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**Water Quality Management
Series**

**Managing the Water Quality
Effects of Settlements: -**

**AWARENESS
AND
CAPACITY BUILDING**



Department of Water Affairs and Forestry

OCTOBER 2001

Water Quality Management Series

MANAGING THE WATER QUALITY EFFECTS OF SETTLEMENTS:-

AWARENESS AND CAPACITY BUILDING

Department of Water Affairs and Forestry

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DOCUMENT INDEX

This document forms part of the Department of Water Affairs and Forestry's National Strategy for Managing the Water Quality Effects of Settlements. It represents one of the outputs of a project that was jointly funded by the Department of Water Affairs and Forestry and the Danish Government via their DANCED program.

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PREFACE

Pollution from densely populated and poorly serviced settlements is perhaps one of South Africa's most *important*, but most *complex* water quality problems.

Important, because pollution in and from these settlements not only affects downstream users, but has its most significant impacts on the communities living in these settlements. Failing sanitation and waste removal systems create appalling living conditions in many settlements, and contribute to serious health problems in these communities. Pollution in and from these settlements is, therefore, not only a water quality issue, but has much wider implications for government's aims to provide a better life for all

Complex, because pollution in settlements is rooted in the socio-economic, political and institutional conditions in the settlement. The use, or misuse, of services together with the way in which the services are maintained by Local Authorities lies at the heart of the pollution problem in many settlements. This is further complicated by the legacy of South Africa's apartheid history. Solutions, therefore, lie in changing the way in which the services are supplied and used.

However, *sustainable* solutions to the problem lie not only in our ability to supply and use waste and sanitation services to best effect, but also in the longer-term capacity of local government to maintain these services. This is likely to be the biggest stumbling block to sustainable management of pollution from settlements. Local government in South Africa clearly has significant capacity problems, and misuse of services, for a variety of reasons, is endemic in many settlements across the country. More importantly, failing waste services contribute to poor living conditions, and hence to the misuse of the services. Non-payment for services also limits the capacity of the Local Authority to effectively maintain the services, which then leads to further failure of the services.

Strategies to manage pollution in settlements must take a broader view of both Local Authority capacity, and the socio-economic and political dynamics of the community in order to arrest this downward spiral. The Department of Water Affairs and Forestry, therefore, initiated a study of the links between pollution, community perceptions and local government capacity, to run in parallel with the Test Cases. A number of reports have been produced to support this study.

It is hoped that these reports provide compelling arguments to address this problem both by ensuring better planned and run services, but also by active intervention and assistance where there are clear and immediate threats to community health and the environment. This report forms part of this process.

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EXECUTIVE SUMMARY

Objectives of this report

The National Strategy outlines both reactive and proactive options to address pollution. However, the sustainability of the Strategy lies in its proactive implementation. This in turn rests on planning settlements to avoid problems, ensuring that local government has the capacity to address problems, and making outside agencies, (i.e. those who have the mandate to address settlement planning servicing and financing) aware of the links between services and pollution. This report identifies the most appropriate means of disseminating these messages to these agencies.

Capacity vs Awareness building

This report differentiates between capacity and awareness as follows;

Capacity refers to the ability to proactively implement the Strategy, and requires a higher level of understanding of the principles of the Strategy, and how they can be integrated into the day-to-day functioning of the agency.

Awareness refers to the agency's awareness of the Strategy, and the promotion of the Strategy via their training processes. This does not require detailed knowledge of the approaches.

Current initiatives

Many of the government's initiatives are focussed on communities in densely populated settlements. However, not all of these provide useful opportunities to build capacity to implement the Strategy. In this respect the following programs offer the most useful opportunities for capacity building.

Agency	Vehicle
DWAF Water Services	WSDP (toolbox)
D. Constitutional Development	IDP
D. Land Affairs	LDO
Provincial Departments/Tribunals	Approval of settlement planning
Local government	WSDP

A wide variety of other agencies have initiatives that may provide opportunities for awareness building. The most significant of these are;

Agency	Vehicle
SALGA	Masekane campaigns, and newsletters
DEAT	ECBU
NCWSTI	Various training programmes
DWAF- WQM	Various training programmes
D. Health	EHO Training course
SOUL City	Magazines
NaSCO	Various training programmes.

Networking

One of the most significant means of building awareness of the strategy is to strengthen networking processes both within DWAF and with other agencies. A number of processes may be suitable.

Networking within DWAF

It is recommended that a forum is initiated between Water Services, NaSCO, Catchment Management, Water Quality Management and Geohydrology to discuss ongoing implementation of the Strategy. Closer contact between the "dense settlements" project team and the regional staff is also required to re-enforce the training programme already underway.

Networking between Departments

It is recommended that a forum is initiated between DWAF, DCD, DLA that will address the proactive implementation of the Strategy within the settlement planning process. Other opportunities for increasing networking capacity include the Water Sector Support Unit within SALGA, and the DEAT Environmental Capacity Building Unit project.

National Qualifications Framework

The National Qualifications Framework (NQF) has been introduced to ensure portability of training between agencies. To be consistent with the NQF, training material developed by the project must be approved by the Water - Sector Education Training Association (SETA). This may require some restructuring of the course material. However, the Water SETA has not yet been initiated. In addition, course material for the Dense Settlements project may also change once the Test Cases experience has been incorporated. The benefits of registering the 'Dense Settlements' courses should therefore reassessed once the SETA is operational, and after the Test Cases have been completed.

Capacity Building and Awareness Plan

The following capacity building and awareness plan is proposed to ensure sustainable implementation of the National Strategy.

Initiative 1- Provide "on-the-job" mentoring of WQM regional officers responsible for implementing the test cases. This will help operationalise the training already provided via the "train-the-trainers" course on the "Dense Settlements" Strategy.

Initiative 2- Provide the train-the-trainers course module 1 (1 day duration) for the following;

Water Quality Management Advanced Training Course (new staff),
Catchment Management Agency staff,
DEAT ECBU staff,
Environmental Health Officers,
NCWSTI staff,
Provincial Development Tribunals.

Initiative 3 – Training Course on implementation of the National Strategy. This would be a capacity building initiative, nominally of 1 week duration aimed at Local Authority planning staff.

Initiative 4 – Provide guidelines for implementing the Strategy via the Water Services Development Plans.

Initiative 5 – Provide guidelines for planning settlements in a manner consistent with the National Strategy. This initiative will be aimed at the:

Provincial Development Tribunals,
Local Authority Planning staff,
DCD,
DLA.

Recommendations

The following general recommendations have arisen from this work;

1. More time should be invested in mentoring of regional office staff while the test cases are being implemented.
2. The WSDP should be the main vehicle for capacitating Local Authorities in implementation of the National Strategy.
3. The IDP process should be seen as a secondary vehicle for capacity building issues with respect to the National Strategy.

4. Other various initiatives would act as tertiary vehicles, including influencing the location of settlements via the Department of Land Affairs' Development Facilitation Act and associated Provincial Development Tribunals.
5. The Deputy Director: Urban Development and Agriculture initiates an internal DWAF forum which would nominally meet on a quarterly to semi-annual basis to discuss proactive implementation of the Strategy in other DWAF initiatives.
6. Training materials should be structured consistent with the National Qualifications Framework, it is recommended that this be a more long term strategic goal rather than an immediate action.

1 INTRODUCTION

1.1 Background

The Department of Water Affairs and Forestry is currently implementing Phase 2 of the project "Managing the Water Quality Effects of Settlements" with financial aid from the Danish Government via their DANCED programme. Phase 1 of the project has already produced the first edition of a National Strategy. This National Strategy is based on a "Structured-Facilitated" approach, where stakeholders (esp. community representatives, local authority and DWAF water quality management staff) jointly undertake a problem analysis in order to identify the root causes of pollution in the settlement. Interventions are then identified to address these root causes.

Implementation of the National Strategy in a specific settlement is consequently a "bottom-up" approach, whereby dialogue is facilitated between stakeholders based the steps outlined in the [How To section](#) of this CD. However a "top-down" approach is also needed in order to ensure an enabling institutional and financial environment in which to implement the Strategy. The purposes of Phase 2 are therefore to; firstly to implement the National Strategy in nine [Test Cases](#), and secondly to create a suitable executing environment for the Strategy in other agencies. The [Supporting Documents](#) section of this CD outlines the work done for this part of the project. The lessons learnt from these processes will be used to update the Strategy, and to prepare the second edition of the National Strategy.

1.2 The objectives of this report

The [Structured-Facilitated approach](#) outlined in the National Strategy is a reactive process, whereby DWAF, having identified a need to address pollution from any settlement, can identify the root causes of the problem, and the most appropriate means to address these. However, the long term success and sustainability of the Strategy lies in its proactive implementation. Proactive implementation primarily rests on planning settlements to avoid problems, ensuring that local government has the capacity to address problems, and lastly making agencies outside DWAF-Water Quality Management, who have the mandate to address settlement planning servicing and financing, aware of the basic approach used.

