

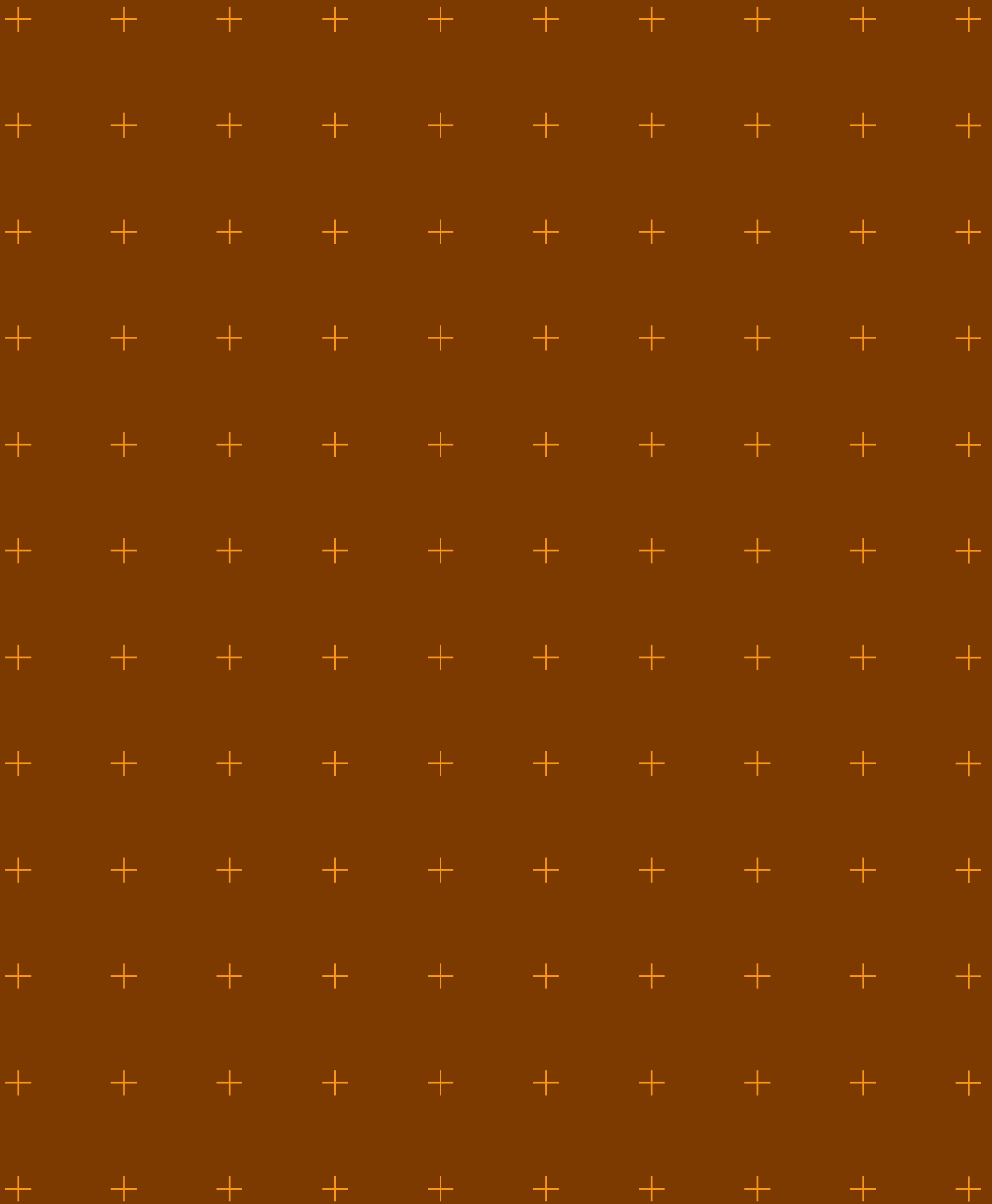
ecoMarkets

VALUING OUR ENVIRONMENT



A Victorian
Government
initiative





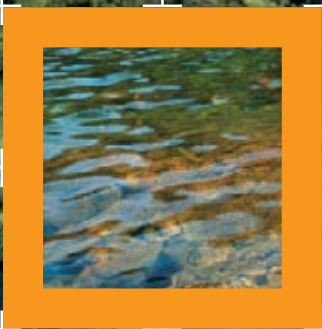
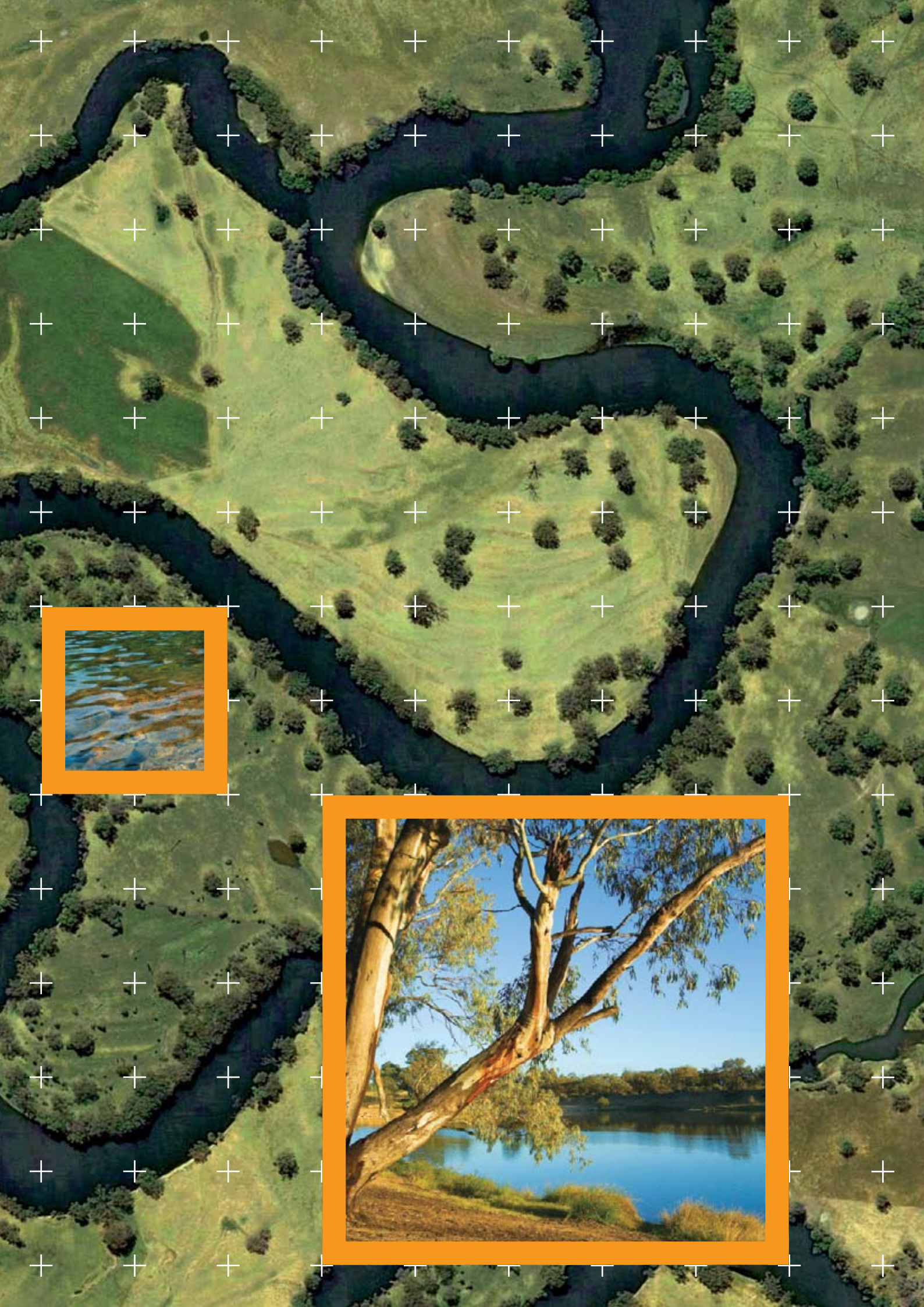
In most countries landscapes have been extensively modified by the clearing of native vegetation, the introduction of exotic plant and animal species and the disturbance of soils associated with crop and pasture activities. Changes in land use along with the use of fossil fuels have been identified as two of the largest human-induced influences on the environment.

