CITY OF MANNINGHAM
BIODIVERSITY INITIATIVES PROGRAM

Samantha Bradley
Environmental Planner
Manningham City Council
Victoria, Australia

Manningham City Council's Local Environmental Assistance Fund (LEAF) was the National Award winner for Innovation in Local Government for the year 2000, recognised by the Australian National Office of Local Government. The Biodiversity Initiatives program has helped to improve land management in the local area. Rural residents have developed farm management plans, built rabbit-proof fences, and formed communities of informed and co-operative neighbours.

LOCATION & GEOGRAPHY

The City of Manningham is located in the "middle ring" suburbs 12 kilometres to the east of Melbourne's central business district on the fringe of Metropolitan Melbourne **(Figure 1)**. Manningham City Council is a affluent residential municipality, with a population of 112,000 and is 114 square kilometres in area.

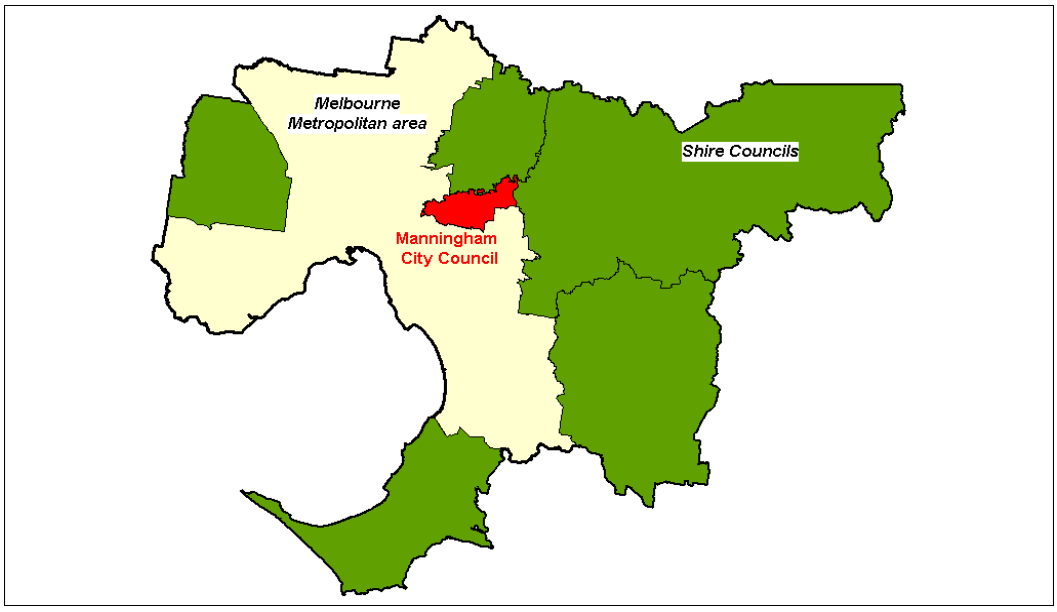


Figure 1. *Location of the Manningham Municipality on the Melbourne Metropolitan fringe.*

The municipality has natural boundaries with the Yarra River to the north and Koonung Creek to the south. The Mullum Mullum Creek bisects the municipality into two major topographic and land use character areas. To the west of the creek are the highly urbanised, densely populated suburbs, such as Bulleen, Templestowe and Doncaster. The original vegetation in the west was almost completely removed, initially for orchard and agricultural use, followed by urban development. It is now rapidly being replaced by a new "urban forest" of suburban gardens.

To the east are the non-urban suburbs Warrandyte, Warrandyte South, Wonga Park and Park Orchards, which have been protected by planning controls. This has isolated the area from intensive settlement activity and therefore retained much of the rural character **(Figure 2)**. The area contains a mix of remnant agricultural uses, low-density rural-residential properties, forested environmentally significant properties, properties showing signs of environmental degradation due to poor management and Warrandyte State Park, which is a conservation park with environmental values of state significance.

