

Write it up!

**Case studies of sustainability education projects
from around NSW**

Adopt a Plot

Help preserve our bushland in North Sydney

The Adopt a Plot project began as an Envirofund 12 month grant project, allowing residents around Cremorne Reserve to 'adopt' an area of bushland. The idea came from members of the local Bushcare group and was a successful concept that rapidly exceeded expectations, with minimal promotion. Now in its fourth year, the project has expanded and operates in three reserves in the North Sydney Council area. This case study explains the operational aspects as well as the elements of sustainability that have made it challenging and successful. It is hoped that it will provide valuable information for environmental educators to replicate or adapt the project for their local communities.

By Megan Hughes, North Sydney Council, 2008.



Key issue

In 2005, Bushcare volunteers in the North Sydney Council local government area (LGA) were concerned with the fact that many residents were not actively engaged or aware of their impacts on their local reserve. Biodiversity in urban bushland is under constant attack from weeds, high nutrient loads, tree vandalism (for views), domestic roaming cats and over clearing. However, even the most degraded bushland can be sustainably regenerated by stimulating the native seed bank that remains in the soil. Local reserves need heightened awareness and ongoing commitment and help of local residents to achieve sustainable biodiversity rehabilitation outcomes.

Background and context

The Adopt a Plot project is a win-win for residents and Council:

- Residents who back onto a bushland reserve are given the opportunity to clear away weeds behind their property, enhancing property values; and
- It is an opportunity for Council to begin regeneration in areas previously under-resourced.



One of the successful plots
Photo courtesy of North Sydney Council

Participation involves a choice for the resident to either make a commitment to working three hours per month, one-on-one with a professional bush regenerator over an eleven-month year (Jan not included) or donate half the amount required from the Environmental Levy to have a professional bush regenerator do four hours of work per month on the plot area. This suits those who would like to learn and be actively involved in the weed removal and others who would like to 'see something done', but don't have the time to commit.

Resident participation and social events provide opportunities for education on native species, weeds and local wildlife and much more. This has encouraged behaviour change such as, choosing non-invasive garden plants and deterring neighbours from the habit of dumping garden waste. The project began as a 12 month Envirofund grant project in 2005 and due to its success has continued to be funded through the North Sydney Council Environmental Levy. The project began operating in Cremorne Reserve, Cremorne Point and has since spread to 2 other reserves in the LGA, Harry Howard and Gore Cove Reserves, Wollstonecraft.

The North Sydney community is made up of a diversity of transient younger people to a stable population of well-educated, empty nesters who are the majority of participants in Bushcare programs. The local vegetation communities consist largely of Coastal Sandstone Heath and Sydney Sandstone Ridgetop Woodland, which transitions into the Sydney Sandstone Gully Forest along the creeklines and sheltered gullies. There is a degraded canopy present, of *Angophora costata* (Sydney Red Gum) and *Eucalyptus pilularis* (Blackbutt).

The aims that were developed and why

The aims of the project:

- Provide residents with an opportunity to be involved in a successful regeneration project
- Sustainable regeneration of adopted plot areas in a reserve; and
- Protection of key habitat areas for local fauna.



One of the project notice boards
Photo courtesy of North Sydney Council

Public promotion of the project was minimal with most residents becoming involved after the project launch party, through word of mouth from members of the local Bushcare group, neighbours or from the project notice boards specially located in two ferry wharfs. It was important to give participants the experience of a successful regeneration process, where a native plant community emerges and dominates the weeds. A minimum of 3 – 5 years commitment is required to reach this point, where minimal ongoing maintenance will be required.

To regenerate bushland plots sustainably it was important to select small areas that were likely to have some regeneration potential or 'resilience'. This ensures natural regeneration is pursued first, and planting is a 'last resort', giving participants training in bush regeneration skills. Equally important is to 'work' an area (removal of weed) at a pace that is manageable for the 3 hour per month commitment. Removing weeds stimulates a 'flush' of further weed growth and hopefully some native species will emerge too, particularly in the summer months. Three layers of native vegetation regeneration (canopy, shrub and groundcover layers) is a sustainable result that will support a diversity of fauna. Also, preservation and increase of canopy trees is an action that addresses climate change in a practical and immediate way.

Weedy areas often harbour greater diversity of local fauna in urban areas. This creates a conflict of values for community and Council's management, where education is essential for the survival of species locally. Locally rare species are unfortunately a common feature of biodiversity in North Sydney, as exemplified by the White-browed Scrubwren population in Cremorne Reserve. Some weed species, particularly Lantana provide vital habitat for small birds, such as the White-Browed Scrubwren, particularly in narrow, degraded urban reserves where the project operates. Removal of Lantana has needed to be done slowly and in a mosaic pattern to protect fauna species shelter belts. In some plot areas, large strips of Lantana have been left alone and will only be removed once suitable alternative refuge has been established in close proximity.

