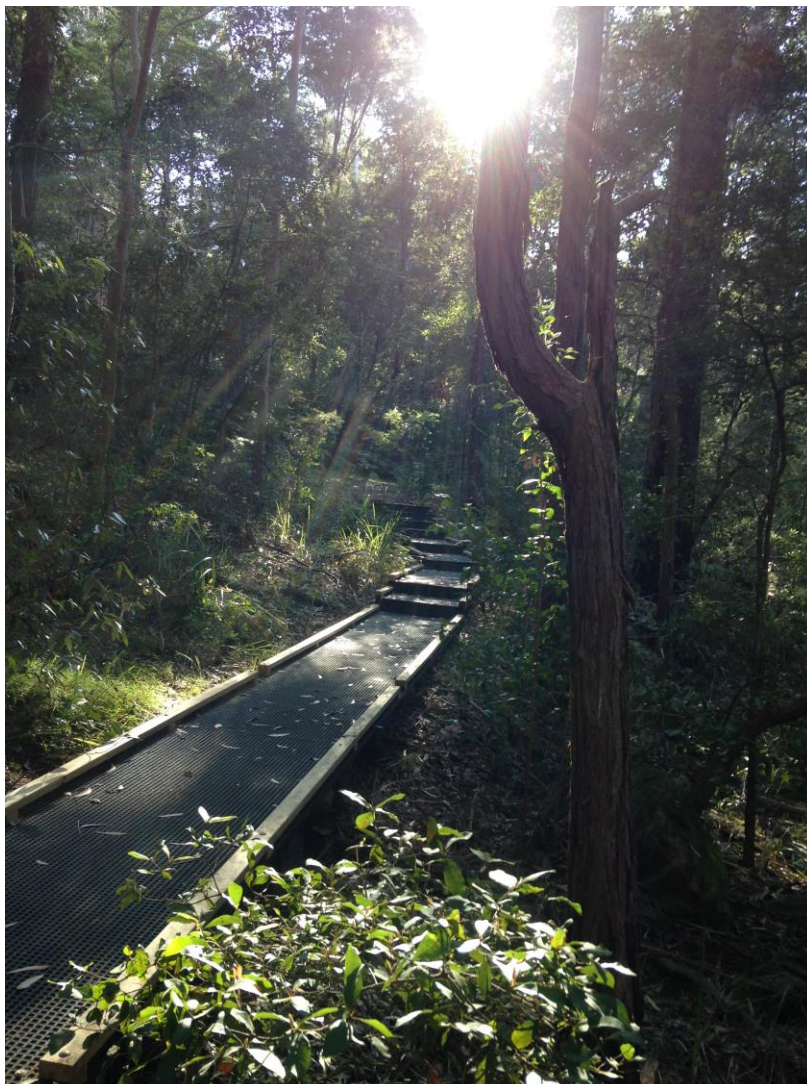


Photo: Management of *Phytophthora* spread with raised boardwalk – Callicoma Track

4.5 Noxious Weed Control

Grant funding was received for year 5 of the Sydney Region Weed Action Project which enabled proactive noxious weed inspections and control. 682 inspections were made and 57 noxious weed notices issued.

Regional Noxious Weeds Program

Council inspects strategic areas for noxious weeds with funding assistance from the Sydney Weeds Action Program. Areas targeted for private property inspections this year were the extensive peninsulas of residential land in parts adjacent to National Parks near Mount Ku-ring-gai and Cowan.

Planned meetings and spontaneous one-on-one conversations were held with residents within the inspection areas. The objectives were to raise public awareness about the impacts of noxious weeds and to assist residents in correctly identifying and managing noxious weeds on their property.

Council inspected and treated priority noxious weeds on public land areas along 32km of transport corridors:

Hornsby to Cowan area - Tussock Paspalum and Boneseed,

Galston, Arcadia and Dural areas - African Olive and Pampas Grass. DONE AN

Responsive noxious weed visits and education

60 service requests were received for noxious weeds on private property. An additional 242 property inspections were also undertaken related to general enquiries, DAs and TAs. An additional 160 phone and email enquiries were received. 76 seek cooperation letters/noxious weeds notices were sent out. 1 Section 64 Certificates were issued. The majority of weeds on private property were Large-leaf and Small-leaf privet (*Ligustrum lucidum* and *Ligustrum sinense*), Morning glory (*Ipomea indica*), Lantana (*Lantana camara*) and Camphor laurel (*Cinnamomum camphora*).

Sydney Weeds Committee

Council participated in the Sydney Weeds Committee and the Sydney Region Weeds Action Project to keep aware of regional weed priorities and initiatives and receive grants to implement noxious weed control.

LISTED NOXIOUS WEEDS FOR HORNSBY SHIRE COUNCIL - February 2014

<u>Name - Common</u>	<u>Botanical</u>	<u>Class</u>
African boxthorn	<i>Lycium ferocissimum</i>	4
African feathergrass	<i>Pennisetum macrourum</i>	5
African olive	<i>Olea europaea</i> ssp cuspidata	4
African turnip weed	<i>Sisymbrium thellungii</i> and <i>Sisymbrium runcinatum</i>	5
Alligator weed	<i>Alternanthera hiloxeroides</i>	3
Anchored water hyacinth	<i>Eichornia azurea</i>	1
Annual ragweed	<i>Ambrosia artemisiifolia</i>	5
Arrowhead	<i>Sagittaria montevidensis</i>	4
Artichoke thistle	<i>Cynara cardunculus</i>	5
Asparagus	<i>Asparagus</i> species	4
Asparagus fern	<i>Asparagus virgatus</i>	4
Athel tree / pine	<i>Tamarix aphylla</i>	5
Balloon vine	<i>Cardiospermum grandiflorum</i>	4
Bear-skin fescue	<i>Festuca gautieri</i>	5
Bitou bush	<i>Chrysanthemoides monilifera</i> ssp rotundata	3
Black knapweed	<i>Centaurea xmoncktonii</i>	1
Black willow	<i>Salix nigra</i>	2
Blackberry	<i>Rubus fruticosus</i> aggregate species	4
Boneseed	<i>Chrysanthemoides monilifera</i> ssp monilifera	2
Bridal veil creeper	<i>Asparagus declinatus</i>	4
Bridal veil creeper	<i>Asparagus declinatus</i>	1
Broad-leaf pepper tree	<i>Schinus terebinthifolius</i>	2
Broomrapes	<i>Orobancha</i> spp	1

