

Environmental management

on the

Urban fringe



*Economic incentives for
environmental management*



Department of
Environment and
Conservation (NSW)

*A guide for councils introducing
incentive schemes for rural property owners*

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Introduction

Poor environmental management, particularly on properties located within the urban rural fringe, has long been a concern of local councils and state agencies in New South Wales, and indeed throughout Australia.

Specific issues related to these concerns include:

- nutrient run-off from fertiliser applications;
- soil erosion through land modification;
- topsoil removal through land clearing;
- animal over-stocking and tillage;
- water pollution through poor stormwater and wastewater management, and through pesticide use and storage;
- habitat destruction through bushland clearing;
- soil salinity; and
- weed proliferation.

Many local councils throughout NSW have worked with the Department of Infrastructure Planning and Natural Resources (DIPNR), the Department of Environment & Conservation (DEC) and NSW

Department of Primary Industries to develop and implement education and awareness-raising programs. Such programs are aimed at changing landholder practices towards best environmental management and protection. Councils have also traditionally relied on regulatory approaches, to penalise property owners found to be generating impacts by undertaking environmentally unsatisfactory activities. More recently, combined educative and regulatory approaches have been advocated and implemented. All these initiatives have assisted in reducing the incidence of environmental impacts, but they have not gone far enough.

This guide has been prepared as an addition to the *Incentives for Sustainable Land Management: A guide for local government* (Bateson, 2000), which addressed the use of incentives in biodiversity conservation at the local level. This guide intends to highlight the linkages between available incentives and stormwater management, and to provide a framework within which local councils in NSW can implement an incentives scheme. It also aims to explore the practical application of an incentive approach, through a case study undertaken in Hornsby Shire Council's Rural Land Incentive Program.

What are incentives?

Incentives, put simply, are tools that encourage greater action or effort towards a positive goal, or indeed provide a reward or recognition for positive action taken. When used in conjunction with a combined educative/awareness-raising program, they can be used to reward progress, or to inspire actions towards achieving environmental improvements or gains.

In particular, incentives offered by local government provide opportunities for community members to implement action within their localities. This has the potential to strengthen the partnerships between councils and their constituents. The value of

incentives – in affecting change towards enhancing the natural environment, and contributing to overall sustainability – is only just starting to be realised.

Within Australia, several councils have tried the use of incentives to encourage biodiversity conservation among private landholders. Successful programs have been implemented in:

- Surf Coast Shire Council, Victoria (www.surfcoast.vic.gov.au) and
- Johnstone Shire Council, Queensland (www.jsc.qld.gov.au).

Lessons learnt from these and other programs suggest that incentives can be just as effective in encouraging efforts towards improving stormwater management practices on privately owned land. As highlighted by Bateson (2000), there are a number of powerful ways in which councils can encourage landholders to carry out appropriate land management practices and stormwater conservation measures. The provision of technical advice, materials or financial contributions to improve practices are some of these. To date, the difficulty in operating successful incentive-based programs has delayed their implementation within NSW.



A broad range of properties are involved from open farming to nurseries.

Why an incentive scheme?

Incentives, as suitable tools for establishing effective change, are best offered to private landholders within a scheme or organised framework to ensure maximum benefit.

The advantages of this coordinated approach include:

- the opportunity to offer a selection of incentives to participants, rather than restricting choice;
- offering a consistent, structured approach across all residents who are interested in participating;
- proving the value of such a program to Council, potentially paving the way for this approach to be incorporated into Management Plans or other strategic documents;

- strengthening partnerships between Council and the community;
- integration of incentives with education and regulation to achieve the optimal environmental outcome; and
- the opportunity for Council to establish a process to review and evaluate the effectiveness of incentives in achieving environmental gains.

Structured programs also, importantly, provide transparency for participants, and provide examples that can be adopted wholly, or in part, by other councils.



Incentives and resources available

There are many opportunities available to local government for implementation of incentive mechanisms that are linked to regulatory controls. They are covered under local environmental planning legislation, development control plans and other planning instruments. Financial incentives – such as rate mechanisms, grants and management agreements – are some of the options that can be linked to compliance with specific plan provisions (NSW National Parks and Wildlife Service, 2001). This linkage can often strengthen application of the plan, leading to more effective outcomes.

When used in conjunction with property agreements and management plans, incentives can provide a powerful means by which councils can encourage landowners to carry out appropriate stormwater management and sustainable land management practices (Bateson, 2000). The main types of financial incentives and supporting mechanisms available to NSW councils can be seen in the table below. A combination of these incentives is the ideal approach recommended for local government (Bateson, 2000).

Table 1: Incentives and Supporting Mechanisms

Incentives	Supporting mechanisms
<p>Financial Incentives</p> <ul style="list-style-type: none"> ■ Rate rebates ■ Grants ■ Management agreements <p>Non Financial Incentives</p> <ul style="list-style-type: none"> ■ Property management planning ■ Technical support and materials ■ Local award schemes <p>Planning and Development Incentives</p> <ul style="list-style-type: none"> ■ Tradable or transferable development rights 	<p>Property Rights Mechanisms</p> <ul style="list-style-type: none"> ■ Management agreements (e.g. voluntary conservation agreements and covenants) ■ Revolving funds <p>Revenue Raising Mechanisms</p> <ul style="list-style-type: none"> ■ Environmental levies (may be used to fund local incentives schemes) ■ Developer contributions

Table sourced from Bateson (2000)

Rate rebates

Rate rebates provide financial recognition of the conservation efforts of private landholders. In return for a reduction in rates, the landholder agrees to maintain the land, conserve biodiversity, manage stormwater correctly, or take other agreed conservation measures (Bateson, 2000).

NSW councils have the opportunity to create sub-categories for ratings, such as agricultural or

residential rating zones. These would allow them to offer differential rates based on conservation outcomes, as part of a program linked to management agreements. The major obstacles facing NSW councils are the lack of support for the introduction of rate rebate programs within State agencies, and the logistical and administrative difficulties associated with such an approach. For this reason, councils have been reluctant to take advantage of this opportunity (Bateson, 2000).



Nursery staff helping a local resident select plants for their rural property.

Grants and donations policy

There are no significant obstacles to councils under NSW legislation for the provision of grants and donations to individuals or community groups (Bateson, 2000). Councils have the ability to provide financial assistance to landholders, not only for biodiversity conservation purposes, but also for 'on-ground' works to deal with stormwater management. Local government can also provide or administer grants to individuals or community groups to undertake conservation works. Grants can be linked to other mechanisms, such as management agreements, on-going rate relief, and non-financial support, such as training (Bateson, 2000).

Hornsby Shire Council currently holds a 'Council Cash and Non-Cash Donations and Grants' Policy. This policy allows for financial allocations to community groups that address the identified needs of people within the Hornsby Shire. It reflects Council's commitment to the development of its community, and encourages self-development and initiative within the Shire.

