Western Cape Department of Education

Infrastructure Plan 2008/09

DRAFT

AUGUST 2007

Infrastructure Plan for the 2008/9 financial year approved

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Table of Contents


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1. Executive Summary

Introduction

This Infrastructure Plan was prepared by the Western Cape Department of Education's Directorate: Physical Resources Planning to indicate how infrastructure will be developed, operated and maintained to support the WCED's service delivery mandate. Infrastructure development and operation is dealt with in the context of the WCED's functions.

This Infrastructure Plan covers, primarily, classrooms, forums, schools, basic services, specialist classrooms, workshops and maintenance, although some other types of infrastructure are also included

Infrastructure Status Quo

In general, the infrastructure needs of the Western Cape cannot be compared with some of our poorer provisioned provinces, such as the Eastern Cape, Kwazulu-Natal, Gauteng or Maphumalanga.

The Western Cape today, however, has its own types of needs that are based on the number of learners and educational facilities that became part of the Western Cape Education Department in 1996. The number of learners determined the number of classrooms according to the specific norms and standards that were applicable in each ex Department before amalgamation. How more advantageous the specific norms and standards (teacher : learner and learner : classroom ratio), how more classrooms and buildings were needed. Because of a lack of funds, many of these needs were met by the construction of prefabricated structures.

Today many of these structures are over 30 years old, and in a dilapidated state because of poor maintenance over the years.

After amalgamation in 1996, a new less favourable norm was introduced. With the application of the new norm today it is clear that the Western Cape has too many classrooms, has many public schools on private property in urban and rural areas and is still transporting many learners by means of departmental subsidize bus transport.

With the existing Directorate: Physical Resources Planning being divided into Operational and Planning branches with the necessary resources, improved planning will be able to point out such anomalies and make the necessary proposals to rectify the situation.

The number of classrooms, public schools on private land and transport routes will be investigated and proposals made for approval. All these actions should ensure savings that will used where really necessary

At the same time school sites zoned and developed by developers, such as municipalities, and other private developers, will be investigated and right of use waived if no longer necessary. Such sites may then be used for residential development. This will assist in addressing the shortage of ground for residential development.

This will also assist in changing the pattern of permanent schools in old communities being under-utilized while new schools are needed in areas subject to migration . The pattern of spending funds only on newly developed areas as part of urban renewal will then also be broken as more funds will be available to care for schools in older areas.

Determining the demand

Cognizance should be taken of the fact that the demand to provide adequate infrastructure for quality education, is based on only CEMIS 2007 school day learner numbers and the updated 2005 Annual Return instruction room information. At the time of formulating this draft of the 2008/9 Infrastructure Plan the information from NEIMS was not available.

By applying a system of weighting of classrooms we are informed that there are 7 085 classrooms in excess (urban and rural schools in more stabile areas) and 1 443 classrooms short (schools near areas where there is informal housing). It is important to note that the above information is consistently changing according to the annual learner numbers per school.

Strategies to improve the unequal distribution between the areas with classrooms in excess and those areas with classrooms short will need to be developed. Such strategies will subsequently assist in creating a more even pattern of infrastructure spending in all areas of the Western Cape.

Gap in Infrastructure

The following is the gap in infrastructure that currently exists:

ITEM	SHORTAGE	COST PER ITEM	FINANCIAL IMPLICATION
Norms and Standards backlog			**3,418,918,500**
Computer labs	589	270,000	159,030,000
Media rooms	636	391,500	248,994,000
Science labs	26	324,000	8,424,000
Classrooms	1234	224,000	276,416,000
Specialist classrooms	26	324,000	8,424,000
Workshops	12	540,000	6,480,000
Halls	374	2,700,000	1,009,800,000
Halls (leased schools)	450	350000	157,500,000
Toilets	2498	8,000	19,984,000
Sickrooms	687	40,500	27,823,500
Strongrooms	422	27,000	11,394,000
Duplicating rooms	707	40,500	28,633,500
Storerooms	417	54,000	22,518,000
Staffrooms	343	180,000	61,740,000
Principals' offices	122	67,500	8,235,000
Other offices	367	67,500	24,772,500
Schools	45	29,750,000	1,338,750,000

Condition backlog			**700,000,000**
Water,sewer, electrical reticulation; safety measures	500	400,000	200,000,000
Maintenance			500,000,000
Needs backlog			**450,000,000**
Sports facilities, cloakrooms, ablution facilities	900	500,000	450,000,000
TOTAL			**4,568,918,500**
Data source: EMIS, 2005 Annual Return			

Infrastructure Budget and Programmes

The same estimates to solve all existing scheduled maintenance and classrooms shortages at the end of the 2015/16 financial year, were used to draft the 2008/9 Infrastructure Plan.

Additional growth were not considered in the planning of this bid and the WCED may find that new shortages and new needs may developed.

The indicative infrastructure budgets and programmes for the 2008/09 to 2010/11 financial years are reflected in the table below. These budgets and programmes are subject to change.

FUNDING	MTEF 2008/09	MTEF 2009/10	MTEF 20010/11
Equitable share	97,836	100,845	102,478
Provincial Infrastructure Grant	75,993	217,482	210,725
Programme Management Unit	54,617	2,801	0
Maintenance	225 363	259 973	333 522
TOTAL	**540,821**	**630,605**	**834,802**

Type of projects

Project description	MTEF 08/09	MTEF 2009/10	MTEF 20010/11	Total available
Capacity (DTPW)	25,000	32,000	42,000	**99,000**
Classrooms	3,000	2,430	40,000	**45,430**
Forums	30,000	3,000	30,000	**63,000**
Full service school upgrade	200	0	0	**200**
Maintenance	225,363	259,973	333,522	**818,858**
Primary school	90,776	34,487	129,040	**254,303**
Professional services	3,500	0	0	**3,500**

Relocation of mobile class-rooms	2,300	1,574	5,000	**8,874**
Replacement of prefabrica-ted classrooms	29,736	10,264	37,577	**77,577**
Secondary school	102,921	255,541	146,251	**504,713**
Special School	21,313	21,836	34,912	**78,061**
Specialist localities	0	0	25,500	**25,500**
Westlake classrooms	2,000	7,000	3,000	**12,000**
Basic services upgrade	4,712	2,500	8,000	**15,212**
Grand Total	**540,821**	**630,605**	**834,802**	**2,006,228**

Anticipated performance

ANALYSIS OF THE INFRASTRUCTURE BACKLOGS - BID TO PROVINCIAL TREASURY

Item	Backlogs	Cost per item	Financial implication	Possible performance with anticipated MTEF Budget 2008/9 – 2010/11
Computer labs	**589**	270,000	159,030,000	**0**
Media rooms	**636**	391,500	248,994,000	**0**
Science labs	**26**	324,000	8,424,000	**57**
Workshops	**12**	540,000	6,480,000	
Specialist classrooms	**26**	324,000	8,424,000	
Classrooms	**1234**	224,000	276,416,000	**207+177**
Halls	**374**	2,700,000	1,009,800,000	**22**
Halls (leased schools)	**450**	350000	157,500,000	
Toilette	**2498**	8,000	19,984,000	**304**
Water, sewer, electrical reticulation, safety measures	**500**	400,000	200,000,000	
Sick rooms	**687**	40,500	27,823,500	**0**
Strong rooms	**422**	27,000	11,394,000	**0**
Duplicating rooms	**707**	40,500	28,633,500	**0**
Storerooms	**417**	54,000	22,518,000	**0**
Staff rooms	**343**	180,000	61,740,000	**0**
Principals' offices	**122**	67,500	8,235,000	**0**
Other offices	**367**	67,500	24,772,500	**0**
Schools	**45**	29,750,000	1,338,750,000	**40**
Maintenance			500,000,000	**818,858**
Sports facilities, cloakrooms, ablution facilities	**900**	500,000	450,000,000	**0**
TOTAL			**4,568,918,500**	**2,006,228**

If the budget for the 2008/9 financial year allows, the following school building projects will be advertised during the 2008/9 financial years. If not, these projects will be shelved until a clear indication is given about budgets for the next five years. The school building projects are:

- Avian Park Primary School
- Zwelihle Primary School
- Nomzamo Primary School
- Wallacedene Secondary School
- Grabouw Secondary School
- Boystown Secondary School
- Gansbaai Secondary School
- Tafelberg School (LSEN)

Fluctuating budgets from year to year jeopardize proper planning and advertising of projects. This aspect will need more attention in future if the IDIP programme to be successful.

Estimates of project cost can change rapidly in the short term as the state of the Building and construction industry plays a major role in these estimates.

In summary, the key assumptions and points to note with respect to the financial forecasts are as follows:

- The funding required will be made available.
- Current asset value = R12 billion, with a 5% annual growth
- Annual maintenance requirements calculated at 2% of asset value
- Unit construction costs at present day values, escalated at 5% per annum
- No provision made for funding (viz R437,6 million) the additional classrooms required to accommodate the 68 375 growth in future learner numbers
- No provision made for funding (viz R204,3 million) the additional 912 classrooms required to accommodate the Grade R enrolment by 2010

Infrastructure Delivery Management

It has already been mentioned that the existing Directorate: Physical Resources Planning is to be divided into Operational and Planning branches with the necessary resources.

A director had already been appointed for each branch and the other necessary micro-level posts will be advertised and filled over the next three years.

Phasing in the complete change, over a prolonged period may make it difficult to improve service. The possibility of increased budgets will require timeous planning by the Planning branch and proper control and monitoring of infrastructure projects by the Operational branch. Giving proper attention to the ordinary queries from Provincial Treasury, the Auditor-General's office and the number of quarterly reports, as required by the PFMA and DORA, together with proper planning and control and monitoring, will just not be possible.

The advantages of a proper IDIP process in the planning, construction, monitoring and controlling of projects may be negated by such a prolonged period of phasing in the proper functions of the two new directorates.

The WCED has benefited from the active participation in the Infrastructure Delivery Improvement Programme (IDIP). The appointment of the PTAT to the WCED and the DTPW furthers proper implementation of the Infrastructure Delivery Improvement Programme. Their combined efforts will hopefully lead to an improved infrastructure delivery.

The contract of the Programme Management Unit (PMU), which was entered into appointed early in 2006 to assist with the management of the infrastructure delivery, ends at the end of June 2008. An additional plan of action will be necessary to oversee the completion of work started by the PMU.

2. INTRODUCTION

2.1 Background

2.1.1 Purpose of the Infrastructure Plan

The purpose of the Infrastructure Plan for the period 2008/09 and the following years is to present a framework that guides and informs the practical implementation of policy and strategic decisions on the WCED's infrastructure requirements as a whole.

The Infrastructure Plan for 2008/09 and later years addresses all aspects of infrastructure, including development, renovations and maintenance, in order to create an optimal environment for both learners and educators. The processes of planning, procurement, building, rehabilitation, maintenance and commissioning are undertaken by various implementing agents under the auspices of the WCED and the WC Department of Transport and Public Works (WCDTPW) which is the custodian of the property portfolio in the Province. The WCED currently undertakes the relevant property management activities related to public schools on private land (farm and church schools).

This plan encompasses addresses the infrastructure that is to be provided, when it is to be provided and the estimated cost of providing it. The budget estimates for the infrastructure include both construction and maintenance costs.

To summarize, the purpose of this Infrastructure Plan is to

- identify, present and prioritise the WCED's infrastructure needs in support of the implementation of the WCED's Plan;
- ensure that the greatest needs in the Province are addressed as the highest priorities and to ensure that optimum cost efficiency is achieved;
- provide an indication of anticipated expenditure per programme and per project over the life cycle of the project, should it be a multiple-year project;
- communicate to external as well as internal stakeholders the intentions of the WCED as far as its infrastructure delivery and management programmes are concerned;
- present and justify the financial requirements of meeting the WCED's mandate with respect to infrastructure management;
- demonstrate responsible management; and
- indicate compliance with regulatory requirements.

2.1.2 Relationship with other Planning Documents

This plan relates to and/or takes into account the following planning documents:

- Strategic Plan for the Department of Education (2004–2006). National Department of Education. (DoE)
- Five-year Strategic and Performance Plan, 2005/06 to 2009/10. Western Cape Department of Education.
- Integrated Development Plans (IDPs) of relevant municipalities.
- 2006 Strategic Infrastructure Plan of the Western Cape
- White Paper on the Management of Provincial Property. Western Cape Department of Transport and Public Works, 2004.
- Western Cape's Development Framework.

7

- The Provincial Growth and Development Plan of the Western Cape, "Grow the Cape" strategy.
- Sustainable Human Settlement Development Strategy for the Western Cape (DLGH)(A Draft Strategy)
- Accelerated Strategy for Growth and Investment in South Africa (ASGISA)

2.1.3 Infrastructure included in the Infrastructure Plan

The plan addresses the infrastructure requirements for public schools on public and private property. The following immovable assets are addressed in this plan:

- schools
- basic services including water, sanitation and electricity
- ablution facilities
- security facilities
- sports facilities

Infrastructure not covered by the plan, but to be included in future plans, includes Head Office and district office accommodation, which is managed by the WCDTPW in terms of the White Paper on the Management of Provincial Property.

The Infrastructure Plan addresses the needs of the following:

- Mainstream education
- Education for learners with special needs (ELSEN)
- Adult Basic Education (ABET)
- Further Education and Training (FET)
- Early Childhood Education (ECD)

2.1.4 Key stakeholders in the Plan

The key stakeholders involved in the preparation, utilisation and review of this infrastructure plan are as follows:

Internal stakeholders: The MEC, Mr Cameron Dugmore
The Head of Department, Mr Ron Swartz
The Directorate: Human Resources
The Directorate: Physical Resources Planning
The EMDCs
School governing bodies of all public schools
The Directorate: Finance

External stakeholders: The various communities of the Western Cape
The various local and district municipalities of the Western Cape
Western Cape's Provincial Treasury
Western Cape's Department of Transport & Public Works
Western Cape's Office of the Premier

8

The National Department of Education
The National Treasury
Other Provincial and National Departments
Implementing agents
Potential donors

This draft of the Infrastructure Plan has been compiled by the following departmental officials

- Dr F Booyse, Chief Director
- Mr N Kaschula, Director: Physical Resources Planning
- Mr G Visser, Senior Planner.

Dr F Booyse and Mr NR Kaschula will be leaving the WCED shortly, and the new incumbents will take office on 1 October 2007.

The final draft will probably be drafted under the supervision of

- Mr P Present, the newly appointed Chief Director; Planning and Support
- Ms NJ Ntlatsane, the newly-appointed Director: Planning
- Ms LN Sopotela, the newly appointed Director: Operational Support (OBS)
- Mr G Visser, Senior Planner

The input of other WCED officials is recognised.

2.2 Infrastructure Delivery Goals and Objectives

2.2.1 Constitutional and Other Legislative Mandates

The WCED's strategic objectives are based on the following constitutional and other legislative mandates:

Mandates	Brief description
The Constitution of South Africa, 1996 (Act No 108 of 1996)	Requires education to be transformed and democratised in accordance with the values of human dignity, equality, human rights and freedom, non-racism and non-sexism. It guarantees access to basic education for all with the provision that everyone has the right to basic education, including adult basic education. The fundamental policy framework of the Ministry of Education is stated in the Ministry's first White Paper: Education and Training in a Democratic South Africa: First Steps to Develop a New System (February 1995).
The Constitution of the Western Cape Province, 1997	Subject to the national Constitution, it is the highest law in the Western Cape.
The South African Schools Act (SASA), 1996 (Act No 84 of 1996) as amended.	To provide for a uniform system for the organisation, governance and funding of schools. It promotes access, quality and democratic governance in the schooling system. It ensures that all learners have right of access to quality education without discrimination, and makes schooling compulsory for children aged 7 to 14. It provides for two types of schools — independent schools

9

Mandates	Brief description
	and public schools. The provision in the Act for democratic school governance through school governing bodies is now in place in public schools countrywide. The school funding norms, outlined in SASA, prioritise redress and target poverty with regard to the allocation of funds for the public schooling system.
The National Education Policy Act, 1996 (Act No 27 of 1996)	To provide for the determination of national policy for education, including the determination of policy on salaries and conditions of employment of educators. It was designed to inscribe in law policies, as well as the legislative and monitoring responsibilities of the Minister of Education, and to formalise relations between national and provincial authorities. It laid the foundation for the establishment of the Council of Education Ministers (CEM), as well as the Heads of Education Departments Committee (HEDCOM), as inter-governmental forums to collaborate in developing a new education system. As such, it provides for the formulation of national policies in general and further education and training for, inter alia, curriculum, assessment, language policy, as well as quality assurance. NEPA embodies the principle of co-operative governance, elaborated upon in Schedule Three of the Constitution.
The Further Education and Training Act, 1998 (Act No 98 of 1998)	To regulate further education and training; to provide for the establishment, governance and funding of public further education and training institutions; to provide for the registration of private further education and training institutions; to provide for quality assurance and quality promotion in further education and training. Together with the Education White Paper 4 on Further Education and Training (1998), and the National Strategy for Further Education and Training (1999-2001), it provides the basis for the development of a nationally co-ordinated further education and training system, comprising the senior secondary component of schooling and technical colleges. It requires further education and training institutions, established in terms of the new legislation, to develop institutional plans, while making provision for programmes-based funding and a national curriculum for learning and teaching.
The General and Further Education and Training Quality Assurance Act, 2001 (Act No 58 of 2001)	To provide for the establishment, composition and functioning of the General and Further Education and Training Quality Assurance Council, to provide for quality assurance in general and further education and training, to provide for control over norms and standards of curriculum and assessment, to provide for the issue of certificates at the exit points, to provide for the conduct of assessment and to repeal the South African Certification Council Act, 1986
The Employment of Educators Act, 1998 (Act No. 76 of 1998)	To provide for the employment of educators by the State and for the regulation of the conditions of service, discipline, retirement and discharge of educators. It regulates the professional, moral and ethical

10

Mandates	Brief description
	responsibilities of educators, as well as competency requirements for teachers. One Act of Parliament and one professional council, the South African Council of Educators (SACE) now governs the historically divided teaching force.
The Western Cape Provincial School Education Act, 1997 (Act No 12 of 1997)	To provide for a uniform education system for the organisation, governance and funding of all schools and to make provision for the specific educational needs of the province.
The Public Finance Management Act, 1999 (Act No 1 of 1999) as amended.	To regulate financial management in the national government and provincial governments, to ensure that all revenue, expenditure, assets and liabilities of those governments are managed efficiently and effectively and to provide for the responsibilities of persons entrusted with financial management in those governments
The annual Division of Revenue Acts	To provide for the equitable division of revenue raised nationally among the national, provincial and local spheres of government for the respective financial years, to provide for reporting requirements for allocations pursuant to such division, to provide for the withholding and delaying of payments and to provide for the liability for costs incurred in litigation in violation of the principles of co-operative governance and intergovernmental relations
The Public Service Act, 1994 as amended [Proclamation No 103 of 1994]	To provide for the organisation and administration of the public service of the Republic as well as the regulation of the conditions of employment, terms of office, discipline, retirement and discharge of members of the public service
The South African Qualifications Authority Act, 1995 (Act No 58 of 1995)	To provide for the development and implementation of a National Qualifications Framework and for this purpose to establish the South African Qualifications Authority. The NQF is an essential expression, as well as a guarantor of a national learning system where education and training are of equal importance as complementing facets of human competence. The joint launch of the Human Resources Development Strategy by the Minister of Labour and the Minister of Education on 23 April 2001 reinforces the resolve to establish an integrated education, training and development strategy that will harness the potential of our young and adult learners.
The Adult Basic Education and Training Act, 2000 (Act No 52 of 2000)	To regulate adult basic education and training; to provide for the establishment, governance and funding of public adult learning centres; to provide for the registration of private adult learning centres; and to provide for quality assurance and quality promotion in adult basic education and training

11

2.2.2 Vision, mission and values of the Western Cape Education Department

The WCED's Vision

The WCED's Vision is stated to be "A Learning Home for All".

