

Paper 22: MONITORING DISCUSSION REPORT

Background

Following the field inspection of islands, reefs, open waters, estuaries and low energy coastal environments in the Mackay - Whitsunday area, participants discussed possible approaches to hazard identification in planning an oil spill response in these types of areas. Following the analysis of threats to these areas, participants commenced a discussion of the role of monitoring in spill response. This paper summarises principal items of discussion.

Threats

The assessment of risks to various environments which oil spills pose depends to a significant extent on factors such as:

- * time, nature and extent of spill,
- * location of spill and influence of prevailing environmental factors, and
- * types of control/containment options available/used.

Areas of priority concern identified from the field excursion were as follows (lists are not internally prioritized):

Islands/Coral Reefs

Intertidal zone
Reef flats
Corals and sessile invertebrates
Birdlife and turtles
(esp. in breeding season)
Cay vegetation
Persistence of oil
Coral spawning

Open Waters

Mammals
Fish/cetaceans
Prawns (esp. larval stage)
Phyto/zooplankton

Biodegradation rates
Socio-economic impacts
(e.g. fisheries)

Coasts/Estuaries

Seagrass/mangroves
Intertidal wetlands
Seabird rookeries/breeding areas
Fisheries habitat

Tourists and recreational users
Intakes (e.g. desalination plants)
Mariculture

In addition to the above, local features of importance need to be identified (e.g. tidal bathing pools). Participants were in agreement that most sensitivity maps should also interpret the importance of particular features and provide guidance on the types of control options available, special considerations (e.g. seasonal effects) and access/jurisdiction matters. If possible, it would further be desirable to compile a register of local expertise relevant to spill response (e.g. list of avifauna experts who may assist with information on rookery use, bird cleaning, etc.).

Monitoring

Time precluded a full discussion of the options for monitoring of these types of environments. Participants identified that a range of acceptable monitoring techniques are available for these areas and that any monitoring should take into account studies undertaken, or in progress, at identified sites. Emphasis should also be given to the protection of “reference sites”, which may be sites for existing research, or **which** may form part of any monitoring studies associated with a spill incident (comparison sites). Throughout the discussion it was emphasized that monitoring has a special role to play in response planning and that it is not a surrogate control technique. For these reasons agencies stressed the need to carefully evaluate the likely costs and benefits of any monitoring proposals before measurements/observations commence.

Participants noted that at the next SSC meeting, it would be desirable to make provision in the agenda for the design of a monitoring program for sites of concern. Other points of discussion included:

- * the need to clarify funding for monitoring activities;
 - * the lack of understanding of the impacts of dispersants, particularly under Australian conditions (Paper 25 includes information on dispersant toxicity, based largely on overseas studies);
 - * the desirability of expanding the use of monitoring as an evaluative tool in post-incident assessment; and
 - * the importance of establishing clear objectives for any monitoring activities. In this regard, it would be desirable to also identify pre-conditions or “trigger” criteria for the commencement of such activities.
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