Management agreements

Voluntary management agreements are binding agreements or contracts between landholders and councils. Such agreements set conditions for property management to meet agreed conservation objectives. They can be linked to financial incentives, as a formal commitment of the landholder to improve practices, but are not attached to the title of the land (Binning et al, 1999).

Voluntary conservation agreements and covenants are an alternative partnership arrangement between the landholder and NSW National Parks and Wildlife. They are more formal commitments to biodiversity conservation, and require registration on the title of the land. These agreements are binding on successive landowners and councils (National Parks and Wildlife Service, 1993), and have spin-off benefits for stormwater management as well. Under s555 of the *Local Government Act 1993* in NSW, land that is the subject of a conservation agreement (within the meaning of the *National Parks and Wildlife Act 1974*) is exempt from rates.

Environmental levies

Environmental levies are a flat charge on households. They can be used as an enabling or supporting mechanism to raise revenue to fund a specific environmental program. In NSW, a levy can only be imposed with Ministerial approval to individual councils (Bateson, 2000).

Hornsby Shire Council currently has a Catchment Remediation Rate (CRR) that is used to fund the construction of stormwater infrastructure. This covers gross pollutant traps (GPTs) and other programs addressing environmental problems specific to the Shire. Priorities are set annually and reported on in Council's Management Plan. This allows the public to access information on environmental improvements that have been made as a direct result of the rate.

Developer contributions

Developer contributions or levies can be required by a local council to help provide the community with open space or bushland. In NSW, councils can potentially raise funds under their section 94 *Contributions Plan*, to enhance or conserve biodiversity as 'public amenities and services' within an area. However, contributions collected under section 94 cannot be used to offset environmental impacts off-site (Bateson, 2000). Although these financial contributions do not directly relate to stormwater pollution, an increase in open space and bushland will ultimately have a positive effect on stormwater.

Technical support/ advice/training

Professional advice, training and technical support are important motivational incentives for landholders. They encourage the integration of stormwater management into property planning. Educational workshops and materials, such as the Sustainable Living Kit and the Property Management Plan, can form part of the training ideally taking place on these properties. For example, Council's Noxious Weed Officer could provide professional advice on weeds, and this approach may or may not be linked to financial incentives (e.g. as a requirement for participants in a rate rebate scheme).

Free trees/shrubs/materials

The provision of materials (e.g. tube-stock native plants of local provenance) and other assistance (e.g. loan of equipment, access to databases) are important incentives. This approach can help reinforce the partnership between council and landholders. By providing residents with access to facilities such as the community nursery, councils can encourage the learning of new skills. This can, in turn, motivate further action towards conservation and appropriate stormwater management practices. Additional activities – such as the distribution or availability of excess mulch after a storm event, for use on private properties – can also encourage environmentally friendly behaviour.



Rural residents attending a 2-day Property Planning Course.

Community recognition and local awards schemes

For many residents, recognition of their efforts towards biodiversity conservation or stormwater management is sufficient to motivate further participation and action. Community recognition of individuals who undertake environmentally responsible practices on their property can come in the form of a local award scheme, signage, or an awards ceremony facilitated by the council. Such public recognition, acknowledgement and encouragement could be assisted by sponsorship from local industry and businesses. Participating landowners can also receive a sign to display on their property gate to show that they are part of a specific project, or indeed have taken the initiative to start their own local project.

Securing council commitment

It is essential to secure council commitment in developing an incentive scheme, to guarantee longevity and the continued success of such an approach. Gaining such commitment will be relatively easy in those councils that already recognise the benefits of programs to progress sustainable development in general. Councils attempting to introduce an incentive scheme for the first time may find it useful to incorporate this tool with another environmental program, or deliver it as an initiative of the local Agenda 21 or similar environmental committee.

Recipe for success

In order to run a successful stormwater incentive program, councils need to promote the importance of stormwater management to the broader community. They should target audiences such as landholders, residents, industry and individuals within organisations. Councils can do this through the local and regional media, by producing publicity materials and by conducting workshops (Bateson, 2000). It is also important to target new property owners on the urban rural fringe with hobby farms or small acreage, as they may have no previous land management experience. Information can be provided to these residents when they move into the area – possibly in the form a sustainable living kit. The kit may contain information sheets, a template for a property management plan, details of council contacts for support, and advice from other agencies (Bateson, 2000).

Legislation supporting incentives

Sections of the *Local Government Act 1993* in NSW provide some support for the implementation of incentive schemes, particularly those involving financial encouragement.

The specific provisions are as follows:

■ *s356 – Can a council financially assist others?*
A council may, in accordance with a resolution of the council, contribute money or otherwise grant financial assistance to persons for the purpose of exercising its functions.

■ *s410 – Alternative use of money raised by special rates or charges*
This section applies to money that has been received by a council as a result of the levying of a special rate or a charge. In NSW, a levy can only be imposed with Ministerial approval to individual councils, and the levies take the form of a flat rate charged to each household. Monies received from the levy can be used for specific environmental programs. Examples of successful schemes are provided later in this document.

■ *s493 – Categories of ordinary rates and categories of land*
There are four categories of an ordinary rate and four categories of rateable land, those being:

- Farmland
- Residential
- Mining
- Business.

Specific characteristics of land will determine its suitability within each of these categories. For example, in order to be classified as farmland, the property must meet the criteria outlined in s515 of the *Local Government Act 1993*. Categories may, at a council's discretion, also be divided into sub-categories in accordance with s529. It is the responsibility of the property owner to ensure that their land is rated correctly.



Rural residents preparing property plans

- *s555 – What land is exempt from all rates?*
(1) *The following land is exempt from all rates:*
- (b1) *subject to subsection (3), land that is the subject of a conservation agreement (within the meaning of the National Parks and Wildlife Act 1974); or*
 - (3) *If land to which subsection (1) (b1) applies comprises part of a single parcel of land for rating purposes, that part is exempt from all rates. However, rates may be made and levied on the other part of that parcel proportionately.*

Councils in New South Wales also have the ability to influence stormwater management on properties through the employment of both regulatory and non-regulatory approaches, including:

- enforcement of the *Protection of the Environment Operations Act 1997*. It is an offence to pollute waters under s120 of the Act, and legal action may be taken through the issuing of Penalty Infringement Notices, Clean Up or Prevention Notices to enforce this;
- implementation of controls for diffuse source pollution on a property, as part of an Environment Protection Notice or in a property management plan, through prioritisation of enhancement options aimed at minimising stormwater pollution;

- conducting an environmental review of a property, and recommending that stormwater be captured and treated on the property prior to its final discharge off the property. The review may recommend that a property management plan or an environmental management plan be prepared for the property, regardless of its size and nature (i.e. commercial farming operation or residential property);
- requesting a Soil and Water Management Plan (SWMP) as a requirement for submitting a development application. The Plan should incorporate soil and sediment control measures, or a broad-scale environmental assessment;
- influencing of community practices through education and awareness-raising programs in the implementation of community-wide stormwater management plans; or
- consideration of stormwater management in enforcing planning controls, including the designation of stormwater and drainage easements at subdivision stage, and through the use of s88B instruments.