There are many definitions and explanations for the term "Home", but some of the most appropriate in the context of this Infrastructure Plan are as follows:

- An environment offering affection and security
- An institution where people are cared for
- A place where something began and flourished

It is thus clear that the WCED's Vision requires the establishment and maintenance of infrastructure to create an environment where learners can be offered education in a safe and caring environment.

The WCED's Mission

The WCED's mission is to ensure that all learners acquire the knowledge, skills and values they need

- to realise their potential;
- to contribute to social and economic development;
- to participate fully in the life of the country;
- to compete internationally; and
- to build communities capable of managing their lives successfully and with dignity.

The value of schools in communities is not underestimated by the WCED, and community involvement thus forms an integral part of the infrastructure delivery programme. Providing learners with knowledge, skills and values requires an environment that can generally best be provided in schools.

The WCED's Values

The WCED's values are as follows:

- The values of the South African Constitution
- The Batho Pele Principles
- Critical outcomes of the National Curriculum
- Transformation, by ensuring access, equity and redress
- The prime importance of the learner.
- Pro-poor approach to resource allocation.
- Accountability and transparency.
- Excellence in all we do
- Responsibility to society at large, to support efforts at ensuring social, cultural and economic development.

Certain of these values are of vital importance in the drawing up of this Infrastructure Plan, such as the "Pro-poor approach" and "ensuring social, cultural and economic development".

12

2.2.3 Strategic and Departmental Goals

The WCED's goals and objectives i.r.o. infrastructure include the following aspects:

2.2.3.1 Public Primary Phase

Strategic Goal	Strategic Objective
To ensure access to quality education for all children living in the province.	• To provide learner accommodation in the public primary phase in line with policy. • To provide the basic infrastructure for primary schools in accordance with policy • To improve access to education for learners from previously marginalised groups • To provide relevant and structured training to teachers on the National Curriculum • To provide transport and hostel facilities for needy learners
To ensure effective e-Learning in schools	• To accelerate ICT infrastructure provision for all schools.
To ensure safe institutional environments required for effective teaching and learning	• To promote a safe school environment in partnership with communities and other government departments. • To end conditions of physical degradation of learning sites. • To promote understanding of social conditions in the province and how these affect schools.

2.2.3.2 Public Secondary Phase

Strategic Goal	Strategic Objective
To ensure access to quality education for all children living in the province.	• To provide learner accommodation in the public secondary phase in line with policy. • To put the basic infrastructure for secondary schooling in place in accordance with policy.
To ensure effective e-Learning in public secondary schools	• To accelerate ICT infrastructure provision for all schools.
To ensure safe institutional environments required for effective teaching and learning	• To promote a safe school environment in partnership with communities and other government departments. • To end conditions of physical degradation of learning sites.

2.2.3.3 Professional Services

Strategic Goal	Strategic Objective
To ensure effective management and governance in all the learning sites and support structures	• To achieve an optimal and equitable distribution of financial, physical and human resources across the system.

13

2.3 Infrastructure Plan Framework

The framework adopted for this Infrastructure Plan is as follows:

- Section 1 provides an executive summary of the Infrastructure Plan.
- Section 2 gives the background to the Infrastructure Plan, the WCED's infrastructure delivery goals and objectives given its legislative mandate, and the approach to the formulation of the plan.
- Section 3 briefly describes the desired levels of infrastructure service provision, including the Department's goals and its norms and standards for an ideal level of service.
- Section 4 provides an analysis of demand trends in the province in terms of population growth, migration patterns, development growth and learner enrolment. It also describes the impact of demand changes on infrastructure utilisation and provides a an indication of how demand will be managed.
- Section 5 provides a description and analysis of existing infrastructure in the province in terms of locality, current capacity, utilisation, condition and value.
- Section 6 identifies and quantifies the gaps and backlogs in infrastructure.
- Section 7 describes how the Department plans to address the infrastructure backlogs; and sets out the various programmes identified to achieve this.
- Section 8 sets out a summary of the financial implications of the Plan, including expenditure projections and integration into the MTEF budget allocations, funding strategy and the key assumptions made in the financial forecasts.
- Section 9 describes the organisational arrangements, human resources, and systems and processes necessary for the implementation of the Plan.
- Finally, Section 10 indicates how performance against the Plan will be monitored, as well as how the Plan itself will be updated and amended to improve its accuracy and confidence in it.

  The Annexures to the Plan include all the proposed projects in each of the implementation programmes, together with the scope, cost estimates and projected cash flow thereof.

2.4 Planning approach and methodology

2.4.1 Overall planning approach

The planning and formulation of the plan was managed by the Directorate: Physical Resources Planning and approached as follows:
The demand gap had been determined by applying the CMIS 2007 learner numbers per school and infrastructure shortages at each school as reflected in the 2005/6 Annual Return. Classrooms are weighted to determine shortages (see section 2.4.2 on the next page for the methodology applied).

14

These shortages were costed and taken up in the indicative Infrastructure Budget for 2008/9

From 2008/09 the following exercise will apply to determine needs annually;

- Determine learner of 2008
- Determine classrooms needed in theory
- Determine classrooms needed in a town/suburb (ignore leased property, but use learner numbers).
- Determine permanent classrooms on state property.
- Determine permanent schools on state property
- Calculate weighted classroom numbers per town/suburb

If a shortage of classrooms in a town/suburb how can shortage be addressed?

- Build a new school?
- Provide additional classrooms?
- Lease a building?
- Transport learners to another school?

If a classrooms in excess in a town/suburb,

- which leases may be terminated?
- which prefabricated classrooms may be demolished?
- which prefabricated schools may be closed?
- which transport routes can be terminated?
- which vacant sites (not property) of provinces can be returned to owners?
- which types of classroom are short in the town/suburb?
- How will you change existing classrooms in excess to address above shortages?
- What are the financial implication of each?

In terms of accuracy, completeness and validity of data that were used in the planning process, the Infrastructure Plan was drafted on the best available information in terms of statistics and trends, but will always be subject to reality. Abnormal population and migration trends will inevitably have implications for the effectiveness of any plan.

2.4.2 Use of Planning Techniques, Models and Systems

Despite concerted efforts by the Directorate: Physical Resources Planning, the National Education Infrastructure Management System (NEIMS) was not accessible to the planners at the time of formulating this Infrastructure Plan. As a result, the planners, unfortunately, had to rely solely on the following systems and limited data available within the provincial departments:

CEMIS SYSTEM
Significant use was made of the WCED's CEMIS in the planning process, particularly in analysis and evaluation of classroom surpluses and shortages, and learner enrolment trends in the province. The Department intends to continue improving and expanding the use of its EMIS and GIS, as well a the NEIMS, during the forthcoming year with the view to further enhancing the quality of its planning.

15

WEIGHTING OF CLASSROOMS

To overcome the different infrastructure norms and standards that were applicable in the former education departments at time of amalgamation in 1996, a system of weighting the classrooms available were developed and this resulted in adjusted classroom totals to determine shortages. The following situations necessitate changes to the system:

Space management: Some schools are parallel-medium and others dual-medium. The former require more tuition space because they are , in reality, two schools under one roof.

Curriculum diversity: The size of class groups will vary depending on the subjects being taught. There may, for example, be only 17 learners in a Mathematics Higher-Grade class, but 42 in a History class.

Language tuition: In many schools the use of multiple languages results in classrooms not being used to the full. Some schools, for example, might offer French as a subject, but these class groups are particularly small, whilst other languages, like English, are large.

Unreported utilisation: Many primary schools accommodate Grade R learners. In most cases the use of classrooms for these children is not reflected in the statistics for classrooms used by Grades 1 to 12.

The system of applying of a simple mathematical formula for the calculation of classroom requirements result in serious errors.

The following methodology is thus applied to calculate classroom requirements:

METHODOLOGY

Primary schools: Multi-purpose classrooms are viewed as ordinary classrooms. Where a school has more than 4 specialist rooms, the number of specialist rooms are considered to be sufficient and the total number of specialist rooms at the school are subtracted from the total number of classrooms at the school. Where a school has fewer than 4 specialist rooms, it is assumed that the school does not have sufficient specialist rooms and the need for additional specialist rooms is identified by using the following formula at these schools: “4 minus current specialist rooms”. Where a school has fewer than 300 learners, it is accepted that there is currently no need for additional specialist rooms. Where a school has more than 600 learners, 4 specialist rooms are considered necessary. Where a school has between 300 and 600 learners, a need for 2 specialist rooms is accepted.

Secondary schools: Multi-purpose classrooms are viewed as ordinary classrooms. Where a school has more than 4 specialist rooms, the number of specialist rooms is considered sufficient and the total specialist rooms at the school are subtracted from the total number of instruction rooms at the school. Where a school has fewer than 4 specialist rooms, it is considered that the school does not have sufficient specialist rooms and the need for additional specialist rooms is ascertained by using the following formula at these schools: “4 minus current specialist rooms”.

Class Group Weighting: As the curriculum differs markedly at the different types of schools in the system, resulting in different approaches to the utilisation of tuition spaces, the different primary and secondary schools were analysed separately. Based on diversity of the senior secondary curriculum, the number of class groups in this sector was weighted by a factor of 1.5. For primary schools, two class groups were added to the actual number of class groups

16

PRIORITISATION MODEL

Good progress has also been made with the assistance of the IDIP PTAT in the development of a more scientific project prioritisation model. Unfortunately, without having access to the NEIMS data on existing space statistics at schools, it has not been possible to finalise the prioritisation model for use in the this current planning process.

DEMOGRAPHIC INFORMATION

Demographic information obtained during studies undertaken and models developed for the provincial government has been used to a limited extent in establishing growth areas and migration trends. The limited use is as a result of the current studies and models being based primarily on data at a municipal level only, which is in most cases inadequate for education infrastructure planning. The WCED is, however, planning to work in co-operation with the WC Department of Social Development in modelling and determining improved population projections for school age cohorts for smaller more appropriate areas using, inter alia, the following additional sources of data:

- Khayelitsha 2005 population updated data for detailed analysis in that area
- Community Survey data that will be available towards the end of 2007
- School enrolment data in CMIS and EMIS

2.4.3 Sophistication and Limitations

As indicated above, the planning techniques, models and systems are limited in both sophistication and availability of appropriate and up to date data. The Department and the province generally is however striving to continuously improve its systems and databases to ensure that appropriate planning can take place.

17

3. LEVELS OF SERVICE

This section defines the levels of service that are proposed.

The Strategic Plan of the Western Cape Education Department sets certain standards that reflect the levels of service the Western Cape Education Department is striving to achieve. These are summarised as follows:

3.1 Level of Service Goals

3.1.1 General Level of Service Goals

- To address the issues of access, redress and transformation in all schools
- To ensure that all learners of school-going age attend school
- To ensure safe institutional environments required for effective teaching and learning;
- To ensure the planning, provision and continuing support of various forms of educational technology in support of teaching and learning in the classrooms and the effective management and administration in the educational institutions
- To ensure that every child will be accommodated in a well-lit, ventilated and comfortable classroom.
- To ensure that each learner have access to an adequate supply of water fit for human consumption and ablution systems, such as water-borne toilets or ventilated pit system facilities.
- To ensure that buildings used for education are either constructed of face brick or brick and cement or prefabricated cement and that all other types are phased out
- To effect and enhance inclusive eucation
- To ensure that those learners who are physical or mentally challenged but who will benefit from attending a mainstream education institution will attend such an institution.
- Applying scarce resources as effectively and as equitably as possible
- To ensure that all buildings are being used optimally
- Schools with an utilisation factor of less than 50% will be evaluated and amalgamated with other schools where deemed fit.
- Schools with a wall construction, defined as prefabricated, wooden/chipboard or asbestos will first be phased out by amalgamation
- The suitability of school buildings, of suitable wall construction, such as, concrete, face brick, brick and plastered, prefabricated (cement) that becomes available after the amalgamation of other schools will be considered first as replacement of unsuitable school buildings of a viable institutions.

3.1.2 Mainstream Education

- Each learner in the Western Cape must be able to attend a school within a 5km radius from his home. If this is not achieved, learner transport will be provided.
- One primary school site of 2ha for 1 000 residential sites in developing areas. A learner : instruction room ratio of 39: 1 will be the goal a primary schools.
- A learner : instruction room ratio of 37 : 1 will be the goal at intermediate schools.

18

- One secondary school site of 3ha for 2 000 residential site in developing areas. A learner : instruction room ratio of 33 : 1 will be the goal at secondary schools.
- A learner : instruction ratio of 35 : 1 will be the goal a all combined schools.
- All available classrooms within a 5km radius will first be considered before new classrooms/schools will be built.
- The to re-use of using buildings within the 5km radius will be first considered before new classrooms/schools are built.
- The suitability of any available vacant school sites in a 5km radius will be evaluated before additional school sites in new areas are considered.

At present, four types of schools will be considered, i.e. primary schools, intermediate schools, combined schools and secondary schools.

3.1.3 Education for Learners with Special Educational Needs (ELSEN)

Ensure that sufficient instruction rooms are available to provide basic education for all learners which are physically or mentally challenged, and who would not benefit from attending an institution for inclusive education

3.1.4 Adult Basic Education (ABET)

- Improve access to Adult Basic Education and Training (ABET) and adult skills development
- Ensure that dedicated ABET centres enrol over-age learners so as to make space available at mainstream education institutions

3.1.5 Further Education and Training (FET)

- Increase the number of learners enrolled in appropriate programmes at FET schools and colleges
- Ensure that learners do not drop out of the education system after Grade 9
- Develop adequate opportunities at such institutions to create an enabling environment for the delivery of high quality, globally competitive vocational education and training

3.1.6 Early Childhood Education (ECD)

- Ensure that all Grade R learners are enrolled by 2010
- Ensure that those schools with adequate space make excess space at their school available for Grade R learners.

3.1.7 Head Office Accommodation

Ensure that adequate Head Office accommodation is available for proper introduction of education programmes for high quality education

3.1.8 Education Management and Development Centres (EMDCs)

As is the case with Head Office, the WCED strives to provide adequate accommodation for EMDCs and their branch offices.

19

3.2 Norms & Standards

3.2.1 Learners : classroom ratio and maximum school size

The WCED currently uses the following norms and standards.

Type of school	Learners per classroom	Maximum size
Combined school	35	Undefined
Intermediate school	37	Undefined
Primary school	39	1,120 learners
Secondary school	33	1,200 learners

3.2.2 Space standards

School Type	Tuition space per learner	Capacity of school
Primary school	1,40m²	1 120
Secondary school	1.70m²	1 200
Special school	2,50m²	450

Additional classrooms are to be provided up to the maximum learner number per school type.

It must be noted that schools with less capacity may be built in rural areas.

As stated in 2.4.1 above, the data in EMIS currently does not provide learning space data. The NEIMS includes the area of each room and will support calculations in future in terms of compliance with space standards.

It is important to note that use of these norms and standards require judicious application as allowance has to be made for a number of factors that increase the number of classrooms/tuition spaces required at a specific school.

The following specialized classrooms norms are being applied for a basic secondary school.

SPECIALISED ROOM	No. per school	Area m²
Media centre (Library), with: Office Workroom TOTAL PER MC	1 1 1	80.0 7.5 9.6 97.1
Computer room	2	60,0 each
Laboratory, with: Storeroom TOTAL PER LABORATORY	5 5	65,0 each 8,7 each 73,7

20

Specialist classroom, with Machine store TOTAL PER SC	3	68,0 each 12,0 each 80,1

Note norms for special teaching spaces will change, as the FET direction of each school is determined.

3.2.3 Ablution facilities

Ablution facilities for a typical primary school with a capacity of 1120 learners.

Type of school	Number of girls	Number of WCs	Number of wash basins	Number of boys	Number of WCs	Number of wash basins	Number of urinals
Primary school	560	17	11	560	12	11	6

Ablution facilities for a typical secondary school with a capacity of 1200 learners.

Type of school	Number of girls	Number of WCs	Number of wash basins	Number of boys	Number of WCs	Number of wash basins	Number of urinals
Secondary school	600	18	12	600	4	4	8

Ablution facilities for a typical special school with a capacity of 450 learners.

Type of school	Number of girls	Number of WCs	Number of wash basins	Number of boys	Number of WCs	Number of wash basins	Number of urinals
Special schools	225	18	18	425	10	18	8

<u>Teachers, all schools</u>
The design assumption that there is an equal number of male and female teachers.

<200 learners	1 toilet
200 – 600 learners	1 female and 1 male toilet
>600 learners	2 female toilets and 1 male toilet and 1 urinal.

Provision for additional toilets
Provision for additional toilets should be made when additional classrooms are planned at a school.

Ablution facilities for disabled learners
Provision need to be made for ablution facilities for disabled learners and teachers at each school. Each school should have at least 2 toilets for disabled persons, 1 for learners and I in the administration block.

The NBR should always be kept in mind.

3.2.4 Administration facility

The following standards are being applied:

Primary schools: 14 rooms plus feeding kitchen, total area 195m^2

Head's office	1
Deputy Head's office	2
Head of Department room	1
Staffroom	1
Secretary's office	1
Bursar's office	1
Office for clinic nurses	1
Sickroom	1
Records room	1
General store	1
Bookroom	1
Safe	1
Factotum's room and ablution facility	1
Feeding kitchen	1

A store for garden and sport field apparatus and implements (12m²) should also be provided, but it is not necessary that it forms part of the Administration block.

Secondary schools: 15 rooms excluding entrance hall, total area 211m^2

Head's office	1
Deputy Head's office	2
Head of Department room	1
Staffroom	1
Secretary's office	1
Bursar's office	1
Office for health inspections	1
Sickroom	1
Records room	1
General store	1
Bookroom	1
Safe	1
Factotum's room and ablution facility	1
Other	1

A store for garden and sport fields apparatus and implements (12m²) should also be provided, but it is not necessary that it forms part of the Administration block.