Proactive implementation of the National Strategy consequently rests on the creation of an enabling environment in other agencies. This component of the current study has been dubbed the National Strategic Process, and has three components.

- Providing guidelines for settlement planning and servicing
- Bridging the capacity gap within local government
- Building awareness and capacity in other agencies with respect to the Strategy

This report aims at the last of these processes and intends to identify the most appropriate means of disseminating the basic principles of the National Strategy to those agencies responsible for the day-to-day planning, servicing, operation and financing of settlements. This includes recommendations as to which vehicles are the most appropriate means of disseminating the Strategy, as well as how this should be done.

1.3 Structure of the report

Chapter 2 - Presents the capacity building model developed and applied within the scope of the "Dense Settlements" project and summarises the various stakeholders and their water quality management functions. The concepts of pro-active versus re-active implementation of the Strategy are introduced, and the consequences for a programme of capacity building versus awareness raising are presented.

Chapter 3 - Presents a brief description of the stakeholders and the initiatives that may act as a vehicle for capacity and awareness building for the National Strategy.

Chapter 4 - Lists the priority stakeholders who are likely to make the greatest impact and suggests initiatives to strengthen networking capacity. It presents a capacity and awareness building plan for the various stakeholders in order to support implementation of the National Strategy.

Chapter 5 - Describes the requirements and procedure for integrating capacity building initiatives into the National Qualifications Framework in order to be consistent with new legislation for skills development and registration of the training courses. Recommendations for re-structuring water quality management training course material are proposed based on the current status of implementation of the National Water Act and the "Dense Settlements" test cases.

2 BACKGROUND

PURPOSE

This chapter presents outlines capacity building as defined for this project, in particular clarifying the difference between capacity building and awareness raising. The components of “capacity” are defined, and the process of capacity building is outlined. Lastly the stakeholders roles are identified.

2.1 What is capacity building ?

The “Dense Settlements” project has developed a capacity building model that includes an appreciation of the various aspects of capacity and the process of capacity building. It is considered a process which needs to facilitate identification of the gap between what the current situation is with respect to the level of capacity in the environment related stakeholders, in contrast to where we would like to see the capacity of such partner stakeholders (vision of capacity), and hence determine and implement a plan of how to bridge this gap.

Capacity as defined in the National Strategy is an integrated set of eight aspects, viz.: i) mandate (policy and popular), ii) instruments (legislation), iii) organisational structure (including institutional development), iv) technical (including human resource development), v) procedural (institutional memory), vi) problem solving (planning), vii) financial (capital and recurrent) and viii) networking (stakeholder alliances). This is illustrated in Figure 1. This report focuses on human resources development sector. However, networking capacity with respect to inter and intra departmental interactions is also addressed.

Aspects of Capacity

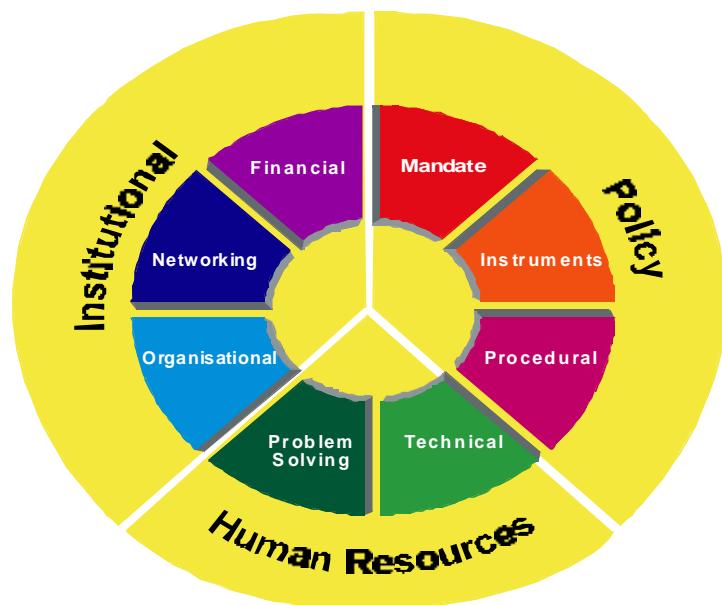


Figure 1 – The Aspects of Capacity

Based on the concepts of stakeholder participation, ownership and managing the project at the lowest appropriate level (subsidiarity), the “process” of capacity development has been modelled as a cyclic series of activities which attempts to develop and implement an action plan for how to bridge the capacity gap between the current level of capacity to the desired level. The series of activities includes: i) identify stakeholders, ii) perform problem analysis, iii) determine environmental management functions, iv) link stakeholders with these environmental functions, v) perform a “gap analysis”, vi) develop an action plan, vii) develop a monitoring programme, viii) implement the capacity building programme, and ix) monitor, evaluate and provide feedback to the programme. This process has been applied in the project and is indicated in Figure 2. The focus of this paper is on the initial activities up to the development of a draft capacity building and awareness plan that may act as a basis for negotiation with the various stakeholders.

Process of Capacity Building

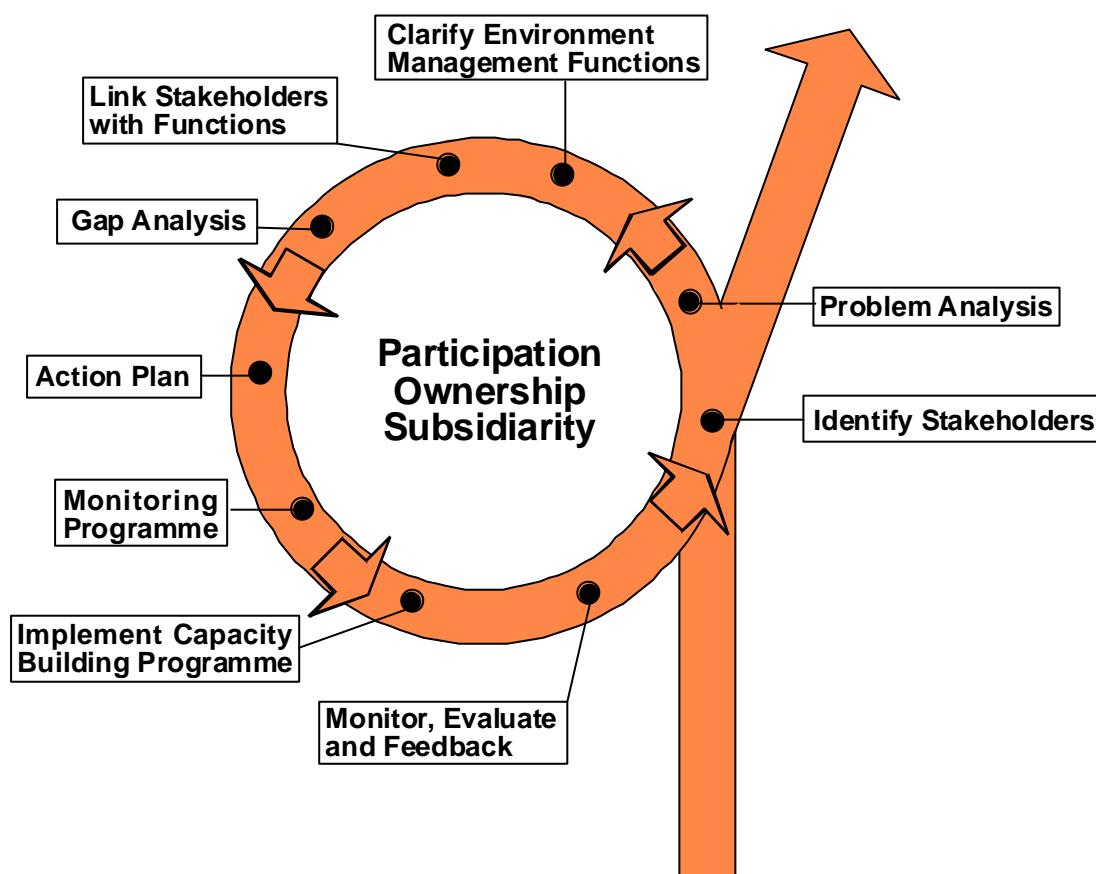


Figure 2 – The Process of Capacity Building

The concepts of the different aspects of capacity, and the capacity building process have been combined in this project. As such we have attempted to develop options for capacity building, as outlined above, with each of the components of capacity as defined for this project. This overall process is driven by both an analysis of the existing capacity, as well as a vision of what is required to ensure sustainable implementation of the National Strategy. As indicated above, this report focuses on the institutional and human resources components. The [Capacity Gap](#) report and the [Financial Capacity Gap](#) report focus on the financial and policy components of capacity building.