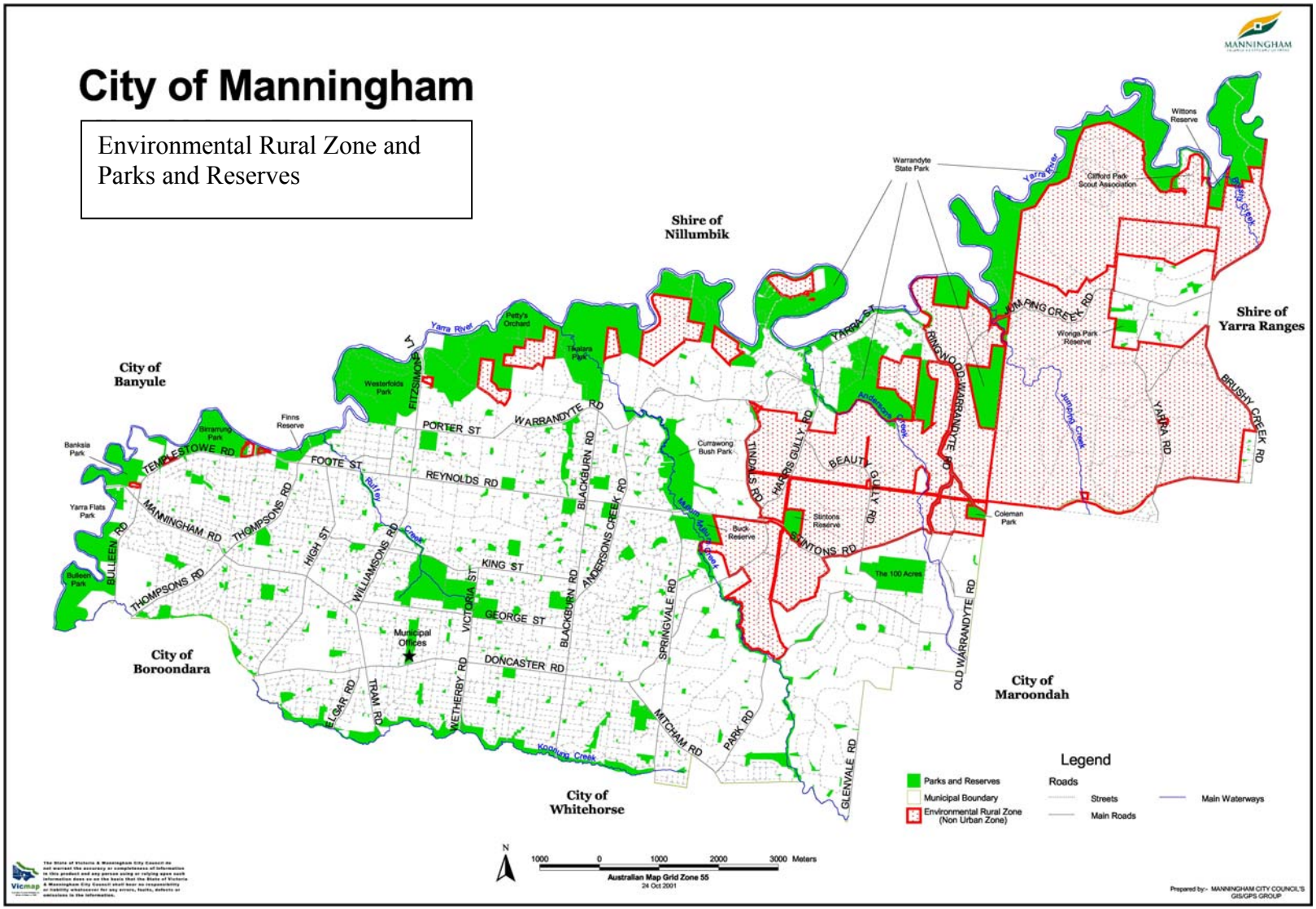


Figure 2. *Manningham Municipal Map with Environmental Rural Zone Overlay, Parks, Reserves and Creeks.*

The topography of the municipality ranges from river flats and gently undulating slopes in the west to more steeply dissected slopes east of the Mullum Mullum Creek. Manningham is dissected by four creek valleys, the Koonung Creek, Ruffey Creek and the Mullum Mullum and Andersons Creeks to the east. The visual effects of topographic variation is micro landscapes enclosed within valleys, or to reveal panoramic views from ridges and valley sides, across layers of intermediate ridge lines to the northern and eastern horizons.