3.2.5 Basic services at schools

These include the following:

- Electricity
- Water
- Sanitation
- Ablution facilities for small rural schools

Each is described in a separate sub-section below.

3.2.5.1 Electricity

There are 2 standards derived from national norms.

(i) Schools have Eskom electricity where it is available.

(ii) Schools have generator powered electricity or solar panels where an Eskom connection is not available.

3.2.5.2 Water and sanitation

There are 3 standards derived from national norms for water:

(i) All schools will have potable water on site .
(ii) All schools will have potable water available at toilets for cleansing.
(iii) Where sufficient supply is available, all schools will have piped water to kitchens, ablution facilities, laboratories, maintenance areas, etc.

For sanitation the policy outcomes are as follows:

(a) All schools will have at least VIP ablution facilities with water supply for cleansing.
(b) Where water supply is sufficient, all schools will have at least a flush system to a septic tank.
(c) Where water supply is sufficient and sewerage system connection is possible, all schools will have a flush system to a main sewer.

3.2.6 Forum

The standard includes a hall, a stage and cloakrooms.

In a new school toilets be accessible to both learners and/or visitors to the school.

A norm of 0.5m^2 per learner hall space should be allowed, plus 42m^2 stage area, two cloakrooms of 20m^2 each and a kitchen/kiosk area and storeroom of 12 m^2 .

For smaller schools of up to 400 learners, some consideration will be given to the type of space to be provided:

(i) For 200 learners, the space is 100m^2, which is equivalent to 2 classrooms and these may be provided with a divider to create multi-purpose space.
(ii) For schools from 200 to 400 learners, the space will be up to 200m^2 in extent and may be provided in a multi-functional space.

3.2.7 Security

All windows on ground floor to have burglar bars, security gates fitted to all entrances The computer room, the safe and records room to have a concrete ceiling, all windows barred, and a security door fitted. All schools to be fitted with a burglar alarm. The prescribed safe and record room doors to be fitted.

If cameras are to be provided, no burglar bars and safety doors to entrances need to be provided (note that a camera is not a norm item and may be provided under special circumstances.

3.2.8 Sports facilities

During construction of a new school, a level stabilized area for sports are developed, but not grassed. Two Physical Training concrete slabs are also being provided.

3.3 Scheduled maintenance

The following hierarchy of needs is applicable during prioritization of projects:

23

1. Roof repairs
2. Structural repairs to the building
3. Water supply
4. Electrical supply
5. Sewerage and ablution facilities
6. Gutters and facia boards
7. Ceilings
8. Perimeter fences
9. Painting

Two percent (2%) of the annual asset value should be appropriated annually for scheduled maintenance.

3.4 Phasing out of prefabricated structures

Classroom walls built with chipboard, asbestos or wooden panels are regarded as unsuitable.

Classrooms built with baked face brick or brick or brick and plaster or cement bricks or blocks that do not allow moisture through the walls or cement or stainless steel panels are regarded as suitable.

All the mobile classrooms purchased in the last four years are regarded as temporary buildings, although their panels may be regarded as suitable building materials.

The right to use schools built with unsuitable building materials may be waived and the school building return to the Department of Transport and Public Works to be sold.

3.5 Emergency Repairs
Unforeseen repairs such as burst underground water pipes, electrical repairs posing a danger, badly vandalised toilets, unforeseen sewerage system repairs, etc.

3.6 Day-to-Day Maintenance

Blocked drains, minor plumbing repairs, minor electricity repairs, replacing of window panes, etc.

24

4. DEMAND AND NEED DETERMINATION

This section provides details of demand forecasts which affect the management and utilisation of infrastructure.

There are a range of forces which will affect demand for education infrastructure in the future. These include demographic and economic changes. The demand for general education will be enhanced by the introduction of free schooling. The demand for early childhood development will be influenced by, and will itself influence, the rate of economic participation by women. Policy changes will also influence demand for infrastructure. For example, government's increased emphasis on further education and training (FET) as a route to improving global competitiveness will require the establishment of new infrastructure, as would the introduction of schooling for all Grade Rs by 2010. Curriculum changes could also impact on requirements in respect of premises and equipment.

4.1 Demand Forecast

4.1.1 Population growth

The population of the Western Cape has grown rapidly over the last five years and continues to grow. In 1996 there were 3.96 million people in the Western Cape and this number grew by over half a million persons to 4.52 million in 2001 (2001 census).

According to the Strategic Infrastructure Plan (SIP) of 2006 (based on Centre for Actuarial Research):

a. It is estimated that in 2005 about 4,9 million people lived in the Western Cape. This tally represents an increase of 935 000 over the 1995 headcount and over 1,9 million more than in 1985. The province has therefore seen relatively rapid population growth over the past two decades; an average rate of 3,0 per cent a year between 1985 and 1995 and 2,1 per cent per annum between 1995 and 2005.

b. Projections suggest a marked slowing down of provincial population expansion over the next ten years. By 2015 just under 5,4 million people are expected to be living in the Western Cape. The expected headcount represents an increase of 428 000 individuals over the decade; equivalent to an average annual growth rate of 0,8%. See table below.

Table 2 Population growth in the Western Cape, 1985-2015

	Total population (thousands)				Average annual growth rate (%)			
	1985	1995	2005	2015	1985-1995	1995-2005	2005-2015	1985-2015
African	498	830	1388	1577	5.2	5.3	1.3	3.9
Coloured	1 932	2272	2589	2848	1.6	1.3	1.0	1.3
Asian	15	39	48	52	9.9	2.3	0.8	4.2
White	540	855	905	881	4.7	0.6	-0.3	1.6
Male	1 502	1965	2413	2621	2.7	2.1	0.8	1.9
Female	1 484	2031	2517	2738	3.2	2.2	0.8	2.1
0-14 yrs	1 058	1246	1332	1383	1.6	0.7	0.4	0.9
15-34 yrs	1 134	1473	1779	1732	2.6	1.9	-0.3	1.4
35-64 yrs	683	1087	1556	1890	4.8	3.6	2.0	3.5
65+ yrs	110	190	265	354	5.6	3.4	3.0	4.0
Total	2986	3996	4931	5359	3.0	2.1	0.8	2.0

Source: Western Cape Provincial Economic Review and Outlook: 2006 based on Centre for Actuarial Research calculations, 2005

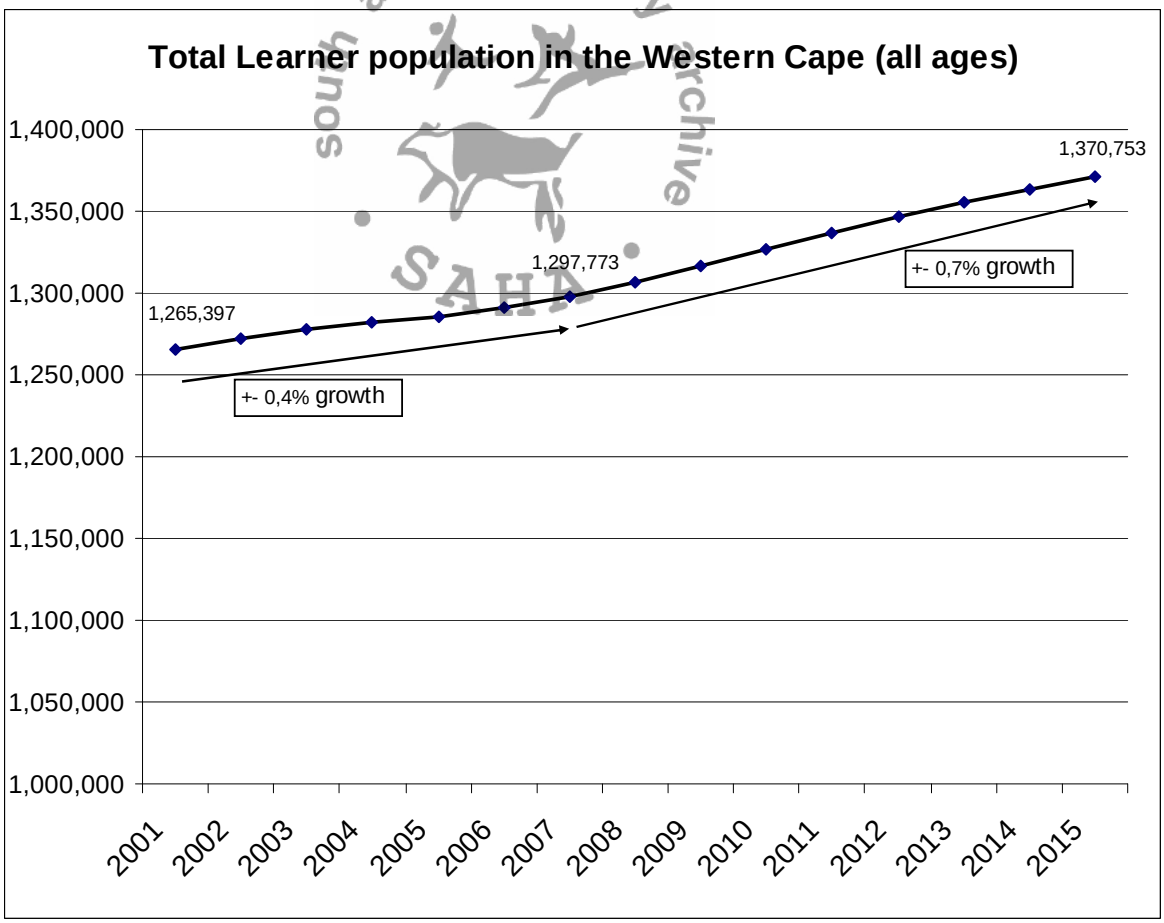
25

Also using the 2005 Centre for Actuarial Research report and model (based on ASSA2003) the Directorate: Physical Resources Planning has established the following:

i. It is estimate that in 2007 about 5,05 million people are living in the Western Cape.

ii. An estimated 1,298 million (25.7%) of the above total population are between the ages of 5 and 19, which approximately represents the school going age group within the province. It is noted that the total 2007 enrolment at public schools is 946,417 (i.e +- 73% of the total 1,298 million potential learners). The balance of 27%, or approximately 350 000 learners would include the following:
    - Grade Rs not yet attending school
    - Learners attending FET colleges
    - Learners attending ABET
    - Learners attending Independent schools
    - Learners having dropped out or left after completing grade 10
    - 5 and 19 year olds who are not part of the education system

iii. As depicted in the graph below it is estimated that the total learners in the province will grow to an estimated 1,370 million by 2015, which represents an increase of 72,980 learners from 2007 (an average of 9,122 per annum)



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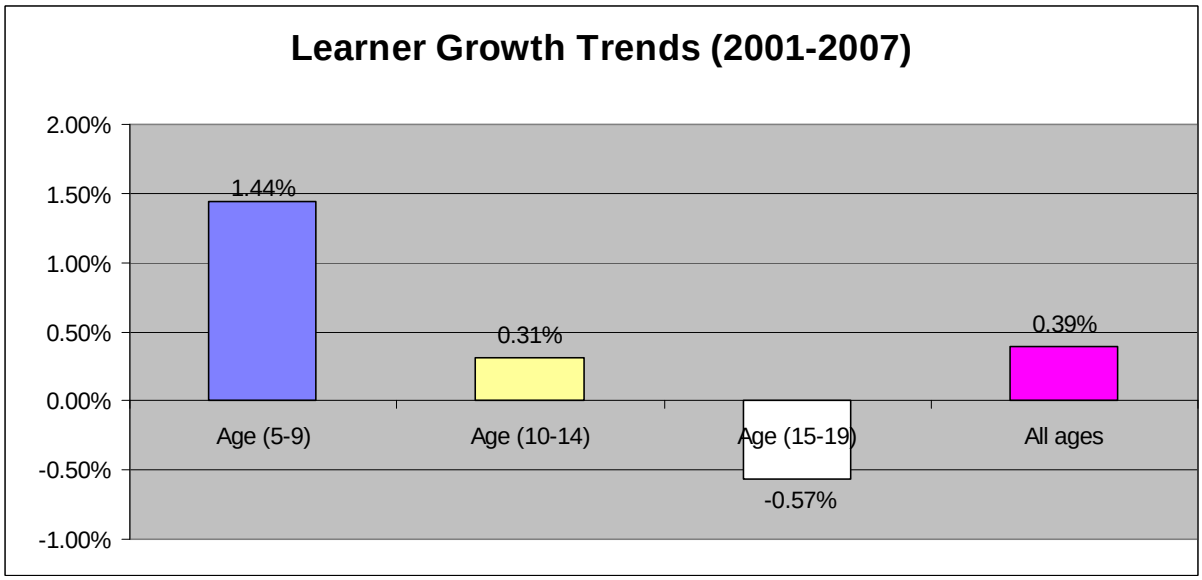
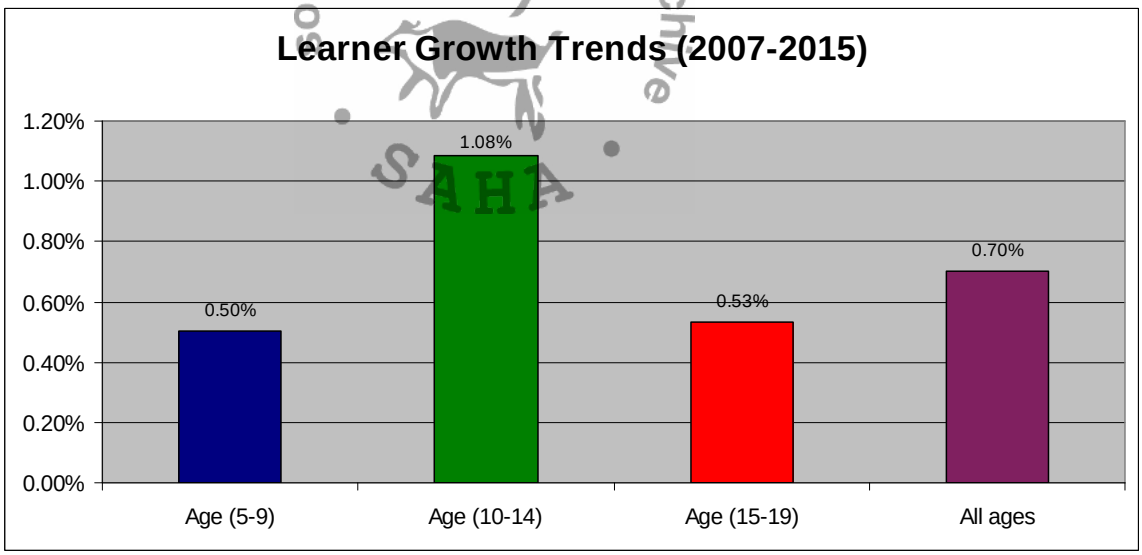
iv. The graph below indicates that the overall growth in learner numbers should have been in the order of 0,39% (say 0,4%) over the period 2001 to 2007.



v. As depicted in the graph below it is estimated that over the next 8 years the total learner numbers will on average grow at an annual rate of 0,7%, with the age group of 10-14 growing at the greatest rate of 1,08%.



4.1.2 Migration

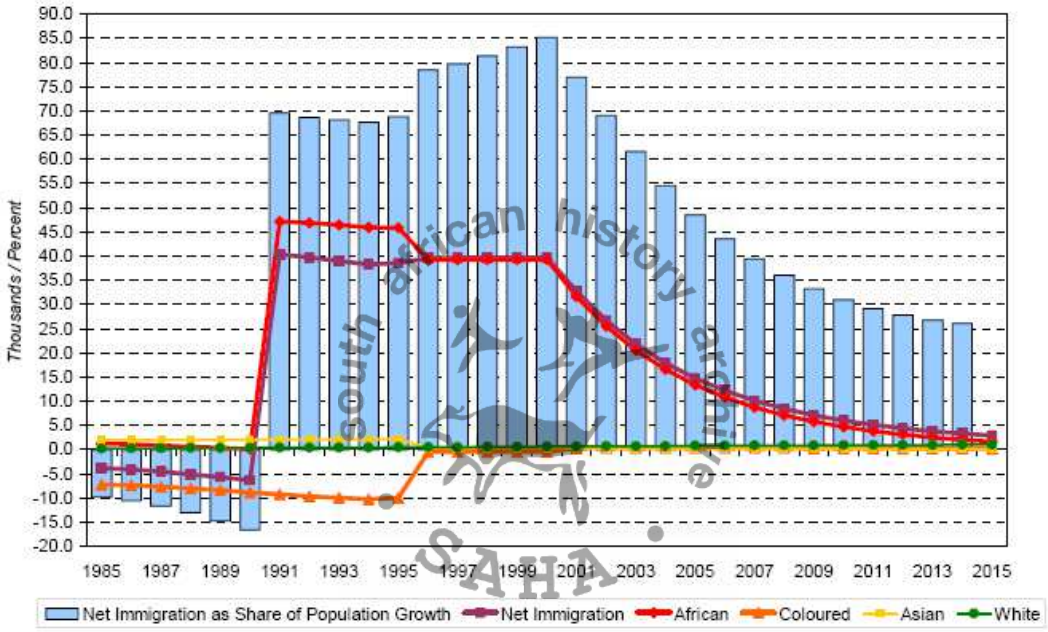
The above population growth analysis has taken migration into account and the aforementioned figures and projections provided are hence inclusive of net in-migration. There has however been considerable in-migration (and intra-migration) in the province during the past 15 years. This makes planning of service delivery, especially the provision of classrooms and teachers, extremely complex and it is therefore considered prudent that this be discussed in some detail.

27

According to the Strategic Infrastructure Plan (SIP) of 2006 (based on Centre for Actuarial Research):

a. In addition to natural population increase, migration is an important contributor to demographic change in the Western Cape. Between 1985 and 2015, the Western Cape expects to gain about 541 000 individuals through net in-migration. Figure 1 shows that the pattern of migration varies over the period. (Net in-migration as a share of population growth is calculated as the net number of immigrants in a given year, divided by the change in the total population from the given year to the following year.) In particular, from 2000 onwards the rate of migration has slowed and is projected to slow further in coming years.