Pilot program Hornsby Shire Council – Pilot program

Background

The Rural Land Incentive Program was born out of a need to encourage sustainable land use in the urban rural fringe of Hornsby Shire. Council received funding from the NSW Government Urban Stormwater Education Program, to undertake an analysis of incentives (particularly economic) available to councils within NSW. The aim of the program was to encourage sustainable stormwater management on private properties, and to conduct a limited trial of the determined approach. The stormwater incentives pilot was run in conjunction with a similar biodiversity initiative, providing a holistic environmental approach for participating landholders, and enhancing the stormwater management outcomes of the pilot. Council determined that the trial incentive scheme would include rural properties of more than two hectares.

Aim and objectives

The Rural Land Incentive Program aimed to increase public awareness, understanding and participation in actions towards sustainable stormwater, biodiversity and land management on private land, in relation to:

- nutrient management (fertilisers, vegetation waste, manure);
- watercourse and drainage line management (including bank erosion);
- use of vegetation buffers;
- water use, irrigation and dams;
- verge and access management; and
- other property issues.

The Program objectives were to:

- investigate the use of incentives (particularly economic) which local councils could use to improve the environmental management of properties on the urban rural fringe;
- contribute to the body of knowledge surrounding economic incentives available to NSW councils;
- trial and evaluate the use of economic incentives;
- provide incentives to landholders for improved stormwater management;
- improve public awareness of stormwater management on the urban rural fringe; and
- improve the dissemination of information to residents undertaking improvement measures on their property.

Working group

A working group was established to oversee the Rural Lands Incentives program. The working group consisted of members from various government agencies. They met routinely to discuss the direction of the program, and the various types of assistance that would benefit rural property owners.

Invitation to participants

Council developed an Expression of Interest brochure that explained the Program, and formed the basis for formalising discussions with prospective participants. A total of 1200 brochures were distributed to all landholders that owned properties located within a rural zoning, which exceeded two hectares in land size. A copy of the brochure is attached in Appendix 1.

Potential participants were asked to indicate their interest in participating in the Program, specifying any particular area of interest, and return the completed checklist to Council.

Categories of interest included:

- General information;
- On-ground technical advice;
- Property management plans;
- Planning courses;
- Fencing subsidies;
- Biodiversity cash incentives;



Rural residents learning about native vegetation and mapping.

- Weeds/feral animal control;
- Plant identification;
- Stormwater cash incentives;
- Watercourse, drainage lines, water use, irrigation and dam management; and
- Nutrient management.

Council initially received 102 responses and invited more than 86 households to participate in the program. Following the registration of participants, an information letter was posted to them outlining the background, objectives and key features of the program. It detailed the available incentives, and the anticipated level of involvement of landholders in property management planning.

Program achievements

Site visits were conducted at all properties where landholders had demonstrated a commitment to the program. These visits involved discussions covering a broad range of land management issues. They included stormwater management, native vegetation management, erosion, weed control, revegetation, waterway protection, and determining how the landholder could access assistance and incentives to aid with their particular issues.

A local environmental group, one resident of a neighbouring local government area, and one resident leasing land from the former Department of Land and Water Conservation also expressed interest in the program. However, since they did not satisfy the selection criteria to participate in the program, they were deemed ineligible. For those residents that did not satisfy participation criteria, educational material was distributed, and they were referred to other agencies.

Marketing and communication

Hornsby Shire Council found that using a combination of all marketing and communication aspects was helpful in capturing a wider audience and generating further interest in the program.

Council identified early that there was a need to establish sufficient recognition and understanding of the Program. It was essential to determine whether the incentive concept would work, and to conduct investigations to ascertain whether people would digest the key message of stormwater management.

To achieve this, Council adopted a multi-faceted communication process incorporating:

- **Mail distribution** – Expression of Interest brochures were posted to all residents located in a rural zoning over two hectares. A follow-up information letter was posted to all landholders who expressed an interest in the program.
- **Media** – Hornsby Advocate (local newspaper) published an article at the commencement of the program, and again before each workshop. A further article was published following the success of the workshops.
- **Events** – Three educational workshops – on fauna, flora and stormwater – were run on consecutive Saturdays. More than 130 people attended the workshops.
- **Publications** – The Maroota Newsletter ran a story about the commencement of the program, suggesting that residents contact Council for further information, or to participate in the program. Council also distributed a newsletter for the Program. This was found to be an excellent way to maintain ongoing contact with those residents involved. Distribution was a simple task, thanks to the databases created for the assessment program.
- **Site inspections** – A site inspection was undertaken at each property participating in the Program. During the inspection, landholders were asked if their neighbours would be interested in the program, and were encouraged to discuss the linking of properties for a further incentive. A number of landholders have seen the benefits of making this commitment, and have invited a further six properties to be involved.

Workshops

Workshops and seminars can be used for education, but it is often difficult to encourage rural landholders to attend for a full day. To ensure that appropriate topics were covered at the workshops, a phone survey was found to be the most cost effective and efficient way to identify the requirements of the program participants. Three full day workshops were held, covering the topics of flora, fauna and water quality. To encourage attendance and to allow easy access for participants, the workshops were held in a local community hall. More than 130 people attended the workshops and gained valuable information from guest speakers.



Display by local Landcare representative



Program participants attending stormwater workshop

Methods of program evaluation

Three main evaluation techniques were used throughout the program. First, details from the expressions of interest were entered into a database. These included the type of assistance requested by the landholder, and the size and location of the property.

Assessments

To evaluate the on-ground status of biodiversity and stormwater issues, an individual site inspection was undertaken at each participating residence. Each site was assessed against criteria for stormwater issues to determine the extent of stormwater concern, and the type of assistance that could be given for each property (a copy of the assessment form is attached in Appendix 2).

In order to be eligible for financial assistance, all participants were required to enter into a property agreement with Council. The property agreements were voluntary, and outlined how stormwater would be enhanced on the property within the conditions of the agreement. Two copies of the agreement were forwarded to the landowner; a signed copy of the agreement was retained on the property and the other was returned to Council. The agreement has been checked by Council's solicitors and is deemed to be binding (a copy can be seen in Appendix 3).

The agreement will remain in force for a specified period, and may vary for different participants. Generally, the term will be between one and five years. The agreement can be terminated at any time with the consent of both parties.

