Flora & Fauna Guarantee Action Statement

San Remo Marine Community

Description and Distribution
The San Remo Marine Community is an intertidal and subtidal marine community. It consists of an extremely species-rich assemblage of marine biota, characterised by an unusually large number of species of opisthobranch molluscs and bryozoans, many of which are considered to be rare; however, algae and fish are also components of this community. A list of taxa collected from the site can be found in Vol. 2 of Kinhill Engineers (1988). The San Remo Marine Community is known from only one site in Victoria, an area of about 600 x 300 m off the coast near the township of San Remo. At this site, the community extends from the coastline out to the edge of a deep channel with a fast flowing current which runs between Phillip Island and the mainland. The richest part of the community lies along the edge of the channel. The site has a northerly aspect, which is uncommon along the Victorian coastline, and a diverse substrata of patches of sand, mud, boulders, soft weathered basalt, algae and seagrass. A description the area occupied by the marine community can be found in Kinhill Engineers (1988) and Marine Research Group of Victoria (1989). The diverse substrata are probably an important determinant of the community, providing habitats suitable for a wide range of species. It is therefore likely that further examples of this community will only be found in areas with similar substrata.
Threats to the community. Threats may include:

- significantly prone to future threats which are likely to result in extinction;
- very rare in terms of the total area it covers, has a restricted distribution, and has been recorded from only a few localities.

As the San Remo Marine Community is currently known from only one location in Victoria, a threat to the community at this site may threaten the survival and evolutionary development of the community in Victoria.

Major Conservation Objective

To ensure that the community maintains its integrity and continues to exist at San Remo, that the spatial extent of the community in the vicinity of San Remo is identified within five years, and that the distribution of the community within Victoria is identified within ten years.

Management Issues

While the San Remo Marine Community is known from only one site at present, it may occur elsewhere. Management issues and actions noted here relate to the community wherever it occurs, unless it is stated that they are site specific.

Ecological Issues Specific to the Community

Bass Shire Council proposes to develop a marina within Bass Shire. Permission to develop a marina on the site originally selected, which was on the only known site of the San Remo Marine Community, was refused under the Planning and Environment Act 1987. The only other site that has been identified as being physically suitable is near the township of San Remo and overlaps the site of the San Remo Marine Community.

Locating any construction in the marine environment in the vicinity of the San Remo Marine Community may pose a threat to the community. Threats may include:

- Loss of all or part of the community by dredging or other works on the site of the community.
- Invasion by other species after physical disturbance from construction works. This could mean the loss of the community due to a change in species composition.
- Damage during construction from sediment deposition, and possibly in the future if dredging was necessary for maintenance.
- Changes to current patterns arising from placing an object in the water. This may cause changes to sediment deposition and erosion patterns, which may deleteriously affect the San Remo Marine Community. Changes to current patterns may pose a threat to the community even if the construction is placed some distance from the community.
- Changes to the water quality within and associated with the development from, for example, slip yards, runoff from carparks, and anti-fouling paints.

Knowledge of the hydrology at the site where the community is known is not adequate to accurately predict how far away a marina or any other construction would need to be so as not to have a deleterious effect.

Works or activities on shore within the vicinity of the San Remo Marine Community at any site where it occurs could deleteriously affect the community if materials such as sediment or toxicants were washed into the ocean and reached the site(s) of the community.

As there is very little information available on the ecological requirements and tolerances of marine biota, particularly invertebrates, it is not possible to predict accurately the effect of changes to the environment on the composition of the community. Therefore protective measures must be conservative to ensure that the biota are protected.

The full spatial extent of the San Remo Marine Community at the site near San Remo, nor the distribution of the community within Victoria, is not known.

Wider Conservation Implications

The San Remo Marine Community is important for the conservation of a number of opisthobranch taxa, two of which have been listed as threatened taxa on Schedule 2 of the Flora and Fauna Guarantee Act 1988 (Platydoris galbana and the genus Rhodopect). Other taxa currently known only from the community are likely to be listed when formally described.

Protection of the San Remo Marine Community near San Remo will assist in ensuring the survival of these taxa.

Protection of the community is consistent with statements made in the State Conservation Strategy for Victoria (Govt of Victoria 1987), Victoria’s Coastal Policy ((Govt of Victoria 1988) and Victoria’s Wetlands Strategy (CFL, Water Victoria & MPE 1988) regarding protection of wetlands and coastal areas.

Social and Economic Issues

The major issue concerns possible constraints on works and activities in the vicinity of the San Remo Marine Community. The social costs and benefits of the proposed marina will depend on the marina’s location. Permission to build on one site was previously refused under the Planning and Environment Act 1987. Another site has been identified and will be assessed for environmental effects.

