



DIRECTORATE : CIVIL & TECHNICAL SERVICES STRATEGIC PRIORITIES



Councillor: P Grobler



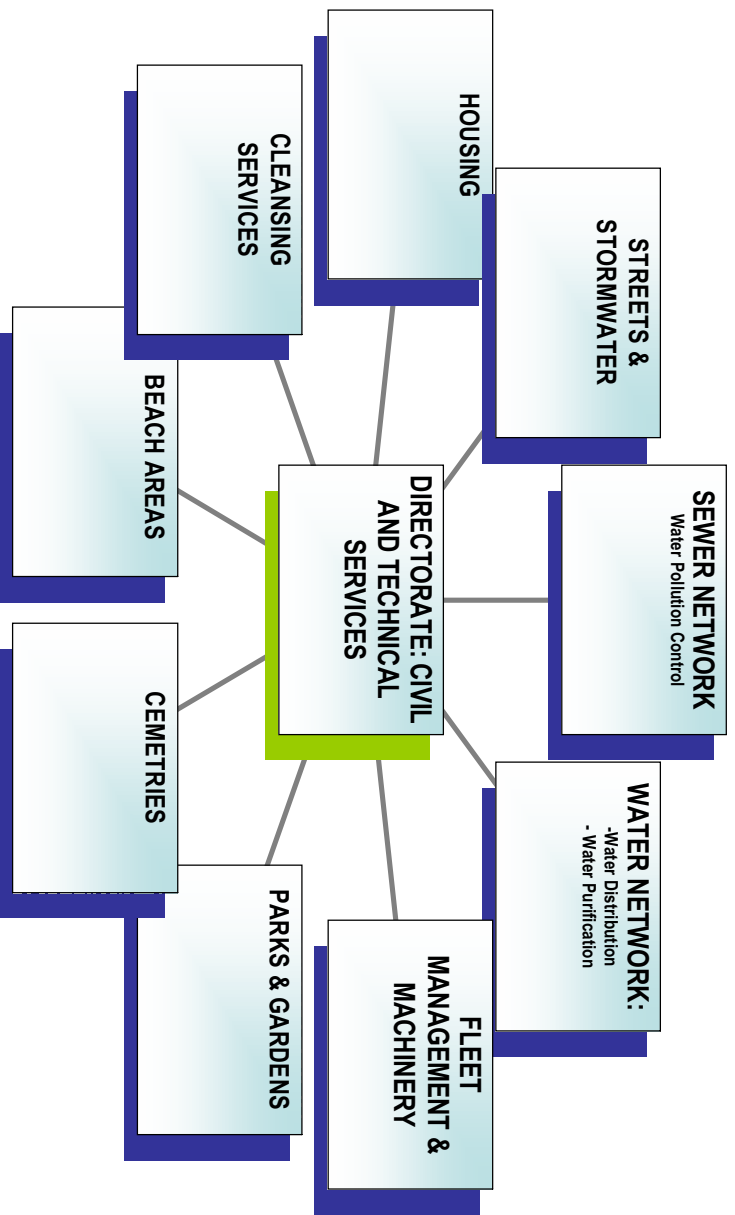
Director: B Steyn

INTRODUCTION:

This directorate is responsible for the provision and maintenance of streets, storm water drainage, water distribution, water purification, sewer network, sewage purification, parks and recreation and cleansing

MISSION STATEMENT:

- To provide adequate and efficient infrastructure and service delivery to all the people within the George Municipal, in the following key areas:



**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	

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STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	

STREETS & BRIDGES						
Upgrading of Roads						
<p>Langenhoven/Davidson: Alleviate traffic congestion and increase road capacity</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Engineering design EIA process Approvals by road authorities <p>Budget: R3,150, 000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> This will primarily be beneficial to the greater Pacaltsdorp community, the surrounding industrial areas, as well the George community. 	<ul style="list-style-type: none"> Completion of Design EIA Approval Ask for tenders Tender Adjudication Start with construction Monitoring of construction activities <p>R0</p> <ul style="list-style-type: none"> Pacaltsdorp community, the surrounding industrial areas, as well the George community. 	<ul style="list-style-type: none"> Construction Monitoring of construction activities <p>R4,500,000</p> <ul style="list-style-type: none"> Pacaltsdorp community, the surrounding industrial areas, as well the George community. 	<ul style="list-style-type: none"> Construction Monitoring of construction activities Completion of construction <p>R9,500,0000</p> <ul style="list-style-type: none"> Pacaltsdorp community, the surrounding industrial areas, as well the George community. 		R42 050 000
<p>Ugrading of the Network: Upgrading existing road network and providing new main roads as required for new extensions of George</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process and Roads Master Plan Preliminary design EIA process Approvals by road authorities Engineering design Ask for tenders Tender Adjudication <p>Budget: R1,325,000 Finance will be mainly provided by new developments</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> The greater George community 	<ul style="list-style-type: none"> Engineering design Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R6,000,000 Finance will be mainly provided by new developments</p> <ul style="list-style-type: none"> The greater George community 	<ul style="list-style-type: none"> Engineering design Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R15,000,000 Finance will be mainly provided by new developments</p> <ul style="list-style-type: none"> The greater George community 	<ul style="list-style-type: none"> Engineering design Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R18,000,000 Finance will be mainly provided by new developments</p> <ul style="list-style-type: none"> The greater George community 	<ul style="list-style-type: none"> Engineering design Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Finance will be mainly provided by new developments</p> <ul style="list-style-type: none"> The greater George community 	R51 900 000

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	2006/07	2007/08	2008/09	2009/10	2010/11	
<p>Retarring & re-building of streets</p> <ul style="list-style-type: none"> Improving the conditions of the existing roads George 	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process and Roads Master Plan <p>Budget R6,200,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> The greater George area more in particular the previously disadvantage communities 	<ul style="list-style-type: none"> The greater George area more in particular the previously disadvantage communities 	<ul style="list-style-type: none"> The greater George area more in particular the previously disadvantage communities 	<ul style="list-style-type: none"> The greater George area more in particular the previously disadvantage communities and greater George community 		R16 500 000
<p>Public Works Program:</p> <ul style="list-style-type: none"> To create jobs and to eradicate gravel roads and sidewalks 	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Prioritization Engineering design Tender process to appoint unemployed people. <p>Timeframe:</p> <ul style="list-style-type: none"> Tenders are being invited on an annual basis This is an ongoing process <p>Budget: R5,000,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> Unemployed and previously disadvantage individuals in all the suburbs of George 	<ul style="list-style-type: none"> Priorotization Engineering design Tender process to appoint unemployed people <ul style="list-style-type: none"> Tenders are being invited on an annual basis This is an ongoing process <ul style="list-style-type: none"> Unemployed and previously disadvantage individuals in all the suburbs of George 	<ul style="list-style-type: none"> Priorotization Engineering design Tender process to appoint unemployed people <ul style="list-style-type: none"> Tenders are being invited on an annual basis This is an ongoing process <ul style="list-style-type: none"> Unemployed and previously disadvantage individuals in all the suburbs of George 	<ul style="list-style-type: none"> Priorotization Engineering design Tender process to appoint unemployed people <ul style="list-style-type: none"> Tenders are being invited on an annual basis This is an ongoing process <ul style="list-style-type: none"> Unemployed and previously disadvantage individuals in all the suburbs of George 	<ul style="list-style-type: none"> Priorotization Engineering design Tender process to appoint unemployed people <ul style="list-style-type: none"> Tenders are being invited on an annual basis This is an ongoing process <ul style="list-style-type: none"> Unemployed and previously disadvantage individuals in all the suburbs of George 	R45 000 000