Figure 1: Net in-migration to the Western Cape, 1985 to 2015



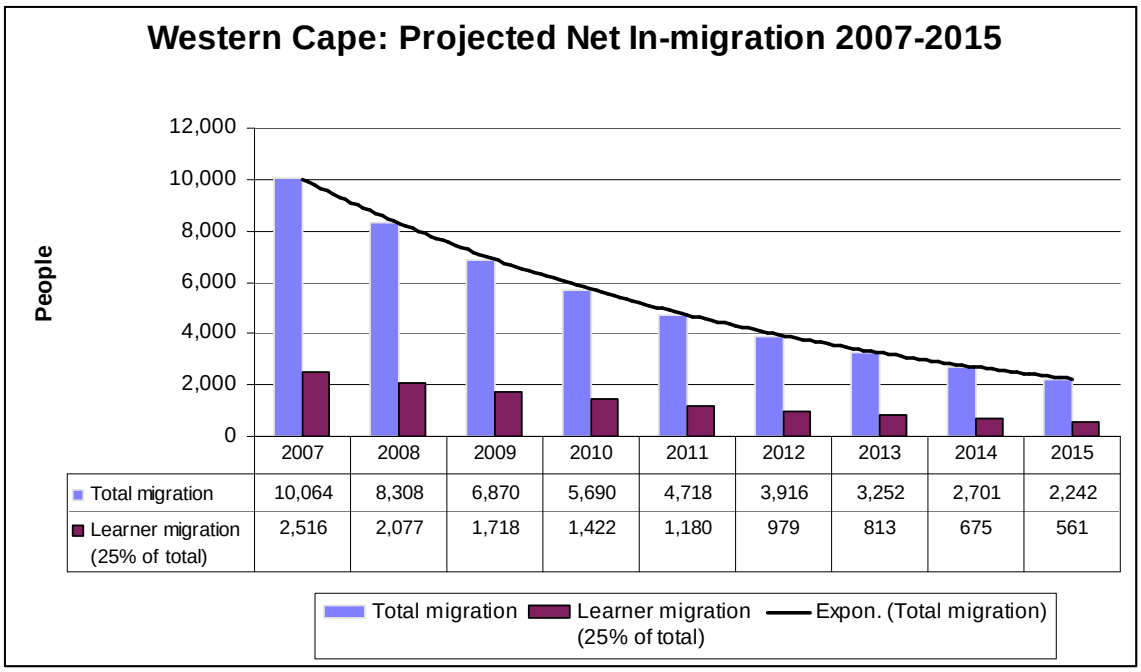
Source: Western Cape Provincial Economic Review and Outlook: 2006 based on Centre for Actuarial Research

b. Thus, over the period 2001 to 2015 the Western Cape is expected to gain only 177 000 people or an average of 11 800 a year.

c. Within the province, there is an ongoing shift of population from the more rural areas of the province towards the growth areas where opportunities are perceived to exist.

The Directorate: Physical Resources Planning has carried out further analyses using the 2005 Centre for Actuarial Research model and estimates that over the period 2007 to 2015 the Western Cape is expected to gain a total of only 48 000 people or an average of 6 000 a year. This implies that an estimated 1 500 additional learners per annum will enter the province through in-migration over the next 8 years (assuming 25% of the people are of school going age). As can be seen from the graph below, by 2015 the net in-migration of learners is estimated at a mere 561 per annum.

28



	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total migration	10,064	8,308	6,870	5,690	4,718	3,916	3,252	2,701	2,242
Learner migration (25% of total)	2,516	2,077	1,718	1,422	1,180	979	813	675	561

In conclusion, indications are that net in-migration will continue to slow quite significantly over the next decade and will contribute less and less towards the need for additional school infrastructure. However, because net in-migration has only begun to slow in recent years, the WCED is still faced with resulting infrastructural backlogs which will take a number of years to eradicate.

Most of the migrants tend to settle in informal areas, and hence the severest backlogs and need are being experienced at schools situated in or near informal areas. The problem with this type of growth is that additional schools are necessary, but permanent schools can generally not be built in such informal areas because upgrading is imminent and the majority of these families in this informal area will be relocated to new areas where new schools should be built. Furthermore, when schools are being planned in these areas it is generally difficult to find appropriate sites.

In some cases strife between groups in such areas make it very difficult to relocate families so that upgrading can be done and school sites made available.

4.1.3 N2-Gateway Project

At present, the N2-Gateway project is being implemented to address the upgrading of informal areas along the N2. This includes Joe Slovo in Langa, New Rest, Kanana, Europe and Barcelona in Guguletu/Nyanga and Boystown in Crossroads. It is anticipated that ±12 000 families will be relocated to the Delft area at some stage in the future and that this will generate a need for an estimated 18 schools.

4.1.4 Growth Development Axes

Axes of growth or development in the Western Cape that experience excessive growth owing to migration or purpose-driven low-cost housing developments or ordinary middle and high cost development are as follows:

29

- **Western axis:** Cape Town, Blouberg, Table View, Atlantis, Melkbosstrand, Mamre, Darling, Vredendal and Vredenburg.
- **Southern axis (in the Cape Metropole):** Cape Town, Guguletu, Nyanga, Crossroads, Philippi, Weltevreden, Lower Crossroads, Khayelitsha, Mfuleni, Nomzamo/Lwandle, Delft, Grabouw, Hermanus and Gansbaai.
- **Southern axis (away from the Cape Metropole):** Mossel Bay, George, Knysna, Plettenberg Bay.

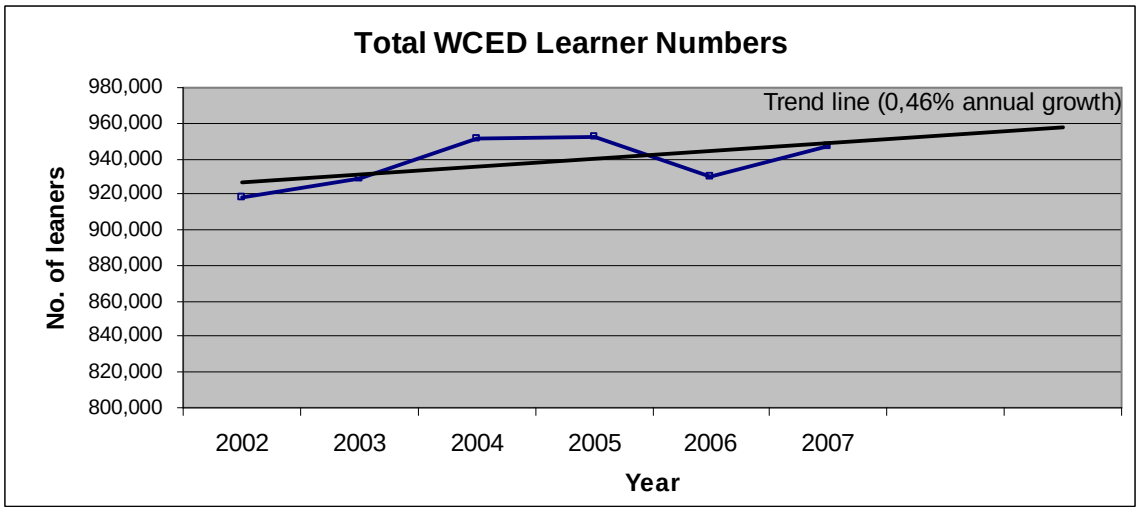
These areas co-ordinate very well with the growth potential as reflected in the Western Cape Provincial Growth and Development Strategy (iKapa Elihlumayo) with most of them in the leader town or social and town investment categories. It is, however, also clear that education provision is also a democratic right in areas of low development potential or low need.

The financial feasibility of a new school in an area of low future growth with major social benefits versus learner bus transport to other areas will ultimately play a role in the final decision.

4.1.5 Learner Enrolment trends

The total learner enrolment figures for the period 2002 to 2007 are provided in the table and graph below.

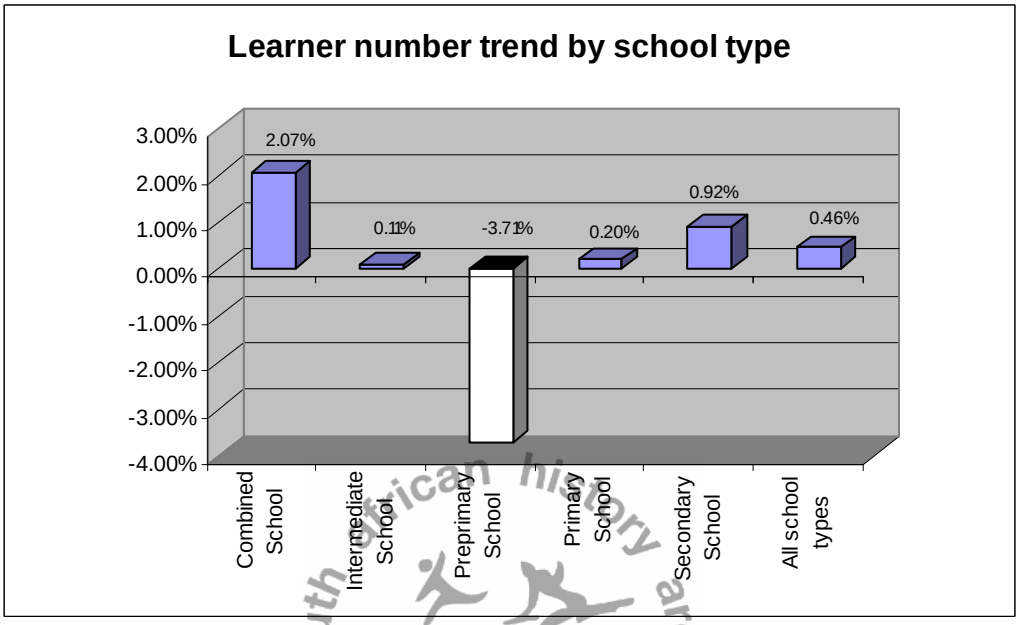
	2002	2003	2004	2005	2006	2007	Growth trend
Combined School	20,230	21,097	21,798	22,426	21,864	22,392	1.85%
Intermediate School	109,348	110,766	113,899	113,452	109,400	112,068	0.23%
Preprimary School	638	622	630	628	492	569	-3.59%
Primary School	493,448	494,933	506,240	499,899	490,610	507,564	0.29%
Secondary School	294,111	301,448	308,844	315,572	307,873	303,824	0.71%
All school types	917,775	928,866	951,411	951,977	930,239	946,417	0.46%



From the table and graph above it is evident that learner numbers have fluctuated over the past 5 years but has resulted in an overall growth trend of approximately 0,46% per annum. This correlates reasonably well with the learner population growth trend of 0,4% in 4.1.1.

30

Looking at the graph below, with the exception of Pre-primary schools, all schools have an increasing trend in the number of learners. Pre-primary as well as Primary enrolment figures are however expected to increase with the implementation of grade R enrolment by 2010. It is also important to note that learner number enrolment at Combined and Secondary Schools show a steady growth trend.



In conclusion;

4.1.5.1 Learner enrolment numbers have been increasing at a relatively slow rate of approximately 0,46% per annum,.

4.1.5.2 There is a fairly good correlation between this learner enrolment growth of 0,46% and the projected learner population growth rate of 0,4% determined in 4.1.1 above for the period 2001 to 2007.

4.1.5.3 It is hence reasonable to deduce that a **learner growth of 0,7%** (also determined in 4.1.1 above for the period 2007 to 2015) will be appropriate to use for current planning purposes.

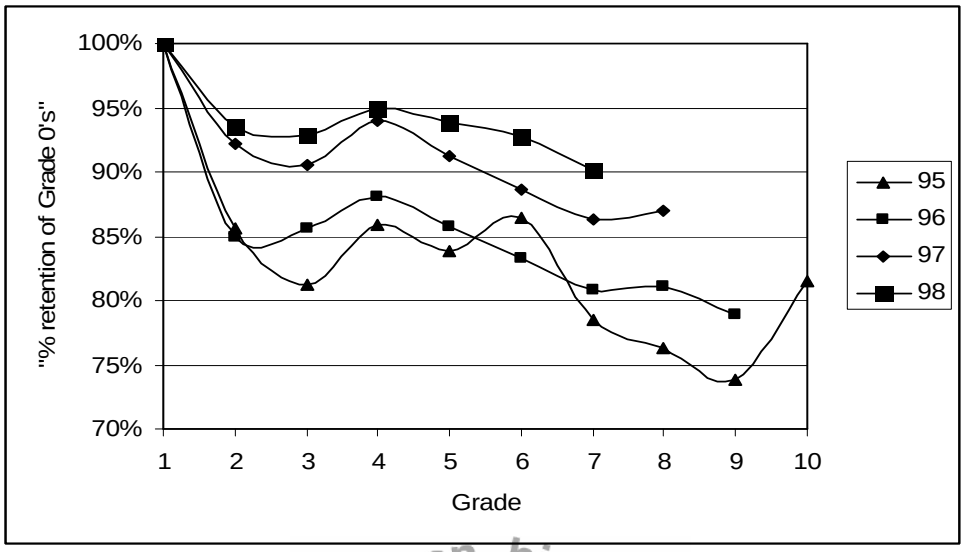
4.1.5.4 Although the overall school-going population may not be growing rapidly, there will continue to be changes in the geographical distribution of learners within the province that may require shifts in infrastructure provision and spending.

4.1.6 Anticipated Changes in Community Expectations

Communities are realising the importance of formal education and it is reasonable to expect the enrolment of learners to increase as a result, and that learners will stay in school longer than is generally the case at the moment. This is already happening, when the following chart is studied. It is emphasised that this chart was derived from raw data, is not up to date, and is only presented to illustrate a trend. More detailed statistical analysis is required to confirm the data, but the general trend is expected to be relatively similar to that presented here. There is a clear trend that a significantly larger percentage of each year's Grade 1 class is retained in subsequent grades. This aspect should be studied in more detail, but it is clear that the WCED has to expect a noticeable increase in the number of secondary school learners in the next

31

few years as learners stay in school for longer. This will place a significant burden on secondary schools in poor areas, emphasising the need for the provision of additional infrastructure. Taking into account the time it takes to put infrastructure into place, the need to act is clear.



4.1.7 Impact of Grade Rs

Education policy requires that Grade R education be fully integrated into the existing school system by 2010. All learners wishing to enrol in Grade 1 thus have to pass through a Grade R inception year. Existing information reflects that an additional 61 379 Grade R learners need to be accommodated at existing schools.

This is based on the difference between the number of Grade 1s currently enrolled in 2007 and the existing 2007 Grade R enrolment. If all classrooms already available are taken into account and a calculation made to accommodate all existing learners plus the additional Grade Rs, the existing shortage of 1443 classroom shortage increases to a shortage of 2 355 classrooms . At an average cost of R224 000.00 per classroom, an additional amount of R204,3m will thus be needed to provide these additional 912 Grade R classrooms.

It is, therefore, clear that the Grade R needs cannot be addressed in isolation and need to be addressed in a holistic manner, considering all other needs of the WCED during rationalization of education facilities.

4.1.8 Impact of Changes in Demand on Infrastructure Utilisation

4.1.8.1 Classroom surplus & shortages

It is clear that the proper utilisation of available instruction rooms should be encouraged before development of new facilities can be considered. Only in those instances where instruction rooms are not available should new infrastructure be provided.

32

Enforcement of a policy of optimal use may assist in the amalgamation of existing schools and making the vacant facility available for other programmes of the WCED.

Funds will thus be spent at the right places and service delivery to communities will be expanded.

4.1.9 Changes in Technology

Changes in technology are likely to have an impact on the type of infrastructure to be provided, but not a significant impact on the size or overall scope of the infrastructure.

The time it takes to put infrastructure in place is of major concern. There is a case to be made for standardised design to reduce the length of the planning, design and procurement process. Likewise, there is a case to be made for using high-quality pre-fabricated structures, as is used elsewhere in the world. Even if the fund allocation for new infrastructure remains constant it will mean that fewer new facilities will become available in a shorter period.

33

5. EXISTING INFRASTRUCTURE

5.1 Physical Parameters

In the absence of the NEIMS the only other Building Audit Programme available is the one undertaken by the DTPW during 2000. The audit findings as presented in the table below does not address certain issues, such as age of infrastructure, but only the size distributions of the properties (excluding rented properties) and buildings.

Size of property (ha)	Number of schools
Area ≤ 1	141
1 < Area ≤ 2	256
2 < Area ≤ 5	576
5 < Area ≤ 10	147
10 < Area ≤ 15	14
15 < Area ≤ 20	6
Area > 20	8

Size of buildings (m^2)	Number of schools
Area ≤1 000	142
1 000 < Area ≤ 2 000	109
2 000 < Area ≤ 5 000	612
5 000 < Area ≤ 10 000	256
10 000 < Area ≤ 15 000	50
15 000 < Area ≤ 20 000	8
Area > 20 000	8

The existing infrastructure (viz all public schools on state and leased land) is summarised as follows:

Total number of schools 1,459
Total number of classrooms 31,534 (adjusted)

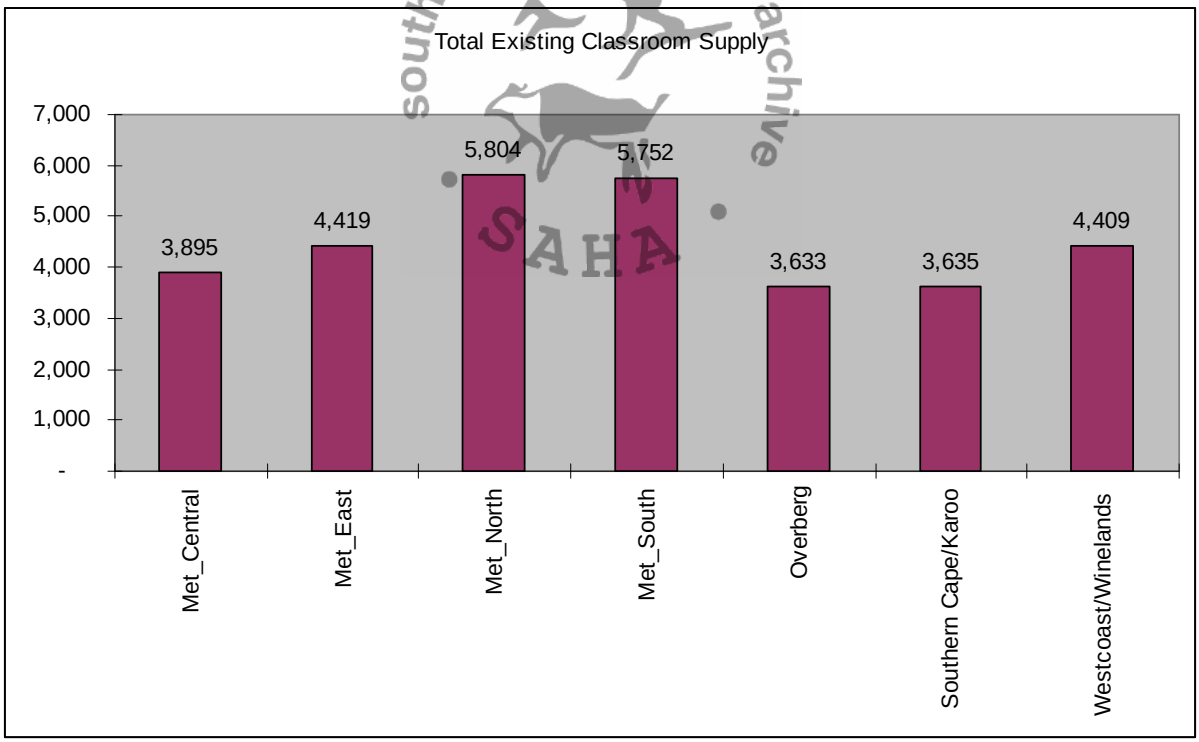
The table and graphs below provide further details on the existing infrastructure:

Different schools types	EMDCs	Number of schools	Learner enrolment	Number of adjusted instruction rooms
Combined	Met_North	1	1,232	46
	Met_South	1	564	38
	Overberg	15	9,978	355
	Southern Cape/Karoo	9	4,063	204
	Westcoast/Winelands	15	6,555	308
Combined Total		**41**	**22,392**	**951**
Intermediate	Met_Central	8	5,910	191
	Met_East	13	10,301	291
	Met_North	15	9,136	350
	Met_South	34	27,515	907
	Overberg	31	15,925	528
	Southern Cape/Karoo	27	16,390	463
	Westcoast/Winelands	42	26,891	837
Intermediate Total		**170**	**112,068**	**3,567**
Preprimary	Met_Central	3	328	
	Met_North	3	144	
	Overberg	1	77	
	Westcoast/Win	1	20	

34

	elands			
Preprimary Total		**8**	**569**	

Primary	Met_Central	104	54,766	2,066
	Met_East	86	92,525	2,356
	Met_North	133	96,689	3,377
	Met_South	127	91,380	2,902
	Overberg	175	52,919	1,781
	Southern Cape/Karoo	154	59,885	1,855
	Westcoast/Winelands	150	59,400	2,035
Primary Total		**929**	**507,564**	**16,372**
Secondary	Met_Central	52	41,589	1,638
	Met_East	48	58,101	1,759
	Met_North	53	53,230	2,031
	Met_South	56	56,616	1,905
	Overberg	31	27,410	969
	Southern Cape/Karoo	35	30,992	1,113
	Westcoast/Winelands	36	35,886	1,229
Secondary Total		**311**	**303,824**	**10,644**
Grand Total		**1,459**	**946,417**	**31,534**



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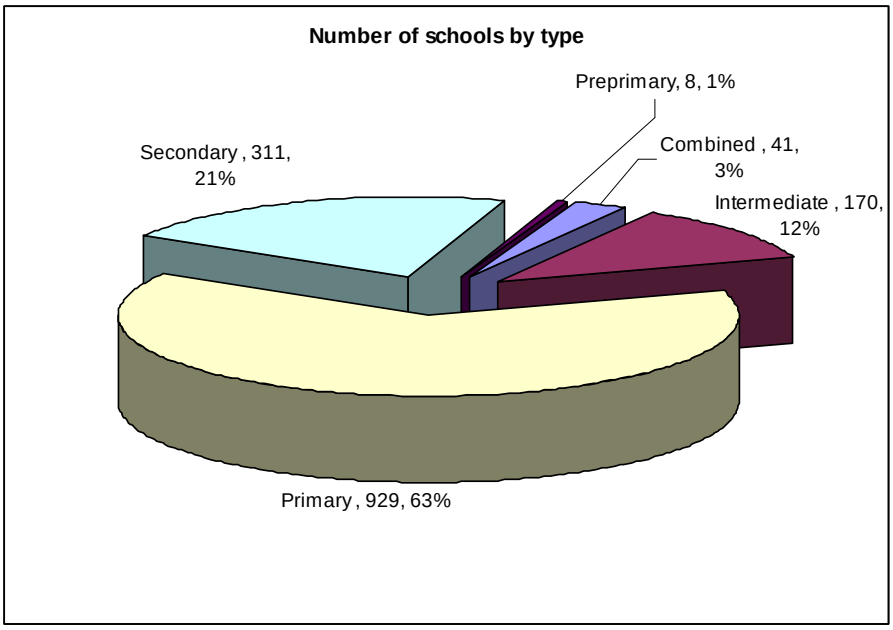
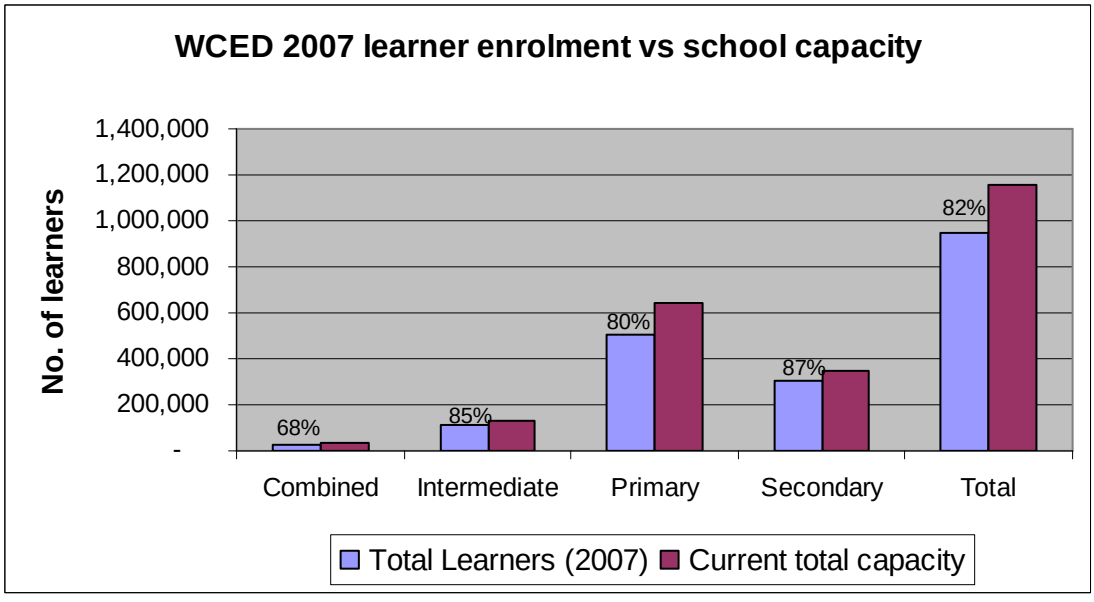


Detailed information on leased school buildings is currently not readily available and will be provided in the final of the 2008/09 Infrastructure Plan. This aspect will in future receive ongoing attention to determine the necessity of each leased property.

Type of buildings	Number leased	Amount 2006/7	Amount 2007/8	Amount 2008/9
School buildings Office buildings				

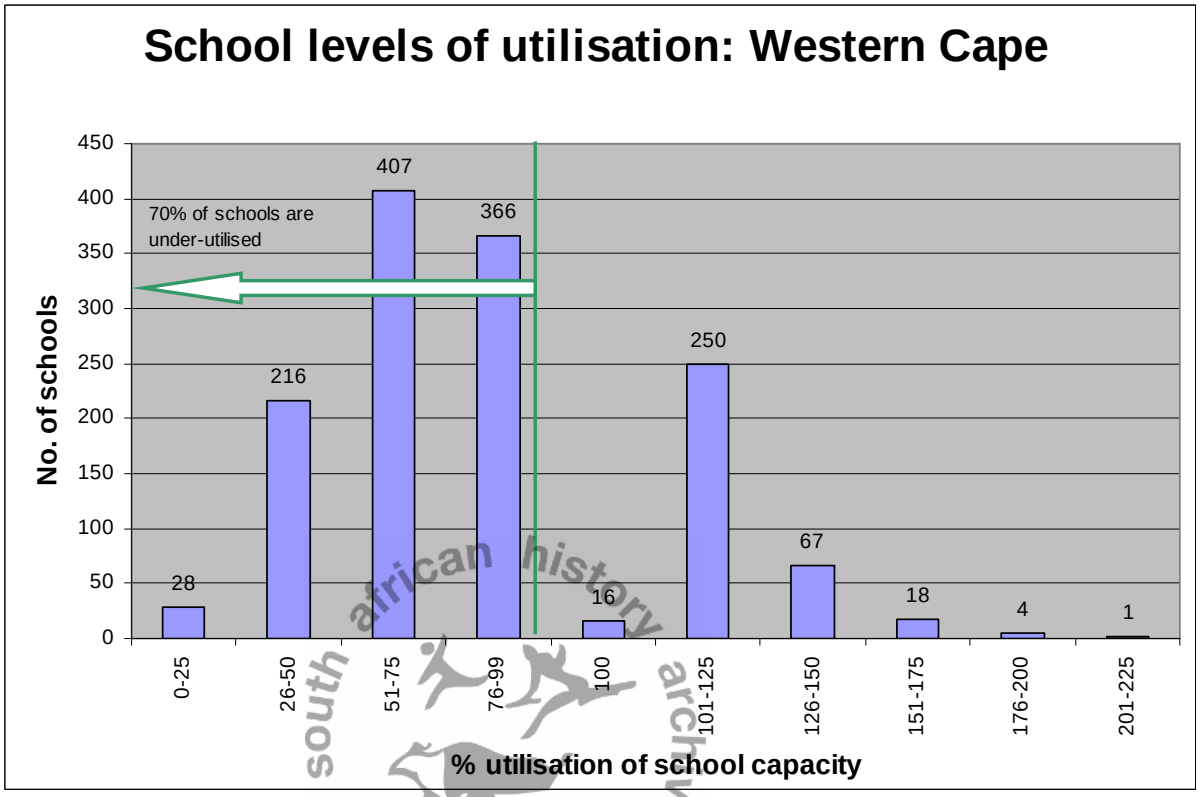
5.2 Capacity & Utilisation

The 1,459 public schools in the province currently have the capacity to accommodate a calculated 1,155,567 learners. With the current number of 946,417 learners enrolled, this means that the schools in total are currently at 82% capacity. The graph below provides a further breakdown in this regard according to school type.

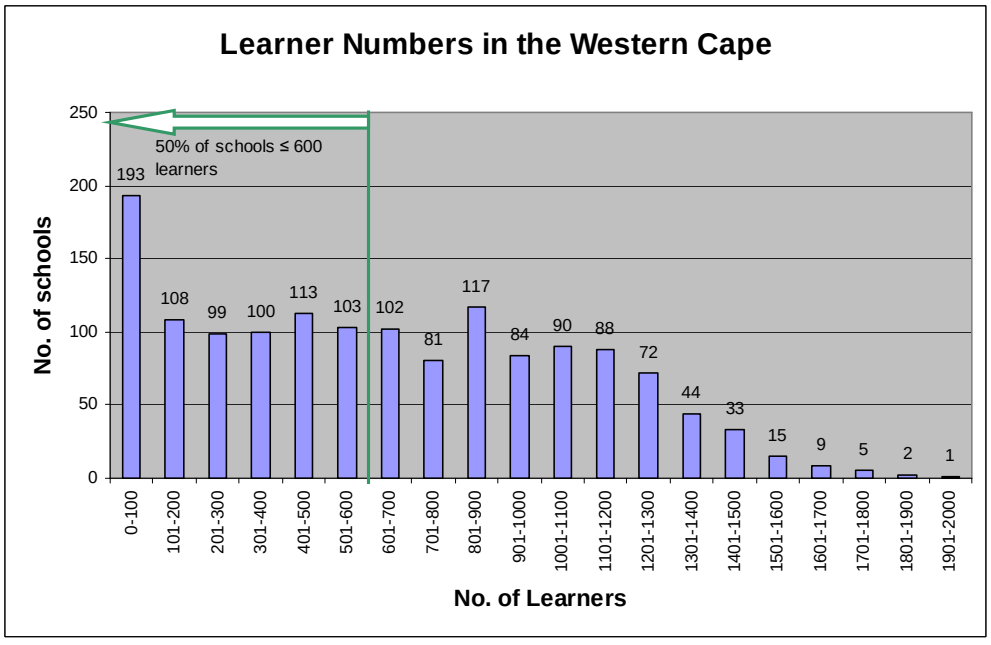


36

A further analysis was carried out to determine the distribution of schools according to the % utilisation of existing capacity. For example, 16 schools are at 100% capacity, while 250 schools are over capacity by between 101 and 125%. In total, approximately 1 017 schools (70%) are currently under-utilised.



The distribution of schools according to the number of learners enrolled is depicted in the graph below. It is noted that 193 schools have ≤ 100 learners enrolled; and approximately 50% of the 1,459 public schools in the province have ≤ 600 learners enrolled.



37

It should be noted that any future proposal to amalgamate or to close public schools on state and private land will influence the capacity and utilisation of the remaining schools in the Western Cape. This aspect will receive ongoing attention in future.

Further details and relevant data on the capacity and utilisation of schools is presented in Appendices of this Infrastructure Plan.

5.3 Condition

The Building Audit Programme undertaken by the DTPW during 2000 reflected the condition of the buildings at time of the survey, but it can no longer be used as all the schools that received an unfavourable report have since received the necessary scheduled maintenance.

The information of the NEIMS system is seen as vital to complete this section in future Infrastructure Plans.

5.4 Valuations

The total value of the schools that were surveyed in 2000 was estimated at R9.62billion.

The figure being used for the update of the 2008/9 Annual Performance Plan as well as determining maintenance backlogs and funding requirements in this Infrastructure Plan is R12,00 billion.

NEIMS is using a figure of R11,7billion as the Asset Value, but no further information is available.

5.5 Historical Data

No historical data is available regarding property valuations.

38

6. GAP IN INFRASTRUCTURE

6.1 The total gap in infrastructure

An analysis of the existing facilities has been undertaken on an individual school level and compared with the current norms and standards. The table below provides a summary of the total infrastructure backlog in terms of quantities and costs for each item of infrastructure (eg Computer labs). This also formed part of the motivation for additional funds for infrastructure in a bid document recently submitted to Provincial Treasury:

ITEM	SHORTAGE	COST PER ITEM	FINANCIAL IMPLICATION
Norms and Standards backlog			**3,418,918,500**
Computer labs	589	270,000	159,030,000
Media rooms	636	391,500	248,994,000
Science labs	26	324,000	8,424,000
Classrooms	1234	224,000	276,416,000
Specialist classrooms	26	324,000	8,424,000
Workshops	12	540,000	6,480,000
Halls	374	2,700,000	1,009,800,000
Halls (leased schools)	450	350000	157,500,000
Toilets	2498	8,000	19,984,000
Sickrooms	687	40,500	27,823,500
Strongrooms	422	27,000	11,394,000
Duplicating rooms	707	40,500	28,633,500
Storerooms	417	54,000	22,518,000
Staffrooms	343	180,000	61,740,000
Principals' offices	122	67,500	8,235,000
Other offices	367	67,500	24,772,500
Schools	45	29,750,000	1,338,750,000
Condition backlog			**700,000,000**
Water, sewer/ electrical reticulation, safety measures Replacement of Pre-fabricated classroooms	500	400,000	200,000,000
Maintenance			500,000,000
Needs backlog			**450,000,000**
Sports facilities, cloakrooms, ablutionfacilities	900	500,000	450,000,000
TOTAL			**4,568,918,500**
Data source: EMIS, 2005 Annual Return			

39

It should be noted that the above does not take the following into account:

a. Future learner growth demands resulting in an estimated 1,954 additional classrooms being required at a present day cost of approximately R437,6 million (see calculations below)

   Assuming a 0,7% annual growth in learner numbers (refer section 4.1.5.3) over the next 10 years, and commencing with the current 2007 enrolment figure of 946 417.

   Then by 2017 the total number of learners would increase by an estimated 68 375 to a total of 1 014 792.

   Assuming an average learner to classroom ratio of 35, this would equate to an additional 1,954 classrooms being required.

   At a present day unit cost of R224,000 per classroom total funding in the amount of R437,6 million would be required

b. The additional 912 classrooms that will be necessary to phase in Grade R successfully into the public school system by 2010, at an estimated present day cost of R204,3 million (refer section 4.1.7)

The total gap in infrastructure in monetary terms can therefore be summarised as follows:

Infrastructure backlog (table above)	R 4,568,918,500
1,954 additional classrooms for future learner growth demands	R 437,600,000
912 additional classrooms for Grade R enrolment by 2010	R 204,300,00
Total Infrastructure requirement (gap)	**R 5,006,518,500**

A few of the key elements of the infrastructure backlog is discussed in more detail in the sections that follow.

6.1.1 Maintenance (backlog)

At present the maintenance backlog is based on the maintenance budgets of the last 5 years as a fraction of the asset value of education facilities. A factor of 2% of the asset value was used.

In order to reduce the gap, the making available of funds to schools for day-to-day maintenance during the 2008/9 was not considered at this juncture.

In future, a user agreement will be signed between each school and the DTPW-WCED. Such a document will have to describe the condition of the building of that specific school and when it will receive the necessary attention to bring that condition up to an acceptable level.

40

At that time all funds, whether scheduled maintenance, emergency maintenance , day-to-day maintenance, and School Governing Body contributions may be added to determine the percentage of the asset value spent on maintenance at that school.

Future Infrastructure plans will report on this matter.

6.1.2 Replacement of pre-fabricated structures

Of the total number of 31,534 classrooms approximately 1,500 are pre-fabricated structures that need to be phased out by:

a. Removing such structures at permanent schools if in unsatisfactory condition and not needed any longer.
b. Amalgamating or closing schools that are using pre-fabricated structures and only using permanent structures
c. Removing such structures and replacing them with permanent structures
d. Removing such structures and building of a permanent school

Any of the above interventions will influence the number of classrooms available in the Western Cape.

6.1.3 Other facilities

Water, sanitation – Although all schools have water and sanitation the quality of water and an improved supply of some of the schools should receive more attention in future.

Sport facilities - at present the department does not provide sports facilities. The matter will receive ongoing attention.

6.1.4 Existing classroom Shortages

The 2007 statistics, in terms of the numbers of schools, learners and classrooms, are presented in the following table.

