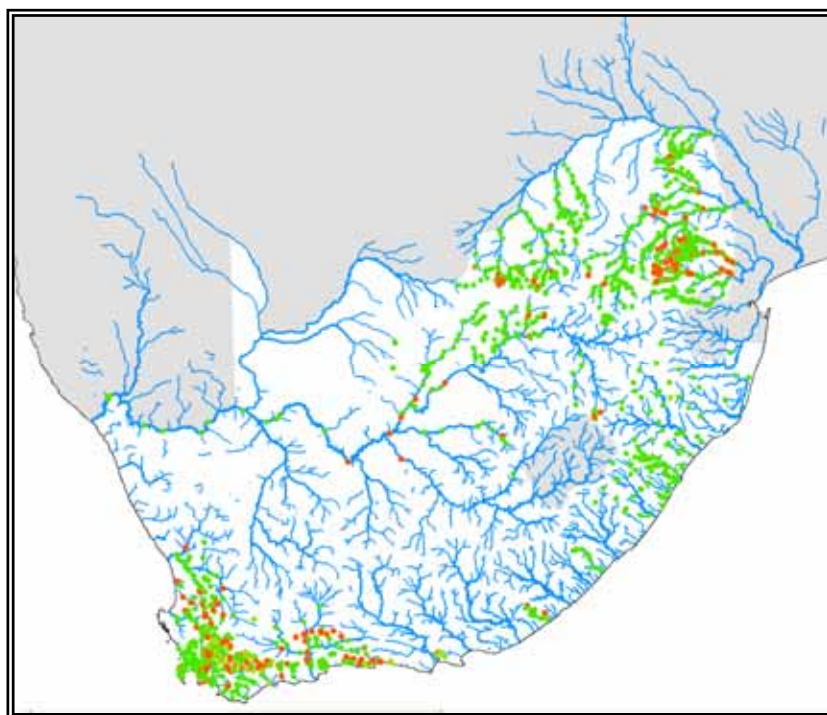


NATIONAL AQUATIC ECOSYSTEM HEALTH MONITORING PROGRAMME (NAEHMP)

e-COMMUNICATION

NOVEMBER 2007 VOLUME

September 2007 mark one of the finest achievements: Rivers Database"





In this issue of the NAEHMP e-communication you can read about:

- From the RHP desk
- Background to the NAEHMP
- Provincial and regional feedback
- NAEHMP events and related
- Research and development at national level
- Publications
- Contact details
- Next eCommunication

From the RHP desk

We are planning to introduce two new columns on our NAEHMP e-Communication with effect from next year:

1. Letters

This will be letters from you about anything relating to NAEHMP. By anything we mean anything and we should not be restricted to scientific issues but also administrative, socio-economical, etc. relating to the Programme.

A maximum of 30 sentences including your names and contacts written in Times New Roman size 12 will be acceptable.

2. Catch of the volume

This can be in the form of graphics of high quality (quality determined by the editor as coming) etc. of information sharing with others on activities captured relating to the Programme. This can be pictures of clean up campaigns, sampling activities, etc. with special emphasis on positive issues.



The success of this information sharing and the Programme as a whole, is dependent on your inputs and you are highly encouraged to make it happen in addition to the efforts you are already doing.

These are solely for information sharing and to get feedback on how you see things which will help enhance service delivery. There will be no prizes given to those submitting such material.

We would like to thank everyone who contributed to this e-communication and look forward to your continued support.

BACKGROUND TO THE NAEHMP

On inception, the Programme was named the National Aquatic Ecosystem Biomonitoring Programme (NAEBP). The NAEBP was initiated by DWAF to address the need for information regarding the *health of aquatic ecosystems* in South Africa. For a long time the Programme focussed mostly on riverine ecosystems and became known as the River Health Programme (RHP). It is however equally important to monitor the health of other aquatic ecosystems, such as wetlands, estuaries and groundwater dependent ecosystems and the inclusion of these components in the overall Programme, is systematically being addressed.

The NAEBP was designed prior to the promulgation of the National Water Act (NWA) (Act 36 of 1998). A process to review the design of the programme and to align it with the requirements of the NWA (in particular Section 137 of the Act) is nearing completion. The overarching Programme is more appropriately, now being referred to as the National Aquatic Ecosystem Health Monitoring Programme (NAEHMP) with sub-programmes for rivers (RHP), wetlands, estuaries and groundwater dependent ecosystems.

