

Paper 4(b): VICTORIAN REPORT - POSITION PAPER,

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- 1) I am not currently the SSC for the Victorian State Plan, but was until moving from the Dept. of Conservation Forests and Lands to the Environment Protection Authority (EPA).
 - 2) I am currently Deputy Delegate for the EPA on the State Plan Co-ordinating Committee. The primary delegate is Mr. Dennis **Monahan**. My attendance at this Workshop is due to the combination of this deputy role on the main committee and some years of previous activity as SSC or member of the Technical Advisory Committee.
 - 3) The Co-ordinating Committee for the State Plan (sometimes called **the** 'main committee') is responsible for (a) developing appropriate response procedures for the event of oil pollution incidents. That is, advance 'contingency planning', bearing in mind the probabilities of accidents in various locations; and (b) providing an advisory role during actual incidents.
 - 4) The Scientific Support Co-ordinator is a person nominated by the **Co-ordinating** Committee. The brief for this role was to ascertain responsible views on wildlife, fisheries and environmental implications of oil spills and potential cleanup activities. This included both contingency planning and advice during any real incident. It is emphasised that the SSC is not expected to know everything, but should be able to contact the full range of responsible advice.
 - 5) In my original role of member of a Technical Advisory Committee the role was more multi-disciplinary and interactive. I **provided** a chemical understanding of both oil and dispersants and shared input concerning environmental and ecological matters. Other members contributed on meteorology, movement of slicks under influence of wind and tide (before the development of **OSSM**), and the technology of pumping out tankers etc. This Committee thus provided much more comprehensive advice than a single SSC. The Technical Advisory Committee is now very much scaled down.
 - 6) Given that the responsibilities for wildlife and environmental matters are split between the Dept. of Conservation, Forests & Lands and the EPA, my present role includes providing EPA liaison with the SSC (who is currently a DCFL nominee).
 - 7) I can comment on response planning (**pre-incident** phase), while Don Palmer can provide comments on actual response ('real time' activities) in Victoria. The major input to response planning by the 'SSC type' role in early days was a series of desk studies and reports produced

within the Ministry for Conservation in 1979. (These were co-ordinated by myself and Dr. D. Kay who subsequently **moved** to the Dept. of Transport). These reports surveyed many aspects including:

Available technology for oil spill clean-up,

Vulnerability of various forms of wildlife and fisheries,

Distribution of various vulnerable resources,

Tourism, etc.

One innovative aspect was the production of a 'decision tree' aimed at guiding the decision making process according to circumstances, when dealing with either offshore or beached oil. A second significant result was the production of an 'Atlas of Coastal Resources' for use in oil spill situations and to assist in more detailed contingency planning. This was produced by overprinting an existing 'Physiographic Atlas' of the Victorian Coast.

- 8) This contingency planning was taken one stage further in my time as SSC proper. The Co-ordinating Committee requested advice on where to use dispersants in the event of oil pollution, preferably in the form of a map. This involved (a) reference to previous reports emphasising that use of dispersants (or other response) depends on many circumstances of which geographical location is one; (b) consultation with the EPA, all Regions of the Dept. Conservation Forests and Lands, Scientists of the Marine Science Laboratories Queenscliff concerning shellfish farming and ecological issues, ornithologists and other interest groups; and (c) production of the map including drafts for comment.

In producing the map the approach was to build upon the existing Atlas of Coastal Resources,

but to produce a two-colour A4 version, cheap enough to be treated as disposable. The whole of the Victorian coast was covered.

- 9) The costs and resources devoted to this map production were approximately as follows:

Printing and binding 200 copies of 32 pages: **approx.\$ 600**

Salary of SSC in producing Atlas **approx.\$5000**

This of course does not include costs of producing the base map **already** in existence or any contribution to equipment (computer, laser printer) used. The costs of producing the original large format, multi-coloured Atlas and the other components of **the** 1979 reports are unknown but would be many tens of thousands of dollars. The costs above (\$5600) must be a bare minimum,

given a very good starting point, and a very modest commitment of effort. It could be argued that the subject deserves a much greater effort than could be provided. Unfortunately the extreme cut-backs in scientific staffing in the public service make it very difficult to devote time to 'extra-departmental activities such as this, however important.