Type of Schools	EMDC	Schools	Enrolment 2007	Number of adjusted classrooms	Number of oversupplied classrooms	Number of undersupplied classrooms
Combined	Met_North	1	1,232	46	11	
	Met_South	1	564	38	22	
	Overberg	15	9,978	355	85	-15
	Southern Cape/Karoo	9	4,063	204	88	
	Westcoast/Winelands	15	6,555	308	122	-2
Combined Total		**41**	**22,392**	**951**	**328**	**-16**
Intermediate	Met_Central	8	5,910	191	57	-27
	Met_East	13	10,301	291	46	-33
	Met_North	15	9,136	350	109	-6
	Met_South	34	27,515	907	223	-59
	Overberg	31	15,925	528	116	-18

41

	Southern Cape/Karoo	27	16,390	463	56	-36
	Westcoast/Winelands	42	26,891	837	150	-41
Intermediate Total		**170**	**112,068**	**3,567**	**757**	**-220**
Preprimary	Met_Central	3	328			
	Met_North	3	144			
	Overberg	1	77			
	Westcoast/Winelands	1	20			
Preprimary Total		**8**	**569**			
Primary	Met_Central	104	54,766	2,066	682	-21
	Met_East	86	92,525	2,356	232	-249
	Met_North	133	96,689	3,377	991	-93
	Met_South	127	91,380	2,902	701	-143
	Overberg	175	52,919	1,781	474	-48
	Southern Cape/Karoo	154	59,885	1,855	386	-68
	Westcoast/Winelands	150	59,400	2,035	564	-53
Primary Total		**929**	**507,564**	**16,372**	**4,029**	**-675**
Secondary	Met_Central	52	41,589	1,638	411	-33
	Met_East	48	58,101	1,759	195	-196
	Met_North	53	53,230	2,031	459	-41
	Met_South	56	56,616	1,905	302	-113
	Overberg	31	27,410	969	173	-34
	Southern Cape/Karoo	35	30,992	1,113	237	-64
	Westcoast/Winelands	36	35,886	1,229	193	-51
Secondary Total		**311**	**303,824**	**10,644**	**1,969**	**-533**
Grand Total		**1,459**	**946,417**	**31,534**	**7,083**	**-1,443**

The average learner : classroom ratio currently stands at around 30:1. This learner-classroom ratio is low because of the excess classrooms in the Western Cape.

6.2 Non-infrastructure solutions

6.2.1 The necessity of all existing **Learner Transport Routes** were not evaluated at this juncture and simply accepted as part of the overall service delivery. This is an item that will receive proper attention for inclusion in future Infrastructure Plans

6.2.2 The suitability of **existing furniture at schools and space taken up** by such furniture was not investigated as a factor creating the gap. This is an item that will receive proper attention in future Infrastructure Plans

6.2.3 The necessity of **each leased school** was not investigated at this juncture. The necessity of such schools were considered at this juncture as part of the stock available. This is an item that will receive proper attention for inclusion in future Infrastructure Plans

42

7. INFRASTRUCTURE MANAGEMENT PLAN

This section of the plan outlines exactly what is planned in order to manage and operate the infrastructures at the agreed levels of service while optimising lifecycle costs.

7.1 Routine Maintenance Plan

7.1.1 General

According to the South African School Act (Section 21 (1) (a)) a school governing body (SGB) may apply in writing to the Head of Provincial Education to be allocated the function to maintain and improve the property, buildings (including school hostels) and grounds occupied by the school.

Each WCED school is currently considered an "Article 21 school" which receives its Norms and Standards allocation for day-to-day maintenance. The SGB should thus ensure that all defects, falling within the category of day-to-day items are rectified by the school.

When the budget for scheduled maintenance appears on the books of the Western Cape Education Department, all schools are at present considered "Article 20 schools" and all scheduled maintenance issues are managed by the Western Cape Department of Transport and Public Works.

All schools may be assisted with emergency funds for items classified in this category. For most of time the poverty index will assist in deciding the amount to be approved for an emergency matter at a school.

Clear guidelines had been developed to assist SGBs to prepare documentation to address some of their infrastructure needs on their own. This may be with SGB funding or with funds transferred to schools.

These applications need to be submitted to the WCED and DTPW for approval of the SGB projects. Without the necessary approval, no project may be commenced or carried out at schools.

Even though the Directorate: Physical Resources Planning is being split into a Planning branch and an Operational branch and two directors appointed, there is still no proper micro-system in place and thus the transitional period may be found very challenging.

The plan to address shortages and the various plans to achieve this may thus be changed at short notice.

7.1.2 Maintenance Plan

7.1.2.1 Scheduled Maintenance

- Project identification
  In the new redesigned structure the planning branch will have to co-ordinate with the 8 EMDC directors to ensure that a needs list which considers the hierarchical needs table (see desired level of service) for scheduled maintenance is drawn up for each EMDC area.

43

Once the lists have been received from the EMDCs, a consolidated list would be prepared by the Planning section. The Planning section, with the assistance of the Operational section, would need to determine, making use of the Neims facilities, an budget estimate for each project on the list.

The necessary approvals from the Head of Education and the MEC would then have to be sought before the list can be provided to the Operational section for further co-ordination with the DTPW.

- Identified projects

  See Appendices for the projects that were selected.

- Scheduled maintenance allocation

	2008/09*	2009/10*	2010/11*	TOTAL - MTEF PERIOD 2008/9 TO 2009/10	2011/12*	2012/13*	2013/14*	TOTAL
Maintenance	225,363	259,973	333,522	**818,858**	361,924	490,006	504,351	**1,356,281**
GRAND TOTAL	225,363	259,973	333,522	**818,858**	361,924	490,006	504,351	**1,356,281**

- Issues for further consideration

  At present a system is being followed where all the EMDCs are sharing an equal portion of the budget.

  This aspect needs further attention in future. A point of view may be that the all schools should be placed on a priority list and that the schools in the most dilapidated state, according to the funds available, receive first attention. The schools on the lowest rank of the priority list would also need further attention so as to ascertain which schools would qualify to be placed on a "**properly maintained school list".**

  At present the DTPW is the implementing agent for scheduled maintenance. This issue will receive additional attention in future so as to determine the suitability of a system whereby scheduled maintenance funds to "Article 21 schools" be transferred to schools to do their own scheduled maintenance.

  It is clear that the annual budget will determine the number of projects being done annually. Because of a very comprehensive list the projects not receiving attention one year will only shift up on the list. The following year the exercise will be repeated and special attention will be given to whose projects which suddenly deteriorated more than originally anticipated.

7.1.2.2 Emergency Repairs

- Project identification

  No finality has yet been reached about the structure (Operations or the EMDCs) which would be managing emergency repairs. The only involvement of the Planning section would be to submit the annual application for funding.

44

Planning should also be making proposals for approval about issues that could be seen as a risk to the learners. Such unforeseen circumstances may be of a physical nature (ceilings wanting to collapse on learners) or related to their health (no water, toilets not working, bee- or lice-infected buildings). Thus, any unforeseen circumstances that may play a role in a decision to close the school, may be regarded as an emergency issue.

Schools are requested to obtain three quotations from independent contractors for the repairs needed. After satisfactorily completing the work, the appropriate section will grant approval for the job to be done and payments will be made to the contractor's bank account.

The relevant officials will also visit some of the schools to verify the repairs.

- Selected projects
  An emergency project cannot be selected before the time

- Emergency maintenance allocation
  The allocation for emergency maintenance is still being determined.

- Issues for further consideration
  None

7.1.2.4 Day-to-Day Maintenance

- Project identification
  For all registered public schools, the funds for these repairs are transferred to the school (included in their Norms and Standards allocation). The Planning section will also submit its annual bid for inclusion in the Norms and Standards allocation.

- Identified projects
  All registered public schools

- Day-to-day allocation
  Schools are currently advised to allocate not less than 4% of their Norms and Standards allocation for day-to-day maintenance.

- Issues for further consideration
  Because this funding is not specified, the use of such funds should be stressed and schools should be penalised if the funds are not being used for maintenance.

  Improper use of day-to-day funding for other purposes results in an increased demand for scheduled maintenance.

7.1.2.5 Building Facilities Maintenance Programme (BFMP**)**

- Project selection
  Projects were selected in 2005/6 and additional schools were added in 2006/07.

45

- Identified projects
  List of projects available at DTPW

- BFMP allocation
  The tender has been awarded for a period of two years in an amount of R50,850,486. An amount of R8,637,759 will be required in the 2008/9 financial year to complete the contract. These funds form part of the scheduled maintenance allocation.

- Issues for further consideration
  No clarity is at present available about any extension of the programme when the current contract period ends in July 2008.

7.1.2.6 The Quality Improvement Development Support and Upliftment Programme (QIDSUP)

- Project selection
  Projects for 2008/9 still need to be selected

- Selected projects
  No names yet available

  Day-to-day allocation
  No budget amount yet available but it is anticipated that ±R30,0m will be made available.

- Issues for further consideration
  The amount available during 2008/9 and the criteria applicable during the selection of new schools

7.2 Renewal / Replacement Plan

Renewal expenditure is major work that does not increase the infrastructure's design capacity, but restores, rehabilitates, replaces or renews an existing infrastructure to its original capacity. Work over and above restoring an infrastructure to original capacity is considered new works expenditure.

To be able to extend the life of its existing school buildings the WCED is at present pursuing the following options:

Phasing out of structures constructed from temporary buildings constructed with unsuitable materials (see desired service) (heavy on maintenance and subject to vandalism).

The following categories will receive attention:

(i) Removal of dilapidated single classrooms or classroom and ablution blocks that should be written off and not replaced

(ii) Removal of dilapidated single classrooms and classroom, ablution and administration blocks and replacement with permanent structures

(iii) Replacement of whole school buildings

46

With many classrooms in excess, prefabricated buildings can be phased out by merging or closing of schools not being used optimally, and using only those brick-plastered, face-brick- constructed or cement-prefabricated schools.

To strengthen this aspect it would be required of the WCED to ensure that the demand determines the number of schools or classrooms necessary. Schools should thus be used according to the given capacity of a school.

More emphasis needs to be placed on the outside structure of the building that is exposed to the elements. This outside structure needs proper maintenance to be able to withstand the elements.

An anomaly exists at present between the hierarchy of needs to be considered when prioritizing scheduled maintenance projects and the idea of maintenance to lengthen the life of a building.

Policy decisions about these issues will be necessary, and next versions of this Infrastructure Plan would address this aspect in detail.

7.2.1 Renewal Standards

See section 3, for the desired levels of infrastructure.

7.3 Creation/Acquisition Plan

After approval of the priority list for new schools, the DTPW is requested to acquire the relevant school sites.

The following criteria were used to draw up a new priority list in November 2006.

- Communities where acute classroom shortages occur
- Projects where the sites are already available
- Projects already in the planning stage
- Projects which assisted the urban renewal of municipalities
- Projects addressing shortages in all areas of the Western Cape.
- Projects that assist the implementation of the Rural Education Plan.
- Projects that assist the concept of *Integrating Holistic Human Settlements* in communities, where applicable.

At present the following construction programmes are in place

- A new school programme
- An additional classroom programme
- A basic services programme
- A specialist locality programme
- A forum programme
- A relocation of mobile classroom programme
- A phasing out of prefabricated structure programme

47

The following support facility programmes are also in place:

- A Khanya programme (computers rooms and computers for schools)
- A Safe Schools programme (Safety issues of an infrastructural and communal nature)
- Feeding kitchen programme

7.4 Non-construction interventions

7.4.1 Platooning and Double Shifting

The platooning system, where a school makes its classrooms available in the afternoons to a school without classrooms, may be seen as an solution to future accommodation shortages. At present, such a system is not favoured by schools and communities.

7.4.2 Double shifting

It is clear that the proper utilization of available instruction rooms should be ensured before any thought can be given to development of new facilities. Only in those instances where instruction rooms are not available need new infrastructure need to be developed.

It may be proposed that some schools be amalgamated to make school buildings available for other programmes of the WCED, such as FET and ABET.

7.4.3 Learner Transport Scheme

The WCED is funding the Learner Transport Scheme. At present there are no clarity as to whether these funds will be lying on the books of the OPS branch or on the books of the EMDCs. The various routes of the scheme need special attention in future to ensure that learners are transported strictly according to policy. Such investigations form part of determining the gap. Transport routes not required any longer will need to be phased out.

EMIS started a pilot project a few months ago to GPS and investigate a few bus routes within the metro area. Route optimisation was looked at, as well as school utilisation in the surrounding areas, and a preliminary report was written. This pilot was extended to some rural routes. In conjunction with the Internal Auditors, approximately 10 rural routes have been plotted, the number of learners noted and an investigation on relevant routes done.

If these pilot reports are approved by the SG and the MEC the modus operandi will apply to all existing routes and future applications for starting a new route.
By law the WCED is not bounded to provide learner transport to schools. At present the WCED will continue to transport learners to their nearest school to address short term classroom shortages in a particular area or in rural circumstances were it would not be economically viable to built schools.

It is important to note that as soon it is economical viable to start a school in a lease facilities or on provincial property in a rural setting learner transport should be terminated.

48

7.4.4 Leasing of school buildings

The DTPW is funding the leasing of school buildings. This issue will receive special attention in future to ensure that only buildings that are really necessary are being leased and that the necessity of all leases are be investigated annually as part of determining the GAP. Leases not required any more will then be terminated.

The WCED is experiencing problems with DTPW's management of signed leases. The funding of ad hoc leases or any new lease and the increase of the lease amount per m^2 are creating problems, with the DTPW never having sufficient funds to accommodate new leases or to increase lease amounts so that they are more in line with increased building costs. This matter is very serious as owners are becoming reluctant to sign new leases.

In rural settings it is not always economically viable to build a departmental school or to provide learner transport. In such instances facilities may be leased to address short-term classroom shortages.

7.4.5 Amalgamation

Through the amalgamation of schools, using facilities that are under-utilized, facilities may be made available for ELSEN, ABET or Grade R.

7.4.6 Addressing vandalism

Some vandalism at existing schools may be reduced by phasing out prefabricated school buildings. It is reported by the DTPW that 40% of all repairs to school during scheduled maintenance are repairs to damage caused by acts of vandalism. The Safe School Programme attempts through its efforts to involve the school, parents and community structures (such as community safety, SAPD, churches and the DTPW) to solve this problem.

7.4.7 Improve school management

A co-ordinated programme to improve school management of an under-utilised school may encourage parents to enrol their children at their nearest school and not at schools located further away.

7.4.8 Home Schooling & Private Schooling

Improved incentives for home schooling or private schooling may make spaces available at existing schools

7.4.9 Furniture sizes

Better designed furniture which takes up less space in a classroom may allow more learners to be taught in a classroom Most of the times the provision of such furniture will cost less than adding a classroom to a school. More attention will be given to this aspect in future.

7.4.10 Learning space configurations/ergonomics

The norms and standards of the ex-education departments played a role in determining what size a new classroom should be. The new norms require that 45% more learners be accommodated in a class. With classrooms in excess it may be more cost effective to break out a wall between two smaller classrooms than to add the right-sized classroom.

49

7.5 Standards and Specifications

To date the WCED and WCTPW jointly defined the standards and specifications used in infrastructure development. The WCED is required to inspect and comment on all plans and documents.

7.6 Summary of New Works Programmes and Costs

Project description	Sum of MTEF 2008/9	Sum of MTEF 2009/10	Sum of MTEF 20010/11	Sum of Total available
Capacity (DTPW)	25,000	32,000	42,000	99,000
Classrooms	3,000	2,430	40,000	45,430
Forums	30,000	3,000	30,000	63,000
Full Service School Upgrade	200	0	0	200
Maintenance	225,363	259,973	333,522	818,858
Primary school	90,776	34,487	129,040	254,303
Professional Services	3,500	0	0	3,500
Relocation of mobile classrooms	2,300	1,574	5,000	8,874
Replacement of prefabricated classrooms	29,736	10,264	37,577	77,577
Secondary school	102,921	255,541	146,251	504,713
Special School	21,313	21,836	34,912	78,061
Specialist localities	0	0	25,500	25,500
Westlake-classrooms (blank)	2,000	7,000	3,000	12,000
Basic services upgrade	4,712	2,500	8,000	15,212
Grand Total	**540,821**	**630,605**	**834,802**	**2,006,228**

*The budgets for 2009/10, 2010/11 are indicative
* P: Programme-based budget.

7.7 Disposal Plan

The WCED identifies provincial education property no longer required for education purposes. The WCTPW, as custodian of provincial property, evaluates the property to establish whether other provincial departments can use it. Should this not be the case, the property is disposed of by the WCTPW. Funds obtained in this way should then be made available to the WCED for infrastructure development. To date, no funds have been made available. A list of the properties already returned to DTPW is available.

The same exercise need to be done on property belonging to private developers or municipalities which are no longer needed. DTPW will be informed of such properties so to inform the rightful owners. See enclosed annexure for some properties already returned to the rightful owners.

The WCED is currently involved in a process to identify schools that can be closed and/or amalgamated with other schools. This should make a significant contribution to the availability of funds for capital projects. No estimate of this amount is currently possible. See enclosed annexure for schools that have already been amalgamated and the new use of these buildings.

50

8. FINANCIAL SUMMARY

8.1 Financial statement and projections

The WCED submitted a bid to Provincial to address all backlogs by the end of 2016/17.

Summary of the costed backlogs according to the bid.