Social and economic factors to be taken into account include the benefits to potential users of the marina, including the local professional fishing fleet, the benefits from increased tourism at San Remo (such as for local retailers, real estate agents) and increased land values. The negative effects of the marina include construction costs, disadvantages to local residents associated with traffic, noise, etc., and loss of areas for pursuits such as bird watching and studying the marine environment. Other works or activities proposed in the future may be affected by measures required to protect the San Remo Marine Community if their construction or operation poses a threat to
the survival or evolutionary development of the community in Victoria. The zone within which works or activities may affect the community is difficult to define because of our inadequate knowledge of the marine environment, including marine current patterns. The socio-economic effect on future works or activities required to protect the community cannot be judged in advance.

Management Actions

Previous Management Actions

- Approval to develop a marina on the only known site of the San Remo Marine Community, near San Remo, was not given under the Planning and Environment Act 1987.
- No on-site management actions to protect the San Remo Marine Community at San Remo have been implemented. However, attempts have been made to identify alternative sites within Bass Shire where marina development would not threaten the community.
- A survey has been designed to characterise the San Remo Marine Community and determine whether the community exists at other sites proposed as being suitable for development of a marina.
- The Marine Research Group of Victoria and Kinhill Engineers have sampled the fauna of the community in 1987 (Kinhill Engineers 1988, and Marine Research Group of Victoria 1989).
- Opisthobranchs have been collected from the San Remo Marine Community on a number of occasions since the early 1980s by Mr Robert Burn (an authority on Opisthobranchia).

Intended Management Actions

- Monitor proposals for all works and activities in the vicinity of the San Remo Marine Community and identify activities which pose a threat to the survival or evolutionary development of the community in Victoria. These works and activities are not restricted to proposals in the marine environment. Possible threats include effluent discharges or runoff from construction sites, roads, etc. which may enter the site where the community occurs (the EPA (1991) guidelines for the control of sediment pollution from construction should be followed); construction work in the marine environment which may alter currents and sediment deposition and erosion patterns at the site of the community; and damage to the area where the community occurs, for example from boats running aground or from dredging.
- Prevent works or activities which would pose a threat to the survival and evolutionary development of the San Remo Marine Community. Works or activities may be able to be modified so as not to pose a threat.
- Survey sites identified by Bass Shire Council as suitable locations for a marina to determine whether the sites support examples of the San Remo Marine Community and whether construction of a marina on those sites would threaten the community.
- If the proposed marina sites support further examples of the San Remo Marine Community, then DCE will determine whether construction of a marina will threaten the survival and evolutionary development of the San Remo Marine Community in Victoria.
- If construction of a marina on an alternative site poses a threat to the San Remo Marine Community, approval for development will not be given by DCE.
- Characterise the San Remo Marine Community so that it can be compared to other marine communities in Victoria and its distribution determined. Characterisation of the community will be done as part of the surveys for alternative marina sites.
- Identify the options available to DCE to facilitate monitoring of the San Remo Marine Community and surveys to identify the distribution of the community in Victoria. Initially, hold discussions with the Marine Research Group of Victoria regarding the option of them monitoring the community to determine whether it is surviving at the site, or if further protective measures will be required. This will require surveying the community at intervals of 3 to 5 years.
- Determine the distribution of the San Remo Marine Community, both its extent at its only known location and its distribution along the rest of the Victorian coastline.
- Encourage marine research by groups outside DCE (e.g. students, VIMS Marine Studies Centre). Direct research into areas where DCE requires information to assist in making management decisions, such as the marine environment in the vicinity of the San Remo Marine Community.
- Produce interpretative information for the public about the San Remo Marine Community, including information sheets and a sign or display to be erected near the site of the community for the purposes of public education and to encourage the development of a positive community attitude about protection of the San Remo Marine Community.

Other Desirable Management Actions

- Map patterns of current flow in the vicinity of the San Remo Marine Community. This information can be used to predict the effect of construction on current flows in the vicinity of the community.
- Determine the area of Critical Habitat of the community.
- Encourage the formal description of the eight opisthobranch taxa known only from the one known site of the San Remo Marine Community, and ensure that they are subsequently nominated to the Scientific Advisory Committee.
Legislative Powers Operating Legislation

Flora and Fauna Guarantee Act 1988: The community has been listed on Schedule 2 of the Act. The protected flora controls, which operate under this Act, prohibit the taking of flora (including marine flora) which forms part of this community. Critical Habitat can be determined, and as a last resort the Minister may issue an Interim Conservation Order, which gives the Minister control over any activities which would effect the Critical Habitat of the community. Fisheries Act 1968: Includes controls over taking fish (which include crustacea and molluscs and any other animal deemed to be fish under that Act) from the marine environment. The Act provides for controls on fish sizes, bag limits, fishing seasons, gear, and areas where fishing is or is not permitted.