The national custodians of the NAEHMP are: The Department of Water Affairs and Forestry (DWAF), Department of Environmental Affairs and Tourism (DEAT), and the Water Research Commission (WRC) who provide strategic guidance and direction to the Programme. The



Programme is administered and co-ordinated by DWAF's Directorate: Resource Quality Services and have to date, been assisted by the CSIR to fulfil this role. At the provincial level, the Programme is implemented and maintained by its key stakeholders who form part of a Provincial Task Team (PTT) and their efforts are coordinated by a Provincial Champion. These stakeholders include: DWAF Regional Offices, provincial DEAT, provincial conservation agencies, SANParks, certain local government authorities and various academic institutions, across the country.

The successful implementation of the Programme across the country can largely be ascribed to the goodwill and enthusiasm of its stakeholders. This however leaves the Programme very vulnerable and a formal model of governance of the programme was developed to make the institutional roles and responsibilities of the various stakeholders more explicit. It is foreseen that implementation and maintenance of the NAEHMP will eventually become the responsibility of Catchment Management Agencies (CMAs) once they become fully operational.

PROVINCIAL AND REGIONAL FEEDBACK

Eastern Cape

Champion: Ms Pumza Gaza-Lubelwana (DWAF:EC)

Institutional capacity

Organisations involved with the Eastern Cape's RHP include: DWAF Regional Office, DWAF:RQS, DEDEA, Walter Sisulu University (WSU) and the Nelson Mandela University, CES and the CSIR. The DWAF Regional Office in the Eastern Cape is currently experiencing staff shortages due to a number of river health related vacant positions. A memorandum of understanding with WSU has hence been signed to assist with the training of personnel. Several planned river surveys could not be conducted due to staff shortages and budget constraints. Furthermore, due to restructuring of the DWAF Regional Office, the future housing of the RHP is unknown.

Monitoring

The Provincial Task Team (PTT) is currently monitoring the Mthatha and Buffalo Rivers and is busy with a State of Rivers report on the Mthatha catchment which is due to be completed by February



2008. Ground-truthing of sites on the Mzimvubu, Mbashe, Bushmans, Keiskamma/Tyume and Nahoon Rivers has been completed as well as an aerial survey of the rivers of the Water Management Area. A schools awareness programme is also in place.

SASS accreditation

- SASS5 accreditation took place in April this year and the province now has two accredited SASS practitioners;

Current activities and activities planned for the 2008/09 financial year

1. Surveys of Mzimvubu, Bushmans, Keiskamma/Tyume, Mbashe;
2. On-going biomonitoring of surveyed rivers;
3. Production of a State of Rivers Report during 2009/10 for rivers surveyed in the province;
4. Ongoing updating of the Rivers Database;
5. Launch of the Adopt-a-River Programme in WMA 15 during April 2008;
6. Filling of key posts; and
7. Accreditation of Fish, and IHL practitioners as well as to increase the number on accredited SASS practitioners.

For further enquiries contact Kululwa at: Tel: +27 43 748 5340 or Email:

Mkosank@dwaf.gov.za

Free State and Northern Cape

Champion: Ms. Gerda Venter (DWAF: Bloemfontein)

Institutional capacity

The organisations involved in the RHP in the Free State include the DWAF Regional Office, DWAF:RQS, CEM, University of the Free State, DEAT and Working for Wetlands. RHP initiatives in the province have been constrained due to resource shortages (staff shortages and budget cuts) and the current restructuring of the Free State Regional Office. The Northern Cape's RHP activities are currently coordinated by the Free State. Newly appointed Northern Cape officials have received training both on a practical (by CEM and DACE in North West) and theoretical level



(by DWAF: FS). Due to continuous capacity constraints in the Northern Cape and the Free State, no follow up river health monitoring is conducted. Options are currently being explored to implement and sustain the RHP in the Northern Cape.

Monitoring

SASS5 and fish sampling were conducted at selected sites (where there was flow) in the Sand, Vet, Vaal, Vals, Modder and Riet Rivers and the Schoonspruit respectively. Currently, 36 sites are being monitored throughout the province. Most of these sites coincide with national RHP sites. Due to the nature of the rivers in the province, is often very difficult to find suitable RHP monitoring sites. Funding for biomonitoring has been secured from the DWAF, Directorate: Compliance Monitoring and Enforcement. A service provider will be appointed to assist with river health monitoring.