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	2006/07	2007/08	2008/09	2009/10	2010/11	
<p>Union/Hope Street: Improving road access from George CDB to industrial area and further south to Pacaltsdorp</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Monitoring of construction activities Completion of Phase 2 construction <p>Budget: R11,000,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> This will benefit the communities of George, Pacaltsdorp and the industrial area 	<ul style="list-style-type: none"> Engineering design Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R12,500,000</p> <ul style="list-style-type: none"> This will benefit the communities of George, Pacaltsdorp and the industrial area 	<ul style="list-style-type: none"> Construction Monitoring of construction activities Completion of construction <p>R11,000,000</p> <ul style="list-style-type: none"> This will benefit the communities of George, Pacaltsdorp and the industrial area 			R34 500 000
<p>Beach Rd: Alleviate traffic congestion Improve road access to Pacaltsdorp and new suburbs south of Pacaltsdorp</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Completion of construction of Phase 2 <p>Budget : R6,300,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> Beneficial to the greater Pacaltsdorp community and other road users 	<ul style="list-style-type: none"> Engineering design Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R 0</p> <ul style="list-style-type: none"> Beneficial to the greater Pacaltsdorp community and other road users 	<ul style="list-style-type: none"> Construction Monitoring of construction activities Completion of construction <p>R 0</p> <ul style="list-style-type: none"> Beneficial to the greater Pacaltsdorp community and other road users 			R6 300 000

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<p>Traffic Studies: To ensure that the road infrastructure accommodate future traffic growth for George</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Evaluate traffic engineering issues in cooperation with Consulting Engineers and the Traffic Department. Ongoing process as required <p>Budget: Incorporated in Masterplan To be determined</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> Beneficial to the greater George community 	<ul style="list-style-type: none"> Evaluate traffic engineering issues in cooperation with Consulting Engineers and the Traffic Department. Ongoing process as required Beneficial to the greater George community 	<ul style="list-style-type: none"> Evaluate traffic engineering issues in cooperation with Consulting Engineers and the Traffic Department. Ongoing process as required Beneficial to the greater George community 	<ul style="list-style-type: none"> Evaluate traffic engineering issues in cooperation with Consulting Engineers and the Traffic Department. Ongoing process as required Beneficial to the greater George community 	<ul style="list-style-type: none"> Evaluate traffic engineering issues in cooperation with Consulting Engineers and the Traffic Department. Ongoing process as required Beneficial to the greater George community 	
<p>Sandkraal Mobility Strategy: To increase/improve mobility of Sandkraal corridor</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Completion of Design EIA Approval Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Budget : R9,625,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> The communities of Themba lethu, Conville, Borchards, Parkdene , the surrounding industrial areas and the greater George 	<ul style="list-style-type: none"> Construction Monitoring of construction activities R19,320,000 The communities of Themba lethu, Conville, Borchards, Parkdene , the surrounding industrial areas and the greater George 	<ul style="list-style-type: none"> Construction Monitoring of construction activities Completion of construction R12,050,000 The communities of Themba lethu, Conville, Borchards, Parkdene , the surrounding industrial areas and the greater George 	<ul style="list-style-type: none"> R 5,150,000 	<ul style="list-style-type: none"> R 4,320,000 	<ul style="list-style-type: none"> R40 465 000

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STREETS & BRIDGES: TOTAL BUDGET	• R79,535,000	• R100,749,811	• R101,482,509	• R82,008,949		
STREETS & STORMWATER						
Operational Budget To maintain a functional street network	Methodology: <ul style="list-style-type: none"> Alignment with IDP process By implementing set maintenance an upgrading programs Timeframe: <ul style="list-style-type: none"> Ongoing Budget: R50,000,000	<ul style="list-style-type: none"> By implementing set maintenance an upgrading programs <ul style="list-style-type: none"> Ongoing R55,000,000 <ul style="list-style-type: none"> All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance an upgrading programs <ul style="list-style-type: none"> Ongoing R60,000,000 <ul style="list-style-type: none"> All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance an upgrading programs <ul style="list-style-type: none"> Ongoing R65,000,000 <ul style="list-style-type: none"> All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance an upgrading programs <ul style="list-style-type: none"> Ongoing R70,000,000 <ul style="list-style-type: none"> All people in the George municipal area 	R300 000 000
Speedhumps To provide traffic calming measures in streets where required subject to Traffic investigations and the warrant thereof <u>I</u>	Methodology: <ul style="list-style-type: none"> Alignment with IDP process Consulting Engineers together with the George Municipality to conduct investigations Timeframe: <ul style="list-style-type: none"> Ongoing Budget: R250,000	Methodology: <ul style="list-style-type: none"> Alignment with IDP process Consulting Engineers together with the George Municipality to conduct investigations Timeframe: <ul style="list-style-type: none"> Ongoing Budget: R250,000	Methodology: <ul style="list-style-type: none"> Alignment with IDP process Consulting Engineers together with the George Municipality to conduct investigations Timeframe: <ul style="list-style-type: none"> Ongoing Budget: R500,000	Methodology: <ul style="list-style-type: none"> Alignment with IDP process Consulting Engineers together with the George Municipality to conduct investigations Timeframe: <ul style="list-style-type: none"> Ongoing Budget: R500,000		

<p><u>Borchards Stormwater Problems</u> To address the problems pertaining to stormwater in Borchards</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process By implementing set maintenance and upgrading programs <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing <p>Budget:</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> All people in the Borchards 	<p>R150,000</p>	<p>R150,000</p>			
<p><u>Paving Projects: Central Business District Street Crossings</u></p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Tender processes in line with Supply Chain Management Policy <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing <p>Budget: R2,500,000</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Tender processes in line with Supply Chain Management Policy <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing <p>R1,300,000</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Tender processes in line with Supply Chain Management Policy <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing 	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Tender processes in line with Supply Chain Management Policy <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing 		