2.2 Capacity or awareness building

There are a variety of stakeholders who may wish to implement the National Strategy. These stakeholders may develop their own initiatives, with or without DWAF as a partner, or may rely heavily on the expertise of DWAF staff. The latter requires stakeholders to know when to implement the Strategy, hence awareness of the Strategy is critical. However, in the former case stakeholders need to know how to implement the Strategy and a more extensive programme of capacity building is required. In this sense, this project has differentiated between the concepts of: i) awareness where the stakeholders need to know when the Strategy needs to be implemented but not necessarily have the skills to develop and implement the approaches, and ii) *capacity* where the stakeholders require to have a full appreciation of how to identify and address the causes of pollution, as well as how to monitor the implementation process. Whilst this distinction is somewhat arbitrary, it is used in this document to distinguish between the capacity building required by different stakeholders.

2.3 Stakeholders who may support capacity and awareness building

The [National Strategy](#) points out the importance of securing alliances between various stakeholders in order to facilitate implementation of the Strategy. These stakeholders may include groups at a community, local government provincial and national levels, as outlined in Table 1.

Table 1. List of Stakeholders

PARTNER ORGANISATION	PARTNERING ROLE
National Government Departments	Policy, regulation and guidelines development Capacity building programmes
Provincial Government Departments	Policy, regulation and guidelines development Shared capacity and water quality related activities
District and Regional Councils	Awareness building Local Government capacity building
Catchment Management Agencies	Catchment management strategies Planning, and monitoring
Water Boards	Planning Implementing and regulating Managing service provision within settlements
Regional Planning Forums	Awareness building, prioritisation of settlements Planning
South African Local Government Association (SALGA)	Awareness building Best practice sharing
NGOs (environmental, civic groupings, etc)	Assistance with capacity, Monitoring Awareness building Community mobilisation
Universities and Teknikons	Training and capacity building
Offices of Political Parties	Community mobilisation
Trade Unions	Community mobilisation Capacity building
Regional and District Business Associations	Financial support Skills transfer
Donor and Service Organisations	Financial support Skills
CBOs	Community mobilisation Implementation of interventions
Local Authorities	Planning Implementing and regulating Managing service provision within settlements Shared capacity and water related activities
Water Service Providers	Water service provision, including ensuring water quality

3 THE CURRENT STATUS OF PROGRAMMES IN THIS SECTOR

PURPOSE

This chapter presents a brief description of the stakeholders and the initiatives that may act as vehicles for capacity and awareness building for the National Strategy. It focuses on the national and regional initiatives in order to determine a “trickle-down” approach to capacity and awareness building.

3.1 Department of Water Affairs and Forestry initiatives

The Department of Water Affairs and Forestry (DWAF) has a dual responsibility, *viz.*, to manage water resources for optimum social and economic benefit and to provide access to equitable and sustainable water supply and sanitation services. Both responsibilities are impacted by the “Dense Settlements” Strategy.

3.1.1 Directorate of Human Resources Development

The DWAF Directorate:HRD (contact Director:HRD, Ms. Mariam Sekati on ph: 012-338 7746) is responsible for, *inter alia*, developing policy and strategy on DWAF staff training requirements, ensuring consistency with the national qualification framework and national skills authority, development of standards, accreditation, and administering training and associated budget. The budget is relatively modest (1million Rand) given the extensive staff of DWAF (>30,000).

Current Status of Capacity Building Programmes

A draft policy document on human resources development is currently being produced. The Directorate administers three types of training:

- motivational training,
- learning workshops,
- skills based training courses.

Currently there are no guidelines for the various directorates to produce training plans, and it is up to individual directorates to motivate for training requirements. Due to the limited funding available, securing of funding for training is ad-hoc.

It is recommended that a copy of the “Dense Settlements” capacity building programme is forwarded to the Directorate: Human Resources Development for review in order to ensure consistency with DWAF policy and consistency with the national qualifications framework.

Development of Sector Education and Training Association

DWAF has been intimately involved in the development of a Sector Education and Training Association (SETA) for the water sector, however there has been some confusion in this regard. Initially a broad number of stakeholders in the water sector have co-ordinated efforts and developed a mandate for a water SETA (including a business plan), however, in parallel, local government has also developed a proposal for a water and related services SETA. This confusion is currently being settled and a joint letter of intent and business plan is likely to be approved however under the local government initiative. The consequence is that local government is likely to garner the majority of SETA training funds. DWAF's water SETA representative is the Director:HRD.

3.1.2 *Water Quality Management Initiatives*

The DWAF Directorate: Water Quality Management (D:WQM) is responsible for ensuring water resources remain fit for use by recognised uses and to protect and improve water environment on a sustainable basis. The Deputy Directorate: Urban Development and Agriculture manages the "Dense Settlements" project.

Current Status of Capacity Building Programmes

The WQM directorate has a training committee (contact Deputy Director: Management Systems, Mr. Peter Viljoen) to oversee training requirements for Head Office and Regional Office personnel (approximately 100 staff). The committee has developed a number of training courses that are grouped based on the level of experience of trainees, and compulsory or optional status. The primary training courses include:

1. Orientation course (1 week duration) for new, inexperienced staff is supervised and delivered by the Training Committee and internal DWAF staff.
2. Advanced Water Quality Management Course (2 weeks duration) is supervised by the Training Committee but managed by the University of Pretoria. It was originally of 3 weeks duration however has been reduced down to 2 weeks and includes a 1 week technical component (delivered by UoP) and 1 week management component (delivered by UoP and WQM). There are a number of training issues not adequately covered and there is consideration of increasing the duration to 3 weeks. The "Dense Settlements" sector could be covered in a 2 day module within the scope of this extension.
3. Sector specific training is identified by each Deputy Directorate.
4. Other training identified and supervised by the Training Committee.

The Training Committee is responsible for motivating the budget for the training courses, however the D:HRD is responsible for approving budgets. The Training Committee has motivated for the 1999/2000 financial year training for a budget of 400,000 Rand, nominally based on 100 staff x 2 courses/staff x 2,000 Rand/course. Generally, the Training Committee's philosophy is that internal courses should be delivered if there is in-house experience, hence capitalising on the familiarity of the subject matter by internal staff, and only if no expertise is available in house should external courses be given. The Regional Offices have a mentorship system where senior staff supervise junior staff.

It is recommended that the Deputy Director: Urban Development and Agriculture support the extension of the Advanced Water Quality management training course which would include a 2 day module on the "Dense Settlements" sector.

Training on Managing Water Quality Effects of Settlements

A training course on managing water quality effects of settlements has been developed and implemented by the "Dense Settlements" project for representatives of DWAF Regional Water Quality Offices who are responsible for managing the test cases. The course follows a "train-the-trainers" approach and is accompanied by an Instructors Manual. This training course provided the basis for regional DWAF staff to tackle the Test Cases.

However, implementation of the test cases has considerably added to the understanding of the problem. In addition it has been recognised that routine implementation of the National Strategy will require somewhat of a different approach. The current approach Water Quality Management staff should use to address pollution problems in settlements is now available on this CD. This CD therefore replaces the original training program developed for the project. It is recommended that the regional offices in DWAF, and future Catchment Management Agencies keep a record of the staff trained using this CD.

A Water Management System

The Deputy Directorate: Management Systems is currently supporting the development of a corporate water management system (WMS) for water quality and quantity issues, which will be “on-line”. The WMS is managed by a Steering Committee driven by the Chief Directors for Water Use and Conservation, Scientific Services and Regions. The WMS is being developed in a modular format, however the new Water use Authorisation Management System (WARMS) for licencing is not currently integrated with the WMS. Other systems that are not currently integrated include Resource Directed Measures (RDM) and the Water Services GIS database. The resources are required to support the system include a minimum of 1 full-time person/region, and training requirements are estimated at 6 weeks/trainee.

3.1.3 *Catchment Management Agencies*

The recently introduced DWAF Directorate: Catchment Management (contact Deputy Director:Development, Ms. Eustathia Bofilatos, ph: 012-336 7562) has two sub-directorates responsible for policy development and communication with respect to catchment management.

Current Status of Capacity Building Programmes

The Directorate:CM is developing a number of initiatives that will have an effect on settlements. These include:

- Guidelines for the establishment of Catchment Management Agencies and Water User Associations.
- A capacity building project to train DWAF regional officers (acting CMA staff), and subsequently external stakeholders, on catchment management and the development of curricula for tertiary education institutions.
- Integrated Catchment Management Project funded by DANCED which will involve developing and implementing catchment management strategies in three catchments, groundwater resources and water conservation demand management.
- Protocols for the Directorate: CM.