Should the agreement be breached, the property owner will be disqualified from the program and any benefits will cease. Continual benefits (particularly financial) will only be awarded to those who consistently meet the conditions of the agreement.

Council decided that the most practical and cost-effective way to monitor the performance of the participating landholders was a self-assessment questionnaire to be filled out every six months. The self-assessment requires the landowner to detail the activities that they have completed – or are proposing to complete – in relation to the specific criteria set out in the 'Offer of Incentives'.



Wetland constructed to manage stormwater runoff.

If properly implemented, with initial landowner training and extension officer support, this method can form part of an empowering process among landowners faced with the challenge of undertaking sustainable land management. Self-audits are to be regularly completed by landholders and sent to council for review. Additional evidence of progress on ground works will also be required, including receipts for materials, photos, site plans, etc.

Following the self-assessment, either all properties, or a proportion of properties can be inspected to ensure that they comply with the property agreement. Hornsby Shire Council representatives will be inspecting all properties. Random inspections will be conducted by Council's project officer to verify the satisfactory commencement of agreement conditions, and to ensure that the agreed works are being implemented. As well as having their agreements – and the payments or contributions from Council terminated – landholders not complying will be excluded from future participation in the program.

Should Council decide to alter the assessment process, the NSW Farmers Association has developed a useful method for self-assessment. The *Farmers Assessing Their Resource Management – Self Assessment Workbook* could be adapted into councils' economic incentive schemes. It was developed to enable farmers to monitor and assess the condition of their land, and plan resource management activities on farms in NSW.

Community evaluation

Community evaluations were undertaken at each of the three educational workshops held for fauna, flora, and stormwater. More than 130 people attended the workshops and 30 evaluation forms were completed. A copy of the form can be found in Appendix 4.

Some of the comments received were as follows:

“Run well, please try to do more of them, particularly recruiting horse owners.”

“There is always something you can relate to.”

“Thank you for coming out to this area, it can be quite controversial.”

“An excellent Program and long overdue.”

“Good to hear other people’s opinions and compare to your own experiences. Mix of questions was interesting.”

“Great to know there is help and good advice available.”

“I could relate to the guided walks and demonstrations, very illuminating to see native grasses in-situ.”

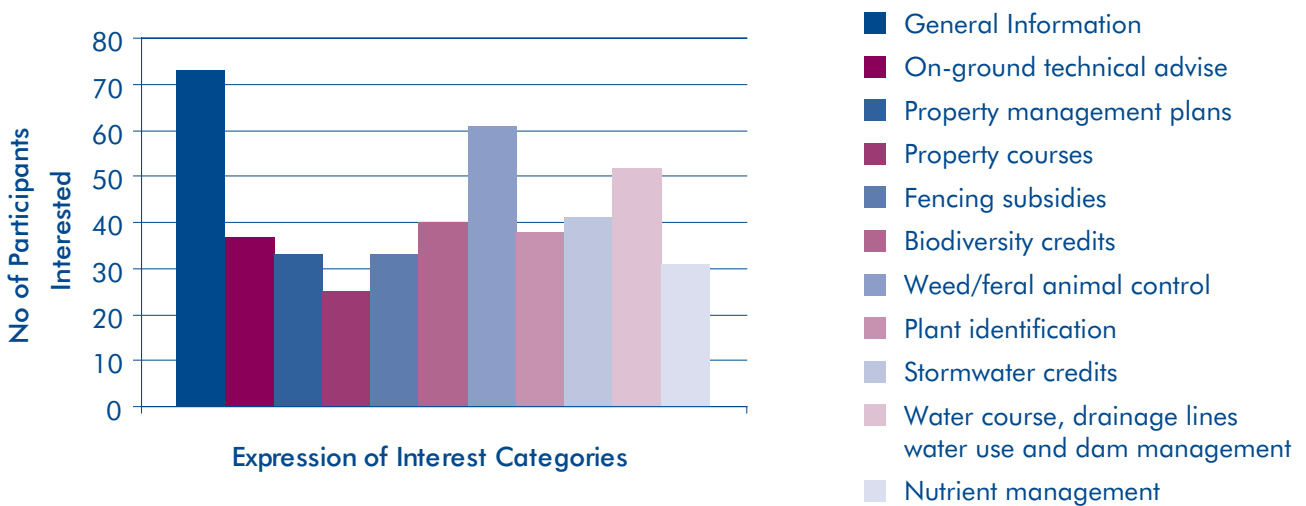
“I appreciated the relaxed and informal atmosphere, and the pleasantness of all concerned.”

The community response from the workshop evaluation is encouraging. Residents have requested that further workshops be run in the future. In the rural residential community, there is a general feeling of concern for the environment. It is heartening to see so many people looking at this program as a tool to improve their land management practices.

Results

Twelve hundred expressions of interest were posted out to landholders in a rural zoning with properties of more than 2 hectares. The total uptake of 86 participants represented 7.2% of the total offers.

Rural Lands Incentive Program Expression of Interests





Residents learning about drainage line management and weed identification

The Rural Lands Incentive Program has made a contribution towards sustainable land management. All participants improved either stormwater management or biodiversity conservation on their properties. 82% of landholders involved in the program had not been involved in any other program (e.g. landcare, bush regeneration groups, etc) previously, and some have taken this opportunity to join a local environmental group.

More than 96 people were actively involved in the project, including landholders, employees and volunteers. The program has helped to protect and enhance the stormwater and biodiversity on private holdings, through education and planning. The program also delivered property management plan training that had previously been unavailable in the area.

Cost

The total cost of the project was \$25,000. This included \$10,000 in economic incentives, \$9,000 for staff wages and \$6,000 for printing, advertising and miscellaneous. Hornsby Shire Council obtained funding for the scheme through a grant from the NSW Government Urban Stormwater Education Program.

The allocation of grants was undertaken under s.356 of the Local Government Act 1993. It allows a council, in accordance with a resolution of the council, to contribute money or otherwise grant financial assistance to persons for the purpose of exercising its functions. Public notice would normally be required. However, as the financial assistance is part of a specific program, public notification was not required.

As this was a pilot program, each participant received an economic incentive of \$300. Although individual projects often exceeded this amount, it was found that property owners were more than happy to cover the remainder of the cost of completion of a project. Individual projects ranged from onsite

sewage management system upgrades to creek bank restoration. The smallest project undertaken was the installation of a diversion drain to manage stormwater, while the largest involved the construction of stormwater detention ponds.

