24. ADDITIONAL CONSIDERATIONS

24.1 THE RHP AND TRANSBOUNDARY RIVERS AND SHARED CATCHMENTS

Rivers form the borders of a number of the provinces in South Africa. Hence the issue of shared catchments (between two or more provinces) and transboundary rivers (headwaters in one province and lower reaches in another) is likely to arise. For example, the Vaal River catchment straddles five provinces!

Transboundary rivers and shared catchments may occur both at a provincial and WMA scale and this basically translates into shared responsibilities for RHP monitoring of these rivers. It is essential to coordinate and plan your RHP initiatives with your neighbouring provincial RHPs for these rivers and to exchange pertinent information on a regular basis. In this way, a holistic picture of the entire river system can be developed and that the river catchment is managed in an integrated way.

24.2 INTERNATIONAL RIVER SYSTEMS

The RHP implications for the management of international river systems such as the Limpopo are not being considered in the short and medium term. However, this is presumed to be an important aspect in the long-term as it is envisaged that the national RHP will eventually become a southern African freshwater resources management programme.

24.3 COLLABORATING WITH THE STATE-OF-RIVERS (SOR) INITIATIVE

This is a relatively new initiative in South Africa which has its roots in the State of the Environment (SOE) reporting. The state of the rivers is a catchment-based assessment of how climate, topography and human activities such as land-use and population interact and the effect of these to the general condition of the river. SoR reports have already been produced for the Crocodile, Sabie-Sand, and Olifants Rivers in Mpumalanga Province.

The SoR approach is based on the Drivers, Pressures, States, Impacts and Responses (D,P,S,I,R) model used in the State of the Environment (SoE) reporting. A set of standardised environmental indicators is used to evaluate environmental trends. The RHP's objectives of "measuring, assessing and reporting on the ecological state of aquatic ecosystems" and the programme's use of standardised indices to "measure" aquatic ecosystem health, makes the RHP an ideal partner of SoR reporting.

For more on the State-of-Rivers reporting consult the RHP website: www.csir.co.za/rhp/state_of_rivers.html.

24.4 LINKING YOUR RHP WITH EXISTING CONSERVATION AND BIODIVERSITY PROGRAMMES

The RHP has the potential to make a significant contribution to freshwater conservation and biodiversity research programmes. For a little extra effort, your RHP fieldwork could also include the collection of representative samples of aquatic fauna and flora which can be sent to museums and universities for further research.

The Albany Museum in Grahamstown houses the National Collection of Freshwater Invertebrates, the largest freshwater fish collection in South Africa as well as a large herbarium. The JLB Smith Institute of Ichthyology in Grahamstown also houses a large freshwater fish collection. The Port Elizabeth Museum houses a major reptile and amphibian collection. The National Botanical Institute (NBI) could be contacted for the RHP contributions to further research into plant biodiversity. Apart from making a contribution to the knowledge of local biodiversity and ecology by donating specimens to these organisations, researchers there are generally willing to share ecological and taxonomic information which will benefit your RHP.

It is suggested that provincial RHP implementers contact the aforementioned organisations to investigate the potential for collaborative biodiversity and ecological research. They may be able to supply you with bottles, labels, preservatives and advice on collecting techniques. Most essential is to record the date, locality, latitude and longitude and possibly habitat on a label attached to each sample or specimen. Any other field notes will be useful.

24.5 WORKING-FOR-WATER PROGRAMME

The Working for Water (WFW) programme is a national programme initiated by the DWAF to remove thirsty alien tree species growing in river catchments. These include black wattle, pinetrees, bluegums and poplars and many others. Apart from increasing the flow, the sudden removal of these trees can alter the river catchment characteristics significantly, particulary in the upper reaches of the river.

The RHP is an ideal monitoring tool for assessing the before, during and after effects of removal of alien tree species from river catchments. The RHP could also be a useful source of information of long-term environmental trends associated with the monitoring of the ecological status of alien tree cleared catchments. The geomorphological index can be used to assess whether the river channel condition becomes significantly altered through possible erosion or siltation after the alien tree infestations have been chopped out. Habitat quality for fish and invertebrates may also be affected.