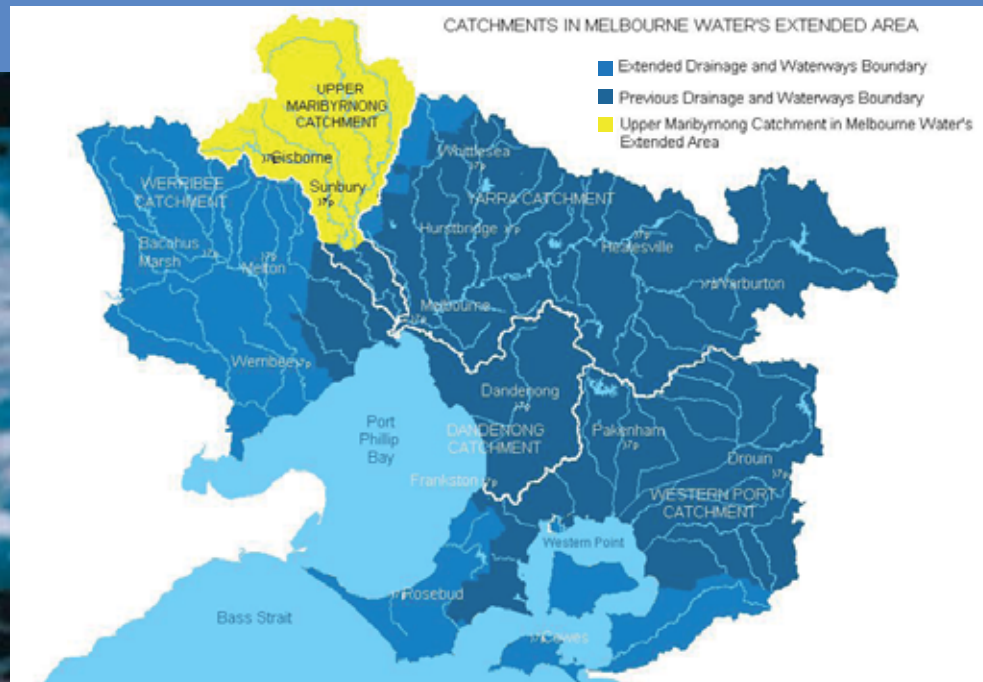


EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

September 2006



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

1.0 SUMMARY

The Victorian Government's *Our Water Our Future* action plan designated Melbourne Water as caretaker of river health and the authority responsible for regional drainage, waterways and floodplain management for the Port Phillip and Westernport region.

This led to the extension of Melbourne Water's waterways boundary by more than 5,000 square kilometres in November 2005, allowing Melbourne Water to take a whole-of-region approach to managing waterways, regional drainage infrastructure and flood protection, and bring about long-term improvements to the condition of rivers in the catchment.

Perhaps one of our greatest challenges in these new areas is ensuring our programs match the expectations of the local communities. This is particularly challenging given that we have had very little interaction with these communities in the past, and as such our knowledge base was limited.

To develop our level of knowledge within these areas we have embarked on an intensive program of investigation, research and information collection with local councils, communities and stakeholders in the extended boundaries. This has allowed us to gain local information, discuss expectations, and to commence the establishment of appropriate levels of service required in our new areas, as we build up to full service provision.

This report provides an outline of information that has been collected during the last year. It also outlines some of the priority works that have either been completed, commenced or are in the planning phase. It is hoped that this report will provide a useful consultation tool to ensure that our proposed levels of service match community expectations within our new boundaries.

To ensure that we are able to discuss community expectations on a local level we have split our new area into five sub catchments: Greater Werribee, Upper Maribyrnong, Upper Northern Yarra, Mornington Peninsula and Bass River Catchment and the Islands. **Importantly, all actions outlined within this report only relate to the portions of these sub catchments that are within our extended boundaries.**



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

2.0 INTRODUCTION

2.1 Our role and operating area

In June 2004, the Victorian Government released its *Our Water Our Future* action plan, which included an initiative to designate Melbourne Water as the caretaker of river health and the authority responsible for waterways, regional drainage and floodplain management for the Port Phillip and Westernport region.

A key action from this was the extension of Melbourne Water's waterways boundary by more than 5,000 square kilometres to cover the majority of the Port Phillip and Westernport catchment.

This clear and consistent allocation of responsibilities will enable integrated catchment management for the region, leading to improved prospects for river health across the whole catchment.

In undertaking our role, we value the work and knowledge of stakeholders and the community, and we will deliver an extensive array of community involvement, engagement and education activities.

The purpose of this document is to provide an outline of our information gathering efforts that have been undertaken so far. It will also give an overview of some of the priority works that have either been completed, commenced or are in the planning phase. By providing this outline of proposed works it is hoped that this report will act as a useful tool to seek input on our proposed levels of service for the region.



In November 2005, Melbourne Water was designated as the authority responsible for:

- regional drainage
- waterways, and
- floodplain management throughout the entire region.

We are responsible for river health, management and maintenance of regional drains and identifying and maintaining areas subject to flooding.

In our extended boundaries we do not provide sewerage and water supply services.

EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

2.2 How we link in with other agencies

Our major partner in the delivery of services within our extended boundaries is the Port Phillip and Westernport Catchment Management Authority (CMA). The CMA plays an overarching strategic management role in the development, coordination and delivery of the *Regional Catchment Strategy*. This relationship has continued to grow through strong links at a senior management level and with closer alignment of on-ground programs.

Information sessions and updates have also been provided to the other agencies we deal with including other water authorities, councils and government departments. These updates will ensure we continue to align our proposed levels of service with all stakeholders within our new areas.



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

2.3 Our extended boundaries

Our boundary now matches the Port Phillip and Westernport Catchment Management Authority (CMA) area, which is approximately 13,000 square kilometres. The water resources of the region support a population of 3.4 million people as well as irrigation and industry.

The region is made up of five major catchments – Maribyrnong, Werribee, Yarra, Dandenong and Westernport – containing 1,300 kilometres of regional drains, 8,400 kilometres of rivers and creeks and 109 wetlands, retarding basins and urban lakes. Within our new area we are providing services to the Greater Werribee, Upper Maribyrnong, Upper Northern Yarra, Mornington Peninsula and the Bass River Catchment and the Islands. Our operating area was extended by more than 5,000 square kilometres, and we have assumed responsibility for an additional 4,000 kilometres of rivers and creeks, 21 wetlands, retarding basins and urban lakes, and 80 kilometres of underground drains.