The difficulty for governments both in Australia and overseas is striking a balance between agricultural production on private land and ecosystem protection. With around 65 per cent of Victoria's land privately owned, new ways are needed to encourage and reward landholders for actively managing the environment.

We have developed ecoMarkets, a world-leading approach that will both reward landholders and improve the health of the environment. ecoMarkets is a range of market-based approaches that provide incentives to landholders to manage land and water in ways that conserve and enhance the environment.

To bring ecoMarkets on-line across all of Victoria we are investing \$14 million as part of the 2006 Environmental Sustainability Action Statement. This investment will develop new scientific capabilities that will inform us about where in the landscape we need to focus our attention to get the best outcomes for the environment. Over the next three years, ecoMarkets will be fine tuned and demonstrated so that landholders can readily engage in these new approaches.

ecoMarkets provides both financial gains to landholders and a long term solution to the complex issue of landscape decline. I encourage landholders who want to diversify their business, create a new income stream and improve Victoria's environment to read on and take part in this exciting opportunity.



What is ecomarkets and why do we need it?

ecoMarkets is the term used to describe a range of market-based systems that aim to address environmental decline. In general terms, it describes a world-leading approach being developed and applied by the Victorian Government to improve the health of the environment.

The need for ecoMarkets has never been more apparent. Climate change, increased urbanisation of land and the pressures of commercial agriculture in addition to the continuing threats posed by pest plants and animals are all placing greater pressure on our natural environment. A new approach to this problem is needed – one that makes a real difference.

The main function of ecoMarkets is to provide incentives for private landholders, who own 65 per cent of Victoria's land, to manage their land in ways that conserve and enhance the environment. Landholders will be able to earn income from ecoMarkets if they are able to provide environmental improvements in a cost-effective way.



How ecoMarkets work

ecoMarkets work by creating opportunities for providers of environmental benefits, such as private landholders, to engage in partnerships with willing buyers of these benefits.

Willing buyers may be the Government seeking to obtain environmental improvements on behalf of the Victorian public or they may be private companies or individuals such as developers seeking to offset environmental damage through remedial actions elsewhere. They may also be ethical investors or philanthropic organisations seeking to invest in interventions that contribute to the improved health of the Victorian environment.

In Victoria, ecoMarkets are built on a suite of policy instruments, legal frameworks and practical procedures that Victorian economists, scientists and natural resource managers have been working on and refining over the last decade.

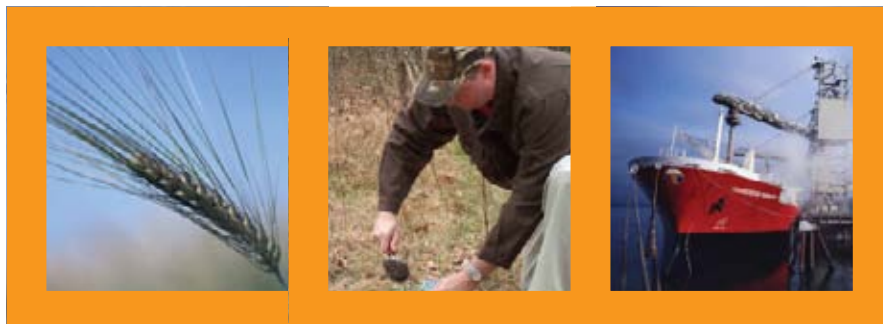
In this time, much work has been done to make sure ecoMarkets are readily accessible and easily understood. The process for getting involved in ecoMarkets has been tested and modified and previous participants vouch for the ease of involvement and simplicity of the approach.