SASS accreditation

Marie Watson from the UFS has been appointed as SASS5 auditor for the province. The State of Rivers (SoR) report: Free State Region will be revised by a service provider to be appointed which is due to be completed by 2010.

No SASS5 accreditation was conducted in the Free State Region this year (due to no flow conditions).

Current activities and activities planned for the 2008/09 financial year

1. Continue with SASS and fish surveys;
2. Start revising the SoR for the Free State Region;
3. Continue with capacity support to the Northern Cape Province; and
4. SASS5 accreditation on request.

For further enquiries contact Gerda at: Tel: +2751 405 9201 and Email:

venter.gerda@dwaf.gov.za



Gauteng

Champion: Mr. Piet Muller (GDACE)

Institutional capacity

Organisations involved with the RHP in Gauteng include: GDACE, DWAF:RQS, Local Councils, UJ (fish), TUT (technical support and training), River Forums and NGO's. The Gauteng RHP has a fully functional business plan and budget which has unfortunately been decreasing year after year. The team is well structured and operate at maximum available capacity with all basic equipment required. Current challenges that the Gauteng RHP team experience include: increasing land developments, staff turnover and reduction of budget.

Monitoring

The team is currently conducting river health monitoring at 82 sites in the Crocodile (West) Marico, Upper Vaal and Upper Olifants catchments. During the 2005/06 financial year, surveys were conducted in the Upper Vaal and Olifants Rivers. The final report for this survey was due to be completed in November 2007. Sites are being re-visited on a two year cycle.

The team is currently involved in the following:

- Protection of Skeerpoort River and the entire quaternary catchment A21G is being protected in terms of land-use development which includes the prevention of surface stormwater run-off from road systems. The catchment is also included in the province's Conservation Plan (C-Plan) implementation process.
- Ekurhuleni Water Resources Management Plan, a strategic framework for the protection of water resources in the Metropolitan Municipality.
- Tshwane Wetland and River restoration initiative which includes the restoration of the Apies River and associated wetlands in the urban zone. The Gauteng Wetland Working Group and SANBI (DEAT) are also involved.
- Klip River Wetland Restoration Initiative which forms part of the Johannesburg Mayoral Legacy Project 2010. Eighty million rand has been allocated to rehabilitate the Klip River catchment.



- International Wetland Day 2008. A primary focus was the Klip River Wetland. Organisations involved included DEAT, DWAF, NDA, (DME), GDACE, Johannesburg Metro, Local Municipalities, Industry, Business and Local Communities.
- Vaal and Crocodile-West/ Marico Reserve study

SASS accreditation

SASS5 accreditation took place during May and August 2007 in Gauteng.

Current activities and activities planned for the 2008/09 financial year

1. Produce a poster on the Ecological State of Rivers in Gauteng, November 2007;
2. Compile the Crocodile (west) Marico SoR by 2009;
3. Continue with biomonitoring on a two year cycle;
4. Compile SoR of Gauteng Rivers in 2009; and
5. SASS5 accreditation is scheduled to take place on 22 November 2007, 30 May 2008, 28 August and 20 November 2008.

For further enquiries contact Piet at: Tel: +2711 355 1487; Email:

piet.muller@gauteng.gov.za

Kruger National Park

Champion: Dr. Andrew Deacon (KNP)

Institutional capacity

Kruger National Park's Scientific Services is mainly responsible for RHP monitoring and initiatives in the Kruger National Park. Other organisations involved include LEDET, DWAF:RQS and researchers from various institutions. The KNP team is stable with very little staff turnover and implementation of the Programme is on schedule.

Monitoring

The team has been conducting river health monitoring in the Olifants and Letaba Rivers, assisted by members of the Limpopo RHP team. The KNP team assisted with monitoring in the Sabie River



as part of an Ecological Water Requirements project. On approval of the management plans, the team will also start with biomonitoring of rivers in the Marakele and Mapungubwe National Parks.

Other activities in which the KNP participated included:

- A SAEON Science Week held in May 2007;
- Fish Reference Condition modelling and Fish Index Validation as part of the development of FRAI;; Four monitoring demonstrations;
- Two team members attended Rivers Database training in August.