For the first time we are providing services in:

- Moorabool Shire
- Macedon Ranges Shire
- Mitchell Shire
- Greater Geelong City

We have extended our services further into:

- Melton Shire
- Bass Coast Shire
- South Gippsland Shire
- Mornington Peninsula Shire
- Wyndham City
- Hume City



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

3.0 OUR APPROACH UNTIL NOW

3.1 Exploring our new areas

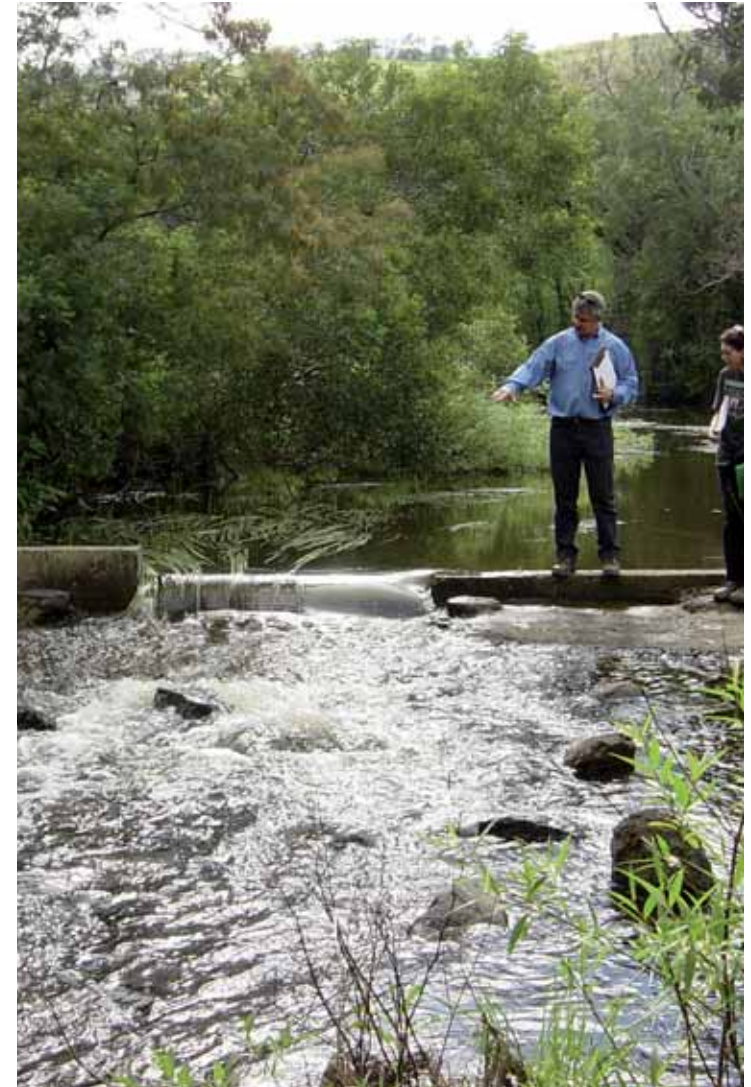
Melbourne Water has been working closely with the 10 councils and numerous stakeholders affected by the boundary change as we prepare to meet the challenges of our new, extended role.

As we have now assumed management of regional drainage, those assets with a catchment area greater than 60 hectares have been transferred from councils to Melbourne Water.

The formal introduction of services will take up to two years, while we undertake an extensive information gathering process to acquire an understanding of local needs. This has been our focus to ensure that our works are targeted to achieve the best outcomes.

3.2 Progress to date

- Establishment of a Waterways Group within Melbourne Water to provide a focused delivery of our waterway management functions
- Regional drainage assets transferred across from councils
- Workshops with councils have been held focusing on planning referrals, drainage schemes and waterways
- Community Information Sessions have been held with a range of local stakeholders
- Priority works have been identified and in some cases undertaken
- We have commenced planning for longer term works
- Information gathering and community and stakeholder consultation has been undertaken
- Responsibility for approval of works within the bed and banks of waterways has been handed over from Southern Rural Water
- Area Coordinators have been established in our new catchments
- We have established links with key community groups



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

4.0 LOOKING AHEAD

4.1 Our services

Melbourne Water is accountable for protecting and enhancing the environmental, social and economic values of rivers. As part of our gradual build up to full service provision by 2008, the following key programs will be implemented:

Managing River Health

As the caretaker of river health, we are responsible for maintaining or improving the ecological health of rivers and creeks through erosion control, protecting riverbeds and banks, revegetation, weed control and by ensuring sufficient flows. Councils and communities can get involved by applying for Melbourne Water grants to assist them to undertake work to improve rivers and creeks in their area.

Improving Water Quality

Melbourne Water manages run-off from rural and urban catchments to improve the health of rivers, creeks and the bays. We work with stakeholders and the community to manage practices that impact on water quality, ensure land development is planned to improve stormwater quality and build infrastructure such as wetlands to treat stormwater.

Managing Our Drainage Assets

We are responsible for maintaining and operating the regional drainage system – that is drainage assets generally servicing catchments greater than 60 hectares. Local councils remain responsible for local drains, including roadside gutters and smaller drains.

Key roles:

- Production of the *Regional River Health Strategy*
- Waterway rehabilitation works
- Coordinating our grants programs

Key roles:

- Water quality monitoring programs
- Development of Water Sensitive Urban Design Systems

Key roles:

- Surveys of all drainage assets
- Ongoing maintenance of our assets

EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

Sustainable Development

Melbourne Water develops drainage schemes to ensure new developments are serviced with regional drainage infrastructure. The drainage schemes ensure that planning for urban development is conducted on a catchment basis and that drainage infrastructure meets appropriate standards for flood protection and water quality.

We assess applications for subdivisions and land developments from local councils, provide advice and, where necessary, place conditions on town planning permits. This ensures that new developments meet drainage and water quality standards.

Managing Flooding

Melbourne Water will undertake floodplain mapping to help plan and provide a safe level of flood protection for the community. We will also operate an online 24-hour rainfall and streamflow monitoring network on major rivers, and will provide the Bureau of Meteorology with flood predictions and warnings for major rivers. This has already been incorporated for the Wyndham/Werribee River area.

Community and Stakeholder Interaction

Community engagement is a key part of Melbourne Water's business. The Port Phillip and Westernport region has an active community that has carried out a vast amount of work to improve rivers and creeks. We assist improvement works by running several grant programs that help individuals, community groups and agencies carry out river health projects.

Melbourne Water encourages a high level of community and stakeholder understanding and active participation in programs. Education is an integral part of our community engagement program, with programs such as the Melbourne Water Frog Census, Waterwatch, community information campaigns, curriculum material and interactive and engaging resources relating to drainage, floods and litter.

Key roles:

- Development of Drainage Schemes
- Referral authority
- Development of suitable planning overlays

Key roles:

- Provide an online 24-hour rainfall and streamflow monitoring network
- Floodplain mapping

Key roles:

- Community Information Sessions
- Community Grants program
- Maintain strong relationships with stakeholders and local groups

EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

4.2 What this means for you

Community

Melbourne Water is undertaking a comprehensive consultation program with the community, local councils and other interested organisations to assess what level of service is required and how it would be provided and funded.

Members of the community seeking information on regional drainage (catchment area greater than 60 hectares) and river health should contact Melbourne Water. Councils are responsible for the local drainage system, which feeds into the regional drains and waterways, and local water authorities are responsible for providing water and sewerage services.

