## SECTION 9: RECOMMENDATIONS FOR FUTURE IMPLEMENTATION

- Operational policies (relating to specific activities) are considered crucial building blocks in achieving an integrated and holistic pollution control and waste management system for South Africa. It is recommended that such policies also be developed for other waste disposal activities to the marine environment. These include activities associated with shipping traffic and dredge spoil dumping, which currently fall within the jurisdiction of the DEAT. To facilitate effective cooperative governance, such policies should eventually be combined in an overarching operational policy for the disposal of waste to the marine environment of South Africa.
- Operational policies need to be developed for the land-based management and control of diffuse wastewater sources (e.g. urban stormwater run-off, agricultural and mining return flows). These need to be dealt with on a catchment level, rather than per individual water resource component. International trends need to be taken into account as well as national initiatives as in the case of urban stormwater:
  - A framework for implementing non-point source management under the National Water Act (RSA DWAF, 1999a)
  - Guidelines for human settlement planning and design The Red Book (CSIR, 2001c)
  - Set of documents on *Managing the Water Quality Effects of Settlements* (RSA DWAF, 1999b)
  - Towards a Strategy for a Waste Discharge Charge System (RSA DWAF 2003c).
- Where multiple developments and activities occur in a study area, it is usually extremely difficult and financially uneconomical to manage marine environmental issues in isolation because of, for example, their potential cumulative or synergistic effect on the receiving environment. Collaboration is often best achieved through a joint local management institution. It is, therefore, recommended that the DWAF and DEAT, jointly investigate an official route whereby local management institutions can be formally constituted to assist in the management and control of the quality of marine water resources in South Africa. Towards enforcing the involvement of local role players, the DWAF already requires the establishment of a local monitoring committee, as a licence condition for the disposal of land-derived wastewater to the marine environment.
- To incorporate new learning, both national and international, it is recommended that a review be undertaken of the *South African Water Quality Guidelines for Coastal Marine Waters* for the protection of the marine environment and other beneficial uses. These guidelines also need to include List I and List II substances (List I substances are regarded as particularly hazardous and need to be *eliminated* from wastewater discharges, while List II substances are regarded as less hazardous but nevertheless need to be *controlled*). List II substances are typically those for which specific target values need to be determined. It is also recommended that future updates of the *South African Water Quality Guidelines for Coastal Marine Waters* include sediment quality guidelines.
- It is recommended that South Africa regularly update the inventory of waste discharges to the marine environment, both in terms of volumes and loads. This information should be accessible to the public through the Internet. This publication has become general practice in many countries and provides a sound base from which to holistically assess effectiveness of an operational policy.
- It is recommended that a *Code of Practice* be developed for specific industries in South Africa, specifically addressing ways in which to eliminate or minimise the production of waste, based on best available techniques. This Code of practice should provide clear guidance to industries with regard to their environmental obligation by specifying environmentally sound technologies. This source directed approach to waste elimination and minimisation is considered to be of great value. Documentation available for use in other countries, such as Canada and New Zealand, could to a large extent be adopted for South Africa.

 In countries in which industries (and their waste loads) are not well-defined, prohibited or controlled, substance lists consist of individual substances, e.g. benzene. However, in countries, like Canada and New Zealand, in which industry types and their waste are well-defined, the prohibited or controlled lists also include certain waste stream types. To accommodate, for example synergistic effects from complex effluent, this is an approach that should be investigated for South Africa, once industry types and their waste are more clearly defined.