The science that supports ecoMarkets⁺

A large part of the science that drives ecoMarkets is based on mapping Victoria into 20 metre grids. This level of landscape detail is a first for Victoria and possibly the world. The new landscape modelling techniques make it possible to identify the contribution that each 20-metre grid can make to improving environmental outcomes.

At its most basic level, this grid system characterises how each 20-metre area fits into the overall ecosystem. This detailed knowledge of the unique aspects of any particular location in the landscape allows prediction of the catchment scale impacts of any given land management action or group of actions.

For example, revegetating along a stream with indigenous plants creates improved habitat for native flora and fauna, filters runoff water, which reduces sedimentation and harmful nutrients from entering the stream and finally captures carbon. However, this revegetation will also use water as it grows that will not be available for aquatic flora and fauna or consumptive purposes downstream.



Understanding these interactions is critical if we are to make real improvements to the environment and avoid potentially unwanted outcomes.

Importantly, this science will be delivered in a form that is easily understood by land managers and decision-makers. It will be demonstrated so that land-holders and regional natural resources managers can easily understand and engage with ecoMarkets.

So for the first time we can accurately identify and assess environmental 'quality' and judge the relative dollar value of potential improvements to the land.

This means we can more easily report on the condition of our ecosystems and quantify in dollar terms the contribution the environment makes to the Victorian economy.

⁺ More information about the science that underpins ecoMarkets is available on the enclosed fact sheet or via www.dse.vic.gov.au/ecomarkets





Victoria has lead the way in developing and implementing ecoMarkets including the highly successful BushTender scheme, which has now been expanded in EcoTender to include river and estuary health in addition to terrestrial habitat protection and restoration. Further, the BushBroker initiative facilitates transactions in native vegetation offsets, which will provide greater certainty and security for developers, land owners and native vegetation. Development of these programs in Victoria will also complement the market for greenhouse gases when introduced by the Commonwealth Government.

BushTender

BT

Over three million hectares of Victoria's remaining native vegetation occurs on private land, of which approximately 60 per cent is of a threatened vegetation type and is estimated to support 30 per cent of Victoria's threatened species' populations. BushTender aims to improve the management of existing areas of native vegetation on private land. Under BushTender, landholders nominate their own bid price in a competitive tender and choose a range of actions to protect and enhance native vegetation.

This could include fencing of native vegetation to exclude stock, control of environmental pests and weeds and supplementary planting of native understorey.

Successful bids are those that offer the 'best value for money' in terms of the native vegetation and biodiversity outcomes resulting from the landholder commitments and the landholder price for delivering these. Successful landholders receive periodic payments under contractual agreements with the Department of Sustainability and Environment (DSE) or Catchment Management Authority (CMA).

+ More information about BushTender is available on the enclosed Fact Sheet or via www.dse.vic.gov.au/ecomarkets

EcoTender

ET

EcoTender expands the BushTender approach to include multiple environmental benefits. In addition to native vegetation, landholder bids are evaluated based on potential improvements to river and estuary health. Under EcoTender, landholders are invited to tender for contracts to deliver several complementary benefits primarily through improved native vegetation management and revegetation on their properties.

Successful bids contain activities that offer the best value for money to the community based on ecosystem outcomes, the significance of the environmental assets and the cost.

Like BushTender, successful landholders receive periodic payments as they deliver the management actions under contractual agreements with DSE or CMA.

