

Port Phillip Bay



MAINLAND ISLAND CHARACTERISTICS

Jurisdiction	Victoria
NRM Regions	Corangamite Port Phillip and Western Port
LGAs	Brimbark, Greater Geelong, Hobsons Bay, Maribyrnong, Melbourne, Port Phillip, Queenscliffe, Surf Coast, Wyndham
Size	96, 000 hectares
Dominant Type	Other grasslands, herblands, sedgelands and rushlands
Land Tenure	Agriculture, Urban Crown Land
Surrounding Issues	Land use Pest density Weed density

Overall Priority	Conservation Value	Threat Status
Very High	Very High	Very High

Key Biodiversity Values

Key biodiversity and conservation values of PORT PHILLIP BAY

- 43 threatened species
- 1 threatened community
- 35 migratory species
- Very high species richness
- Very high endemism
- Barwon River Estuary, Port Phillip Heads Marine National Park National/Commonwealth Heritage Places
- Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar wetland
- 4 nationally important aquatic ecosystems
- Native vegetation present
- Vertebrate pest species present

CONSERVATION VALUE

Categories	Ranks/Scores
1 Biodiversity values	Very High (16)
2 Uniqueness	Very High (4)
3 Representativeness	Very High (4)
4 Adjacency	High (3)
5 Area to perimeter ratio	Medium (2)

THREAT STATUS

Categories	Ranks/Scores
1 Density of pest species	Very High (8)
2 Pest impact level	Very High (8)
3 Invasion fronts/range boundaries	High (3)
4 Land use risk	Very High (5)
5 Weed density	Very High (4)
6 Area without statutory protection	High (3)



Key Threats and Impacts

Pest Species Present or Potentially Present

<input type="checkbox"/>	Cane toad	<input checked="" type="checkbox"/>	Feral cat	<input checked="" type="checkbox"/>	Feral pig	<input checked="" type="checkbox"/>	Rodents
<input checked="" type="checkbox"/>	Carp, European carp	<input checked="" type="checkbox"/>	Feral deer	<input type="checkbox"/>	Feral water buffalo	<input type="checkbox"/>	Tilapia, Mozambique Tilapia
<input checked="" type="checkbox"/>	European red fox	<input checked="" type="checkbox"/>	Feral donkey	<input checked="" type="checkbox"/>	Indian Myna, Common Myna	<input type="checkbox"/>	Weather loach; Oriental weather loach
<input checked="" type="checkbox"/>	European wild rabbit	<input checked="" type="checkbox"/>	Feral goat	<input checked="" type="checkbox"/>	Mosquito fish, Plague Minnow	<input type="checkbox"/>	Wild dog
<input type="checkbox"/>	Feral camel	<input checked="" type="checkbox"/>	Feral horse	<input checked="" type="checkbox"/>	Red-eared slider turtle	<input type="checkbox"/>	Other

Potential impacts of pest species on matters of National Environmental Significance

Carp, European carp <i>Isoodon obesulus obesulus</i> <i>Nannoperca obscura</i> <i>Litoria raniformis</i> Port Phillip Bay and Bellarine Peninsula Ramsar site	Mosquito fish, Plague Minnow <i>Galaxiella pusilla</i> <i>Nannoperca obscura</i> <i>Litoria raniformis</i>
Feral cat <i>Delma impar</i> <i>Neophema chrysogaster</i> <i>Halobaena caerulea</i> <i>Potorous tridactylus tridactylus</i> <i>Isoodon obesulus obesulus</i> <i>Pseudomys fumeus</i> <i>Macronectes giganteus</i> <i>Pterodroma mollis</i> <i>Macronectes halli</i> <i>Thalassarche chrysostoma</i> Port Phillip Bay and Bellarine Peninsula Ramsar site	Rodent <i>Diuris fragrantissima</i> Port Phillip Bay and Bellarine Peninsula Ramsar site
European red fox <i>Delma impar</i> <i>Potorous tridactylus tridactylus</i> <i>Isoodon obesulus obesulus</i> <i>Pseudomys fumeus</i> <i>Macronectes giganteus</i> <i>Rostratula australis</i> <i>Neophema chrysogaster</i> <i>Sterna albifrons</i> Port Phillip Bay and Bellarine Peninsula Ramsar site	Indian Myna, Common Myna Port Phillip Bay and Bellarine Peninsula Ramsar site
	Feral pig <i>Isoodon obesulus obesulus</i>
	European wild rabbit <i>Macronectes giganteus</i> <i>Prasophyllum frenchii</i> <i>Macronectes halli</i> <i>Pseudomys fumeus</i> <i>Neophema chrysogaster</i> <i>Senecio macrocarpus</i> <i>Pimelea spinescens</i> <i>Synemon plana</i> <i>subsp. spinescens</i> <i>Xanthomyza phrygia</i> Port Phillip Bay and Bellarine Peninsula Ramsar site

Other threatening processes

- Situated on pest invasion front / range boundary
- High risk land use
- High density of Weeds of National Significance
- Lack of statutory protection
- Increased potential for edge effects