The non-urban environment in the east contains areas of state, regional and local significance with rare and threatened species of botanical and zoological interest. The vegetation consists predominantly of Box Stringybark Woodland on the slopes and hilltops and Manna Gum Riparian Forests along the valleys and creek lines.

Most of the significant areas of native vegetation in Manningham City are on private land. These are under threat from clearing for development, rabbit and agricultural grazing, erosion and weed invasion. It is administratively easy (although costly) for Manningham to manage vegetation on council-owned land. It is more challenging to encourage private landowners to protect and enhance ecological values on their properties. Manningham City's Biodiversity Initiatives Program has been effective and innovative in this important area. The City Council places a high value on its environment, and has developed a good reputation for environmental work through a number of its innovative programs and projects.

PLANNING BACKGROUND

In February 1995, a Planning Panel was appointed to consider and hear submissions concerning the future of the non-urban areas known as the "green wedge". The Panel recommended that overlay controls were introduced to the Planning Scheme over sites of botanical, zoological and visual significance and to investigate a range of financial and environmental incentives to assist landowners in the Green Wedge and to encourage a long-term land management strategy for the area.

In response to the Panel's recommendations the Biodiversity Initiatives Program began with the "Local Environment Assistance Fund" (LEAF) which commenced in 1995. Landowners in the non-urban zones were eligible to apply for funding from Council to implement environmental enhancement works on their properties. The program's popularity has increased as non-urban landowners seek financial assistance for land management works on an annual basis. Landowners were also invited to attend a Property Management Planning Course for a nominal fee.

In partnership with the community, Manningham has established a Biodiversity Initiatives Program to increase community awareness of the natural environment and encourage them to make a difference in the local community.

PROGRAM SUMMARY

Objectives of the Biodiversity Initiatives Program

- To provide assistance/incentives to landowners to maintain and improve the environmental quality of their land for the benefit of present and future generations.
- To improve the ability of the community to manage their environments and natural resources, in order to protect and preserve indigenous flora and fauna.
- To encourage and promote integrated catchment management throughout the community.
- To address and identify high priority environmental issues within the municipality.
- To integrate environmental works on private property with those occurring on public land.

To tackle the issue of environment protection, in a way that delivers significant outcomes for the entire community, that includes the needs of future generations, there needed to be a comprehensive, sustainable program put in place, which builds on developing community awareness. The program needed to actively encourage the permanent protection of significant remnant vegetation, ensure degraded land is enhanced and result in the development of a custodianship culture through the community of Manningham.

In an endeavour to successfully change land management practices and enhance and protect local biodiversity, Council introduced a range of financial incentives. There are five main strategies:

Financial Incentives

1. Conservation Covenants & Land for Wildlife Agreements

There are two classes of incentives for the protection of biodiversity in this category; each based on the type of agreement entered into. The sliding scale is aimed at pushing people towards greater commitment and greater levels of protection and importantly recognises the need to start where people are at in terms of good land management practices. Class (i) is for those properties that have conservation covenants; Class (ii) for those properties that have Land for Wildlife.

Class (i) Protection through covenanting. *A one-off grant of $35 per hectare of affected land up to a maximum of $800.* The Covenant contains specific requirements negotiated between Council and the landowner with input from Trust for Nature that would include requirements to protect the land from all pest plants and animals, seek the professional advice of biologists and follow management plan recommendations, ensure the exclusion of grazing etc.

Class (ii) Protection through a Land for Wildlife agreement. *A one–off grant of $10 per hectare of land covered by the agreement up to a maximum of $200.* Administered through the Department of Natural Resources and Environment, Land for Wildlife Agreements are voluntary but tend to attract only a small group of already 'converted' individuals. Some support is provided by the Department which provides a minimal incentive, but this class is seen as very necessary if greater numbers of individuals are to be brought on to the scheme. This grant is only applicable for the duration in which the property is registered with Land for Wildlife, but once registered the property is eligible for ongoing financial assistance of up to $800 per annum through the LEAF program.