+ More information about EcoTender is available on the enclosed Fact Sheet or via www.dse.vic.gov.au/ecomarkets

BushBroker

BB

BushBroker provides a system in which native vegetation credits can be generated and traded, allowing interested landholders to provide credits on behalf of others. Landholders can provide native vegetation credits from their property by protecting and better managing remnant bushland, through activities such as tackling weeds, controlling rabbits and fencing off stock.

Credits can also be earned by revegetating previously cleared land with native plants indigenous to the area and by protecting scattered paddock trees to encourage natural regeneration. Putting freehold land into conservation reserves can also earn credits. Landholders who have earned credits are then able to sell them. Buyers of credits include those who are required by legislation to offset their clearing in one area by purchasing an offset credit in another area according to 'like for like' rules.

Currently, buyers and sellers are matched in the BushBroker database and the two parties then negotiate a price.

More recently, an electronic version of BushBroker has been developed and is currently being tested and evaluated. This electronic version will operate more like a marketplace, further reducing the cost of matching buyers and sellers of offsets.

+ More information about BushBroker is available on the enclosed Fact Sheet or via www.dse.vic.gov.au/ecomarkets



Three demonstrations will be conducted over the next three years as part of the Government's \$14 million commitment to providing better incentives for ecosystem improvements.

The first demonstration project will be conducted in the Corangamite Catchment Management Authority area. Subsequent demonstrations will be determined on the basis of the availability of the required science and regional delivery capacity.

These demonstration projects will provide the know-how so we can build the science and economics to create a robust system ready for statewide roll out of ecoMarkets in the future.

By 2010, the Victorian Government hopes that ecoMarkets is broadly adopted as a tool to assist in the management of private land leading to environmental improvements across all of Victoria.

Benefits of ecoMarkets

'Economy versus environment' thinking is old hat – ecoMarkets provide financial gains to landholders, whilst providing a long-term solution to the complex issue of landscape decline.

Benefits to the environment and the Victorian community

The main environmental and community benefits that will result from ecoMarkets will be the following:

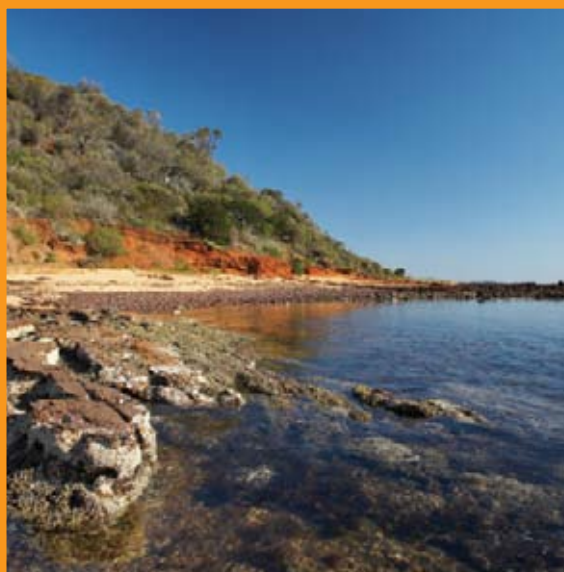
- A more secure water supply, reduced carbon emissions, more habitat for native plants and animals, reduced salinity, healthier soils and protection of our cherished landscape.
- An ability to identify actions that result in complementary benefits for the environment, such as where tree planting would maximise the outcomes for carbon sequestration and salinity, while minimising the impact on stream flow.
- The ability to better tackle specific environmental problems like salinity in the Mallee, threatened native grasslands on the volcanic plains and water quality in Gippsland.
- Ensuring the best environmental value for taxpayers' money.
- And avoiding unwanted environmental impacts in any given area resulting from the cumulative effect of a range of land management actions.

Benefits to landholders

Following extensive testing, BushTender and EcoTender ecoMarkets have been found to offer a fair and transparent way to financially reward landholders.

