



# **2009/2010 -2017/18**

# **INFRASTRUCTURE PLAN**

For the

## **NORTH WEST DEPARTMENT OF EDUCATION**

**2009 / 2010 Version - FINAL**

**Prepared by: Directorate  
Physical Resources and  
Facilities Planning and  
Management.**

**Contact: Mr M.S.C. Morokane**

**Tel: ( 018) 389 8053**

**Tel: (018) 389-8063**

**Fax: (018) 384-3316 OR**

**(018) 389 8237**

**Final Document : February 2009**

## TABLE OF CONTENTS

	<b>Page</b>
<b>A ACCOUNTING OFFICER</b> .....	<b>4</b>
1.1 A.1 CONTACT DETAILS .....	4
1.2 A.2 APPROVAL .....	5
<b>B ABBREVIATIONS</b> .....	<b>7</b>
<b>1. EXECUTIVE SUMMARY</b> .....	<b>9</b>
1.1 PURPOSE OF THE INFRASTRUCTURE PLAN .....	9
1.2 DESCRIPTION .....	9
1.3 LEVELS OF SERVICE .....	9
1.4 COMMUNITY NEED .....	9
1.5 LIFE CYCLE MANAGEMENT PLAN .....	9
1.6 ASSET MANAGEMENT PRACTISE .....	10
1.7 FINANCIAL SUMMARY .....	10
1.8 MONITORING AND IMPROVEMENT PLAN .....	11
<b>2. INTRODUCTION</b> .....	<b>12</b>
2.1 BACKGROUND .....	12
2.1.1 Purpose, Strategic and Departmental Goals .....	12
2.1.2 Relationship with other planning documents .....	14
2.1.3 Locality and Scope .....	16
2.1.4 Key Stakeholders .....	17
2.1.5 Organisational Structure .....	19
2.2 GOALS AND OBJECTIVES OF INFRASTRUCTURE OWNERSHIP .....	21
2.2.1 Department's Vision and Mission .....	22
2.2.2 Reasons for Providing Education Infrastructure .....	23
2.2.3 Reasons for Effective Infrastructure Management .....	23
2.3 FRAMEWORK OF THIS INFRASTRUCTURE PLAN .....	24
2.4 BASIC INFRASTRUCTURE PLAN .....	24
<b>3. LEVEL OF SERVICE</b> .....	<b>27</b>
3.1 COMMUNITY RESEARCH AND EXPECTATIONS .....	25
3.1.1 Background and community research undertaken .....	25
3.1.2 Details of how research translates into levels of service .....	25
3.2 STRATEGIC AND DEPARTMENTAL GOALS .....	25
3.3 LEGISLATIVE REQUIREMENTS .....	27
3.4 NORMS AND STANDARDS .....	27
3.5 CURRENT LEVELS OF SERVICE .....	27
3.6 DESIRED LEVEL OF SERVICE .....	27
<b>4. COMMUNITY NEED</b> .....	<b>33</b>
4.1 CURRENT PROVISION .....	33
4.2 DEMAND FORECAST .....	35
4.2.1 Factors influencing demand .....	35
4.2.2 Details of projected growth or decline of demands on services .....	39
4.2.3 Anticipated changes in community expectations .....	42
4.2.4 Impact of changes in demand on infrastructure utilisation .....	43
4.3 CHANGES IN TECHNOLOGY .....	45

4.3.1	<i>Use of new technology and effects on providing future services</i>	45
4.3.2	<i>Obsolescence</i>	45
4.4	DEMAND MANAGEMENT PLAN	46
4.4.1	<i>Non-infrastructure Solutions</i>	46
4.4.2	<i>New Works Programmes and Costs</i>	49
<b>5.</b>	<b>INFRASTRUCTURE MANAGEMENT PLAN</b>	<b>54</b>
5.1	BACKGROUND DATA	54
5.1.1	<i>Physical Parameters</i>	54
5.1.2	<i>Capacity and Performance</i>	56
5.1.3	<i>Condition</i>	57
5.1.4	<i>Valuations</i>	57
5.1.5	<i>Historical Data</i>	57
5.2	EPWP	58
5.3	ENVIRONMENTAL CONSIDERATIONS	59
5.4	ROUTINE MAINTENANCE	60
5.4.1	<i>Routine Maintenance Plan</i>	60
5.4.2	<i>Standards and Specifications</i>	61
5.4.3	<i>Summary of Future Costs</i>	61
5.5	RENEWAL OF INFRASTRUCTURE	62
5.5.1	<i>Renewal Plan</i>	62
5.5.2	<i>Repairs</i>	62
5.5.3	<i>Refurbishment</i>	62
5.5.4	<i>Estimated Repair and Refurbishment Costs</i>	64
5.5.5	<i>Renewal Standards</i>	66
5.6	CREATION / ACQUISITION PLAN	67
5.6.1	<i>Selection Criteria</i>	67
5.6.2	<i>Standards and Specifications</i>	67
5.6.3	<i>Summary of Future Costs</i>	69
5.7	DISPOSAL PLAN	69
<b>6.</b>	<b>ASSET MANAGEMENT PRACTICE</b>	<b>70</b>
6.1	HUMAN RESOURCES	72
6.1.1	<i>Priority Functional gaps</i>	72
6.1.2	<i>Key skills gaps</i>	74
6.1.3	<i>Human resources gaps</i>	74
6.1.4	<i>Immediate and future expertise requirements</i>	75
6.1.5	<i>Initiatives to address gaps</i>	75
6.1.6	<i>Anticipated impact</i>	77
6.2	SYSTEMS AND PROCESSES	77
6.2.1	<i>Implementation Plan</i>	77
6.2.2	<i>Accounting and Financial Systems</i>	78
6.2.3	<i>Infrastructure Management Systems</i>	78
6.2.4	<i>Information Flow Requirements and Processes</i>	81
6.2.5	<i>Standards and Guidelines</i>	81
<b>7.</b>	<b>FINANCIAL SUMMARY</b>	<b>82</b>
7.1	FINANCIAL STATEMENTS AND PROJECTIONS	82
7.1.1	<i>Financial Systems</i>	82
7.1.2	<i>MTEF Allocations</i>	82
7.1.3	<i>Cash flow Forecasts</i>	84

7.2	FUNDING STRATEGY .....	86
7.3	VALUATION FORECASTS.....	86
7.4	PROJECTS TO BE COMPLETED IN THE 2006/07 FINANCIAL YEAR.....	86
8	ORGANISATION SUPPORT PLAN.....	77
8.1.	SERVICES RENDERED BY EXTERNAL ORGANISATIONS.....	87
8.2	ORGANISATIONAL ARRANGEMENTS.....	87
8.2.1	CONTRACTUAL ARRANGEMENTS.....	87
8.2.2	IMPLEMENTATION MANAGEMENT.....	88
8.2.3	ROLES OF THE PARTIES.....	90
8.3	HUMAN RESOURCE REQUIREMENTS.....	91
8.3.1	REQUIRED INTERNAL ORGANISATIONAL STRUCTURE.....	92
8.3.2	CURRENT STAFFING LEVELS.....	93
8.3.3	INTERIM CAPACITATION.....	95
8.4	SYSTEMS AND PROCEDURES.....	97
8.4.1	ACCOUNTING/FINANCIAL SYSTEM.....	97
8.4.2	INFRASTRUCTURE MANAGEMENT SYSTEM.....	98
8.4.3	REPORTING SYSTEM.....	98
8.5	FINANCIAL.....	98
8.5.1	SALARY BUDGET.....	99
8.5.2	UPGRADING AND MAINTAINING EMIS.....	99
8.5.	OUTSOURCING.....	99
8.5.4	OTHER.....	99
<b>9.</b>	<b>PLAN IMPROVEMENT AND MONITORING.....</b>	<b>100</b>
9.1	IMPROVEMENT PROGRAMME .....	100
9.2	GAP BETWEEN CURRENT AND DESIRED MANAGEMENT PRACTICE .....	102
9.3	RESPONSIBILITIES FOR REVIEW .....	102
<b>10.</b>	<b>REFERENCES AND ANNEXURES.....</b>	<b>104</b>
10.1	REFERENCES .....	104
10.2	ANNEXURES.....	<b>ERROR! BOOKMARK NOT DEFINED.</b>

**ANNEXURE A: BACKLOGS.2009-2018**

**ANNEXURE B: PROJECT LISTS 2009-2012**

**A ACCOUNTING OFFICER****A.1 CONTACT DETAILS**

<b>Responsible MEC</b>	Rev O.J Tselapedi
<b>Superintendent General</b>	Mr H.M Mveli
<b>Chief Financial Officer</b>	Mr J.Botha
<b>Executive Manager: Education Auxiliary Services</b>	Mr M.G. Mompei
<b>Address</b>	1305 Dr Albert Luthuli Drive Mmabatho Private Bag X2044 Mmabatho 2735
<b>Telephone No.</b>	(018) 389-8063
<b>Fax No.</b>	(018) 389-8237
<b>Email</b>	mmorokane@nwpg.gov.za

**A.2 APPROVAL**

This document is submitted on behalf of the Department of Education and has been approved by:

---

Mr S.J. Hlongwa

DIRECTOR PHYSICAL RESOURCES, FACILITIES PLANNING AND MANAGEMENT SERVICES



---

Mr M.G. Mompei

EXECUTIVE MANAGER –AUXILIARY SERVICES

---

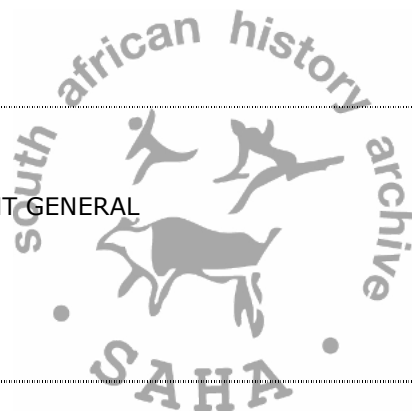
.....  
Mr J. Botha

CHIEF FINANCIAL OFFICER

.....

.....  
Mr M.Mweli

SUPERINTENDENT GENERAL



**B ABBREVIATIONS**

<b>APO</b>	Area Project Office (each APO manages a number of ISC'
<b>ASSET REG</b>	Asset Management Register
<b>BEP</b>	Built Environment Professional (eg Engineer, Architect, Quantity Surveyor, etc)
<b>BMMS</b>	Building Maintenance Management System (managed by the NW DPW; part of the PREMIS asset register system)
<b>CIDB</b>	Construction Industry Development Board
<b>CFO</b>	Chief Financial Officer
<b>DDG</b>	Deputy Director General
<b>DBSA</b>	Development Bank of Southern Africa
<b>DCES</b>	Deputy Chief Education Specialist
<b>DMEA</b>	Department of Mineral and Energy Affairs
<b>DMS</b>	Delivery Management System (Step by step guide to delivering infrastructure)
<b>DoE</b>	Department of Education
<b>DORA</b>	Division of Revenue Act
<b>DPW</b>	Department of Public Works
<b>Dwaf</b>	Department of Water and Forestry
<b>EIA</b>	Environmental Impact Assessment
<b>EMIS</b>	Education Management Information System
<b>ESS</b>	Education Support Services (Chief Directorate in NW DOE)
<b>EPWP</b>	Expanded Public Works Programme
<b>GAMAP</b>	Generally Accepted Municipal Accounting Practices
<b>GIS</b>	Geographic Information System (Computer software used to illustrate data spatially, e.g. population density, location of infrastructure, condition of infrastructure, trend analysis, etc)
<b>IA</b>	Implementing Agent
<b>IDP</b>	Integrated Development Plan (developed by municipalities every 5 years and reviewed annually)
<b>IDIP</b>	Infrastructure Delivery Improvement Programme (National Treasury initiative to enhance infrastructure delivery through application of sound planning and delivery practices)
<b>IDIP</b>	Infrastructure Improvement Development Programme
<b>IDT</b>	Independent Development Trust
<b>IIMM</b>	International Infrastructure Management Manual (developed by Australian and New Zealand local authorities to promote best practice in Infrastructure Asset



	Management)
<b>IP</b>	Infrastructure Plan (long term plan for provision and management of fixed infrastructure)
<b>IPMP</b>	Infrastructure Programme Management Plan (Developed by infrastructure to manage the provision of infrastructure – construction, maintenance, rehabilitation, disposal)
<b>IPIP</b>	Infrastructure Programme Implementation Plan
<b>ISC</b>	Institutional Support Co-ordinator (each ISC works with a number of schools in their cluster)
<b>LOS</b>	Level of Services (basis for provision of fixed infrastructure)
<b>LSEN</b>	Learner with Special Education Needs
<b>MEC</b>	Member of Executive Council
<b>MTEF</b>	Medium Term Expenditure Framework
<b>NIEMS</b>	National Information Management System
<b>NW</b>	North West (Province)
<b>NWDEAT</b>	North West Department of Environmental, Agriculture and Tourism
<b>NW DOE</b>	North West Department of Education
<b>NW EDT</b>	North West Education Development Trust
<b>NW DPW</b>	North West Department of Public Works
<b>OOP</b>	Office of the Premier
<b>PREMIS</b>	Asset Register Management
<b>PROMIS</b>	Project Management Information System
<b>PGDP</b>	Provincial Growth and Development Plan.
<b>PGDS</b>	Provincial Growth and Development Strategy
<b>PIP</b>	Programme Implementing Plan
<b>PRFPM</b>	Physical Resources and Facilities Planning and Management (Directorate in the ESS)
<b>PTAT</b>	Provincial Technical Assistant Team
<b>SFR</b>	Special Function Room
<b>SG</b>	Superintendent General
<b>SLA</b>	Service Level Agreement
<b>SRN</b>	School Register of Needs
<b>SNP</b>	School Nutrition Programme
<b>UPS</b>	Uninterrupted Power Supply

## 1. EXECUTIVE SUMMARY

The Executive summary should emphasise the key issues contained in the body of the plan and provide readers with a succinct overview of the entire plan. Some readers who are not concerned with the finer details of the plan may only read the Executive Summary.

### 1.1. PURPOSE OF THE INFRASTRUCTURE PLAN

- To demonstrate responsible management.
- To communicate and justify funding requirements.
- To comply with regulatory requirements (both financial(PFMA,DORA)and non-financial (RIPS, EPWP)

### 1.2 DESCRIPTION

The Infrastructure Plan is based on life cycle management of infrastructure because of its long term nature. The Plan covers all the physical fixed infrastructure assets used by the NW DOE to provide the education service in the province.

In many instances information is incomplete. This draft therefore lends itself to identifying the data and processes outstanding that need to be collected, verified and developed.

### 1.3 LEVELS OF SERVICE

Continuously meeting LOS requirements in a sustainable manner is one of the main reasons for the provision of infrastructure.

The levels of service are based on national norms and standards, modified to suit provincial experiences. These levels of service need to be based on an infrastructure policy which will guide implementation of improvements and changes.

In many areas in the province education infrastructure does not meet these minimum levels of service. These gaps need to be addressed incrementally and then managed on a life cycle basis.

### 1.4. COMMUNITY NEED

This need defines the demand for infrastructure based on the required LOS. These needs should also be reflected in municipalities' IDP's. To this end a system for integrating inputs to the infrastructure plan and municipal IDP's needs to be implemented.

Information on population migration and economic trends need to be included in the demand forecast so that the Infrastructure Plan is forward looking and not only reporting on responses to crisis.

### 1.5. LIFE CYCLE MANAGEMENT PLAN

Formal long term plans (10 to 20 years) need to be formulated for infrastructure. These plans should be based on factors relevant to educational infrastructure and address the key areas

of infrastructure management, namely: operations, administration, routine maintenance, renewal (refurbishment and repairs) and acquisition (new building and extensions).

Currently infrastructure provision is based on backlog lists that need to be verified. By implementing the asset register managed by the NW Public Works and integrating it with the provincial GIS and the EMIS at NW DOE a more reliable and accurate description of infrastructure will be available.

