Bushfire Community Update

Edition 2 - Winter **July 2009**

It's now winter and just over five months on from the February bushfires. We're seeing stark contrasts in the landscape with fresh regrowth touched by early winter snowfalls.

As caretakers of rivers and creeks in the Port Phillip and Western Port region, Melbourne Water is working hard to protect the natural values of waterways and is supporting rural landowners to manage their waterways that have been affected by the fires. In water supply catchments, we're working to protect the quality of our water and on bushfire impacts on future water quality and quantity.

We continue to work collaboratively with other agencies to ensure a co-ordinated effort in bushfire recovery, and we're minimising impacts to water quality into the months ahead by stabilising soils, keeping internal catchment roads open, assessing waterways, monitoring animals and water quality, and constructing and repairing infrastructure damaged by the fires.

There remains no impact on water quality as a result of the bushfires.

Waterways

Monitoring of Water Quality

Assessments show that around 940 km - about 10% - of waterways in the Port Phillip & Western Port region were affected by the bushfires. Of this, about 16.5% of the Yarra River catchment and 8% of the Western Port catchment was burnt.

Melbourne Water is monitoring the impacts of bushfires on waterways very closely and doing what we can to help support the natural recovery process. This includes increased monitoring of water quality in bushfire affected waterways in the Bunyip/Tarago and Murrindindi/Healesville areas and reviewing data collected from this monitoring. We have around 80 monitoring sites that collect data on water quality and animals.

Findings so far have shown some discoloured water and sediment deposits in streams off the Yarra River but the main stem hasn't been affected to date. Monitoring will continue to at least the end of summer 2010.

Stream Frontage Management Program

The Stream Frontage Management Program supports landholders to replace off stream stock watering facilities and undertake revegetation and weed control.

Through the program, we're working with private landholders to rebuild fences along the bed and banks of rivers and creeks. Protecting these areas helps waterways recover, protects vulnerable soils and plants, and supports animals moving along waterways.

We're working with a number of the 211 Stream Frontage Management Program properties in fire affected areas and have had a further 25 landholders join the

program. Around 150kms of waterway frontages on properties within the program were affected by the bushfires.

Waterways Regeneration

It's important that we continue monitoring plants and animals in our waterways and suppressing weeds along riverbanks to encourage natural regeneration of native plants. The results from our monitoring will help us work out what we need to do and where, to ensure that we:

- identify and manage animal refuge habitat;
- manage the natural values of fire affected waterways;
- investigate ways to help manage sediment and debris moving in the catchments and waterways;
- understand the impacts of pest animals on waterways; and
- consider other activities that may help protect significant species under future bushfire and drought threat.

In spring, we'll monitor plant regeneration rates, identify opportunities to support revegetation on private land and undertake weed control to help riparian (vegetation and land along rivers and creeks) zones recover.

Grass trees

Animals

We have been surveying fish, platypus, frogs and macro-invertebrates within and downstream of fire affected waterways over the past few months and will continue to do so over winter, along with monitoring the recovery of aquatic animals.

Native fish (short finned eel, southern pygmy perch, river blackfish, pouched lamprey, and mountain galaxias) and exotic fish (eastern gambusia, brown trout) were found in some waterways and in waterways downstream of the fire-affected areas. Platypuses were seen above and below the Tarago Reservoir, in Wandin Yallock Creek and Watts River.

Wombat in Wallaby Creek

Working Collaboratively

Melbourne Water understands that a collaborative effort is needed to ensure a co-ordinated recovery.

We're working with a range of agencies to co-ordinate information. Our bushfire recovery fact sheets and community updates will be available through community hubs and recovery centres.

We are integrating our recovery efforts with the Department of Sustainability and Environment and Parks Victoria and working with public land managers to control weeds.

We have a partnership with the Port Phillip and Westernport Catchment Management Authority to obtain funding to support our Stream Frontage Management Program, and another with the Department of Primary Industry and the Port Phillip and Westernport Catchment Management Authority to improve support to landholders for managing land, dams, erosion and deposits of sediment on their land. We've already provided water and land management advice to around 115 properties and maintenance and support advice to licensed on-stream dam owners.

Our Land Development team is working with Councils and the Department of Planning and Community Development to develop planning scheme amendments that will help to speed up the rebuilding of homes adjacent to bushfire-effected waterways.

The Asset Services and River Health teams are working to streamline our permits

process by fast tracking approvals for waterway crossing applications, and we're supporting Councils to inform communities about our role in the approval of any works on, or alongside of waterways.

Water Supply Catchments

Our two most important catchments in regard to water supply – the Upper Yarra and Thomson – were protected from the bushfires.