SEWER NETWORK

<p><u>Operational Budget</u> To maintain an effective and functional water bound sewer system</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process By implementing set maintenance and upgrading programs <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing <p>Budget: R9,300,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance and upgrading programs <p>Ongoing</p> <p>R10,500,000</p> <ul style="list-style-type: none"> All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance and upgrading programs <p>Ongoing</p> <p>R11,000,000</p> <ul style="list-style-type: none"> All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance and upgrading programs <p>Ongoing</p> <p>R12,000,000</p> <ul style="list-style-type: none"> All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance and upgrading programs <p>Ongoing</p> <p>R12,000,000</p> <ul style="list-style-type: none"> All people in the George municipal area 	<p>R54 800 000</p>
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Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
<p><u>Kraaibosch/Vic Bay:</u> To construct a new waste water network for this area that did not have this service in the past</p>	<p>Methodology:</p> <ul style="list-style-type: none"> No Planned expenditure in this financial year. 	<ul style="list-style-type: none"> Alignment with IDP process Tender Adjudication Construction Monitoring of construction activities Completion of construction Budget:R7,000,000 The immediate residents in this area will benefit. 				R7 000 000
<p><u>Upgrading of the Purification Capacity: Gwaaiing :</u> To upgrade the existing purification works to keep up with the demand of the expanding George.</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process and Sewer Master Plans Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Budget: R8,000,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> Beneficial to all within the George Municipal area 	R 27,000,000	R2,650,000	R15,000,000		R48 000 000

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Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
<p>General Upgrading To upgrade the waste water network to enable to keep up with the higher demands from new developments</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process and Sewer Master Plans Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Budget: R1,500,000</p> <p>Beneficiaries: Beneficial to all within the George Municipal area</p>	<ul style="list-style-type: none"> Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R1,000,000</p> <ul style="list-style-type: none"> Beneficial to all within The George Municipal area 	<ul style="list-style-type: none"> Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R1,000,000</p> <ul style="list-style-type: none"> Beneficial to all within the George Municipal area. 	<ul style="list-style-type: none"> Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R1,000,000</p> <ul style="list-style-type: none"> Beneficial to all within the George Municipal area 	<ul style="list-style-type: none"> Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>R1,000,000</p> <ul style="list-style-type: none"> Beneficial to all within The George Municipal area 	<p>R5 500 000</p>

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Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
<p>Wildernis Sewerage (EPWP)</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process and Sewer Master Plans Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities EPWP Project Project to be completed by June 2006. <p>Budget: R2,100,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> The residents of Wildernis to benefit. 					R 1 600 000
<p>Bucket Eradication /M IG Project</p> <ul style="list-style-type: none"> Phase out bucket sanitation in George in line with National Policy 	<p>Methodology:</p> <ul style="list-style-type: none"> Identify all buckets still in use 371 Buckets to be eradicated in this financial year Overcoming the challenges in terms of phasing out the bucket system completely in light of migration to George Finalize technical long term solution Ask for tenders Construction Ongoing <p>Budget: R2,600,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> People in previously disadvantage areas 	<ul style="list-style-type: none"> Identify all buckets still in use Finalize technical long term solution Ask for tenders Construction Ongoing <p>R3,655,000</p> <ul style="list-style-type: none"> People in previously disadvantage areas 	<ul style="list-style-type: none"> Identify all buckets still in use Finalize technical long term solution Ask for tenders Construction Ongoing <p>R2,600,000</p> <ul style="list-style-type: none"> People in previously disadvantage areas 	<ul style="list-style-type: none"> Identify all buckets still in use Finalize technical long term solution Ask for tenders Construction Ongoing <p>R2.600.000</p> <ul style="list-style-type: none"> People in previously disadvantage areas 	<ul style="list-style-type: none"> Identify all buckets still in use Finalize technical long term solution Ask for tenders Construction Ongoing <p>To be determined</p> <ul style="list-style-type: none"> People in previously disadvantage areas 	

**SEWER NETWORK : TOTAL
BUDGET**

R21,800,000

R27,0728,000

R33,149,000

R37,386,000

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Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
WATER NETWORK						
<p>Operational Budget To maintain an effective and functional water potable water network</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process By implementing set maintenance programs <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing <p>Budget: R8,000,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance programs Ongoing R8,000,000 All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance programs Ongoing R10,00,000 All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance programs Ongoing R10,000,000 All people in the George municipal area 	<ul style="list-style-type: none"> By implementing set maintenance programs Ongoing R10,000,000 All people in the George municipal area 	R46 000 000
<p>Saasveld pipeline (EPWP)</p> <ul style="list-style-type: none"> To upgrade the existing network to Saasveld In line with national government's training policy 	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Tender process. Labour intensive construction. Construction 4 months This is a once – off project. TO be completed by June 2006 <p>Budget: R1,600,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> Nelson Mandela University will benefit from it 					R1 600 000

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<p><u>Wilderness Heights & Hoekwil (EPWP)</u></p> <ul style="list-style-type: none"> To upgrade the existing network to Saasveld In line with national government's training policy 	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process and Water Master Plan Tender process. Labour intensive construction. Construction 4 months Wilderness and Hoekwil communities will benefit from it This is a once – off project. <p>Budget : R1,000,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> Residents of Wildernis Heights to benefit. 					R1 000 000
<p><u>Kraaibosch Line</u></p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process and Water Master Plan Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Budget R5,200,000</p>	<ul style="list-style-type: none"> Construction Monitoring of construction activities Completion of construction 				R5 200 000

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<p>Master Plan Upgrading/Upgrading of the Water Network: To upgrade the water network to enable to keep up with the higher demands from new developments</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process and Water Master Plan Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing process <p>Budget : R21,570,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> The greater community of George to benefit 	<ul style="list-style-type: none"> Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Ongoing process</p> <p>R15,000,000</p> <ul style="list-style-type: none"> The greater community of George to benefit 	<ul style="list-style-type: none"> Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Ongoing process</p> <p>R18,000,000</p> <ul style="list-style-type: none"> The greater community of George to benefit 	<ul style="list-style-type: none"> Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Ongoing process</p> <p>R 20,000,000</p> <ul style="list-style-type: none"> The greater community of George to benefit 	<ul style="list-style-type: none"> Engineering design Conducting an EIA where required Ask for tenders Tender Adjudication Construction Monitoring of construction activities <p>Ongoing process</p> <p>R15,000,000</p> <ul style="list-style-type: none"> The greater community of George to benefit 	<p>R89 000 0000</p>
WATER NETWORK : TOTAL BUDGET	R33,120,00	R23,775,201	R30,330,000	R34,522,000		

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	2006/07	2007/08	2008/09	2009/10	2010/11	
WATER PURIFICATION & WATER RESOURCES						
<p>Upgrading Pump station 1: To upgrade the pumping capacity from the Garden Route Dam to the Water Purification Plant:</p> <p>See Annexure "A" to see how this project ties in with the Municipal Infrastructure Grant</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Engineering design Ask for tenders Tender Adjudication Start with construction Monitoring of construction activities <p>Budget : R5,730,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> Everyone within the George Municipal area. 	<ul style="list-style-type: none"> Construction Monitoring of construction activities <p>R4,500,000</p>	R13,500,000	R		R23 730 000
<p>Kaaimans Weir: To Upgrade the capacity of the water sources</p> <p>See Annexure "A" to see how this project ties in with the Municipal Infrastructure Grant</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process EIA Process Approval by all required authorities Engineering design Ask for tenders Tender Adjudication Start with construction Monitoring of construction activities <p>Budget : R10,600,000</p> <p>Beneficiaries: Everyone within the George Municipal areas.</p>	<ul style="list-style-type: none"> Construction Monitoring of construction activities Completion of construction <p>R4,000,000</p>	R500,000			R15 100 000

