PROGRESS THROUGH INNOVATION

MAYOR’S PORTFOLIO OF URBAN SUSTAINABILITY

2016
Foreword

Cape Town faces the challenges of a fast-growing population. Every person should have access to opportunity, progress, social equality, dignity and respect; but against a backdrop of limited and dwindling natural resources, these aspirations need to be met in a manner which does not deplete Cape Town’s natural capital.

Many of the City of Cape Town’s ongoing projects are tackling these challenges in highly creative and innovative ways.

The Mayor’s Portfolio of Urban Sustainability has selected 32 of these projects for assessment in terms of their sustainability in a delicate urban ecosystem - their ability to meet the social and economic needs of Capetonians without compromising the natural system on which they rely.

Supporting, analysing and sharing these projects also serves to change thinking, and to encourage all City project managers to incorporate sustainability parameters into their planning and implementation.

This showcase exhibits some of the best practice achieved, and highlights areas that need improvement for long-term sustainability.
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## Cape Town - Sustainability beyond publications

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Cape Town is a leading African city that recognises its history and the need to progressively move forward to a future where we respond to growth and the needs of our citizens and economy in a more sustainable way.

A ‘business as usual’ approach, however, has revealed its flaws and inability to help us build a truly sustainable city. We need to think along new lines, we need to be bold and innovative, both collectively and personally, in order to realise the changes that will make this great city even greater.

Cape Town is on a path towards a more sustainable and resilient future. Moving towards this vision requires a partnered approach, holistic thinking and constant reviewing of our progress, to ensure that we remain on track to achieve our goals.

In 2014, we produced the first edition of the Mayor’s Portfolio of Urban Sustainability with the aim of mainstreaming sustainability thinking into the design, implementation and management of projects and programmes.

This second phase of the programme has come with increased awareness of the programme and enhanced understanding of sustainability.

Since the launch of the 2014 edition, various efforts have been made to facilitate multi-disciplinary engagements and to overcome the constraints posed by a silo approach to our projects and programmes. As we incorporate social, economic and environmental sustainability criteria into our decision-making processes and project planning, implementation and operation to a greater degree, we will be helping to build a Cape Town that we can proudly hand over to our children and grandchildren.

Patricia de Lille
Executive Mayor
Moving towards urban sustainability

According to South Africa’s 2011 National Strategy for Sustainable Development, sustainable development implies “the selection and implementation of development options that meet the needs of our current society and promote justifiable economic growth without destroying natural systems and thereby compromising the ability of future generations to meet their needs”. The 2008 National Framework for Sustainable Development describes this approach as one where “the economic system, the socio-political system, and the ecosystem are embedded within each other, and then integrated through the governance system”. It is important to consider sustainability holistically, as a concept that is relevant across programmes in a broad range of areas.

The term ‘urban sustainability’ is often used to refer to cities that are self-sufficient rather than being substantial resource sinks as most cities are. While most discussion of urban sustainability has focussed on sustainability within urban systems, cities have an important role to play in the broader picture of global sustainability. Cities are imbedded within regions and countries and environmental, social and economic interactions are multi-scalar and complex. In light of the increasing urgency of addressing climate change, poverty and environmental degradation, it is essential that cities play a transformative role on the global sustainability stage.

Sustainability thinking needs to be incorporated into operations and strategies across the full range of disciplines, including those where the links to sustainable development are not obvious. Sustainability should be mainstreamed into the mandate of all local government operations. Cities are hubs of diversity and learning, providing opportunities for innovation and collaboration.

The City of Cape Town will transition to a more equitable, efficient and sustainable future for all its citizens. One of the major challenges to building a sustainable city lies in changing the beliefs, values and practices that promote unsustainable production and consumption patterns as well as endorsing the perspective that humans are separate and superior to nature. Thus, the City has made a commitment to promote environmental sustainability and to balance this with the economic needs of its citizens. This will require good governance aimed at improving the overall social, economic and ecological conditions in the city.

This second edition of the Mayor’s Portfolio of Urban Sustainability, features a new sample of projects from all the City’s directorates. These aim to encourage innovative and holistic thinking around ways to mainstream sustainability best practice. They can be seen as a proxy for the City to help us understand the extent to which sustainability is incorporated into City operations. In this edition, we have expanded the range of projects to demonstrate the variety to which sustainable thinking can be applied, and to highlight the importance of considering sustainability in all City operations. In addition to on-the-ground interventions like those we profiled in the first edition, we have introduced projects focussed on strategic policy writing and review, as well as projects aimed at improving internal City operations.

Recreational clustering (page 38) offers the opportunity to develop inclusive multifunctional facilities that promote social cohesion by bringing together people of all ages and interests with the common desire to participate in recreational activities.

The Company’s Garden (page 84) is a historical and cultural shared space with strong heritage status. The restored vegetable garden creates awareness of the origin and history of the garden and encourages the development of food gardens across the city.

Ecological
Economic
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Mayor’s Portfolio of Urban Sustainability 2016

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Cape Town is an African city faced with the legacies of an unjust past and the uncertainties of contemporary challenges. As such, it needs to respond to development challenges in a way that builds social and ecological resilience as well as sustainability through innovative, inclusive and integrated thinking. Being the 2014 World Design Capital (WDC) led to a strong interest in how the City designs solutions to the multiple challenges it faces and how it implements these through tangible, creative projects that bring real results to the people of Cape Town.
A 2005/6 City of Cape Town publication (‘The Portfolio of Sustainability Best Practice’) profiled and assessed various projects across the City, which demonstrated examples of best practice in contributing to urban sustainability. WDC 2014 provided a timely opportunity to build on the lessons learnt and to produce a follow-up publication showcasing Cape Town’s sustainability excellence, the Mayor’s Portfolio of Urban Sustainability (MAPS). The publication contributed to building collaborative processes that incorporated innovative design based on aspects of sustainability and effective implementation. Following its success, this second edition of MAPS has been compiled.

Each project in this portfolio addresses the four cornerstones of sustainability (ecological, economic, social and governance considerations) to varying degrees. While the importance of any one of ecological conservation, economic prosperity, social justice or governance excellence is recognised, a project that fails to address aspects of all of these fails short of its potential and its outcomes may not be as effective as they could be.

Aims and objectives

The Mayor’s portfolio of aims to showcase projects managed or supported by the City that demonstrate elements of best practice in sustainability and innovation through design and implementation. The portfolio facilitates and promotes the mainstreaming of urban sustainability, improved practice across City projects, collaboration and partnerships, and the marketing of Cape Town’s best practice in sustainability and innovation.

The following supporting aims and objectives were identified to fulfil this vision:

• To identify particular projects managed or supported by the City of Cape Town with a clear commitment to sustainability, either on-the-ground or through visionary planning.
• To build collaborative processes and facilitate the continued mainstreaming of sustainability throughout the City administration.
• To engage with officials across line functions regarding aspects of projects and integrated thinking.
• To identify project elements (economic, social, ecological or institutional) that demonstrate best practice, and can motivate project managers across the City to move towards best practice in their own work.
• To determine how these elements may demonstrate best practice, and draw attention to the aspects of sustainability that may be present.
• To encourage project leaders to incorporate sustainability ideas from other projects, which could contribute to their own projects’ increased success.
• To assess projects according to a defined set of indicators and provide feedback on their strengths and weaknesses via an objective, expert panel.
• To provide a useful resource to demonstrate how to implement sustainability principles.
• To distribute the final product to all project managers and directors across the City to encourage best practice.
• To ensure accessibility to a wider audience through media coverage of the publication via online media, print media and other online networks.
• Lastly, to encourage project management that maintains a vision for sustainability and a commitment to Cape Town and its inclusive development.

The City is proud of the achievements of its directorates in demonstrating an understanding of sustainability through incorporating aspects of sustainability in their project planning and implementation. However, this portfolio also identifies areas where projects have fallen short in addressing the full spectrum of sustainability. Some have a strong economic focus that have lacked fully inclusive processes, and have not realised their potential in delivering social benefits. Other projects that rigorously address ecological issues have failed to deliver optimal social and economic outcomes.

Thus, while this publication profiles Cape Town as a leading sustainable city, planning and implementing projects that enhance the lives of its citizens, now and in the future, it also serves as a call to project managers across the City to strive for more sustainable methods and approaches in project design, implementation and operation and to consider ways in which project outcomes could be further enhanced by a wider application of sustainability.