ITEM	SHORTAGE	COST PER ITEM	FINANCIAL IMPLICATION
Norms and Standards backlog			**3,418,918,500**
Computer labs	589	270,000	159,030,000
Media rooms	636	391,500	248,994,000
Science labs	26	324,000	8,424,000
Classrooms	1234	224,000	276,416,000
Specialist classrooms	26	324,000	8,424,000
Workshops	12	540,000	6,480,000
Halls	374	2,700,000	1,009,800,000
Halls (leased schools)	450	350,000	157,500,000
Toilette	2498	8,000	19,984,000
Sick rooms	687	40,500	27,823,500
Strong rooms	422	27,000	11,394,000
Duplicating rooms	707	40,500	28,633,500
Storerooms	417	54,000	22,518,000
Staff rooms	343	180,000	61,740,000
Principals' offices	122	67,500	8,235,000
Other offices	367	67,500	24,772,500
Schools	45	29,750,000	1,338,750,000
Condition backlog			**700,000,000**
Water/sewer/electrical reticulation/ safety measures/	500	400,000	200,000,000
Maintenance			500,000,000
Needs backlog			**450,000,000**
Sports facilities/cloakrooms/ablutions	900	500,000	450,000,000
TOTAL			**4,568,918,500**
Data source: EMIS, 2005 Annual Return			

The level of funding required to eradicate this backlog is demonstrated in the table and graph below:

51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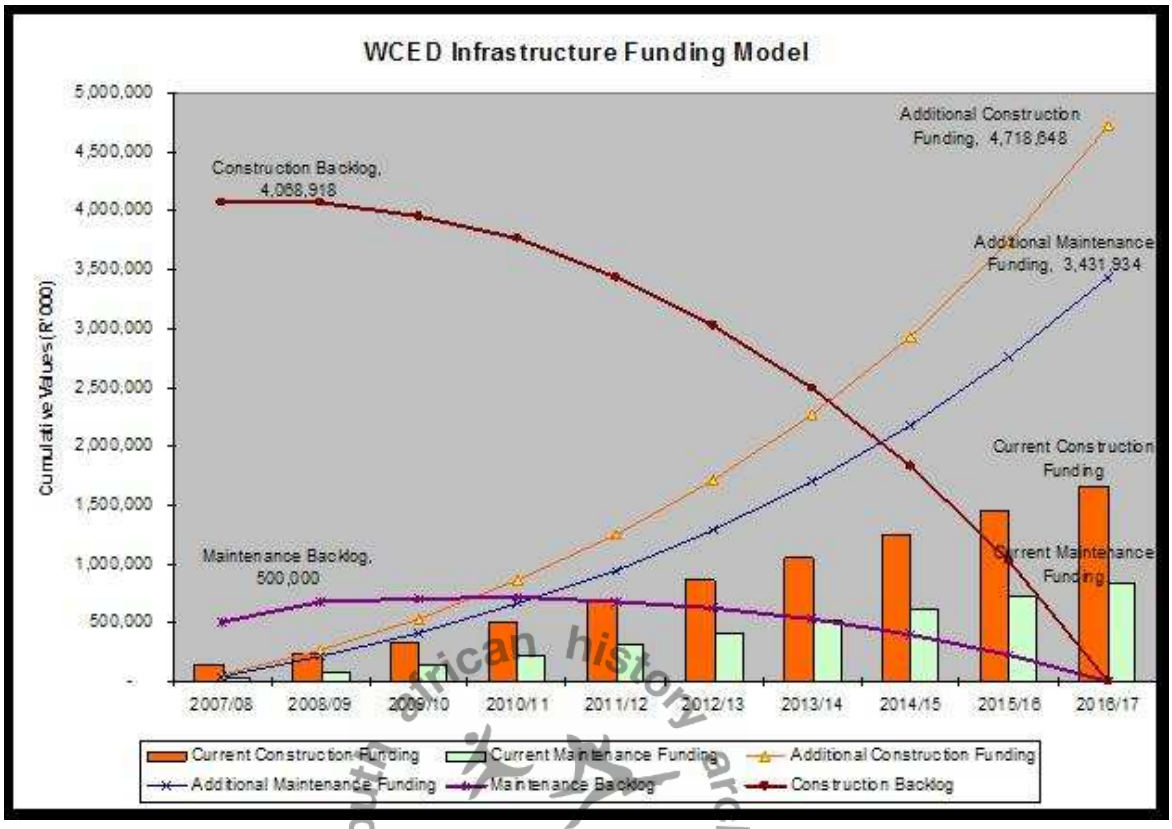
Financial Gap Analysis

Asset growth rate (nominal) 5%

Maintenance Requirement of asset value (buildings) 2%

	R Thousand and nominal value	MTEF			Future							TOTAL
		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	
Current funding level	**Asset Value**	**12,000,000**	**12,747,352**	**13,471,298**	**14,240,060**	**15,121,882**	**16,056,487**	**17,037,822**	**18,077,150**	**19,177,816**	**20,343,356**	**20,343,356**
	Current funding level	**178,038**	**138,941**	**149,916**	**259,819**	**271,511**	**271,511**	**285,087**	**299,341**	**314,308**	**330,023**	**2,498,495**
	New Infrastructure including other capital projects	147,352	86,578	95,197	169,819	178,511	178,511	187,437	196,808	206,649	216,981	**1,663,843**
	Upgrading											**0**
	Maintenance	30,686	52,363	54,719	90,000	93,000	93,000	97,650	102,533	107,659	113,042	**834,652**
	Maintenance Backlog	500,000	709,314	911,898	1,126,605	1,321,406	1,530,844	1,758,974	2,002,080	2,261,091	2,536,987	**2,536,987**
	Maint Funding Req. (1)	240,000	254,947	269,426	284,801	302,438	321,130	340,756	361,543	383,556	406,867	**3,165,464**
		MTEF			Future							TOTAL
Increased funding level	**Asset Value**	**0**	**49,000**	**272,450**	**552,083**	**899,874**	**1,330,266**	**1,860,669**	**2,512,071**	**3,309,765**	**4,284,225**	**4,284,225**
	Gap from Business Case:	**88,230**	**401,880**	**480,689**	**574,983**	**687,809**	**822,815**	**984,372**	**1,177,709**	**1,409,091**	**1,686,016**	**8,313,594**
	New Infrastructure including other capital projects (3)	49,000	221,000	266,010	320,187	385,398	463,890	558,369	672,090	808,972	973,732	**4,718,648**
	Upgrading											**0**
	Maintenance	37,500	173,000	205,254	243,522	288,924	342,791	406,701	482,527	572,489	679,225	**3,431,934**
	Maintenance Backlog	0	-37,500	-209,520	-409,325	-641,805	-912,732	-1,228,918	-1,598,407	-2,030,693	-2,536,987	**-2,536,987**
	Maint Funding Req. (1)	0	980	5,449	11,042	17,997	26,605	37,213	50,241	66,195	85,685	**301,407**
	Implementing Agency Fee (2)	1,730	7,880	9,425	11,274	13,486	16,134	19,301	23,092	27,629	33,059	**163,012**
		MTEF			Future							TOTAL
Combined	**Asset Value**	**12,000,000**	**12,796,352**	**13,743,748**	**14,792,143**	**16,021,756**	**17,386,753**	**18,898,491**	**20,589,221**	**22,487,581**	**24,627,581**	**24,627,581**
	Total Funding:	**266,268**	**540,821**	**630,605**	**834,802**	**959,320**	**1,094,326**	**1,269,458**	**1,477,050**	**1,723,399**	**2,016,039**	**10,812,088**
	New Infrastructure including other capital projects	196,352	307,578	361,207	490,006	563,909	642,401	745,806	868,898	1,015,621	1,190,713	**6,382,491**
	Upgrading	0	0	0	0	0	0	0	0	0	0	**0**
	Maintenance	68,186	225,363	259,973	333,522	381,924	435,791	504,351	585,059	680,149	792,267	**4,266,586**
	Maintenance Backlog	500,000	671,814	702,378	717,280	679,601	618,112	530,056	403,673	230,398	0	**0**
	Maint Funding Req. (1)	240,000	255,927	274,875	295,843	320,435	347,735	377,969	411,784	449,751	492,552	**3,466,871**
	Construction Backlog	4,068,918	4,066,194	3,946,547	3,764,607	3,438,331	3,018,143	2,494,529	1,836,160	1,015,625	0	**0**
	Implementing Agency Fee (2)	1,730	7,880	9,425	11,274	13,486	16,134	19,301	23,092	27,629	33,059	**163,012**

Notes
(1) Excluding addressing backlogs, only based on asset value
(2) 2% Fee for operational budget of Implementing Agency
(3) Entails construction of additional 5 schools, continued planning of 6 schools and purchase of mobile classrooms



The identified needs that are discussed in the 2008/9 Infrastructure Plan are based on the above table. See the appendices for the individual projects. Below is a summary of the individual projects.

Summary of projects

	2008/09*	2009/10*	2010/11*	TOTAL MTEF PERIOD 2008/9 TO 2009/10
Equitable share	97,836	100,845	102,478	**301,159**
Basic Services	4,712	2,500	8,000	**15,212**
Relocation of mobiles	2,300	1,574	5,000	**8,874**
Provincial Infrastructure Grant	100,993	249,482	252,725	**603,200**
Disadvantage communities	54,617	2,801	0	**57,418**
Forums	30,000	3,000	30,000	**63,000**
Specialist facilities			25,500	**25,500**
Additional classrooms	3,000	2,430	40,000	**45,430**
Replacement of prefabricated classrooms	22,000	8,000	37,577	**67,577**
Maintenance	225,363	259,973	333,522	**818,858**
GRAND TOTAL	**540,821**	**630,605**	**834,802**	**2,006,228**

54

The two main sources of funding are

- conditional grants and
- equitable funding

as appropriated by Provincial Treasury.

With the above in mind and taking cognisance of the fact that the above-mentioned budget bids for infrastructure are much higher than appropriated in the past, thought was given to other funding strategies that would enhance any funds Provincial Treasury may appropriate for infrastructure.

8.2 Funding Strategy

8.2.1 Donations

The WCED registered an “Article 21” company and appointed the necessary staff to seek donations for infrastructure purposes. At present R15,00m has been donated by PetroSA for the building of a school in Vredenburg. Other donors are the Ackerman Foundation (Pick ‘n Pay) for building the first phase of the new Westlake Primary School.

SGB contributions to infrastructure development at their schools may be seen as a donation to the province, as such improvements becomes part and parcel of the asset register of the province.

8.2.2 PPPs

Personnel of the Provincial Treasury, the WCED and DTPW visited the United Kingdom to attend a conference on PPPs. The matter of using the PPP principle to address the classroom and maintenance backlogs was eagerly recommended persuade by members of the delegation and the Head of Education. A proposal is being drafted at present.

This matter, which would bear results only in the medium term if approved, will be reported on in future Infrastructure Plans.

8.2.3 Sale of properties not required by the WCED.

School property no longer needed by the WCED is being returned to the Department of Transport and Public Works to be sold. At present it is approved that schools returning portions of their school sites may use a percentage of the income on infrastructure projects at their school. A portion will also be used by the WCED to address backlogs.

The province itself is, however, not sure whether to sell such property or to negotiate leases with interested parties over a prolonged period. According to knowledgeable people the province will have an continues income over this

55

period. The way in which the WCED would benefit from such a system is at present still not clear.

8.2.4 World Bank

The National Department of Education is at present working together with the World Bank to develop a strategy proposal how to address the infrastructure backlogs in various provincial education departments. No further detail is currently available.

8.3 Performance targets with anticipated MTEF Budget 2008/9 – 2010/11

ANALYSIS OF THE INFRASTRUCTURE BACKLOGS - BID TO PROVINCIAL TREASURY				
Item	**Backlogs**	**Cost per item**	**Financial implication**	**Performance targets**
Computer labs	**589**	270,000	159,030,000	**0**
Media rooms	**636**	391,500	248,994,000	**0**
Science labs	**26**	324,000	8,424,000	**57**
Workshops	**12**	540,000	6,480,000	
Specialist classrooms	**26**	324,000	8,424,000	
Classrooms	**1234**	224,000	276,416,000	**404**
Halls	**374**	2,700,000	1,009,800,000	**22**
Halls (leased schools)	**450**	350000	157,500,000	
Toilets	**2498**	8,000	19,984,000	**304**
Water, sewer, electrical reticulation, safety measures	**500**	400,000	200,000,000	
Sick rooms	**687**	40,500	27,823,500	**0**
Strong rooms	**422**	27,000	11,394,000	**0**
Duplicating rooms	**707**	40,500	28,633,500	**0**
Storerooms	**417**	54,000	22,518,000	**0**
Staff rooms	**343**	180,000	61,740,000	**0**
Principals' offices	**122**	67,500	8,235,000	**0**
Other offices	**367**	67,500	24,772,500	**0**
Schools	**45**	29,750,000	1,338,750,000	**40**
Maintenance			500,000,000	**818,858**
Sports facilities, cloakrooms, ablution facilities	**900**	500,000	450,000,000	**0**
TOTAL			**4,568,918,500**	**2,006,228**

56

8.4 Valuation Forecasts

Such function is the responsibility of the WCTPW.

The WCTPW to provide the WCED with the annual asset value figure to be used in preparation of the following financial year's Annual Performance Plan.

8.5 Key Assumption Made in Financial Forecasts

This 2008/9 Infrastructure plan reflects the indicative budgets used in the bid to Provincial Treasury. The cash flow for each project has been calculated in the given tables. At present there are no guarantees that the 2008/9, 2009/2010 and 2010/11 budget allocations would allow for the tendering of the following projects during 2007/8 or 2008/9:

- Zwelihle Primary School
- Nomzamo Primary School
- Avian Park Primary School
- Wallacedene Secondary School
- Grabouw Secondary School
- Boystown Secondary School
- Gansbaai Secondary School
- Tafelberg School (LSEN)

Planning of the projects identified in the 2008/9 Infrastructure plan is dependant on the availability of those school sites identified in the 2007/8 Infrastructure Plan.

Fluctuating budgets from year to year jeopardise proper planning and advertising of projects. This aspect will need more attention in future if the IDIP programme is to be successful.

Estimates of project cost can change rapidly in the short term as the state of the Building and construction industry plays a major role in these estimates.

In summary, the key assumptions and points to note with respect to the financial forecasts are as follows:

- The funding required will be made available.
- Current asset value = R12 billion, with a 5% annual growth
- Annual maintenance requirements calculated at 2% of asset value
- Unit construction costs at present day values, escalated at 5% per annum
- No provision made for funding (viz R437,6 million) the additional classrooms required to accommodate the 68 375 growth in future learner numbers
- No provision made for funding (viz R204,3 million) the additional 912 classrooms required to accommodate the Grade R enrolment by 2010

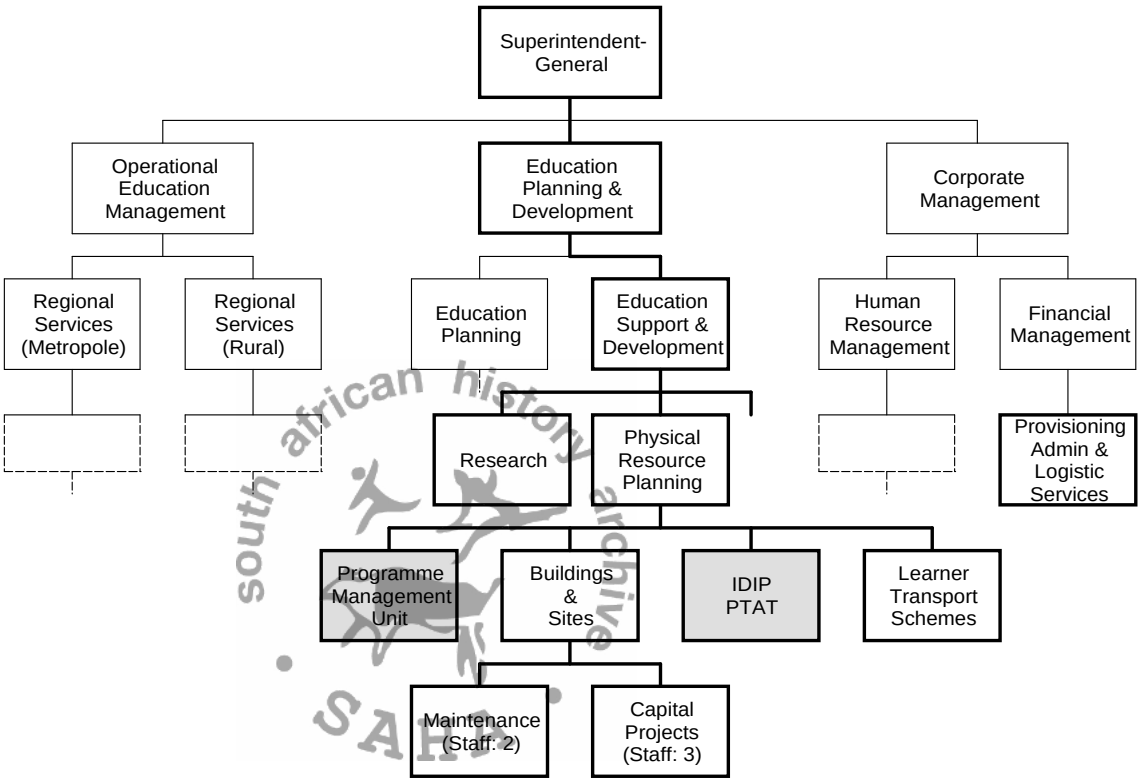
57

9. OPERATIONAL AND SUPPORT PLAN

9.1 Organisational

9.1.1 Organisational Structure

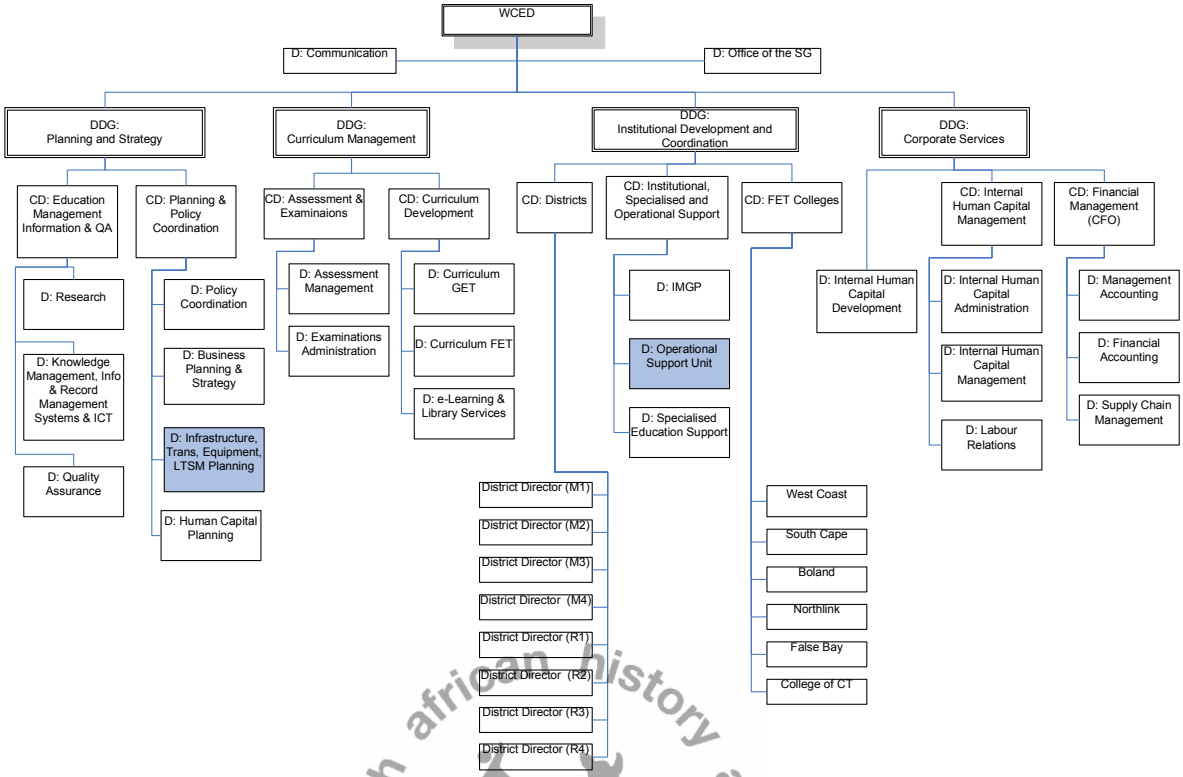
At present, the following organisational structure, is still in place in the WCED.



Both infrastructure planning and the implementation of infrastructure programmes and projects are currently located in the Directorate: Physical Resources Planning.