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Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
<p><u>Malgasdam:</u> To Upgrade the capacity of the water sources</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Screening process Start with EIA <p>Budget: R500,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> The greater George community will benefit from this. 	<ul style="list-style-type: none"> EIA Process Approval by all required authorities Engineering Design <p>R2,000,000</p> <ul style="list-style-type: none"> The greater George community will benefit from this 	<ul style="list-style-type: none"> Construction Monitoring of construction activities <p>R11,600,000</p> <ul style="list-style-type: none"> The greater George community will benefit from this 	<ul style="list-style-type: none"> Construction Monitoring of construction activities <p>R8,400,000</p> <ul style="list-style-type: none"> The greater George community will benefit from this 	<ul style="list-style-type: none"> Construction Monitoring of construction activities Completion of construction <ul style="list-style-type: none"> The greater George community will benefit from this 	R22 500 000
<p><u>Water works:</u> To improve the purification process</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Engineering Design Ask for tenders Construction Monitoring of construction activities <p>Budget : R4,000,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> Everyone within the George Municipal area. 	<ul style="list-style-type: none"> Construction Monitoring of construction activities <p>R11,000,000</p>	<ul style="list-style-type: none"> Construction Monitoring of construction activities <p>R2,500,000</p>	<ul style="list-style-type: none"> Completion of construction <p>R10,000,000</p>		R27 500 000

**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	

HOUSING & PLANNING

<p>Erf 325, Pacaltsdorp (904 Erven) Touwsranten (461 Erven) Asazani, Themba lethu (2200 Erven) Golden Valley (120 Erven) Provide internal civil engineering services for a new housing project Erf 329, Wildernis Heights Provide internal civil engineering services for a new housing project (80 Erven) Kleinkrantz Protea Park (60 Erven & houses) Provide internal civil engineering services for a new housing project</p>	<p>Methodology:</p> <ul style="list-style-type: none"> No planned spend in this financial year. These projects in collaboration with the Housing and Planning Directorate <p>Erf 325 : Budget :R315, 000</p>	<p>Erf 325 R615, 000</p> <ul style="list-style-type: none"> Golden Valley : Budget: R5,040,000 R2,400,000 				<p>Erf 325 R930 000</p> <p>Golden Valley R5 40 000</p> <p>Wildernis Heights R2 400 000</p>
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FLEET MANANGEMENT & MECHANICAL WORKSHOP

<p>To provide and maintain machinery and vehicles for the whole of George Municipality</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Alignment with IDP process Purchasing of new vehicles and machinery and the effective maintenance of existing vehicles and machinery <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing <p>Budget: R6,000,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> This is a support services to the George Municipality 	<ul style="list-style-type: none"> Purchasing of new vehicles and machinery and the effective maintenance of existing vehicles and machinery <p>Ongoing</p> <p>R6,000,000</p> <ul style="list-style-type: none"> This is a support service to the George Municipality 				
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**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	

CLEANSING SERVICES

Refuse Collection:						
<p>To ensure sustainable affordable and effective cleansing and waste removable services</p>	<p>Methodology:</p> <ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Acquire renovation of Gwaiing River public toilets. <p>Timeframe:</p> <ul style="list-style-type: none"> Project Ongoing <p>Budget :</p> <p>R35,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> The greater Pacaltsdorp , George communities and tourists 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan Acquire 2 x refuse trucks through procurement process Additional Store Room at vehicle depot also through procurement process. <p>Ongoing.</p> <p>R2,535,000</p> <p>The urban areas within the George municipal area will benefit from this.</p>	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan Additional refuse removal truck Replacement of refuse removal truck. Extension of the existing vehicle depot. <p>Ongoing</p> <p>R2,680,000</p> <p>The urban areas within the George municipal area will benefit from this.</p>	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan <p>Ongoing</p> <p>R2,800,000</p> <p>The urban areas within the George municipal area will benefit from this.</p>	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Acquire 2 x refuse removal trucks <p>Ongoing</p> <p>R3,200,000</p> <p>The urban areas within the George municipal area will benefit from this.</p>	<p>R11,250,000</p>

**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
<p>Street Cleansing: To ensure clean, healthy and tourist attractive environment</p>	<p>Methodology:</p> <ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Acquire 1 x tripper truck Ading rest rooms for street cleaners. <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing <p>Budget:</p> <p>R600,000</p> <p>Beneficiaries:</p> <ul style="list-style-type: none"> The urban areas within the George Municipal area 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Ongoing 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Acquire 2 x suction machines for leaves Ongoing R250,000 The urban areas within the George Municipal areas 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Ongoing The urban areas within the George municipal areas. 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Acquire 1x mechanical street sweeper. Ongoing R3,000,000 The george CBD and main roads. 	R3,850,000
<p>Night Soil Removal: To provide a nightsoil removal service for all resident where waterborne systems is not possible and to eradicate the bucket system.</p>	<p>Methodology:</p> <ul style="list-style-type: none"> In line with the IDP requirements and government policy in collaboration with the Housing Section. By replacement of buckets with a water borne system. <p>Timeframe:</p> <p>Ongoing</p> <p>Budget:</p> <ul style="list-style-type: none"> R500,000 <p>Beneficiaries:</p> <ul style="list-style-type: none"> The informal areas and poorer formal areas without a sanitary sevice.In line with the IDP requirements and those of the Integrated Waste Management Plan. 	<ul style="list-style-type: none"> In line with the IDP requirements and government policy in collaboration with the Housing Section. By replacement of buckets with a water borne system. Ongoing R500,000 The informal areas and poorer formal areas without a sanitary sevice.In line with the IDP requirements and those of the Integrated Waste Management Plan. 	<ul style="list-style-type: none"> In line with the IDP requirements and government policy in collaboration with the Housing Section. Acquire 1 x Night soil truck. Replacement of buckets Night soil replacement Ongoing R1,170,000 The informal areas and poorer formal areas without a sanitary sevice.In line with the IDP requirements and those of the Integrated Waste Management Plan. 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Replacement of buckets. Ongoing R500,000 The informal areas and poorer formal areas without a sanitary sevice.In line with the IDP requirements and those of the Integrated Waste Management Plan. 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Replacement of buckets. Ongoing R500,000 The informal areas and poorer formal areas without a sanitary sevice.In line with the IDP requirements and those of the Integrated Waste Management Plan. 	R3,170,000

**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
<p>Public Toilets: To provide adequate hygienic and well maintained public toilets</p>	<p>Methodology:</p> <ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. <p>Timeframe:</p> <ul style="list-style-type: none"> Ongoing <p>Beneficiaries:</p> <ul style="list-style-type: none"> The George CBD 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Ongoing The George CBD 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Ongoing The George CBD 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Ongoing The George CBD 	<ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan. Ongoing The George CBD 	