Successful outcomes

A Focus Group involving members of the Cremorne Bushcare group was formed by Council's Bushcare Officer. The bush regeneration contractor who was to work on the plots was also part of the group as well as the Council's Bushcare Officer. The discussions of this group became the tone and instruments used to promote and engage residents in the project. This was vital as the project developed in engaging this particular community in line with local values and attitudes. In the initial grant funded year of the project, engaging 20 residents was the target and 26 joined the program which was a success that justified additional funding granted by Council to continue the project. In this first year approximately 8000sq m of the reserve had been adopted and cleared of weeds. Some planting of approximately 1200 endemic species occurred in the last half of this initial project period, where natural regeneration was very limited.



Project participants at one of the Council organised social events
Photo courtesy of North Sydney Council

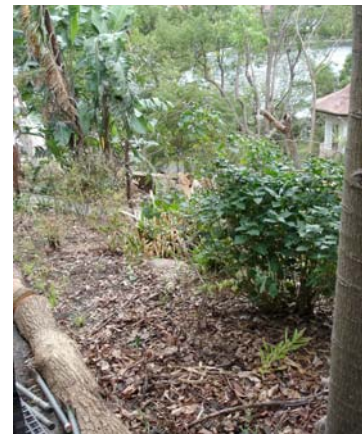
Important outcomes that are difficult to measure have included the development of neighbourly communication and a shared interest. Social events have been well attended and provided the opportunity to display project success stories, project enemies such as weed species and project icons such as the White-browed Scrubwren and Lantana to remind participants about the projects management aims. Although it is tricky to measure interest and uptake of messages, the strong ongoing involvement of many participants and the many new residents who have become participants suggests the project is spreading and continues to be perceived in a positive way.

The project is now in its fourth year of operation and has maintained a steady number of participants since its inception, and approximately 1,000 hours have been volunteered by residents. A partnership has been developed throughout the project between the community and Council, in particular with those involved in the Focus Group, and Council's Bushcare staff.

Challenges!

Some past and present participants have signed the agreement that states they will work under supervision, in accordance with Council's Bushland Plans of Management and follow the direction of their supervising bush regenerator. This clearly identified protocol has failed to be adhered with on several occasions by certain participants, resulting in unsustainable outcomes on the plot.

Tree planting has been of a particular concern to some participants who have resisted tree planting in their plot. Some trees that were planted have been tampered with and there has been one case of 'official' tree vandalism. Removal of weed tree species has been gradual due to budget constraints and participants have been keen for these species to be removed. Priority weed tree removal has been where there is a likelihood for native canopy trees to regenerate or planted replacement canopy to survive. However growing canopy trees is a long term process which can be difficult to establish and monitor over the length of time required, particularly with staff changes and new residents moving in.



Generally, there is an awareness of Lantana (key habitat for local fauna) as a weed and with it is a strong push to remove large areas all at once. This is particularly a concern when participants decide to deviate from the agreement and work unsupervised. Over clearing has not only reduced the capacity of some fauna populations to survive, but has made steep slopes susceptible to erosion in heavy rain events.

Is a bush regeneration project really education for sustainability? Yes!

The Adopt a Plot project meets many of the education for sustainability characteristics recognised by educators as best practice.

Interdisciplinary and holistic: education for sustainability is embedded in the whole program, not dealt with as a separate subject or issue.

- The project idea came from a resident who had already 'adopted' an area in the reserve and employed a bush regenerator to work it.
- A community Focus Group determined the resident engagement methods, 'contract' agreements with residents and publicity. These meetings were held regularly until the project gathered momentum. They are now held as needed.
- A partnership between the Focus Group and the Council was vital and needs ongoing honest discussion for continual development.
- The on-ground works are based on bush regeneration principles, developed through on-ground experience, which ensures a sustainable outcome. The 3 basic principles are:
 1. *Work from areas of native plants towards weed-infested areas;*
 2. *Make minimal disturbance; and*
 3. *Let the native plant regeneration dictate rate of weed removal.*
- These principles are based on regeneration of the 'seed-bank' through germination of native seed on the upper soil layers. In the process weed seed will also be stimulated by increased light and heat which requires a commitment to regular weed removal to creating a native species dominated plant community.
- Weed removal is important but so is habitat protection. Key habitat was identified through an avian survey done seasonally throughout the initial project period. This highlighted Lantana thickets as the primary shelter of small birds that are preyed upon by larger birds. The White-browed Scrubwren became an icon for the reserve and a mosaic pattern of clearing lantana and leaving connected patches became a key education message for participants. Celebrations such as a large project launch, a picnic and an end of year celebration were hosted by the Focus Group and Council for all residents surrounding the entire reserve. These proved to be popular and excellent for information dispersal by word-of-mouth about the project successes particularly when highlighted through participant presentations of their successes.
- Capacity building is ongoing with participants but in particular with the project partner, the community Focus Group. The Focus Group has been vital to the success of the project and has produced the most significant milestones and solutions to hurdles, such as community attitudes. All partnerships experience power struggles and take time to establish role breakdowns etc. Identifying the level of input and responsibilities, for example, project promotions were left entirely with the Focus Group, but takes a sensitive approach with community volunteers.