Key elements of the portfolio

Strategic support

Through the guidance of the Strategic Policy Unit, the advisory forum and the review panel of eminent persons, this portfolio has promoted ‘sustainability thinking’ and facilitated and encouraged the incorporation of aspects of sustainability in all City projects, particularly in the long term. Positioning the portfolio in this manner ensures that sustainability objectives are upheld in decision-making and moves the City towards a stronger foundation of environmental sustainability, serving as an incentive to other institutions and organisations to adopt a similar focus.

Advisory forum

The advisory forum, which consisted of directorate representatives, was established to provide high-level strategic input to the Mayor’s Portfolio. The forum provided insight into projects to be profiled, and advised on mechanisms to ensure most favourable outcomes and the fulfilment of longer-term objectives.

Review panel

The review panel of persons external to the City comprised of eminent representatives from the Western Cape Provincial Government, the academic sector, private sector professionals, as well as civil society leaders. They were invited to join the panel because of their knowledge, interest and work in broad areas of urban sustainability.

This review panel played an important role in process review as well as moderating the assessment of the projects included in the Mayor’s Portfolio. The process included a group review session of the project methodology, individual study and analysis of initial project assessments,
and a second group review session to determine final assessment and provide feedback to project managers.

**Assessment algorithm**
The advisory forum and review panel identified and reviewed 12 sustainability objectives or criteria (see page 13). Certain sub-criteria were modified and care was taken to ensure that each of the sustainability objectives would remain constant in order to monitor change.

The following criteria guided the selection of sustainability objectives:
1. Relates to the achievement of sustainable development.
2. Easy to understand, regardless of field or specialisation.
3. Easily attainable data.
4. Accommodates the varying time and spatial scales and project contexts.

Each objective was interpreted by one or more sub-criterion or guideline, and was loosely defined to allow for creativity in determining how a project fulfilled each one.

The assessment scale relied more on descriptions than absolute numbers to avoid a potentially misleading quantitative analysis of project data. Thus interpretive criteria and guidelines were incorporated.

**Assessment process**
To simplify outcomes, the qualitative scale was linked to a quantitative one. ‘Poor’ was graded ‘1’ and ‘excellent’ a ‘5’. The scoring against each of the 12 axes was then represented on a spider diagram as shown on page 13.

- Once the assessment framework was finalised, each directorate was given the opportunity to identify projects that met the following criteria:
  1. Projects should be underway; significant planning or implementation should have started.
  2. Projects should be recently completed, or to be completed or works in progress. New and active phases of older projects are also encouraged.
  3. Projects should ideally encompass dimensions of sustainability; they address socioeconomic and environmental issues in an integrated manner and within a framework of good governance.
  4. Projects should be making a positive change in the disciplines in which they operate while considering other ‘non-core’ fields, i.e. for opportunities to break down the silo approach across the City.
  5. Projects should ideally be innovative or original in their approach.
  6. Projects should demonstrate collaboration and partnership building.

- The project portfolio facilitates and promotes the mainstreaming of urban sustainability, improved practice across City projects, collaboration and partnerships, and the marketing of Cape Town’s best practice in sustainability and innovation.

- Projects should contribute to more than one of the focus areas of the City of Cape Town IDP in a definitive way.

- Projects should empower the community in which they operate or empower the greater Cape Town community in some way i.e. with skills, employment, connections and networking or knowledge transfer. This also applies to City staff in terms of improved thinking and strategies.

- Projects should encourage replication through ease of process, creative or cost effective use of materials, or other similar strategies that position the project as a scalable and practical method to achieve sustainability.

- Interviews with project managers facilitated the collation of information on how the project met assessment objectives. This was then translated into an assessment table, diagram and a project profile, which summarised the challenges being addressed by the project and outlined some of its key aspects.

- Project managers were then invited to review their respective profiles and initial assessments, and were afforded the opportunity to affect concrete interventions to strengthen aspects of their project and enhance its sustainable practices, prior to a final assessment.

After the final project profiles and initial assessments had been completed and internally reviewed, they were presented to the review panel for their verification and formal assessment.
Strategic links

Integrated Development Plan
The portfolio links to the strategic focus areas of the City’s IDP, which are as follows:

Opportunity city: This recognises the need to build an economically enabling city by ensuring that people have decent jobs. The need to conserve biodiversity in Cape Town for enjoyment by present and future generations is also recognised as a key element of making it a city of opportunity for everyone. Economy and environment are two key elements of sustainability – and profiled projects should address these (and/or other) needs.

Safe city: Safety is essential to the public’s experience of the city. Sustainable development builds resilience and ensures that the city and its residents are protected from anticipated and unanticipated changes from both natural and human-induced sources. It is therefore key in building a safe and resilient city.

Caring city: The primary purpose is to look after the health and well-being of citizens and visitors. Projects that meet sustainability criteria will contribute to a healthier urban landscape.

Inclusive city: Residents should have access to the resources they need. This recognises present and future generations’ rights and requires an approach that does the same.

Well-run city: Institutional arrangements need to favour democratic and transparent processes. Best practice in sustainability contributes to improved governance through efficient, effective and appropriate processes.

City strategies
Three City strategies are pivotal to development.
1. The Environmental Strategy (in draft form at the time of publication),
2. The Economic Growth Strategy
3. The Social Development Strategy

These strategies reflect the three dimensions of sustainability on which this portfolio is based: environmental, social and economic.

Environmental Strategy
The Mayor’s Portfolio aligns with and profiles projects which support the principles and directives of the Environmental Strategy. These include:
• adopting a long-term approach in decision-making, operating and planning for the future;
• promoting and enhancing equity and accessibility to ecosystem goods and services, natural open spaces, and the social, educational, spiritual, and recreational opportunities these provide;
• recognising, protecting, and promoting the social, cultural, and economic value of the natural environment to communities, businesses and individuals;
• focusing on resilience, enabling the city to withstand and mitigate the negative impacts of environmental hazards, and proactively reducing Cape Town’s vulnerability;
• recognising, protecting and, where possible, proactively restoring ecological infrastructure and ecosystem goods and services;
• proactively preventing adverse environmental impacts, including pollution and the generation of waste.

Project managers were challenged to think broadly about their projects and to consider the role these played in promoting best practice in sustainability. These considerations included references to the above principles, giving attention to the approaches embedded in the design and implementation of projects.

The Skilpadsvlei wetland rehabilitation project (page 96), a silver star project, entails ongoing management of alien and invasive vegetation and restoration of indigenous plants.
Economic Growth Strategy

The Economic Growth Strategy’s (EGS) principal objectives are to grow the economy and create jobs, establishing Cape Town as an ‘opportunity city’. The strategy presents the City’s response to the most fundamental challenges facing Cape Town: too many people are poor and unemployed and, unless we shift gears and prioritise economic growth, this is unlikely to change.

While recognising the pressing need for rapid and inclusive economic growth, the EGS observes that “to build an opportunity city, economic growth ought to be environmentally sustainable in the long term”. The City has identified the green economy as a key growth area, both in terms of ‘eco-tourism’ and facilitating the development of green industries and sectors, particularly those with significant job creation potential.

Objective 3.4 of the EGS promotes the protection of environmental assets, expansion of eco-tourism in a sustainable manner as well as the establishment of green industries and sectors, particularly those with significant job creation potential.

Social Development Strategy

The Social Development Strategy (SDS) orientates the work of the City towards improved quality of life for all Capetonians, especially those who are marginalised. At its core, the SDS focuses on addressing poverty, inequality and social ills while simultaneously promoting active citizenship and the participation of people in their own development.

The SDS approach to the City’s work is based on five principles:

• using the available resources and assets to promote social development;
• focusing on impacting the lives of the poor, vulnerable or marginalised;
• facilitating partnerships for maximum impact;
• assessing the projects’ level of sustainability and
directing interventions at the areas of greatest need.

The SDS asks decision-makers at all levels of the organisation to consider what they do and how they do it. This helps build a more safe, caring and inclusive city where all people are able to realise their potential.