**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
<p>Refuse Transfer Station: o provide an effective and efficient service for save disposal of solid waste</p>	<p>Methodology:</p> <ul style="list-style-type: none"> In line with the IDP requirements and those of the Integrated Waste Management Plan <p>Timeframe:</p> <ul style="list-style-type: none"> <p>Budget:</p> <p></p> <p>Beneficiaries:</p> <p></p>	<ul style="list-style-type: none"> In line with the requirements of the Integrated Waste Management Plan and legislation Upgrading of the road to transfer station and refuse site. Ongoing R1,000,000 The greater George including the rural areas. 	<ul style="list-style-type: none"> In line with the requirements of the Integrated Waste Management Plan and legislation. Acquire 1x bulldozer and replacement of one. Ongoing R 1,500,000 The greater George including the rural areas. 	<ul style="list-style-type: none"> In line with the requirements of the Integrated Waste Management Plan and legislation. Extension of the recycling facility at the refuse transfer station. Ongoing R 700,000 The greater George area including the rural areas. 	<ul style="list-style-type: none"> In line with the requirements of the Integrated Waste Management Plan. Ongoing - The greater George area including the rural areas. 	R2,570,000
REFUSE : TOTAL BUDGET	<ul style="list-style-type: none"> R 685,000 	<ul style="list-style-type: none"> R 180,000 	<ul style="list-style-type: none"> R 700,000 	<ul style="list-style-type: none"> R685,000 		R2,250,000
PARKS & GARDENS						
<p>Public open spaces and streets: To ensure that declared public open spaces are maintained in a sustainable, affordable and effective manner to healthy living, and physical and mental well-being.</p>	<p>Methodology:</p> <ul style="list-style-type: none"> In line with Council policy and Environmental Management Plans Plant , maintain & prune existing trees. Plant at least 2000 trees per annum. Promote planting of trees. <p>Beneficiaries:</p> <ul style="list-style-type: none"> The greater community of George will benefit 	<ul style="list-style-type: none"> In line with Council policy and Environmental Management Plans Plant , maintain & prune existing trees. Plant at least 2000 trees per annum. Promote planting of trees. The greater community of George will benefit 	<ul style="list-style-type: none"> In line with Council policy and Environmental Management Plans Plant , maintain & prune existing trees. Plant at least 2000 trees per annum. Promote planting of trees. The greater community of George will benefit. 	<ul style="list-style-type: none"> In line with Council policy and Environmental Management Plans Plant , maintain & prune existing trees. Plant at least 2000 trees per annum. Promote planting of trees. The greater community of George will benefit. 	<ul style="list-style-type: none"> In line with Council policy and Environmental Management Plans Plant , maintain & prune existing trees. Plant at least 2000 trees per annum. Promote planting of trees. The greater community of George will benefit. 	

**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	
<p>General beautification/ landscaping improvement: To landscape features along main routes in order to make the whole town more attractive to residents and tourists and visitors.</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Design and implement at least one major feature per year at a cost of: <p>Beneficiaries:</p> <ul style="list-style-type: none"> The greater George community as well as tourists and visitors. 	<ul style="list-style-type: none"> Design and implement at least one major feature per year at a cost of: The greater George community as well as tourists and visitors 	<ul style="list-style-type: none"> Design and implement at least one major feature per year at a cost of: The greater George community as well as tourists and visitors 	<ul style="list-style-type: none"> Design and implement at least one major feature per year at a cost of: 	<ul style="list-style-type: none"> Design and implement at least one major feature per year at a cost of: 	
<p>Tourist Routes and Hiking Trails: Assist the Directorate Management and Administration in establishing tourist routes.</p>	<ul style="list-style-type: none"> No Budget ±R300,000 per annum 					
<p>Alien and invasive control: To implement a sustainable effective plan in conjunction with other directorates. Assist Directorate Management Administration with sidings and coumoungae.</p>	<p>Methodology:</p> <ul style="list-style-type: none"> Rehabilitate river banks and dam shore to natural indigenous vegetation Identify most invaded areas. Initiate strategies Implement plans 	<ul style="list-style-type: none"> Restore natural processes. Healthier environment Species diversity. 	<ul style="list-style-type: none"> Restore natural processes. Healthier environment Species diversity. 	<ul style="list-style-type: none"> Restore natural processes. Healthier environment Species diversity. 	<ul style="list-style-type: none"> Restore natural processes. Healthier environment Species diversity. 	
<p>TOTAL BUDGET FOR ALL LISTED PROJECTS IN PARKS & GARDENS</p>	<ul style="list-style-type: none"> R977,000 	<ul style="list-style-type: none"> R820,000 	<ul style="list-style-type: none"> R2,275,000 	<ul style="list-style-type: none"> R1,500,000 	<ul style="list-style-type: none"> R70,000 	R5,642,000
BEACH AREAS						
<p>Maintain existing responsibility to minimum standards</p>	<p>Methodology: Appoint a contract manager and maintenance contractors to maintain, and to also create jobs in disadvantage communities on a continual basis.</p>					

**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	

PLAY APPARATUS						
To maintain existing 56 parks	<p>Methodology:</p> <ul style="list-style-type: none"> Through the maintenance and addition of swings, seesaws and climbing apparatus Increase the number of parks to 75 that is 1 park per 1500 children. Establish 5 new play parks per year at R75 000 per annum. 	<ul style="list-style-type: none"> Maintenance contract tender to be called <p>Budget: R 80, 000 per year.</p>				R 379 000

**DIRECTORATE : CIVIL & TECHNICAL SERVICES
STRATEGIC PRIORITIES**

Key Performance Areas	Key Performance Indicators					Total Budget
	2006/07	2007/08	2008/09	2009/10	2010/11	

CEMETRIES

<p>Provide suitable areas to bury loved ones as well as pampers burials. Maintain cemeteries to minimum standards</p>	<p>Methodology:</p> <ul style="list-style-type: none"> • Appoint a contract manager and maintenance contractors to maintain, and to also create jobs in disadvantage communities on a continual basis. • Cemeteries in George: <ul style="list-style-type: none"> -York Street -Blanco -Thembalethu (Old) -Thembalethu (New) -Pacaltsdorp -Missioneries -Create new cemetery in Touwsrante at R500 00 -Rosemoore (x2) • Budget: R 115, 000 	<p>R 250,000</p>	<p>R 150,000</p>			<p>R 515 000</p>
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MASTER PLANS : EXECUTIVE SUMMARY :

. INTEGRATED WASTE MANAGEMENT PLAN FOR THE GEORGE LOCAL MUNICIPALITY WESTERN CAPE

The Eden District Municipality appointed KV3 Engineers to assist with the compilation of an Integrated Waste Management Plan (IWMP) for the Solid Waste Disposal Division of the District Municipality as well as the seven Local Municipalities they represent namely Bitou, George, Hessequa, Kannaland, Knysna, Mossel Bay and Oudtshoorn and the District Management Area. As a requirement of the National Waste Management Strategy (NWMS) and the IDP Process all Municipalities are faced with the obligation to compile such a plan. The compilation of this IWMP is done in line with the draft guidelines for compiling waste master plan documentation of the Gauteng Department of Agriculture, Conservation and Land Affairs as well as the Draft Starter Document for Integrated Waste Management Planning in South Africa made available by Department of Environmental Affairs and Tourism (DEAT). The process consists of two phases, the first being an assessment of the status quo and a needs analysis and the second future planning and the finalization of a Management Plan.