Burr ragweed	except native <i>O.cernua</i> , <i>australiana</i> & <i>O.minor</i> <i>Ambrosia confertiflora</i>	5
Cabomba	All <i>Cabomba</i> spp except <i>C.furcata</i>	5
Camphor laurel	<i>Cinnamomum camphora</i>	4
Castor oil plant	<i>Ricinus communis</i>	4
Cat's claw creeper	<i>Dolichandra unguis-cati</i>	4
Cayenne snakeweed	<i>Stachytarpheta cayennensis</i>	5
Chilean needle grass	<i>Nassella neesiana</i>	4
Chinese celtis	<i>Celtis sinensis</i>	4
Chinese violet	<i>Asystasia gangetica</i> ssp <i>micrantha</i>	1
Climbing Asparagus fern	<i>Asparagus plumosus</i>	2
Climbing Asparagus fern	<i>Asparagus plumosus</i>	4
Clockweed	<i>Gaura parviflora</i>	5
Cockspur coral tree	<i>Erythrina crista-galli</i>	4
Coolatai grass	<i>Hyparrhenia hirta</i>	3
Corky passionfruit	<i>Passiflora superosa</i>	4
Corn sowthistle	<i>Sonchus arvensis</i>	5
Dodder	All <i>Cuscuta</i> species	5
except native <i>C.australia</i> ,	<i>C.tasmanica</i> and <i>C.victoriana</i>	
Dolichos pea	<i>Dipogon lignosus</i>	4
Espartillo	<i>Amelichloa brachychaeta</i> / <i>caudata</i>	5
Eurasian water milfoil	<i>Myriophyllum spicatum</i>	1
Fine-bristled burr grass	<i>Cenchrus brownii</i>	5
Fireweed	<i>Senecio madagascariensis</i>	4
Flax-leaf brom	<i>Genista linifolia</i>	4
Fountain grass	<i>Pennisetum setaceum</i>	5
Frogbit / Spongeplant	<i>Limnobium laevigatum</i> and <i>L.spongia</i>	1
Gallon's curse	<i>Cenchrus biflorus</i>	5
Gamba grass	<i>Andropogon gayanus</i>	5
Giant reed / Elephant	<i>Arundo donax</i>	4

grass				O.ficus-indica	
Glaucous star thistle	Carthamus glaucus	5	Prickly pear	Cylindropuntia species	4
Golden thistle	Scolymus hispanicus	5	Privet (Broad-leaf)	Ligustrum lucidum	4
Gorse	Ulex europaeus	3	Privet	Ligustrum sinense	4
Green cestrum	Cestrum parqui	3	(Narrow-leaf / Chinese)		
Grey willow	Salix cinerea	2	Red rice	Oryza rufipogon	5
Ground asparagus	Asparagus aethiopicus	4	Rhizomatous bamboo	Pyllostachys species	4
Groundsel bush	Baccharis halimifolia	3	Rhus Tree	Toxicodendron	4
Harrisia cactus	Harrisia species	4		succedaneum	
Hawkweed	Hieracium species	1	Rubber vine	Cryptostegia grandiflora	1
Heteranthera / Kidneyleaf	Heteranthera reniformis	1	Sagittaria	Sagittaria platyphylla	4
mud plantain			Salvinia	Salvinia molesta	2
Honey Locust	Gleditsia triacanthos	3	Scotch/ English broom	Cytisus scoparius ssp	4
Horsetail	Equisetum species	1			
Hydrocotyl /	Hydrocotyl ranunculoides	1			
Water pennywort			Senegal tea plant	Gymnocoronis	1
Hygrophila	Hygrophila costata	2		spilanthoides	
Hymenachne	Hymenachne	1	Serrated tussock	Nassella trichotoma	4
	amplexicaulis and hybrids		Siam weed	Chromolaena odorata	1
Japanese honeysuckle	Lonicera japonica	4	Sicklethorn	Asparagus falcatus	2
Jasmine	Jasminum polyanthum	4	Silver-leaf nightshade	Solanum elaeagnifolium	4
(white/Chinese/winter)			Smooth-stemmed turnip	Brassica barrelieri ssp	5
Karoo thorn	Acacia karroo	1		oxyrrhina	
Kochia	Bassia scoparia	1	Soldier thistle	Picnomon acarna	5
Koster's curse / Clidemia	Clidemia hirta	1	Spotted knapweed	Centaurea stoebe ssp	1
Kudzu	Pueraria lobata	2		micranthos	
Lagarosiphon	Lagarosiphon major	1	St John's wort	Hypericum perforatum	4
Lantana	Lantana species	4	Texas blueweed	Helianthus ciliaris	5
Leafy elodea /	Egeria densa / Egeria	4	Turkey rhubarb	Acetosa sagittata	4
Dense waterweed			Tussock paspalum	Paspalum quadrifarium	3
Lippia	Phyla canescens	4	Water caltrop	Trapa species	1
Long-leaf willow primrose	Ludwigia longifolia	3	Water hyacinth	Eichhornia crassipes	2
Ludwigia	Ludwigia peruviana	3	Water lettuce	Pistia stratiotes	1
Madeira vine	Anredera cordifolia	4	Water soldier	Stratiotes aloides	1
Mexican feather grass	Nassella tenuissima	1	Willows	Salix except.babylonica	4
Mexican poppy	Argemone mexicana	5	Witchweed	S.xreichardtii,	1
Miconia	Miconia species	1		S.xcalodendron ,S.cinerea	
Mikania vine	Mikania micrantha	1	Yellow burrhead	and S. nigra	
Mimosa	Mimosa pigra	1		Striga spp except native	1
Ming (Pom pom / Zig zag)	Asparagus macowanii	2		Stigra parviflora	
asparagus fern	var.zuluensis		Yellow nutgrass	Limnocharis flava	5
Montpellier broom	Genista monspessulana	3		Cyperus esculentus	
/cape broom					
Morning glory (coastal)	Ipomoea cairica	4			
Morning glory (purple)	Ipomoea indica	4			
Mossman River grass	Cenchrus echinatus	5			
Moth vine	Araujia sericifera	4			
Mother-of-millions	Bryophyllum species	4			
Ochna	Ochna serrulata	4			
Pampas grass	Cortaderia species	3			
Paper mulberry	Broussonetia papyrifera	2			
Parthenium weed	Parthenium hysterophorus	1			
Pond apple	Annona glabra	1			
Prickly acacia	Vachellia nilotica	1			
Prickly pear	Opuntia species except	4			

4.6 Feral Animal Control

Council is partner to the Sydney North Regional Rabbit Management Plan which commits Council to undertaking an annual action plan including monitoring and controlling rabbits on Council land, providing support for community control measures and workshops as funding is available. Fox sightings by residents that keep poultry are common in Hornsby Shire, details of all reported sightings by residents are recorded to assist with new fox control strategies.