Observations on program delivery

During the trial of the Rural Lands Incentive Program, Hornsby Shire Council observed the following issues:

- **Rebates were limiting and cumbersome** – Due to the limited availability of program funds, only 30 landholders were able to participate in the stormwater facet of the program. All other participants were included in a parallel Biodiversity Conservation Program through a grant obtained by Council's Bushland & Biodiversity Team. The 30 participants in the stormwater facet received an incentive of \$300 per property to undertake works on their land.
- **Some incentives were too small** – Although incentives do not need to be large, they do need to be more attractive than alternatives such as subdivision of land or clearing of vegetation for the establishment of paddocks. Incentives should be established in accordance with the needs of the community. Direction is often required to ensure that the property owner has a clear understanding of the rehabilitation work required.



Rehabilitated drainage line to reduce the flow of stormwater and minimise erosion.

- **Administrative processes were excessive**
 - Due to the nature of the program, and the close ongoing relationships with landholders and the community, project administration was extremely time-consuming. Databases were established to record and monitor landholders' progress, to monitor budgets and to maintain mailout lists. File maintenance was required on a regular basis. It was also found that persuading landholders of the economic and ecological benefits of protection of stormwater was an ongoing process, and thus very time-consuming.

Discussion

Although the Rural Lands Incentive Program largely fulfilled its objectives, the lessons learned from the experience could allow Council to achieve more in the future. The favourable comments made about the campaign materials were encouraging. This response indicated that the Rural Lands Incentive Program did succeed, to some extent, in making the difficult concept of sustainability and stormwater management meaningful for the private landholder. Indeed, the Program delivered high quality information on stormwater management, which has laid the groundwork for a major push on household sustainability in the Hornsby Shire.

Future economic incentive programs could be made more cost-effective by refining techniques, based on experiences gained through this program.

The residents participating in the Program welcomed local government's leadership in the area of promoting stormwater management and biodiversity. They valued Council's involvement,



Drainage line improvement measures to reduce erosion along drainage lines.

believing that it provided an increased awareness of the impacts surrounding stormwater pollution. Council, and its future sustainability endeavours, also benefited by developing relationships with community landholders.

It was also determined that incentive programs such as the Rural Lands Incentive Program may be able to complement regulatory initiatives. Future programs should be revised to target key environmental problems, such as weed removal, rabbit control, sediment and erosion control, and the protection of native remnant vegetation. Suggested revised criteria could be as follows:

■ Noxious and Environmental Weed Control

- A landholder must be undertaking appropriate land management practices that will:
 - Contain the spread of noxious and environmental weeds;
 - Reduce the level of infestation;
 - Work towards eradication; and
 - Prevent new infestations and reinfestation of disturbed areas.

■ Control of Feral Animals

- A landholder must be undertaking appropriate land management practices that will:
 - Control the environmental impact caused by rabbits, especially soil erosion and the impact on natural vegetation; and
 - Undertake an effective rabbit control program to reduce rabbit numbers.

■ Soil Erosion Control

- A landholder must be undertaking appropriate land management practices that will:
 - Prevent soil erosion from occurring or expanding on the property; and
 - Rehabilitate areas where existing soil erosion is occurring.

■ Protection of Remnant Vegetation

- The landholder must undertake the following appropriate land management practices where remnant vegetation occurs:
 - Protect existing remnant vegetation;
 - Exclude stock access to designated areas to protect remnant vegetation;
 - Allow some areas to naturally regenerate;
 - Undertake noxious and environmental weed control to allow remnant vegetation to survive; and
 - Provide a corridor for native fauna.



Land modification may be subject to a development application. Contact your local Council for further information.

Conclusion

It is important to note that with so many groups now working in the field of developing economic incentives, environmental management systems and environmental best management practice, there is an acute need to be aware of the work and progress that others are making. The last thing that farmers and rural residential property owners need is a plethora of environmental programs operating individually without any integration. There are currently many production-based discussion groups operating in the farming community. Most of these are now starting to consider the relationship between environmental care, and farming practices.

This will offer even more opportunities for environmental discussions.

The Rural Lands Incentive Program was designed as the starting point in the process of improving communication between community groups, other government organisations and individual landholders. It should also be noted that the program was developed for properties on the urban rural fringe of Hornsby. Without trials in other regions, it would be difficult to determine the wider applicability of the program.

The program team is fully aware of the need to develop environmental management systems and property management plans for agriculture. It sees the program as a non-threatening approach that allows landholders to assess their impact on the environment in which they operate. The team also believes that an environmental management system of some type is inevitable for agriculture. However, it must be understood that this program was focused on properties on the urban rural fringe, of between two and ten hectares in size. It did not touch on large, broad-acre agricultural operations.

Future of the program

Despite the humble beginnings, it is anticipated that the Rural Land Incentive Program will be integrated into Council's Management Plan as an ongoing priority. The community support, positive feedback and on-ground improvements already achieved clearly demonstrate the need for such an approach.

Council is presently continuing the progression of on-ground improvements for stormwater management in rural properties through a grant recently received from the Local Government Advisory Group, as part of the Department of Infrastructure, Planning and Natural Resources. An extension officer has been employed to continue working with landholders over the next twelve months, and to conduct further evaluation of the achievements advanced through the program.

References

Bateson, P. (2000), *Incentives for Sustainable Land Management: Community cost sharing to conserve biodiversity on private lands – A Guide for Local Government*, Environment Australia, Canberra and Environs Australia, Melbourne.

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Hornsby Shire Council, (1998), *Council Cash and Non-Cash Donations and Grants' Policy*, Hornsby Shire Council, Hornsby.

Local Government Act 1993

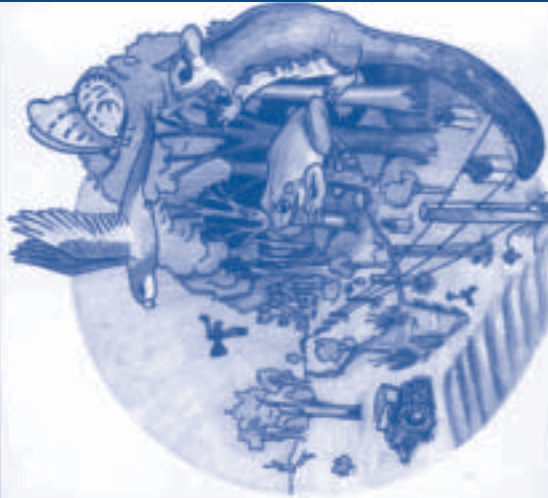
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NSW National Parks and Wildlife Service, (2001), *Biodiversity Planning Guide for NSW Local Government*, NSW National Parks and Wildlife Service, Hurstville.

NSW National Parks and Wildlife Service, (1993), *Conservation Agreements*, NSW National Parks and Wildlife Service.