The Social Development Strategy approach differs from previous approaches, which viewed social development as the domain of a specific directorate concerned with relatively small, discrete projects. The SDS considers all of the City’s work as geared towards improving the well-being of all people in Cape Town, which is reflected in this portfolio’s integrated approach to sustainable project assessment. To effectively achieve this, communities need to be given the opportunity to participate in their own development, and a transversal approach to social development needs to be adopted.

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The source to sea project (page 34) aims to encourage people to reconnect with nature by restoring degraded open space corridors to be used for recreation and non-motorised transport.

The biological control insect mass rearing facility (page 88), situated in Westlake, provides inclusive training and job opportunities for people with special needs in order to rear insects that are used to control aquatic weeds.
Projects at a glance

In total, 32 projects are profiled in this edition of the Mayor’s Portfolio of Urban Sustainability. They are managed and supported by various directorates, and demonstrate best practice in sustainability. For each of the 12 assessment objectives, every project was scored on a scale of 1 (‘poor’) to 5 (‘excellent’). Projects scoring above 40 were awarded a silver star rating, while those with above 45 received a gold star rating*. The gold star rating is awarded to projects that consistently performed well across all categories and are identified as examples of best practice in sustainability.

*The thresholds for silver and gold ratings respectively differ between editions due to changes in the respective assessment processes.
Collaboration between government, Evaluation summary

Ecological
Overview
Social
Economic
Creative planning for development
Upgrade and revival of community
Development of high quality
Enhancing ecological and social resilience
Engages and builds the community, improving quality of life by encouraging community-driven improvement of environmental health and safety

Cape Town Energy2040 Comprehensive energy future modelling to inform urban practice and management A plan with the potential to institutionalise sustainability awareness and practice within the City of Cape Town

Community cultural planning and redevelopment - Bonteheuwel Understanding and developing plans for investment in cultural resources through that community consultation

Optimises community engagement through an innovative approach to cultural planning

Demonstrates the value of community participation and transversal management in the City for addressing complex challenges

Dunoon local area planning initiative
Creative planning for development and service delivery, through community engagement

Source to sea river corridor project Enhancing ecological and social resilience through river ecosystem restoration

Seeks to maximise the potential of existing natural assets by integrating social and ecological interventions

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Inter-sectoral collaboration: Operation interchange (PTI)
Revive of Bellville Primary Transport Interchange

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Interchange (PTI)
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Community consultation and service delivery, through community consultation

Demonstrates the value of community participation and transversal management in the City for addressing complex challenges

Dunoon local area planning initiative
Creative planning for development and service delivery, through community engagement

Source to sea river corridor project Enhancing ecological and social resilience through river ecosystem restoration

5. Sustainable public procurement (SPP) Developing guidelines for socially and environmentally responsible procurement of goods and services in the City In principle SPP is exemplary in Cape Town; however educating the market to encourage the uptake of this approach will take time

6. Recreational clustering A project designed to provide integrated recreational facilities for a range of ages and energy levels - including formal and informal activities

Accommodates diversity and encourages greater participation in recreation, sport and generally active lifestyles

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7. Adopt-a-canal
Environmental health education and interventions to improve water quality in an urban canal

8. Open data portal
Making key City data and information freely accessible to citizens

Provides citizens with opportunities for innovation and allows local government to be kept accountable, but further communication with citizens and more data will help to optimise project impact

9. Inter-sectoral collaboration: Operation interchange (PTI)
Cooperation across departments and stakeholders to improve public health at Bellville Primary Transport Interchange

Contributes to improving quality of life for commuters by reducing health and safety risks, but could link more strongly with ecological aspects of sustainability

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10. Langa cultural precinct
Upgrading and revival of community involvement in the Guga S’Thebe Art Centre and surrounding cultural space

Implements user-centric approach that responds to a community’s needs, improving quality of life by drawing people into open spaces

11. Smart parks
Development of high quality community-designed and resource efficient recreational spaces

Implements user-centric approach that responds to a community’s needs, improving quality of life by drawing people into open spaces

12. Multi-sectoral action teams
Collaboration between government, civil society and private sectors to address TB and HIV/AIDS related issues at community level

Implements user-centric approach that responds to a community’s needs, improving quality of life by drawing people into open spaces

13. New Manenberg human settlements contact centre
Construction of a new and ‘green’ building in Manenberg to facilitate communication with regards to human settlement issues

Implements user-centric approach that responds to a community’s needs, improving quality of life by drawing people into open spaces

14. Diarrhoeal disease season campaign
Integrated plan to improve quality of care received at primary health-care facilities and reduce the incidence of new diarrhoeal cases by minimising risks of exposure and spread of the disease

Successfully reduces risks of diarrhoea through strong, collaborative governance and educating communities living in vulnerable parts of the city

15. Ocean View stone houses
Integrated housing and skills development project in Ocean View, Kommetjie

Alleviates poverty by meeting the need for housing and creating economic opportunities through a unique, innovative and inclusive model

16. Poverty alleviation at early childhood development (ECD) centres
Urban food gardening and feeding programme in historically underserviced parts of Ocean View

Simple yet far-reaching model which could, at scale, have a major impact on food security and nutrition across the city, so improving the quality of life and enhancing resource efficiency

17. Monitoring and Evaluation in Informal Settlements: Mitchells Plain
Regular reporting and follow-up on Public Health concerns in underserviced informal settlements

Consistently monitors and raises the profile of challenges in informal settlements to bring dignity and improve quality of life in these areas
Economic portfolio

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<tr>
<th>Project</th>
<th>Description</th>
<th>Evaluation summary</th>
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<td>68 ha allocated for the development of a renewable energy hub in Atlantis</td>
<td>Creates employment opportunities and skills development at a local scale while facilitating the development of environmentally friendly products</td>
</tr>
<tr>
<td>19. Body of knowledge</td>
<td>Comprehensive support system for all service enquiries to the City of Cape Town</td>
<td>Significantly improves productivity and efficiency of call centre staff, enabling improved service delivery</td>
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<tr>
<td>20. The broadband project</td>
<td>The mass roll-out of broadband fibre infrastructure to improve Cape Town’s connectivity and provide business opportunities</td>
<td>Promotes digital inclusion and the ability to participate in the information age, so creating economic opportunities and improving productivity</td>
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<tr>
<td>21. CityMart innovation challenge to enhance Cape Town’s informal trading sector</td>
<td>Problem-based procurement of community-derived solutions to urban informal trading in various contexts</td>
<td>Facilitates community engagement through collaborative knowledge sharing about innovative solutions to urban challenges</td>
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<tr>
<td>22. iComply</td>
<td>Comprehensive tool to ensure the City’s consistent legal compliance to changing legislation</td>
<td>Promotes good governance through ensuring municipal compliance, with notable benefits to the City management</td>
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<td>23. The immovable property asset management framework</td>
<td>Strategic business solution to address the challenges of property management after the amalgamation of the metro</td>
<td>Delivers a streamlined system to optimise property management efficiency, but full implementation will take time</td>
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<tr>
<td>24. South African renewable energy business incubator (SAREBI)</td>
<td>Support for value-adding SMEs to the emerging renewable energy and green technology sector in the Western Cape</td>
<td>Uses inter-sectoral collaboration to support and enable the creation of economic opportunities in an environmentally friendly sector</td>
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<tr>
<td>25. Wallacedene green taxi rank</td>
<td>Formalising a taxi rank with resource-efficient architecture and infrastructure</td>
<td>A well-rounded project that minimises environmental impact while improving quality of life and access to transport services</td>
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Ecological portfolio

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<td>Improves quality of life by providing a food resource to vulnerable people, and an educational tool to promote awareness about sustainable urban practices</td>
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<td>27. Electrolytic chlorination in water treatment</td>
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<td>32. Skilpadsvlei wetland rehabilitation</td>
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Portfolio projects

The projects featured in the Mayor’s portfolio are presented with a description of the project’s objective, design and implementation, as well as an evaluation of the project’s contribution to sustainability mainstreaming in the city. Although most of the projects profiled are wide-reaching in their sustainability, they are categorised into one of four headings depending on the strongest element within each project:

- Vision
- Social
- Economic
- Ecological

The categories presented in the Portfolio are intended to showcase how projects, that would otherwise be limited to addressing social, economic or ecological problems in isolation, can be structured to incorporate all the aspects of sustainability.

