

Apunga Ecological Management Environmental Education Information Package



Produced by

Apunga Ecological Management

2020



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ECOLOGICAL MANAGEMENT

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1. Introduction

This package is designed to provide an overview of the environmental education services offered by Apunga Ecological Management (AEM).

It is widely recognised that education plays a key role in creating awareness of environmental issues and increasing the appreciation and respect for the natural world. In an urban environment, many members of the community lack the know-how, time, or ability to discover the wonders of nature that are all around them. There is rising concern that this is having a detrimental effect on both adults and children with the recognition of 'Nature Deficit Disorder' (Louv 2005).

The implementation of a program to provide access for schools and members of the public to environmental workshops, guided walks, expert speakers, and structured learning programmes can provide a valuable service to the community. This can lead to greater appreciation and use of Council reserves, increase in volunteer programmes such as Bushcare and National Tree Day, increased ability to apply for grant funding, and a flow on effect to much wider environmental benefits.

A range of options are available for providing environmental education. AEM has an available program covering many topics of sustainability, with a focus on Sydney Bushland. Drawing on a number of environmental Apunga staff educators with over 70 years combined experience between them, and a wide network of available experts, the programmes on offer are comprehensive and varied. All programs and events are highly flexible and can be tailored to meet the needs of individuals and organisations. The following pages outline these, as well as provide some background to AEM and its environmental education team.

2. About Apunga Ecological Management

Apunga Ecological Management is a privately owned and operated business specialising in environmental consulting, bush regeneration, landscape rehabilitation, revegetation and environmental education in Sydney and surrounding areas. Established in 2005, it draws together the most qualified professionals in the industry in order to develop and deliver best practice. Drawing on a wide and extensive range of skills and experience, AEM have provided services for National Parks, private property holders and businesses, and 16 different councils throughout Sydney.

3. Education for Schools

AEM can provide all liaison and administration with schools & teachers on behalf of funding organisation (e.g. Council, state government).



3.1 Multi-week or term long programmes

Landcare/Bush Regeneration

A term long or multi week program can be tailored to high school, primary school or special needs students. This consists of once a week/fortnight/month classes of 1 – 3 hours. Some of the basic principles of bush regeneration are introduced and students will learn the names of some common weeds and native plants in a fun interactive setting. Practical sessions are conducted in bushland either on the school grounds or at a nearby reserve with Council approval. In the field, students will be taught some basic weed removal techniques, planting techniques, and learn about local fauna and habitat.

Additional activities for this program, that may depend on available budget and location of the school include:

- Field trip to a local native nursery to learn about collecting, preparing and planting seeds and general propagation skills. Students can pot up their own seedlings which they can take home or plant at their site.
- Bush foods and medicine with Jake Cassar. Jake is a well renowned expert in this area and has lots of experience working with kids. Students will learn some of the traditional aboriginal uses of plants found in their local bushland.
- Field trip to Sydney Wildlife World or Featherdale Wildlife Park (depending on school's location). A great way to finish off the program where students can gain some valuable insight into our native fauna and gain new appreciation of the habitat values of local bushland.

Theory sessions can either be conducted in class or combined with field trips in an outdoor setting. Mini bus transport can be arranged for students with a maximum of 11 passengers.

AEM have successfully carried out this program at two schools in the Marrickville area. A full curriculum for these programs is available on request.

School Native/Veggie Garden

A multi week program taking students through the entire process of creating a native or veggie garden at the school. An initial consultation and planning phase with a school representative will take place. Students will then learn some basic principles of creating a

garden and gain an understanding of the benefits that can be achieved. A series of practical sessions will then take place where the garden area will be prepared and mulched, seeds or seedlings planted and then maintained.

Additional activities for this program include:

- A composting workshop.
- Build a frog pond workshop.
- Field trip to a local native nursery to learn about collecting, preparing and planting seeds and general propagation skills. Students can pot up their own seedlings which they can take home or plant in the school garden.

3.2 One-off events

There are a number of options available for one-off events. These can consist of short 1 – 3 hour activities, or full day excursions. Events may be led by AEM environmental educators or facilitated by AEM with the assistance of expert guests. Mini bus transport can be arranged for students with a maximum of 11 passengers. The following list is a guide, and other activities may be requested.