2. Urban Stream-Frontage Program

Properties in the urban areas that have an Environmental Significance Overlay and those with stream frontage will be targeted. Assistance will be given to works implemented within the area covered by the environmental significance overlay or within 20m of a stream. Such actions would include pest plant and animal control, indigenous re-vegetation works, and erosion control. It is proposed that the program is run as a grant in similar fashion to the existing LEAF program. Landowners are eligible for up to $200 annually on a $1:$1 basis.

3. Park Care

Park Care will ensure that significant natural areas are under less pressure from adjoining landowners. Park neighbours are encouraged to undertake pest plant and animal control works and re-vegetation with indigenous plants on the park boundaries. Landowners are eligible for up to $200 annually on a $1:$1 basis.

4. Local Environment Assistance Fund (LEAF)

The LEAF program provides financial assistance to landowners in the non-urban areas to conduct any approved environmental improvement works. The LEAF program has been extremely successful and it is now enhanced through other complimentary financial assistance programs, such as Parkcare and Urban Stream Frontage, which include urban areas of the municipality. Landowners are eligible for up to $800 annually on a $1:$1 basis.

5. Integrated Pest Plant & Animal Control Grants

This program provides assistance to landowners undertaking an integrated pest plant or animal control program. Funding is targeted at those landowners that are working in groups. The program is run as a grant in a similar fashion to the existing LEAF program. Landowners are eligible for up to $200 annually on a $1: $1 basis.

Additional Environmental Programs

To assist residents, who are actively protecting the environmental values of their land, several other programs have also been established to aid in the provision of information, support and community networking **(Figure 3)**.

Program	No. conducted	Cost	Participation to Dec 2001
Property Management Planning Courses (7 weeks each)	6	$50	72 (max 10/15 per course)
Environmental Seminar Series	1 per month 48 total	Nil	300 p.a.
Coordinated Environmental Action Groups	Ongoing 5 yrs	Nil	1000 properties p.a.
Pest Animal Control Information/Field Days	4	Nil	500 total
Weed Identification Booklet	Thousands	Nil	Thousands
Indigenous Plant ID & Gardening Booklet	Thousands	Nil	Thousands

Figure 3. *Additional community education and support programs.*

Property Management Planning Course

The Property Management Planning Course began in 1998, to train landholders in the importance of the remnant vegetation on their block and how to protect it. Since the beginning of the course there has been a growing increase in participation and interest **(Figure 4)**. Seventy-two landholders have completed the Council subsidised course at a cost of $50 per property, for a seven-week course with evening and weekend day sessions at a max of 10 – 15 people per course. This is the strongest educational tool council offers, as the participants gain a solid foundation of all property management issues, from a variety of experts in the field. Many of the participants then become strong community leaders for environmental protection, and go onto become volunteer Community Environmental Action Group coordinators or join existing Friends and Environmental Groups.

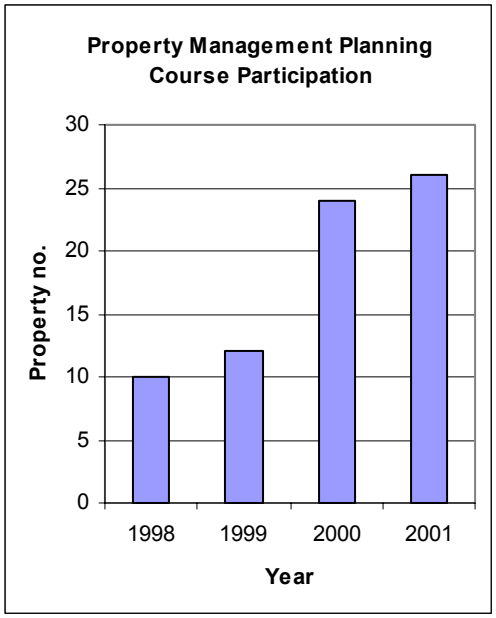


Figure 4. *Number of Property Management Planning Course Participants per annum.*