This edition of the Mayor’s portfolio introduces the Vision category. This category arose to accommodate projects which do not necessarily result in direct “on-the-ground” development, but which have involved a substantial level of planning and design based on sustainability thinking. This has led to strategic interventions to support sustainability. It does not include the planning phases of new projects, which might be featured in future MAPS editions once implementation has started.

The Mayor’s portfolio is an ongoing programme that promotes increasingly sustainable practices, hence projects that showcase new aspects or improved processes can be featured more than once. In this edition, for instance, there are five high-scoring projects that were originally featured in the first edition of the Mayor’s Portfolio. They have demonstrated continued development and consistent efforts toward sustainability in an ever-changing urban environment. These are:

- The Company’s Garden VOC vegetable garden
- Diarrhoeal disease season campaign
- Langa cultural precinct
- Poverty alleviation at early childhood development centres
- Shark Spotters and the Fish Hoek exclusion net

Multiuse facilities like the Green Point Urban Park provide recreational areas for people and help enhance the beauty and environmental quality of neighbourhoods.
Vision portfolio

This recognises the importance of projects which have achieved substantial outcomes through innovative and visionary planning (the Dunoon local area planning initiative and community cultural planning in Bonteheuwel, for example).

It also includes participatory initiatives and outreach programmes aimed at promoting sustainability, including behaviour changes (Cape Town Energy2040 and Sustainable public procurement), and the application of innovative design-led processes leading to a paradigm shift in service delivery around urban sustainability projects (source to sea and recreational clustering).

While these visionary projects might lead to future “on-the-ground” developments, this is not a requirement for inclusion in this section of the portfolio. The projects focus on each of the pillars of sustainability variably, but are all characterised by:
• Exemplary foresight
• Inclusive and thorough planning and design
• Commitment to sustainability principles

They represent important aspects of urban sustainability but, because they lack tangible “on-the-ground” outcomes, they are not accompanied by a formal sustainability assessment.
Problem statement
Maintaining a ‘business-as-usual’ approach to urban development will result in serious challenges to the city and its citizens. It means a doubling of energy consumption and emissions and a tenfold increase in energy costs to Cape Town’s economy by 2040. Escalating traffic congestion; rising fuel costs; electricity supply constraints and price increases due to dependence on a single supply utility; socio-spatial inequality and energy poverty would be extreme. Cape Town would become progressively more vulnerable to external threats and shocks, increasing emissions would contribute to human-induced climate change and demands on expensive resources would rise.

Project outline
Energy2040 models a resilient, lower carbon, resource efficient and equitable future for Cape Town, which reduces climate change and demands on extensive embedded renewable generation in the commercial and residential sectors as well as diversified large-scale energy supply; a modal shift from private to public transport with increased access to public transport, and motorised passenger-travel in efficient vehicles with higher occupancy levels; increased densification and mixed use in areas of economic activity; and greater price stability and generally lower dependency on energy.

Project implementation
Since 2001 the City has collected and analysed energy and carbon data and developed and implemented institutional and strategy changes, as well as several programmes and projects addressing energy use. This allows the City to steer a shift towards a sustainable energy future for Cape Town. The Energy2040 vision is informing the targets and objectives in the review of the City’s Energy and Climate Action Plan adopted in 2010 and will drive immediate action in the next five years. These include the Electricity Savings Campaign, a solar water heater accreditation and marketing programme, a small scale embedded generation feed-in-tariff, and transport and spatial planning programmes with a focus on public transport, transit oriented development, maintenance of the urban edge, non-motorised transport and transport demand management. In addition, the City implements energy efficiency and renewable energy in its own operations in order to lead by example.

Evaluation
A ‘business-as-usual’ trajectory holds significant risks as the majority of Cape Town’s energy would be generated from fossil fuels with dependency on a single utility (Eskom); residents would experience severe energy poverty and carry huge cost burdens; the city would continue to sprawl with the poor situated on the margins; transport would dominate the energy footprint and increasing private car ownership with low occupancy levels would cause major traffic congestion.

Energy2040 supports a sustainable and energy secure future for Cape Town, optimising energy costs and promoting economic development and technology change.
Problem statement
The City does not have an existing plan to guide allocation of arts and culture resources and, in many areas, partnerships between the City and communities within this sector are ill-defined. This means that the potential to share these resources is not reached. Arts and culture provide a crucial platform for human expression, escapism and recreation, yet activity in the sector is largely underrepresented in spatial maps and records. Understanding how this sector informs community groupings and organisations could be critical when engaging and mobilising the City's people. Therefore, to build capacity and strategise around resources for arts and culture, cultural planning becomes very important.

Project outline
The community planning project is intended to inform the City's priorities and strategies for arts and culture and communities' creative sectors. By documenting activities, groupings and visions related to arts, culture, and creative vitality, a cultural plan can guide how the City allocates resources (i.e. how the City can provide tools to assist the community in achieving that vision). Cultural planning requires an extensive spatial understanding of how arts and culture work within the City's neighbourhoods. Consequently, a thorough bottom-up approach is necessary to gain this understanding.

Project design
Cultural planning seeks to first understand the role of arts and culture within communities. The process takes stock of existing cultural resources and asks how they can be maintained, enhanced or developed to continue building the vitality, liveability and success of a community. The process will involve mapping the infrastructure for arts and culture in each of the City’s 24 sub-councils, and then developing a neighbourhood plan as well as a needs analysis for each community. These will inform the development of a thorough cultural plan.

Project implementation
A spatial mapping exercise identified cultural infrastructure, including theatres, schools, churches, open stages, and performance spaces for art, dance and drama in a representative sample of neighbourhoods across the city. Bonteheuwel was identified as an ideal pilot because, despite rich cultural activity, it is a largely untapped site. This offered a new learning opportunity for the project team. Although this project is modelled after international examples, Cape Town has a unique cultural context and history. In light of this, the project team sought to determine a feasible methodology for other sites based on this pilot study.

Evaluation
The significant reliance on community input is the challenge for cultural planning and the project team found it difficult to obtain a successful strategy for getting the most out of their public participation efforts. The cultural planning process is a relatively new approach to community engagement and, as such, the response to the process is relatively uncertain. The project team is still in the development stages of a definitive strategy.
Project 3: Dunoon local area planning initiative

Problem statement
Socio-spatial inequality is a significant challenge throughout Cape Town. It is increasingly difficult to design, build and maintain functional settlements that deliver housing and socio-economic opportunities in line with other objectives of the City. This is due to rapid immigration of people in search of prosperity. Hence, as informal living increases, service delivery to these residents becomes exceptionally difficult. There is an acute need for guidance and support at the municipal level to enable innovative transformation and provide adequate services for residents. These communities are dynamic, and, despite facing challenges that are pervasive in most low-income areas, still have a unique context.

Project outline
The Local Area Planning Initiative (LAPI) involves thorough and interactive community engagement throughout all phases of sustainable urban planning. It supports a variety of transitions to help build capacity and income potential and create public and private investment opportunities. The Dunoon LAPI undertook a holistic mapping and ground-truthing process to identify focus areas for project implementation. These were practical projects addressing basic needs, and strategic projects that enabled rethinking how to achieve well-functioning settlements within a developmental context. This is important in the context of limited land and financial resources, and the need to improve rates recovery to sustain investments into settlement development at municipal level.

Project design
Bearing in mind the overarching objectives of the Urban Settlements Development Grant, the LAPI process undertakes a phased approach to inclusive, innovative and sustainable planning. This is underpinned by diverse and integrative public participation, from initial stakeholder identification and research to themed workshops that help identify practical ‘low-hanging fruit.’

The process of rethinking and reshaping Dunoon into a well-functioning settlement requires coordinated support from multiple agencies and resources.

The same level of engagement is then applied to City role-players where the parameters of functional settlements are worked up and gaps identified. These are transformed into urgent and catalytic opportunity projects and the processes, outcomes and outputs of these are used to generate a Local Area Development Initiative (LADI). Throughout the engagement of City role-players, progress is fed back to the community. Dunoon was identified as the pilot community for testing this approach of mapping and ground-truthing.

