



Msunduzi Municipality

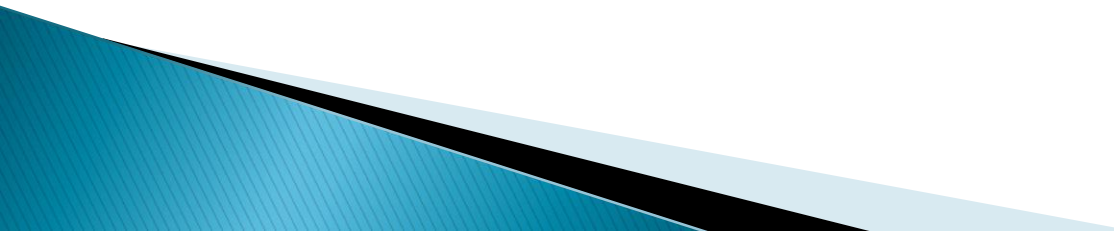
Climate Change Adaptation &
Mitigation Strategy

Inception

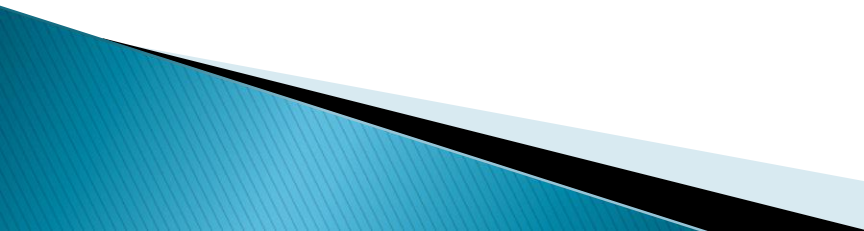
- ▶ The Msunduzi Strategic Environmental Management Plan (SEMP) identifies the need for a Climate Change Adaptation Strategy

B6: Climate Change Risk Assessment and Adaptation Strategy				
Strategic Outcomes	Reduce Msunduzi's Carbon footprint	Strategic Objectives	To plan for and facilitate a shift from the use of non-renewable to renewable resources. To accentuate the importance of energy and its role in development and the negative effects that energy production may have on the environment.	
Issues Addressed	Risk of climate change and potential impacts to ecosystem service delivery	Responsible Organisation /s	Msunduzi – Development Services, Environmental Branch	
Tasks		Timing	Potential Partners	Estimated Cost
Identify potential risks to Msunduzi as a result of climate change.		Long term	eThekweni Municipality and Msunduzi Innovation and Development Institute (MIDI)	In-house
Develop adaptation strategies to address climate change risks.		Long term		In-house
Implement and review strategies.		Long term		Dependant on strategies identified
Total				Still to be determined
Key Performance Indicator:	Climate change risks identified and strategies in place to address risks	Target	Reduced climate change risk	

Content

- ▶ Derived primarily from the Msunduzi Climate Change Policy (Approved by Council in 2015)
 - ▶ Identifies goals relating to each sector that will be impacted by Climate Change
 - ▶ Goals are further divided into Action Plans
 - ▶ Integrated with SEA, EMF, SEMP & IDP
 - ▶ Specific to Msunduzi
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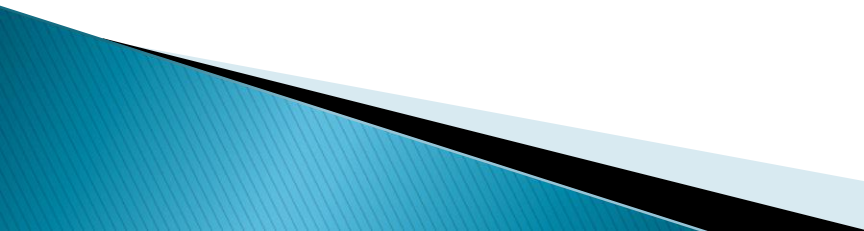
Goal 1 – Biodiversity & Ecosystems