Environmental Seminar Series

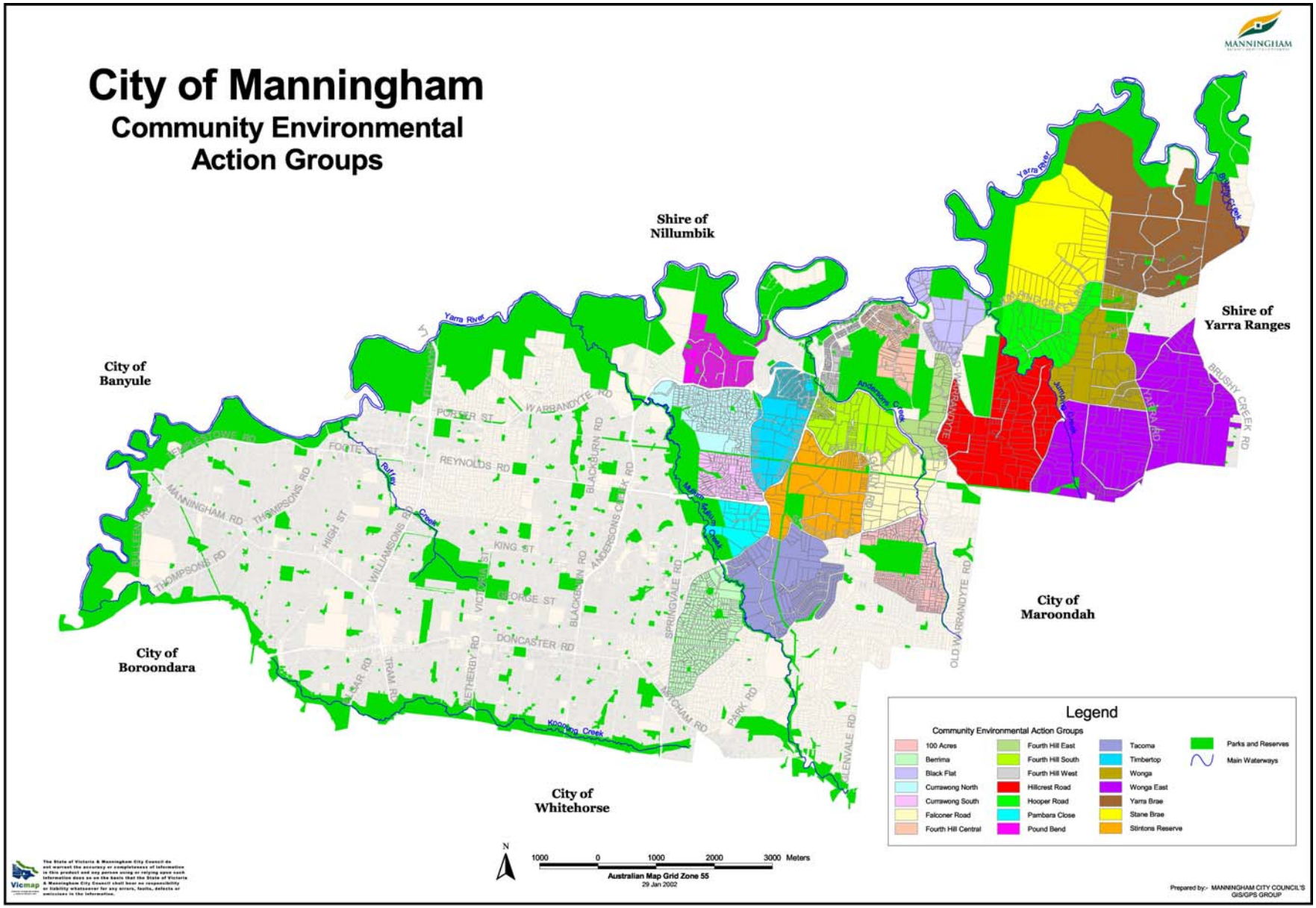
The Environmental Seminar Series began at the request of the environmental community. There is a monthly evening seminar conducted by experts in the field on a vast number of environmental topics. The aim of the seminars is to provide practical expert information on the environmental enhancement to local landholders. Topics range from "How to provide habitat for indigenous birds" to "Water and energy efficient households". Approximately 30 people attend each seminar with a total of over 300 people per annum **(Figure 3)**.