SASS accreditation

SASS5 accreditation of practitioners took place during March and Andrew Deacon successfully completed this accreditation.

Current activities and activities planned for the 2008/09 financial year

1. Monitoring of the Crocodile, Luvuvhu and Sabie Rivers next year;
2. River health monitoring of rivers in the Marakele and Mapungubwe National Parks
3. Continue to upload river health data onto the Rivers Database.

For further enquiries contact Andrew at: Tel: +2713 735 4237; Email:

andrewd@sanparks.org

KwaZulu Natal

Champion: (Vacant)

Institutional capacity

Organisations involved in the KwaZulu Natal (KZN) RHP include: the DWAF Regional Office, DWAF: RQS, eThekweni Municipality, EKZN Wildlife, Ground Truth Consulting, Duzi Umgeni Conservation Trust (DUCT), uMgeni Water and several forestry companies. Staff and other capacity issues have hindered the DWAF KZN Regional Office to participate fully in the RHP. At a Provincial Task Team (PTT) meeting which was held on 13th November 2006, the DWAF Regional Office committed themselves to secure R200 000.00 to outsource the coordination responsibility of



the RHP in the province for the remainder of the financial year. Terms of reference for this role were to be developed by the Regional Office, but this is still outstanding.

DWAF:RQS have entered discussions with various individuals of the RHP and are currently exploring possibilities of housing the RHP Championship in either EKZWildlife or DAEEA.

Personnel turn-over in organisations such as Umgeni Water is currently affecting river health monitoring initiatives in the province. A number of organisations in the province are undertaking biomonitoring, mainly for their own purposes, but this is unfortunately not coordinated with RHP monitoring.

Attempts are made to address the resource capacity in the province and Umgeni Water has employed several new officials including an individual at a managerial level to continue with biomonitoring within their operation.

Monitoring

Phase 1 of the Usuthu/Mhlathuze WMA SoR is nearing completion and the project will move into Phase 2 in the next financial year. Over 60 sites are currently being monitored in the province. A repeat of the 2006 survey has been added to the eThekweni biomonitoring for State-of-Rivers purposes. The State-of-Rivers Report is currently being finalized (for more details contact Dr. Mark Graham at Cell: +2782 377 7089 or email: mark@ground-truth.co.za).

DUCT (The Duzi-uMgeni Conservation Trust) is a non-profit public benefit organisation championing the environmental health of the uMsunduzi and uMgeni Rivers. Monitoring of these rivers is ongoing.

SASS accreditation

No SASS5 accreditation took place during this financial year (see <http://www.duct.org.za>).

Current activities and activities planned for the 2008/09 financial year

1. Establish housing of the RHP Championship;



2. Complete Phase 1 of the Usuthu/Mhlathuze WMA SoR and move to Phase 2 (National Project);
3. A proposal will be drafted and funding will be requested, possibly from WRC, to investigate impacts of land use activities on river health;
4. Continue with biomonitoring by those industries involved using consultants;
5. SASS5 accreditation on request.

For further enquiries contact Ramogale Sekwele (DWAF:RQS) at: Tel: +2712 808 9614;

Email: sekwele@dwaf.gov.za

Limpopo

Champion: Mr. Mick Angliss (LEDET) and Paul Fouche (UNIVEN)

Institutional capacity

The organisations involved in the Limpopo Province include: LEDET, DWAF Limpopo Regional Office, DWAF:RQS, UNIVEN, and KNP. BioAssets and CSIR have been playing an integral role in the development of recent SoR reports. To date, the DWAF Regional Office's involvement has been very limited. Ms. Caroline Shai is currently representing the Regional Office which is in the process of setting priorities in order to devote more resources to river health monitoring in the near future.

Monitoring

The Mokolo SoR report was recently completed and included surveys undertaken during 2002 and 2006. Peter McMillan from the CSIR assisted with the compilation of this report. The Letaba River has been surveyed in the past and a follow-up survey is currently underway. A dam, the Nwamitwa Dam is planned to be built on the Letaba River in future. The Nwanedzi Catchment is surveyed for the first time. Internal reports for these surveys will be produced during 2007. Representatives from the DWAF Limpopo Regional Office are joining the Nwanedzi Catchment survey for capacity building purposes.