One of the major constraining factors for implementing the Infrastructure Plan in the long term is the lack of human resources. Using an incremental approach to implementing the Plan will allow time for filling posts and training staff and implementing agents.

## 1.6. ASSET MANAGEMENT PRACTICE

(Organisational and support plan)

Personnel capacity needs to be improved by employing experienced staff in vacant posts and providing infrastructure asset management, programme management and prioritisation skills training.

## 1.7. FINANCIAL SUMMARY

Based on current projections and estimates the NW DOE should increase infrastructure expenditure to approximately R900 million per annum by 2018. This will need to be verified by implementing an accurate asset information system. DPW & DOE are currently busy with the compilation of (UAMPS) User Asset Management Plans to update all Assets belonging to NW DOE. After this exercise; accurate costings for assets will be developed for proper management.

Provision for operations, regular maintenance and scheduled renewal costs should be made. Expenditure on this work should also be closely monitored to ensure the long term availability of infrastructure.

Currently available financial systems should be upgraded to support this level of expenditure.

Utilisation of Programme Implementing Agents and managing them by means of Service Level Agreements will enhance the NW Doe's capacity to deliver infrastructure without installing systems that will not be required once infrastructure backlogs have been addressed.

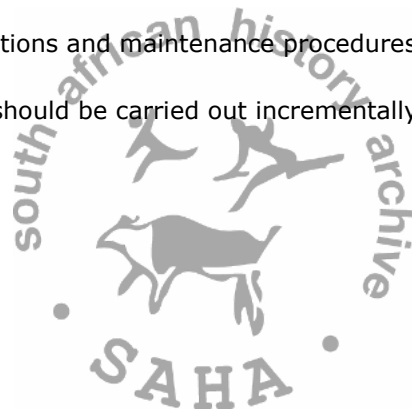
Provincial systems such as the **IRM at Provincial Treasury, asset register/BMMS at the NW DPW, the GIS and Promis** at the Office of the Premier and the EMIS at the NW DoE should be integrated. BAS System is also to be incorporated to other systems in the Province to make them efficient. This will provide better management information for planning, progress monitoring and responding to ad hoc queries. Currently the National Department of Education has appointed a Service Provider by name of Biggen Africa to assess all **CONDITIONS OF** every School in South Africa to come out with a better School Register of Needs in the future. This report was released and availed. National Department has an agreement with SITA to certify the updated information on NEIMS so that it is accessed from Internet. NW DOE will from time to time assess new built schools for updating NEIMS.

**1.8.ORGANISATIONAL AND SUPPORT PLAN  
MONITORING AND IMPROVEMENT PLAN**

An improvement to infrastructure management needs to be made in the following areas:

- Develop an Infrastructure Policy;
- Formalise the definitions of LOS;
- Determine the current LOS throughout the NW;
- Carry out condition assessments;
- Determine the utilisation of infrastructure;
- Determine the operations and maintenance costs of infrastructure;
- Improve project identification and prioritisation procedures;
- Determine life cycle costs of infrastructure ownership and use;
- Improve LOS demand projections;
- Develop operations and maintenance procedures.

These improvements should be carried out incrementally over an appropriate period.



---

## 2. INTRODUCTION

The North West Department of Education has an infrastructure stock which comprises **1768 schools**, together with various other facilities such as Colleges, EDSC's, and Special Schools. These schools, many of which are old dilapidated structure buildings provide teaching spaces for just over **777 283** learners in the Province.

### 2.1. BACKGROUND

The challenge for the ten year period to 2018 is to deal with these backlogs in the shortest possible time so that more funds can be allocated to maintenance, thereby ensuring that facilities are conducive to qualify teaching and learning. Furthermore the re-alignment of schools to conform to the national model of first stream Grade R – Grade 7 and a second stream Grade 8 – Grade 12 needs to be accommodated.

This is further complicated by the migration of learners within and out of the province. It is these challenges that the Infrastructure Plan sets out to meet. The Infrastructure Programme has also suffered a significant setback with the budget cuts especially with the delivery of maintenance to our schools in the province.

#### 2.1.1 Purpose.

This is the Final (February 2009) Infrastructure Plan for 2009/10-17/18 associated with the provision of fixed physical infrastructure for the Department of Education in the North West Province.

The purpose of an Infrastructure Plan is to set out the Department's philosophy, approach and plan of action for the provision and maintenance of educational infrastructure over the ten-year period 2009-2018. In so doing, it seeks to demonstrate responsible and transparent management, while at the same time communicating and justifying its funding requirements.

Based on National Provincial and Departmental policies and directives, this Plan is intended to reflect a clear strategy for educational infrastructure provision in the North West Province. This plan is updated annually to ensure its currency for the implementation of the infrastructure programme each year. This is done in August of the preceding year to comply with the Division of Revenue Act (Dora) (Reference 1)

#### 2. L.2 Orientation

The quality of education depends to a large extent on integrated systems, planning and processes. A consequence of poor infrastructure is an environment that does not promote effective quality teaching and learning. The primary objective of the Department's infrastructure programme thus is to provide infrastructure that enhances the quality of teaching and the learning environment and restores the pride and dignity of learners, staff and the communities.

To achieve the expected service levels to infrastructure Development, the Department has decided to sharpen its focus on infrastructure and to review its implementation strategy. The revised Infrastructure Plan is intended to integrate systems, processes and controls in order to restore good governance and compliance with legislative requirements.

This document including other infrastructural development initiatives, will serve as a framework for implementing the delivery strategy that will be used to provide guidance to all participants in the Programme.

---

## 2. L.3 Strategic Departmental Goals

Through its infrastructure programme the Department seeks to achieve the following objectives, as set out in its Strategic Plan for 2005 – 2009.

- . Replacement of mud and other inadequate structures or provision of alternative accommodation.
- . Elimination of the backlog in classroom accommodation and other facilities within a reasonable timeframe.
- . Re-alignment of schools and re-organisation of small schools that are no longer sustainable or which are under-utilised.
- . Improved infrastructure planning with sharper focus on poorer areas and nodal developments together with more emphasis on life cycle planning..
- Assess capital and operational funding implications and requirements;
- Provide assistance to the Provincial Technical Assistance Team appointed by National Treasury to improve Infrastructure delivery as part of the IDIP;
- Document the nature, age, extent, utilisation, condition, performance and value of the infrastructure used to provide education facilities;
- Identify existing and proposed levels of service to be achieved in the next 10 years as well as any expected changes in demand;
- Identify life cycle management needs (acquisition, renewal, operations and maintenance and disposal) over the next 10 years;
- Assess existing infrastructure asset management practice and identify improvements.

Some of these objectives could not be addressed beyond identifying the gaps in infrastructure asset management information and practice although they were identified in the 2007/08 IP. This illustrates that the improvement process is a continuous process and spans more than the provincial department. Infrastructure management improvement is also carried out while infrastructure is being provided; thus although the focus of the IP is long term (more than 10 years) infrastructure delivery is required on a daily basis.

The IP is intended to assist managers to make decisions for the current provision of infrastructure while focussing on the sustainable provision of the desired levels of services. Thus the IP should support strategic, technical and financial planning within the NW DOE.

The Infrastructure Plan is intended to be a living document used by planners and delivery managers as a daily guide to meeting LOS requirements.

The IP should be updated, extended and improved on a regular basis. Formal capturing of improvements should be done in annual reviews.

Ultimately the Infrastructure Plan will:

- Provide justification for the allocation of appropriate resources for infrastructure maintenance and renewal;
- Consider the risks and consequences of infrastructure failure; and
- Improve decision making through improved infrastructure asset knowledge, including long term implications.

Successful implementation of the Infrastructure Plan depends on the:

- Recognition of the need for (and commitment at all levels of the department to) a service driven culture;
- Establishment of clear service delivery targets; and
- Allocation of appropriate responsibilities and resources.

<b>Table 2.1: Characteristics of Key Planning Documents</b>			
<b>No.</b>	<b>Planning Document</b>	<b>Characteristics</b>	<b>Planning Horizon</b>
1	MTEF Budget	Multi year fund allocation to infrastructure	3 to 5 years
2	North West 2014 Development Strategy	Employment requirements	10 years
3	NW DOE Strategic Plan	Infrastructure level of service targets	3 to 5 years
4	Infrastructure Plan	Life cycle planning Service delivery "contract" Long term funding requirements Sustainability of service delivery Risk management Performance measurement Improvement planning and monitoring	10 to 20 years
5	Municipal IDP's	Municipal development plans including services and residential developments	5 years with an annual review





**2.1.4. Locality and Scope**

The infrastructure considered in this Infrastructure Plan includes all the fixed physical assets managed by the North West Department of Education as part of its mandate. This includes all government owned GET Schools, FET Schools and FET Colleges, and provides for all buildings and services (such as water, sanitation and electricity) within the relevant premises these are summarised in Table 2.2.

<b>Table 2.2: Scope of Infrastructure</b>		
<b>No.</b>	<b>Infrastructure</b>	<b>Physical assets included in category</b>
1	New buildings	<p>New schools and Colleges</p> <p>Extensions to existing schools and colleges (additional classrooms, SPF's, libraries, computer rooms, etc)</p> <p>New office accommodation. This function has been transferred to the Department of Public Works following Exco decision in (2006)</p>
2	Sanitation	<p>New toilet blocks</p> <p>Additional toilets</p> <p>Repairs to toilet and ablution blocks</p> <p>Repairs and improvements to conservancy and septic tanks</p> <p>Upgrading of sanitation systems</p>
3	Water	<p>New water connections</p> <p>New boreholes, pumps, tanks, etc</p> <p>Repairs to existing connections and boreholes</p> <p>Upgrading of existing water supply</p>
4	Electricity	<p>New electrical connection</p> <p>Electrification of schools</p> <p>Repairs to existing connections</p> <p>Upgrading of existing electrical reticulatons</p> <p>The Department of Mineral and Energy Affairs has since 2001 been funding projects of schools without Electricity. School Electrification prior</p>

		this period of 2001 has moved well and to date only 121 Schools are remaining to be installed with electricity in the whole Province.
5	Fencing	New fencing(Palisade Model from 2009 onwards)  Repairs to existing fencing  Extension/additional fencing
6	Mobile Classrooms	New Classrooms  Additional Classrooms in terms of overcrowding  Provisioning of Mobile Classrooms for purposes of migration patterns.

**2.1.5. Key Stakeholders**

Table 2.3 lists the stakeholders that should be involved with preparing, using and improving the Infrastructure Plan.

<b>Table 2.3: NW DOE Infrastructure Plan: Key Stakeholders</b>		
<b>No.</b>	<b>Internal/External</b>	<b>Description</b>
1	Non-departmental staff	North West community  North West Municipalities (Local and District)  NW Treasury  NW Department of Public Works  NW Office of the Premier  National Department of Education  National Treasury  Other Provincial and National Departments  NW Education Development Trust  Implementing Agents  Potential Donors  Department of Water & Forestry.

<b>Table 2.3: NW DOE Infrastructure Plan: Key Stakeholders</b>		
<b>No.</b>	<b>Internal/External</b>	<b>Description</b>
		Department of Local Government and Housing
2	North West Department of Education	MEC: Education SG: Education DDG: Education Chief Financial Officer Senior Management Team Chief Director: Educational Auxiliary Services Chief Director: Professional Support Services Director: Physical Resources and Facilities Planning and Management Director: Information and Communications Technology Director Budget Planning Director Project Management(Office of the Premier) Physical Resource and Facilities Planning and Management Officials

### 2.1.6. Organisational Structure

Figures 2-1 and 2-2 show the head office and regional offices organisational structure directly responsible for infrastructure management.

Head Establishment		Office		Bojanal District		Dr Ruth Mompoti District		
SG General	Mr M Mweli	Chief Regional Director	Rev Gradwell	Chief Regional Director	Mrs D. Mohume	Regional Establishment		
Deputy Director General	Mr J.Botha	Director	Ms P. Mokhutle	Director	Mr D. Tire			
Chief Financial Officer	Mr J. Botha	Chief Education Specialist	Mr S. Jacobs	Chief Education Specialist	Rev M. Morake			
Executive Manager Auxiliary Services	Mr MG Mompei	Deputy Chief Education Specialist	Mr N. Boikanyo	Deputy Chief Education Specialist	Mrs B. Tlhabanelo	<b>Dr K.Kaunda</b>		
Director Physical Resources Planning	Mr S. Hlongwa	Chief Regional Director	Ms S.Semaswe	<b>Ngaka Molema Modiri</b>	Chief Regional Director	Dr S. Mvula		
Chief Education Specialist	Mr MSC Morokane	Director	Mr B. Mongale	Regional Establishment	Director	Mr Motara		
Deputy Chief Education Specialist	Mrs L Pule	Chief Education Specialist	Mr J. Badimo		Chief Education Specialist	Mr S. Riekert		
		Deputy Chief Education Specialist	Mrs M. Nchoe		Deputy Chief Education Specialist	Mr S. Meraba		

**ORGANOGRAM FOR INFRASTRUCTURE DELIVERY (HEAD OFFICE)**



**ORGANOGRAM FOR DELIVERY OF INFRASTRUCTURE: DISTRICT ESTABLISHMENT**



## 2.2. GOALS AND OBJECTIVES OF INFRASTRUCTURE OWNERSHIP

### Legislative Mandate

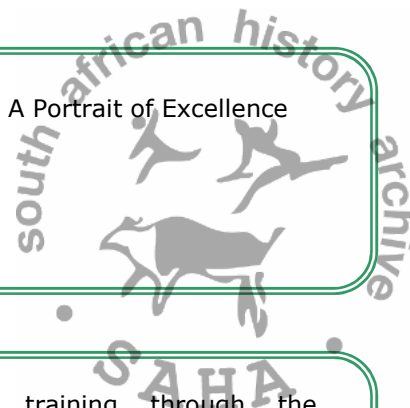
The Department's mandate to provide infrastructure learning is embedded in the South African Schools Act (Reference 2)

- Clause 3(1) states that "The MEC must ensure that there are enough school places so that every child who lives in his/her Province can attend school"
- Clause 12(1) states that "The MEC must provide public schools for education of learners out of funds appropriated for this purpose by the provincial legislature.

### 2.2.1. Department's Vision and Mission

The North West Department of Education: A Portrait of Excellence

We provide quality education and training through the implementation of policies, strategies and programmes.



### **2.2.2. Reasons for Providing Education Infrastructure**

The North West Department of Education delivers education services to all areas within the North West Province. In many instances the communities are not able to provide and support the infrastructure required to provide a quality education service. Therefore in order to meet its mandate the NW DOE must provide fixed infrastructure that:

- Is accessible to learners and educators;
- Supports the curriculum being used by educators
- Assists in the development of life skills by all learners.

### **2.2.3. Reasons for Effective Infrastructure Management**

The need for infrastructure is determined by and based on an agreed Level of Service. Thus infrastructure (classrooms, libraries, laboratories, sanitation systems, computer rooms etc) provides the environment for educators to teach learners. All infrastructures should therefore meet minimum requirements to ensure that a high quality learning experience is enjoyed.

In addition infrastructure must meet minimum health and safety requirements.

Once infrastructure has been provided, in order to minimise costs of ownership while still meeting the LOS requirements, it needs to be managed and operated based on life cycle principles.

This Infrastructure Plan illustrates NW DOE long term commitment to managing the infrastructure it requires to meet its education mandate.