The WCED's organisational re-design/re-engineering process has made significant progress over the past year. The new macro structure, which has been approved by Cabinet, is as follows:

58



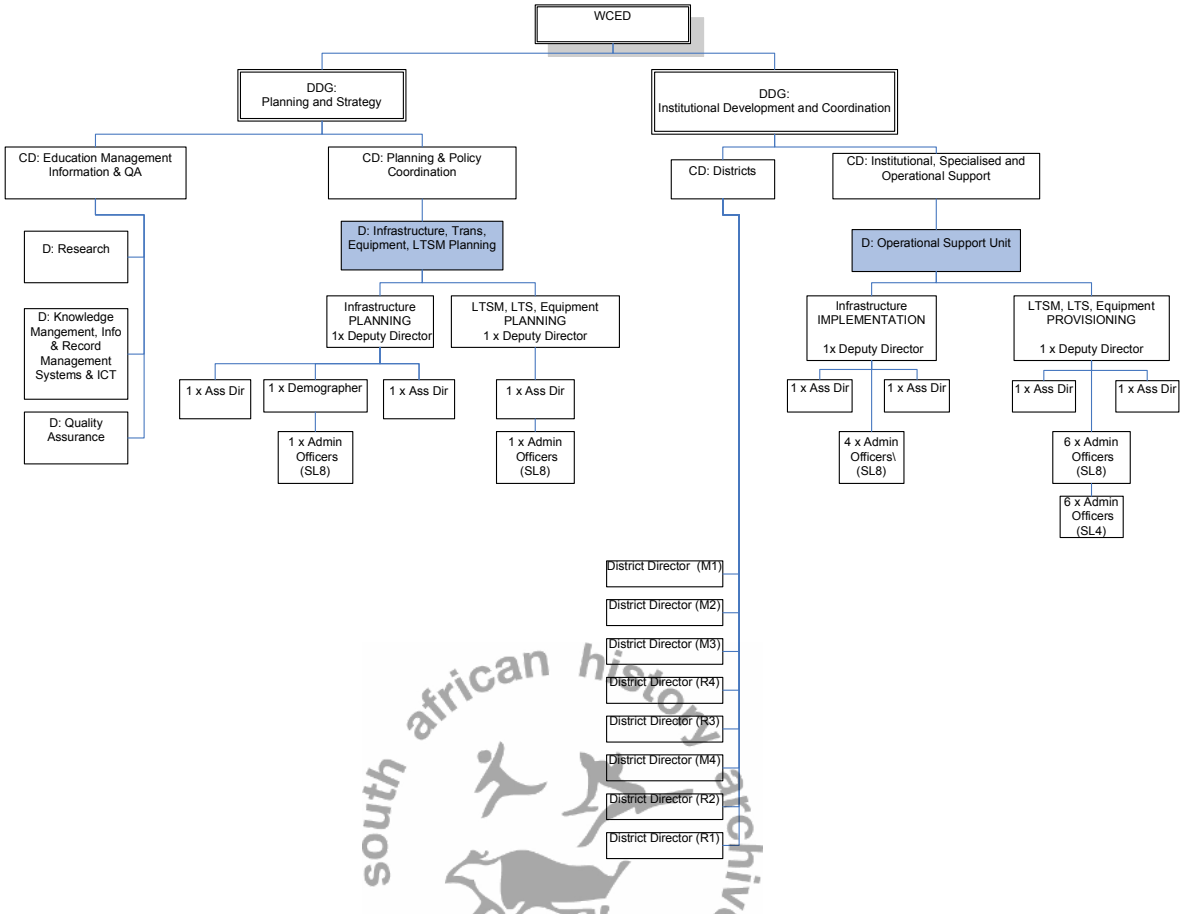
It is important to note that this new structure entails the separation of the Infrastructure Planning function and the Infrastructure Implementation function as follows:

Function	Branch (headed by DDG)	Directorate
Infrastructure Planning	Planning and Strategy	Infrastructure, Transport, Equipment and LTSM Planning
Managing the implementation of infrastructure programmes & projects	Institutional Development and Co-ordination	Operational Support Unit

The above two Directors have been appointed and will take office on 1 October 2007.

The new micro structure is in the process of being finalized for approval by Cabinet, and is anticipated to be as follows:

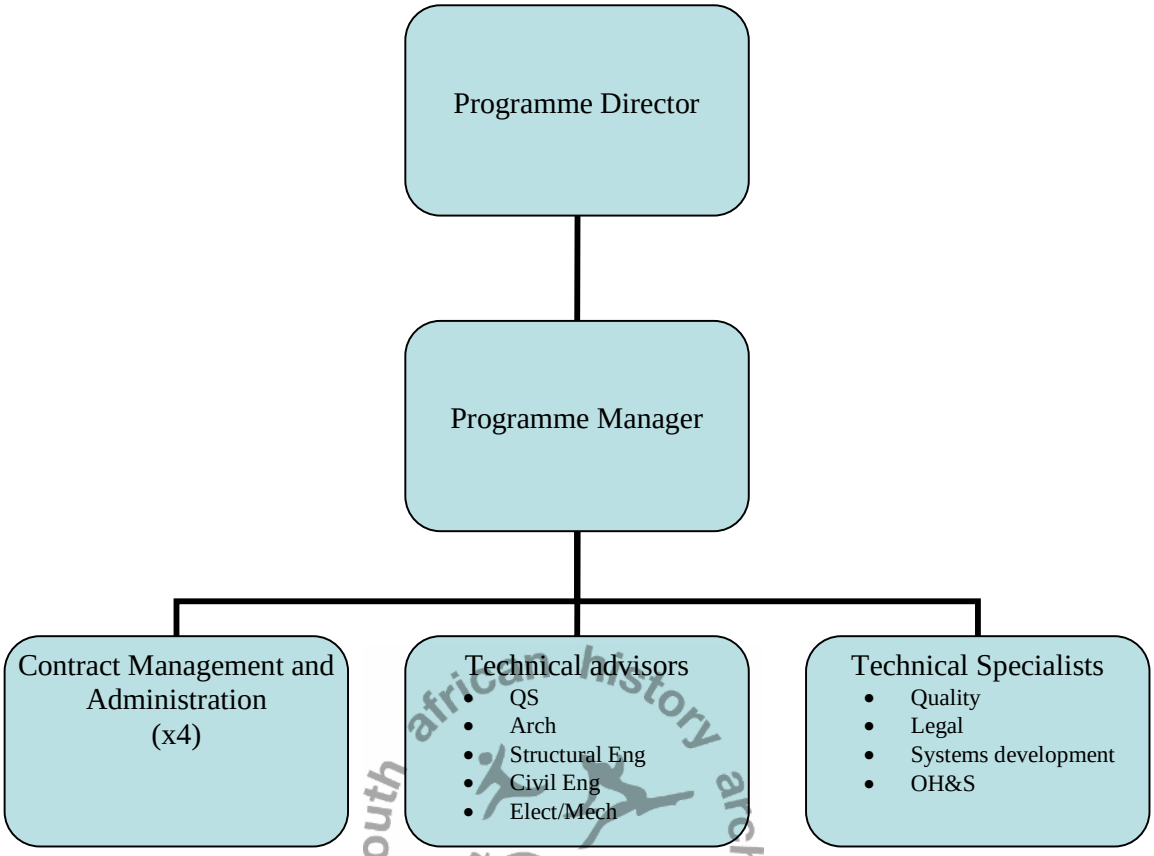
59



The newly appointed Directors will be responsible for managing the process of putting the new micro structures in place, and for the proper resourcing thereof. Any changes to current work processes and functions, and relocation of staff will need to be carefully managed to ensure minimal interruption and impact on the management of infrastructure planning and delivery in the province.

The Programme Management Unit (PMU) will continue providing support as an implementing and project monitoring agent until the termination of its contact in July 2008. The PMU will function under the management of the Directorate: Operational Support Unit and comprises of the following:

60



The contract of the Provincial Technical Assistance Team (PTAT) was extended to June 2008.

The IDIP's Provincial Technical Assistance Team (PTAT) will be required to provide ongoing support to both the Planning and Operational Support Directorates and will hence be require tooperate across both directorates.

9.1.2 Departmental Roles and Responsibilities

Although the exact roles and responsibilities of the two new Directorates in the Department have yet to be finalised, the following table summarises what is anticipated:

Directorate: Infrastructure, Transport, Equipment and LTSM Planning	
Roles and responsibilities	➢ Set Norms & Standards and obtain approval ➢ Determine and confirm future resource and infrastructure needs, current supply and gaps ➢ Investigate alternative solutions and options

61

	➢ Develop Resource and Infrastructure Plans and obtain MEC/SG/PM approval ➢ Do cost estimating, budgeting and prioritisation ➢ Monitor the performance of Directorate Operational Support and EMDCs ➢ Manage integrated change control at macro planning level ➢ Coordinate Infrastructure and Resourcing requirements ➢ Obtain approval for priority lists

Directorate: Operational Support Unt	
Roles and responsibilities	➢ Assist Directorate Physical Infrastructure Planning with cost estimating and budgeting ➢ Compile 5-yr Infrastructure Programme Management Plan (IPMP) ➢ Plan, manage and coordinate the execution of approved infrastructure programmes (incl. scheduled maintenance) ➢ Facilitate the delivery of learner transport, equipment & LTSM projects & programmes driven by districts (including ECD & AET centres) and FET colleges ➢ Contract with Implementing Agents and administer the various SDAs ➢ Monitor the performance of Implementing Agents ➢ Monitor overall Programme budgets and timelines ➢ Develop & maintain centralised Programme Management Information System ➢ Develop and institutionalise best practices, standardised processes & procedures, software applications, tools etc. ➢ Carry out programme evaluations, monitoring and consolidated reporting ➢ Manage integrated change control at programme level ➢ Provide technical support to the Directorate's programme teams and the EMDCs (built environ expertise, legal, systems development, Quality, OH&S etc.) ➢ Coordinate land use processes in consultation with DTPW ➢ Negotiate & conclude Lease Agreements at Public Schools on Private Property

62

9.2 Human Resources Required to Support Delivery of the Infrastructure Plan

9.2.1 Current personnel

The number of personnel in the Directorate: Physical Resources Planning currently stands at 24. The functions are described below, and demonstrates the current insufficient capacity within the Directorate: Physical Resources Planning.

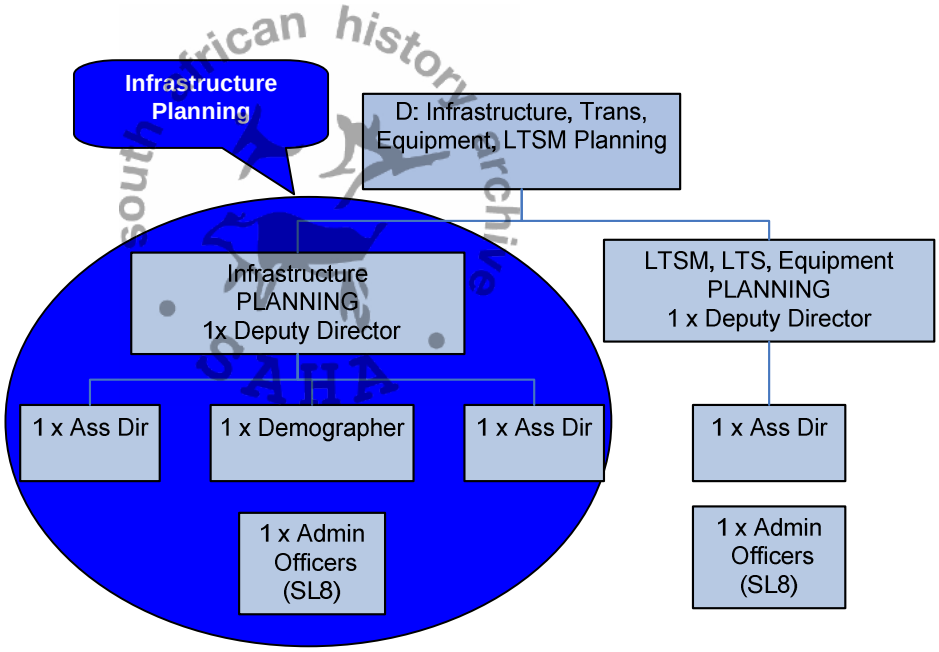
- Director and secretary
- Preparation of annual Infrastructure Budget, project budgets, monitoring of cash flows, performance issues (quarterly reports and annual APP issues), quarterly Dora report, new accommodation schedules according to curriculum needs of communities and schools, updating of annual infrastructure plan, and Infrastructure Programme Management Plan - 1 planner and no administrative official
- Managing Property and lease issues – 1 planner and 1 administrative official
- Managing Capital projects – 2 responsible for construction projects and 3 administrative personnel
- Managing Scheduled maintenance - 2 planners and 2 administrative personnel (also involved with emergency maintenance)
- Managing Emergency maintenance – 1 planner and 3 official responsible for all payments to contractors, but also all transfer payments to SGBs
- Administering the Learner transport Scheme – 3 permanent administration officials and 3 temporary

63

9.2.2 New structure

Directorate: Infrastructure, Transport, Equipment and LTSM Planning Personnel
(as per latest charts)

- 1 x Director
- 1 x PA
- 2 x Deputy Directors
- 3 x Assistant Directors
- 1 x Demographer
- 2 x Admin Officers



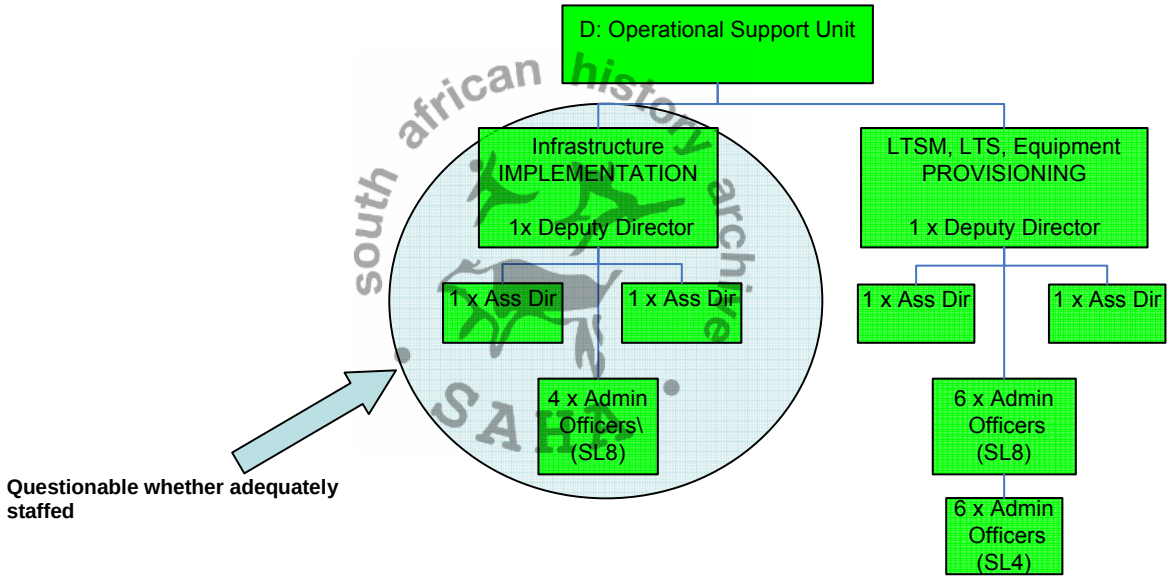
Skills required

- Demography, Statistics/ Quantitative management
- Strategic infrastructure planning
- Town planning
- Education
- Budgeting and financing
- Technical (built environment)
- Local knowledge

64

Directorate: Operational Support Personnel (as per latest charts)

- 1 x Director
- 1 x PA
- 2 x Deputy Directors
- 4 x Assistant Directors
- 10 x Admin Officers (SL8)
- 6 x Admin Officers (SL4)



Skills required

- Programme Management
- Project management and project administration
- Budgeting and finance management
- Control management
- Monitoring, evaluation and reporting
- Built environment expertise (architecture, engineering, quantity surveying, project management)
- Education

65

9.3 Financial

9.3.1 Implications of the PMU

The cost of the PMU is R14million over a 26-month period. The PMU is funded through the Equity share budget..

9.4 Systems and Processes

9.4.1 Accounting and Financial Systems

The WCED uses the BAS system, and it is not foreseen that the implementation of this Infrastructure Plan will necessitate changes. Certain additional codes might be required to enable proper allocation of costs, but these are not considered problematic.

9.4.2 Infrastructure Management Systems

The EMIS, which is not an Infrastructure Management System, is the only such system currently available within the WCED. The availability of the NEIMS are eagerly awaited.

The WCTPW is currently responsible for the controlling and updating of the asset register.

9.4.3 Information Flow Requirements and Processes

The key information flow to the Infrastructure Plan, particularly in relation to need analysis, should be from the EMIS, EMDCs and NEIMS. The redesigned Planning and OPS branch will need to improved co-ordination with other directorates within the WCED to obtain necessary data and information for evaluation and collating.

The information and data is used to identify needs, which are then placed on a list of needs. While a recognised and approved project prioritisation or ranking system is still not in place, the current system as describe on page….is being applied. The PTAT's were tasked to developed such a system. It is anticipated that the new system will be used to determine needs for inclusion in the 2009/10 Infrastructure Plan.

The current systems and procedures do not take risks or lifecycle cost into consideration, except for subjective decision-making.

66

10. PLAN IMPROVEMENT AND MONITORING

This section provides provisional details on the planned monitoring of the performance of this plan and any improvements to systems and procedures that will improve the level of confidence in the plan.

10.1 Performance Measures

The performance of the organisational support to the Infrastructure Plan will be measured by the reduction in classroom shortages, quality of planning, expenditure patterns and standard of reporting.

The effectiveness of the organisational support to the Infrastructure Plan can be measured in a number of ways. This includes, but is not limited to the following:

- Timeous submission of the Infrastructure Plan;
- Approval of the Infrastructure Plan;
- Expenditure patterns;
- Delivery of infrastructure, as far as the Directorate: Physical Resources Planning can be held accountable for delivery;
- Submission of acceptable reports to provincial and national departments.

10.2 Improvement Programme

The WCED admits that this Infrastructure Plan still have shortcomings and inaccuracies that will be addressed in later revisions and in subsequent financial years. The WCED has limited experience in and capacity to prepare plans of this nature. The following aspects of the Infrastructure Plan will receive additional attention in preparing future plans:

- Project prioritisation;
- Funding allocation to individual projects;
- Cash flow projections;
- Maintenance budgeting.
- Monitoring of the planning and implementation processes.

The availability of the objective project prioritisation system by the PTAT's are eagerly awaited. Likewise, availability of expenditure records and information should assist in preparing improved maintenance budgets.

In addition to the staff resources required to improve the Infrastructure Plan, policy decisions on ranking of projects, priority areas, targets, etc will be required.

67

10.3 Monitoring and Review Procedures

The performance of this plan should be evaluated on an annual basis. The quality of the project list and cash flows should be evaluated on a continuous basis to ensure the integrity of the Infrastructure Plan.

External auditing and evaluation of the performance of the Infrastructure Plan should be undertaken on a regular basis. It should be expected that the quality of the Infrastructure Plan should improve significantly over the next three years as availability of data and information as well as management systems are put in place or improved.

68