Community Pest Animal Control Field Days

As rabbits are one of the main environmental concerns of the community, Council has endeavored to assist landholders with the opportunity to meet experts and contractors in the field with a series of Information and Field Days. These activities are always well attended and are valuable networking opportunities for neighbours to meet and work together. The opportunity to meet all the local contractors and service providers at once is also vital in generating group activity and providing greater understanding of the issue. At these events landholders also learn that they are not alone and become empowered to be part of the solution to the pest animal problem. The attendance at these events is decreasing as community awareness, confidence, independence and knowledge of rabbit control has increased.

Community Environmental Action Groups

Over 2000 residents encompassing over 1000 properties were encouraged to form small working groups based on their local areas. These groups geographically cover the Environmental Rural Zone and adjoining areas to create a buffer zone for the environmentally significant land. The size of these groups can be assessed from **Figure 5.** Manningham has employed a private consultant to act as a facilitator and assist community groups to co-ordinate local community meetings and for the provision of information and advice. All subsequent efforts to control pest plants and animals and to implement re-vegetation projects are now co-ordinated through these small working groups and resources are pooled for maximum effect, with the main focus of the groups to control rabbits. It is estimated that 64% of residents living in the Environmental Rural Zone participated in the rabbit control program in 2001, showing a continual increase of community involvement each year **(Figure 6).**


City of Manningham
Community Environmental Action Groups
MANNINGHAM
Shire of Nillumbik
Shire of Yarra Ranges
City of Banyule
City of Maroondah
City of Boroondara
City of Whitehorse
Yarra River
Legend
Community Environmental Action Groups
100 Acres
Berrima
Black Flat
Currawong North
Currawong South
Falconer Road
Fourth Hill Central
Fourth Hill East
Fourth Hill South
Fourth Hill West
Hillcrest Road
Hooper Road
Pambara Close
Pound Bend
Tacoma
Timbertop
Wonga
Wonga East
Yarra Brae
Stane Brae
Stintons Reserve
Parks and Reserves
Main Waterways
1000 0 1000 2000 3000 Meters
Australian Map Grid Zone 55
29 Jan 2002
Prepared by:- MANNINGHAM CITY COUNCIL'S GIS/GPS GROUP

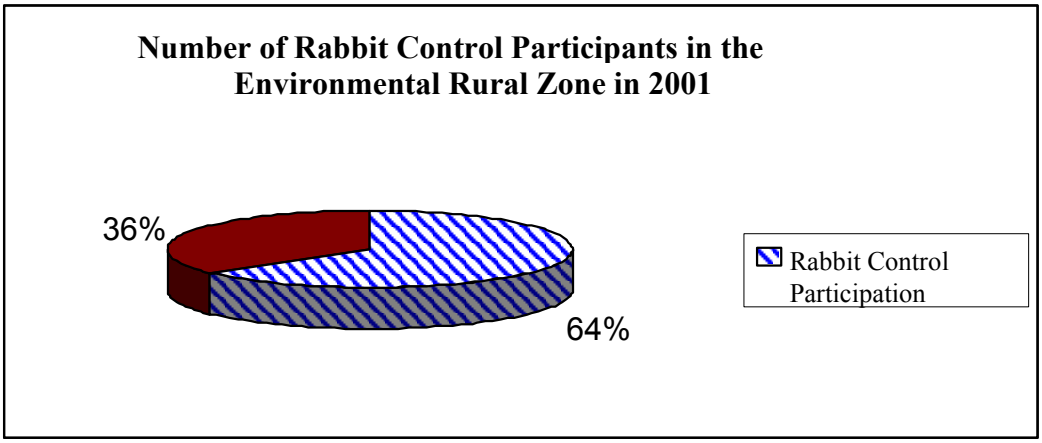


Figure 6. *Pie Chart of the Number of Rabbit Control Participants in the Environmental Rural Zone in 2001.*

The results are not only positive for the environment; but efficient joint land management and sharing of resources also make pest plant and animal control affordable for everyone. Many people also got to know their neighbours for the first time.