4.7 Walking Tracks and Bushland Access

Council has over 50 km of formal and informal bushwalking tracks. Formal tracks include:

- Beecroft-Cheltenham Link Track,
- Historic Pioneers' Track, Epping
- Historic Hornsby Heritage Steps
- Reddy Park, Hornsby
- Bluegum walk, Hornsby
- Mangrove walk, Brooklyn
- Callicoma walk, Cherrybrook
- Carrs Bush walk, Galston
- Crosslands salt marsh walk
- Mambara walk, Pennant Hills
- McKell Park walk, Brooklyn
- Terrys Creek walk, Epping
- Bar Island, Berowra Creek
- Links to the Great North Walk

Major Bushwalk Upgrades

Reddy Park Track Upgrade:

Reddy Park had several eroded trails through the high conservation bushland remnant, these were formalised and upgraded by re-contouring the trail surface and improving the trail drainage to reduce the boggy conditions often experienced by walkers in wet weather. 360 metres of trail was upgraded with crushed sandstone, new steps and cross drains. Interpretive signage will be installed in late 2015.

Blue Gum Track

Upgrade works included two large sections of fire trail near the end of Rosemead Road and Ginger Meggs Park, a variety of improvements near the picnic area at Rosemead Road and 20 steps at the entrance to Fishponds trail and were completed as part of this project.

Callicoma walk

A 60 metre boardwalk and steps were installed on a portion of the Callicoma Walk to improve track durability and to reduce the spread of a soil borne plant disease called Phytophthora.

Pedestrian Bridges

Two pedestrian bridges on walking trails were refurbished - Tunks Bridge on the Pioneers Track and the central bridge at Lakes of Cherrybrook on the Great North Walk.

4.8 Hornsby Mountain Bike Trail

Since the Hornsby Mountain Bike Trail opened in February 2013 approximately 60,000 laps have been recorded on the trail counter. This year approximately 800 laps per week were ridden. The cross-country bike trail network winds through 6 kilometres of the picturesque Hornsby Park Bushland Reserve and Old Mans Valley.

4.9 Roadside Vegetation Implementation Project

Council continued to follow up on previous vegetation roadside works throughout 2014-15.

The works focussed on conserving and recreating vegetation connectivity across fragmented rural and urban landscapes. On-ground roadside bushland restoration works occurred at the following roadside areas in 2014-15: Laurie Rd, Dural, Jasmine Rd, Normanhurst; Bayfield Rd, Arcadia, Singleton Rd, Singleton Mill; Fishburns Rd, Galston; Bevans Rd, Galston; Carrs Rd, Galston; Dartford Rd, Malsbury Rd/Midson Pde Normanhurst, Blacks Rd, Arcadia & Bay Rd, Berrilee.

4.10 Estuary / Riparian Project

Council received grant funding in January 2015 to undertake assessment and restoration works along the creeklines and riparian areas of Brooklyn Park and the foreshore of Bar Island and Fishermans Point.

As at June 2015 a total of 0.6ha of coastal foreshore and riparian vegetation has been rehabilitated and 800 plants have been installed in Brooklyn Park/Cole St Brooklyn. At Bar Island and Fishermans Point a total of 0.10ha of foreshore native vegetation has been rehabilitated.



Photo: Reddy Park interpretive trail

5.0 Bushcare and Community programs

5.1 Bushcare

Established in 1989, the program is the one of the largest volunteer programs in the Shire and one of the largest Bushcare programs in the Sydney metropolitan area with 101 registered groups and 608 volunteers. Numbers had decreased this year due to retirements and counting only active volunteers. This was offset by 111 new volunteers joining the program this year, it represents a 18% increase in membership.

Bushcare volunteers restored and enhanced 77 ha of native vegetation and habitat in Council's bushland reserves across the Shire. Twenty three of our Bushcare groups are enhancing over 15.5 ha of five unique EEC's including Blue Gum Shale and Diatreme Forest, Turpentine Ironbark Forest and Duffys Forest.

Bushcare volunteer hours are estimated at 12,500 during this period, which can be valued at \$375,000. Two new trainers commenced in October, now providing 88% of groups with a regular trainer.

Bushcare provided a variety of seminars, talks, tours and training to Bushcare volunteers and some to the wider community. A total of 1116 people participated in 28 events held, being an 87% increase in participation from last year. There was great success inviting Bushcare and Nursery volunteers to promote volunteering at local stalls. During the Healthy Living Festival we recruited 15 new volunteers, particularly those from the CALD community. Our volunteers were great recruiters because they could tell their own personal stories to promote the benefits of volunteering.

At the mushroom evening, volunteers submitted photos of local mushrooms to identify and research local fungi. Over 30 people attended, a supper of pizza, mushroom risotto and shitake mushroom soup was served to the volunteers. Nursery Coordinator, Ross Rapmund identified mushroom species brought on the night and

provided interesting information. In addition many amateur mycologists elaborated on the fungal fruiting bodies.

Celebrating 25 Years of Bushcare

Bushcare celebrated 25 years in Hornsby Shire at the Annual Christmas Workshop in November 2014 with 120 volunteers attending Christmas Lunch at Asquith Golf Club. We celebrated many achievements, particularly those volunteers who were there from the beginning. Observatory Park was our first official Bushcare Group, established in the triangle of trees on the corner of Beecroft and Pennant Hills Roads – they have achieved so much in the iconic patch. Many of the original group are still active; some sadly have passed away or retired from Bushcare. We also celebrated the volunteer groups who had worked on sites for over 15 years.

The 'Golden Trowel' perpetual shield went to the Bambara Bushcare Groups for their achievements in working in an urbanised environment and achieving exceptional outcomes in the riparian area of upper Devlins Creek. The Nursery Volunteer of the Year Award went to Silvano Lucietto for his remarkable handyman skills repairing and refurbishing wheelbarrows, trolleys and other items.