**2.3. FRAMEWORK OF THIS INFRASTRUCTURE PLAN**

The format adopted for this Infrastructure Plan consists of the following elements:

- Purpose and Scope of the Infrastructure Plan, its objectives, scope format and process of formulation.
- Levels of Service. Its expected demand for services based on needs of the community
- Community Need (Demand). Community needs and demographics profiles and trends and how this demand is managed.
- Life Cycle Management Plan
- Financial Summary
- Infrastructure Asset Management Practices (Organisational and Support Plan)
- Monitoring and Improvement Plan

**2.4. BASIC INFRASTRUCTURE PLAN**

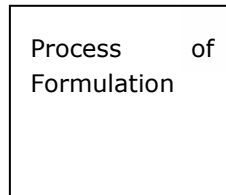
The approach used is based on the principles laid out in the International Infrastructure Management Manual (IIMM) and the CIDB Toolkit. The approach has been to address the main elements of preparing a Basic Infrastructure Plan with limited detail. The intention is to identify critical issues that impact on achieving sustainable service delivery in the long term.

Once more accurate data and factors affecting service delivery become available, modelling techniques for demand, financial analysis, condition predications and life cycle costing can be

developed.

**PLANNING APPROACH AND METHODOLOGY**

**PROCESS OF FORMULATION**



The process of compiling this infrastructure Plan has two consecutive components viz

2.2.3.1. Strategic input which determines the focus of the Plan and its objectives.

- (B) identification of projects and programmes to give effect to the objectives of the Plan.

### 3. LEVELS OF SERVICE

#### 3.1. COMMUNITY RESEARCH AND EXPECTATIONS

##### 3.1.1. Background and community research undertaken

The National DOE has commissioned a comprehensive Schools Register of Needs survey that focuses specifically on infrastructure used by education. This SRN will determine, amongst others, the requirement for infrastructure in the NW. The results from this survey should be available in 2009, although preliminary and/or partial results may become available during 2008. A Service Provider by the name of 'Began Africa' has been appointed by the National Department of Education (Head Office) to execute this task of conducting Conditional Assessments to all Schools in the North West Province

Currently levels of service requirements are based on **the annual and "snap" surveys and** requirements submitted to the District offices by communities and school principals. These needs are then collated at the corporate office.

##### 3.1.2. Details of how research translates into levels of service

Survey results and requests for infrastructure list new infrastructure, renewal and maintenance requirements for infrastructure. Efforts are being made to link municipal planning with education infrastructure requirements.

#### 3.2. STRATEGIC AND DEPARTMENTAL GOALS

The NW Doe's Strategic Goal No. 4 is

"To end conditions of physical degradation in South African schools".

This goal has been translated into the strategic objective

"To develop and implement a coherent, credible and sustainable provisioning and maintenance plan for all schools".

In addition the NW DOE has identified provincial priorities one of which is:

"An intensive infrastructure development with special emphasis on the provision of sanitation facilities, water and maintenance of existing infrastructure,"

The NW DOE also attempts to provide services in accordance with National Education Policy and Legislation which outlines minimum service levels in all schools.

These goals and objectives link closely with the PGDS overall aim of

**"service delivery for a better quality of life"**



### 3.3. LEGISLATIVE REQUIREMENTS

The Constitution of the Republic of South Africa (Act 108 of 1996), the South African Schools Act (Act 84 of 1996), the North West School Education Act (Act 123 of 15 December 1995) and other legislation establish the service level requirements for schools in the North West Province.

### 3.4. NORMS AND STANDARDS

The Physical Resources Planning Manual (November 2000) provides guidelines on infrastructure planning and procurement as well as establishing Norms and Standards for the provision of infrastructure at schools. These are shown in Table 3.1. However National Norms and Standards for delivery of infrastructure has been published for public comments. These are to be tabled for the Minister to finally gazette them.

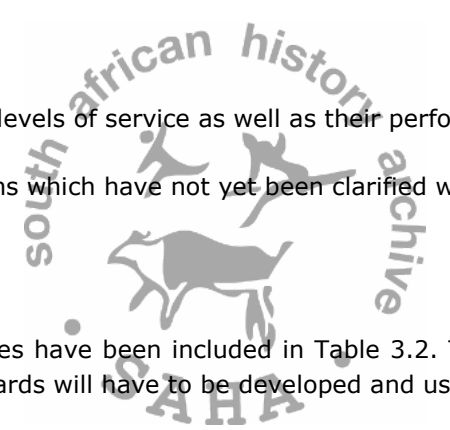
### 3.5 CURRENT LEVELS OF SERVICE

Table 3.2 illustrates the estimated current and desired levels of service as well as their performance measures and actions to meet the desired levels.

**NOTE:** The estimated current LOS is based on definitions which have not yet been clarified with all relevant personnel.

### 3.6 DESIRED LEVEL OF SERVICE

The desired levels of service and performance measures have been included in Table 3.2. These may have to be adapted for each region. However in the long term, Provincial performance measures and standards will have to be developed and used as the minimum expected level of service.



<b>Table 3.1: Norms and Standards for Infrastructure Provision</b>			
<b>No.</b>	<b>Infrastructure Category</b>	<b>Quantity, Size, Quality of Infrastructure:</b>	
		<b>Primary Schools</b>	<b>High Schools</b>
1	Size of land/grounds including sports fields	2,8Ha – 4Ha	4,8Ha – 6Ha
2	Capacity of school	Max 960 learners	Max 840 learners
3	Number schools in residential areas	1 per 550-650 residential erven	1 per 500-800 residential erven
4	Classrooms (maximum ratios)	1 per 40 learners; 24 classrooms per school	1 per 35 learners; 24 classrooms per school
5	Computer centre (minimum size)	300m <sup>2</sup>	
6	Toilets (minimum)	2 toilets per classroom plus at least one toilet per each for both disabled female and male learners; (replace 1/3 of boys toilets with a 3m urinal in each toilet block)	
7	Offices	1 per 5 classrooms	
8	Staffroom	Provide if school has 5 or more classrooms	
9	Reception class	1 classroom per school	None
10	Library/Media Centre	1 per school	
11	Administration Block	Small	Medium
		Up to 8 classrooms	8 to 16 classrooms
		Large	More than 16 classrooms
12	Electricity	Required; type of supply determined by site conditions	
13	Fencing	2,4m high security fence	
14	Water	Required; type of supply determined by site conditions.	
15	Classroom size	50m <sup>2</sup> to 60m <sup>2</sup> (general); Special classrooms to be sized according purpose (laboratories, kitchens, home industries rooms, etc)	
16	Telecommunications	Required; Additional capacity for computer connection	
17	Paved area	0,5m <sup>2</sup> per learner	

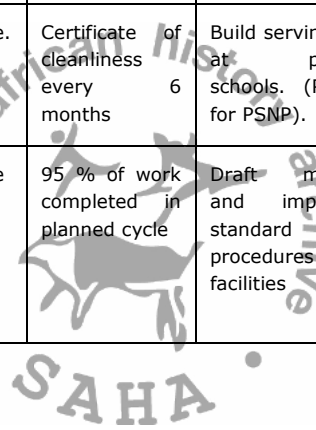
<b>No.</b>	<b>Key Performance Indicator</b>	<b>Service Level Characteristic</b>	<b>How Performance is Measured</b>	<b>Current Performance Level</b>	<b>Desired Level of Performance</b>	<b>Actions Required to meet Desired Level of Service</b>
1	Accessibility (to education facilities)	Classroom: Learner ratio	Check available classrooms to number of learners	Varies - 1: 28 to 1:42 for secondary schools; and  Varies - 1:56 to 1:18 for primary schools.	1:35 (secondary schools) and  1:40 (primary schools)	Combine, share, refurbish or build new classrooms
2		Special Function Rooms (SFR):School per Curriculum ratio	Number of SFR's per school per curriculum offered	0.1:1	1:1	Combine existing rooms, refurbish or build; or share with other schools
3		Library: School ratio	Number of libraries compared to the number of schools	0.1:1	1:1	Convert existing rooms, refurbish or build new library rooms
4		Computer/Media rooms:School ratio	Number of Computer/media rooms to the number of schools	0.1:1	1:1	Convert, refurbish or build new computer/media rooms

<b>Table 3.2: Current and Desired Levels of Service</b>						
<b>No.</b>	<b>Key Performance Indicator</b>	<b>Service Level Characteristic</b>	<b>How Performance is Measured</b>	<b>Current Performance Level</b>	<b>Desired Level of Performance</b>	<b>Actions Required to meet Desired Level of Service</b>
5		Sanitation	No. of toilet seats per classroom	Varies – 1:5 to 2:1	2 toilet seats per classroom (2:1)	Build toilet blocks and install VIP’s
6		Water	Water in ablution block and 1 tap per classroom	Varies – buckets carried to school; no water on premises, hand pumps in the village; full supply to school;  90% have full reticulation	Potable water on tap in ablution blocks and 1 tap per classroom	Construct boreholes and conservancy tanks; install water reticulation to towns and villages
7		Electricity	Determined by design team	Varies – none to sufficient supply;  95% have electricity	Adequate to meet current and future needs (computers, special function rooms, etc)	Liaise with Eskom and local Municipality authorities to install electricity  The Department of Energy and Mineral Affairs are currently funding all Schools which were built prior 2001 with installation of Electricity.

<b>Table 3.2: Current and Desired Levels of Service</b>						
<b>No.</b>	<b>Key Performance Indicator</b>	<b>Service Level Characteristic</b>	<b>How Performance is Measured</b>	<b>Current Performance Level</b>	<b>Desired Level of Performance</b>	<b>Actions Required to meet Desired Level of Service</b>
8		Telephone	No of telephone/fax/data lines per school	Varies; 40% have no telephone line	Minimum: 1 Telephone; 1 Fax line; 1 Data line	Liaise with Telkom and local authorities to install lines to permanent buildings.
9	Health and Safety (while using the infrastructure)	Fencing	Every facility to be fenced according standards	90% meet standards	Security fencing around facilities	Install new and maintain existing fencing
10		Structural Stability	Comply with building regulations	Based on major repairs: 16% do not meet standards	Certificate of occupation renewed every 10 years	Replace dilapidated buildings and carry out major repairs
11		Cleanliness of Building	All buildings clean; windows clean; drains and gutters clean and sound; roof clean and sound.	Estimate 90% of buildings meet requirement	Clean and efficiently operated	Establish operating procedures; monitor performance. Develop facilities management manual(s).



<b>Table 3.2: Current and Desired Levels of Service</b>						
<b>No.</b>	<b>Key Performance Indicator</b>	<b>Service Level Characteristic</b>	<b>How Performance is Measured</b>	<b>Current Performance Level</b>	<b>Desired Level of Performance</b>	<b>Actions Required to meet Desired Level of Service</b>
12		Environmental Safety	Exposure to environmental hazards.	99% are not exposed to hazards	Free of environmental hazards eg. asbestos, pesticides	Investigate modifying operations; move facility
13		Hygienic Kitchens/Food Serving Area	At least one food serving area per primary school	20% compliance.	Certificate of cleanliness every 6 months	Build serving area at primary schools. (Provide for PSNP).
14	Management (of infrastructure facilities)	Standard of Maintenance, Repairs, Condition Assessments and Data Capturing	Operating and maintenance manual drawn up and updated on schedule	10% compliance	95 % of work completed in planned cycle	Draft manuals and implement standard procedures at all facilities



## 4. COMMUNITY NEED

### 4.1. CURRENT PROVISION

Table 4.1 illustrates the infrastructure currently provided within each district. This list of infrastructure covers only the schools in the province. Additional infrastructure that NW DOE's uses include:

- Corporate and regional offices
- FET colleges
- Education Development Support Centres
- Hostels
- Special schools and Full Service Centres.
- Farm Schools
- Development of EDSC Centres
- Mega Schools
- Mobile Classrooms



#### NOTES:

- i. The definitions and scope for each of the infrastructure types may vary across the province. These definitions and scope descriptions need to be clarified (e.g. the number of toilets has been taken as the number of individual toilets, but in many cases the number probably includes whole toilet blocks consisting of more than one toilet and/or urinal, thus giving a very low existing number of toilets).

Although the definition of infrastructure has improved since the 2007/08 IP, these are still not consistent and therefore the ratios and figures in Table 4.1 are still used as an indication only of the current situation.

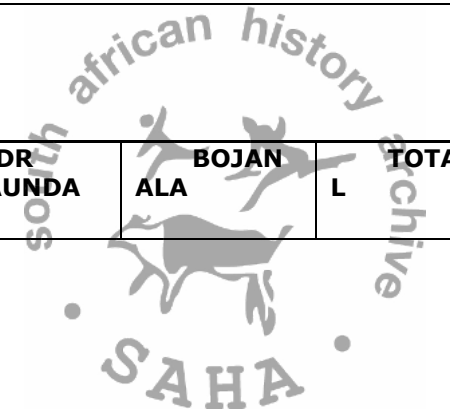
- ii. These figures will become more accurate in later reviews, particularly as the 2008 SRN results are now available and be annually updated.

- iii. In addition, these figures are averages across each district, and in some case the whole province, and may not reflect the situation in each APO or at individual schools. More detailed analysis should be carried out to determine the local situation at each ISC cluster.
- iv. Currently there is a Roll out plan to upgrade Certain Primary Schools in the Province to provide Full Service Education to learners with disabilities together with others in the Mainstream. A School called Mphuphuthu Primary has been earmarked for this program. More such schools will be done in the future. A Netherlands Program of assisting in developing Infrastructure to our Local EDSC Centres is also underway. Already 61 centres have been identified and work has been going well in progress regarding the delivery of infrastructure to those centres.

**Table 4.**

**1: Available School Infrastructure**

INFRASTRUCTURE DESCRIPTION	NGAKA MOLEMA	DR RUTH MOMPATI	DR K.KAUNDA	BOJAN ALA	TOTAL
----------------------------	--------------	-----------------	-------------	-----------	-------



<b>CLASSROOMS</b>	<b>4143</b>	<b>2407</b>	<b>4957</b>	<b>9953</b>	<b>2146</b>
<b>TOILETS SEATS</b>	<b>6950</b>	<b>4137</b>	<b>6901</b>	<b>7387</b>	<b>2537</b>
<b>SPECIAL FUNCTION ROOMS</b>	<b>90</b>	<b>44</b>	<b>190</b>	<b>115</b>	<b>439</b>
<b>COMPUTER/MEDI CENTRES</b>	<b>70</b>	<b>39</b>	<b>86</b>	<b>122</b>	<b>317</b>
<b>LIBRARIES</b>	<b>89</b>	<b>40</b>	<b>84</b>	<b>147</b>	<b>360</b>
<b>WATER</b>	<b>321</b>	<b>210</b>	<b>285</b>	<b>521</b>	<b>1337</b>
<b>ELECTRICITY</b>	<b>495</b>	<b>230</b>	<b>330</b>	<b>577</b>	<b>1632</b>
<b>FENCING</b>	<b>324</b>	<b>220</b>	<b>189</b>	<b>420</b>	<b>1153</b>
<b>NO OF SCHOOLS</b>	<b>445</b>	<b>409</b>	<b>306</b>	<b>608</b>	<b>1768</b>

**N.B ACCURATE DATA WILL BE AVILABLE AFTER NEIMS REPORT HAS BEEN UPDATED AND A SITA CERTIFICATION BEEN APPROVED SO THAT AN ACCESS TO INTERNET BE ENHANCED.**

#### **4.2.1. FACTORS INFLUENCING DEMAND**

Table 4.2 illustrates the factors that affect demand for education facilities:

<b>Table 4.2: Factors affecting demand</b>		
<b>No.</b>	<b>Factor</b>	<b>Description of data required</b>
1	Population	Current number of learners by age  Projected number of learners by age
2	Proximity to other schools	Can learners be allocated to or transported to neighbouring schools?  Is there a hostel school available?

<b>Table 4.2: Factors affecting demand</b>		
<b>No.</b>	<b>Factor</b>	<b>Description of data required</b>
		Can schools be merged?
3	Occupation of existing schools	Can exist schools be extended? Can more learners be allocated to each school? Can schools be merged?
4	Nature of Residential area supplying learner demand	Is the residential area temporary or seasonal? Will residents support a local school? Can portable schools be used?
5	Local development initiatives	Will development initiatives support a local school? What will the long term demand for facilities be? Use of portable schools?
6	Migratory patterns	What is the trend in population movement? What curriculum is required? What age groups are affected by migration?

