

## **Paper 11: GBRMPA'S RESPONSIBILITIES AS SCIENTIFIC SUPPORT CO-ORDINATOR IN THE GREAT BARRIER REEF REGION.**

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The Great Barrier Reef Marine Park Authority (GBRMPA) established under the Federal Great Barrier Reef Marine Park Act in 1975, has the responsibility for care and development of a Marine Park in the Great Barrier Reef Region with the objective of conservation of the Great Barrier Reef and reasonable use.

The Great Barrier Reef Region covers some 350,000 **km<sup>2</sup>**, stretches over **2000km** and contains 2900 reefs.

As part of its responsibilities, GBRMPA requested the Department of Transport and Communications to develop an oil spill contingency plan for the Great Barrier Reef Marine Park. **The** resulting plan **REEFPLAN** (DoT, GBRMPA, 1987), provides such a contingency plan for the Great Barrier Reef Region and Adjacent area.

Under REEFPLAN, GBRMPA has to provide the Scientific Support Co-ordinator (SSC), Administrative Support Co-ordinator (ASC), and is partially responsible for the Media Liaison Officer (MLO).

### **REEFPLAN organisation**

The organisation of **REEFPLAN** is as attachment 1.

**REEFPLAN** is to be integrated with the Queensland State plan: in the event of a spill the Queensland State Committee (of which GBRMPA is a member) and the Great Barrier Reef Marine Park Authority provide advice to the On Scene Co-ordinator.

### **GBRMPA as SSC**

**GBRMPA's** Scientific Support Co-ordinator has the following responsibilities:

- i. development of a database of relevant scientific information
- ii. advice to the **On** Scene Co-ordinator

- iii. development and implementation of a monitoring strategy and response in the event of an oil spill

- i. Development of a database of relevant scientific information

In developing a database of relevant scientific information, GBRMPA has taken the following initiatives:

- . conducted a workshop on response to hazardous chemical spills in the Great Barrier Reef Region (Craig, 1985)
- . developed a list of scientific contacts in different subject areas with office and after hours contacts
- . produced a brochure to assist the public to distinguish between oil, Trichodesmium blooms and coral spawn slicks to help in **reporting** pollution incidents
- . produced a user-friendly pilot computerised strategic atlas for an oil spill management program for use by **SSCs** and **OSCs**. It is envisaged that this will be expanded to a full atlas shortly. A description is included as Paper 24 in this proceedings.

- . supported a number of research projects relevant to oil spills, in particular, projects providing information on water movements in the GBRR

- . is compiling dedicated SSC kits for use in oil spills including:

- video camera
- still camera
- oil sampling instructions
- clean-up information

- local area resource information
- GBRMPA Zoning Plans
- list of scientific experts.

- provided input to permit conditions relating to possible spills eg. for fuel barges and on-reef developments
- established an after hours response facility for **GBRMPA's** nominated **SSCs**.

- ii. Advice to the On-Scene Co-ordinator

To date, this has not been required as there **have been** no spills of the magnitude etc. requiring development of a combat response. The **management** strategy contained in the **computerised** resource

atlas should be valuable in this respect, in conjunction with relevant local advice.

### **iii. Development and implementation of a monitoring strategy and response in the event of an oil spill**

A monitoring program to be implemented in the event of an oil spill has yet to be developed. It is envisaged that tenders will be called to develop such a program including:

- specification of protocols and equipment necessary
- biological and socioeconomic assessments required
- follow-up and longer term monitoring
- possible experimental actions to be tested for management purposes eg. experimental use of dispersants

The recent development of monitoring programs for GBR tourism developments and specific environmental issues provides a good basis for development of such a program.

A monitoring program should focus on quick and useful monitoring measures eg. numbers of coral lesions rather than growth rates of corals, as outlined by Jackson *et al.* (1988).

In the event of a spill a debriefing session on the monitoring program will be essential to modify the program for future oil spills.

### **Costs and Resources (estimate)**

Personnel:	approx. 0.5 persons p.a.
Research	approx. \$10,000 - \$20,000 p.a.
Equipment:	approx. \$ 2,000 (1988)
Maintenance:	nil.

### **Experience to date**

GBRMPA experience in oil spills has been confined to small spills only, in which no combat response has been required with the exception of a Taiwanese clam boat, the Hui Ju Hup. However, two small spills (approx. 30 litres) have had high media profile because they occurred at the Four Seasons Floating Hotel at John Brewer Reef. The biological effect was believed negligible, but a follow-up visit recommended changed procedures for fuel transfer operations.

### **Future Directions**

- develop computerised resources atlas
- print and distribute pamphlet

**SECTION C: INFORMATION AND DISCUSSION  
PAPERS**

- establish oil spill trajectory model for the reef
- develop monitoring program
- participate in an oil spill exercise
- develop directions/operating plan for **SSCs**

## References

DoT, GBRMPA. 1987. **REEFPLAN** Oil Spill contingency plan for the Great Barrier Reef. DoT  
Canberra 1987. 75pp

Craik, G.J.S. 1985 (Ed) Workshop on response to hazardous chemical spills in the Great Barrier Reef.  
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Jackson J.B.C., H.M. **Guzman** and E. Weil 1988. Effects of a major oil spill on **subtidal** reef corals  
along the Caribbean coast of Panama. Abstracts 6th. **Int.** Coral Reef Symposium, Townsville  
1988 p.51

## Attachment 1: REEFPLAN Liaison and Responses