It is recommended that the “Dense Settlements” training module is inserted into the CMA capacity building plan for the regional staff and external stakeholders.

3.1.4 *Water Services Planning Tool Box*

The national Department of Constitutional Development has initiated the Integrated Development Planning process with the goal of supporting municipalities in planning for service provision. The [Municipal Systems Act](#) legislates on the IDP process as a single planning process at the municipal level. The water and sanitation services sector component of the Integrated Development Plan is the Water Services Development Plan as outlined in the Water Services Act. If an IDP process is not underway in a specific local authority, the [Water Services Act](#) (Act No. 108 of 1997) requires water service authorities (typically local government) to produce a WSDP with a 5 year planning horizon.

Current Status of Capacity Building Programmes

DWAF's Directorate: Macro Planning and Information Systems (contact Ms. Bev Pretorius on 012-336 8294) has produced comprehensive guidelines for the development of WSDPs; these are “DWAF's guide, framework and checklist for the development of water services development plans, Edition 2 (1998)”. However such guidelines are demanding, esp. for local authorities with little capacity. Hence an additional set of “Starter Requirements for Water Services Development Plans Supplementary Guidelines (1999) for Local Municipalities” has been produced to support development of the WSDPs in the municipalities, as well as a set for District Councils. This project has had a direct input into the development of these Guidelines, and the main principles of the National Strategy have therefore been carried through into the capacity building programmes for the development of WSDPs.

DWAF: Water Services has initiated a "roadshow" capacity building program, which is currently visiting local government structures throughout South Africa. The regional Water Quality Management staff involved with the Test Cases present the National Strategy at these roadshows. This project has also developed additional guidelines on how to plan services to avoid pollution problems. These are available in the report on [Planning to Avoid Pollution](#).

3.1.5 National Sanitation Co-ordination Office Initiatives

The National Sanitation Co-ordination Office (NaSCO) is responsible for capacitating the DWAF Deputy Directorate: Sanitation and provincial sanitation offices and local authorities via, *inter alia*, development of policy, strategy and guidelines on sanitation services, esp. in the rural and peri-urban areas. The British Department for International Development (DfID) will fund NaSCO for an additional 3 years starting January 2000. NaSCO has developed a number of initiatives in the sanitation sector that are directly relevant to the "Dense Settlements" Strategy. It is therefore recommended that a formal steering committee between the Water Quality Management Directorate and NaSCO is developed in order to co-ordinate initiatives.

Current Status of Capacity Building Programmes

The PHAST methodology:- Participatory Health and Sanitation Transformation (PHAST) is a methodology for health, hygiene and sanitation promotion (WHO, 1997). NaSCO (contact: Marie Brisley, ph: 012-336 8379) has a toolkit of overheads to support implementation of the approach however there is no accompanying manual on how to use the tools. It is recommended regional water quality officers familiarise themselves with the PHAST methodology as part of building capacity in communities to limit pollution, and to highlight the need to avoid pollution.

Intensive Sanitation In-service Training Course:- In 1998, NaSCO initiated and implemented an intensive 5 week duration course on sanitation for DWAF provincial sanitation co-ordination office staff (PROSCO) and other interested parties. The course was developed jointly by NaSCO, the National Community Water and Sanitation Training Institute (NCWSTI) and the Water and Environmental Health departments in London and Loughborough, UK (WELL). The course covers a range of aspects of sanitation, including technical issues, institutional and social issues, and the intention is to undertake the course on an annual basis. DWAF Regional Water Quality Management staff involved in implementing the "Dense Settlements" Strategy would benefit from attendance at the course, and it is recommended that regions consider sending Water Quality Management staff on this course.

SOUL City:- SOUL City is a project of the Institute of Urban Primary Health Care (IUPHC) and is a popular multi-media (television, radio, newspaper, public relations/advertising and educational packages) health initiative aimed at a variety of audiences and funded by a variety of donors, including the European Union. The total cost of the first phase was 8.2 million Rand, however Series 4 in 1999 had an annual budget of approximately 20 million Rand and Series 5 (year 2000) is in the development stage. Series 6 for the year 2001 is currently requesting proposals for themes and whilst water and health would not be a primary theme, it could be a cross-cutting theme. The aim is to provide people with awareness and knowledge about issues that affect their health and well-being so that they may be empowered to make their environment safe. It is located in Johannesburg (contact Sally Ward/Joel Seboloa/John Molefe, ph: 011-728-7440). The first series, aired on television in 1994, had, *inter alia*, diarrhoea as one of the eight priority topics. The multi-media package reached at least 8.1 million people (approximately half of black South Africans over 15 years of age), including 3-4 million people who saw the television series, listened to radio, saw newspaper inserts or booklets; the television series is scheduled for broadcast in a number of Southern African countries. An extensive evaluation of the multi-media package has been performed and presents information on the media penetration and impact amongst the various categories of audience.

Originally it was planned to incorporate water and sanitation concepts into the television series however this was found to be very difficult due to the wide differences in target audience and associated

Originally it was planned to incorporate water and sanitation concepts into the television series however this was found to be very difficult due to the wide differences in target audience and associated conditions. Instead, the first draft of a sanitation manual has been produced and will be distributed for comment (Water Quality Management has been requested to be placed on the distribution list). The document is targeted at the community and to environmental health officers (EHO) and could be used in EHO curricula. It discusses low cost options to improve community health. Further details on the SOUL City water and sanitation programme are included in Clacherty & Associates (1997), Social Surveys (1997) and SOUL City Evaluation Report.

It is recommended that programs advertising the successes of this project use the SOUL City program as a launching point. The report outlining how this project should be advertised and disseminated to create a demand for a less polluted environment provides more details in this regard.

Per-urban Sanitation Strategy:- NaSCO is preparing a project to implement the peri-urban sanitation strategy in selected pilot studies via funding from the Government of Ireland. Other initiatives include "Developing and evaluating education materials in sanitation and water programmes", "A Protocol to support peri-urban sanitation provision in the Greater Johannesburg Metropolitan Council" which may be generalised to other locations. The draft "Sanitation Requirements for Water Services Development Plans" (October, 1999) is out for comment however they do not appear an easy to use guide for local authorities. This could be developed along with water quality management issues. Other studies are occurring in Durban on shallow sewerage systems. This project has had input into all these programs.

3.1.6 *DWAF's ISD manual,*

The former DWAF Directorate: Water Services is responsible for ensuring integrated and sustainable management of water resources and water supply. The Sub-Directorate: Institutional and Social Development is responsible for supporting sustainable water and sanitation service provision by ensuring capacity building issues are incorporated into the planning, design, implementation, monitoring and evaluation of water supply and sanitation initiatives.

Current Status of Capacity Building Programmes

In order to contribute to sustainable water services provision, the DWAF Directorate: Institutional and Social Development (ISD) has produced an "ISD Package for Water Supply Projects" in two versions, viz. the complete version and the Overview Version for stakeholders. The purpose of the document is to ensure institutional and social issues are incorporated into water supply projects, e.g. sustainable governance (community participation and governance, institutional analysis) and integrated social development (sanitation, health and hygiene promotion, entrepreneurial development, and integration of sectoral development initiatives). The manual presents: a sustainable approach to ISD work in water supply projects; an overview of the project cycle, in particular the planning phase; links between the technical, social and institutional aspects; and methodological approaches for capacity building. The technical, financial, environmental, social, institutional and community governance elements of sustainability are required to be present before leading to cost recovery, efficient operations and maintenance, improved health and support of economic activity. Whilst the manual focuses on environmental issues, there is no reference to the "Dense Settlements" Strategy.

Whilst the ISD package is dedicated to water supply projects, the principles would also be relevant to sanitation projects, however there are no plans to produce a specific version for the sanitation sector. It is therefore recommended that the ISD model is applied when considering capacity building and training. If an ISD package is developed for sanitation aspects, it is suggested to work together with NaSCO to incorporate specific issues that may affect water quality issues.

3.2 Department of Land Affairs initiatives

3.2.1 *Environmental Issues in Land Reform*

The Department of Land Affairs (DLA) is responsible for managing land reform and promoting effective land use as a natural resource, which includes environmental issues of land development. It administers the Development Facilitation Act, the purpose of which is to, *inter alia*, provide an alternative process to speed up the implementation of reconstruction and development programmes and projects in relation to land development and develop a strategic planning framework for development in the area via land development objectives (LDO).