Developers

In the case of new developments with drainage impacts, we will act as a referral authority and will collect developer contributions to fund construction of drainage assets.

Landowners

Landowners with rivers or creeks running through their property are eligible to apply for grants to rehabilitate riverbanks and protect streamside vegetation from stock access through fencing and revegetation.

Community Groups

Community groups can apply to Melbourne Water for grants to improve their local waterways.

Councils

Melbourne Water is now the asset owner and manager of regional drainage assets with a catchment greater than 60 hectares. Melbourne Water is also the referral authority and so town planning subdivisions must be referred to us. As the waterway manager Melbourne Water is responsible for maintenance and works within the bed and banks of waterways. Grants for environmental improvements to waterways are available to councils through our Corridors of Green program.



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

5.0 CONSULTATION ON SERVICE LEVELS

5.1 Why we are consulting

Melbourne Water regards community involvement as essential to increasing understanding, changing attitudes and behaviour, clarifying social expectations and improving our priority setting. We will continue to work with the Port Phillip and Westernport CMA to ensure the community is engaged in river, floodplain and drainage management.

Consultation will be a major priority for us over the next two years as we build up to full service provision, and we will continue to build relationships with councils, stakeholders and community groups in these areas. We value the importance of understanding local priorities, and sharing information with the community and other interested parties. We are also investigating opportunities to have a regional presence through local offices.

5.2 How we plan to consult

In addition to our ongoing interaction with stakeholders, this document will be used as an important tool in our consultation on service levels.

By outlining our past, current and future works in this document and on the accompanying plan, we hope to begin to provide a clear picture of our future levels of service.

To enable us to get a broad cross section of views on our levels of service we will continue to consult widely, using a range of methods such as:

- open community forums
- presentations to Landcare networks and Friends groups
- meetings with councils and stakeholder groups
- use of the local media to inform the broader community.

Landowners
Landcare
"Friends of" groups

Developers
Utility companies
Farmers

DSE
EPA Victoria
DPI
Parks Victoria

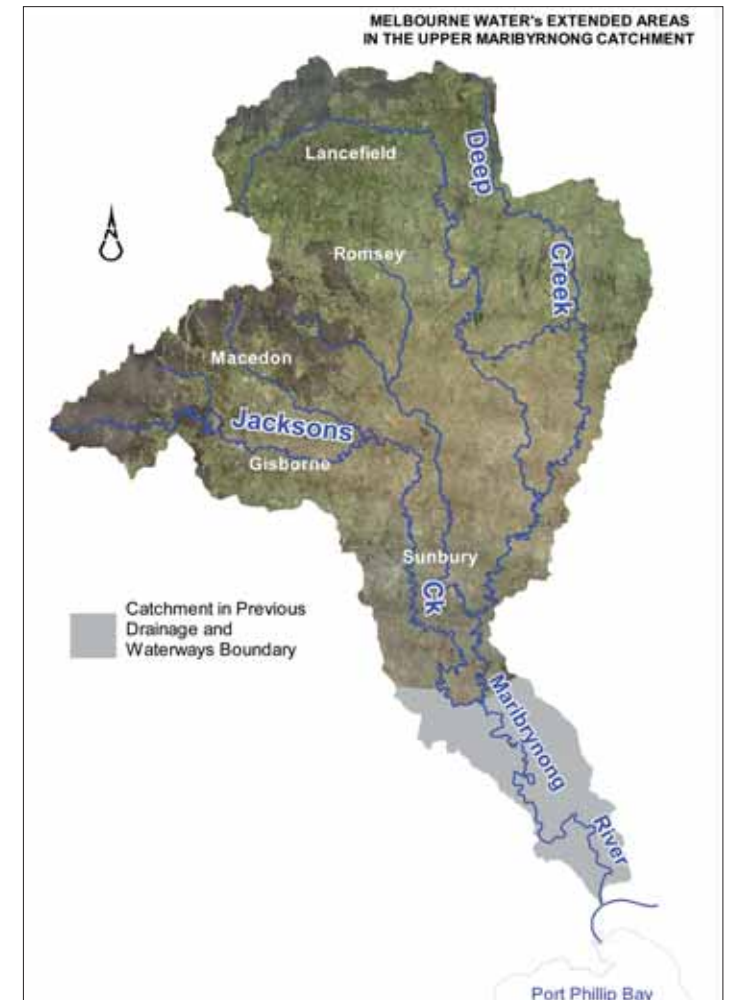
Local Councils
The Port Phillip &
Westernport CMA

EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

6.0 WHAT IS HAPPENING IN YOUR AREA?

6.1 Upper Maribyrnong catchment

The Upper Maribyrnong catchment lies approximately 25 kilometres northwest of Melbourne. Our new boundaries extend from Lancefield in the north to Diggers Rest and Bulla in the South and from the Maribyrnong River and Mickleham in the East across to Gisborne, covering an area of approximately 1278 square kilometres. Many rivers and creeks in the region tend to be deeply cut, with a high variability in flow. The catchment's main tributaries are Deep Creek in the north and Jacksons Creek in the west. The Local Government Areas within the extended boundaries of the Maribyrnong catchment are Hume City Council, Macedon Ranges Shire Council, Mitchell Shire Council and Melton Shire Council.



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

7.0 OUR PROGRAMS

The following tables give details about all of Melbourne Water's completed, current and future activities across the extended areas. We aim to illustrate what we have been doing since the changes to our boundaries and the variety of projects that are planned for improving river health over the next 2 years, whilst we build up to full service provision.

7.1 Managing River Health

As the caretaker of river health, Melbourne Water is responsible for maintaining or improving the ecological health of rivers and creeks. In order to achieve this we have a number of key programs undertaking specific projects.

Melbourne Water sets the overall framework for river health and water quality in the Port Phillip and Westernport region by integrating:

- state policy
- catchment activities
- regional river health and water quality objectives.

As part of this role we undertake technical investigations to determine the flows our rivers need and participate in water allocation decisions with water authorities or farmers to help restore environmental health.

As part of our commitment to improving river health we are responsible for the management of Greater Melbourne's waterways and undertake a number of activities, including:

- collection, analysis and reporting of waterway health data
- the development of improvement programs for waterways and wetlands
- the management of various grants programs, to help fund environmental improvement works along waterways.

In the Upper Maribyrnong catchment a number of investigations have commenced, including:

- fish studies
- water quality studies.



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

Further investigations will occur in 2007-08.

Our maintenance programs will target priority streams identified in the *Regional River Health Strategy* where there is good landholder interest and commitment. The large river restoration project on Deep Creek has been a good start to waterway improvement works in the area, and we will build on this to undertake works on high priority waterways, and where particular environmental and social outcomes can be achieved.

7.2 Improving Water Quality

Melbourne Water manages the run-off from rural and urban catchments to improve the health of rivers, creeks and the bays. We work with a range of stakeholders to develop programs aimed at protecting water quality by managing the quality and quantity of water entering our waterways and bays.