UNIVEN have secured funding for a baseline survey on the Shingwedzi River. The study will be led by Mr. Paul Fouché, and will include Dr. Wynand Vlok (BioAssets), Prof. Victor Wepener (UJ), Mr. Justice Madonsela and Thomas Gyedu-Ababio (KNP). The project focuses on a baseline survey of the instream biota, water quality, riverine vegetation and geomorphology and will also include an EcoStatus determination of the Shingwedzi River and its tributaries.

Paul Fouché is furthermore supervising a student currently surveying five sites on the Mogalakwena River to determine the effects of the Glen Alpine Dam.

SASS accreditation

SASS5 accreditation took place in March and certificates were issued to successful candidates.

Current activities and activities planned for the 2008/09 financial year

1. A reserve monitoring workshop will be conducted on the Letaba River in October 2007;
2. Compile reports for the current surveys;
3. Surveys of Matlabas and or Nzhelele Rivers when flowing;
4. Also revisit Luvuvhu and Mogalakwena Rivers in 2008;
2. SASS5 accreditation on request.

For further enquiries, contact Mick at Tel: +2715 295 9300; Email: anglissmk@ledet.gov.za.

Mpumalanga

Champion: Dr. Johan Engelbrecht (Mpumalanga Parks Board)

Institutional capacity

Mpumalanga Parks Board has largely taken the responsibility to implement and maintain the RHP in Mpumalanga. However, due to serious resource constraints in this organisation as well as in the DWAF Regional Office, the Programme has not been active for several years now and biomonitoring in the province has mostly taken place on an ad hoc basis, and has been linked to specific projects. Talks are underway with the DWAF Regional Office to discuss their role in the implementation of the RHP in the province.

Monitoring

Biomonitoring has recently been done in the Upper Olifants River catchment which is currently under stress from several land use activities. Surveys show massive deterioration of Loskop Dam.

SASS accreditation

No SASS5 accreditation took place to date this financial year.

"There must be a problem somewhere: fish kill in Mpumalanga Province"



Picture by Dr. Johan Engelbrecht

Current activities and activities planned for the 2008/09 financial year

1. Discussions between DWAF:RQS and the DWAF Mpumalanga Regional Office regarding resource devotion to the Programme;
2. Establish housing of the RHP Championship;
3. Complete Phase 1 of the Usuthu/Mhlathuze WMA SoR and move to Phase 2 (National Project) of which part of the WMA is in Mpumalanga Province;
4. Continuous river health monitoring to be re-established by key stakeholders of the Programme in the province;
5. SASS5 accreditation on request.

For further enquiries contact Johan at: Tel: +2713 235 0796 or Email: jseng@lantic.net



North West

Acting Champion: Ms. Hermien Roux (North West DACE)

Institutional capacity

Organisations involved in the North West Province RHP include: NWDACE, SYKE, DWAF (RQS, and North West Regional Office), CSIR, NWU, UNIVEN, UFS, Golder Associates, Blue Science, Albany Museum, Rustenburg Municipality, NW Wetland forum, WfWet, YFWG, and Orange Vaal River Yellowfish Conservation Management Association (OVRYCMA).

Monitoring

The North West team is responsible for biomonitoring in parts of four water management areas, viz, Crocodile (West) and Marico, Upper-, Middle- and Lower Vaal Water Management Areas. In total 177 RHP sites are monitored across the province. These sites are registered on the Rivers Database and on the DWAF WMS.

River health monitoring this financial year, took place in the Middle and Lower Vaal Water Management Area (WMA) as well as the Marico and Molopo Rivers. Several variables were assessed including diatoms.

Most of the rivers in the Lower - and Middle Vaal WMA had little or no flow, subsequently only two sites in the Middle Vaal and five sites in the Lower Vaal WMA were sampled. Other constraints experienced by the team include kilometre restrictions to execute their responsibilities and limited capacity. A Botanist has been appointed in DACE who will be trained to use the vegetation response assessment index (VEGRAI). The ichthyologist position is still vacant.

SASS accreditation

The North West province and Gauteng's SASS accreditation days are jointly held. Three accreditation days were held.