- 10) Future directions. There should be concern at the erosion of environmental science within Government. Scientists in this field not only do research but provide vital expertise across a wide range of specialties relevant to emergencies such as oil spills.

In more specific terms in Victoria, the 1979 'guidelines' reports deserve re-printing, ideally with updating. The 1988 'advice' concerning dispersant usage might form the basis of a more intensive use of local knowledge.

I suspect that contact between **SSCs** and on-scene controllers is non-existent except in **an actual** incident and that a 'communication gap' is almost inevitable in these circumstances. This needs to be solved within each State or the people responsible for clean up operations are likely to turn to inappropriate sources for advice.

INTRODUCTION

This document has been prepared by the **Scientific** support Coordinator for the State Plan. It is **produced** as a low-cost document that can be used *in the field*. The **base** maps are monochrome photo-reductions of the "Atlas of Biological and Recreational Resources of the Victorian **Coast**" which was compiled to accompany the "Guidelines for the Control of Oil Spills", by the Ministry for Conservation. This form of base map was chosen so that the document is immediately compatible with the original Atlas.

In compiling this document, many people **were** consulted and their advice and contributions **are** gratefully acknowledged. They include all Regional **Managers** of the Dept. of Conservation Forests and Lands, the Planning and Research Officers involved in aquaculture **within** the Marine Resources Management Branch of that **Dept.**, The Arthur Rylah Institute for Environmental **Research**, the Marine Research Group of Victoria, and the **Victorian** Wader Study Group.

NOTES ON THE USE OF THESE MAPS

It is impossible to recommend use or non-use of dispersants on a geographical basis independent of various other factors, for example, size of spill, direction of drift (**wind**), direction of tidal flow, presence or absence of **seasonal** bird life, etc. Nothing in the following notes or maps can substitute for good decision making in the light of **all** available information. In particular, the guidelines **given** in the following Ministry for Conservation reports are **re-emphasised**.

"Guidelines for the Control of Oil Spills" (Project Report, Project **T04**), Publication No. 211 in the Ministry for **Conservation** Victoria, Environmental Studies Series.

"Guidelines for the Control of Oil Spills: Oil Spill Control and Clean-up Technology"; Publication No. 202 in the Ministry for Conservation Victoria, Environmental Studies **Series**.

However, some further advice is provided on a regional basis on the attached maps. These are photo-reduced from the "Atlas of Biological and Recreational Resources of the Victorian Coast", which was produced as part of the **above-mentioned** project. The inset notes on each map refer to the whole map-sheet. Discrimination between areas on a map is by **description** plus symbols on the map.

Note particularly that the areas circled as significant for **bii**, particularly penguins, do not represent the limit of the sensitive **area**, as the penguins (for example) forage over a considerable distance. Thus use of dispersants is justified to **protect** larger areas than those marked, where diving birds are significant and other factors allow.

As a general rule, we do not recommend use of dispersants in the small inlets and estuaries. We also **re-emphasise** that on/ rocky shores carrying significant shellfish, the biota is likely to suffer worse damage if dispersants are used to try to remove oil which has reached the shore. Obviously, wherever there is a risk of oil reaching a sensitive area, the **further** out to sea it is dispersed the better.

NOTES ON "WADERS"

The maps indicate a number of areas where wading birds are to be found. However by far the most important areas of Victoria for wading birds are the following bays and inlets:

Corner Inlet and Nooramunga Marine and Coastal Park: The whole area from the end of 90 Mile Beach (McLoughlins Beach) to Foster and Millers Landing (Up to 50,000 waders including many important species).

Port Phillip Bay: Mud Island, Swan Bay, Werribee Sewage Farm foreshore, Altona and Pt. Cook (30 to 40,000 waders).

Western Port: Mainly the eastern side and perimeters of French Island (10,000 waders)

Andersons Inlet: (5000 waders).

Shallow Inlet: (2000 waders)

In contrast to diving birds, waders are not particularly sensitive to oil pollution. This is because they do not swim and tend to avoid feeding on polluted beaches, (unlike diving birds which may sometimes be attracted to oil slicks). In general therefore the best treatment for oil in a wader habitat is to treat it very carefully on the beach under supervision by ornithologists. Cleanup (if any) would be either by careful hand cleaning or possibly by "cloaking" the oil with a powder.