Melbourne Water has recently launched the Living Rivers Stormwater Program, which is a 4-year, \$10 million initiative funded by the Victorian Government. The main objective of this program is to work in partnership with local councils to achieve long-term improvements to the management of stormwater.

Water quality improvements are also being approached from a town planning perspective. Changes to the planning scheme have introduced Clause 56, which will have implications as to how water quality will be dealt with in residential developments. This is likely to increase the use of Water Sensitive Urban Design (WSUD) to improve water quality by integrating the planning and design of urban areas with the management and protection of the water cycle. The overall goal of WSUD combined with the changes to Clause 56 is to achieve on-site improvements in the quality and quantity of run-off.

Over the next 12 months we will be focusing on providing training and assistance to councils on water quality improvements within the extended boundaries.

Key principles and features of WSUD:

- protect and enhance rivers and creeks within urban developments
- improve the quality of water draining from urban developments into rivers, creeks and bays
- reduce run-off and peak flows from urban developments by creating temporary storage areas e.g. rain gardens and urban forests
- integrate stormwater quality treatment into the landscape e.g. grassed or landscaped areas and wetlands.

EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

7.3 Managing Our Drainage Assets

Melbourne Water is responsible for maintaining and operating the regional drainage infrastructure – drainage servicing catchments greater than 60 hectares.

To enable us to manage our drainage assets effectively, Melbourne Water undertakes a variety of functions to ensure that:

- our assets are functioning correctly
- our assets are not damaged by construction occurring nearby
- civil assets, such as retarding basins and underground drainage pipes, undergo the necessary risk assessments.

As the asset owner, we are responsible for maintenance of assets to ensure that they are operating correctly and that any possible risks associated with a specific asset is managed. We are currently working to improve the accuracy of the information held on all assets throughout the extended boundaries.

We also ensure that our assets are protected from new development occurring nearby.

The types of development that may affect our assets, include:

- new buildings
- utility services installations
- jetties
- bridges and crossings.



Examples of our drainage assets include:

- mains drains
- retarding basins
- wetlands.

EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

7.4 Sustainable Development

To assist in ensuring that new development occurs in a sustainable manner, Melbourne Water develops drainage schemes to ensure that new developments are serviced with the appropriate drainage infrastructure. These drainage schemes are designed to provide the most effective and environmentally sound drainage management to service future urban areas within a defined catchment.

Melbourne Water is a referral authority requiring all town planning subdivisions to be referred to us to enable us to assess development applications and ensure that new developments meet drainage and water quality standards.

We are also working to minimise the number of properties at risk of flooding. In order to do this, the development of a number of mapping overlays in priority areas are being planned to identify flood prone areas, including:

1. The Land Subject to Inundation Overlay (LSIO) – is used to identify land in a flood storage area or an area that may be affected by the 1 in 100 year flood.
2. The Special Building Overlay (SBO) - is used to identify land in urban areas subject to flooding from excess flows from the urban drainage system.
3. The Urban Floodway Zone and Floodway Overlay – is used to identify waterways, major floodpaths and high hazard areas that have the greatest risk and frequency of being affected by flooding.



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

7.5 Managing Flooding

Melbourne Water is undertaking a number of floodplain mapping and mitigation activities to help plan and provide a safe level of flood protection in our new areas.

We are currently obtaining survey information in our extended areas to enable us to complete our flood mapping and mitigation projects. We are also upgrading and extending our Hydrologic Data Collection equipment to monitor how much rain is falling and what flows are occurring in key waterways. This will enable us to expand our flood prediction and warning service for major rivers into our new areas.

Other key flood management activities include:

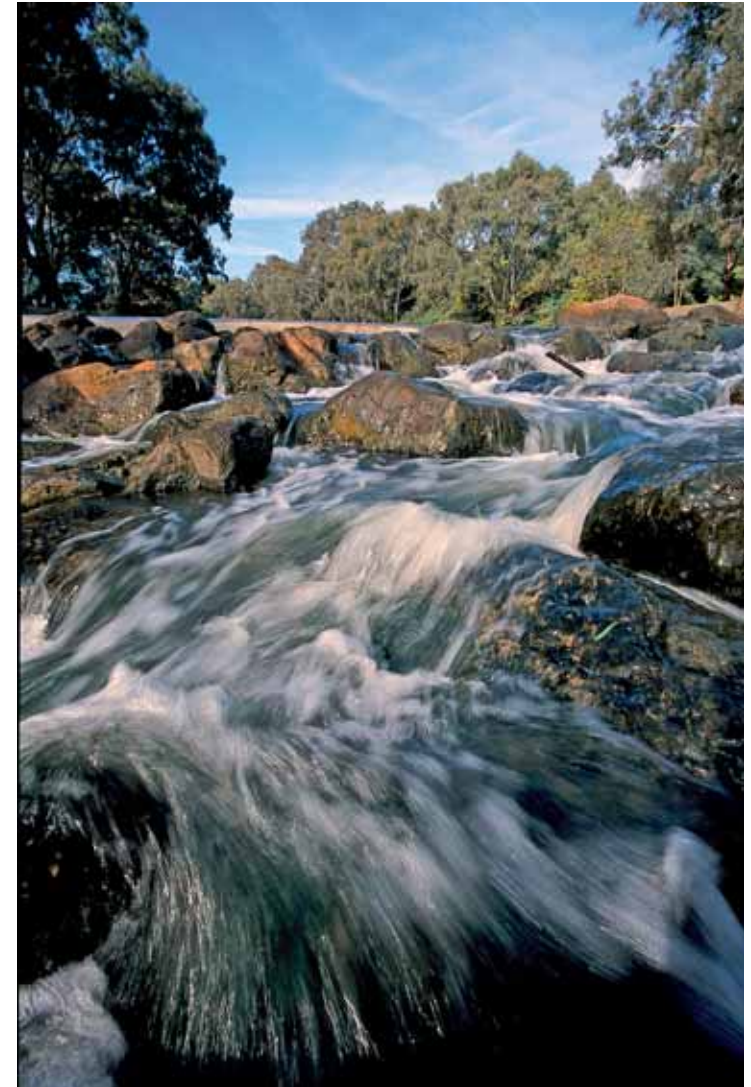
- floodplain investigations to evaluate the impact of development proposals
- management of a 24-hour flood warning service for the Greater Melbourne area
- provision of specialist advice and information to councils to assist with the development of their Flood Sub Plans
- preparation and provision of storm and flood reports.

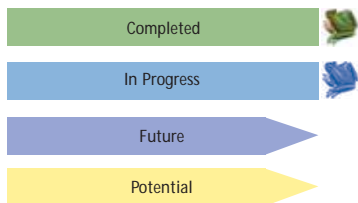
7.6 Community and Stakeholder Interaction

Community and stakeholder interaction is a significant part of our programs for improving river health. The key to successful waterway management in our new areas will depend on having a good understanding of local issues. We have recently developed a dedicated team to develop effective methods of stakeholder engagement and consultation across our extended areas.