The George Local Municipality is located in the centre along the southern border of the Eden District, approximately halfway between Cape Town and Port Elizabeth. The Municipal Area is approximately 1 068 km² in extent with an estimated population of 162 104 people. The Municipality consists of villages such as Wilderness and Herold's Bay, various coastal resorts including Victoria Bay, Kleinkrantz and the Wilderness National Park and rural areas such as Wilderness East, Geelhoutboom, Herold and Waboomskraal with a relatively large urban centre namely George. Agricultural and forestry land use forms the greater extent of the municipal area.

Two national roads in the form of the N12 and the N2 traverse the Municipality. The status quo information and observations were obtained by analysis of relevant records of the Solid Waste Disposal Services, consultation with officials and site visits. Based on the information collected, the needs of the division for the immediate future were identified and measured against the existing IDP objectives. Disposal Infrastructure Development, Waste Collection Infrastructure, Resource Extension, Waste Minimization, Management of Illegal Activities and a Waste Information System was identified as the six (6) focus areas for the development of the complete service for the George Municipality. Based on the gaps and needs identified, goals and objectives were identified for each of the different focus areas and recommendations were made. An implementation plan for the recommended activities together with an estimated cost breakdown was provided.

MASTER PLANS : EXECUTIVE SUMMARY :

• ROADS

The roads infrastructure in George will be required to serve a growing population of 310 000 by 2015. The rapid rate of development applications and escalating population growth increases travel demand being placed on the existing roads infrastructure.

The purpose of the George Roads Masterplan is to focus on future transportation planning and identify future road needs for the George Municipal Area.

The George Roads Masterplan is a collaborative effort of the officials of the George Municipality, the relevant Road Authorities and several transportation engineering consultants. The study draws on the work being done on other aspects of the overall transportation system such as the Sandkraal Mobility Strategy, the Public Transport Plan, Knysna Arterial Management Plan and the Spatial Development Framework.

The George Roads Masterplan consists of modelling the existing road network in order to evaluate future land use and road planning alternatives, by making a number of strategic interventions, namely the introduction of physical road infrastructure. Policy directives to manage travel demand through the promotion to public and non-motorised transport are also addressed.

In the medium term view, the major road needs for George by 2015 was identified as follows:

- a) Southern Arterial – An arterial link from the N2 (between the Airport and Pacaltsdorp turnoff), towards the south of Pacaltsdorp and Thembaletu, and linking with the N2 before the Victoria Bay turnoff.
- b) Western Bypass – A bypass from the Outeniqua Pass to MR347 (Airport turnoff road)
- c) Plattner Boulevard – Western extension of Plattner Boulevard towards the Gwaiing area.
- d) Servitude Road – A connection from Kraaibosch to the George Industrial Area.
- e) Rand Street – Extension of Rand street southwards across the N2 to connect with Pacaltsdorp.
- f) PW Botha Boulevard Extension – The western extension of PW Botha Boulevard from York street to the R102 (Airport road).

These needs identifies several projects that tend to influence the overall network travel time and distance on the critical links of the road network, which has significant positive overall impact.

The George Roads Masterplan gives direction to infrastructure requirements of the future and provides a basis for budget planning .

MASTER PLANS : EXECUTIVE SUMMARY :

- PUBLIC TRANSPORT PLAN : COMMISSIONED BY EDEN DISTRICT MUNICIPALITY : DIRECTS THE BUDGET PROVIDED BY PROVINCE FOR PUBLIC TRANSPORT**

Land Transport Status Quo (George Municipal Area)

Roads Infrastructure

According to information gathered by the provincial government of the Western Cape the condition of the road network in George is as follows:

- Of a total of 459.0km road 342.0km is surfaced and 117.0km is unsurfaced;
- The replacement value of the road network in George amounts to approximately R351M;
- Approximately 5% or 17km of the road network is in a poor or very poor condition;
- Approximately R15M and R3M will be required to bring the respective surfaced and unsurfaced roads up to acceptable standards;
- The annual budget for road maintenance of R7.5M is approximately R3.5M short of the required amount needed to keep the road network in a good condition.

From the above it can be ascertained that the George road network is generally in a relatively good condition but is currently deteriorating especially with a budget for maintenance approximately R3.5M short of what is required.

NEEDS ASSESSMENT

HillLand Associates has been appointed by Vela VKE Consulting Engineers to facilitate a process of public survey in George.

The purpose of this survey was to obtain information on how members of the public perceive public transport.

Public transport infrastructure requirements identified in public survey:

Facility	Location	Status
Main Ranks	CBD	Needs extension and upgrading
	Thembaletu	Recently upgraded
Taxi Routes	Pacaltsdorp	Recently upgraded or in the process of upgrading
	Thembaletu	

Mini Ranks	Blanco Pacaltsdorp Conville Borcherds Parkdene Rosemoor Protea Park Hoekville/Touwsranten	New mini ranks required at these locations
Taxi Stops an Shelters	Blanco Pacaltsdorp Themba lethu Conville, Borcherds and Parkdene Rosemoor, Proteapark Wilderness	13x shelters at existing stops 2x new stops and shelters 2x shelters only 2x new stops and shelters 4x shelters only 5x new stops and shelters 4x shelters only 17x shelters only 2x stops and shelters 8x shelters only 1x shelter only
Bus Rank	George railway station	A formal bus rank for long distance busses with adequate waiting and ablution facilities incorporated with shops is required.

Road Transport Infrastructure Requirements:

Infrastructure	Location	Status
One-way pairs in the central business district	George	Is currently being implemented by the George Municipality
Extension of PW Botha Boulevard through the Industrial area to link up with TR2/9	George	Identified by the Roads Master Plan and currently under consideration
Introduction of a western by-pass to alleviate traffic congestion through George	George	Identified by the Roads Master Plan and currently under consideration
Introduction of a southern arterial to cater for future development along the coast	George, south of Pacaltsdorp and Themba lethu	Identified by the Roads Master Plan and currently under consideration

Infrastructure	Location	Status
Extension of Rand Street to create an additional access from Hope Street across the N2 into Pacaltsdorp to alleviate congestion during peak periods on the Beach/York corridor	George, Pacaltsdorp	Identified by the Roads Master Plan and currently under consideration
The introduction of a link road located next to the ESKOM servitude to link up MR355 with the Sandkraal Road corridor to alleviate traffic congestion on Knysna Road due to many new developments	George, Kraaibosch	Identified by the Roads Master Plan. Will be implemented shortly if agreement with developers can be reached
The extension of plattner Boulevard to link up with MR347 to alleviate congestion on the Witfontein/CJ Langenhoven corridor.	George, Heather Park	Identified by the Roads Master Plan. To be implemented shortly
The upgrading of the Albert/Sandkraal corridor to a proper transport corridor that will provide for taxis, buses and non-motorised facilities	George, Thembaletu	The planning and tender documentation of first phase of the improvement to Sandkraal Road is currently under way

The comprehensive draft ITP document can be viewed at the offices of the Dir:Civil and Technical Services. This document will be reviewed and updated by all roleplayers on a regular basis.