SEASONAL PATTERNS FOR THE PRESENCE-OF SEA-BIRDS

The following table summarises the information the author has obtained- on the seasonal presence of the sea-birds mentioned in the maps. It is not definitive information and local and expert knowledge should be sought.

S p e c i e s	Dates Present
Fairy penguin (Little penguin)	All year
Mutton birds (Short-tailed shearwater)	Sept 22nd to endbf April
Little terns	Summer
Crested terns	Spring and summer
Fairy terns	All year
Waders (in general)	August to May (i.e. most of the year except winter)

LEGEND

ZONE I: ROCKY SHORES

Cliffs of variable height, granitic, minimal development of rock platforms or beaches, sometimes with boulder accumulations at base (Wilson's Promontory type)



Low cliff or rock shore in tidal inlet, infrequent small beaches or reefs (Mallacoota type)



Low cliff or rock platform sometimes with sand dune capping



Cliffs less than fifty feet high with rock platform



Cliffs higher than or equal to fifty feet with rock platform



ZONE II: SANDY BEACHES

Permanent sand beaches, occasional admixtures of shingle or mud



Sand beaches with varying seasonal bedrock exposure



Cliffs less than fifty feet high with beach



Cliffs higher than or equal to fifty feet with beach



ZONE III: SHINGLE BEACHES

Cobble or shingle beaches with varying sand content



ZONE IV: TIDAL FLATS

Intertidal sand and mud (undifferentiated)



Low bluffs to four feet high, of eroding salt-marsh deposits, frequent vestigial saltmarsh and/or mangrove patches, often with small sand/mud beaches. Probably more extensive than shown on maps. (Western Port Bay type)



ZONE V: MANGROVESAND SALTMARSHES

Mangroves



Saltmarsh



AREAS OF SPECIAL SCIENTIFIC INTEREST

Botanical B

Zoological Z

Denotes site highly susceptible to oil

NATIONAL PARKS AND RESERVES

National Parks and Other Parks managed by the National Parks Service



Areas managed by the Fisheries and Wildlife Division



Foreshore Reserve



FISHERIES

Reef - Abalone habitat



Lobster, Scallops, Mussels; showing approximate boundaries



1972-73 fishing catch greater than 1,000,000 lbs live weight



Fishing



RECREATION

Swimming



Surfing



Wreck



Underwater Sports



Sailing



Boat Club or Mooring



DUNES

Usually backing sand or sand/bedrock beaches, but sometimes 'perched' on cliffs. Strictly not foreshore features, but have been classified as their degree of stability and vegetation cover may influence access and movement of equipment.

Stable, well vegetated dunes, often with Leptospermum scrub



Partly unstable, irregular semi-vegetated dunes, intermittent grass or low shrub cover



Unstable, mobile or potentially mobile dunes, with large unvegetated areas



Sharply cliffed foredunes up to forty feet high backing sand beach. Mobile unvegetated face, varying degree of vegetation on crest. Intensity of cliffing is seasonal, and may not be mapped



MISCELLANEOUS

Cliff line not on shore



Levee Bank or Sea Wall



Brackish or fresh water swamp



ACCESS

All weather sealed or dirt road



Access tracks



Two wheel drive (car)



Two wheel drive (heavy truck)



Four wheel drive/wheeled tractor



Crawler tractor

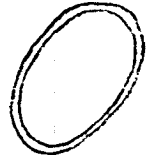


Position Doubtful



ADDITIONAL INFORMATION AND ADVICE (1988) RELATING TO THE USE OF OIL DISPERSANTS.

Area sensitive to oil:
Use dispersant to prevent oil reaching these areas



Area sensitive to dispersant:
Avoid dispersant use in these areas



Mussel farm



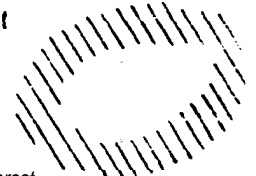
Oyster farm

E I

Mussel and oyster farm



Boundary of bay or inlet in which dispersant should not be used



Area of zoological interest (as specified)

a^z

Significant bird feeding area