Key projects include:

- producing factsheets to explain the changes to our boundaries and how this may affect different stakeholder groups
- the Making Connections event to bring together all people who have an interest in the future management and protection of waterways
- the co-ordination of Melbourne Waterwatch to engage schools, community groups and councils in Waterwatch activities.





EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

MANAGING RIVER HEALTH

| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
|--|--|-----------------------|-----------------------|-----------------------|-----------------------|-------------------|--------------------|-------------------|--------------------|
| Regional River Health Strategy | Finalise the draft Regional River Health Strategy for the whole of the Port Phillip & Westernport region. The strategy provides a 5-year blueprint for agencies and communities to work together to improve rivers and creeks. | [Green bar with icon] | | | | | | | |
| Maribyrnong River Environmental Flow Investigation | Investigation to establish how much water the environment requires to be healthy. Recommends an environmental flow regime. | | [Green bar with icon] | | | | | | |
| Fish Surveys on the Upper Maribyrnong | Fish Surveys of all major tributaries in the Upper Maribyrnong. | [Green bar with icon] | | | | | | | |
| Brook Street Drain | Clean debris and sediment from gross pollutant trap near the corner of Aitken Street and Brook Street, Sunbury. | | | [Green bar with icon] | | | | | |
| Survey on a tributary of Deep Creek Newham | Detailed survey on a tributary of Deep Creek at 7 sites near Dons Road in Newham. This is part of preliminary investigations for the development of waterway rehabilitation works. | | | [Green bar with icon] | | | | | |
| Five Mile Creek | Desilt around drainage outlets, remove willows and stockpile for burning near Couzens Lane. | | | [Green bar with icon] | | | | | |
| Five Mile Creek | Revegetation works to compliment previous willow removal on Five Mile Creek. | | | | [Green bar with icon] | | | | |
| South Gisborne Drain (Howie Creek) | Desilt the waterway and remove obstructions from Bluestone Creek at Gisborne. | | | [Green bar with icon] | | | | | |
| Jacksons Creek | Control willow regrowth along Jacksons Creek adjacent to Sunbury Road. | | | [Green bar with icon] | | | | | |
| Jacksons Creek | Remove dumped rubbish and spray woody weeds adjacent to Brook Street, Sunbury. | | | [Green bar with icon] | | | | | |
| Riddells Creek | Removal of dead willows and other debris from Riddells Creek. | | | [Green bar with icon] | | | | | |
| Riddells Creek | Revegetation works to compliment previous willow removal on Riddells Creek. | | | | [Green bar with icon] | | | | |

CASE STUDY DIGGING DEEP AT NEWHAM DEEP

It's been an eventful two years for Jim Sanson from the Newham Deep Creek Landcare group, gathering support and encouraging enthusiasm from fellow landholders to help improve the condition of Deep Creek in the Upper Maribyrnong Catchment.

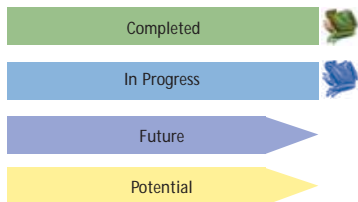
Melbourne Water has contributed \$50,000 in funding for his project as well as providing expert guidance on how to remove the huge willows that were choking the stream channel. The local Landcare Group also organised for a clean

up of the creek in the grounds of Newham School. This work also focussed on weed removal, particularly willows.

Jim said the next step would be for the landholders to put in thousands of plants and restore the natural beauty of this stretch of creek.

"I really hope that the enthusiasm shown by the Landcare Group and the community will be maintained so that the Newham Deep Creek continues to receive the attention it deserves for years to come," Jim said.





EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

| MANAGING RIVER HEALTH | | | | | | | | | |
|--|---|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
| Better Bays and Waterways - a water quality improvement plan for the Port Phillip and Westernport region | EPA and Melbourne Water in partnership with the Department of Environment and Heritage is developing the Better Bays and Waterways - a water quality improvement plan. The plan will integrate current water quality activities with new ideas to create a water quality plan for our major bays, rivers, creeks and estuaries. | | | | | | | | |
| Central Region Sustainable Water Strategy | Government proposals to establish environmental water reserves for major rivers - implementation of the environmental flow investigations. | | | | | | | | |
| Water Quality Investigations on the Upper Maribyrnong | Water quality studies of all major tributaries at 31 sites in the Upper Maribyrnong. | | | | | | | | |
| Group planting along Blind Creek | Support school group planting between Elizabeth Drive & Stockfield Street in Sunbury. | | | | | | | | |
| Willow Removal along Deep Creek | A DSE funded project to remove willows and conduct weed control at Three Chain Road in Newham. | | | | | | | | |
| Weed Control along Jacksons Creek | Woody weed control along Jacksons Creek. | | | | | | | | |
| Blind Creek Corridors of Green | Corridors of Green funding for Hume City Council for Stage 3 of the revegetation of Blind Creek. | | | | | | | | |
| Blind Creek upstream of Sunbury Community Grant | Community Grant funding for the Sunbury Conservation Society for stage 2 of the revegetation of Blind Creek. | | | | | | | | |
| Boyd Creek and tributaries | A total of eight Stream Frontage Management Program projects funded on Boyd Creek and its tributaries. | | | | | | | | |
| Survey on Blind Creek in Sunbury | Detailed survey has been undertaken on Blind Creek in Sunbury between Stockfield and Riddell Roads. This is part of the preliminary investigations for proposed waterway rehabilitations works. | | | | | | | | |
| Riddells Creek | A total of three Stream Frontage Management Program projects funded on Riddells Creek. | | | | | | | | |

CASE STUDY

A CRUCIAL LINK IN THE CHAIN

Brian Taylor had a dream to own a farm with a river running through it, where his children could play, as he did when he was a kid. Brian now owns a 300-acre beef farm in the Upper Maribyrnong catchment, with Deep Creek flowing through it.

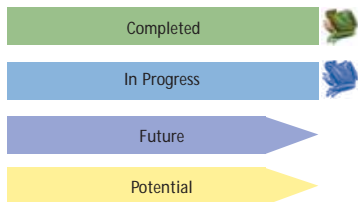
Over the past five years he and his family have been busy trying to restore the natural ecosystem along the creek. This has been carried out in conjunction with landowners up and down the creek who have been doing their bit to improve the quality of the water running through their land. The major activities have included tree planting, weed removal

(particularly willows), fencing and new river crossings - to keep their stock out of the river.

Brian said he believes that the revegetated areas are acting as a natural filter for runoff from landowners properties.

“The results have been rewarding from a commercial and personal perspective. My land and cattle are healthy, the environmental works have been great fun and the recreational and aesthetic improvements to my land have been huge,” Brian said.





EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

| MANAGING RIVER HEALTH | | | | | | | | | | |
|---|--|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|--|
| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 | |
| Charlies Creek | One Stream Frontage Management Program project funded on Charlies Creek. | [Progress bar] | | | | | | | | |
| Deep Creek at Lobbs Bridge Community Grants funding | Community Grant funding for the Upper Maribyrnong Catchment group for the Lobbs Bridge Woody Weed Removal Project on Deep Creek. | | | | [Progress bar] | | | | | |
| Deep Creek Community Grant funding | Community Grants funding for the Darraweit Guim Primary School for the Deep Creek Riparian Zone Rehabilitation Project. | | | [Progress bar] | | | | | | |
| Deep Creek | A total of fifty four Stream Frontage Management Program projects funded on Deep Creek. | [Progress bar] | | | | | | | | |
| Dry Creek | One Stream Frontage Management Program project funded on Dry Creek. | [Progress bar] | | | | | | | | |
| Emu Creek | One Stream Frontage Management Program project funded on Emu Creek. | [Progress bar] | | | | | | | | |
| Jacksons Creek Corridors of Green | Corridors of Green funding for the Hume City Council for works on the Jacksons Creek Corridor Link. | | | | [Progress bar] | | | | | |
| Jacksons Creek and tributaries | A total of twenty two Stream Frontage Management Program projects funded on Jacksons Creek and its tributaries. | [Progress bar] | | | | | | | | |
| Longview Creek | A total of two Stream Frontage Management Program projects on Longview Creek. | [Progress bar] | | | | | | | | |
| Monument Creek | One Stream Frontage Management Program project funded on Monument Creek. | [Progress bar] | | | | | | | | |

CASE STUDY

MAKING CONNECTIONS, MELBOURNE WATER SEARCH CONFERENCE

Melbourne Water and the CMA held a workshop in Romsey in May 2006 to seek community input into the future management of waterways in the Maribyrnong catchment. The Making Connections event was the first of a series that are planned for the region.

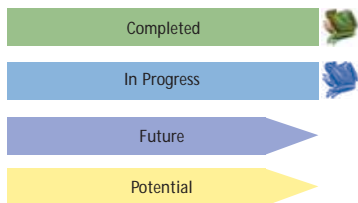
A similar event was held in Rockbank for the Werribee catchment in August.

Melbourne Water Managing Director Rob Skinner said the aim of the workshops was to connect with stakeholders with an interest in river health, and establish a way of working together for the future health of waterways in the region.

"The events attracted participants from community groups, local government, schools, the CMA and retail water authorities. Input from all of these key players is crucial not only to our understanding of the health of local rivers, but also in the development of our strategic work plan for the region," Mr Skinner said.

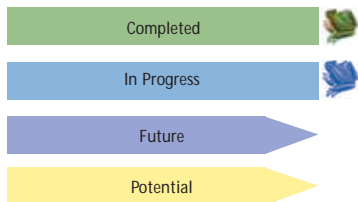
"Our success in the region will depend on everyone with a keen interest in the future management and protection of waterways coming together to work with us in developing better outcomes for our waterways."





EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

| MANAGING RIVER HEALTH | | | | | | | | | |
|--|---|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
| Aquatic Surveys in the Upper Maribyrnong catchment | Aquatic Macroinvertebrate & Sediment Surveys in the Upper Maribyrnong catchment. Exact sites to be determined. | | | | | | | | |
| Frog Studies in the Upper Maribyrnong catchment | Frogs Significance and Distribution Study in the Upper Maribyrnong catchment. | | | | | | | | |
| Stream Condition Surveys in the Upper Maribyrnong catchment | Index of Stream Condition Surveys throughout the Upper Maribyrnong catchment. | | | | | | | | |
| Woody Weed Investigations in the Upper Maribyrnong catchment | Aerial surveys for primarily woody weed identification with the added benefit of identifying fish barriers and major erosion points. | | | | | | | | |
| Investigations in the Upper Maribyrnong catchment | Investigation of fish barriers and identification of opportunities for provision of fish passage. | | | | | | | | |
| Stream Frontage Management Program Project Concept Plan for Gisborne | Design of weed removal and stream rehabilitation program from Jacksons Creek - Gisborne Township - from tributary confluence at Dixons Field to Kilmore Road. | | | | | | | | |
| Weed management at Blind Creek | Weed management, revegetation and maintenance along Blind Creek in Sunbury. | | | | | | | | |
| Weed control along Blind Creek | Weed management, revegetation and maintenance works on Blind Creek in Sunbury. | | | | | | | | |
| Blind Creek in Sunbury | Potential 2 stage rehabilitation project including willow and woody weed removal, minor erosion control works and revegetation for approximately 1km to supplement ongoing Council/Friends works along the creek. | | | | | | | | |
| Woody Weed Removal along Deep Creek, Romsey | A joint project with Western Water at the Romsey treatment plant to compliment an existing Stream Frontage Management Program site. Extensive willow removal along approximately 700m of Deep Creek, upstream of the Stream Frontage Management Program site. | | | | | | | | |
| Waterway Plan for Deep Creek | Development of a Waterway Activity Plan to identify and prioritise waterway improvement works and assign responsibility. Scope and style of plan to be developed. | | | | | | | | |
| Deep Creek Newham | Extension of the DSE project at Three Chain Road to include gorse removal downstream of original site. | | | | | | | | |
| Deep Creek, Darraweit Guim | Removal of approximately 2km of willows poisoned 5 years ago by the local landcare group. Requires further scoping and investigation to ensure a suitable revegetation approach is implemented. | | | | | | | | |
| Deep Creek and Jacksons Creek | Potential waterway improvement project downstream of Organ Pipes National Park to build on previous Corridors of Green work. Scale and scope of work to be investigated. | | | | | | | | |



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

| MANAGING RIVER HEALTH | | | | | | | | | |
|---|---|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
| Deep Creek | Willow removal project on Deep Creek. | | | | | ▶ | | | |
| Weed management along Howie Creek at Gisborne | Weed management, revegetation and maintenance works on Howie Creek near the South Gisborne Drain. | | | | | ▶ | | | |
| Jacksons Creek Waterway Activity Plan | Development of a Waterway Activity Plan to identify and prioritise waterway improvement works and assign responsibility. Scope and style of plan to be developed. | ▶ | | | | | | | |
| Jackson's Creek at Emu Bottom Wetlands | Proposed willow removal from Jacksons Creek within the Emu Bottom wetlands reserve. Potentially, up to 2km of scattered willows could be removed in a staged process to complement the existing revegetation work that the Friends of Emu Bottom Wetlands and Hume Council have already undertaken. | ▶ | | | | | | | |
| Review of Bulk Entitlements in Jacksons Creek | Aim is to establish a legal share of water in the Rosslynne Reservoir for the environment, with a lot of stakeholder engagement. | | | | | ▶ | | | |
| Jacksons Creek | Revegetation and bank stabilisation works on Jacksons Creek in Gisborne. | | | | ▶ | | | | |
| Riddells Creek | Follow up Willow removal project at Riddells Creek. | | | ▶ | | | | | |
| Riddells Creek | Bank erosion works behind Brooks Road, Macedon. | | | | ▶ | | | | |

CASE STUDY

CORRIDORS OF GREEN PROGRAM

The Melbourne Water Corridors of Green Program began in 1999 to help councils undertake environmental improvements works along waterways. Since then, the program has distributed more than \$1.6 million to councils and funded 193 projects to improve rivers and creeks in the Port Phillip and Westernport region.