The following are some of the benefits that landholders will reap from ecoMarkets:

- Providing farmers and landholders with new and reliable revenue streams, which help to spread business risk, especially in the face of climate change and fluctuating commodity markets. Just as the landholder can earn an income from producing and selling crops and stock, they will also be able to earn income from contributions they make to the environment.
- The land improvements made through ecoMarkets will contribute to the productivity of the land so landholders benefit not just through being paid to take various actions but through the actual actions themselves.





ecoMarkets case studies

case study Mt Rothwell

“BushBroker has allowed us to fund these activities. It’s given us security around the management of weeds which is a very expensive undertaking.”



Three years ago environmental scientist Nick Lewis and zoologist Richard Woods purchased Mt Rothwell, a 1,000 hectare property on the northern end of the You Yangs owned by former ecotourism operator Earth Sanctuaries.

Abandoning the tourism aspect of the business to focus on the conservation of the property, Nick and Richard established native fauna breeding programs while tackling the significant weed problems throughout Mt Rothwell’s grassland remnants.

Now full time biodiversity managers, Nick and Richard recently embraced the Victorian Government’s BushBroker program to help with eradication of Serrated Tussock, Chilean and other needlegrasses.

BushBroker identifies opportunities for landowners to establish native vegetation offsets on their land that compensate for permitted vegetation losses incurred elsewhere by developers.

“With 1000 acres of remnant grassland and bushland encased in a predator free area, there is nothing like Mt Rothwell anywhere else in Victoria,” Richard said.

“Getting on top of weeds and improving the grassland values of the property is critical in supporting Mt Rothwell’s biodiversity.”

Under BushBroker, Nick and Richard are committed to a permanent agreement to protect and enhance native vegetation at Mt Rothwell. The price for the offset that they have negotiated with the developer is paid to them over a 10-year period.

“BushBroker has allowed us to fund these activities. It’s given us security around the management of weeds which is a very expensive undertaking.”

Whilst Nick and Richard were already committed to improving the biodiversity of the property, BushBroker has allowed them to do the job sooner and with certainty, with many positive benefits for the environment.



“Without BushBroker we would have kept going, but it is giving us a way to be able to allocate funds with certainty for the next 10 years.”

The flow on effects in terms of biodiversity are enormous, with the Mt Rothwell grassland habitat also contributing to the national recovery program for the endangered Eastern Barred Bandicoot.

Richard believes that without schemes that provide a financial incentive for people to manage biodiversity, it simply won't happen.

“There is a growing realisation that unless private landholders are engaged in biodiversity management we are not going to get anywhere,” he said.

Nick and Richard are hoping their neighbours will soon take up the opportunity to participate in BushBroker and further improve the biodiversity of this very special part of Victoria.

case study Banksia Rise

“With BushTender, people learn the monetary value of a natural bushland setting, and that changes the way people value the land.



Originally from Melbourne, Phillip and his wife Sue swapped their 26 acre Yarra Glen property for 143 hectares at East Gippsland to pursue their dream of owning a natural bushland property.

When they took over Banksia Rise five years ago, they also took over the plans of the previous owners to participate in BushTender. Through BushTender, the Vaughans have successfully managed weeds and vermin on their property for four years in addition to excluding stock and retaining standing trees and fallen logs.

“The property was in good condition when we bought it but we needed to look after the edges, and stop the encroachment of weeds and vermin from surrounding properties,” Phil said.

“We have also been able to promote the growth of native vegetation where it was lacking in the middle storey, and establish exclusion plots - 10 x 10 metre fenced off areas that exclude kangaroos and wallabies.

“BushTender has allowed us to fast track our plans to protect the property and promote native vegetation and conservation.

“We would have got there in the end, but the problem would have been on a much larger scale with the encroachment further into the property.”

Phil and Sue also see a much wider benefit of BushTender in changing attitudes to the land. “With BushTender, people learn the monetary value of a natural bushland setting, and that changes the way people value the land.