Current Status of Capacity Building Programmes

The DLA is currently implementing a project co-funded with the Danish Government's DANCED programme concerning "Integration of environmental planning in the land reform process" (contact Deputy Director: Ruth Beukman, ph: 012-312 9529). The project will include i) development of guidelines and policy for integrating environmental affairs in the land reform process, ii) development and implementation of training courses in environmental awareness and skills training for service providers (in such fields as participatory approaches and spatial development planning, sustainable production systems, integrated environmental management and natural resource management), local authorities (in terms of spatial development planning, environment and land reform) and land reform beneficiaries (with a focus on raising their awareness towards environmental issues in a broader planning context), and iii) implementing two groups of demonstration projects in Mpumalanga and Free State. Due to capacity constraints, the DLA has outsourced the training to the University of Western Cape's Programme for Land And Agrarian Studies (PLAAS). Training of staff commenced in June/July 1999 and will be completed in 2001. [The Cairn Test Case](#) was undertaken as a joint test case with this project.

The first foundation course has been completed and includes topics on water resources management, water policy and legislation, catchment management, and identifying environmental impact of settlements. However the course material does not include reference to the "Dense Settlements" Strategy, nor water quality impacts specific to settlements. It is therefore recommended that the summary module of the "Dense Settlements" training material is given to the DLA project for incorporation in their course curricula.

3.2.2 *Provincial Development Tribunals*

The Development Facilitation Act provides for the establishment of a national Development and Planning Commission to advise on policy and legislation on land development, supported by Provincial Development Tribunals that have the responsibility of approving major developments affecting a particular region. The DFA facilitates the formulation and implementation of Land Development Objectives that are long-term strategic plans on a regional basis rather than short-term planning on a municipal basis. (In contrast, the [IDP planning process](#) has a more narrow focus at the municipal infrastructure level.)

Currently the Provincial Development Tribunals have limited guidance on the environmental consequences of development, however development applications are required to ensure that environmental impact is minimised. It is recommended that environmental guidelines are developed to support the Provincial Development Tribunals. This could be developed in conjunction with more general environmental guidelines from DEAT.

3.3 Department of Provincial and Local Government

The Department of Provincial and Local Government (DPLG) provides good governance support to municipalities typically via provincial offices. Applicable Directorates within DPLG include i) Local Government Training, ii) Municipal Planning and iii) Municipal Infrastructure.

3.3.1 Municipal Training

Previously, the Local Government Training Act allowed for the development of Training Centres that managed training budgets funded by DPLG plus levies from the Local Authorities. The DCD Local Government Directorate provided a support function to these training Boards. Provincial Training Boards were responsible for co-ordinating local government staff training, however due to the Skills Development Act, the Training Boards have been dissolved. New legislation does not provide for a direct replacement of the Training Boards. Instead, Sector Education and Training Associations (SETA) will take on a more regulatory role. Similarly the mandate of the DPLG - Local Government Directorate will also change to facilitate capacity building in Local Government, focusing on District Councils. This will include co-ordinating donor funding for capacity building initiatives.

3.3.2 Municipal Planning

The Integrated Development Planning process is an initiative of the DPLG - Municipal Planning Directorate via the Local Government Transition Act, which is intended to facilitate municipal infrastructure planning capacity for local authorities. However the IDP process commenced without an effective legislative and policy basis, limited funding and associated capacity building programme. This resulted in some confusion. These issues are being addressed, in particular via the Municipal Systems Act, which lays the basis for better co-ordination of planning. An extensive IDP manual is available and is supported by guidelines in the Local Government Series.

3.3.3 Municipal Infrastructure

DPLG manages the Consolidated Municipal Infrastructure Programme (CMIP), which provides funding for installation, upgrading and rehabilitation of bulk and connector infrastructure, via a grant of maximum 3,000 Rand/low income household. The 2-phase procedure for approval of municipal applications for the CMIP fund has been detailed in a report produced by DPLG (see their website www.cmip.co.za). Applications for water-related projects must be accompanied by a technical report to be submitted to DWAF regional offices. Funds from CMIP can be directed to capacity building issues, *incl.* planning and implementing service provision.

In order to set the scene for municipal training, an extensive "Study leading to development of a national capacity building programme for provincial and municipal authorities" reported that there is no generic training focus amongst municipalities, and that focus areas are determined on an ad-hoc basis, i.e. there is no coherent municipal training strategy (including needs analysis), nor alignment of training with the National Qualifications Framework. There is a major imbalance between the vast number of municipal officers requiring training and the low amount invested in municipal training, and training is preferentially given to maintenance issues rather than strategic issues.

3.3.4 Current Status of Capacity Building Programmes

Inter-departmental Networking

There is an existing forum for inter-departmental co-operation in the capacity building sector which is led by the DPLG Local Government Training Directorate (contact Seth Mogapi, ph: 012-334 0776). This includes DWAF (contact Jenny Evans), DLA (contact Stephen Berrisford) and DEAT (contact Crystel van der Merwe).

DPLG Local Government Series Guidelines

The Local Government Series was published by DPLG in 1997 with technical and financial support by the British Department for International Development. The series is meant to be a user-friendly guide for local authorities to plan and develop their communities, and was accompanied by various training initiatives. One of the primary issues is the Integrated Development Planning process, which has been further developed since the Series was published.

IDP Manual

Since the Local Government Series was published, DPLG contracted the CSIR to produce a User Guide for Integrated Development Planning. The CSIR also provides training courses on the IDP process (contact Maria Coetzee, ph: 012-841 2552). The first edition of the manual was considered a "pilot" and has been assessed. There has been found a need to simplify the document and make it more user-friendly. The Steering Committee for the revision of the guidelines includes a DWAF representative (however this person has not attended recent meetings. The person is likely to be either Bev Pretorius or Jenny Evans when revision of the IDP manual commences.) In order to align the IDP requirements with those of other departments, DPLG has requested information from the various departments on integrating their requirements. DWAF has provided this information and the IDP guidelines will incorporate this information. The person responsible for developing this Manual is Musa Majozi (ph: 012-334 0803).)

The IDP planning process does not have specific requirements for (water) environment assessment, hence DWAF has initiated the requirements for Water Service Development Plans to align the water sector with the IDP planning process. The German Government is providing support to DPLG via its international donor programme GTZ (contact Dr. Theo Rauch, ph: 012-334 0802). The focus is on the IDP process and support includes i) training councillors and planners, and ii) revision of the IDP manual. Training is limited to IDP methodology; there is no sector specific training that would be relevant to the water environment.

It is recommended that DWAF reviews the draft IDP guidelines before finalisation. In addition, DWAF – Water Quality Management should remain in close contact with DPLG to ensure that the principles outlined in the National Strategy are taken up both into the CMIP funding process, as well as into the ongoing training provided with respect to the IDP process.

A USAID funded project for DPLG

The Government of the USA will soon be investing US\$18million over a 5 year bilateral agreement via their USAID programme with the Department of Provincial and Local Government. There are two main focuses of support: i) democratisation and good governance, and ii) urban environmental management and housing. The main focuses of the democratisation and good governance programme are (contact Mzwai Poswa, ph: 012- 323 8869, x418) 1) policy and programme development (*incl.* support to management unit of the Local Government Transformation Board, performance management systems, national tariff guidelines), 2) direct assistance to 22 municipalities representing large and small, urban and rural, metro and district councils spread throughout the country (*incl.* Operationalisation of the Integrated Development Planning process, institutional building to improve water delivery, performance management, rates awareness, revenue management,

restructuring water services and sanitation services in Cape Town), and 3) “horizontal learning” (incl. knowledge bank).

The main focuses in urban environmental management and housing programme (contact Joel Kolker, ph: 012- 323 8869, x215) are 1) supporting the Municipal Infrastructure Investment Unit (US\$6million) which, *inter alia*, includes grants for project preparation and investigating equity in water concessions, 2) restructuring utilities in the larger metropolis (including Johannesburg) and 3) municipal partnerships via the Municipal Systems Act.

SIDA funded projects for local government

The Swedish Government provides funding for development projects via the Swedish International Development Agency (SIDA), with the main focus of aid aimed at democracy, public administration, urban development and education. SIDA is currently funding 3 projects in the areas of urban planning, housing, service delivery and public administration (contact Hartmut Schmetzer, ph: 012-426 6458), targeting municipalities in the Eastern and Northern Cape. The urban planning projects in Kimberly, Port Elisabeth and King Williams Town (contact Orjan Mohlund, ph: 040-639 2061, ext. 2061) involve implementing innovative approaches in the development of Comprehensive Urban Plans (CUP), with emphasis on environmental issues, public participation in townships, and balanced gender participation. A review report on the public administration impact has been produced for the recently completed projects in Kimberly (contact Marius Stols, ph: 053-830 6345) and Port Elisabeth (contact Jonathon Mercer, ph: 041-506 2148), which were started in 1997, however the King Williams Town project has recently commenced. Follow-up projects are also being formulated in Kimberly and Port Elisabeth. There appears to be limited opportunities to apply the experiences from the projects on a national basis. It is suggested that the DWAF Northern Cape and Eastern Cape test case studies investigate the approaches being implemented by this project.