In order to receive funding, councils are required to contribute 50 per cent to the cost of a project by either a direct financial or in-kind contribution.

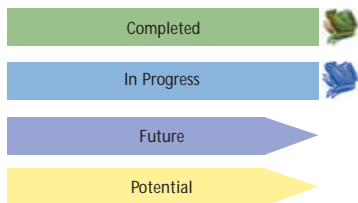
The objectives of the Corridors of Green program are to:

- assist councils to enhance habitat corridors and improve amenity of open space
- foster an understanding and appreciation of river health within the community

- improve the quality and quantity of indigenous riparian vegetation
- reduce the impact of threatening processes
- return native fauna to urban parklands.

The program was extended in 2005/06 when Melbourne Water assumed responsibility for managing waterways across the whole region. It has assisted four programs in the Upper Maribyrnong catchment to date, providing around \$38,000 of funding. Over 6100 plants were provided and 1.8 kilometres of waterways were revegetated and treated for weeds. Hume City Council and the Sunbury Conservation Society received funding towards the revegetation of Blind Creek, following earlier projects to remove willows and other weeds.





EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

IMPROVING WATER QUALITY

| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
|--|---|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Review of Stormwater Management Plans | All council Stormwater Management Plans have been reviewed and Melbourne Water actions identified and recorded from each. Most projects will be reviewed as part of a future project "Identification of regional water quality improvement opportunities." | | | | | | | | |
| Living Rivers Stormwater Program - council engagement | The aim of this 4 year initiative is to achieve long-term improvements in the management of stormwater entering our waterways and bays. Meetings will be held with councils to identify their needs and potential partnership projects. | | | | | | | | |
| Identification of regional water quality improvement opportunities | A desk and field study of sites suitable for regional wetlands or bio-retention systems. The project will designate a number of priority projects and will cover many of the actions identified as part of the review of council Stormwater Management Plans. | | | | | | | | |
| Water Sensitive Urban Design training sessions | Five 1-day training programs will be held to assist with the rollout of Clause 56. The sessions will focus on integrating WSUD into residential subdivisions. A workshop will be held in Sunbury. | | | | | | | | |
| Clause 56 council information meetings | Information sessions for council to discuss the implications of the new residential subdivision provisions in Clause 56 of planning schemes. | | | | | | | | |
| Living Rivers Stormwater Program - targeted workshops | Targeted workshops with councils that will identify council specific projects for funding. | | | | | | | | |

CASE STUDY

COMMUNITY GRANTS PROGRAM

Volunteer community groups play an important role in protecting and improving local rivers and creeks. Melbourne Water's Community Grants Program began in 1999 to support the immense effort that community groups commit to the rehabilitation of their local waterways.

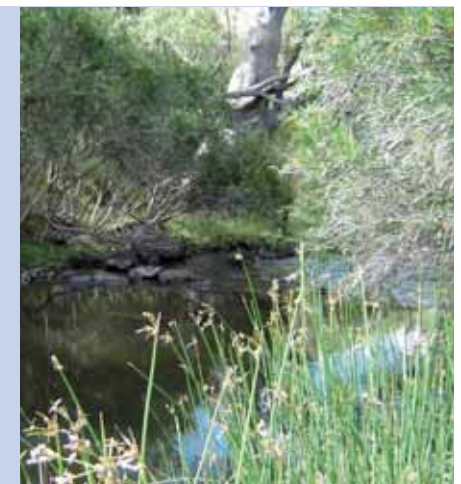
The program is aimed at providing financial assistance to community groups to sustain and support their works and efforts. These incentives have been made available for the funding of materials, equipment, administrative support and newsletter production.

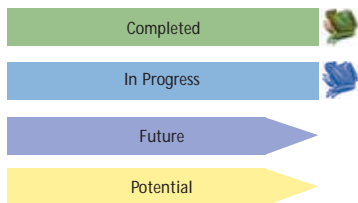
Since 1999, Melbourne Water has distributed more than \$600,000 in grants to assist community groups in their work

to improve and revegetate Melbourne's rivers and creeks and their surroundings.

In 2005-06, the program extended into Melbourne Water's expanded operating area. So far, over \$19,000 has been awarded to four groups in the Upper Maribyrnong catchment. Among those was the Darraweit Guim Primary School who received over \$1,500 for the rehabilitation of Deep Creek.

Funding for Community Grants will increase in the coming years to assist community groups undertake waterway works in line with the priorities of the *Port Phillip and Westernport Regional River Health Strategy*.





EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

MANAGING OUR DRAINAGE ASSETS

| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
|--|--|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Retarding basin inspection program | Inspection of all retarding basins in the extended area. Maintenance requirements and other issues are being identified and programmed. | | | | | | | | |
| Underground asset data capture | Collation of the transferred underground assets from councils. A field survey has been undertaken to check details and locations and the resultant data loaded into our internal systems. | | | | | | | | |
| Structural assessment of drainage assets | This assessment includes evaluating what condition assets are in and determining the likelihood and impacts of a failure. Assessments of all underground drains are to be undertaken within the extended area. | | | | | | | | |
| Provision of underground asset data for councils | Once all data has been captured and verified it will be provided back to the councils for inclusion in their internal systems. | | | | | | | | |

CASE STUDY

MELBOURNE WATERWATCH

Melbourne Waterwatch is part of the Waterwatch Australia network. It is a free river health education and monitoring program, which aims to increase community understanding and participation in local river health issues through a broad range of activities that encourage the community to become involved in monitoring the health of rivers, creeks and wetlands.

The overall objective of the Melbourne Waterwatch program is to provide the expertise and support required to enable students and community members to:

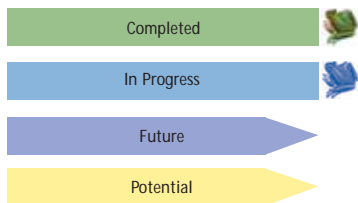
- gain an understanding of river health issues
- learn how to collect river health information from their local creek, river, or wetland

- discuss their findings with Melbourne Waterwatch coordinators to identify what can be done at a local level to improve the health of Melbourne's waterways
- become involved in on-ground works to help address local river health issues.

In 2005-06 over 31,000 people were involved in the program.

Melbourne Waterwatch is sponsored by Melbourne Water, the Natural Heritage Trust, and every local council across Greater Melbourne. Other supporters include the Department of Sustainability and Environment, the Merri Creek Management Committee, the Department of Primary Industries, and Southern Rural Water.