Protection of the Environment Operations Act 1997

Rural Land Incentives Program



Hornsby Shire Council
providing assistance to protect,
manage and enhance biodiversity
and stormwater management



For further information regarding this program contact:

Environment Division
Phone: 9847 6829
or email:
hsc@hornsby.nsw.gov.au

Funded and supported by:



**Hawkesbury Nepean
Local Government
Advisory Group**

**NSW Environment
Protection Authority**

Green Web Sydney



Delivery Address:
PO Box 37
HORNSBY NSW 1630

No stamp required
if posted in Australia



Hornsby Shire Council
Reply Paid 37
HORNSBY NSW 1630

Rural Land Incentives Program

Council together with other Government agencies are conducting a Rural Land Incentives Program aimed at maintaining a high level of biodiversity and stormwater management on rural properties through sustainable property management.

The Rural Land Incentives Program will support landholders through advice, training, onground materials and cash incentives, in areas of biodiversity and/or stormwater management.

The skills obtained in this voluntary program will allow participating landholders to continually improve the biodiversity and stormwater management on their properties.

A detailed information package will be sent out to residents who express interest in the program.

How the Rural Land Incentives Program works

Private landholders are invited to submit an expression of interest.

The program will provide:

- \$0 An assessment of the biodiversity and stormwater issues of your property.
- \$0 Technical advice and support in vegetation and stormwater management implementation.
- \$0 Subsidies to attend a property management planning course.

Priority funding will be allocated to properties with **ONE** or more of the following features:

- \$0 Threatened species.
- \$0 Good quality native vegetation.
- \$0 Connections to other areas of native vegetation.
- \$0 Significant habitat values.
- \$0 Close proximity to waterways.
- \$0 Existing stormwater problems.

Expression of Interest

Please register your interest by completing the details below and returning this reply paid form.

For priority assistance please return before 21st October 2002

Name _____

Address: _____

Postal Address: _____

Telephone (hh): _____

Telephone (abh): _____

Email: _____

Type of assistance required (please tick)

- General information
- Ongoing technical advice
- Property management plans
- Planning course
- Fencing subsidies
- Biodiversity credits (cash incentives)
- Weeds/feral animal control
- Plant identification
- Stormwater credits (cash incentives)
- Watercourse, drainage lines, water use, irrigation and dam management
- Nutrient management



Rural land incentives scheme stormwater property assessment

Name: _____

Property Address: _____

Postal Address: _____

Telephone: _____ Email: _____

Date of inspection: _____ Officer: _____

Council Property File Number: _____

Type of assistance requested: _____

Site details

Area of property (ha)		Erosion potential	
Nearest Waterway		Irrigation conducted	
Slope (%)		Dam capacity	
Water Source	Tank/Reticulated		

Water quality management

Do you have runoff control structures that trap and contain material? Yes No

Do you divert clean runoff within your property around developed areas? Yes No

Is the diverted water held in storage dams for later use in irrigation? Yes No

Is stockpiled material:

a. Located away from drainage lines? Yes No

b. Minimal in number and size? Yes No

c. Built with no slope greater than 2:1? Yes No

d. Provided with suitable enclosed storage areas? Yes No

e. Kept in a clean condition? Yes No

Are there any sediment and erosion problems present onsite? Yes No

Are internal pathways and roadways stabilised to control erosion? Yes No

Is the property fertilised? Yes No

If yes, what is the application rate? _____

Are chemicals stored on the property? Yes No

If yes, are they stored to prevent stormwater pollution? Yes No

Do you have an integrated plan to control runoff, erosion, sediment and litter? Yes No

On site sewage management system

Is the farm/business connected to the sewer? Yes No

If no, specify the type of onsite sewage management facility: _____

Is the onsite sewage management facility operating satisfactorily? Yes No

If no, specify if there is a risk of stormwater pollution? _____

Stormwater/irrigation management

Irrigation Water

Is irrigation carried out on the property? Yes No

Are the following impacts associated with irrigation present:

- Altered water flows Yes No
- Surface contamination from pesticides, nutrients and silt runoff Yes No
- Land degradation, as a result of unsuitable land use practices, resulting in soil compaction, erosion, soil structure decline, salinisation, chemical contamination and water logging Yes No
- Floodplain alteration, from the construction of farm structures Yes No
- Construction of fields and alteration of landscapes Yes No
- Clearing of native vegetation and subsequent loss of habitat Yes No

Where does the stormwater/irrigation water from the property go:

- a) Open Channel or watercourse Yes No
- b) Dam Yes No
- c) Bushland Yes No
- d) Pasture Yes No
- e) Storage tanks/absorption trenches Yes No

Do you have buffer zones to filter stormwater/irrigation water it enters any of the above? Yes No

If yes, provide details: _____

Water storage dams

Do you have water storage dams?

Yes No

Is the water quality in the dam in good condition?

Yes No

Is the condition of the dam regularly monitored for:

Algal growth?

Yes No

Exotic and noxious weed growth?

Yes No

Water quality?

Yes No

Site plan



Reviewer Comments: _____

Actions to be implemented: _____

Landholders comments and list of priorities: _____

Referral to other government agency (i.e. NSW Department of Primary Industries), and why: _____



Wetland constructed to manage stormwater runoff.

SOLICITORS ADVICE PROPERTY AGREEMENT

DATED DAY OF 2004

BETWEEN

THE COUNCIL OF THE SHIRE OF HORNSBY COUNCIL

AND

[]

THE LANDOWNER

AGREEMENT

THIS AGREEMENT is made the

day of

2003

BETWEEN **HORNSBY SHIRE COUNCIL** of 296 Pacific Highway, Hornsby in the State of New South Wales (**Council**) of the one part

AND [] of []
in the said State (**the Landowner**) of the other part

FACTS:

- A. Council has offered the Landowner a grant of \$_____ (**the Grant**) to assist the Landowner to carry out works, as described in Annexure "A" hereto (**the Works**) required for stormwater enhancement and management to the property situated at and known as [] (**the Property**).
- B. The Landowner has accepted Council's offer of the Grant upon and subject to the terms and conditions contained in this Agreement.

NOW IT IS AGREED:

1. This Agreement will commence on [].
2. The Grant will be paid to the Landowner as follows:
 - (a) \$_____ to be paid on the date of commencement of this Agreement;
 - (b) \$_____ to be paid on the first inspection by the Council of the Works;
 - (c) \$_____ to be paid on completion of the Works, to the satisfaction of the Council.
3. The Landowner will carry out the Works in a good and workmanlike manner and will, without limitation:
 - (a) ensure that all plants (trees, shrubs, herbs and grasses) used therein, will be indigenous (i.e. local native) to the area in which the Property is situated. Council will make available species lists to assist the Landowner in that regard; and
 - (b) ensure that revegetation areas related to the Works, are protected from pest, plants and animals for a minimum of two years following planting. Council will make available pest, plant and animal information to the Landowner to assist in that regard.
4. The Landowner will be responsible for ongoing maintenance of the Works.
5. Council will be responsible for the monitoring and evaluation of the Rural Lands Incentives Program and will be entitled to visit the Property periodically following appointment with the Landowner. In the absence of prior contact being possible to set an appointment, the Landowner agrees that Council shall have a right of access to the Property for the purposes of this Agreement.
6. In the event of the sale of the Property, the Landowner will advise purchasers of same, of the Landowner's involvement in the Rural Lands Incentives Program and will advise Council of the sale within seven days of completion of same. The Landowner will ensure that the contract for sale of the Property, contains a condition requiring the purchaser of the Property to enter into a new agreement with Council in order to be bound by the terms of this Agreement, in place of the Landowner.
7. Council shall have the right to recover from the Landowner, at Council's discretion, some or all of the Grant paid hereunder to the Landowner, in the event that the Landowner breaches any term of this Agreement.