Note also that the British DfID is financing the programme “Building Sustainable Local Government in the North West and Northern Cape”, the European Union is funding the programme “Strengthening Local Government in Mpumalanga and Northern Province”, the United Nations Development Programme (UNDP) is funding the programme “Capacity Building for Local Governance” in the North West and Northern Provinces. All programmes do not have environmental issues as a cross-cutting issue, however to varying extents they do include capacity building in the Integrated Development Planning process. There is currently no forum for co-ordinating, disseminating the results and lessons learnt from these programmes.

Dutch Government Funding

The Dutch Government has pledged 20million Rand to DPLG for support in the local government sector. A list of 5-6 sub-projects has been formulated which includes: i) implementation of sustainable water institution programme (DWAF), ii) transfer of state lands in the former homelands to local authorities (DLA), iii) development of a monitoring and evaluation system for IDPs and LDOs, iv) integration of decentralised and devolved functions at District Council level (DCD), v) generation and dissemination of information on local government “best practice”, and vi) planning and implementation management support systems for small municipalities (may be Dutch or German funding).

Due to the limited planning and implementation management support for local authorities, a project has been formulated to establish an efficient and sustainable system of Planning and Implementation Management Support Centres (PIMS-Centres) within District Councils. This will include planning support, training, organisational development support, the provision of equipment, development of management information systems, and provincial support.

South African Local Government Association

The South African Local Government Association (SALGA) is the national representative and consultative body in respect of local government interests and provides representation, promotion and

protection for local government matters. Of particular interest is SALGA's strategic situation to facilitate shared learning between municipalities. SALGA has a number of working groups, including the Human Resource Development Working Group and Development Facilitation Planning Working Group. The Head Office is located in the Human Sciences Research Council (HSRC) Building in Pretorius Street, Pretoria. Each province has a local government association and SALGA's official publication is called "VOICE" which might be a good opportunity for presenting an article on the Strategy. SALGA has been delegated the task of providing training of Councillors in the IDP process, however training of local authority officials is expected to be provided by the SETAs. This suggests that SALGA is not a particularly suitable agent to ensure training for the "Dense Settlements" strategy. In any case, DP training does not include sector specific training, e.g. associated with the environment. In particular there are no water sector specific training initiatives that could be used to facilitate training in the water quality sector. However there is a Water Sector Support Unit located in SALGA that may be relevant to the "Dense Settlements" project.

Water Sector Support Unit

There is a Water Sector Support Unit located in the SALGA offices (contact Adie Vienings, ph: 012-338 6771) however it serves SALGA, the Department of Provincial and Local Government (provincial departments) and Department of Water Affairs and Forestry. The purpose of the 3-year project (started June 1998) is to facilitate co-operation between the DWAF, DPLG and SALGA (and other stakeholders) in the water sector (includes sanitation and waste disposal) during the period of transfer of responsibilities for water services from the national government to the local level. This includes investigating overlaps in legislation and training between the departments. There is a minor training budget, however this is unlikely to be useful for the "Dense Settlements" project. Funding of the project is provided by the British Department for International Development (DfID). The regional focus is in Mpumalanga, North-west and Northern Provinces.

It is recommended that the Dense Settlements project co-ordinates activities with the Water Sector Support Unit with respect to networking plans between the departments and associated training. The WSSU might be an appropriate link to the water sector aspects of the SALGA.

3.4 Department of Environment Affairs and Tourism initiatives

The Department of Environmental Affairs and Tourism (DEAT) is responsible for managing environmental protection, however this has traditionally been via a reactive mode rather than a preventative approach. DEAT has recently developed a new Directorate: Environmental Capacity Building (contact Director: Environmental Capacity Building, Ms. Tiny Madiba on ph: 012-310 3653, fax: 012-322 2682) with the help of funding from the Danish Government's DANCED programme. The function of the Directorate is to facilitate training for DEAT and other governmental agency staff in the environment sector, initially focusing on waste management and environmental impact assessment.

Current Status of Capacity Building Programmes

Training initiatives associated with the ECBU project are expected to commence in the year 2000. The advantage of this initiative is that DEAT will be managing an environmental stakeholders and training data base which could be accessed by the "Dense Settlements" Strategy team, and the Environmental Capacity Building Unit (ECBU) could act as a vehicle for introducing water quality issues into environmental training programmes. The relationship would also strengthen ties between DWAF and DEAT. Once the ECBU becomes fully operative, the Dense Settlements project team could approach the ECBU to determine appropriate initiatives. DEAT ECBU will also be hosting a project funded by the UNDP called "Capacity building programme for sustainable development and environmental management".

It is recommended that the Dense Settlement Project considers the Directorate: ECBU as a vehicle for introducing water quality issues into environmental training programmes for environment stakeholders. Once the ECBU project commences, it is recommended for WQM and ECBU to meet and develop an alliance. A module on the National Strategy could be sent to the ECBU for incorporation into relevant training courses.

Note also that DANCED is funding the project "Capacity Building in the South African National Parks" (contact Jens Søndergaard, ph: 012-343 9770 at JensS@parks-sa.co.za) which includes settlements adjacent to national parks. The project is a 3 year duration project which commenced in June 1998 and will i) develop a social ecology function at the head office, ii) develop models of partnerships (eco-tourism and arts & crafts) between communities and SANP staff via 5 pilot projects, and iii) training of staff outsourced to Wits University Public and Development Management. A recent analysis of SANP staff workload indicates 75% of staff resources are associated with environmental education however only 8% on community participation. The overall objective of the Social Ecology Training Plan is to enable the SANP to facilitate dialogue, be engaged in problem resolution and establish partnerships with communities neighbouring national parks. Hence there are some similarities with the approach taken with training of DWAF regional water quality management officers. However, there is no specific interest in pollution issues.

3.5 Department of Health initiatives

The Department of Health is responsible for promoting and monitoring of health via a primary health care approach. Although environmental health is not considered a health department core function, the Directorate of Environmental Health (contact Director: Environmental Health, Mr. Thebe Pule ph: 012-312 0762) is responsible for matters dealing with, *inter alia*, municipal waste, hazardous chemicals and water, and there are commonalities with the functions of DWAF's water quality officers. There are approximately 2,000 environmental health officers (EHO) in South Africa who interface with communities and local government as well as DWAF regional officers on a daily basis. They experience similar problems faced by DWAF Water Quality Management officers concerning communication and facilitating dialogue with those causing or being affected by pollution.

Status of Capacity Building Programmes

Most Teknikons offer a 3-4 year degree in environmental health. The curriculum is currently under review however this is on hold subject to clarification of the National Qualifications Framework. The revision of the curriculum is expected to be completed by year 2001.

A "train-the-trainers" Pollution Prevention Programme training course (3 days duration) has been recently developed internally for provincial EHOs and implemented in three provinces; the initiative has not been evaluated as yet. The thrust is for EHOs to take a more active role in problem solving rather than passive monitoring which is similar to the relationship between DWAF regional water quality officers and the "Dense Settlements" Strategy. Water quality management issues are represented in the training course to a limited extent, however there is no mention of the "Dense Settlements" Strategy. There is scope for modifying the training course before delivery to all of the provinces. The Department of Health has supported the development of the Water Quality Guidelines with the intention to broaden the scope to a set of five volumes; the result has been that pollution issues have been given limited attention. However EHOs are experiencing the need to investigate the pollution production and delivery pathways in order to monitor and correct water resource problems.

Due to the lack of clarity in the environmental impact assessment requirements in the National Environmental Conservation Act, the Department of Health recently commissioned the Council for Scientific and Industrial Research (CSIR) to develop and implement a training course (3 day duration) for EHOs on integrated environmental management (IEM) and EIA. There is no mention of the "Dense Settlements" Strategy. Training has been completed however the training course could be modified for future training staff.

An alliance between the DWAF water quality management officers and DoH environmental health officers would be beneficial to manage water quality from settlements. The EHOs represent a greater resource base than is available within DWAF and they do have overlapping mandates with respect to water environment quality management. It is also interesting to note that the weakest link in DANCED's environmental programme in South Africa is the lack of integration with the Department of Health. This should be a topic for the DEAT - ECBU project.

It is recommended that the Dense Settlements project contacts the Pretoria Teknikon (Mr. Koos Engelbrecht) in order to propose additions to the EHO course curricula to incorporate water quality management issues from densely populated settlements. Aspects of the "Dense Settlements" Strategy are recommended to be included in the Pollution Prevention Programme training course and the IEM/EIA training course. It is also suggested that an alliance is formed between the DWAF regional water quality management offices and the DoH provincial environmental health offices.