- ▶ Increase greening programmes both in and around the city
 - ▶ Indigenous Environmental Landscaping is included in EMPs of all new developments
 - ▶ Areas of environmental significance and high species diversity are identified, protected and zoned accordingly
 - ▶ All development projects that negatively affect biodiversity are to incorporate offset areas for biodiversity conservation
 - ▶ Environmental Education programmes for communities and Municipal Staff are implemented
 - ▶ Remove alien invasive plants from municipal and privately owned land
 - ▶ Adopt measures for the proper management of areas with high grazing potential to avoid overgrazing
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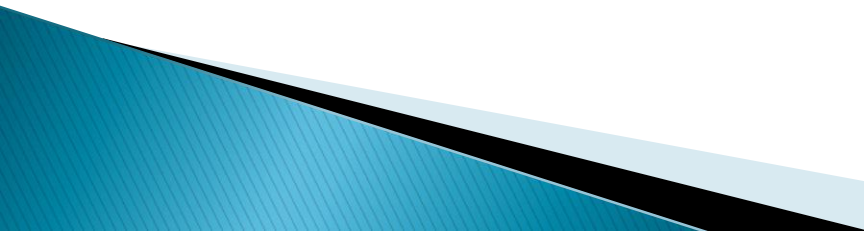
Goal 2– Water

- ▶ Improve and impose more stringent conditions on stormwater retention and Stormwater Management Plans in the city
- ▶ Predict and develop an estimate of the potential future demand for potable water in Msunduzi
- ▶ The upgrading of infrastructure, planning and zoning must incorporate extreme precipitation events into their forecasting and development
- ▶ Improve and continuously monitor the water quality of the Msunduzi Catchment
- ▶ Assess, identify and map areas that are prone to flooding
- ▶ Increase the buffer area between watercourses and developments
- ▶ Implement a water use efficiency programme for all water users
- ▶ Evaluate and update Disaster Management Plan
- ▶ Conserve all riparian areas and increase permeable surfaces in urban areas

Goal 3– Health & Air Quality

- ▶ Implement education programmes on dealing with climate change related health issues
 - ▶ Develop heat wave emergency protocols for extreme temperatures
 - ▶ Plant more trees in and around the city
 - ▶ Improvement of air quality in Msunduzi through the implementation of an Air Quality Management Plan (AQMP)
 - ▶ Air quality monitoring to take place on a regular basis
 - ▶ Water quality testing to be done on a regular basis
 - ▶ Forestation and the development of larger scale carbon sinks must be investigated and implemented
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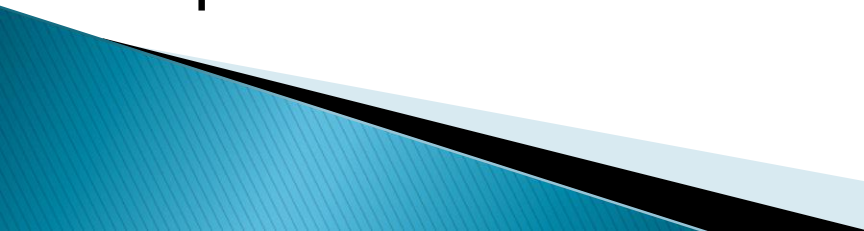
Goal 4 – Energy

- ▶ Energy efficiency education programmes to be implemented for communities and businesses
 - ▶ Implement rebates and financial incentives for electricity users who switch wholly or partially to renewable energy
 - ▶ Retrofit all municipal-owned buildings with energy saving and renewable energy technologies
 - ▶ All new developments to incorporate green building design and renewable energy technology
 - ▶ Develop an air quality constraints model using the existing traffic model
 - ▶ Ensure compliance with all SANS Regulations and National Building Regulations
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Goal 5 – Waste Management