SIGNED by the LANDOWNER in the)
presence of:)

Witness

Print Name

SIGNED by [] for and on behalf of)
the Council in the presence of:)

Witness

Print Name

Rural land incentive program workshop evaluation form

1) The length of the presentations were: (please circle)

Too short

About right

Too long

2) Which presentation/s did you find most instructive and enjoyable?

3) Did the workshop meet your overall expectation? Why/why not?

4) Did you feel there was enough time for the information stalls? Were these helpful/informative?

5) Did you find the discussion session helpful/stimulating? Why/why not?

6) Did you find the guided walks and the demonstrations helpful/informative? Why/why not?

7) Have you any suggestions for improving the workshop? Please list any other comments you wish to make on the workshop.

8) What specific topics would like to see covered at a future workshop should they be run?

9) Any comments on the Rural Land Incentives Program or the running of the Rural Land Incentives Program?

Contact organisations for further advice and funding assistance

Organisation	For advice or funding assistance	Contact details
Australian Association of Bush Regenerators	Bush regeneration methods Weed list, identification and control	www.zipworld.com.au
Community Builders NSW	An interactive website of funding available	www.communitybuilders.nsw.gov.au
Conservation Volunteers Australia	Green Corps – a Commonwealth program to provide assistance to land managers and community groups with priority environmental projects; gives young Australians the opportunity to demonstrate their commitment to the environment, while being provided with quality accredited on the job training	Contact Australian Trust for Conservation Volunteers Phone: 1800 032 501 Website: www.conservationvolunteers.com.au
Department of Infrastructure, Planning and Natural Resources, NSW	Registered and Unregistered Property Agreements and Property Management Program and Native Vegetation Management Fund - Management agreements and property agreements for native vegetation, supported by funding for fencing, feral animal and weed control, and revegetation. Agreement for specified periods NSW Wetland Management Incentive Scheme - Funding for rehabilitation of wetlands, development of management plans for wetlands and innovative projects. Annual program for individuals and community groups that requires 50/50 contribution	Windsor: (02) 4577 4243 Sydney: (02) 9762 8320 Gosford: (02) 4323 7000 Newcastle: (02) 4926 2566 Wollongong: (02) 4224 9450 Parramatta: (02) 9895 7633 Grafton: (02) 6642 0622 Queanbeyan: (02) 6297 6911 Western NSW: (02) 9762 8051 Website: www.dipnr.nsw.gov.au

	<p>NSW Rivercare</p> <ul style="list-style-type: none"> - Soil conservation strategies - Water use and quality - Buffer zones and waterways - Native vegetation - Landcare - Land clearing along waterways - Designing, building and managing farm dams - Water licences 	
Easy Grants Information Service	A yearly subscription that includes a list each month on the grants and opportunities available. The subscription does have an annual fee	<p>Phone: (03) 9419 1833</p> <p>Email: strategicaustralia@bigpond.com</p>
Department of Environment and Conservation (DEC), NSW	<p>Preventing pollution</p> <p>Reporting pollution</p> <p>Cleaner Production Industry Partnership Program</p> <ul style="list-style-type: none"> - offers matched funding to individual businesses, clusters of businesses and industry sector to introduce cleaner production processes <p>Environmental Trusts</p> <ul style="list-style-type: none"> - Funding for environmental restoration and rehabilitation programs, environmental education and environmental research 	<p>General enquiries: 131 555</p> <p>Pollution line: 131 555</p> <p>Business Partnerships Section (02) 8837 6000</p> <p>Environmental Trust Administrator PO Box 644, Parramatta NSW 2124</p> <p>Phone: (02) 8837 6093</p> <p>Email: envirotrust@environment.nsw.gov.au</p>
Environmental Trust (see Department of Environment and Conservation (NSW))		
Greening Australia (A not for profit, non government, community based organisation)	<p>Community native provenance plant nursery</p> <p>Remnant Vegetation Fencing Incentives Scheme – reimbursements to fence remnant native vegetation, technical and management advice</p>	<p>Head Office: (02) 9560 9144</p> <p>Community Nursery in Nurragingy Reserve, Knox Road Doonside 2767 (02) 9672 4009</p> <p>Richmond (commercial) Nursery: (02) 4570 1375</p> <p>Website: www.ga.org.au</p>

	<p>Other programs are done as a fee for service:</p> <ul style="list-style-type: none"> - Bushland regeneration works - Seed collection and storage - Direct seeding - Revegetation and planting schemes - Commercial and training/community workshops - Research programmes - Technical consultancy - Commercial nursery - Land planning /management plans - Trial designs 	
Green Corps (see Conservation Volunteers Australia)		
Landcare	<p>Coastcare and Landcare grant programs</p> <p>Environmental repair projects</p> <p>Funding and awareness</p>	Contact your local Department of Infrastructure, Planning and Natural Resources office.
Local Councils	<p>Farm dams</p> <p>Environmental planning policies</p> <p>Landuse</p> <p>Threatened species in your area</p> <p>Onsite sewage management systems</p> <p>Development applications</p> <p>Controlling noxious weeds</p> <p>Companion animals</p> <p>Tree preservation rules</p>	Contact your local council
National Parks & Wildlife Service, NSW	<p>Wildlife Refuge Agreements</p> <p>Voluntary Conservation Agreements</p> <ul style="list-style-type: none"> - for management of areas with significant native plants, animals and rare and endangered species. Incentives include advice, fencing materials, rate reductions and tax deductions <p>Land for Wildlife program</p>	<p>Head Office: (02) 9585 6444</p> <p>Wildlife refuges, Voluntary Conservation Agreements, Land for Wildlife: (02) 9585 6671, 9585 6040</p> <p>Threatened species: (02) 9585 6827</p> <p>Sydney North Region: (02) 9472 8949</p> <p>Parramatta: (02) 9895 7440</p> <p>Website: www.npws.nsw.gov.au</p>