- **Landcare/bush regeneration workshop** – A brief overview of the principles of bush regenerations, some common weeds and natives, weed removal techniques and planting. Can be conducted on school grounds or at a nearby reserve location with approval of Council.
- **Native planting** – Guided native planting activity at a location of Council’s choice. AEM can provide all planning, provenance plants, stakes and guards. Students will be taught the benefits of planting native species and learn the names of some of the plants chosen.
- **Bush foods and medicine** – A field trip with either AEM staff or the addition of bush tucker expert Jake Cassar.
- **Aboriginal site visit** – A field trip to a local Aboriginal site where students will learn some of the history of Aboriginals in the area, what they would have used the particular site for, and a general appreciation of the custodianship by Aboriginals of the Australian bush.
- **Bush experience** – A general walk and talk through a local bushland area, covering topics of local flora and fauna, Aboriginal history and bush foods and medicine.
- **Composting** – An introductory workshop to composting, learning the why, what and how of this practice.

- **Build a frog pond** – Learn why it is important to provide habitat for frogs, and help with the construction of a frog pond for the school. AEM can provide all materials required.
- **Visit a native plant nursery** – students will learn about collecting, preparing and planting seeds and general propagation skills. Students can pot up their own seedlings which they can take home or plant at their school.
- **Visit a wildlife park** – Field trip to Sydney Wildlife World or Featherdale Wildlife Park (depending on school's location. Students will be guided through the park with an AEM educator to gain valuable insight into our native fauna and gain new appreciation of the habitat values of local bushland.
- **Children's book reading** – A range of environmental and nature based books available for special animated story book sessions.

4. Education for Adults

AEM can provide all communication, promotion, administration and facilitating of activities. Catering for events, such as morning or afternoon tea, is also an added option. Events can take place any day of the week including weekends and evenings.

4.1 Multi-week programmes

Landcare/Bush Regeneration

A multi week program can be tailored to bushcare volunteers or paid staff members. This consists of once a week/fortnight/month classes of 1 – 3 hours. The principles of bush regeneration are comprehensively covered and identification of an extensive list of weeds and native plants are learned. Practical sessions are conducted in bushland at a reserve with Council approval. In the field, participants will learn all weed removal techniques, planting techniques, plant ID and characteristics of local fauna and their habitat.

Theory sessions can either be conducted in an available room or combined with field trips in an outdoor setting. Mini bus transport can be arranged for participants with a maximum of 11 passengers.

This program can range from introductory level to advanced.



4.2 One-off events

There are a number of options available for one-off events. These can consist of short 2 – 4 hour activities, full day excursions, or 1 hour presentations. Events may be led by AEM environmental educators or facilitated by AEM with the assistance of expert guests. Mini bus transport can be arranged for participants with a maximum of 11 passengers. The following list is a guide, and other activities may be requested.

- **Landcare/bush regeneration workshop** – A brief overview of the principles of bush regenerations, some common weeds and natives, weed removal techniques and planting. Can be introductory, intermediate or advanced level.
- **Native planting** – Guided native planting activity at a location of Council’s choice. AEM can provide all planning, provenance plants, stakes and guards. Participants will be taught the benefits of planting native species and learn the names of some of the plants chosen.
- **Plant ID** – Can be tailored to suit all levels or focussed on one particular plant group such as grasses.
- **Bush foods and medicine** – A field trip with either AEM staff or the addition of bush tucker expert Jake Cassar.
- **Aboriginal site visit** – A field trip to a local Aboriginal site where participants will learn some of the history of Aboriginals in the area, what they would have used the particular site for, and a general appreciation of the custodianship by Aboriginals of the Australian bush.
- **Bush experience** – A general walk and talk through a local bushland area, covering topics of local flora and fauna, Aboriginal history, bush foods and medicine, and site specific information regarding vegetation communities.
- **Composting** – An introductory workshop to composting, learning the why, what and how of this practice.
- **Build a frog pond** – Learn why it is important to provide habitat for frogs, and help with the construction of a frog pond. AEM can provide all materials required. A workshop without the construction element is also possible.
- **Guided spotlight walk** – A guided walk through a Council reserve to observe nocturnal fauna.
- **Art in Nature** – Experience the joys of drawing in a beautiful bushland setting. Art instruction supplied by expert artist, all materials supplied.
- **Bush Photography** – An expert photographer will take participants through a bushland setting, giving tips and tricks for capturing the best shots. An extra option is to finish the workshop at an indoor location to look at the images on a computer and learn some basic photoshop techniques.