<b>Table 4.2: Factors affecting demand</b>		
<b>No.</b>	<b>Factor</b>	<b>Description of data required</b>
7	Learners with Special Education Needs (LSEN)	Number requiring facilities Curriculum required
8	Learners based on farms	Number requiring local facilities(Mega Schools) Number requiring hostel facilities
9	Demographics	Number of learners per household Age of learners requiring facilities
10	Municipal Infrastructure	Can local infrastructure support a school? Where are the most suitable locations for new schools or extensions to existing schools?
11	Economics	Is the existing community economically viable? What is the Socio-economic background of the parents in these neighbouring communities? Which quintiles can be used to support the Curriculum development of the schools

<b>Table 4.2: Factors affecting demand</b>		
<b>No.</b>	<b>Factor</b>	<b>Description of data required</b>
		What are the Poverty rankings of the neighbouring communities in terms of socio-economic background?
12	Availability of education facilities to support curriculum	SPF's, libraries, computer rooms available at schools, FET colleges and resource centres

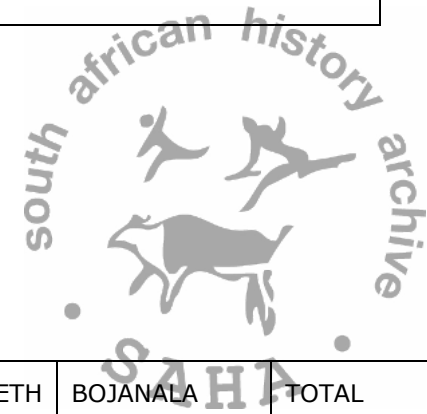


Figure 4.2.1 shows Learner Enrolment per Districts

<b>LEARNER ENROLMENT</b>	NGAKA MOLEMA MODIRI	Dr RUTH MOMPATI	Dr KENNETH KAUNDA	BOJANALA	TOTAL
	177 605	161 423	186 842	251 413	777 283

#### 4.2.2. Details of projected growth or decline of demands on services

Table 4.3 and Figure 4.1 illustrate the projected growth in learners in each of the regions for a period of **TEN YEARS From 2009 – 2018**.

District	Number of Learners		Estimated % Growth
	2009	2018	
<b>Ngaka Molema</b>	177 605	190 000	31,6%
<b>Dr Ruth Segomotsi Mompoti</b>	161 423	180 000	27,9%
<b>Dr K.Kaunda</b>	186 842	196 000	36,6%
<b>Bojanala</b>	251 413	351 000	43,2%
<b>TOTAL</b>	<b>777 283</b>	<b>917 000</b>	<b>36,1%</b>

N.B Numbers given above are from the Provincial Emis and are Pre-demarcated information. The next Infrastructure Plan to be submitted in February(2010)y will indicate numbers after final demarcation process has been done.

**4.2.2.1 Provincial Population Distribution** The four regions according to which the province is divided are unique in many ways. It is the **uniqueness of the regions that influences the distribution of the 3.2 million people. Some** regions are populous than others. The determining factor/s of population density is socio-economic. The latter therefore result in areas such as Rustenburg Potchefstroom, KOSH and Merafong being densely populated and consequently the greater part of earmarked funds for infrastructure being used at these regions. The tables below indicate as to how the requested funds will be used as dictated to by the current migration/urbanization patterns namely:



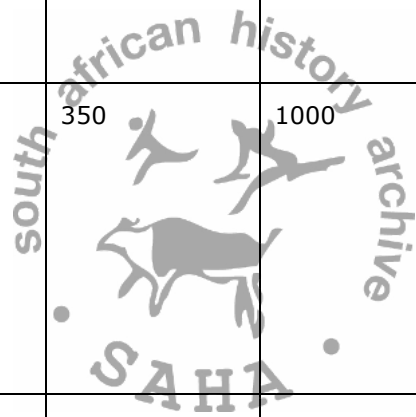
35%	30%	20%	15%
<b>Bojanala</b>  <b>Pressure Point</b>  <b>Rustenburg and Surrounding areas</b>	<b>Dr K.Kaunda</b>  <b>Pressure Point</b>  <b>Potchefstroom, KOSH and Merafong</b>	<b>Ngaka Molema Modiri</b>  <b>Manageable area</b>  <b>Combination of Permanent and Mobile Classrooms</b>	<b>Dr Ruth Segomotsi Mompoti</b>  <b>Most areas are depopulated.</b>  <b>Mobile classrooms mostly</b>

..

Figure 4.4. Illustrates how distribution of New Schools will be allocated e in terms of Migration patterns to four Districts

DISTRICT	Ngaka Molema Modiri	Dr Ruth Segomotsi Mompoti	Dr K.Kaunda	BOJANALA	TOTAL
<b>LEARNER GROWTH 2009-2018</b>	12,395	18,577	9,158	99,587	139,717
<b>NO OF SCHOOLS TO BE BUILT</b>	31	23	47	54	155

<b>PER REGIONS IN TEN YEARS PERIOD</b>					
<b>GROWTH %</b>	31, 6%	27, 9%	36,6%	43,2%	36,1%
<b>NO OF SCHOOLS TO BE BUILT PER YEAR IN TEN YEARS PERIOD</b>	03	02	04	05	14
<b>NO OF MOBILE CLASSROOMS TO BE PROVIDED IN TEN YEAR (No Schools)</b>	200	150	300	350	1000
<b>NO OF MOBILE CLASSROOMS TO BE PROVIDED EACH YEAR(No of Schools)</b>	20	15	30	35	100



---

--	--	--	--	--	--

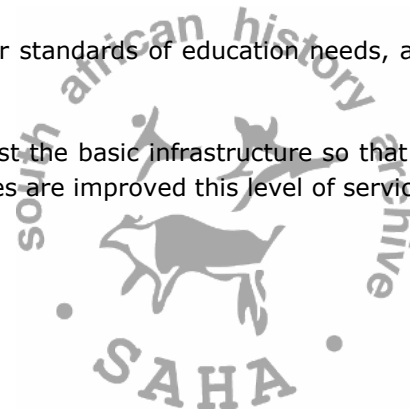
N.B. These estimates are based on estimates provided by the EMIS in each District.. Correlation with census and Neims data needs to be done.

#### 4.2.3. Anticipated changes in community expectations

Currently communities are happy to receive the minimum infrastructure for education, i.e. classrooms and sanitation facilities. It is expected that once these needs have been satisfied, demand will change to improved facilities to improve the quality of the learning experience eg. Special function rooms and improved media rooms and libraries.

In order to meet higher quality of education and higher standards of education needs, additional infrastructure (i.e. SPFs, libraries, computer rooms, etc) will become the norm.

Currently the intention is to provide schools with at least the basic infrastructure so that learners do not have to travel more than 5 km unless transport is provided or learners are in a boarding school. As facilities are improved this level of service may change to less than 5 km and more extra mural facilities.



#### 4.2.4. Impact of changes in demand on infrastructure utilisation

Table 4.4 describes the possible impact of these changes on infrastructure demands;

<b>Table 4.4: Impact of changes in community expectations</b>		
<b>No.</b>	<b>Change in Expectations</b>	<b>Impact on Infrastructure Demand</b>
1	Improved quality of learning	<ul style="list-style-type: none"> <li>• More SPF's (laboratories, workshops, home economics centres, etc)</li> <li>• More media rooms and computer centres</li> <li>• Better and more reliable municipal service delivery (electricity, telecommunications, water and sanitation)</li> <li>• Provision to use education facilities for longer period in the day and night</li> <li>• More and improved libraries</li> </ul>
2	Demand for sports fields	<ul style="list-style-type: none"> <li>• Provision and maintenance of general purpose and specialist sports facilities</li> <li>• Access to additional municipal services (water and electricity)</li> <li>• Provision of change rooms and grandstands</li> </ul>

<b>Table 4.4: Impact of changes in community expectations</b>		
<b>No.</b>	<b>Change in Expectations</b>	<b>Impact on Infrastructure Demand</b>
		<ul style="list-style-type: none"> <li>• Hostels at specialist sports schools</li> </ul>
3	Post school courses, technical and practical training	Additional special function rooms; additional parking; catering facilities for evening classes
4	Extra-mural facilities	Additional municipal services, additional special function rooms, improved security, sports facilities, etc



### **4.3. CHANGES IN TECHNOLOGY**

#### **4.3.1. Use of new technology and effects on providing future services**

The influence of the Provincial Growth and Development Strategy and the North West 2014 Development Strategy will stimulate development in specific areas. These areas will need to be supported with educational infrastructure.

#### **4.3.2. Obsolescence**

One of the NW Doe's objectives is to remove all schools that do not meet the department's minimum quality standards and are not economical to renew. An estimate of the number of structures that should be disposed of and replaced in each region needs to be prepared.

The definition of infrastructure to be demolished and rebuilt and that to be removed from the asset register (sold, demolished, etc) needs to be clarified.

Currently schools that are built with sub-standard materials – mud/clay, corrugated iron walls, etc- and those that are dilapidated (ie not safe to occupy in the next 2 -3 years) are targeted for demolition.



#### 4.4. DEMAND MANAGEMENT PLAN

##### 4.4.1. Non-infrastructure Solutions

The following non-infrastructure solutions are currently being implemented:

No.	Solution	Ngaka Molema	Dr Ruth Mompoti	Dr K.Kaunda	Bojanala
1	Hostel schools	12	5	9	9
2	Platooning (Temporary solution)	6	0	0	0
3	Learner transport	5650	5597	4349	9141
4	Portable/ Mobile/ Semi-Permanent classrooms	55	61	65	69
5	Mega Schools	2	0	0	1

Other non infrastructure solutions, such as the conversion of existing government owned buildings to schools and offices and the conversion of existing unused classrooms for other uses has not been included in this review. These options need to become part of infrastructure planning.

Figure: 4.6 Illustrates a summary of how Non-Infrastructure Solutions will be addressed in Ten years period. In an event where Surrounding Schools e.g.( Farm ) are merged into one school, facilities in a new school are provided to cater for the Curriculum needs of all those learner.Mega-Schools,learner,transportation and other facilities such as Mobile Units will be provided.

No	Solution	Ngaka Molema	Dr Ruth Mompoti	Dr K.Kaunda	Bojanala
1	Mega Schools (No of Schools) in Ten years period.	03	02	04	04
2	Mobile Units/Classrooms (No of Schools to be provided with Units in Ten years period.	200	150	300	350
3	Mobile Classrooms to be provided each year. (No of Schools)	20	15	30	35
4	Learner Transport No of Transporting Modes per Given Routes.	-	-	-	Total learners transported per Provincial routes 20 154
5	Platooning /Temporary	0	0	0	0



---

	Solutions.				
6	Hostels	03	02	04	04



#### 4.4.2. New Works Programmes and Costs for 2009/10 financial years

Currently the Department has a budget of **R325, 609m** to address both existing Projects by DPW and Doe respectively. New Programmes will only be covered under Sanitation, Water, New Schools, Repairs, provisioning of Mobile Classrooms of overcrowded schools. Some budget will be allocated for Day to Day Maintenance; therefore existing final accounts will also be closed in the financial years 2009/10.

**Table 4.6A**

No.	New Infrastructure	Schools	Total Budget
1	New Schools(DoE)	04	R70m
2	Completion of existing projects, Planning and Final Accounts	-	R20m (DPW & DOE)

SAHA

<b>3.</b>	<b>Dilapidated Schools</b>	<b>16</b>	<b>R 60m</b>
<b>4</b>	<b>Sanitation</b>	<b>30</b>	<b>R 22,597m</b>
<b>5</b>	<b>Day to Day Maintenance Districts and Corporate  (Unplanned and Emergency Projects)</b>	<b>-</b>	<b>R10m</b>
<b>6</b>	<b>Major and Minor Repairs (Refurbishment/Renewal)</b>	<b>12</b>	<b>R32,308m</b>
<b>7</b>	<b>Water Provisioning</b>	<b>50</b>	<b>R6,4m</b>
<b>8</b>	<b>Fencing</b>	<b>40</b>	<b>R6,4m</b>
<b>9</b>	<b>Provisioning of Grade R Mobile Classrooms</b>	<b>140</b>	<b>R29,301m</b>
<b>10</b>	<b>Itereleng Projects</b>	<b>41</b>	<b>R32,694m</b>
<b>11</b>	<b>EDSC CENTRES</b>	<b>09</b>	<b>R22,709,00</b>
<b>12</b>	<b>Special Schools</b>	<b>-</b>	<b>R13,200m</b>
<b>TOTAL</b>		<b>342</b>	<b>R325,609 000</b>

Capital work scheduled for future years is summarised in Table 4.7. From 2009/10 – 2016/18.

Infrastructure Description	TOTAL (Rm)				TOTAL
	Ngaka Molema (Rm)	Dr Ruth Mompoti (Rm)	Dr K.Kaunda (Rm)	Bojanala (Rm)	
<b>New Schools (no. of 24 cl schools) at R13m per School.</b>	(31) R403,0	(23) R299,0	(47) R611,0	(54) R702,0	(155) R2,015b
<b>Replacement of Unsafe Schools on a Renewal Programme. At R10m each)</b>	(20) R200m	(30) R300m	(15) R150m	(40) R400m	(105) R1,050m
<b>New Toilets (no. of 16 seat blocks) at R900 000</b>	(124) R111, 6m	(93) R83,7m	(186) R167, 4m	(217) R195, 3m	(620) R558,0m
<b>Repair/Renovations at R5m</b>	(322) R1,610bill ion	(242) R1,210billion	(483) R2,415bill ion	(563) R2,815bill ion	(1610) R8,050b
<b>Provision of water (no. of schools) at R100 000</b>	(264) R264,000	(199) R199, 000	(396) R396,000	(463) R463,000	(1322) R132,200m

Infrastructure Description	TOTAL (Rm)				
	Ngaka Molema (Rm)	Dr Ruth Mompoti (Rm)	Dr K.Kaunda (Rm)	Bojanala (Rm)	TOTAL
Multi purpose Rooms at R200 000 per classrooms.	(110) R22,0	(83) R16,6	(166) R33,2	(193) R38,6	(552) R110,4m
Libraries(No of Schools) at R200 000 per classroom	(200) R40,0m	(150) R30,0m	(300) R60,0m	(350) R70,0m	(1000) R200m
Repairs dysfunctional Toilets (No of 12 seat block) at R200 000 per School.	(100) R20m	(75) R15m	(150) R30m	(175) R35m	(500) R100m
Computer Rooms(No of Schools)	(264) R132m	(198) R99m	(396) R198m	(462) R231m	(1320) R660m
Science Laboratories(No of Schools)	(248) R124m	(186) R93m	(372) R186m	(434) R217m	(1240) R620m
Mobile Classrooms (No of Schools) at R100 000 per unit	(200) R20m	(150) R15m	(300) R30m	(350) R35m	(1000) R100m

Infrastructure Description	TOTAL (Rm)				
	Ngaka Molema (Rm)	Dr Ruth Mompoti (Rm)	Dr K.Kaunda (Rm)	Bojanala (Rm)	TOTAL
<b>Administration Blocks (No of Schools) at R750 000 per block</b>	(100) R75m	(75) R56,3m	(150) R112,5m	(175) R131,3	(500) R375m
<b>NSNP Rooms(Feeding)</b>	(220) R110m	(165) R82,5m	(330) R165m	(384) R192m	(1099) R549,5m
<b>Fencing (No of Schools)</b>	195 R29,3m	146 R21,9m	292 R43,8m	340 R51m	973 R145,9m
<b>TOTAL</b>	2398	1815	3583	4200	<b>R14, 908,5 billion</b>

The definitions and scope of each of the infrastructure categories used in table 4.7 needs to be clarified. The categories should further be modified to reflect actual infrastructure categories in the DORA reports.