The Bushcare photo competition received over 65 general entries. Bushcare calendars were produced using the winning entries and distributed to Bushcare, nursery and library volunteers as a thank you gift for their contribution to the community. This year the photo competition was displayed at four Hornsby Council libraries and featured best photos judged by the volunteers.



Photos: Celebrating 25 years of Bushcare, Envirostall Brooklyn Spring Fair

Earthwise cottage activities and projects

The Earthwise cottage and Community Nursery is the office of the Bushland Community Programs team and is a venue for plant giveaways, staff meetings and workshops. The site has continued retrofitting environmentally sustainable upgrades, with the installation of an inverter air conditioning unit using refrigerant R410A – this system is more energy efficient with heating and cooling, by splitting the spaces into zones and utilising existing ducting. Gas used is better for the environment as it transfers heat more efficiently, is non-flammable and doesn't harm the ozone layer. LJ

5.2 Community Nursery

The Community Nursery has over 47 active volunteers that contributed over 3200 hours this year over 3 half days a fortnight produced over 38,400 tubestock for the financial year. These plants are produced for public lands projects and educational provisions such as the Free Native Plant Giveaway, Council projects including CRR works, land rehabilitation projects and landscape works. 38,689 plants were dispatched providing an excellent turnaround of stock. All seed is locally collected to maintain genetic integrity and provide material for

provenance planting. Volunteer work was valued at \$70,000 over 72 days.

The annual four Free Native Plant Giveaways provided 6143 native tubestock to about 955 residential properties from every suburb in the shire. This promotes local native plants to home gardeners and the importance of protecting the bushland shire along with creating habitat for local wildlife.

The nursery showcased best practice through its water recycling capturing on-site runoff rainfall, solar power, minimal waste production, recycling of materials and a low chemical reliance.

The nursery maintained relationships with other councils and industry professionals including North Sydney Council and technical assistance to a variety of customers across the community within the Hornsby Shire. The community nursery sets an industry benchmark and often gets requests for a tour.

The nursery maintained its Nursery Garden Industry of Australia accreditation (NIASA) to ensure all involved in its operations meet the high standards expected.



Photo: Community nursery plants



Photo: James Park project featuring plants from Community nursery

5.3 Guided Bushwalks

Council's free Guided Bushwalks program took 30 walks with 378 residents this year, most being fully booked with a waiting list. The program repeated the popular 'Nature Photography' walk at the Kurrajong Track and the Djarra Ridge loop in Muogamarra Nature Reserve. A wide variety of bushwalks of varying lengths and grades of difficulty promoted enjoyment of the Bushland, education and health. Four new walks were introduced including the Deep Bay Creek loop for Threatened Species Day, the Westleigh loop via Dog Pound Creek, an Introduction to Map Reading activity and the arduous Cowan to Brooklyn walk.

5.4 Habitat Connectivity

Council's Habitat Connectivity and Rural Lands Program continued in 2014-15 through various Catchment Management Authority grants. This program allowed Council to reinforce the partnerships made with rural landholders, monitor and consolidate previous works strengthening vegetation connectivity on private and public land.

In 2014-15 a total of 1.5 ha of bushland on private land was restored. All works occurred within endangered and critically endangered communities of Sydney Turpentine

Ironbark Forest and Blue Gum High Forest. On-ground restoration on private property continued at Cherrybrook Technical High School, Cherrybrook, Benedictine Monastery at Arcadia and Marymount Mercy College, Castle Hill.

Three workshops were delivered:

- 8 March 2015 - Advanced Horse Property Management, Arcadia
- 9 March 2015 – Advanced Horse Property Management, Arcadia
- 18 April 2015 – Native Grasses Workshop, Arcadia , with Still Creek Landcare Group DONE DF

5.5 National Tree Day

The nursery provided 1651 plants to schools for National Tree Day in July 2014, an increase of over 130% of plants from last year. School participation increased to 27 preschools, primary and high schools across the Hornsby Shire, compared to 6 schools last year.

5.7 Floating Landcare Events

There were 7 Floating Landcare events held throughout 2014-15 to Bar Island. A total of 58 volunteers participated in the program undertaking 348 hours of bushland restoration.



Photo: Floating Landcare event at Bar Island

6.0 Budget and Strategic Issues

6.1 Grants, Income and Expenditure

A number of grants were received during 2014-15 to fund environmental works required by the adopted Council strategies and plans such as Biodiversity Conservation Strategy, the Bushfire Risk Management Plan, the Plans of Management for Community and Crown Land and the Unstructured Recreation Strategy. Grant commitments and other income and commitments were slightly higher than in the previous year at 2% increase, due to Biobanking. There was a lower level of expenditure on grants, but greater expenditure on offsets, biobanking and Section 94 than the previous year. Expenditure on salaries increased from \$1.3m to \$1.45m, works increased from \$1.32m to \$1.5m and volunteer contributions of \$556,570. This reflects team functions of biodiversity assessment and offset planning, project management of specialised bushland, bushfire and track construction contracts and co-ordination of Bushcare and nursery volunteers.