“If you just let normal processes take their course there will be nothing left. BushTender gets people thinking, ‘hey this land is worth something’.”

Taking their commitment to sustainability one step further, Phillip and Sue have also signed up five hectares of their property for carbon sequestration under the Victorian Government CarbonTender program.

Under the program they are revegetating an area with locally indigenous species that would have otherwise been left as open pasture. This is providing biodiversity and carbon sequestration benefits.



"We see what we are doing with carbonTender as inevitable, as we will all eventually be forced to negate our carbon footprint. "We would like to pass this property on to our kids in a better state than we found it.

"In the bigger scheme of things, we own this land for such a short period of time and its our responsibility to value it for the future."

Phil and Sue's involvement in BushTender and CarbonTender has inspired their neighbours – farmers and other property owners – to get involved.

"One of our neighbours is considering taking part in carbon sequestration, and we know of another who is planning to buy property purely for that purpose.

"These are enormous changes in attitudes and behaviour to the land – changes for the better," he said.

case study Birchip

"Farmers out here are battling to survive. BushTender is not about locking up farms from stock, but growing native vegetation instead,"



The Lee family runs about 5,500 hectares of broadacre cereal (wheat, barley and vetch) and sheep farm at Birchip, in the southern Mallee between Horsham and Swan Hill.

As a board member on the Mallee Catchment Management Authority and a local councillor for Buloke Shire – one of the first councils to give landowners a rate rebate for looking after native vegetation – Eddie Lee has long held an interest in looking after the land.

Eddie shared a block of land with a nephew from Melbourne, who was always going on about greenhouse gases, and the need to do something about the environment. But after a few hours of planting trees on their block, Eddie realised it was too hard.

"It's all very well and wonderful to have a green and fuzzy feeling, but the people that manage the land still have to make a living," he said.

This led the Lees to BushTender, where they are paid an annual fee as part of a five year contract, to protect and manage 40 hectares of remnant Buloke Grassy Woodland, which is a nationally endangered vegetation community.

Severe storms had degraded some of the older Bulokes on the Lee property, and the drought hasn't helped either.

"Farmers out here are battling to survive. BushTender is not about locking up farms from stock, but growing native vegetation instead," said Eddie.

"Through the agreement grazing is being excluded by fencing, pest plants (such as Boxthorn) and animals (mainly rabbits) are being controlled, and we're going to do some understorey replanting," Eddie says.

His BushTender proposal was based on how much he could have made if he had run sheep on those 40 hectares for the next five years.



And when those five years are up?
 "After that I hope it will be in a much better state and the scheme will continue," Eddie says.

A big fan of BushTender, Eddie says the reaction from neighbours has been "in the main very positive" and he believes it is the way of the future. "There's social benefit because the community want native vegetation saved. There's economic benefit for the farmers and there's environmental benefit – everyone wins," he said.

"The farming community has had ten very tough years because of the drought, so they need help to preserve native vegetation.

case study St Arnaud

"In four to five years we have seen a total landscape change here... People are under a lot of financial strain, and if they can get a steady cash-flow, they'll do it."



Steve and Karen Ware have the pictures to tell their story of how they are transforming their 3600 hectare grazing farm at Navarre, near St Arnaud in the Wimmera.

"Imagine a building site, with bricks and not a blade of grass – just a mess – and turning it into a beautiful garden... In four to five years we have seen a total landscape change here," Steve explains.

Karen says a lot of hard labour has gone into rehabilitating eroded gullies and river beds into healthy places with native trees and grasslands.

Tens of thousands of native trees have been planted and waterways fenced out. The length of fencing around the Wares property now stretches to Bacchus Marsh and back – with 260 kilometres of fencing. This is helping protect remnant bushland and rehabilitate waterways as well as improving management to maintain a profitable grazing enterprise.