Project implementation
Most of the places and spaces initially planned for community amenities in Dunoon have been occupied by informal residential structures. The limited space for additional facilities demands an unconventional approach to ensure effective use. The development of a Community Information Hub to serve as an innovative facility that can provide a space for the most necessary interventions as well as support community-building and learning programmes is currently underway. A broad range of services and resources will be offered, including an e-learning initiative, skills development and training programmes, and an employment information centre that helps link residents with economic opportunities. A Public–Community Partnership (PCP) will be put in place to run the multi-use facility to sustain beneficial partnerships between the City and its citizens as well as contribute to capacity-building in Dunoon.

Evaluation
Dunoon is largely a non-rateable community with very little income for the City, but with substantial costs for existing service provision. Maintenance of public infrastructure and services through partnership with communities can give residents a sense of ownership and pride over their facilities. Although formally planned with adequate land set aside for public facilities, informal settlement, backyards and illegal encroachment of formal structures invalidates urban planning and severely complicates and restricts municipal service delivery in Dunoon. The process of rethinking and reshaping Dunoon into a well-functioning settlement requires coordinated support from multiple agencies and resources. Multiple partnerships are necessary to support medium- and long-term sustained development programmes. The LAPI approach demonstrates the value of a fact based, phased, integrated approach to transforming urban settlements into desirable, well-functioning suburbs with rate paying residents. To realise this transformation, LAPI promotes the establishment of a learning culture in a supportive environment that allows people to improve their lives. However, in order to deliver and maintain functional settlements, there is need for transversal management of such programmes.
Problem statement

Urban rivers are becoming more heavily-engineered and polluted resulting in degraded habitats and damaged urban ecosystems. As the impacts of climate change start hitting closer to home, the challenge for cities is to transform socially and ecologically fragmented river corridors. Restoring river corridors will contribute to the ecological, social and economic sustainability of these important assets for people and nature and deliver a range of benefits. River corridor restoration projects provide an important opportunity for engagement with a variety of stakeholders, promoting optimal working relationships and a holistic approach to urban protected areas and riverine systems. Historically limited access to natural assets, unemployment, safety and security concerns, and transforming negative open spaces are all issues that could be addressed through reversing ecological degradation and implementing sound river management principles.

Project outline

The Source to Sea project in Cape Town focuses on river corridors in the Zandvlei Catchment; specifically the Diep River and Prinskaasteel/Keyers River, which connect Table Mountain National Park with Zandvlei Estuary. The project seeks to enhance the quality of life for local communities while maximising recreational opportunities and protecting environmental services. The management of water quality and quantity so as to support maximum biodiversity is an ecological priority. In addition, this project serves to provide strategic and alternative non-motorised transport (NMT) routes as well as to develop a substantial resource for the green economy. SANParks, ICLEI: Local Governments for Sustainability and the Wildlife and Environment Society of South Africa (WESSA) are also engaged with the City of Cape Town on this project.

Project design

The aims of the project are to maximise urban natural recreational space by restoring degraded open space corridors. The project integrates stakeholder activity across the spectrum, in a formalised plan of action for key deliverables of infrastructure to the benefit of all, aimed at reversing pollution and solid waste dumping, building resilience to climate change, promoting access, enhancing recreational opportunities and encouraging ongoing use of the corridors.

Project implementation

The planning activities and alignment of intentions for the source to sea is well underway. A website has been developed and is used as the platform for coordinating the numerous stakeholders, programmes, initiatives and projects that could be implemented along the targeted corridor. Two significant workshops and a number of site visits have brought together the primary role-players and contributed to the alignment of stakeholder activity. Source to sea is one of the key programmes of action forming the partnership between the Cities of Cape Town and Munich as part of the ‘50 Municipal Climate Change Partnerships’ programme. It has also been integrated with the Zandvlei Catchment Forum, coordinated by the City’s Stormwater and Sustainability Branch.

Evaluation

Currently, few people frequent the corridor, despite the large number of stakeholders involved. This, as well as challenges associated with integration across income groups around the corridor could pose obstacles to the project’s development. Source to sea represents an innovative way to solve multiple urban challenges in an inclusive intervention, strengthening Cape Town’s position as a leader in sustainable urbanisation in Africa. That the corridor is not seen as positive open space by many and is not apparently frequented by large numbers provides a challenge, which could be turned around through a green stimulus package prioritising employment and delivering a secure, clean and vibrant open space system, attractive to all.

Restoring river corridors will contribute to the ecological, social and economic sustainability of these important assets for people and nature and deliver a range of benefits.
Problem statement
All around the world, societies are facing challenges relating to unsustainable production and consumption. These have caused a rapid loss of natural resources, land degradation, waste, pollution and rising levels of poverty. Local government has substantial buying power due to its large consumption of goods and services which allows a critical ability to drive the market towards more environmentally and socially responsible, locally manufactured products and services. This then promotes more sustainable production, consumption and local economic development.

Project outline
Sustainable public procurement (previously referred to as green procurement in the City of Cape Town), refers to a procurement system intent on reducing the City’s financial costs and ecological footprint, while improving urban sustainability and driving the green economy.

Project design
Establishing good sustainable public procurement practice in the City has required considering its role throughout the Supply Chain Management process. Sustainable public procurement involves demand management (do we need to procure this?), acquisition management (can we buy products that have minimised resource use and environmental degradation in their manufacturing and use?), logistics planning (can we use local suppliers, less frequent deliveries, and transversal contracts?), disposal management (considering reuse and recycling as well as disposal safety); and supply chain performance (measurement and communication of savings in terms of costs and reduced environmental and socio-economic impacts so as to encourage others to promote sustainable public procurement across operations).

Project implementation
Line functions drive and promote sustainable public procurement through their stipulations to Supply Chain Management. The City has seen some progress with the ‘green’ procurement of goods and services in a number of its operations. For example, where possible, City Fleet tenders include fuel efficiency and Euro Standards to be measured under Functionality in Urban Sustainability designs; solid waste disposal management (can we buy products made in the energy retrofitting of many City buildings); large low-cost housing projects; and homes through, for example, the solar water heater accreditation programme and the Commercial Users Energy Efficiency Forum.

Evaluation
The City of Cape Town is considered a world leader within a Global Lead Cities Network on Sustainable Public Procurement. The full potential benefits of this practice still need to be realised. Current challenges include the difficulties associated with conducting a ‘green’ audit and evaluating the social and environmental standards of goods and services with fair comparison. Education about sustainable public procurement to encourage uptake will take time.

While the support for sustainable public procurement is strong at policy level, the implementation thereof still faces challenges. Certain elements can initially cost more, which may not be factored in by line functions in their project budgeting. Many elements may in fact result in cost savings to the City over time. The City’s systems and processes therefore need to allow for down the line saving as well components of sustainable public procurement that may not reap significant savings, but may stimulate the local market for green goods and services, create green jobs, and lead to an improvement in the environmental compliance of suppliers.

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Sustainable public procurement has growing importance as part of the City of Cape Town’s Supply Chain Management Policy due to its role in reducing the City’s financial costs and ecological footprint, while improving urban sustainability and driving the green economy.

These efforts have been assisted by the development of Implementation Guidelines for Green Procurement. Sustainable public procurement has been promoted in other organisations and homes through, for example, the solar water heater accreditation programme and the Commercial Users Energy Efficiency Forum.

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Problem statement
Only 7% of Cape Town’s population are actively involved in club or team sport. Until recently, significant resources from the City’s Sports, Recreation and Amenities Department (SRA) were being allocated to construct artificial turfs to support the hundreds of soccer clubs around the city. To date, 17 artificial turfs have been installed and four more are set to be constructed. However, the model of providing single-use recreational facilities does not support the remaining 93% of citizens who do not play formal or competitive sport.

Project outline
While soccer is vastly popular across the world and has played an important role in our country given the 2010 World Cup, it is important that the SRA provides as much support as possible to the citizens in Cape Town who do not play sport formally or competitively. For this reason, the SRA are looking to provide more inclusive and multi-use facilities for sport and recreation across the city, integrating formal and informal sports facilities with other forms of recreation.

Project design
Through transversal partnerships with City Parks, Libraries and Information Services and other City departments, SRA is moving toward creating multifunctional recreation ‘clusters’ in the form of multipurpose facilities around existing clubhouses or other strategic recreation infrastructure. Although unconventional, it is necessary to renovate existing facilities due to the competition for land in our sprawling city. Integrated planning across line functions allows for the development of recreation facilities that cater for formal and informal sport.