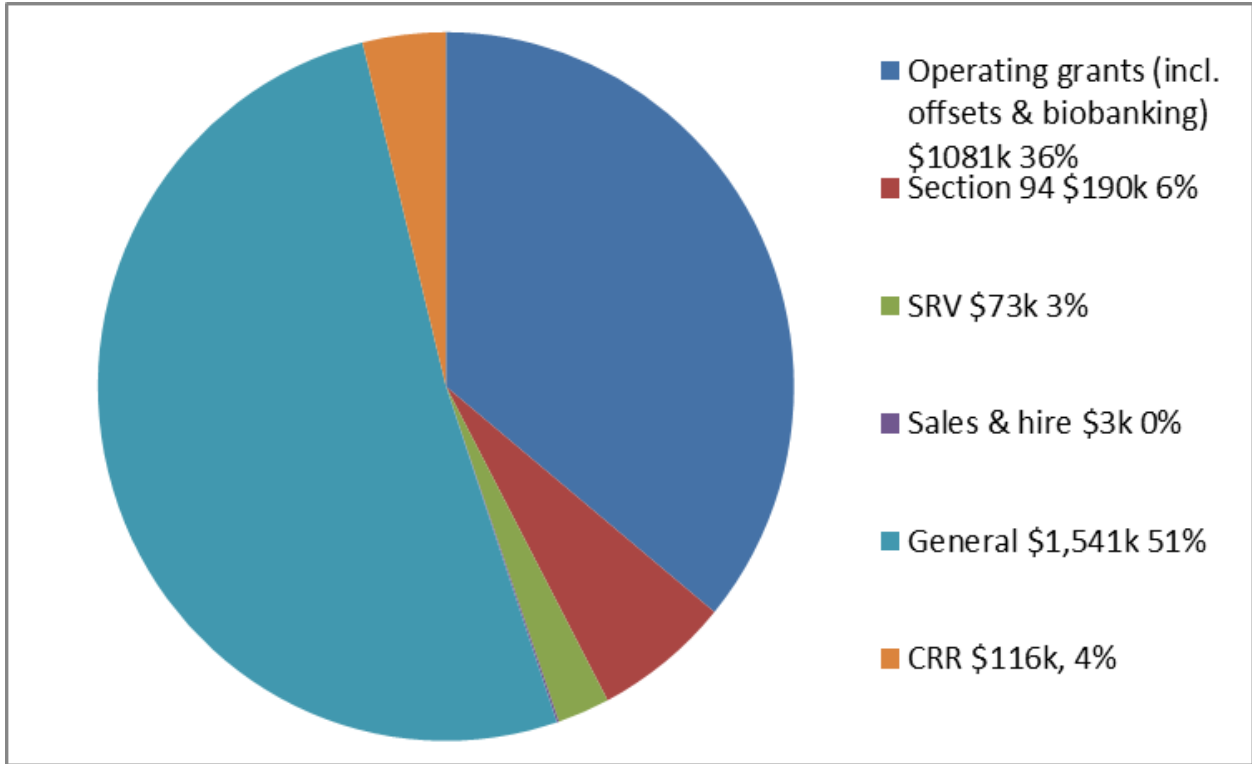
Grants and offset income and commitments received include:

Project	Grants, Offset and Other Commitments* Received
Bushfire Asset Grant*	\$10,709
Noxious Weed Inspectorial	\$25,590
Bush - M2 Public Benefit Fund	\$51,846 (total commitment \$400,000)
Hornsby Park and Old Mans Valley Grant (total project)	\$42,000
WASIP EEC and Roadside Restoration	\$4,929
WASIP Bushcare Capacity and Incentives	\$21,940
WASIP Monitoring	\$1,024
Local Land Services Byles and Terrys Creeks Riverine Grant Stage 1 (total project)	\$50,000
Local Land Services Byles Creek Riverine Grant Stage 2	\$29,115
Local Land Services Terrys Creek Riverine Grant Stage 2	\$20,000
Mountain Bike Grant	\$27,375
Bar Island Restoration	\$15,000
Offset – Keeler Street, Carlingford	\$47,049
Offset - Beecroft Road, Cheltenham	\$19,505
Offset - Surrey Street, Epping	\$63,384
Hornsby Heritage Steps Restoration Metropolitan Greenspace Grant	\$100,000
Biobank Agreement – sale of Biodiversity credits: note total sale of all credits, payment of \$129,947 (Yr1 BA 142) and \$651,753 (Part B BA 142) received	\$2,548,000*
Biobank – Linking Landscapes	\$1,275,273*
Total	\$4,337,931

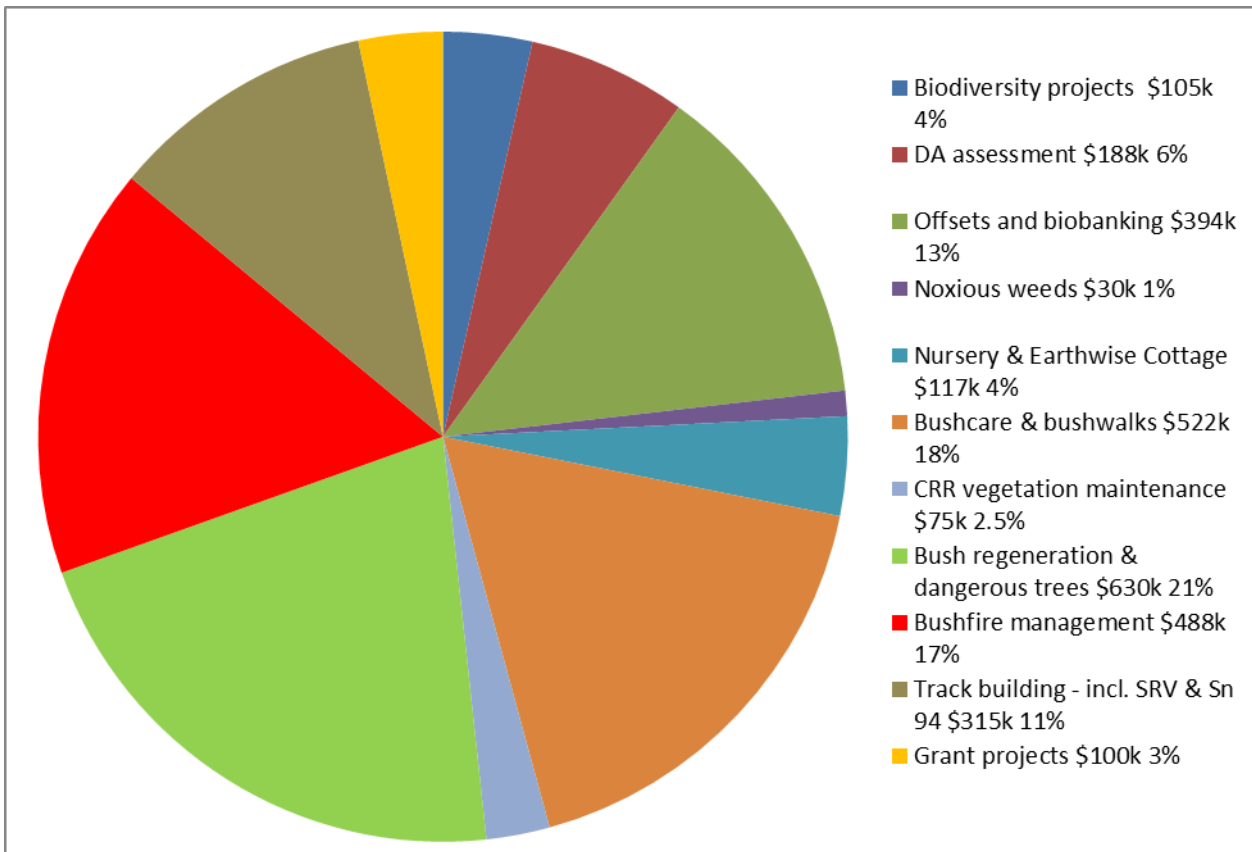
Grant and offset works undertaken during the year:

Project	Expenditure
Wongala Offset	2,000
Bushfire Asset Grant	8,224
Noxious Weed Inspectorial Grant	30,090
One Tree Reach	62,532
Kenley Park Offset	2,765
Fuller Avenue Offset	5,000
Berowra Car Park Offset	4,000
Bar Island Restoration Grant	4,000
Darwinia biflora Offset	10,520
M2 Public Benefit Fund	36,446
SMCMA EEC Restoration Grant	200
Mountain Bike Grant	51,270
WASIP EEC and Roadside Restoration	8,728
WASIP Bushcare Capacity Building	21,940
WASIP Monitoring	1,024
Bushland Pests and Diseases	895
Floating Landcare	935
Bush Offsets – Hannah Street	9,503
Maroota Way Offset	8000
HNCMA Grant Old Mans Valley/ Hornsby Park	13,016
Local Land Services Byles and Terrys Creeks Riverine Grant	28,000
Biobanking Upper Pyes – New Farm Part A	96,375
Wisemans Ferry Cemetery	3425
Landcare Grant – King/ Still Ck	249
Biobanking Part B	173,870
Total	583,007

Income



Expenditure



6.2 Offset and Biobanking Income

During the 2014-15 \$911,638 was received. An offset commitment of \$2,548,000 was made with Transport for NSW for the sale of biodiversity credits to offset two railway infrastructure projects. A second biobank agreement was made for \$1,275,273 where Council transferred all the biodiversity credits to the Office of Environment and Heritage for a Linking Landscapes project.

6.3 Broader Community Consultation

Bushland Management Advisory Committee

BMAC continued in its role to advise Council on strategic direction and projects. During the year the Committee prepared an Action Plan and provided Council with comments on the Biodiversity Action Plan 2014-15, provided comments on the Bushcare program, made individual submissions and attended 10/50 meetings, commented on fox control, and commenced working on promoting bushland education with schools. BMAC undertook site inspections to Katta Close Bushcare Site, Wellum Bulla Materials Handling Site, Currawong Bushcare Site and Dog Pound Creek Biobanking.



Photo: Christmas bells post fire regeneration

7.0 References

Hornsby Shire Council (2012). *Green Offsets Code*. Hornsby Shire Council, Hornsby – accessed at <http://hsconline.hornsby.nsw.gov.au/appenquiry/user/policy/default.aspx?page=found&2=offset&4=33&4a=ALLPC&5=&6=>

NSW Office of Environment and Heritage - Bionet the website for the Atlas of NSW Wildlife – accessed at http://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS_/AtlasSearch.aspx

8.0 Appendices

Appendix 1: Map of Hornsby Shire



Appendix 2: Council Community Nursery Annual Report

Executive Summary

Hornsby Shire Council's Community Nursery is an integral part of the Hornsby Bushcare Program along with several other major council programs. It operates within the Natural Resources Branch in the Environment and Human Services Division.

The nursery achieved accreditation with the NIASA (Nursery Industry Accreditation Scheme Australia) complying with strict standards of environmental best practice nursery management. It has maintained accreditation since 2005, and aims to continue accreditation as a model of best practice to other community nurseries across NSW. The Hornsby Community Nursery was the first local government run nursery to achieve this accreditation and to date continues to be the only Council Accredited Nursery in NSW. Currently we are working with the Nursery Garden Industry of Australia (NGIA) to further achieve EcoHort certification.

The nursery aims to showcase best practice operations across the wider community. This is achieved through many initiatives including full water recycling system capturing on site runoff rainfall, solar power, minimal waste production, recycling of materials and a low chemical reliance.

Volunteers are an integral part of the community nursery with respect to production, a knowledge base and fostering a valuable community asset through their ongoing participation.

No large orders were received for revegetation this financial year rather a steady supply of plant material was used for ongoing supply of plants for the Catchments Remediation Rate associated works, Nursery Plant Giveaway Days for residents, local schools and bushland restoration areas. Other significant projects this past year have included the ongoing Habitat Havens community project at Beecroft which to date has now utilised nearly 4000 plants. There were 77 individual orders received for 38 Bushcare sites this year an increase of 19% in plant material use over the previous year.

The nursery also continues to foster and maintain relationships with other councils and industry professionals including Willoughby Council and North Sydney Council. The nursery continues an ongoing educational partnership with Northern Sydney Institute of TAFE and technical assistance to a variety of customers across the Hornsby Shire. Local schools are a major component for environmental education and we work closely with them across the Shire through supply of plants, hands on planting assistance, restoration advice and knowledge transfer through education.

This past financial year also saw the continuation of the Eco-Garden nursery volunteer program led by Tanya Mein from council's Waste Services Branch facilitated at the community nursery. This group grew over 2000 plants. These seedlings supply the Eco Garden within Fagan Park, Galston. The remainder were circulated through the wider community at nursery plant giveaway events and local schools.

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Overview

The Hornsby Community Nursery aims to provide native plants to the Hornsby Shire through Community programs such as the Bushcare Volunteer Program, Plant Giveaway days for ratepayers, Citizenship Ceremonies, Schools, community groups and a variety of environmental workshops, events and activities across the Shire including National Tree Day.

The nursery also provides locally collected provenance stock to bushland restoration projects including Bushland Operations' works, Catchment Remediation Rate (CRR) Water Catchment devices, Parks Department projects and other projects that are run within Council's core business.

The nursery aims to encourage the community to learn about the values of native plants, for biodiversity conservation goals, and to support Councils projects with the provision of sound environmental restoration techniques and technical advice to Council and associated project staff.

The nursery operates under the main outcomes of the Hornsby Biodiversity Conservation Strategy, the Environmental Education Strategy and Bushland Education Strategy and the Natural Resource Branch Action Plans.