Some of the Data and team contributions:

Current activities and activities planned for the 2008/09 financial year

1. Provide basic biomonitoring and RHP training and awareness to DWAF officials in Kimberley and SASS5 training to researchers at the University of the Free State ;
2. Establishment of reference conditions;
3. VEGRAI to be conducted at all sites by the end of 2008;
4. Revise monitoring cycle;
5. Bi-annual surveys of Crocodile (West) Marico and Upper Vaal WMA;
6. Training of newly appointed Botanist and possible extension to DWAF:RO personnel, and
7. SASS accreditation.

For further enquiries, contact Hermien at: Cell: 082 4665966; Email: hroux@nwpg.gov.za

Western Cape

Acting Champion: Ms. Tovho Nyamande (DWAF:Western Cape)

Institutional capacity

Quite a number of organisations are involved in the RHP in the Western Cape and include: DWAF: Western Cape, DWAF: RQS, Cape Nature, the City of Cape Town, Cape Action for the People and the Environment, CSIR, SANParks, PSP's on consultation capacities and various academic institutions. Due to staff shortages, DWAF:Western Cape has appointed Cape Nature to assist with the implementation and maintenance of the programme in the province.

Monitoring

RHP sites are monitored at least once a year. Both the Breede River and Baviaans Kloof are currently being monitored. The Eastern Cape authorities are also involved in the Baviaans Kloof's monitoring as part of the C.A.P.E. initiative. The Gouritz SoR report will be produced during this financial year. The first meeting for the Adopt-a-River initiative was held in August 2007 to discuss the implementation plan of the pilot project on the Eerste River.

SASS accreditation

SASS5 accreditation took place in October and certificates were issued to successful candidates.

Current activities and activities planned for the 2008/09 financial year

1. Staff recruitment in DWAF and to also capacitate those recruited;
2. Strengthen partnership with organisations involved;
3. Appointment of a provincial RHP Champion;
4. Continue with monitoring and repeat river health monitoring on the Berg and Olifants Rivers;
5. SASS accreditation on request.

For further enquiries, contact Tovho at: Tel:+2721 950 7124; Email: NdiitwT@dwaf.gov.za

NAEHMP events and related

NAEHMP Champions Symposium

"RHP Provincial Champions Symposium 2007: smiling faces back at one"



Picture by Ramogale Sekwele



The NAEHMP Champions Symposium is an annual event where provincial implementers and the national custodians of the NAEHMP get together to discuss developments, progress and issues relating to the programme at national and provincial levels, and to share experiences and ideas regarding the operation and maintenance of the programme.

The purpose of this year's symposium was to reflect on the activities of the past financial year, to discuss the Programme's governance model and the way forward. The symposium was quite successful and well attended by representations from DWAF, provincial DEAT, provincial conservation agencies, academic institutions, SANParks, provincial Parks Board and consultants. The attendance of other institutions such as waterboards, local authorities, and NGOs, are encouraged. The symposium will expand its participation to include these organisations and here invite individuals from such other organisations to volunteer their participation on the annual symposium.

Research and development at national level

DWAF

Project Name	Organisation	Status	Year	Deliverable
NAEHMP National Coverage	CSIR	Ongoing	2004-2008	NAEHMP implementation guideline document.
Quality Control & Assessment	INR	Due	2005-2007	SASS5, FRAI & IHI QA/QC Protocol
Rivers Database	Freshwater Consulting Group	Completed	2005-2007	Rivers Database
Revision of the Biomonitoring Course	Coastal Environmental Services	Due	2005-2007	Biomonitoring Course
Channelled Valley Bottom Wetlands Indices	Fluvious Consulting	Completed	2005-2007	Published Index
Rapid habitats assessment for floodplain & channelled valley bottom wetlands	DWAF	ongoing	-2007-	Habitat Assessment Index
Adopt-a-River Programme Phase II	PSP for DWAF	Procurement	2007/8	Implementation Manual



Other related projects

Project Name	Organisation	Status	Year
Wetlands Management Series	UKZN	Complete	-2007
National Wetlands inventory and classification system	SANBI	Ongoing	-2007-
Revision of mini SASS	Ground Truth Consulting	Ongoing	2007/8
Wetlands classification and delineation	University of Waterloo, Canada	Ongoing	-2007-

Inception Phase

The RHP Inception Phase was initiated to review the current RHP design and to align it with the requirements of the NWA. The process is done according to the core functions of the RHP, namely: data acquisition, data management and storage and information generation and dissemination. The primary output of the Inception Phase is the development of an Implementation Manual which is due to be completed in March 2008. The project is coordinated and management by Liesl Hill from the CSIR.