An accurate determination of needs should be based on each town or suburbs' needs and not only based on the regional average. These averages provide a check, and indicate where a minimum of further investigation should be carried out. A Total amount of R14, 908, 5 billion will be required to address the value of total Works to be done in Four Regions in a Ten years Period.

The update of NEIMS and its SITA Certification process is not yet completed. The final Infrastructure Plan 2009/10 will be updated based on credible NEIMS information.

## 5. INFRASTRUCTURE MANAGEMENT PLAN

### 5.1. BACKGROUND DATA

#### 5.1.1. PHYSICAL PARAMETERS

The physical infrastructure available in the North West is summarised in Table 5.1.1.

Table 5.1.1 Summary of Physical Infrastructure in Four Districts.

No	Infrastructure	Dr Ruth Mompoti	Ngaka Molema	Dr K.Kaunda	Bojanala	Total
1	Primary Schools	53507	117590	92866	128764	392727
2	Intermediate Schools	15279	28346	11739	40519	95883
3	Secondary Schools	29151	54163	57233	67890	201237
4	Combined Schools	2961	8452	9961	9846	31220
5	Farm Schools	3	4	27	7	41
6	Adult Centres	82	72	18	86	258
7	Early Learning Centres	86	160	28	297	571
8	Special Schools	4	15	9	24	19

9	Tertiary Institutions	2	4	5	8	19
10	Management Offices	6	8	5	9	28



**N.B** These Figures are based on data that needs to be verified. With the availability information from NEIMS which needs to be updated and certified by SETA, an accurate data will henceforth be given as correct and valid. The next final Infrastructure Plan to be submitted will be having credible and updated data.

Maps showing the Locality of Schools included in Table 5.1 are also included in the annexure. Note that the Categories need to be verified.



<b>Table 5.1.1(A) Summary of Physical Infrastructure</b>			
<b>Description of Asset</b>	<b>Quantity</b>	<b>Age (Years)</b>	<b>Estimated Replacement Value (Rbn)</b>
Schools	1764	Varies from +50 to 0	27,0
Regional & Corporate offices, colleges, hostels, etc)			3,0
TOTAL			30,0

### 5.1.2. Capacity and Performance

Factors affecting utilisation include:

- Storm damage reducing availability of existing infrastructure;
- Migration of learners from schools resulting in infrastructure being under utilised;
- Migration of learners to schools resulting in higher than standard classroom: learner and learner toilet ratios;
- Dysfunctional facilities causing existing infrastructure to not be available for use.
- Schools requiring major repairs/refurbishment; some classrooms are unsuitable for use.

This information is not available and should be collected. In addition a Locality Plan showing over and under utilisation should be prepared.

### 5.1.3. Condition

The NW DPW intends collecting condition assessment data for all schools by end of 2010, and capturing this on the PREMIS Asset Register/BMMS that they have compiled. DPW is currently updating the UMPS with the Department to enable accurate conditional assessment of Assets to take place.

The National DOE is conducting a survey (SRN) of all education infrastructure determine, amongst others, the condition of the infrastructure. The final data is expected in 2010, but preliminary data should be available in April 2010 this data will be included in the NW DPW asset register/BMMS.

### 5.1.4. Valuations

The value of the infrastructure should be based on the asset register compiled by the NW DPW in 2001. These valuations could be reinforced by the data from the EMIS. The 2006 SRN being conducted will provide this data during 2008 with the final report in 2009. The data should be included in the NW DPW asset register/BMMS. Currently DoE has submitted completed projects to DPW to transfer into the Premis (Asset Register) DPW will put on Tender for valuation of assets (Schools) to be done.

Currently the estimate is as shown in Table 5.1, 1(a), i.e. total replacement value of infrastructure is R30bn.

### 5.1.5. Historical Data

Learner statistics for schools have only been available from 2000. The data has been based on the EMIS and annual surveys within the NW DOE.

Infrastructure data is currently based on existing records and information compiled by school principals. Limited information has been compiled by NW DOE and NW Premis PW works inspectors. The NW DPW has compiled an asset register/BMMS which is based on data compiled in 2002. The DPW is currently working on a System to maintain the data. Conditional assessments that NW DPW plans for 2008/9 will be used to update the asset register/BMMS.

The 2009/10 SRN will also provide accurate data on infrastructure condition, capacity, utilisation, level of service provided, location, etc. An extract from the Premis was used to estimate Arrear Repairs to Schools.

## 5.2. EPWP

This programme is aimed at using labour based methods for construction and provision of training for qualifying employees.

Most of the infrastructure work carried out by the NW DOE is labour based. Out of 12 Renovation projects to be implemented by DPW, four has been earmarked for EPWP and NYS Programmes. In future many projects will be set up for EPWP Purposes. There is still a huge challenge regarding the implementation of EPWP Programmes viz reasons for this include:

- documentation (or relevant portions of the documentation) does not comply with the EPWP requirements;
- no EPWP registered contractors available to tender for work;

### 2009/10 EPWP PROJECTS SHOWN ON RENOVATIONS TO BE EXECUTED BY DPW

#### 4. SCHOOL RENOVATIONS 2009/2010

NO	PROJECT NAMES	LOCATION	MUNICIPALITY	EPWPTYPE	REGION
1	Boipuso	Zeerust	Ramotshere Molloa	EPWP	Ngaka Molema
2	Naletsana	Lichtenburg	Ditsobotla		Ngaka Molema
3	Montshioa Memorial	Mafikeng	Mafikeng	NYS	Ngaka Molema
4	Hatabutle	Khuma	Matlosana	EPWP	Dr K.Kaunda
5	Bathabile	Klerksdorp	Greater Taung		Dr K.Kaunda
6	Phogole	Wolmaranstad	Maquassi Hills	NYS	Dr K.Kaunda

7	Rethusegile	Lethabong	Kgetleng		Bojanala
8	Segale	Mazista	Kgetleng		Bojanala
9	H.F.Tlou	Tlhabane	Rustenburg	NYS	Bojanala
10	Kgato Ntle	Taung	Greater Taung	NYS	Dr Ruth Mompoti
11	Kobane	Vryburg	Taledi		Dr Ruth Mompoti
12	Bore	Magogong	Greater Taung	EPWP	Dr Ruth Mompoti

However the department does include the socio-economic reporting requirements of the EPWP in their reporting requirements from implementing agents.

Future projects should be planned in collaboration with NW DPW to include elements of the EPWP as far as possible. One of the problems hampering the use of EPWP Systems is the low number of Accredited/Trained EPWP Contractors.

The NW DOE could look at including AIDS Awareness and Life Skills Training in the Projects to augment the temporary jobs created by each project.

### 5.3. ENVIRONMENTAL CONSIDERATIONS

All projects involving infrastructure should include an environmental assessment. EIA's have not been included in planning to date.

Provision should be made in infrastructure planning to include EIA's and monitoring of impacts in terms of these EIA's after preliminary discussions with NW DACE have been held.

Individual projects should be assessed to determine the level of EIA required.

## 5.4. ROUTINE MAINTENANCE

### 5.4.1. Routine Maintenance Plan

No formal routine maintenance plan has been established.

Routine maintenance is carried out by schools using an allocation made to each school each year. The allocation is based on the size of the annual budget and not on the amount of work required. Schools use this money to repair small items during the year.

The NW DOE and NW DPW are preparing a maintenance plan for all fixed infrastructure.

Table 5.4.1. shows the amounts that have been made available for routine maintenance.

<b>No.</b>	<b>Financial Year</b>	<b>Total (Rm)</b>
1	2009/10	<b>75m</b>
2	2010/11	<b>80m</b>
3	2011/12	<b>85m</b>
	<b>TOTAL</b>	<b>240m</b>

No basis for allocating funds for maintenance has been developed. Available funds are apportioned amongst schools for their own use. This system needs to be replaced by a formal system that monitors expenditure to ensure that maintenance is properly carried out.

The NW DPW Asset Register and BMMS will be used to develop budgets.

### 5.4.2. Standards and Specifications

All new building and refurbishment work is carried out according to building standards and norms. In many cases the work is supervised by a team of built environment professionals. In other cases the work are supervised by either NW DOE or NW DPW works inspectors.

### 5.4.3. Summary of Future Costs

“Maintenance” requirements are based on the funds made available each year as shown in **Table 5.4.1. R 75m has been allowed for 2009/10.**

Maintenance (ensuring that infrastructure is fit for the purpose for which it was built and installed) needs to be planned and scheduled. This will be provided by the NW DPW BMMS.

Currently no estimates for deferred maintenance have been made. Deferred maintenance often leads to damage which is then included in the “Repairs Backlog” (Table 5.4).

The NW DPW asset register/BMMS will assist in developing budgets and schedules for maintenance and refurbishment.



## 5.5. RENEWAL OF INFRASTRUCTURE

### 5.5.1. Renewal Plan

Renewal has been divided into repairs and planned refurbishment. Repairs are required to overcome the dilapidated state of some schools before they can be placed on a routine maintenance and refurbishment cycle.

### 5.5.2. Repairs

Schools requiring repairs that can not be classified as day to day are referred to as Major or Minor Repairs. The division between major and minor repairs is R500, 000. This differentiation has been made to address schools where smaller repairs are required before they become major and not allow requests for large repairs to swamp requests for smaller important repairs.

Regional offices submit prioritised lists of major and minor repairs to the corporate office. Funds are usually allocated equally to each region. The repairs highest on the Regional list are addressed first.

Currently the estimated costs of repairs to all schools are **R8, 050 billion**.

An accurate assessment of the required repairs needs to be carried out.

BMMS and Asset Register will be used in managing this Category of Expenditure.

Based on the Premis (Asset Register of NW DPW) repairs amounting to R676, 323, 951 were requested in 2002. Allowing for escalation, facilities built or acquired and facilities not included on the Premis at 2002, this "backlog" in repairs is estimated to amount to more than R1billion.

The NW DPW Asset Register and BMMS will assist in scheduling, developing estimates and budgets, prioritisation of projects and recording Refurbishment work.

In addition, the NW DPW will carry out a survey during 2008/9 to determine the extent of major and minor repair requirements at schools.

### 5.5.3. Refurbishment

The annual refurbishment estimate is based on the value of the infrastructure managed by the NW DOE, the condition and the age of the infrastructure. Currently no budget is prepared for refurbishment.

For the purpose of this infrastructure plan, refurbishment costs have been estimated to be 1% per annum of the replacement value of the infrastructure. NW DPW believes that refurbishment should be carried out on 7 year cycle at each school and be confirmed by regular condition assessments.

The NW DPW asset register/BMMS will assist in scheduling, developing estimates and budgets, prioritisation of projects and recording refurbishment work.





#### 5.5.4. Estimated Repair and Refurbishment Costs

Table 5.3 summarises the estimated costs of repairs to all schools. This information has been supplied by regional ESS staff. These estimates can be viewed as the current backlog in repair and refurbishment work.

These estimated backlogs will be verified and localised by the 2008 SRN and the NW DPW schools condition assessment in 2008/9.

No.	Infrastructure Description	TOTAL (Rm)				TOTAL
		Central (Rm)	Bophirima (Rm)	Southern (Rm)	Bojanala West (Rm)	
1	Repair/replace dysfunctional toilets	20,0	15,0	30,0	35,0	100,0m
2	Major repairs (costing more than R500,000)	1,610 b	1,210 b	2,415 b	2,815 b	R8,05 billion
TOTAL		R1,810	R1,360	R2,715	R3,165	R8,150 billion
4	Premis 2002 Estimations	R3 billion				

This information has been supplied by Regional ESS Staff. These estimates can be viewed as the current Backlog in repair and refurbishment work. These estimated Backlogs will be verified by the 2008 SRN Survey.

Table 5.5 indicates the funds allocated to major repairs in the 2008/09 -2016/18 financial years and a projection of the funds required completing the major repairs by 2016/18 in order to remove the repairs backlog.

Table 5.5 also indicates an increasing amount for planned repairs of infrastructure on a scheduled basis. The total annual refurbishment funds required are based on an estimated 1% of capital value of fixed infrastructure.

In order to ensure that NW DOE immovable assets do not generate a new "Repair Backlog" Table.5.4 has been addressed. Regular Renewal and Refurbishment should be scheduled and budgeted for.

Table.5.5 Estimated Cost of Repairs and Refurbishment/renewals (R'm)				
Financial Year	Repairs Required Table.5.4	Estimated Refurbishment	Repair Funds Allocated	Backlog at end of Financial Year.
2009/10	7,942	64.0	179,6	7,762
2010/11	7,762	96.0	179,6	7,582
2011/12	7,582	128.0	179,6	7,402
2012/13	7,402	160.0	179,6	7,222
2013/14	7,222	192.0	179,6	7,042
2014/15	7,042	224.0	179,6	6,862

2015/16	6,862	256.0	179,6	6,682
2016/17	6,682	288.0	179,6	6,682
2017/18	6,502	320	180	6,502

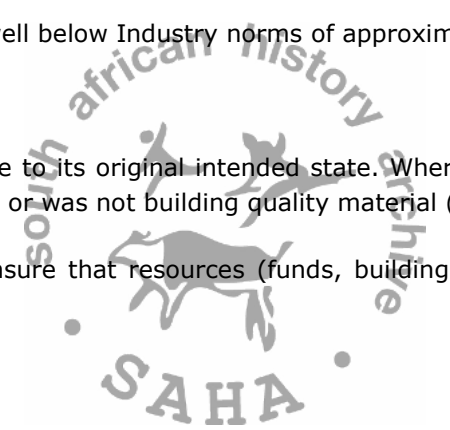
From Table.5.5 it can be seen that the "Backlog" is reducing based on the assumption that repairs does not increase. The amount of repairs is however dependent on the amount and quality of routine Maintenance that is carried out at Day to day.

Present estimates indicate the amount of this work is well below Industry norms of approximately 0,8% of the replacement value of immovable assets.

#### 5.5.6. Renewal Standards

All renewals are carried out to return the infrastructure to its original intended state. Where possible the same material is used unless this material is not economically available, is unsafe to use (e.g. Asbestos) or was not building quality material (e.g. mud) when the infrastructure was built.

The risk involved in applying these standards is to ensure that resources (funds, building materials, skill labour and skilled supervision) are available to implement these requirements.



## 5.6. CREATION / ACQUISITION PLAN

### 5.6.1. Selection Criteria

School building programmes are currently based on priority lists submitted by the regions to the corporate office. These priorities are based on the school and regional office estimation of the demand for infrastructure which either provides for new demand or addressing “unbearable” conditions in which learners are taught (unsafe structures, more than one class in a large hall, none or very poor sanitation facilities, etc).

The NW DOE needs to move towards an integrated planning system where the following criteria are consistently used for determining the infrastructure to be created in the future:

- Demographic trends;
- Availability of alternative education facilities;
- Availability of alternative infrastructure solutions (temporary facilities, transport, hostels, platooning in the short term);
- Municipal services availability;
- Economic development projects and initiatives in the area;
- Curriculum to be provided in the future; and
- Funds.

These factors form part of the initial determination of infrastructure needs. Using this data in a consistent manner will assist the planners to develop a long term plan for the creation of infrastructure throughout NW.

### 5.6.2. Standards and Specifications

Infrastructure is built to meet the South African National Standards requirements for buildings and associated infrastructure and NW DOE requirements for specific conditions.

In cases where it is not possible or feasible to provide permanent structures, temporary facilities using materials appropriate to the estimated period for which the infrastructure will be required, should be used.

This implies that improved projections of the required service life of a facility should be developed; i.e. .where communities will only require the facility for 5 years, use of modular, mobile or semi-permanent structures should be considered.

This implies that improved Projections of the required service life of a school should be developed, i.e. where Communities will only require the School for 5 years use of modular OR Mobile schools should be considered.