3.6 Other Training initiatives

3.6.1 *National Community Water and Sanitation Training Institute*

The purpose of the National Community Water and Sanitation Training Institute (NCWSTI) at the University of the North is to build capacity in the community water and sanitation sector, esp. via training of local government agencies involved in water and sanitation, NGOs, consulting engineers, and training organisations. It has an extensive networking ability and is part of an international training network in Africa.

The NCWSTI and the Pretoria Teknikon have developed the course Management of Community Water Services that consists of 37 modules of 1-2 week duration commencing in the year 2000.

4 CAPACITY BUILDING PLAN FOR STAKEHOLDERS

PURPOSE

This chapter presents a capacity and awareness-building plan for the priority stakeholders in order to support implementation of the National Strategy. It also suggests initiatives in order to increase networking capacity within and between DWAF and other stakeholders.

4.1 Priority Stakeholders

There are a number of stakeholders at various levels who are either potentially affected by the implementation of the National Strategy or are developing and implementing initiatives that have relevance. Further, the Department of Water Affairs and Forestry has limited funds to support awareness and capacity building initiatives hence the philosophy is to integrate with existing initiatives wherever possible. Consequently the philosophy is to produce a “trickle-down” approach to awareness and capacity building within the relevant stakeholders by focusing on common, national initiatives.

4.1.1 High Priority Stakeholders

The priority stakeholders who are most likely to have the greatest impact are the DWAF - WQM regional officers due to their function of managing receiving water quality effects from pollution from densely populated settlements, and the local authorities due to their function of planning levels of service and providing ongoing operation and maintenance of the services. (The [Capacity Gap](#) report outlines the importance of local government capacity with respect to implementing the National Strategy.)

Capacity building for DWAF – WQM and CMA staff

Some DWAF-WQM regional staff have attended a “train-the-trainers” course on the Dense Settlements strategy. However, further on-the-job training seems to be required to further strengthen the capacity at this level. It is also recommended that additional training courses be given to regional DWAF staff, once the experiences from the Test Cases have been incorporated into the National Strategy. Once the CMAs become established, the water quality management staff of the CMA should receive the same training course.

Capacity Building for Local Authority staff

The Integrated Development Planning process would be the most suitable vehicle for common capacity building among local authorities, however environmental management is not featured in the IDP capacity building process. Regional capacity building initiatives are also often supported by international donors who have not co-ordinated their efforts. Introducing a common capacity building plan for local authority agencies required to implement the strategy will be a major undertaking. The DPLG Local Government Series or the Water Services Development Plans would provide vehicles for introducing the national Strategy to the planning process. However, the WSDP are the preferred mechanism to introduce the National Strategy as these are i) a common process across the country, ii) sector specific, iii) already introduce water quality as an issue for local authorities and iv) currently is in the process of review, which gives the opportunity for modifying the content.

4.1.2 Medium Priority Stakeholders

The Provincial Development Tribunals (PDT) have been formulated under the provisions of the Development Facilitation Act, which is administered by the Department of Land Affairs. Their function is to approve major developments at the planning stage; such developments require environmental assessment however there are no guidelines for PDT members. This presents the opportunity for common guidelines to be distributed to the provinces to pro-actively implement the National Strategy. Ideally there should be a common set of environmental guidelines that include the water environment hence a joint initiative between DEAT and DWAF would be appropriate.

4.1.3 Low Priority Stakeholders

Water environment education represents an opportunity for extensive targeting of staff; this represents a “shot-gun” approach. Initiatives include modifying course curricula for the Environmental Health Officers, and water engineers via the NCWSTI, and via DLA’s training courses for environmental considerations in land reform. DEAT’s Environmental Capacity Building Unit initiatives may also contribute to this process.

4.2 Institutional initiatives

4.2.1 Networking Within DWAF

There are a variety of initiatives currently being developed within the various DWAF Directorates that have the potential to affect receiving water quality. In order to co-ordinate the activities within DWAF and contribute to networking capacity, it is recommended to initiate a forum on water quality management that might include Water Services, NaSCO, Catchment Management and Water Quality Management, and to a lesser extent Groundwater Services. As such, the Deputy Director: Urban Development and Agriculture should initiate an informal forum which would nominally meet on a quarterly to semi-annual basis to discuss initiatives which may affect receiving water quality.

4.2.2 Networking Between Departments

The Danish Government is funding a number of projects in the environment sector, including via their DANCED programme in the DWAF, DEAT and DLA, and via their DANIDA programme in the local government and water sectors. In order to co-ordinate initiatives it is recommended to initiate a forum for regular contact (nominally quarterly) between the various technical advisors and the counterparts. An existing forum has already been initiated but has not realised its potential. The forum might discuss the various capacity building and training initiatives. As such, it is suggested that the Project Manager (Consultancy) of the “Dense Settlements” project approaches DANCED with a proposal to introduce a formal forum to discuss initiatives amongst the DANCED funded projects.

Other opportunities for increasing networking capacity include via the Water Sector Support Unit within SALGA, and the DEAT - ECBU project.

4.3 Capacity Building and Awareness Plan

The following is a proposed capacity building and awareness plan. There are generally five types of initiatives that could be implemented, *viz.:*

Initiative 1 - Provide “on-the-job” mentoring of WQM regional officers responsible for implementing the test cases. This will help operationalise the training already provided via the “train-the-trainers” course on the “Dense Settlements” Strategy.

Initiative 2 - New Training Course on Awareness of the National Strategy, nominally 1 day duration, for a variety of stakeholders, *incl.*

- Water Quality Management Advanced Training Course (new staff),
- Catchment Management Agency staff,
- DEAT ECBU staff,
- Environmental Health Officers Course Curricula,
- NCWSTI Course Curricula,
- Provincial Development Tribunals.

Initiative 3 – Training Course on implementation of the National Strategy. This would be a capacity building initiative, nominally of 1 week duration aimed at Local Authority planning staff.

Initiative 4 - Guidelines for water quality issues associated with the Water Services Development Plans. This will integrate in with the Integrated Development Planning process, which is likely to be the primary planning process for Local Authority municipal infrastructure as proposed in the Municipal Planning Bill. The WSDP process is the water sector related planning component of the IDP process. Hence this will be aimed at Local Authorities.

Initiative 5 - Guidelines for approval of major developments. This will integrate with the Development Facilitation Act and the associated development of Land Development Objectives (LDO). This initiative will be aimed at the:

- Provincial Development Tribunals,
- Local Authority Planning staff.

These initiatives have been summarised into the following table.

Table 3 **Capacity Building and Awareness Plan**

Target Group	Focus	Existing Initiative	Proposed Initiative	Priority /Impact
DWAF				
Regional Offices	Capacity Building	“Dense Settlements” Test Cases.	Mentoring DWAF regional officers responsible for implementing the National Strategy in the test cases.	High
Regional staff (existing staff)	Awareness	No existing initiatives.	Support DWAF WQM regional officers to provide training course for each region.	High
Water Quality Management (new) staff	Awareness	Advanced WQM Training Course.	Extend existing training course for all new WQM staff by including 2 day module on “Dense Settlements” strategy.	Medium

NaSCO	Awareness	SOUL City Sanitation and Health document for EHOs.	Include section on existing document on receiving water quality and presenting the Dense Settlements strategy.	Low
Catchment Management Agencies	Awareness	Capacity Building Project	Description of Strategy as a module for training of CMAs with associated training course.	Medium
DPLG / Local Authorities				
Local Authority staff	Capacity Building	Local Govt. Series, including IDP Guidelines.	Guideline on application of the National Strategy, with associated training course.	High
DLA				
Provincial Development Tribunals	Awareness	No existing initiatives.	Produce guidelines on protecting water quality, perhaps with DEAT on more general environmental impact.	Medium
Development Facilitation	Capacity Building	DANCED DLA project - training initiatives for test cases.	Description of Strategy as a module for training of various environmental agencies, with associated training course.	Medium
DEAT				
Environmental Capacity Building Unit	Awareness	DANCED ECBU project.	Description of Strategy as a module for training of various environmental agencies.	Low
Department of Health				
Environmental Health Officers	Capacity Building	Pollution Prevention Programme training course and IEM training course.	Description of Strategy as a module for training of various environmental agencies, with associated training course.	Medium
Environmental Health Officers	Awareness	EHO University Course.	Incorporate the "Dense Settlements" strategy in the existing EHO course curriculum.	Low
Other Training Institutions				
NCWSTI	Awareness	Existing training course.	Incorporate the "Dense Settlements" strategy in the existing NCWSTI training course.	Low

5 ASSESSMENT OF THE REQUIREMENTS OF THE NATIONAL QUALIFICATIONS FRAMEWORK

PURPOSE

This chapter describes the requirements and procedure for integrating capacity building initiatives into the National Qualifications. Recommendations for re-structuring water quality management training course material are proposed based on the current status of implementation of the National Water Act and the “Dense Settlements” test cases.