National Coverage

The three components that are being addressed as part of the National Coverage Phase are: Quality Control and Assurance, the Biomonitoring Short Course and the Rivers Database. These components received the highest priority at a Planning workshop in 2004 of key aspects of the Programme to be addressed.

Quality Control and Assurance (QC/CA)

This task is coordinated and managed by Dr. Chris Dickens (Institute of Natural Resources). The overall purpose of this task is to develop, and put a comprehensive plan in place to ensure that the data and information generated by the RHP is of a reliable and credible quality. The SASS QC/QA has been long completed and operational with already over 60 accredited SASS5 practitioners



around the country. Accreditation of the Fish Response Assessment Index (FRAI) is imminent while the Index for Habitat Integrity (IHI) will be accredited once completed.

Biomonitoring Short Course

The revision of the biomonitoring short course is coordinated by Dr. Patsy Scherman (Coastal Environmental Services). Consultations with a wide range of experts were conducted to the content of the course.

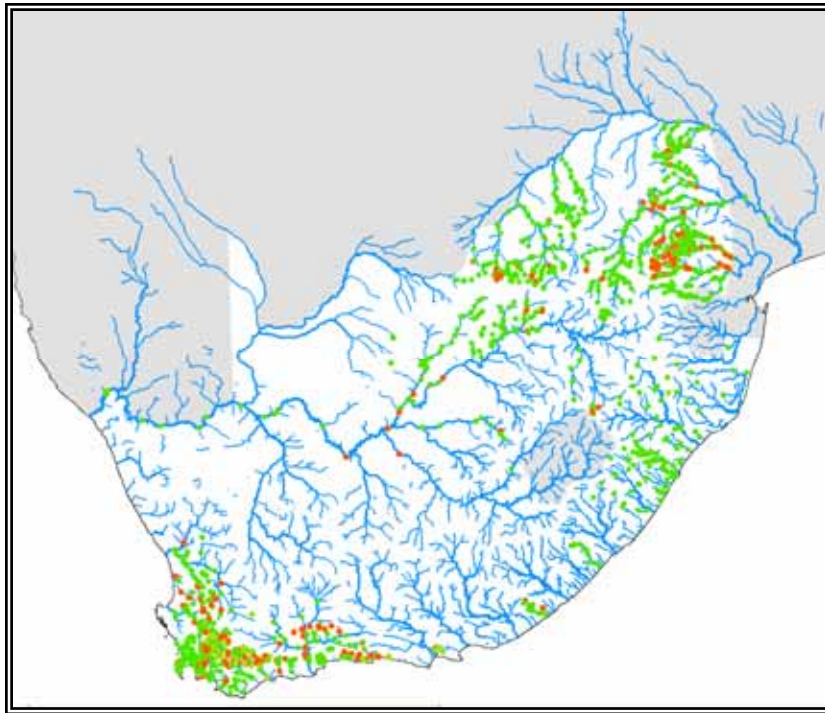
Three types of biomonitoring courses are proposed:

1. **Type 1 course:** General biological monitoring course, focussing on biological indicators.
2. **Type 2 course:** Management course, including links to compliance, licensing etc. and information regarding setting up of monitoring programmes.
3. **Type 3 course:** Courses per index showing the link between field sampling and more detailed analysis, e.g. the use of the associated EcoStatus model.

Rivers Database

September 2007 marks one of the finest achievements on getting the Rivers Database project completed. This task was managed by Dr. Helen Dallas (Freshwater Consulting Group: UCT). The overall purpose of this task was to refine and further develop the Rivers Database and to capture all river health and relevant biomonitoring data across the country. The data capturing was a huge undertaking and various organisations countrywide contributed data. The Database is now fully functional and registered users can upload and download data from the Database from anywhere using an online service.

"September 2007 mark one of the finest achievements: Rivers Database"



Dr. Helen Dallas

Training has been successfully provided at 5 regional centres during July and August 2007, and 80 users have been trained to date. The Rivers Database Manual is available on CD or can be downloaded from the web at: <http://www.riv.co.za/Rivers>. For a copy of the CD, contact Ramogale Sekwele at: Tel: +2712 808 9614 or Email: sekweler@dwaf.gov.za. Should users encounter any problems relating to installation and or use of the Database please contact Andrew Molteno: andrew@SoftCraft.co.za or Helen Dallas: Helen.Dallas@uct.ac.za.