Project implementation
A research study conducted in 2011 informed the SRA of important recreation trends and needs within a large sample of communities across the city. Following key recommendations from this report, ‘recreation clustering’ has become a primary mandate for SRA, the best example of which is the Valhalla Park family recreation centre. This is a multi-use recreation facility that features an artificial soccer pitch, a skate park, a BMX track, an informal cricket oval, a toddlers play area, an innovative spray park, an outdoor gym, a clubhouse, and open air reading circles linked to the local library, all connected by landscaped paths.

Evaluation
Recreation clustering is an innovative approach to enable and enhance participation in sport, recreation and generally active lifestyles. The diversity that multi-recreational centres offer caters for varied preferences across the demographics of Cape Town’s citizens. SRA bears in mind the ‘93-7’ figure in terms of addressing larger recreation involvement challenges across the city. The capital budget spend on the 7% is no longer sustainable, making this new initiative a substantial contributor to the City’s inclusive and caring focus areas.

Creative and innovative project design and planning, as demonstrated by projects in the Vision portfolio, play an important role in solving complex urban challenges and moving Cape Town towards a more sustainable future.
The projects in this section are driven by a strong social component. Most of them have significantly involved communities in the development of processes and structures. Although the pillars of sustainability are interconnected, the projects in this category were originally motivated by the need to address a social problem that arose from within the community or came from the everyday dynamics within communities in the city.
Problem statement
Canalisation of urban rivers has become common, with canals often flowing through residential areas and water quality varying from area to area. Water quality is usually at its worst due to illegal dumping in canals that flow through informal settlements. Regardless of their condition, canals become a popular place for children to play during the summer months, because of the lack of recreational facilities in informal settlements. However, poor water quality can become a serious environmental health hazard, increasing the risk of disease through exposure to harmful pathogens.

Project outline
City Health, in collaboration with the community of Langa initiated a project that empowers the residents living directly adjacent to the canal running along Joe Slovo Road and the N2 through informal settlements. Regardless of their condition, canals become a popular place for children to play during the summer months, because of the lack of recreational facilities in informal settlements. However, poor water quality can become a serious environmental health hazard, increasing the risk of disease through exposure to harmful pathogens.

Project design
The key objectives of adopt-a-canal were to ensure that educational initiatives around the water quality in the canal were put in place; that the concentration of E.coli in the water decreased; that illegal dumping into the canal stopped; that the level of ownership that the community takes over the interventions.

Project implementation
Unemployed residents from Langa were recruited and trained to conduct a community survey to highlight the perceptions and level of education around the determinants of water quality in the canal. They were also trained to deliver a health education package that addressed the concerns that emerged. After the canal was cleaned up and the solid waste was removed, adjacent residents were encouraged to monitor the area to ensure dumping no longer occurred. An indigenous, ‘water-wise’ garden was planted to encourage greater use and protection of the canal and support the long term improvement of the area’s biodiversity. The garden was also useful as many of the plants had medicinal properties suitable for traditional use. Unfortunately, this phase of the project encountered significant challenges in the over-harvesting and lack of care of the garden. However, since then, further consultation and engagement with the community has led to the formation of additional plans which include constructing benches and soft-landscaping paths along the canal. The implementation of these plans has successfully started with more input from the community.

Sustainability assessment: Adopt-a-canal

Ultimately, the long-term success of the project will depend on the level of ownership that the community takes over the interventions.

Evaluation
This project represents an important interdisciplinary approach to addressing environmental health concerns. There has been a significant decline in the amount of dumping in the pilot segment of the canal. Dumping is still problematic in the Kosovo area, but the occurrence of this has been restricted to weekends when there are fewer eyes on the canal. Ultimately, the long-term success of the project will depend on the level of ownership that the community takes over the interventions. Challenges encountered so far in this regard have been addressed through increased emphasis on engagement and consultation with the community.
Project 8: Open data portal

Problem statement
The City of Cape Town generates a significant amount of data that could be useful to citizens. Unfortunately, this information is often hidden from public view in the archives of line functions or is simply inaccessible. Access to these large bodies of data is becoming increasingly important in the transition towards an open, inclusive and competitive economy. More and more local governments are availing their data to empower their citizens with transparent knowledge of the workings of local authorities.

Project outline
This project focuses on populating a single online data portal with information and data generated by the City in a useful form and at no cost to citizens. The underlying concept is that many good things can come from assembling City data, standardising it and publishing it for free. The datasets contained on the open data portal could be used for broad social and economic benefit for example, information technology entrepreneurs, property developers or social organisations could use this to develop their businesses.

Project design
This project was developed from the Open Government for Business Innovation (OGBI) initiative that was supported by the World Design Capital. The open data portal was created so that citizens could engage with the data and create innovative solutions, thereby contributing to the management of their city.

Project implementation
The Open Data Portal is governed by the Open Data Policy (policy number 27781, approved September 2014) and is overseen by the Open Data Steering Committee. The steering committee includes six internal and two external representatives who were appointed following a public participation process. The portal was launched in January 2015 and, at the time of writing, 35 data sets had been uploaded for public viewing. The uploaded data can be freely used, shared and built on by anyone, anywhere, for any purpose. The open data portal also has a user feedback system which allows citizens to request certain data sets or provide suggestions to inform future enhancements. The open data portal hopes to inspire innovation among citizens by making data more freely available.

Evaluation
Cape Town is the first African city to open its data to the public through an open data portal. The open data portal makes it easy for the public to access data and promotes transparency and accountability thus aiding citizen engagement with the City. It also contributes to the creation of an enabling environment which will attract investment to generate economic growth and create jobs. As a result, this project aligns strongly with the City’s strategic focus on being an inclusive, well-run and opportunity city. The portal is still very young with data being uploaded incrementally. During the next phases of the project, the content will be enhanced with a strong focus on raising awareness of the portal and the potential uses of the data. Ultimately, in order for the open data portal to become a truly instrumental tool for Cape Town’s citizens, it must be well-promoted with the potential benefits widely communicated to inspire innovation.

Sustainability assessment: Open data portal

Building community
Improving quality of life
Facilitating community engagement
Ensuring strategic alignment
Addressing major ecological challenges
Promoting and enhancing biodiversity
Enhancing resource efficiency
Creating economic opportunities
Improving productivity and efficiency
Reducing threats and maximising opportunities
Alleviating poverty

Mayor’s Portfolio of Urban Sustainability 2016

More and more local governments are availing their data to empower their citizens with transparent knowledge of the workings of local authorities.
Problem statement
Major influences that shape the health of populations and the distribution of health inequities are located outside the health sector. This means that when public and environmental health challenges are identified, the contributing factors exist in the ambit of responsibility of a host of other service departments. This is most complex in the urban context, particularly where a variety of urban activities come together at stations, taxi ranks and other transport interchanges. In these spaces, crime, drug dealing, dumping and other illegal activities, combined with a lack of maintenance and law enforcement, can quickly degrade the urban environment, posing serious risks to public health. This was identified to be of particular concern at the Bellville PTI, frequented by 170 000 commuters on a daily basis.

Project outline
Inter-sectoral collaboration between City Health, Environmental Health, Fire, Traffic, Utility Services, Sports and Recreation, Property Management, Social Development, Roads and Transport, and Planning and Building Development of the City of Cape Town, and the Voortrekker Road Corridor Improvement District (VRCID), Metro Rail and SAPS gave rise to the restorative project Operation Revive: Bellville Primary Transport Interchange (PTI). Through a number of interventions the public environment in and around these areas has been and continues to be improved for the benefit of all to create a clean and safe urban public space.

Project design
A task group was formed to initiate the intervention. Environmental health practitioners (EHPs) undertook preliminary site visits to establish the boundaries of the problem areas, the problems themselves and the responsible departments. After gathering local information and consulting with departments, action plans were devised that included a comprehensive communication strategy, clearly defined roles and responsibilities for each department, and the allocation of available resources from departments, most importantly, staffing. Homelessness is a major consideration of this project, as many people seek shelter in these spaces. These collaborations use the services of the Social Development Department to ensure that the homeless are reunited with their families. This includes offering assistance to transport themselves and their belongings even outside of Cape Town.