### 5.6.3. Summary of Future Costs

Currently planning has been based on the proposed MTEF budget to be made available to the NW DOE. Table 5.5 based on Table 4.7 indicates the required expenditure for infrastructure. As noted in section 4.4.2 these estimates need to be verified. Table 5.5 also illustrates the current planned expenditure on new infrastructure.

Infrastructure Description	Budget Provision			
	09/10 (Rm)	10/11 (Rm)	11/12 (Rm)	Total MTEF
<b>New Schools</b>	70	200	234	504
<b>New Buildings</b>				
<b>New Toilets</b>	23	40.0	60.0	123
<b>Provision of water</b>	6,4	8.0	8,0	22,4
<b>Provision of electricity</b>	0.0	0.0	0.0	0.0
<b>New fencing</b>	6,4	8.0	8,0	22,4
<b>Dilapidated Structures</b>	<b>60</b>	<b>91</b>	<b>91</b>	<b>242</b>
	<b>95,8</b>	<b>147</b>	<b>167</b>	<b>611,8</b>

### 5.7 DISPOSAL PLAN

No formal system for identifying infrastructure that needs to be disposed of has been developed. Infrastructure that needs to be disposed of falls into the following categories:

- Infrastructure constructed using poor materials or building methods; and
- Infrastructure that is no longer required e.g. in areas where learner numbers cannot support a school, or the curriculum has changed rendering certain facilities obsolete.

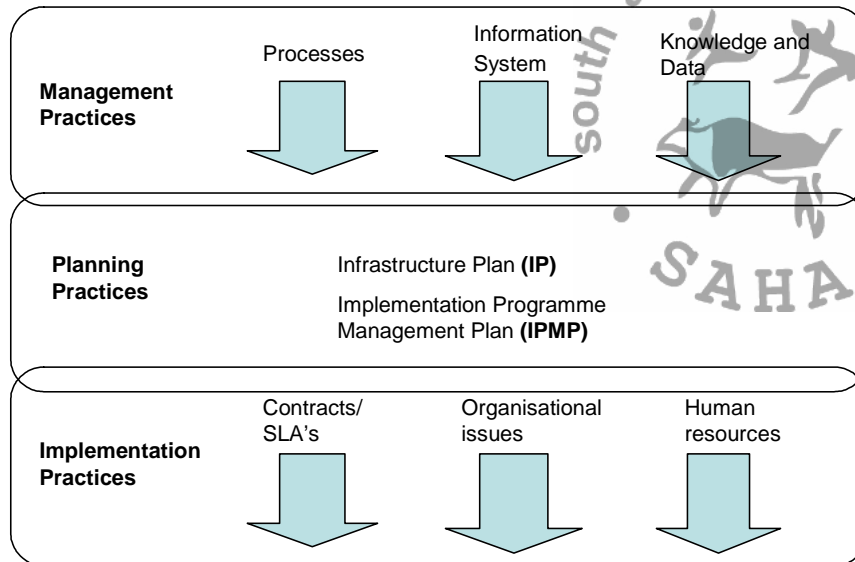
Generally where schools are constructed with poor materials, the NW DOE attempts to rebuild these schools. A building programme – replacement or major repairs – needs to be developed. This programme should be linked to the 2008 SRN and the NW DPW asset register/BMMS and future community demand.

## 6. ASSET MANAGEMENT PRACTICE



The key elements of life cycle infrastructure asset management practice are illustrated in Figure 7.1.

Figure 7-1: Life Cycle Infrastructure Management Practices





## **6.1. HUMAN RESOURCES**

### **6.1.1. Priority Functional gaps**

#### **6.1.1.1. Planning**

Sufficient capacity until recently has not existed in the PRFPM directorate to develop long term Infrastructure Plans. This capacity has now been partially provided, but skills training is required to make the additional resources effective.

#### **6.1.1.2. Integration of Effort**

In many cases the functions of NW DPW and NW DOE overlap. Should these two departments, initially and others later, be able to integrate their planning and operational roles a more effective infrastructure management service could be provided.

This will also be assisted should it be possible to use the same infrastructure training courses for both departments' officials responsible for infrastructure management.

#### **6.1.1.3. Sustainability of Training**

A long term skills development and training programme will provide staff with the planned mechanism for addressing their skills shortage and give them greater confidence in providing the services required of them.

#### **6.1.1.4. Fill Organogramme**

The approved organogramme needs to be filled with staff that either have the required skills or can be trained in such a manner that skills can be passed on the department. Currently the Physical Resources and Facilities Planning and Management staff of the department number 19 of 51 according to the approved organogramme (ie less than 40%).

#### **6.1.1.5. Crisis Management**

Infrastructure Asset Management including sustainable planning and management of delivery is a service focussed on long term results. Systems and staff skills should be developed that are focussed on delivering sustainable LOS.

Currently staffs are required to respond to crisis varying from information about a particular school to genuine emergencies (storm damaged buildings). Prioritisation of projects based on confirmed needs (long and short term), backed up by reliable systems (EMIS, asset register/BMMS, IP) should be used to guide staff deployment and development.



### **6.1.2. Key skills gaps**

#### **6.1.2.1. Infrastructure Management**

Infrastructure users, service providers, implementing agents and staff need to appreciate the value of the infrastructure that needs to be managed and be able to plan based on the life cycle costs of providing infrastructure.

#### **6.1.2.2. Programme and Project Management**

Staff will be required to manage a variety of implementing agents, including NW DPW, professional programme and project teams and short term contract teams.

#### **6.1.2.3. Prioritisation of Projects**

Prioritisation skills need to be developed so that long term project choices can be made to achieve both short and long term objectives.

#### **6.1.2.4. Communication Skills**

Staffs needs to be able to communicate with communities, municipalities, project and programme implementing agents, fellow staff members and other non-infrastructure related staff for whom they are providing the infrastructure service.



### **6.1.3. Human resources gaps**

The following training and skills development systems need to be implemented:

- Formal and easy mechanism for distribution of planning and management tools developed in the department;
- Training and mentoring systems to support long term skills development;
- Customised training plans for each staff member in the PRFPM; and
- Mechanism for reporting on the effectiveness and benefits of training and skills development.

#### 6.1.4. Immediate and future expertise requirements

The PRFPM directorate is focussed on providing infrastructure to meet service delivery requirements in the long term. This will require the following initial skills:

- Infrastructure asset management; and
- Project and programme management.

In the future the above skills need to be refined and continuously developed and the following skills will also be required:

- Property management
- Technical and Trade skills (specifications, contract administration, artisan)
- Condition assessment
- Prioritisation of projects
- Long term planning in collaboration with local communities and municipalities
- Financial management (budget, commitment register, cash flow management, etc)



#### 6.1.5. Initiatives to address gaps

The following initiatives have been proposed to address the gaps:

- Recruit suitable staff
- Train staff in the skills required in a systematic manner
- Provide continuous mentoring for staff

- Budget for training and skills development in a sustainable manner
- Develop, install and implement information sharing systems, flexible training plans and succession planning for staff.



**6.1.6. Anticipated impact**

The impact of filling posts and training on the PRFPM directorate should improve planning and delivery management significantly. Challenges that will be encountered include changing perceptions of some implementing agents to comply with both the letter and the spirit of their SLA’s and reducing the “crisis management” culture currently in operation in the directorate.

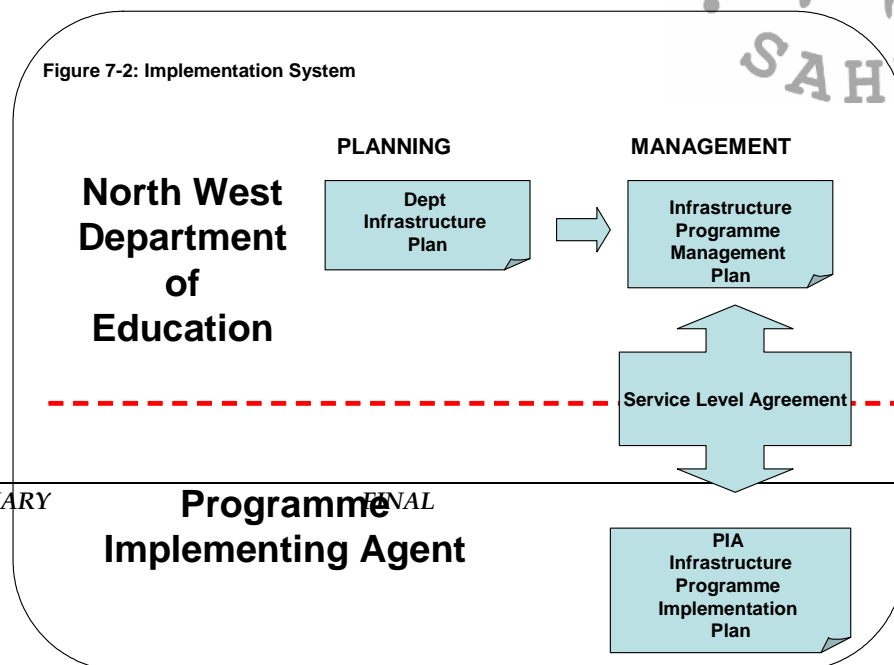
This staffs currently manages an infrastructure budget of approximately R325m per annum. It is expected that the infrastructure budget will increase until 2012/13 **when it will stabilise at approximately R900 million per annum.**

PRFPM directorate staff and ESS representatives at the District offices will be required to play a larger role in infrastructure planning and project prioritisation. In order to manage the increased infrastructure budget the PRFPM directorate will have to make more use of built environment programme managers (e.g. NW DPW).

**6.2. SYSTEMS AND PROCESSES**

**6.2.1 Implementation Plan**

Figure 6.2.1, illustrates the proposed implementation system for NW DOE.



This system requires the Programme Implementing Agent to prepare and monitor a Programme Implementation Plan. Currently these plans are one year long (the financial year), but could be extended to include 2 or more years, e.g. the MTEF cycle.

### **6.2.2 Accounting and Financial Systems**

NW uses the Walker Financial System for monitoring and approving expenditure against budget votes. In addition the Office of the Premier has established a project tracking system for all projects which includes financial indicators.

These systems, used correctly, should provide sufficient data to monitor NW DOE infrastructure expenditure at present.

The PRFPM directorate has developed a Commitment Register that tracks invoices and payment certificates that have been approved for payment. This gives the directorate an early indication of likely expenditure.

### **6.2.3 Infrastructure Management Systems**

Table 6.2.3. summarises the information systems currently available. Access to these systems has been partially provided to NW DOE PRFPM staff. However this access is slow and often delays accurate data capturing and report extraction.

<b>Table 6.2.3. : Information Systems Currently Available</b>					
<b>Name/ Description of System</b>	<b>Type of Data Stored</b>	<b>Quality/Reliability of Data</b>	<b>Data Analysis</b>	<b>Physical Location of System</b>	<b>Data Collection Schedule</b>
Walker Financial System	Financial Data	Good; allocation of cost codes needs to be checked	Summary of expenditure; % of budget expended	NW head office	Budgets annually; expenses are captured as they occur
NW Pro-Mis	Project expenditure and progress;  Budget Allocation per project	Good; needs to be correlated to Walker	Identification of project phase	NW Office of the Premier; The web based system is being developed.	Budgets annually; Expenditure and progress recording.
EMIS	Learner statistics, some infrastructure data	Poor; needs to be verified;	Projections; Utilisation	NW DOE: ESS Chief Directorate	Snap survey and SRN;  (Currently NDOE busy with 2006 SRN for infrastructure)
BMMS and Asset Register at NW DPW	Infrastructure description, location, condition, value	Good; Needs to be updated	Projections, Utilisation, Funding requirements, Project prioritisation, Condition analysis	NW Department of Public Works	NW DPW intend completing all condition assessments in 2006



<b>Table 6.2.3. : Information Systems Currently Available</b>					
<b>Name/ Description of System</b>	<b>Type of Data Stored</b>	<b>Quality/Reliability of Data</b>	<b>Data Analysis</b>	<b>Physical Location of System</b>	<b>Data Collection Schedule</b>
IRM	Project expenditure and progress.  Budget Allocation per project.	Good, needs to be correlated to Walker	Identification of project phase to handover stage.	NW TREASURY: The web based system is being developed.	Budgets annually, Expenditure and progress recordings



#### 6.2.4 Information Flow Requirements and Processes

The following information and data is required during the process of preparing an Infrastructure Plan:

- Strategic goals and objectives of the NW DOE (changes and focus areas);
- Location, description, condition and value typically available from an asset register;
- Performance and utilisation of the infrastructure;
- Staff recruiting and training schedule and budget commitments;
- Infrastructure Budget allocations and potential additional funding sources;
- Trends based on actual historical data;
- Projections based on demographic changes and economic development plans;
- Projections based on estimated demand changes and curriculum changes;
- Technology changes to be implemented in NW DOE.

This information will inform both the demand for infrastructure as well as the supply of infrastructure.

The Infrastructure Plan will be used as a basis for implementing construction and refurbishment cycles in the MTEF period as well as to inform the department of the resource requirements in the future.

Risk analysis for loss of service and physical hazards will also be possible. This analysis can then be monitored and improved as data is collected and analysed.

#### 6.2.5 Standards and Guidelines

The National DOE's policy to provide a high standard of education, easily accessible to all is the main requirement driving the provision of infrastructure. This requirement can only be implemented on an incremental basis. The Infrastructure Plan will develop realistic targets to be achieved and monitor achievements.

## 7. FINANCIAL SUMMARY

### 7.1 FINANCIAL STATEMENTS AND PROJECTIONS

#### 7.1.1 Financial Systems

The North West province uses the Walker system to make all its payments. Thus all of NW DOE's infrastructure expenditure is done through this system. Expenditure is also recorded on both the Project Register and the IRM (Infrastructure Reporting Model) which is an initiative managed by both Provincial Treasury and the Office of the Premier.

The following cost centre codes are used for NW DOE infrastructure expenditure:

- AB7: National Conditional Grant – School Building;
- G01 Provincial Conditional Grant – School Building(Final Accounts)
- G81: Provincial Conditional Grant – Maintenance.(Planned & Unplanned Maintenances)

#### 7.1.2 MTEF Allocations

Income to the department is in the form of budget allocations from the provincial budget and an allowance from the national treasury. Both of these allocations are managed by the NW Provincial Treasury. The NW DOE also receives income for infrastructure from the NW Education Development Trust. This Trust counter funds expenditure on new infrastructure that falls into certain categories.

Balancing of the income and expenditure occurs by not permitting any over-expenditure and either rolling over unspent funds into the following financial year or surrendering the unspent funds back to provincial treasury.

Currently projections are based on the allocations provided in the MTEF budget statements for the following 2 financial years.

Table 7.1.2. Illustrates the MTEF budget for the 2009/10 to 2011/12 financial years.