The nursery operates on a recurring budget of 12.5K (operational) per annum and aims to achieve an income of 35K per year to support the ongoing maintenance of the site and required resources. The nursery operates within the Bushland Community Programs Team, with one full time Nursery Co-ordinator, and currently 47 dedicated volunteers.

The information recorded in this report is for the financial year 2014-2015 and illustrates the various areas that the nursery operates within to meet its set objectives.

Volunteer and Plant Production Statistics

Nursery Volunteer Program

Volunteer Numbers and Days	Hours within the Nursery
Wednesday Volunteers (772 total individual participant visits by 30 people)	2357.5
Saturday volunteers (266 total individual participant visits by 26 people)	863
Other Hours	8
Total Hours	3228.5 (3005 prev. year)
No. Volunteers	
Active volunteers for the year (30 on Wed: 17 on Sat)	47
New Volunteers joined Program:	10

Plant Production	
Seed lots collected	26
Number of seed lots propagated [Provided 90% of total production]	134
Number of cuttings propagated (& no. of spp.) [Provided 10% of total production based on an average 90% cutting strike rate]	7731 (57)
Total Number of tubestock produced July 2013- June 2014	38438

Plants Supplied	
Total Plants Dispatched for Year	38,689
Total Number of residential properties that received plants through Native Plant Giveaway Days	955 (6143 plants)

Council Programs and Plant Recipients

Customer	No. of Plants	\$
Natural Resources	6937	10406.50
Catchment Remediation Rate	9761	14350.35
Giveaway Days and associated- Plants to Residents	6143	
Bushcare	3396	
Parks Department	1484	1727.50
Schools	1829	
National Tree Day 2013	1200	
Donations	1575	
Landcare & Other	2139	899.20
Citizenship Ceremonies	225	
Hornsby Aquatic Centre	4000	5600.00
Totals	38689	\$32983.55

Bushcare Plants Distribution 2014- 2015 by area/catchment TOTAL 3396

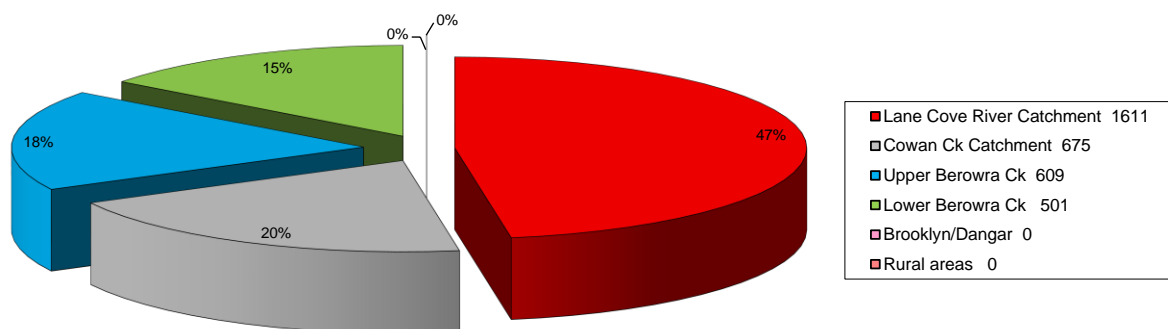


Fig. 1 Plants utilised by Hornsby Bushcare Program 2014 - 2015

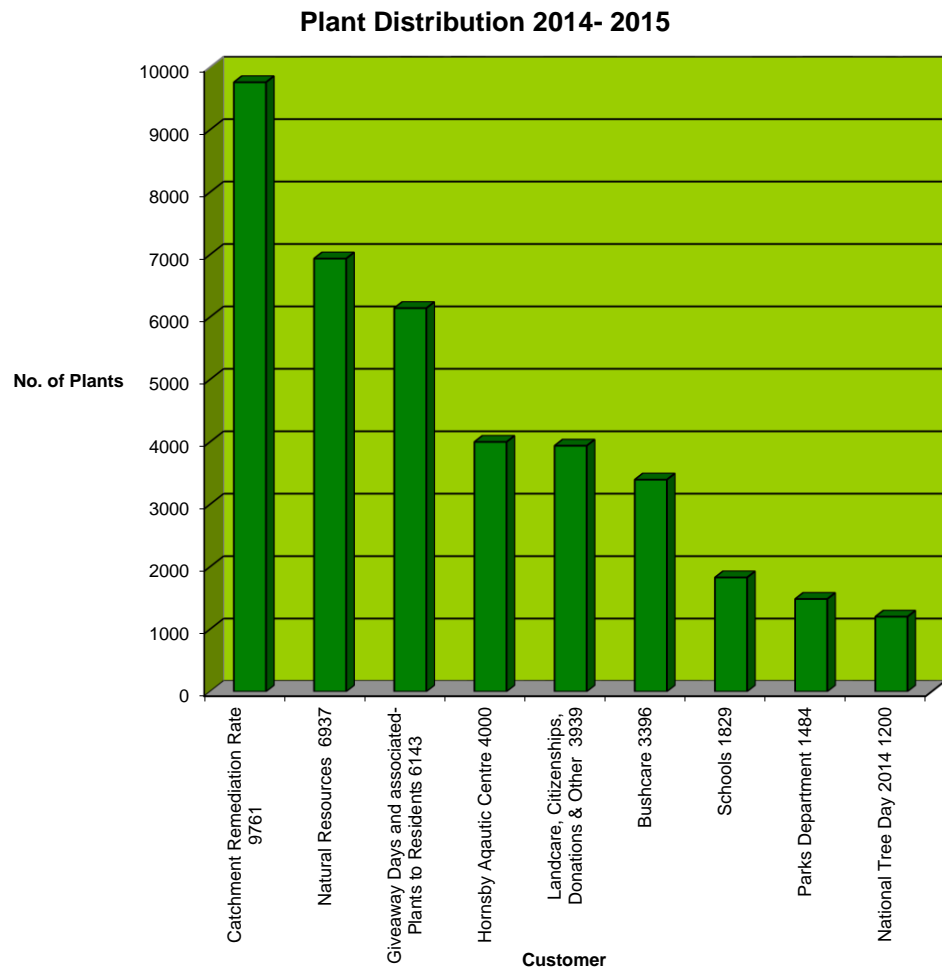


Fig. 2. Total distribution of plants by customer area 2014 -2015

Total Plant Distribution of plants across the Hornsby Shire by catchment or area 2014- 2015