Project implementation
The revival of the Bellville PTI will follow a similar approach to the already completed improvement of Landrost Street, Mark Street, AJ West Street, Durban Road and the railway line next to the Tienie Meyer Bypass. A clean-up operation was conducted with Utility Services, removing illegally dumped waste in these areas. This upgrade also included the painting of parking bays, installation of guardrails and bollards, unblocking drains, fixing street lighting and clearing overgrown council property. They also address unsustainable and dangerous practices associated with food kiosk operations as well as improved infrastructure in the public ablution facilities.

Evaluation
EHPs conduct regular check-ups after these interventions to ensure that the areas do not fall into disrepair. Feedback is given at monthly “urbanisation meetings” which integrate the EHPs of City Health with the service departments to ensure that responsibilities are fulfilled and risk to public health is avoided. The project’s sustainability assessment shows strong evidence for the project’s commitments to ensuring that the City is safe, caring and inclusive.

Sustainability assessment: Operation revive of Bellville PTI

- Promoting transparent and democratic processes
- Ensuring strategic alignment
- Addressing major ecological challenges
- Promoting and enhancing biodiversity
- Enhancing resource efficiency
- Improving productivity and efficiency
- Creating economic opportunities
- Reducing threats and maximising opportunities
- Improving quality of life
- Building community
Project 10: Langa cultural precinct

Problem statement
Langa is one of Cape Town’s oldest settlements, and, when initially established in 1927, was delineated for black South Africans. It is an important cultural and historical node and with Guga S’thebe being the only City-owned arts and culture centre, there was a need to engage stakeholders in developing the mechanisms to stimulate the centre, and surrounding area, into a significant cultural location open to the people of Langa and relevant to all in Cape Town as well.

Project outline
The project, identified in 2013, involved activating the space around Guga S’thebe, which over the years had lost its inclusive feel and was perceived as being ‘only for tourists’. This was achieved through construction and building undertakings, combined with a targeted effort to renew the community’s input into, and therefore enthusiasm for, the centre and its surrounds. The project took into account the heritage sites and historical importance of the area and included the refurbishment of some of these sites within the Langa Cultural Precinct.

Project design
The City of Cape Town partnered with students from the Peter Behrens School of Architecture in Dusseldorf and the RWTH Aachen University in Germany as well as students from the University of Cape Town to design and develop the precinct. The Guga S’thebe centre and its studio spaces were to be complemented by a 200 seater theatre constructed on the open land adjacent to the centre. This was to be constructed in part from recycled shipping containers. The design-led thinking process optimised the collaborative and user-centric approach. The precinct includes the Guga S’thebe Centre, the Passbook museum, the Post Office, and the newly constructed theatre.

Project implementation
The implementation was made possible through strategic partnerships formed by the Arts and Culture Department. The theatre has become an important resource enabling local community members and performance groups to showcase their talents. In addition, it provides an attractive venue for bigger investments into the Langa community such as the hosting of the 2015 Red Bull Amaphiko Academy which provided a platform for grassroots social entrepreneurs. The department partners with the Expanded Public Works Programme to employ people from the local community to ensure the smooth running of the theatre. The refurbishment and activation of surrounding heritage sites has contributed to the success of the precinct. Most importantly, the Post Office Museum, which was not always open to the local people, is now the primary ‘Project Room.’ This is a space where ideas, intentions and hopes for the precinct can be workshoped, and also where the local community can suggest how their own businesses can contribute to the creation of an inclusive precinct. This helps the Project to support local small, medium and micro-enterprises (SMMEs). The Langa cultural precinct became a significant feature in both the Open Design Festival and Cape Town Fringe Festival in 2015.

Evaluation
Since the initial re-imagination of the Langa Cultural Precinct, the usage of space, specifically the theatre, has tripled. Through the mutually beneficial partnerships formed by the Arts and Culture Department, existing crafters and designers have been exposed to professional design and entrepreneurial training to improve their prospects. The Project Room enables constant development and improvement to the Precinct, benefiting the Langa community. The true potential of improving tourism business in the area needs to be fully explored.

Sustainability assessment: Langa cultural precinct

- Building community
- Improving quality of life
- Creating economic opportunities
- Improving productivity and efficiency
- Alleviating poverty
- Enhancing resource efficiency
- Addressing major ecological challenges
- Promoting and enhancing biodiversity
- Ensuring strategic alignment
- Facilitating community engagement
- Promoting transparent and democratic processes
- Reducing threats and maximising opportunities

Since the initial re-imagination of the Langa cultural precinct, the usage of space, specifically the theatre, has tripled.
Problem statement
Quality public parks are an important component of everyday life in urban areas. Currently a significant number of areas in Cape Town remain under-served. These communities often cannot access public parks conveniently or frequently. The challenge, however, is not limited to simply ensuring quantitative access standards are met, but rather ensuring that qualitative aspects are appropriately addressed. This includes ensuring that park design and construction are compelling, attract people to the space and forge community ties. This calls for parks that are designed with and for local residents and ensure long-term sustainability.

Project outline
Smart parks is a principle-driven programme aimed at delivering high-quality, unique and user-friendly parks that add value to the social, economic and environmental fabric of communities across Cape Town. Public open spaces play an essential role in residents’ physical and psychological well-being and especially in sparking creativity, problem-solving skills and physical development of children through play. The smart park programme seeks to develop platforms for this to take place.

Project design
The Smart Parks concept was identified as World Design Capital Project, because it uses design-led thinking to transform the way in which public spaces are developed. To effectively meet the recreational needs of communities, open dialogue is facilitated to better understand each community’s context and interests and incorporate these into the design of the smart park. This collaborative design process contributes to the establishment of community ownership and buy-in which is essential for the park’s sustainability.

Project implementation
The smart parks programme seeks to stimulate social interaction and integration of communities as well as provide high quality, attractive park facilities that are both structurally sound and creatively designed. To achieve this, the project team invests in community engagement in order to best understand the context of the community and identify the park features/activities that would draw residents into the park.

Priority areas for the development of smart parks are those that have the highest need for additional, multipurpose recreational spaces for communities to access and enjoy. At the time of writing, smart parks had been launched in Delft, Gugulethu, Khayelitsha, Strand, Seawinds and Atlantis.

Evaluation
Well-designed public open spaces can successfully draw residents to the park. This increases security and encourages healthy and active lifestyles. By adopting a methodical and user-centric approach to park development, City Parks effectively responds to community recreational needs in areas that have been previously under-served.
Evaluation
The MSATs have enabled the funding of numerous NGO projects which, in turn, have had large impacts on the lives of people within the communities in question. Collaboration across sectors increases the capacity of the teams to address HIV/Aids and TB and strengthens the institutional structures of many NGOs that are involved. A study done by an NGO, the Isandla Institute, found that “almost all stakeholders directly involved in the MSATs expressed strong support for the MSAT concept and the value of these structures in strengthening community responses to HIV/Aids and TB” (P41, Mainstreaming Local Government responses to HIV/AIDS – A Case Study of the City of Cape Town’s HIV/AIDS/TB Multi-Sectoral Strategy, Isandla Institute, 2007). Furthermore, the MSATs have provided quality employment and career development for many young community members.

Problem statement
HIV/Aids and TB are two of the major contributors to mortality and morbidity in Cape Town, mostly in informal settlements and other low-income areas. The pervasive nature of these challenges makes it increasingly difficult for local health facilities to reach the many affected communities and have a substantial impact. In 2002, Dr Ivan Toms identified that NPOs, in a coordinated project, could be of utmost importance in the fight against HIV/Aids and TB at community level. The need to structure a clear, collaborative and strategic response to the challenges related to HIV/Aids and TB became clear.

Project outline
The multi-sectoral action teams (MSATs) are composed of different government sectors, non-governmental organisations, community organisations, faith-based organisations and local businesses in each of the City’s eight health sub-districts. The MSATs aim to mobilise all sectors to act against HIV/Aids and TB, with priority areas including prevention; treatment, care and support; research; monitoring and evaluation; and human and legal rights. The MSATs are able to fund and support a selection of NGO-run projects through intersectoral collaboration and the Global Fund grant received by the Western Cape Government. Synergy through interdependence and sharing of practical skills and resources enable the MSATs to accomplish common goals and better address the challenges of HIV/Aids and TB.