<b>Table 7.1.2. : Budget for Infrastructure</b>			
<b>Financial Year</b>	<b>New Buildings</b>	<b>Maintenance</b>	<b>Total</b>
	<b>Budget</b>	<b>Budget</b>	<b>Budget</b>
<b>09/10</b>	250, 609	75, 000	325, 609
<b>2010/11</b>	327, 333	80, 000	407,333
<b>2011/12</b>	423,181	85,000	508,181

---

<b>TOTAL</b>	<b>1,001,123</b>	<b>240,000</b>	<b>1,241,123</b>
--------------	------------------	----------------	------------------

**Note:** Maintenance includes major, minor repairs and day to day maintenance.

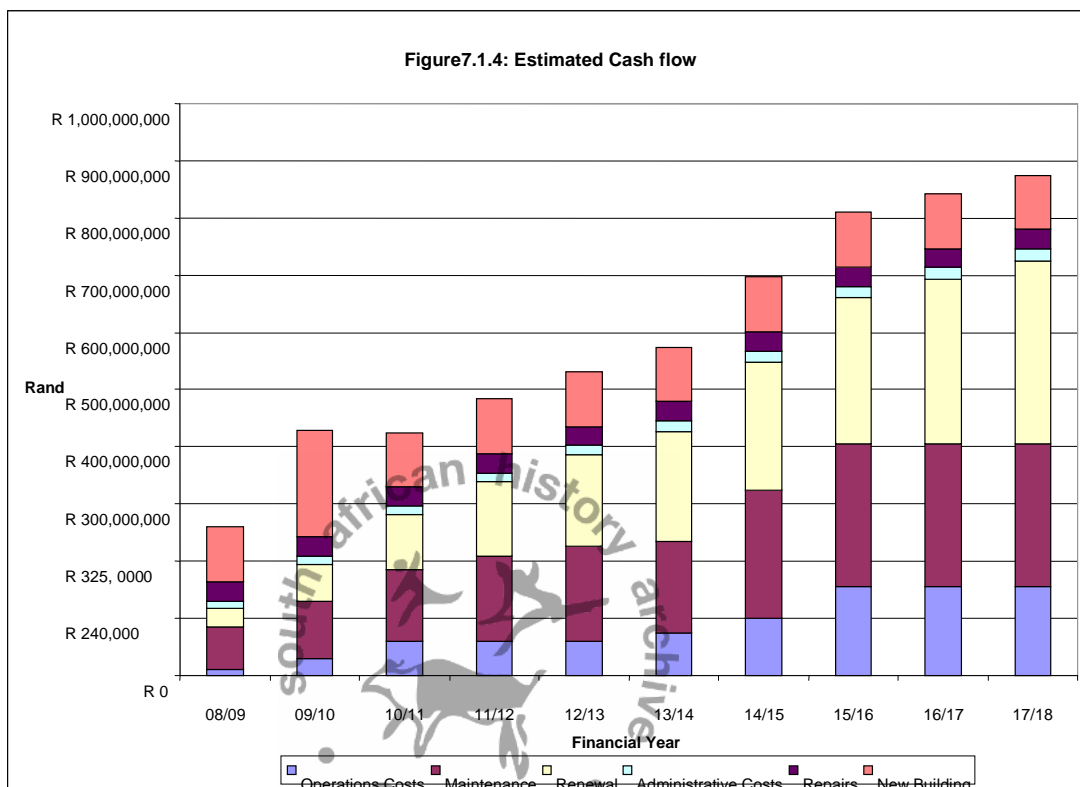


### 7.1.3 Cash flow Forecasts

Table 7.1.3. Lists the assumptions made to develop cash flow projections. All these assumptions need to be verified and are used to develop initial estimates.

<b>Table 7.1.3.: Assumptions to Derive Cash flow Projections</b>		
<b>Description of assumption</b>	<b>Assumption</b>	<b>Comment</b>
Current infrastructure replacement value.	R36bn	Based on number of schools and buildings. This assumption is to be confirmed by the asset registers and conditional assessments
Current value of repairs required.	R8,150 billion; 10 years to complete these repairs, i.e. by March 2017.	Based on estimates by schools, APO's and District offices; The assumption to be confirmed by estimates based on assessments by NW PW and NW DoE
Current value of new buildings required.	R2,015 billion Complete these new buildings, i.e. by March 2015.	Based on estimates by schools, APO's and District offices; The assumption to be confirmed by estimates based on assessments by NW PW and NW DoE
Operations allowance.	0.5% of replacement value (highest estimate R 160,0m per year)	Allow an increasing allocation and verify assumption with improved data.
Maintenance allowance.	0.8% of replacement value (highest estimate R250,0m per year)	Includes scheduled routine maintenance and day to day repairs.
Refurbishment costs	1% of replacement value (highest estimate R315,0m per year)	Increase the allocation to reach the allowance each year; All requirements to be verified on site; Increase the accuracy of the assumption with improved data.
Inflation	5% per year	

Figure 7.1.4. Illustrates the cash flow based on the above assumptions. This cash flow is based on increasing infrastructure expenditure until the outstanding repair and building requirements have been met and expenditure on scheduled maintenance, renewal and operations have reached their theoretical values. These values should be investigated and amended as more accurate data becomes available once the Infrastructure Plan has become operational.



## 7.2. FUNDING STRATEGY

Funds are obtained from three sources for infrastructure development in the NW DOE. Table 7.2. Illustrates the uses that can be made of each source of funding.

<b>Funding Source</b>	<b>Comments</b>
Provincial Treasury (G01, and G81)	Funds are earmarked for either new building or maintenance work.
National Conditional Grant (AB7)	Funds may only be used for new buildings.
NW Education Development Trust	Funds are provided by the private sector on a co-funding basis. Funds are used for new buildings, provision of water, toilets, fencing and refurbishment.
Provincial Treasury (G02)	Funds may only be used for building of New Toilets(SANITATION PROGRAMME)

## 7.3. VALUATION FORECASTS

Currently no formal procedures exist to value infrastructure. The value of the infrastructure is based on an estimate of the replacement cost at 2009 prices. This method is not acceptable and needs to be replaced by a formal system that is linked to the asset register/BMMS and the condition of the infrastructure.

Most of the infrastructure consists of buildings. No depreciation has been allowed. In terms of GIAMA an allowance or a statement of the provision for depreciation needs to be made.

## 7.4. PROJECTS TO BE COMPLETED IN THE 2009/10 FINANCIAL YEAR

Some Projects have not been finalised. The final accounts need to be certified to be paid during 2009/10 financial years.

**8. ORGANISATIONAL AND SUPPORT PLAN**

**THIS SECTION TO BE REVISED (AGAINST THE BACKGROUND OF THE FUNCTIONAL ANALYSIS REPORT )**

**8.1. Services Rendered By External Organisations**

**8.2 ORGANISATIONAL ARRANGEMENTS**

**8.2.1 Contractual Arrangements**

The organisational/contractual arrangements for the implementation of the Department’s infrastructure programme are shown diagrammatically in Figure 8.2.1.

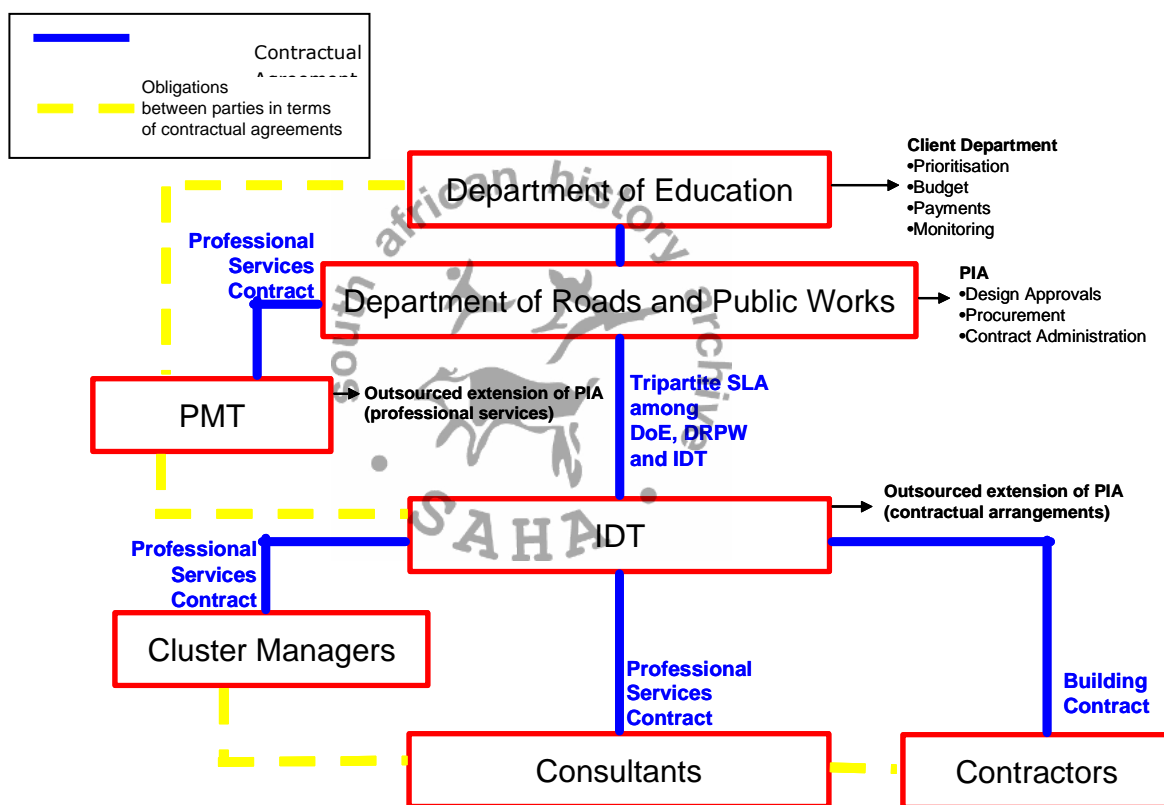


Figure 8.2.1. Shows Organisational /Contractual Arrangements



### 8.2.2 Implementation Management

The delivery mechanism is inherent in the structure described above. While the Department of Public Works has sub-contracted most of its implementation functions to the IDT, the Department of Education is still responsible for:

- Planning
- Monitoring/delivery

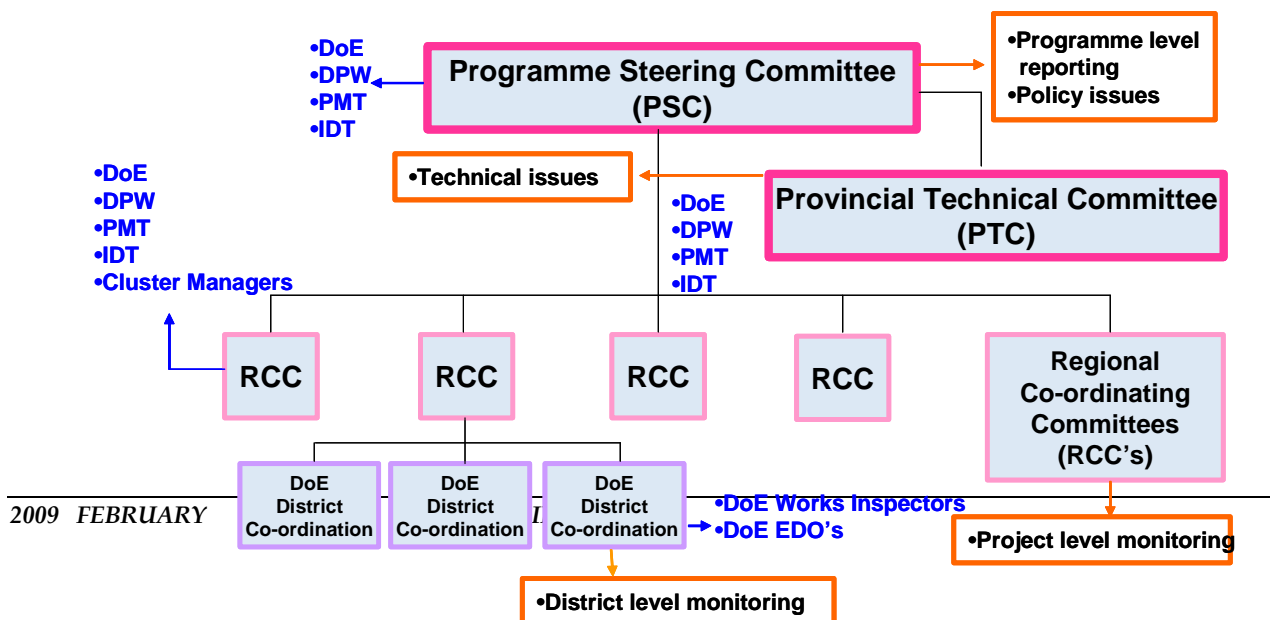
The North West Department of Education manages the latter functions through chiefly three structures, viz:

- Provincial Steering Committee
- Provincial Technical Committee
- Regional Co-ordinating Committees

The planning function is undertaken by the North West Department of Education, and is based on information contained in its Education Management Information System (EMIS). This is also coupled to the Department's asset management function.

Both the planning (and asset management) and delivery management functions require sufficiently skilled personnel at both provincial and district level. These personnel requirements are described in Section 7.2.

The programme implementation is managed by the following structure:



➤ **Provincial Steering Committee (PSC)**

Representation: Senior Management of Department of Education, Department of Public Works and IDT

Functions: Overall management of programme

Decision making body on all major issues affecting programme (eg: scope, budget, etc)

Meeting Frequency: Monthly

➤ **Provincial Technical Committee**

Representation: Line function managers of Department of Education, Department of Public Works and IDT

Functions: Day to day decision making

Formulation of recommendations to the PSC

Reviewing of all technical issues referred by RCCs

Pro-active technical product evaluations IDIP Client Focus teams also take part in this decision making processes.

**Meeting Frequency: Monthly**

➤ **Regional Co-ordinating Committees (RCCs)**

Representation: IDT management, consultants (Principal Agents/Cluster Mangers), Department of Education district representatives and Department of Public Works regional representatives

Functions: Progress and quality monitoring

Meeting Frequency: Monthly

### 8.2.3 Roles of the Parties

➤ **Department of Education: (Client department)**

Infrastructure planning

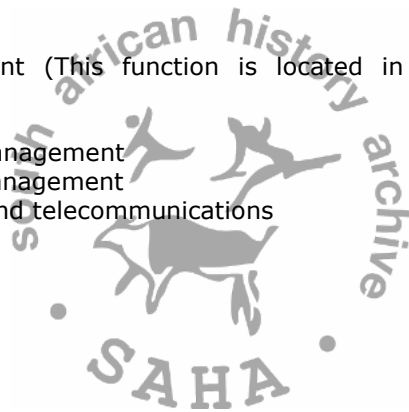
- Project identification
- Prioritisation
- Budgeting
- Conceptualisation

Delivery management

- SLA management
- Payments
- Monitoring and evaluation
- Handovers

Asset management (This function is located in DPW where the Asset Register is controlled)

- Facilities management
- Property management
- Electricity and telecommunications



Infrastructure systems management

- EFMS maintenance
- Data management
- Systems management

➤ **Department of Public Works (and agents): Programme Implementing Agent (PIA)**

Design and procurement

- Appointment of consultants
- Design approvals
- Tender procurement

Construction

- Contract administration
- Payment recommendations
- Reporting
- Variations
- Commissioning

Note that the PIA is expected to comply with all the requirements of the CIDB Act, and also promote the principles of the EPWP, and NYS Programmes.

The IDT has entered into a tripartite Service Level Agreement (SLA) with the DPW and the DoE to act as PIA. They are handling the Mud Schools and Dwaf projects for Sanitation and water. The IDT in turn contracts consultants and contractors for the specific projects. This SLA makes provision for dealing with default by any other parties, but will be strengthened in 2009/2010 to enable the DoE to deal more firmly with under-performance by the PIA before it gets to the stage where dispute resolution is required.

The DPW has contracted a consortium of professionals (called the PMT) to assist it with budgeting, reporting and co-ordination.

### **8.3 HUMAN RESOURCE REQUIREMENTS**

### 8.3.1 Required Internal Organisational Structure

The required structure for the Department of Education to manage a programme of this magnitude, and on such an extensive scale as the physical environment of the North West Department of Education demands, is set out below:

#### Provincial Level

*See page 22 Organogramme for Infrastructure Delivery Provincial level*

#### District Level Region



See page 23 Organogramme for Infrastructure Delivery Regional level

The implications of this structure can be summarised as follows:

- Required staff complement 13
- Estimated annual salary requirement R10m

### 8.3.2 Current Staffing Levels

The current organogramme is shown below, together with an indication of the posts that are presently filled.