Until recently the Department of Labour administered the Manpower Training Act (Act No. 56 of 1981) and Department of Constitutional Development administered the Local Government Training Act (Act No. 41 of 1985) with the purpose of facilitating skills development at Training Centres via a Training Fund. In 1998, this legislation was replaced by the Skills Development Act (Act No. 97 of 1998), hence the Training Fund (contact, Ms. Louisa Dean, ph: 012-334 0773) is being wound down. Funds were previously provided via a national parliamentary grant, provincial grants, two different levies (associated with each Act) on local authority operational budgets (0.01%) and other sources. These will be replaced by a skills development levy. Provinces accessed funds for training based on their own skills demands hence there was limited co-ordination with provincial training.

A National Qualification Framework was established via the South African Qualifications Authority Act (Act No. 58 of 1995) to make staff training and qualifications “portable” and to provide for the registration of national standards and qualifications. This chapter determines whether the “Dense Settlements” training material should be structured consistent with the National Qualifications Framework.

5.1 The National Qualifications Framework

The National Qualifications Framework consists of 8 levels grouped into three bands, viz.: i) general education and training, ii) further education and training, and iii) higher education and training. The framework also consists of twelve organising fields (*incl.* Field 05 is Education, Training and Development; Field 06 is Manufacturing, Engineering and Technology; Field 11 is Services; and Field 12 is Physical Planning and Construction).

The South African Qualifications Authority Act is administered by the Department of Education in consultation with the Department of Labour. The South African Qualifications Authority (SAQA) is responsible for formulating policy on registration of agencies responsible for i) establishing education and training standards and qualifications, and ii) accreditation of agencies responsible for monitoring. Universities and other higher education training institutes are required to register with SAQA, however institutes providing courses aimed at level 5 or lower are required to register with the relevant Sector Education and Training Association (SETA).

The Regulations (No. 19231) under the South African Qualifications Authority Act specify that Education and Training Quality Assurance Bodies (ETQAB) are responsible for monitoring and auditing standards and qualifications. They are accredited in each sector and will promote quality amongst providers of education and training. A Business Plan is to be produced to indicate how ETQAB activities will be funded. An ETQA body has been developed for the water sector and this function rests within the Water SETA.

The Regulations (No. 18787) under the South African Qualifications Authority Act specify that each standard and qualification is to be registered in the National Qualifications Framework. A National Standards Body will be developed for each field and include representatives from a variety of stakeholders; these bodies report to the National Standards Authority. Their function is to define the boundary of the field, develop a framework divided into sub-fields in order to establish and supervise Standards Generating Bodies, register and review standards and qualifications with the NQF. A Business Plan is to be produced to indicate how National Standards Body activities will be funded.

The purpose of Standards Generating Bodies within each sub-field is to generate, review, update and recommend standards and qualifications to the National Standards Bodies. A Standards Generating Board has been developed in the water sector whose Steering Committee is headed by a representative from Rand Water. The SGB is currently undertaking an inventory of unit standards. With Water Research Council funding, the National Community Water and Sanitation Training Institute is supporting the SGB in generating unit standards. It is planned that by the end of the year 2000, unit standards will be in place.

5.2 The Skills Development Act

The Department of Labour administers the Skills Development Act (Act No. 97 of 1998) the purpose of which is to provide a framework for developing strategies for improving skills development of the South African workforce.

The approach is to develop a National Skills Authority that advises on a national skills development policy and strategy, and administers a National Skills Fund; this authority replaced the previous National Training Board. A Skills Development Planning Unit in the Department of Labour will be responsible for analysing the labour market in order to determine needs for skills in the various sectors and government.

The Skills Development Act provides the basis for the establishment of Sector Education and Training Authorities (SETA) and other institutions, each dedicated to a specific sector. Each SETA is responsible for, *inter alia*, i) facilitating balance between supply and demand of skills, ii) training is consistent with standards and the NQF, and iii) is to develop a sector skills plan that relates to the National Skills Plan (Dept. of Labour, 1999). In order to develop skills, SETAs may implement learnerships that are training courses leading to a registered qualification. Each SETA is required to seek accreditation as an ETQAB. Funding of SETAs will come from skills development levies collected within the sector, funds provided by the National Skills Fund and a variety of other sources. Details of the functions of the SETAs are included in Appendix 2.

The Local Government SETA has been developed which incorporates the water sector; it is called the Local Government and Water Related Services SETA. The Executive Committee is split into two groups, with one covering the Water sector and one covering the Local Government sector, so in effect there is a SETA dedicated to water issues (contact Steering Committee Chairman, Dr. A. Shaker, ph: 015-2683266). The Danish Government is providing funding for the development of the SETA via its DANIDA programme (contact Danida officer, Mr. Johansson, ph: 012-322 0595); a Business Plan has been drafted and will be sent to the Department of Labour in mid-November. DANIDA plans to support the SETA in the development of sector skills development plans up to 4million Rand.

A Skills Development Levies Act which, *inter alia*, levies a company tax for training purposes. This will be collected by the South African Revenue Service, with 80% distributed to the SETA for training disbursements and 20% distributed to the National Skills Fund. National and provincial departments will be required to budget 1% for training purposes, and may also contribute funds to a SETA. They are also required to develop a Skills Plan.

5.3 Registration of Unit Standards

A unit standard is a statement of a set of competencies, and becomes the basis for a training programme.

DWAF has not formalised a strategy for registration of existing training courses. The Forestry Branch has commenced the process however the Water Affairs Branch has not, preferring instead to concentrate its efforts on the development of the Water SETA and build DWAF's strategy from there. In any case, currently there is no body available to register unit standards and associated training courses.

Although there are no definite plans at this stage, the DWAF Directorate:WQM's internal water quality management courses are likely to be structured and registered with the National Qualifications Framework in order for attendees to be credited with training. However due to the new National Water Act, the syllabus of the existing training courses is in a state of flux hence any initiatives for registration will be delayed until the syllabus is reviewed. In the future, credit for such training could be a precondition for career advancement in the water quality management sector.

Training course material developed for the "Dense Settlements" Strategy project may be structured as a component of a unit standard. The benefits of registration are that: i) trainees can be credited with such training, ii) credit could be portable to other related training courses, iii) credit could be used to satisfy pre-conditions for career advancement. The disadvantages include: i) modest resources are required for reviewing and updating the syllabus, ii) the unit standard may not integrate with other training courses.

At this stage it is not clear whether the benefits of registration of "Dense Settlements" Training Courses warrant the initial and recurrent investment. The advantage of going through the procedure of registration is that it provides experience in registration of other training courses. However, since many aspects of the implementation of the National Water Act are unclear, *incl.* water resources classification system, it may be prudent to delay registration initiatives until the Water SETA has been initiated, the Standards Generating Board has commenced operation, lessons learnt from implementing the "Dense Settlements" strategy in test cases have been reviewed, and implementation procedures for the National Water Act have been clarified. The syllabus for "Dense Settlement" training courses may need to be restructured based on this experience, nominally in two years time. If, however, training of a substantial number of staff in various departments is envisaged immediately, the benefits of investing in registration may be acceptable.

If registration is initiated, the procedure for registering unit standards is as follows:

Step 1 Requirements for the registration of unit standards and standards.

A unit standard must be structured in a specific format meeting 15 criteria as specified in Regulation 18787 and serve a number of purposes, viz., an educator's guide, a learner's guide and an assessor's guide. The criteria include:

- A unit standard title,
- A logo indicating approval by the authority,
- A unit standard number,
- A unit standard level on the NQF,
- The credit attached to the unit standard,
- The field and sub-field of the unit standard,
- The issue date,
- The review date,
- The purpose of the unit standard,
- The learning assumed to take place,
- The specific outcomes to be addressed,
- The assessment criteria,
- The accreditation process,
- The range statements as a general guide for the scope, context and level being used,
- A "notes" category.

The Directorate: HRD (contact Mariam Sekati, ph: 012-336 7746) can provide support for the development of the unit standards, if required.

Step 2 Submission to National Standards Body

The organisation developing the unit standard submits the standard via the National Standards Body for registration to the South African Qualifications Authority.

Step 3 Renewal of Registration

Registration of the unit standard must be renewed every 3 years.

Step 4 Review by National Standards Body

The National Standards Body reviews the unit standard in the third year. The unit standard registered with the NQF is public domain property.

It is recommended that the project team consider registration of "Dense Settlements" training courses as a component of a unit standard only if there is sufficient and immediate demand for training of staff (which is unlikely). Otherwise it is recommended to wait until the Water SETA has commenced operation, the Standards Generating Board has commenced operation, the "Dense Settlements" test cases have been implemented and reviewed, and implementation of the National Water Act has provided experience for DWAF to determine skills demand.