MASTER PLANS : EXECUTIVE SUMMARY :

▪ SEWER SYSTEM

The George Municipality on 29 August 2002 and again on 31 July 2003 approved the appointment of Consulting Engineers (CE's) to implement a water and sanitation design and management information system for the George area. The study was partially funded by the CMIP program of the Western Cape Provincial Government. The project entails the updating and establishment of computer models for all the water and sanitation networks in the George area (bulk and reticulation), the linking of these models to the stand and water meter databases of the treasury's financial system, evaluation and master planning of the networks, and the posting of all information to the IMQS viewer.

The sewage of the Victoria Bay drainage area discharges into a conservancy tanks. There are 4 diversion structures in the system; 2 are on the boundary between the Gwaiing Waste Water Treatment Plant (WWTP) and Outeniqua Waste Water Treatment Plant drainage areas. The flow in both these diversion structures is diverted to the Gwaiing Waste Water Treatment Plan. The other 2 divert flow from one sewer to another in the same drainage area. There are also two privately operated drainage areas and sewerage system, namely Oubaai and Saasveld.

The potential areas for future developments were identified and captured on GIS in consultation with the town planning- and engineering departments of George Local Municipality. Each potential area was assigned an anticipated predominant land use, and a development priority, as follows:

- Priority 0: In progress, imminent, or within the next 5 years
- Priority 1: Within the next \pm 5 to 10 years
- Priority 2: Within the next \pm 10 to 15 years
- Priority 3: Within the next \pm 15 to 20 years
- Priority 4: Within the next \pm 20 to 25 years or longer

Typical unit water demands (per ha or per stand/unit) were assumed for the future development areas, based on the statistics obtained from the Swift analysis of the present water demands and in consultation with officials of the George Municipality, to determine their potential water demand.

The future annual average daily demand (AADD) of the George sewer system studied for this report is \pm 111 990 kl/d. The future average AADD represents an increase of \pm 450% over the "theoretical" present AADD, and an increase of \pm 370% over the potential fully occupied present AADD. The potential future developments account for \pm 70% of the future AADD. To achieve this significant increase in water demand within the next 25 years (i.e. the planning horizon of this study), a growth rate of \pm 6% p.a. is required. The future peak daily dry water flow of \pm 84 140 kl/d is \pm 75% of the future AADD. It was assumed "Rural" type future land uses would make use of on-site sanitation systems, and will therefore not contribute any future sewer flows.

Potential future developments outside the sewer priority area were also considered. However, these are a considerable distance away from existing services and, after discussions with council officials, were deemed not to form part of the master plan as described in this report. The required amendments to the master plan in order to accommodate them are available from CEs. Required capacities for privately owned package WWTP's for these areas were however determined.

The major objectives pursued in the evaluation and planning of the sewer system in the George are as follows :

- Establishing a model of the sewer network that accurately reflects the existing system.
- Detailed water demand and sewer flow analysis based on data in the treasury system.
- Conformity with operational requirements and criteria adopted for this study.
- Optimal use of existing facilities with excess capacity
- Optimisation with regards to capital -, maintenance - and operational cost
- Conformity with the Land Development Objectives (LDO's) Each of the main objectives is now described in more detail and put into perspective for this study.
- The study considered year 2029 (i.e. 20 - 25 years) as the horizon for planning purposes. The total peak daily dry water flow for the George system can then potentially be $\pm 84\ 140$ kl/d.

All the strategic and technical alternatives studied were compared on mainly economic grounds, with a view to establishing a "master plan" which will result in the lowest present value of capital works, operations and maintenance. The cost functions for cost estimates, cost comparisons and economic optimisation in general. It should be noted that the proposed pipeline routes are indicated schematically on the master plan and that no detail topographical or geotechnical surveys have been conducted to verify these routes. The detail assessment of the routes are thus beyond the scope of this report and should be performed in the preliminary design stage during implementation. A variance of the cost estimates could therefore be experienced typically due to the presence of hard rock in the substrata along the pipeline route, existing services of which the crossings appear to be problematic or for whichever reason the pipeline route has to be lengthened.

All the sewage is still treated at the existing 4 WWTP's namely Gwaing, Outeniqua, Herold's Bay and Kleinkrantz. Future development areas outside the sewer priority area for the above 4 drainage areas were not provided for in the master planning. These areas were treated as areas that either make use of a septic tanks or private WWTP's. The establishment of a new WWTP in the vicinity of Thembaletu and Ballots Bay was considered. After discussions with council officials this option was abandoned in favour of pumping the potential flow from the drainage area back to the Outeniqua WWTP. A number of existing pump stations can be eliminated when future areas downstream of them develop. This was however not implemented for the reason that the flow is either needed at a specific WWTP (for effluent re-use) and/or the pump stations are privately owned. The system is however designed in such a manner that it can be adjusted if required.

Relative spare capacities in the future George system under instantaneous peak dry weather flow (IPDWF). All pipes were planned in accordance with the IPDWF philosophy for spare capacity > 30%. All pipes were planned for $v > 0,6$ m/s. A few existing pipes with sufficient capacity but low v 's are however indicated.

An estimate of the replacement value of the existing George system, based on the cost functions , amounts to a peak daily dry water flow unit value of $\pm R\ 23\ 200$ /kl/d.

The master plan implementation at cost of R414 298 million (excluding areas outside sewer priority area) will increase the George system capacity from its present peak daily dry water flow of $\pm 17\ 845$ kl/d to the future peak daily dry water flow of $\pm 77\ 550$ kl/d. This amounts to a unit cost of $\pm R5\ 340$ /kl/d (excluding secondary gravity reticulation networks), which is an order magnitude less than the current unit replacement value of the system.

A detailed Sewer Master Plan can be viewed at the Directorate Civil and Technical Services.



MASTER PLANS : EXECUTIVE SUMMARY :

▪ WATER DISTRIBUTION NETWORK

The George Municipality on 29 August 2002 and again on 31 July 2003 approved the appointment of CEs to implement a water and sanitation design and management information system for the George area. The study was partially funded by the CMIP program of the Western Cape Provincial government. The project entails the updating and establishment of computer models for all the water and sanitation networks in the George area (bulk and reticulation), the linking of these models to the stand and water meter databases of the treasury's financial system, evaluation and master planning of the networks, and the posting of all information to the IMQS viewer.