Provincial Level

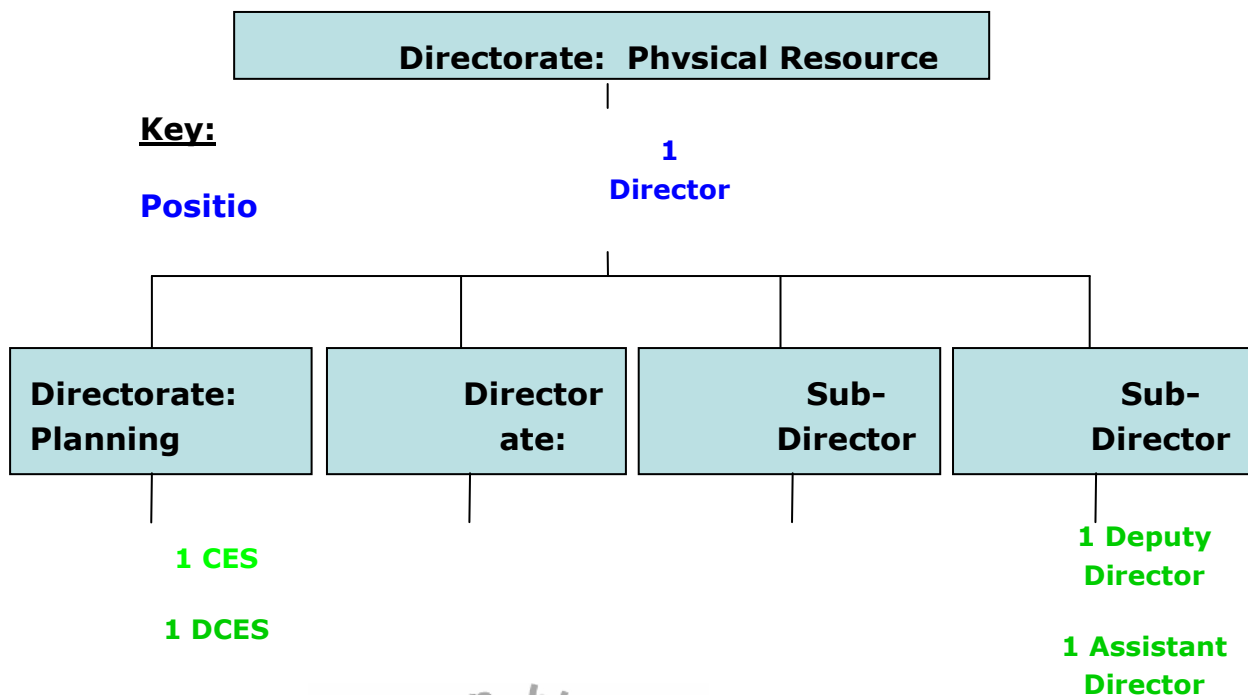
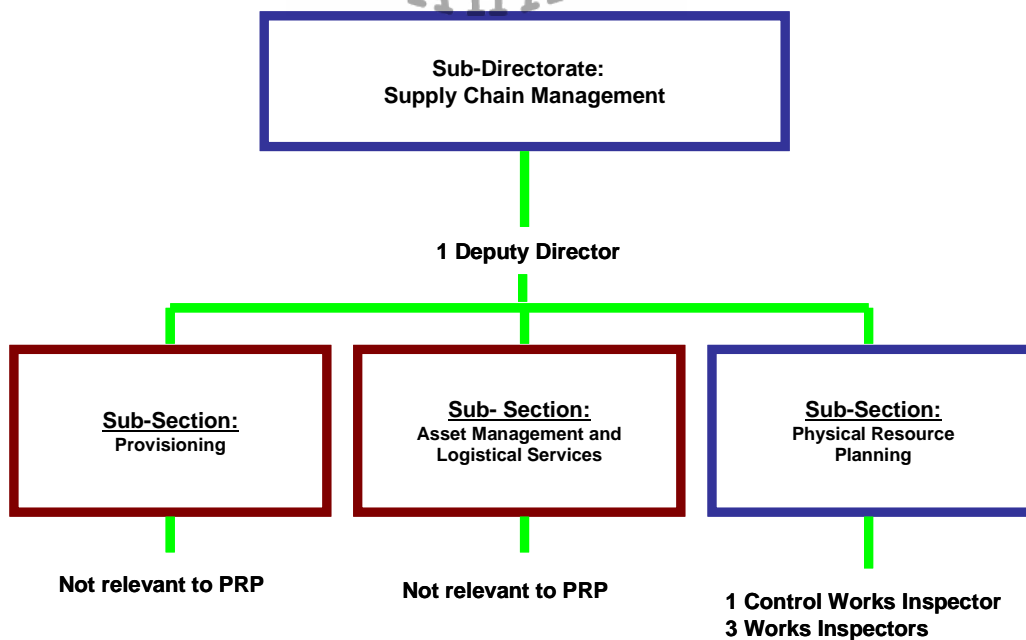


Figure 8.2.2: Organogramme for Directorate: Physical Resources Planning

Clearly the unit is severely understaffed, and therefore does not function along the lines indicated at provincial level.

District Level



Very few, if any, of the Physical Resource Planning posts are filled at district level. In fact the Department has only One Control Works Inspectors in the entire Province.

### **8.3.3 Interim Capacitation**

The Department acknowledges that its Physical Resource Planning units (provincial and district) are badly understaffed. It also acknowledges that, given the ruling budget restrictions and other constraints, this situation will not be turned around in the short to medium term. Other arrangements therefore need to be made to enable the Department (through the PRP units) to perform its planning and delivery management functions. These are briefly described below:

#### **1. Education Management Information System (EMIS)**

This is a powerful database system which the Department can utilise to support planning, delivery management, maintenance and asset management. There are, however, three aspects thereof which need to be addressed urgently if it is to provide this functionality at an effective level of sophistication:

(a) Additional Modules

There are modules of the EMIS which were not provided initially (programmed for Phase 2), and which now need to be installed. An application for funding in this regard has been submitted to the DBSA.

(b) Updating of Data



The effectiveness of the EMIS is only as good as the quality and relevance of its data. Resources and a process need to be put in place to ensure that the data is updated regularly. This is addressed later herein.

(c) Skills Enhancement

PRP personnel, both at provincial and district levels, need to be sufficiently unskilled to capture information and draw informative reports from it. This training and mentorship process is also included in the funding application to DBSA mentioned above.

(d) Outsourcing

There are certain seasonal planning activities for which it is not cost effective for the Department to employ personnel. These will be outsourced to specialists when necessary.

**2. Dedicated District Personnel**

In the districts which do not have PRP personnel (ie: Works Inspectors) this function is performed by a variety of persons. Hence no one person acquires the necessary skills to support the function. Similarly training programmes for district PRP personnel tend to be inconsistently or poorly attended. Whilst it is understood that district offices are also understaffed, it is crucial that a dedicated person be allocated to the PRP function by the district Managers. A process to establish dedicated persons at district offices is under way, but may be restricted by availability of personnel.

**3. Functions and Skills**

Within the Provincial unit, and while understaffed, the allocation of functions to dedicated personnel is important. This will also go a long way towards avoiding crisis management. It is then also important that the allocated personnel (both on provincial and district levels) be unskilled to perform these functions through training programmes. This will also assist them in outsourcing effectively.

**4. Outsourcing**

The most effective short term solution (and possibly also long term) to human resource shortages, is to outsource the requisite functions to suitably skilled organisations or individuals. This will have cost implications, which will need to be carried by the capex budget, but can be very cost effective if managed correctly. This solution has been utilised in the past, and ways to improve efficiency and cost effectiveness are being explored.

## **5. Systems and Procedures**

Effective and efficient procedures and systems are critical if planning and delivery management is to be performed in an understaffed environment. Through the IDIP programme, it is hoped that sufficient support will be provided to ensure that these are adequately put in place.

In particular, a comprehensive Procedures Manual needs to be drafted which will ensure that all role-players understand the processes involved, and their functions therein.

## **6. Infrastructure Plan**

The establishment of a comprehensive Infrastructure Plan approved by all the stakeholders is essential for efficient management and succession planning. The completion and finalisation of this Plan will therefore also strengthen the PRP unit's functioning.

### **8.4 SYSTEMS AND PROCEDURES**

#### **8.4.1 Accounting/Financial System**

This system is in place and is working efficiently. There are no undue delays in payments to suppliers.

#### 8.4.2 Infrastructure Management System

There is an Education Management Information System (EMIS) in place. It does have shortcomings that are being addressed (see previous section), viz:

- Additional modules
- Updating of data
- Training and mentoring

Once fully operational, the EMIS will provide all the planning and delivery management information requirements of the unit.

#### 8.4.3 Reporting System

The PRP unit is in the process of integrating and the various reporting requirements placed on it into a single system which will be captured in the EMIS.

Systems are also to be put in place to facilitate updating of information for the Infrastructure Plan on an annual basis.

### 8.5 FINANCIAL

The financial implications of the organisational and support requirements over the next ten years as set out herein are as follows (note that these are based on the downscaled interim capacitation plan as set out in Section 8.2.3):

#### **8.5.1 Salary Budget**

The current salary budget of the PRP Unit is R1, 120m per annum. This will need to increase significantly in future to the projected personnel complement.

#### **8.5.2 Upgrading and Maintaining EMIS**

The cost of upgrading and maintaining the data on the EMIS together with training and mentorship of personnel is estimated at R4, 1m over a two year period.

#### **8.5.3 Outsourcing**

The specific functions to be outsourced are still being determined to ensure efficiency and cost effectiveness. In the past this has been as much as R10m per annum which also includes a number of DPW functions.

#### **8.5.4 Other**

Treasury has allowed the Department of Education to use R 341, 000 per annum to source Three Professional Assistants to assist in Infrastructure Planning. This process of tendering for these posts have been submitted to DPC and the CFO was assigned to complete the task..



## 9. PLAN IMPROVEMENT AND MONITORING

In order for the Infrastructure Plan to have a useful impact on NW DOE's infrastructure delivery, it needs to be used and improved. The plan should serve as a guide to illustrate how infrastructure will assist the department in meeting its service delivery mandate.

By producing a plan that is based on accurate data and assumptions that reflect the department's vision, all stakeholders will be able to use it meaningfully. Improved data and information should be added on a continuous basis for inclusion in future reviews of the Infrastructure Plan.

### MONITORING AND REVIEW PROCEDURES

The Department through the PRPFM Unit has committed itself to an annual review of the Infrastructure Plan to coincide with the annual budgeting cycle. This will include an evaluation of performance (both of the DoE as well as the DPW over the past year against the Plan. The above process will be facilitated by an active link being established between the Office of the Premier (Project Management) and performance reports which are also be set up. This will make it easy to monitor the effectiveness of the Infrastructure Plan.

#### 9.1. I IMPROVEMENT PROGRAMME

Improvement is based on incremental improvements, focussed on the most important outstanding issue

The following are considered to be the most important areas for improvement of the Infrastructure Plan:

- Develop an Infrastructure Policy;
- Improve the quality and consistency of the data available;
- Link infrastructure planning to local municipality IDP's;
- Improve and integrate infrastructure asset data systems (BMMS, asset register, condition assessments, valuation procedures);
- Integrate information systems (EMIS, NW Pro-Mis, Walker, data analysis, GIS, procedures)
- Formalise EIA procedures and requirements
- External Auditing
- Benchmarking against international best practices
- Interviews with stakeholders
- Monitoring of performance reports

The following are considered to be important for the delivery of infrastructure:

- Improve human resources capacity (fill posts, conduct infrastructure management training)
- Draft Service Delivery Procedures (operations, maintenance, refurbishment, prioritisation)
- Implement organisational procedures (SLAs, Programme Plans, Standardised contracts, implementing agents' roles).

After each review additional and new issues for improvement will become relevant and should be addressed.

**MONITORING AND IMPROVEMENT PLAN (TO BE REVIEWED)  
FOLLOWING THE AUDITOR GENERAL REPORT IN THE MANAGEMENT LETTER 2006/07,  
THE FOLLOWING ITEMS ARE NOW GIVEN FIRST PRIORITY TO BE IMPROVED. THIS  
PROVCESS IS ONGOING.**

- Tender Register Reconciliation with the Project Lists.
- Asset Register Management
- Update of the Building Register and reconciliation with financial Statements
- Commitment Register on New Schools, Renovations, Sanitation ,Water and Mobile Classrooms.

**PERFORMANCE MEASURES**

The following Performance Measures will be constantly applied for improvement

- . Quality of Infrastructure Planning will be improved by empowering planners through Training and IDIP best practises.
- . Three Professional Assistants will be appointed by Treasury to assist in better Infrastructure Planning and Delivery. Posts have been advertised.
- . Office of the Premier (Project Management) will from time to time assess these Plans and will recommend best practises.
- . Planners will be accredited with Planning Modules to improve on the quality.

## 9.2. GAP BETWEEN CURRENT AND DESIRED MANAGEMENT PRACTICE

An improvement programme should include targets and milestones for each of these improvement areas. The milestones should be achievable within the timeframes bearing in mind the available resources and the existing work load of the PRFPM directorate.

Figure 9.2. Illustrates a propose gap analysis chart, showing current and desired states of practice and the targeted improvement for 09/10.

## 9.3. RESPONSIBILITIES FOR REVIEW

The PRFPM Directorate should be responsible for the Infrastructure Plan. Use of external resources will be co-ordinated by the directorate. One of the initial tasks will be to allocate responsibilities within the directorate for monitoring and collating new data for inclusion in future reviews of the Infrastructure Plan.



Figure 8.1: Gap Analysis Chart

Area of focus		Corporate Objectives		Levels of Service		Knowledge of Assets		Accounting and Costing		Creation and Disposal of Assets		Asset Management Plan	
Attribute	Score	Infrastructure Policy	Quality and Consistency of Data	Defined Level of Service	Current LOS	Condition of Assets	Utilisation	Operational Costs	Maintenance Costs	Project Identification Procedures	Life Cycle Costing	Demand Projections & Forecasts	Operations & Maintenance Procedures
Excellence	100												
	95												
	90												
	85												
	80												
Competence	75												
	70												
	65												
	60												
	55												
	50												
	45												
Systematic Approach	40												
	35												
Awareness	30												
	25												
Innocence	20												
	15												
Appropriate Score	10												
	5												
Appropriate Score	0												
Current Score		100	80	80	80	80	80	80	80	80	80	80	80
Gap		20	40	60	50	40	40	50	20	35	20	30	35
Weighting		80	40	20	30	40	40	30	60	45	60	50	45
Weighted Gap (W x G)		5	5	4	3	4	3	2	2	2	2	4	3
Current Priority		400	200	80	90	160	120	60	120	90	120	200	135
Target for 2006/07		1	2	7	6	3	5	8	5	6	5	2	4
		100	60	80	80	80	80	65	45	55	50	50	55

Source : International Infrastructure Management Manual Version 1.0 (adapted)



## 10. REFERENCES AND APPENDICES

### REFERENCES

- > **INTERNATIONAL INFRASTRUCTURE MANAGEMENT MANUAL VERSION 2.0 Q (2002)**

Association of Local Government Engineering New Zealand Inc. and the Institute of Public Works of Australia. Published by Association of Local Government Engineering NZ Inc. National Asset Management Steering Committee Group, New Zealand.

- > Toolkit Version 4.0 (2006)

Prepared by the CIDB and the National Treasury as part of the IDIP

- > Division of Revenue Act. Act 1 of 2007

- > South African Schools Act. Act 84 of 1996

- > North West Department of Education 5 Years Strategic and Performance Plan (2005/06-2009/10)

METF Allocations	Project Lists provided	Budgets		Projects align to the Budgets
		New Buildings	Maintenance	
2009/10	Yes	250,609	75,000	Yes
2010/11	Yes	327,333	80,000	Yes
2011/12	Yes	423,181	85,000	Yes

### ANNEXURES

**ANNEXURE A: BACKLOG AND ESTIMATES(2009-2018)**

**ANNEXURE B: PROJECT LISTS (2009-2012)**

# Annexure A:

## **BACKLOGS**

### **2009/10 - 2017/18**



# Annexure B:

## Projects

**2009/10**

**2010/11**

**2011/12**