Wetlands Habitat Integrity Index (IHI)

The Wetlands IHI is a rapid assessment tool to determine the present ecological state (PES) of floodplain and channelled valley bottom wetland types. The project is coordinated and managed by Mark Rountree from Fluvius Environmental Consulting (mark.rountree@iburst.co.za or Cell: +2782 880 4393). The IHI provides information on the quality, quantity and physical environment of a wetland that are required to support wetland associated biota. Phase II of the project will be expanded to pans, seepage wetlands and un-channelled valley bottoms.



The index consists of four modules which assess:

- Vegetation on the floodplain (land use on the site).
- Hydrology (catchment effects).
- Geomorphology (catchment assessment and on-site erosion).
- Water quality (this is adapted from the river IHI).

Results obtained thus far show that the index is reproducible. The IHI was tested in Limpopo, Mpumalanga, KwaZulu Natal, Gauteng, Eastern Cape and Western Cape.

Fish Frequency of Occurrence (FROC), EcoClassification, EcoStatus, Macroinvertebrate Response Assessment Index (MIRAI), Vegetation Response Assessment Index (VEGRAI)

The development of the FROC, MIRAI and VEGRAI is now complete and the reports and database can be obtained from the following websites:

1. <http://www.dwaf.gov.za/iwqs/rhp/naehmp.htm>,
2. <http://www.dwaf.gov.za/iwqs/rhp/eco/ecostatus.htm>.

For any queries, contact Dr. Neels Kleynhans: kleynhansn@dwaf.gov.za on FRAI and FROC, Ms. Christa Thirion: thirionc@dwaf.gov.za on MIRAI and Ms. Delana Louw: iwre@icon.co.za on VEGRAI.

Diatoms

Phase I and II of the Diatom Assessment Programme's (DAP), funded by the WRC and undertaken by the North-West University (Jonathan Taylor: Jonathan.Taylor@nwu.ac.za, under the leadership of Prof. Bill Harding), have been completed and are currently in use. Phase I focused on the diatoms assessment protocol and Phase II focused on methodology and identification. DAP Phase III is currently focusing on an overview and capacity building of the program. A series of reports



have been produced (see list of publications below) and can be obtained from the WRC: Email: orders@wrc.org.za or Tel: +2712 330 0340.

NAEHMP and related events

Event	Date	Contact person	Contacts
RHP Annual Symposium	12-13 Sep 2007	Ramogale Sekwele	+2712 808 9614
SASS Accreditation	Various	Christa Thirion	+2712 808 9508
RHP Steering Committee meeting	18 April 2007	Ramogale Sekwele	+2712 808 9614
Rivers Database Training	Various	Helen Dallas	+2712 650 3633
Adopt-a-River Workshop	March 2007	Pumza Maseti	+2712 808 9553
Aquifer Dependant Ecosystems' meeting	October	Ramogale Sekwele	+2712 808 9614
Projects Prioritisation meeting (DWAF& WRC)	December	Gerhard Cilliers	+2712 808 9554
SASS5 Training	15-17 April 2008	Rob Palmer	+2713 751 1533

Publications

A Methods Manual for the Collection, Preparation and Analysis of Diatoms Samples (WRC Report No TT 281/07). JC Taylor, WR Harding and CGM Archibald.

An illustrated Guide to Some Common Diatom Species from South Africa (WR Report No TT282/07). JC Taylor, WR Harding and CGM Archibald .

Dallas H. F. 2007 River Health Programme: South African Scoring System (SASS) Data Interpretation Guidelines. The Freshwater Consulting Group/Freshwater Research Unit, University of Cape Town. Prepared for Institute of Natural Resources and the Department of Water Affairs and Forestry.

Grobler D.F., Roux H. and Koni S. 2007. Habitat Integrity Assessment Report of Selected Rivers in the North West Province. NWDACE Report Number: ACE199/06.



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Contact details

Refer to Appendix A.

Next eCommunication

In the next volume of the NAEHMP e-Communication you may read about:

1. RHP type sampling material development and sales.
2. Upcoming trainings (FETWater, SASS, etc.)
3. Progress on Adopt-a-River