<p>Natural Heritage Trust (Jointly administered by the Australian Government Departments of Agriculture, Fisheries and Forestry and the Environment and Heritage)</p>	<p>Natural Heritage Trust</p> <ul style="list-style-type: none"> - a regionally based grants program offering funding for various programs that meet selection criteria 	<p>Phone: (02) 9228 6346 Website: www.nht.gov.au Phone: 1800 065 823</p>
<p>NSW Department of Primary Industries</p>	<p>Crop and stock management Sustainable agriculture Disease control Noxious weeds Pastures & rangelands program</p> <p>Environmental Management Systems Irrigation Management Best Water Management Practices</p>	<p>Bathurst: (02) 6330 1200 Goulburn: (02) 4828 6600 Menangle: (02) 4640 6333 Windsor: (02) 4577 0600</p> <p>(02) 6626 1237 (Windsor Only) (Windsor Only) www.agric.nsw.gov.au</p>
<p>NSW Farmers Association</p>	<p>FarmBI\$ – Skilling Farmers for the Future</p> <p>Funding towards landholder training including financial management, marketing, human resource management and natural resource management</p>	<p>Phone: NSW Rural Assistance Authority – 0438 191 275 Website: www.nswfarmers.org.au/nht Phone: (02) 8251 1700 Goulburn: (02) 4821 7059</p>
<p>NSW Rural Assistance Authority</p>	<p>The NSW RAA provides low interest loans to farmers for a number of schemes. Schemes which may apply to farmers in the Sydney region are:</p> <ul style="list-style-type: none"> - NSW FarmBI\$ provides assistance by enhancing business management skills to increase and improve productivity, profitability and sustainability - Disaster Relief Scheme provides loan funds to farmers and small business to allow them to continue their normal farm operations immediately following a natural disaster - Rural Adjustment Scheme (Exceptional Circumstances provisions) assists eligible farmers to overcome difficulties that are due to industry downturns, or because of their location in areas suffering the effects of specific exceptional circumstances 	<p>Phone: 1800 678 593 Website: www.raa.nsw.gov.au Email: rural.assist@raa.nsw.gov.au</p>

	<ul style="list-style-type: none"> - Special Conservation Scheme: an incentive-based scheme aimed at promoting improved land management practices in NSW - Irrigated Agricultural Water-Use Efficiency Scheme helps irrigators to plan, adopt and monitor best irrigation practices and water-efficient technology for a more sustainable and viable irrigated agricultural sector in NSW - Irrigation & Drainage Management Plan Grants: (Waterwise on Farms Program) funding for preparation of farm irrigation and drainage management plans for licensed irrigators 	
Rural Lands Protection Board	<ul style="list-style-type: none"> - Controlling pest animals - Controlling diseases in livestock 	<p>Goulburn: (02) 4821 2522 Camden: (02) 4655 9165 Website: www.rlpbnsw.org.au</p>
Rural Fire Service, NSW	<ul style="list-style-type: none"> - Reducing bush fire hazards - Controlling bush fires - Bush fire danger season/total fire bans - Personal safety equipment 	<p>Contact your local bush fire control centre or the RFS. Phone: 1800 679 737 Website: www.bushfire.nsw.gov.au</p>
Sydney Water	<ul style="list-style-type: none"> - Land use allowed in catchment areas 	<p>General enquiries: 13 20 92</p>
Threatened Species Network	<p>NHT and World Wide Fund (WWF) for Nature TSN Community Grants to support and inspire community work to provide seed funding for community groups to take long term responsibility to conserve and recover populations of nationally threatened species and ecological communities</p>	<p>Phone: 1800 032 551 Website: www.wwf.org.au/tsn NSW TSN Coordinator</p>
WorkCover	<ul style="list-style-type: none"> - Chemical Storage - Safe working practices 	<p>Goulburn: (02) 4824 1500 Dangerous Goods Licensing Hotline (02) 4321 5500 Head Office Gosford: (02) 4321 5000 Parramatta: (02) 9841 8550</p>

Stormwater Management in the Bushland Shire

Introduction

Rod and his family moved from the inner city to north-west Sydney about 18 months ago. They were initially attracted by the peace and quiet that their rural property offered, and wanted their children to grow up with an appreciation for the natural environment.

Their 25 acre property was suffering from years of neglect prior to their ownership. Weeds proliferated, covering a myriad of old car bodies and other rubbish. Unmitigated stormwater flows from the road had over the years etched an eroded gully through the front of the property, and had deposited sheets of sediment on what remained of the native vegetation. Rod, an architect by trade, had some understanding of eco-design and was keen to establish an eco-tourism venture on his land. His initial dealings with his local council inspired him to make a change.

The devastating fires that swept through northern Sydney during late 2002 served to clear much of the lantana covering the majority of Rod's property. After this event, Rob and his friends cleared the remaining weeds and removed all of the accumulated rubbish. Starting with a clean slate, Rod was able to envision landscape designs that were sympathetic to the natural environment.

Planning for Sustainable Property Management

Rod decided to participate in Hornsby Shire Council's Rural Land Incentive Program in order to obtain assistance, technical advice and financial contributions towards the work he was undertaking on his property. He attended a two-day property

planning workshop offered by Council, and developed a comprehensive Property Management Plan with a five year horizon. This Plan specified revegetation across the property and reinstatement of a drainage easement for stormwater flow as priority actions, changes that Council was happy to help with.

Sourcing seed and planning for regional biodiversity

In order to repopulate his property with locally provenant vegetation species, Rod with the help of bush regenerators collected seeds from the natives on his land. These were propagated at Council's Community Nursery, and planted at seedling stage. The fires also helped to encourage the growth of some natives previously outcompeted by weed species. Council provided further assistance through engaging Green Corps to continue revegetation and undertake other works on the property.

Stormwater Management Works

The second stage of Rod's property improvement program involved the reconstruction of the easement directing stormwater from the road to a nearby creek.

Specific works undertaken included:

- Bank stabilisation using jute matting;
- Strategic placement of large boulders and rocks to slow stormwater flow; and
- Establishment of detention ponds planted with native reeds within the easement aimed at:
 - further slowing stormwater flow;
 - retaining sediment and other solids washed from the road; and
 - absorbing any nutrients within the stormwater flow.



Before rehabilitation works



During rehabilitation works



After Rehabilitation works completed

Outcomes

The final pictures speak for themselves! With enthusiasm, expert assistance and a small financial outlay, Rod and his family were able to transform a weed infested rubbish dump into an idyllic rural property. Through this process, Rod has contributed to preventing the flow of pollutants into the nearby creek system, boosting local biodiversity, and is well on his way to sharing the natural environment in its undisturbed state with patrons of his future eco-tourism venture. His success has ensured that his children can grow up surrounded by natural bush and the native animals that are now thriving in their rejuvenated habitat.

Notes

Notes

Environmental management

on the

Urban fringe

Urban fringe