- **Yoga/Tai Chi and bushcare** – Volunteers are taken through a yoga or tai chi session by a qualified instructor and then guided through bushcare works. Can be used as a special addition to a normal bushcare day or as a special one-off on a particular site.
- **Breakfast with the Birds** – Early morning bird watching field trip with expert bird watcher.
- **Bat watching expedition** – Introductory talk and night walk with bat expert using anabat detectors.
- **Snakes and reptiles** – A live show and information session by an expert reptile handler.

Evening presentations

One-off evening lectures, presentations or discussions are an excellent option for raising awareness in the community, particularly for those with busy lifestyles. The following list is an example of some of the range of topics available by both AEM educators and our network of experts. There are many more options available or specific topics can be tailored to the needs of a group or event.

- Weeding without Roundup: Alternatives to glyphosate
- The effect of climate change on Australian Bushland
- The biology of amphibians
- Tick prevention and safety
- Birds in Backyards
- The Powerful Owl Project
- Spider safety and awareness
- Establishing a garden with Australian native plants
- Ground orchids of Sydney
- Rare and unique fungi
- Medicinal and food uses of weeds
- Marine ecology of Sydney waterways
- Megafauna
- Fire ecology
- Insects
- The history of bush regeneration
- Running sustainable events
- Crowd funding environmental projects
- Environmental heroes
- Native Bees
- Organic farming

5. Other educational services

In addition to the programs, workshops, walks and talks already listed, AEM have a number of other services available to provide education to the community. These consist of:

- **One on one consultations with private property holders.** This may be to advise on noxious weed removal techniques, establishing native gardens or general native garden advice. Comprehensive reports and plans can be provided.
- **Sourcing and running corporate planting/bush regeneration activities.** Many businesses are looking for activities such as these as part of their yearly activities. AEM can both source interested businesses and provide communication, administration and on-ground supervision and materials.
- **Running National Tree Day/Schools Tree Day.** AEM can provide communication, administration and on-ground supervision and materials.

6. Costings

Costings vary greatly from project to project and depend on time involved in coordinating and administration, additional services of experts, and materials.

For general education services AEM charge an hourly rate of \$90 + GST. For short one-off events there is typically 2 - 3 hours administration/preparation time in addition to the hours involved for the event. More complex events may require an increase in these hours.

Multi week programs generally require 5 – 8 hours to develop a unique curriculum, + 1 hour per lesson in administration/preparation time in addition to the hours of classes.

Providing staff for volunteer supervision is at a lower rate of \$50 - 60p/hr +GST (additional charges for weekend activities).

For more detailed figures on costings, please contact AEM to request a free quote for your particular event or programme.

7. Case Studies

Landcare for Schools – Marrickville Council

Two successful 8 week programs were run by AEM in partnership with Marrickville Council at Tempe High School, for children with learning and behaviour difficulties, and Marrickville High School for English second language students. A thorough introduction to bush regeneration was provided along with field trips to the local nursery, Sydney Wildlife World, and a bush tucker outing with Jake Casar.

Privet out of Catai – The Hills Council

The Privet out of Catai program involved AEM supplying expert one-on-one advice and training to private land holders in The Hills Council district. Residents were advised on how best to control the invasion of Privet and other weeds invading their property. They were supplied with a comprehensive weed eradication plan, and given 3 sessions of guided bush regeneration training.

Bushland guided walk – Mosman Council

AEM were contracted by Mosman Council to provide a guided educational walk through a council reserve. The walk covered aspects of local flora, fauna, bush tucker and medicine, vegetation communities and weed invasion.