Values-driven: the shared values and principles that underpin sustainability are made explicit so they can be examined, debated, tested and applied.

- The Bushcare program that is now established nation-wide, has developed out of the instigation of residents who value the bush and their will to keep it weed

free. This initiative is vital for land managers such as Council's to support, as there is rarely the funding or resources to care for every inch of reserve.

- Giving residents the opportunity to express these values through stewardship and action to make the reserve healthier, has been integral to the plot uptakes.
- The opportunity presented to residents needed to be sustainable for the resident and the reserve. This creates a balance between the time commitment of the participant and the slow but regular weed removal necessary for regeneration.
- Some participants may have initially become involved because of the potential to increase property value due to enhancement of their harbour views or perceived aesthetic improvement to the reserve. This has led to some frustration regarding tree planting, where canopy trees are a necessary part of Council's Bushland Plans of Management. Although participants are reminded of these plans and their signed agreement, in the foreshore reserves weed tree removal and native tree planting requires a thorough education plan, that may need to be followed up with regulation.
- Protecting biodiversity now for the benefit of future generations is a key value that has been drawn upon and will be expanded into a well-developed education campaign on the value of trees in particular. Hopefully the motivation to plant trees will increase and cases of tree vandalism decrease in time, due to this value.

Critical thinking and problem solving: are encouraged, leading to confidence in addressing the dilemmas and challenges of sustainable development.

- Regular Focus Group meetings were held with stakeholders including Bushcare volunteers from the local group, project participants, Council staff and the bush regeneration contractor. These meetings were held at least 5 times throughout the initial project year. Meetings were chaired by the Bushcare Officer with items on the agenda that required teasing-out by the group, such as methods of promoting the project.
- As the initial project idea had come from the Cremorne Reserve Bushcare group, it was important for them to be involved in driving the project moving forward but encouraged to share the responsibilities. Developing the partnership was of prime importance for the Bushcare Officer during these meetings. Of course partnership struggles require ongoing communication, for example the roles and responsibilities, power sharing, influence for decision-making must be clearly understood and agreed upon. These group meetings have provided a forum for working together on the evolution of the project requiring constant fresh input and ideas for solving problems that have arisen.

Multi-method: a range of different pedagogies and learning models are employed (e.g. word, art, drama, debate and direct experience). Teaching is not simply about passing on knowledge; instead learners and educators work together to acquire knowledge, solve problems and shape the physical and social environments of their various institutions.

- Project participation has been largely recruited through word-of-mouth from neighbour to neighbour and from information discussed at Focus Group meetings

- Resident feedback has determined where Council installed project information boards, at key community gathering points e.g. the two ferry wharfs
- Project Updates have been written for local residents to keep abreast of the project involvement, regeneration and other activities. These have been written by Bushcare volunteers integral to the project and have highlighted the aspects of the project they thought important and catchy, such as, participation levels, funding, success stories and bird sightings. This has accompanied a large map that has been updated with a location dot each time a new resident joins the program. These have proven very popular and always 'disappear' quickly.
- One volunteer has taken groups for history walks around the reserve and explained the project and the commitment of the residents involved. These are very popular and have always been booked out. These walks could be built upon to create more awareness and show- case the residents' achievements, through resident presentations.



Participatory decision-making: learners participate in decisions on how they are to learn.

- Participants learn about bush regeneration, bushland ecology, local flora and fauna, factors that degrade the integrity of bushland, weed recognition etc through a monthly one-on-one sessions with a professional bush regenerator.
- A work plan is developed with each participant that records the process to be followed and aims to be achieved over the annual commitment. This plan varies with the interests and ability of the participant, as well as the nature of the site and its level of degradation.
- The social events have been key to presenting Adopt a Plot aims, challenges and volunteer achievements. The Focus Group meetings designed these events by identifying the learning and information gaps, materials required and the purpose, or function of the event. Everybody assumed responsibilities and worked as a team to host these important events.

Conclusion

The idea of Adopt a Plot had come from the local community and had already worked on one 'plot' in the Cremorne Reserve. The concept, taken to a greater scale, has worked well and allowed an initiative of residents to be expanded and implemented in partnership with Council. This program concept could be applied in any reserve with residents who adjoin public land and with a local Bushcare group as the 'qualified voice' of the program. Although approximately \$20 - 30,000 is needed per year for the number of participants as mentioned above, the regeneration of areas that can be tackled, vast education potential and the support of the hardworking Bushcare volunteers makes this a worthwhile investment in our communities capacity to value, rehabilitate and protect local biodiversity for future generations.

You are welcome to contact us:

Further information can be found on North Sydney Council's website at:
<http://www.northsydney.nsw.gov.au/www/html/3458-adopt-a-plot.asp>