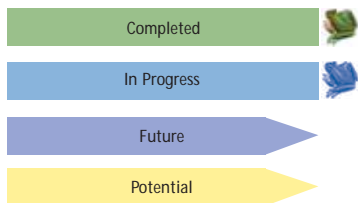




EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

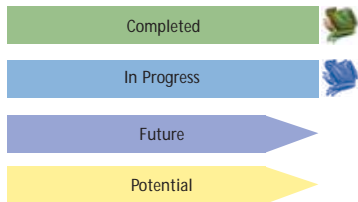
SUSTAINABLE DEVELOPMENT

| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
|---|---|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Consultation with councils regarding the development of drainage schemes | Meetings were held across all of our new councils to obtain an understanding of local issues. Reports were collected and reviewed to gain information to feed into our decision making process. | | | | | | | | |
| Identification and prioritising of potential drainage schemes | Catchments with substantial areas of land zoned for development were identified. The catchment boundaries were determined and drainage schemes were prioritised. | | | | | | | | |
| Harpers Creek Drainage Scheme | Located south of Sunbury, the catchment is approx 1110 hectares, and in general, bounded by Calder Fwy to the west, Mitchell Lane to the north, Jacksons Creek to the east and Watsons Road to the South. | | | | | | | | |
| Clause 56 - implementing the provisions from the Sustainable Neighbourhoods Planning Scheme | Meetings and workshops with councils to examine how they are to implement Clause 56. | | | | | | | | |
| Blind Creek Drainage Scheme | Exact size and location of scheme still to be scoped as part of initial investigations. | | | | | | | | |
| Five Mile Creek Drainage Scheme | Exact size and location of scheme still to be scoped as part of initial investigations. | | | | | | | | |
| Jacksons Creek Tributary Drainage Scheme | Exact size and location of scheme still to be scoped as part of initial investigations. | | | | | | | | |
| Kismet Creek Drainage Scheme | Exact size and location of scheme still to be scoped as part of initial investigations. | | | | | | | | |
| Gisborne South Drain Drainage Scheme | Exact size and location of scheme still to be scoped as part of initial investigations. | | | | | | | | |
| Council Planning Workshops - "How We Work Together" | A series of workshops with council planning departments to discuss opportunities for improving the planning referral process. | | | | | | | | |



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

| MANAGING FLOODING | | | | | | | | | |
|---|---|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
| Addition of known flood "shapes" onto our system | Updating of Melbourne Waters systems with known flood shapes from the Department of Sustainability and Environment. | | | | | | | | |
| Aerial Surveys at Sunbury and Diggers Rest | A Digital Elevation Model has been created for Sunbury and Digger's Rest and will be used in a flood mapping project over the next 12 months. | | | | | | | | |
| Identify priority catchments for mapping | An assessment of catchments has been undertaken to prioritise flood mapping projects. Assessments are based on a number of factors including flood extents and levels. | | | | | | | | |
| Port Phillip & Western Port Flooding and Drainage Strategy | A flood management and drainage strategy that will provide options and recommendations to improve flood management and reduce the impacts of flooding on the community. | | | | | | | | |
| Gisborne Flood Study | Working with Macedon Ranges Shire Council to ensure that a flood study currently being undertaken meets the requirements of both organisations. | | | | | | | | |
| Waterway asset data capture | Collection of available waterway data for our new areas that is then being realigned with further contour data to improve accuracy. | | | | | | | | |
| Acquisition of one metre contours | Acquisition of one-metre contours covering non-growth areas in conjunction with the Department of Sustainability and Environment. | | | | | | | | |
| Floodmapping for priority catchments | Floodmapping has commenced for those catchments identified as being high priority. | | | | | | | | |
| Existing floor survey information | Existing information obtained from floor surveys will be placed on our systems to assist in identifying problem areas and the prioritisation of flood mitigation studies. | | | | | | | | |
| Undertake new floor surveys | Obtain further floor levels to assist in identifying problem areas and prioritisation of flood mitigation studies. | | | | | | | | |
| Floodmapping for Sunbury and Diggers Rest | Using the information obtained from the previous aerial survey project, mapping of flood extents and levels at Sunbury and Diggers Rest is underway. | | | | | | | | |
| Implementation of Land Subject to Inundation Overlays (LSIO) or Special Building Overlays (SBO) | Discussions with Macedon Ranges Council on implementing LSIO/SBOs to provide information on areas or buildings that may be subject to flooding. | | | | | | | | |
| Aerial survey for mapping projects | Data from aerial surveys will be processed to enable mapping for priority areas to commence. | | | | | | | | |
| Gisborne Flood Study | The information collected in the Gisborne Flood Study will be put onto our internal systems. | | | | | | | | |



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

| COMMUNITY AND STAKEHOLDER INTERACTION | | | | | | | | | |
|---|---|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Title | Description | January-June 2005 | July-December 2005 | January-June 2006 | July-December 2006 | January-June 2007 | July-December 2007 | January-June 2008 | July-December 2008 |
| Maribyrnong Making Connections | An independently facilitated workshop with a broad range of stakeholders with a common interest in waterways in the Maribyrnong catchment. The aims of the event was to improve the flow of information and build stronger relationships. | | | | | | | | |
| Community Engagement Plans | Consultation to ensure the community is adequately advised for drainage and floodplain services in their region. | | | | | | | | |
| Managing Rivers & Drainage In The Wider Area fact sheet | Fact sheet produced to ensure the community is informed on drainage, waterways and floodplain services for their region. | | | | | | | | |
| Community Information Workshops for the Extended Areas | The workshops were held to inform key council, Landcare and community groups about Melbourne Water's role and responsibilities, map out priority areas, discuss our river health projects and programs and how we can work best with local communities. | | | | | | | | |

CASE STUDY

DRAINAGE SCHEMES

Melbourne Water is responsible for maintaining and operating the regional drainage system (drainage within catchments of greater than 60 hectares). A drainage scheme is a plan of the drainage works that are required to provide the most effective and environmentally sound drainage management to service future urban areas within a defined catchment.

It identifies all the works required to provide an integrated drainage system, for the development of properties within a catchment, and estimates the cost of constructing those works. The scheme recovers the costs of these works from landowners when they subdivide or develop their land.

The core objectives of drainage systems are to:

- protect people and property from unacceptable flooding impacts
- ensure that local and downstream rivers and creeks are stable and ecologically healthy
- ensure that minimal pollution in run-off from new urban areas reaches rivers, creeks and bays.

Within the Upper Maribyrnong catchment there are six drainage schemes either underway or proposed including Harpers Creek Drainage Scheme, Blind Creek Drainage Scheme and Gisborne South Drain Drainage Scheme. Current schemes across the extended areas vary from up to approximately 12,000 hectares down to 114 hectares.



EXTENSION OF WATERWAY SERVICES PROGRESS REPORT: UPPER MARIBYRNONG CATCHMENT

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