An assessment of Melbourne Water assets damaged by the bushfires found the Wallaby Creek catchment sustained considerable damage as it was in the direct path of the Kilmore East fire.

Erosion is already evident within this catchment. Works focus on reducing soil movement to help limit impacts on water quality, repairing the Wallaby Creek weir and aqueduct and carrying out maintenance activities that include removing dangerous trees and installing structures to slow down erosion, such as silt fences.

In the Tarago Weir, we've removed silt so that any silt transported by flows from heavy rain will settle in the weir before flowing into the Tarago Reservoir, which was part of our work to reconnect Tarago.

Rehabilitated fire-break with a silt fence

Over winter, we're focusing on maintenance activities that include:

- regularly cleaning culverts to avoid them blocking and eroding internal roads;
- clearing debris from internal roads and reservoirs;
- establishing photo points to monitor changes at selected sites;

O'Shannassy catchment

- checking, repairing and installing over 400 silt traps and silt fences that have already been successful in holding back ash and soil after the recent rains; and
- replacing burnt assets such as signage, gates and fences.

We're also planning some major projects that can only be done in the drier months, like replacing bridges, gravelling internal roads and replacing culverts.

Catchment Regeneration

The fires created many open spaces in the vegetation to allow more sunlight in and have added nutrients to the surface soils.

Seedlings of native and exotic plants are germinating and mature plants are reshooting. Many have begun to regenerate from tree trunks, rootstock and underground rhizomes. Eucalypt seedlings too are germinating quickly, particularly in the Maroondah catchment, and we expect more to occur in early spring.

In areas where the fire was more intense, plant regrowth has been slower. Some local plant communities and species have been severely affected and possibly lost, such as an epiphytic orchid in Steels Creek and the shiny nematolepis in the O'Shannassy catchment.

To support regeneration, we're increasing our weed control in forested areas as weeds are a major threat to environmental values, and we're monitoring and controlling pest animals.

Water Quality

Water quality is being intensively monitored in catchments impacted by the fires. Results to date have been very good. If results do decline, we can temporarily isolate catchments from the water supply system.

O'Shannassy catchment

Our completed recovery plans will see us over the next few months managing the potential for increased runoff and reduced water quality up steam of the reservoirs. We'll conduct rehabilitation works to reduce erosion and sediment runoff and increase monitoring water quality for the next two years.

Water Quantity

We know from the 1939 bushfires in Melbourne's catchments and the 2003 and 2006 fires in south-eastern Australia that fire can impact the amount of catchment runoff in the short, medium and longer terms.

The low intensity rainfall that the catchments have received over the last few months has been good as it has kept runoff to a minimum, reduced the potential for erosion and helped catchments to regenerate.

Over the next five years, runoff could increase due to the loss of forests and understorey that would normally draw on the water before reaching the reservoir, although we haven't seen this within the catchments so far.

In the longer term, stream-flow could reduce due to the young dense mountain ash regrowth sucking more water to grow.

We've undertaken some initial assessments of the impacts to water supply catchments but will have better estimates after the catchment mapping is complete. This will show the extent of vegetation damage or destruction, vegetation species affected and their location within the catchment.

Flooding

Reduced vegetation because of the bushfires could see an increase in runoff and a reduction in filtering of the runoff. Higher water flows and more sediment and litter may flow into streams after intense rainfall events.

The heat of the fires in some places has also made soils impervious, adding to the possibility of increased runoff from these areas.

Floodplains within towns have already been mapped to show the extent of 100 year flood events. Generally, flooding problems in townships shouldn't be a major concern as only about 30% of Melbourne's catchments were damaged by fire and flow increases will be minor. The exceptions to this are Whittlesea and parts of Healesville adjacent to Graceburn Creek and Watts River where a high rainfall event may generate higher flows.

The level of flooding is dependent on the intensity of rains and storms. We will continue monitoring through flood warning systems.

Waterwatch

Waterwatch Melbourne, the river health education program that supports community, schools and businesses to be involved in monitoring and protecting the health of our rivers and creeks, is working with Melbourne Water's River Health team to develop a monitoring plan for fire affected catchments.

You can volunteer to become a member of Waterwatch or involve your school, community group or business in Waterwatch activities. Waterwatch groups can also help communities heal by documenting and publicising their discoveries through their monitoring.

Community updates

This is our community update since the bushfires and as we enter winter we plan to provide updates seasonally. The next update will be our spring edition, but in the meantime if you have any questions, don't hesitate to contact us.

Contact

For more information, please contact Melbourne Water's Customer Service Centre on 131 722.