Marine Act 1988: Controls boating and some types of marine pollutants.
Planning and Environment Act 1987: For planning permission. Permission to develop a marina on the only known site of the San Remo Marine Community was refused under this Act.

Lands Act 1958 and Crown Lands (Reserves) Act 1978: For approval to undertake works on or occupy crown land. The Crown Land (Reserves) Act 1978 applies to land in the foreshore reserve, and the Lands Act 1958 to all other crown land, including that below the high water mark.

Port of Melbourne Authority Act 1958: Provides controls over dredging for access to Ports, or accumulations of mud and silt; and controls on construction works in Ports.

Wildlife Act 1975: For permits to take listed invertebrates, which includes those from the San Remo Marine Community. At present, listed invertebrates found in the San Remo Marine Community are Rhodope spp. and Platydorus galbana.

Licence/Permit Conditions: Guidelines and Instructions

A permit is required under the Wildlife Act 1975 to take any invertebrate listed on Schedule 2 of the Flora and Fauna Guarantee Act 1988. The Opisthobranchs Platydorus galbana and Rhodope spp. have been listed, and occur in the San Remo Marine Community. Permits will be required if these taxa are likely to be collected.

A licence or permit under the Flora and Fauna Guarantee Act 1988 or authorisation by Order of the Governor in Council is required for taking and trading in protected flora. All flora in the San Remo Marine Community are protected within the bounds of the listed community.

A licence under the Flora and Fauna Guarantee Act 1988 or authorisation by Order of the Governor in Council is required to take, trade in or keep any listed fish, or any fish when a member of a listed community, that is, when it occurs within the bounds of that community.

A research permit is required under the Fisheries Act 1968 in some circumstances, such as if research work involves the use of commercial fishing equipment, taking fish out of season, taking sizes other than in the specified size range, or taking from areas where fish are protected (such as recognised shellfish habitat). This may be relevant if surveys are performed within areas protected under Fisheries Act 1968, or if fish are collected outside the specified size range or season.

Approval is required from the relevant DCE region for collection of seagrass or seaweed. DCE is in the process of developing a policy regarding the collection of marine plants in Victoria. This should be referred to in the event of a need to collect flora.

Permits, licences, or authorisation by Order of the Governor in Council for research or survey work on the San Remo Marine Community will only be issued if this will increase understanding of the marine community.

Consultation and Community Participation

- Bass Shire Council have been involved in communications with DCE regarding approvals for construction of a marina near San Remo township.
- The Marine Research Group of Victoria have been contacted to discuss the ecology and management requirements for the community.
- Robert Burn has been contacted regarding the opisthobranch fauna in the marine community.

Implementation, Evaluation and Review

Dandenong Region will:
- monitor any works proposals in the vicinity of the only currently known location of the San Remo Marine Community and ensure that no actions are approved which threaten the community;
- liaise with the consultants surveying the San Remo Marine Community at the site near San Remo, alternative marina sites, and surveys for the community within Dandenong Region; co-ordinate surveys; and obtain expert advice on marine issues where required from the appropriate Division within DCE or from outside DCE;
- hold discussions with the Marine Research Group of Victoria regarding the possibility of them performing long-term monitoring studies of the San Remo Marine Community;
- produce interpretative material for the public, subject to provision of additional funding; and
- encourage research into the marine environment.

DCE Fisheries Management Division (Marine Research Management Branch) will provide expert advice on marine issues when required by Dandenong Region, and will liaise with consultants performing surveys for the San Remo Marine Community, in conjunction with the relevant DCE Regional Offices.

Surveys of the San Remo Marine Community, of Bass Shire Council’s alternative marina site(s), and to determine whether there are any further examples of the San Remo Marine Community in Victoria, will be contracted outside DCE subject to provision of additional funding.
Progress on the action statement and the effectiveness of actions will be evaluated every year by Dandenong Region with appropriate advice provided as required from marine experts within DCE. The action statement will be reviewed in 5 years.

Contacts

Management
DCE Dandenong Region
DCE Fisheries Management Division, Marine Resource Management Branch

Biology
Marine Research Group of Victoria
DCE Fisheries Management Division, Marine Resource Management Branch
Marine Science and Ecology (environmental consultants)
Museum of Victoria
References

- Shire of Bass (1988) *Bass Planning Scheme Amendment L5, San Remo Quays Environment Effects Statement*: List of submissions; Supplementary list of submissions; Shire of Bass submission to independent panel/enquiry; and Panel report.