Rabbits, which at their worst in the 1940s could be caught by the hundred "in a half hour with a stick", are now largely under control thanks to the sustained efforts of the Wares in ripping and destroying rabbit warrens over the past 20 years. This is no mean feat given the hardness of the Wimmera soil after a decade-long drought.

It is also a story of personal triumph for Steve, who 10 years ago suffered a major head injury when he was thrown into the air by a tipping auger.

Rehabilitating his own health and the farm's has been a massive effort for Steve and Karen, who have two boys aged 12 and 13.

"We've had plenty of struggles," says Steve. But through it all the Wares have been steadfast in their commitment to Landcare. Living in the Box Ironbark region, where the soil is fragile, there is a lot of erosion and a strong need for rehabilitating the land.



Steve can remember when the then Environment Minister Joan Kirner launched “the first Landcare group in the world” at Winjalook 21 years ago. With three rivers running through his property, he is a member of three Landcare groups.

“Most people don’t realise that we’ve just always been doing this,” says Karen.

The Wares now have a number of EcoTender contracts with DSE which is helping reduce the cost of caring for their land and providing further encouragement to keep up the good work started all those years ago.

But the beauty of EcoTender, he says, is breaking through to farmers who have no involvement in Landcare.

“It’s really reached into the marketplace which is a real plus.” Why has it worked? “People are under a lot of financial strain, and if they can get a steady cash-flow, they’ll do it.”

The transformation of their own property has helped convince some of their neighbours of the benefits of getting involved in market-based schemes. Steve welcomes the next phase of ecoMarkets to fine-tune the mechanisms and incentive schemes to reap the best environmental outcomes on a catchment basis.

“For those handing out the money, the real issue is how do you get the most bang for your buck? It’s a real artform.”

One issue he says needs more work is how to extend the benefits beyond individual farms to the district. “Some actions are inefficient and wasteful in comparison to the money you spend for what you get,” he said.

This is precisely what the \$14 million ecoMarkets initiative is seeking to address by better informing landholder actions at the paddock-scale to deliver broader catchment benefits beyond their property.



Garry Cheers / DSE field officer

Garry Cheers, a field officer based in Maryborough who describes himself as a “vegetation freak” was involved in the very first BushTender trial in the Goldfields region six years ago. In what is a dream job for a man dedicated to improving Victoria’s land and biodiversity, Garry now spends two days a week assessing sites and advising landholders right across the state on BushBroker – the State Government’s native vegetation credit registration and trading scheme.

“BushBroker is great. It’s giving landholders funding to retain patches of bush and isolated trees in the landscape, which are all doomed unless we do something now. A lot of species rely on these patches of bush.”

Garry has also advised many landholders as part of site assessments for BushTender and EcoTender, in the Avon and Richardson River catchments and the Goldfields region. These schemes are helping to ensure catchment-wide improvements in ecosystem health.

From the very first trials, Garry has watched the use of market based schemes mature in Victoria, and seen the benefits they offer for both lifestyle property owners and mainstream farmers.

“The biggest benefit I can see is where the schemes target farm land. “Farmers need to make a living from their land – they’ve got to weigh up the cost benefits of different land use decisions.

There’s a lot of evidence now of the production benefits of trees on farms, and in addition, if they can get some money to do the fencing and planting, then this may be enough for farmers to change their current practices to something more sustainable.”

Getting involved with ecoMarkets in Victoria

Over the next three years demonstrations will be held to show natural resource managers the practicalities of ecoMarkets. The outcomes of the practical demonstrations will be extensively evaluated, with the lessons applied to the future operation of ecoMarkets.

All Victorian landholders and regional authorities are encouraged to get involved and learn how ecoMarkets work. As their applications expand, the greatest rewards will flow to those who are the quickest to adopt these new techniques.

For more general information about ecoMarkets or various ecoMarket projects operating in Victoria contact the DSE Customer Service Centre on 136 186 or visit the website www.dse.vic.gov.au/ecomarkets