Indigenous Plant & Weed Identification Booklets

The indigenous plant book called "Native Splendor" for urban and non-urban areas has been a great success and well accepted by the community. The booklet was designed with a "glossy" appearance and targeted at your average gardener, to promote indigenous plants as attractive as the common exotic suburban garden plants. The book also offers ideas on how to create the same "look" as an exotic garden using natives. Thousands of the publication has been distributed in the community, with over whelming positive feedback to the Council. Local indigenous nurseries have also noticed an increased interest in indigenous plants following the booklet distribution. The Indigenous and Weed Identification booklets have also been useful educational tools for staff extension work.

COUNCIL'S SUSTAINABLE TRIPLE BOTTOM LINE APPROACH

The innovation of this project comes from an approach that aims to protect and enhance biodiversity by recognising the social and economic issues associated with private land management. Frequently, attempts to control pest plants and animals are hampered by the fact that adjoining properties are not engaged in similar activities, and therefore it was recognised that for maximum effect and economic efficiency, this biodiversity Initiatives Program needed to foster a spirit of co-operation within the community. Many programs encourage the community to work together for the benefit of public land. This program is unique in its encouragement of a co-operative efficient approach to private land management.

The program recognises that often well-intentioned environmental programs on private land are thwarted by a lack of co-operation and the perceived high economic costs between adjoining property owners. The solution was to unite the community.

Government Agency Involvement

To unite the broader community assistance of all the local land management agencies was required; therefore the "Middle Yarra Land Management Group" was formed. The agencies involved include; Melbourne Water who manage the bed and banks and water quality of Melbourne's streams; Parks Victoria who manage crown land, parks and reserves; and the Department of Conservation and Natural Resource (DNRE) who are the state government body responsible for environment, agriculture and catchment management.

In the year 2000/2001 the ability of the Manningham community to control rabbits, encouraged the surrounding municipalities of Nillumbik Shire Council, Banyule City Council, Yarra Ranges Shire and Maroondah City Council to adopt the program. The expansion of the program into these Councils increased the number of participants by several hundred, with four groups becoming active in Banyule, five in Nillumbik, two in Maroondah and four in the Shire of Yarra Ranges.

Social Benefits

There are clear social benefits as a result of the Biodiversity Initiatives Program. The innovative social approach to the implementation of the program has enhanced the connections that Council has with the broader community, as well as enhancing the social relationships between landowners. The Courses, Field Days and Environmental Seminars are not only educational opportunities but are valued for community networking, partnerships and friendships. Council has also arranged reunions for participants of the course to keep in touch and share experiences. An important component of the Property Management Planning Course is the Property Tour of where new course participants visit various local properties of residents who have already completed the course and learn first hand from their peers. The Property Tour also installs great pride and recognition for the landholders and their efforts. Some residents have attended courses with their neighbours and developed complementary Property Management Plans. There are also less tangible benefits beyond Manningham, with flow-on benefits for surrounding areas and the assurance that the land in Manningham is being protected for the benefit of the wider community. With the expansion of the program in 2002 to include urban areas of the municipality, there are even greater social and environmental benefits for the future.

Economic Benefits

Individual residents are saving money as their knowledge increases as a direct result of participating in the various programs that Manningham City offers. Information is provided to the participants to assist in planning environmental works on their land efficiently and at the right time of the year. Knowledge of the correct and most efficient methods and techniques for land management saves measurable time and money.

Economic benefits are also likely to be realised in the longer term as the environmental significance and economic value of remaining remnant patches of vegetation increases with ongoing clearing. Moreover, managing land and the costs associated with this becomes more of an issue when the land has been disturbed and is subject to weeds and other pressures. Protecting remnants is a cheaper management option and increases available Council funds to maintain adjoining public land. Furthermore, clearance of land leads loss of topsoil, weed invasion and pressure to re-vegetate, which of course requires even more funds. The reality is that the most economically sensible approach to this issue is to protect remnants.

Preservation in a proactive partnership with private landowners, will ensure people continue to be drawn to the natural values of the area which provide the backdrop to the tens of thousands of tourists who visit Manningham each year.