- ▶ Expand recycling programmes to include all producers of waste
- ▶ Develop Materials Recovery Facilities
- ▶ Develop composting facilities at Garden Refuse Sites and appropriate locations
- ▶ Enforce the Polluter Pays Principle contained in NEMA via the training and designation of Environmental Management Inspectors
- ▶ Enforce Msunduzi's Waste Management By-Laws
- ▶ Extend basic service delivery (refuse collection) to Vulindlela and other areas not currently being serviced
- ▶ Explore landfill gas-to-energy initiatives
- ▶ Develop a protocol for illegal dumping instances in streams/rivers

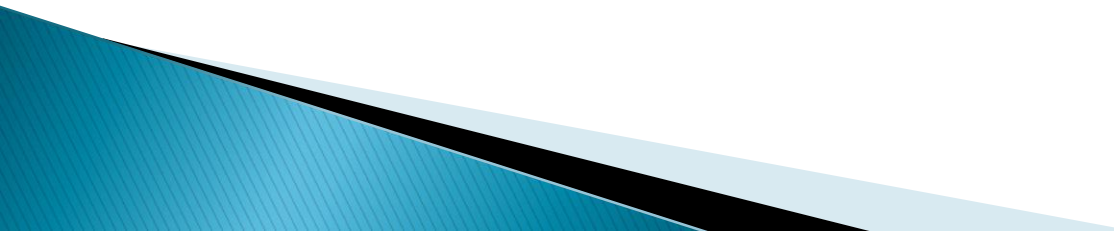
Goal 6 – Infrastructure

- ▶ Improve storm drainage and stormwater infrastructure design
 - ▶ Develop a Stormwater Management Policy and by-laws with Climate Change provisions
 - ▶ Impose more stringent conditions on Stormwater Management Plans
 - ▶ No domestic waste is to enter stormwater systems and all waste found on the street is to be cleared as soon as possible
 - ▶ Conserve riparian areas, wetlands and flood plains and keep these areas as pristine as far as possible
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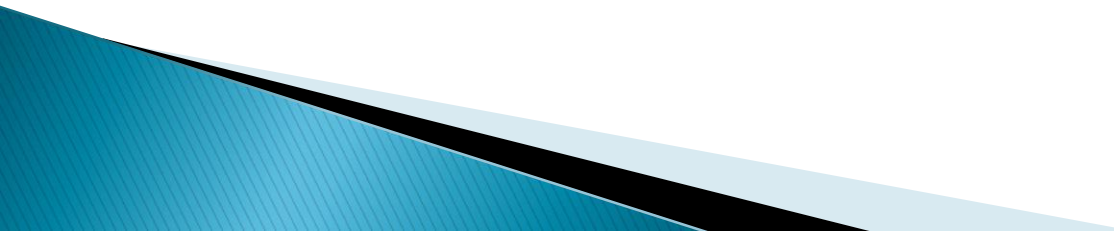
Goal 7 – Agriculture & Food Security

- ▶ Educate subsistence and commercial farmers on sustainable farming practices
 - ▶ Educate and encourage communities to grow their own food crops
 - ▶ Identify and reserve land with high agricultural potential for farming purposes only
 - ▶ Rehabilitate municipal-owned land with high agricultural potential
 - ▶ Classify areas of high grazing potential and thereafter, identify methods of preserving such land for current and future use
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Goal 8 – Awareness & Research

- ▶ Establish a Council on Climate Change (IDP review for 2013/14–2016–17)
 - ▶ Develop a climate change programme targeted at Eco-Clubs within schools
 - ▶ Develop a climate change education campaign aimed at vulnerable communities
 - ▶ Undertake a detailed vulnerability assessment of the Msunduzi area
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Goal 9 – Governance

- ▶ Ensure that environmental policy and legislation is highlighted within all municipal projects
 - ▶ Develop Municipal Adaptation Plans through a discussion forum consisting of municipal representatives
 - ▶ Undertake a Sustainability Appraisal and review of all Municipal Plans, Policies and Programs
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Progress & Time Frames

Progress	Time Frame
Final Draft	Done
Submit document to Council for approval at all levels	08/02/2016
Make available to public for comment	22/02/2016
Implementation to follow within all business units	Ongoing