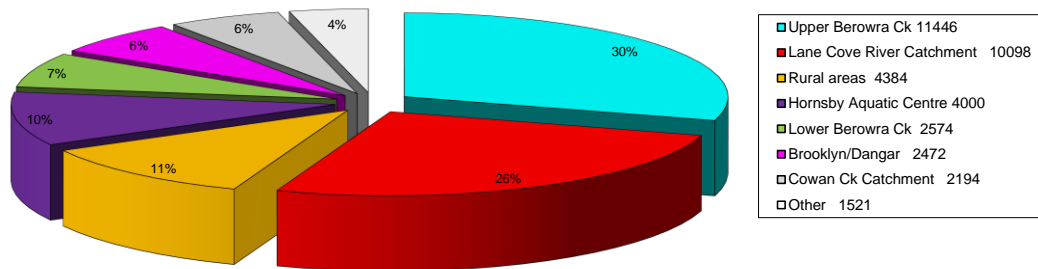


Fig. 3. Distribution of plants across the Hornsby Shire.2014- 2015

Breakdown of plants by customer and area distributed to.

Catchment Remediation Rate 9761		Give Away- Plants to Residents 6143	
Lane Cove River Catchment	4267	Lane Cove Catchment	1618
Upper Berowra Ck	5494	Upper Berowra Ck	2005
Lower Berowra Ck		Lower Berowra Ck	1309
Cowan Ck Catchment		Cowan Ck Catchment	
Brooklyn/Dangar		Brooklyn/Dangar	44
Rural areas		Rural areas	1062
		Other	105

Landcare, Citizenships, Donations & Other 3939		Natural Resources 6937	
Lane Cove River Catchment	379	Lane Cove River Catchment	1618
Upper Berowra Ck	14	Upper Berowra Ck	2127
Lower Berowra Ck	129	Lower Berowra Ck	0
Cowan Ck Catchment	156	Cowan Ck Catchment	690
Brooklyn/Dangar	130	Brooklyn/Dangar	1395
Rural areas	1715	Rural areas	1107
OTHER	1416		

Bushcare 3396		Parks Department 1484	
Lane Cove River Catchment	1611	Lane Cove River Catchment	380
Upper Berowra Ck	609	Upper Berowra Ck	110
Lower Berowra Ck	501	Lower Berowra Ck	170
Cowan Ck Catchment	675	Cowan Ck Catchment	0
Brooklyn/Dangar		Brooklyn/Dangar	824
Rural areas		Rural areas	

Schools across whole year (not including NTD) 1404		2014 National Tree Day 1200	
Lane Cove River Catchment	30	Lane Cove River Catchment	195
Upper Berowra Ck	814	Upper Berowra Ck	273
Lower Berowra Ck	435	Lower Berowra Ck	30
Cowan Ck Catchment	381	Cowan Ck Catchment	292
Brooklyn/Dangar	79	Brooklyn/Dangar	0
Rural areas	90	Rural areas	410
Other			

Hornsby Aquatic Centre (part of Upper Berowra Creek Catchment) 4000

Accomplishments

- 10/07/2014 Pennant Hills High School site visit
- 22/07/2014 Northholm Grammar Site visit
- 24/07/2014 National Tree Day-19 schools took plants
- 25/07/2014 420 plants loaned to LLS for expo at Rosehill
- 19/08/2014 Site inspection Mid Dural Public School for upcoming planting events
- 21/08/2014 Site inspection Hornsby North Public School for upcoming Working Bee
- 22/08/2014 Site inspections for upcoming CRR works plantings
- 26/08/2014 Meeting for future Green Walls and Roofs which may utilise indigenous species- trial site to be built at Earthwise Cottage
- 29/08/2014 Site inspection Pennant Hills High School for upcoming working bee
- 28/09/2014 Still Creek Landcare grant works completed at Blacks Road Arcadia- 864 plants installed
- 30/10/2014 Nursery Irrigation system continues to show contamination
- 13/11/2014 Attended AABR symposium on restoration
- 4/12/2014 20 Plants loaned to Hornsby Daycare for their Xmas Party
- 4/12/2014 Asquith Primary School visit for Bee Attracting Plants planning & TIF restoration area
- 11/12/2014 STRIVE Award for supply of plants to James Park makeover
- 20/1/2015 Irrigation storm water harvesting system reengaged
- 28/01/2015 Nursery volunteers field trip to Hawkesbury Council Community Nursery
- 18/02/2015 Liana Morgan completed 1 day work experience at the Community Nursery
- 3/03/2015 Ready Set Grow Propagation workshop delivered for Waste Branch 6 participants
- 10/03/2015 Guided Bushwalk and Nursery Plant Giveaway Promotion Meeting
- 25/03/2015 Plant Giveaway for HSC staff
- 31/03/2015 NIASA Audit with NGIA
- 1/04/2015 Habitat Havens with Nursery Volunteers, 12 attended.
- 10/04/2015 Presentation on the Community Nursery to APS North Shore Group, 60 people.
- 12/04/2015 APS North Shore Group -tour of the nursery, 22 people
- 14/04/2015 Abuklea Rd CRR Bioretention Basin meeting for plant requirements
- 18/04/2015 Grass Workshop - Arcadia 25 people
- 24/04/2015 Brooklyn Park Meeting for upcoming plant requirements
- 12/05/2015 UV Light meeting for water treatment of nursery irrigation water
- 13/05/2015 Volunteer Week 2015 Morning Tea held at Nursery.
- 25/05/2015 TAFE Tour of nursery facility - 12 students
- 27/05/2015 HENS presentation PHHS School
- 28/05/2015 Asquith High School site inspection for NTD
- 29/05/2015 Presentation given for Mushroom Month-Bushcare
- 12/06/2015 Asquith Primary School visit
- 15/06/2015 Somerville Park planting day with Senior Council Management & Somerville Park daycare kids x 15

Nursery Facility Improvements

- 19/11/2014 Irrigation zone No. 7 split into two for improved water delivery.
- 15/12/2014 Nursery Potting Benches - tops reversed and re riveted
- 18/05/2015 Screen replaced in Station 2 shade house
- *18/05/2015 Extra 1.5kW solar PV system installed for Nursery
- *17/06/2015 New motor for shade screen installed in Station 2
- *25/06/2015 13 tonnes blue metal gravel for nursery floor delivered