External Funding

The innovation of the Biodiversity Initiative Program and the financial commitments that Manningham have made towards the environment has attracted external funding and grants from other organisations. DNRE have awarded Manningham $10,000 in 2000, 2001 and 2002. Greening Australia has awarded a total of $15,000 towards re-vegetation for 2001 and 2002 and in 2001. Manningham also received corporate sponsorship from PowerNet, (the local power supply company) to go towards rabbit control and community education and the company also conducts rabbit control activities at the power station located in Manningham.

SUCCESS OF PROGRAM

Since the introduction of the program in 1995, over 2000 residents covering over 1000 properties have been involved in the ongoing control of pest plants and animals on their land.

Similarly, since 1995, approximately 254 property owners have been provided with financial assistance to protect biodiversity on their properties. There has been a steady increase in participation each year, with 145 properties receiving funding in 2001 and an expected increase in participation in 2002 **(Figure 7).**

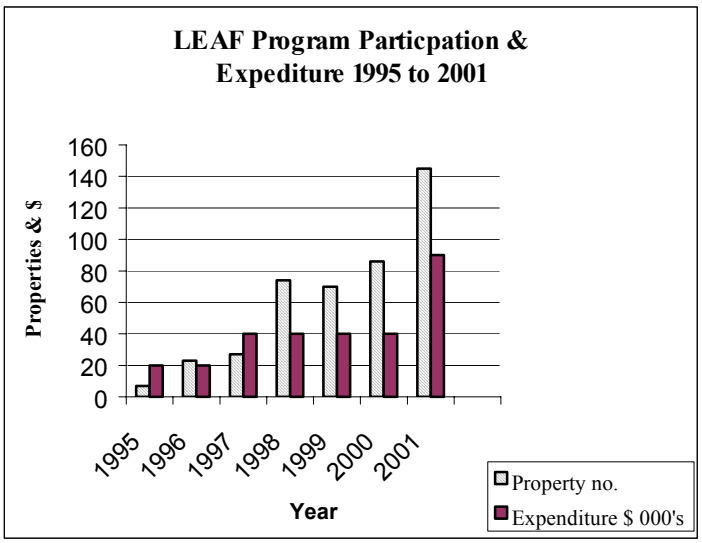


Figure 7. *Annual financial assistance expenditure and participation*

Figure 7 shows that with the increase in funding and community environmental awareness, participation in the financial assistance program has significantly grown. In recognition of the success of the program, Council increased expenditure to $90,000 for the program in 2001 and has recently increased the funding allocation to $120,000 in 2002. This also enabled the extension biodiversity protection into the urban areas of the municipality.

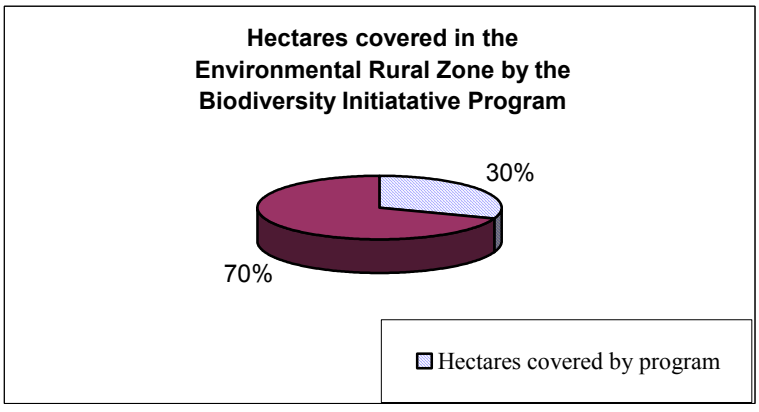


Figure 8. *Hectares covered in the Environmental Rural Zone by the Biodiversity Initiatives Program.*

Figure 8 displays that funding has been allocated to 30% of private land in the Environmental Rural Zone covering a total area of 861 hectares that has improved environmental management.

CONCLUSION

The Biodiversity Initiatives Program has proven to be a successful mechanism for changing land management practices and enhancing and protecting local Biodiversity. The program participation after five years is remarkable, however, with increased funding and growing awareness, participation rates and environmental enhancement are expected to grow further.