The supply area of the system encompasses the George municipal area, including Herold's Bay, Victoria Bay and Wilderness. Within the George boundaries there are approximately $\pm 27\ 211$ occupied, and $\pm 4\ 221$ vacant erven. Approximately 50 % of the occupied erven are used for residential purposes. The present annual average daily demand (AADD), as calculated from bulk supply meters and treasury data for the system is $\pm 27\ 830\ \text{k l/d}$, which includes unaccounted-for water (UAW). With full occupation of all vacant erven, and full utilisation of zoning rights, plus allowance for densification of residential areas where spare capacities exist in the network, the potential maximum AADD of the existing system is estimated at $\pm 34\ 430\ \text{k l/d}$.

There are altogether 59 large user connections to the system. These large user connections have been defined for the purposes of this report as users with an AADD $> 20\ \text{k l/d}$. The large users have a total AADD of $\pm 4\ 010\ \text{k l/d}$, representing $\pm 15\%$ of all the water sold in the George system.

The potential areas for future developments were identified and captured on GIS in consultation with the town planning- and engineering departments of George Local Municipality. Each potential area was assigned an anticipated predominant land use, and a development priority, as follows:

- Priority 0: In progress, imminent, or within the next 5 years
- Priority 1: Within the next ± 5 to 10 years
- Priority 2: Within the next ± 10 to 15 years
- Priority 3: Within the next ± 15 to 20 years
- Priority 4: Within the next ± 20 to 25 years or longer

Typical UWD's (per ha or per stand/unit) were assumed for these areas, based on the statistics obtained from the Swift analysis of the present water demands and in consultation with officials of the George engineering department, to determine their potential water demand.

The future AADD of the George sewer system studied for this report is $\pm 106\ 490\ \text{kl/d}$. The future AADD represents an increase of $\pm 380\%$ over the "theoretical" present AADD, and an increase of $\pm 310\%$ over the potential fully occupied present AADD. The potential future developments account for $\pm 70\%$ of the future AADD. To achieve this significant increase in water demand within the next 25 years (i.e. the planning horizon), a growth rate of $\pm 6\%$ p.a. is required.

Potential future developments outside the water priority area were also considered. However, these are a considerable distance away from existing services and are not included in the master plan described in this report. The required amendments to the master plan in order to accommodate them are available from CEs Consulting Engineers.

The major objectives pursued in the evaluation and planning of the bulk water supply system in George as presented in this report can be summarised as follows:

- Conformity with operational requirements and criteria
- Optimal use of existing facilities with excess capacity
- Optimisation with regards to capital -, maintenance - and operational cost
- Conformity with the Land Development Objectives (LDO's)
- The study considered year 2029 (i.e. 20 - 25 years) as the horizon for planning purposes. The total AADD for the George system can then potentially be $\pm 106\,490$ kl/d.

Existing systems were evaluated on the basis of their maximum potential present AADD, i.e. as though all presently developed stands are occupied and are using water in accordance with the assumed UWD's. For planning of future systems, AADD's of all potential future developments were added. The peak factors used for this study are dependent on type of land use in the area under consideration, and the magnitude of water demand in the area, the George Municipal area.

Many existing facilities within the George system have excess capacity, when measured in terms of the operational criteria described above. In whatever way it has come about, in the planning done for this study it was strived to utilise the excess capacities in existing facilities to its economically viable maximum. All the strategic and technical alternatives studied were compared on mainly economic grounds, with a view to establishing a "master plan" which will result in the lowest present value of capital works, operations and maintenance. The cost functions for cost estimates, cost comparisons and economic optimization in general.

There are a number of areas which can experience pressures exceeding 90m, and possible measures to reduce the static pressure were considered in the planning. The residual pressures in the existing George system under peak hour demand conditions. A number of areas can experience low pressures (< 16 m), caused mostly by insufficient pipe capacities and consequent high flow velocities and head losses. Reinforcements of pipes to and in these areas were considered in the context of the future planning for the system.

An estimate of the replacement value of the existing George system, based on the cost functions amounts to a unit value of $\pm R18\,675$ /kl/d AADD. The master plan implementation at the cost of R649 504 million will increase the George system capacity from its present AADD of $\pm 27\,830$ kl/d to the future AADD of $\pm 106\,490$ kl/d. This amounts to a unit cost of $\pm R6\,100$ /kl/d, which is considerably lower than the unit replacement value of the existing system.

A detailed comprehensive Water Master Plan can be viewed at the Directorate Civil and Technical Services.

ANNEXURE "A" – MIG Cashflow and expenditure report

DEPARTMENT OF LOCAL GOVERNMENT

CERTIFICATE OF EXPENDITURE AND REVENUE

PROVINCE / MUNICIPALITY: **GEORGE MUNICIPALITY**
 MIS NO: **EDEN - WC 044**
 2006/2007 ALLOCATION: **R9,461,068.59**
 BANK ACCOUNT NO: **010 2222 0981**
 BANK NAME: **ABSA - GEORGE**

DATE	BUDGETARY ESTIMATE		ADVANCES REQUESTED		AMOUNT RECEIVED		ACTUAL EXPENDITURE		BALANCE	
	MIG Commitments	Total	MIG Commitments	Total	MIG Commitments	Total	MIG Commitments	Total	MIG Commitments	Total
April-06	3,500,000.59	3,500,000.59	3,500,000.59	3,500,000.59	3,500,000.59	3,500,000.59	1,969,002.70	1,969,002.70	1,530,997.89	1,530,997.89
May-06	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	0.00	0.00	600,000.00	600,000.00
June-06	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	0.00	0.00	600,000.00	600,000.00
July-06	0.00	0.00	0.00	0.00	0.00	0.00	993,491.13	993,491.13	-993,491.13	-993,491.13
August-06	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	0.00	0.00	600,000.00	600,000.00
September-06	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	0.00	0.00	600,000.00	600,000.00
October-06	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00	1,200,000.00	1,200,000.00	-600,000.00	-600,000.00
November-06	1,200,000.00	1,200,000.00	1,200,000.00	1,200,000.00	1,200,000.00	1,200,000.00	0.00	0.00	1,200,000.00	1,200,000.00
December-06	600,000.00	600,000.00	0.00	0.00	0.00	0.00	970,825.00	970,825.00	-970,825.00	-970,825.00
January-07	600,000.00	600,000.00	0.00	0.00	0.00	0.00	1,042,055.09	R 1,042,055.09	-1,042,055.09	-1,042,055.09
February-07	561,068.00	561,068.00	1,761,068.00	1,761,068.00	0.00	0.00	0.00	0.00	0.00	0.00
March-07	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00
TOTAL	9,461,068.59	9,461,068.59	9,461,068.59	9,461,068.59	7,700,000.59	7,700,000.59	6,175,373.92	6,175,373.92	1,524,626.67	1,524,626.67

I hereby certify that the provisions / specifications of the financial administration of the Municipal Infrastructure Grant Programme have been complied with.
 All funds made available were used exclusively for the Municipal Infrastructure Grant Programme.

 PMU Manager / Date

 Municipal Manager / Date

 Provincial MIG Manager / Date