Highest priority biodiversity issues

Pest impacts on Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar wetland

Pest management actions listed in recovery plans for *Delma impar*, *Pseudomys fumeus*, *Diuris fragrantissima*, *Halobaena caerulea*, *Pterodroma mollis*, *Thalassarche chrysostoma* and *Xanthomyza phrygia*



CRITICAL SYNOPSIS OF VERTEBRATE PEST MANAGEMENT REGIME

Need for vertebrate pest management	<p>The Spit Nature Conservation Reserve and the Lake Conneware State Game Reserve are considered to be at high risk from pest plants and animals. Such risk could result in the significant loss of the site's environmental values and ecological character (DSE, 2003).</p> <p>Management of vertebrate pests is required in order to protect and conserve the ecological character of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site in order to meet Australia's international obligations as a signatory nation to the Ramsar Convention on Wetlands. Management is further required to ensure Australian Ramsar management principles are met as prescribed under the <i>Environment Biodiversity and Conservation Act 1999</i> (EBPC Act). Furthermore, the Ramsar wetland provides key habitat for a number of migratory bird species recognised as species of national significance under the EPBC Act.</p> <p>At a State level, Victorian authorities have a legal obligation to manage pest species as directed by the <i>Catchment and Land Protection Act 1994</i>.</p>
Planning instruments	<p>The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site Strategic Management Plan details the numerous local and regional strategic policies and plans which aim to protect the Ramsar site.</p> <p>Action Statements under the <i>Flora and Fauna Guarantee Act 1988</i> have been developed for species occurring in the site including: Orange-bellied Parrot; Little Tern; Hooded Plover; Plains Wanderer ; White-bellied Sea-eagle; Brush tailed Phascogale and the Stripped Legless Lizard.</p>
Management actions	<p>Routine rabbit and fox control has been implemented at the Western Treatment Plant (Melbourne Water), the Spit Nature Conservation Reserve and at the Cheetham Wetlands (Parks Victoria). No targeted feral cat control programs are underway, although DPI is currently researching control technologies. Domestic cat threats to wildlife have been highlighted in a leaflet on responsible pet ownership prepared by the former NRE, although no coordinated approach to the problem at particular sites in Port Phillip Bay has been implemented (DSE, 2003).</p>
Monitoring regimes	<p>Birds Australia, Australasian Wader Studies Group and the Victorian Wader Study Group undertake long-term monitoring of waterbirds and waders abundance and distribution within the Ramsar site (Twenty4, 2009).</p> <p>No information available for results of rabbit and fox control undertaken by Parks Australia.</p>
Management responsibility	<p>Victorian Department of Planning and Industry, Parks Victoria, Melbourne Water, Councils, Defence</p>
Cost-benefit analysis	<p>The Victorian Pest Management Framework highlights that pest management must occur within a risk framework. In particular, an assessment of the economic, environmental and social risks posed by pests and the costs and benefits of addressing those risks must be undertaken.</p>
Special features	<p>In 2008, \$35,900 Caring for Country funding provided to the Department Of Sustainability And Environment and Corangamite Catchment Management Authority. The funding is for the management of threats and impacts to the Connawarre Complex Ramsar wetland which forms part of the Port Phillip Bay (western shoreline) and Bellarine Peninsula Ramsar site. A further \$5,450 was provided to the Friends of Mud Islands Inc. Funding is to implement a project to manage the ecological values of Mud Island which forms part of the Port Phillip Bay (western shoreline) and Bellarine Peninsula Ramsar site.</p>
Summary / comments	<p>In an integrated approach to planning at Ramsar sites, management strategies have been prepared for all Ramsar sites in Victoria, including the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula site, to provide general strategic direction and site specific strategies (DSE, 2003).</p>

References:

Department of Sustainability and the Environment (2003) Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site Strategic Management Plan. The State of Victoria, Department of Sustainability and Environment. Victoria, Australia.

[http://www.dse.vic.gov.au/CA256F310024B628/0/347E168B8C070962CA257292001BD1AE/\\$File/Port+Phillip+Bay+and+Bellarine+Peninsula+Ramsar+Site+Strategic+Management+Plan.pdf](http://www.dse.vic.gov.au/CA256F310024B628/0/347E168B8C070962CA257292001BD1AE/$File/Port+Phillip+Bay+and+Bellarine+Peninsula+Ramsar+Site+Strategic+Management+Plan.pdf)

DSE (2008) *Good Neighbour Program Achievement Report 2007-2008*, Department of Sustainability and Environment, Victoria.

State of Victoria (2002) Victorian Pest Management – A Framework for Action, Department of Natural Resources and Environment, Victoria. Available on-line at:

[http://www.dse.vic.gov.au/CA256F310024B628/0/A40478A9AD5E783FCA257457001599F1/\\$File/VPMFMain.pdf](http://www.dse.vic.gov.au/CA256F310024B628/0/A40478A9AD5E783FCA257457001599F1/$File/VPMFMain.pdf)

Twenty4 (2009) Birds Australia, Carlton, Victoria, Viewed 19 May 2009. <http://www.birdsaustralia.com.au/our-projects/port-phillip-bay-shorebird-monitoring.html>