Project design
A MSAT coordinator post for each MSAT was created at an EPWP level to support the MSAT and member organisations. These posts are in the form of two-year learnerships that encourages the youth within the sub-districts to learn important management skills in an interdisciplinary setting. To qualify for funding, NGOs submit project proposals to the MSAT which are thoroughly assessed to ensure that there is no duplication of project focus areas. The MSAT coordinator also liaises with the community to ensure transparency. Each funded project is supported by the network of the MSAT to maximise its impact. The projects submit quarterly reports to the MSAT and to the City’s Health Directorate. The MSATs collectively report to the City’s HIV/Aids and TB coordinating committee and the Health Directorate reports to the WCG Global Fund management.

Project implementation
The NGO projects that are funded are selected in line with local needs. The focus areas include orphans and vulnerable children; income generation and job creation; food security and urban food gardens; life skills programmes; peer education and counselling; awareness programmes; community-based TB treatment; women empowerment; and projects to improve the participation of men in HIV/Aids and TB services. In the 2015/16 financial year, 55 projects across the eight sub-districts were funded.

Sustainability assessment: Multi-sectoral action teams

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<th>Building community</th>
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<td>Facilitating community engagement</td>
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The MSATs aim to mobilise all sectors to act against HIV/Aids and TB, with priority areas including prevention; treatment, care and support; research; monitoring and evaluation; and human and legal rights.
Project 13: New Manenberg human settlements contact centre

Problem statement
The Public Housing & Customer Services Department of the Human Settlements Directorate is tasked with the management and administration of the City’s public housing units. To manage these, housing estate offices exist across the City. Until 2008, the Manenberg estate office was unable to carry out its function and provided a minimum level of service, due to its location between the rivalled territories of four major Cape Town gangs. Staff and clients were continuously exposed to this volatility and, on many occasions the office had to close its doors for safety reasons.

Project outline
Planning for the design and construction of the New Manenberg human settlements contact centre was initiated in 2008. A modernised contact centre servicing Manenberg residents was required for a broader range of services while increasing accessibility and visibility to the wider community was created. This client-friendly, all-inclusive facility has increased staff capacity and now offers a high standard of service with the highest environmentally sustainable standards. It meets international best practice in environmental design and implementation, set out by the Green Building Council of South Africa (GBCSA).

Project design
The first consideration was the site selection which, despite its challenges, has made the centre safer and more accessible. The centre has been designed with the aim of delivering a quality environmentally and socially responsible facility that brings service delivery closer to the community. Bringing new architecture into the neighbourhood also has a potentially positive effect. While not expecting too much from a new building, residents’ identity is often a response to their surroundings, and the quality of investment in them. The City’s architects, in partnership with the Sustainable Energy Africa NPO, coordinated the components that contributed to the building’s international award for best practice in the industry by achieving a 4-Green Star rating from the GBCSA. Up to 75% of the building’s energy is harvested by wind or solar power. Water saving methods enable the building to reuse 100% of its waste water with an on-site black water treatment plant. Materials used in construction were selected for their eco-friendly content and low-carbon footprint in manufacture and delivery. Some of the walls are made of sandbags and were constructed by specially trained local community members. The design of the centre also incorporates landscaped courtyards to encourage staff productivity and improve their general health and well-being. The building is strategically situated within the Wetton Lansdowne Corridor Development Framework, fitting perfectly within the building to reuse 100% of its waste water with an on-site black water treatment plant. Materials used in construction were selected for their eco-friendly content and low-carbon footprint in manufacture and delivery. Some of the walls are made of sandbags and were constructed by specially trained local community members. The design of the centre also encourages the indoor environmental quality by increasing fresh-air intake, inviting daylight into the workspace and incorporating landscaped courtyards. This generated a sense of connectivity, ownership and pride in a building that is unique to the Manenberg community and speaks to its past, present and future.

Sustainability assessment: New Manenberg human settlements contact centre

Building community

Promoting transparency and democratic processes

Ensuring strategic alignment

Addressing major ecological challenges

Promoting and enhancing biodiversity

Improving resource efficiency

Alleviating poverty

Improving quality of life

Facilitating community engagement

Creating economic opportunities

Reducing threats and maximising opportunities

Improving productivity and efficiency

The first consideration was the site selection which, despite its challenges, has made the centre safer and more accessible. The centre has been designed with the aim of delivering a quality environmentally and socially responsible facility that brings service delivery closer to the community. Bringing new architecture into the neighbourhood also has a possibly positive effect. While not expecting too much from a new building, residents’ identity is often a response to their surroundings, and the quality of investment in them. The City’s architects, in partnership with the Sustainable Energy Africa NPO, coordinated the components that contributed to the building’s international award for best practice in the industry by achieving a 4-Green Star rating from the GBCSA. Up to 75% of the building’s energy is harvested by wind or solar power. Water saving methods enable the building to reuse 100% of its waste water with an on-site black water treatment plant. Materials used in construction were selected for their eco-friendly content and low-carbon footprint in manufacture and delivery. Some of the walls are made of sandbags and were constructed by specially trained local community members. The design of the centre also incorporates landscaped courtyards to encourage staff productivity and improve their general health and well-being. The building is strategically situated within the Wetton Lansdowne Corridor Development Framework, fitting perfectly within the City’s spatial planning requirements.

Project implementation
The construction methods and materials were selected to be labour-intensive so as to create jobs and training opportunities. Community members were employed and developed skills for sustainable building methods. The surrounding community played an important role in adopting the building as a safe communal space to benefit all – by incorporating their own art into the facade. This generated a sense of connectivity, ownership and pride in a building that is unique to the Manenberg community and speaks to its past, present and future.

Evaluation
This project harnessed a network of skills and expertise, and formulated a constructive coordination across City departments and important external partners. It highlighted the importance of considering product lifecycles and sustainability in City construction projects and procurement. The holistic design, embraces green and sustainable principles, and takes into account the crime and vandalism which affected the previous location. It thus aligns strongly with the caring, safe and well-run focus areas of the City’s IDP.
Problem statement
Environmental health risks associated with informal settlements pose a significant challenge to public health. Dirty living environments increase exposure to pathogens, exacerbating the spread of disease. Children are usually at the greatest risk. In particular, the warmer summer months intensify the spread of diarrhoeal disease-causing pathogens. Diarrhoea is one of the leading causes of avoidable child mortality in poverty-stricken and informal urban settlements worldwide. Improving local public health systems and developing an integrated response across City service departments is critical. The Diarrhoeal disease season (DDS) campaign is an integrated response executed to address these challenges is critical.

Project outline
The Diarrhoeal disease season (DDS) plan is an integrated response executed across City service departments. Environmental health practitioners (EHPs) visit homes and complete case investigations to identify factors that contribute to morbidity and severe dehydration in children under five years old. Monthly ‘informal settlement meetings’ allow sub-districts to discuss local environmental health risks that need to be addressed. Weekly meetings, integrating all health partners within sub-districts, are used to ensure a consistent understanding of the goals of the DDS plan and the methods, treatments and rapid referral systems in place, and to review the previous week’s cases. The meetings bring together nurses, EHPs, NGOs, and community care workers for the integrated management of childhood illnesses while developing enthusiasm and hope.

Project implementation
The DDS plan was introduced each year according to a ‘plan, do, review’ approach. EHPs visit homes and complete case investigations to identify factors that contribute to morbidity and severe dehydration in children under five years old. Monthly ‘informal settlement meetings’ allow sub-districts to discuss local environmental health risks that need to be addressed. Weekly meetings, integrating all health partners within sub-districts, are used to ensure a consistent understanding of the goals of the DDS plan and the methods, treatments and rapid referral systems in place, and to review the previous week’s cases. The meetings bring together nurses, EHPs, NGOs, and community care workers for the integrated management of childhood illnesses while developing enthusiasm and hope.

Project design
The DDS plan is adapted each year according to a ‘plan, do, review’ approach. EHPs visit homes and complete case investigations to identify factors that contribute to morbidity and severe dehydration in children under five years old. Monthly ‘informal settlement meetings’ allow sub-districts to discuss local environmental health risks that need to be addressed. Weekly meetings, integrating all health partners within sub-districts, are used to ensure a consistent understanding of the goals of the DDS plan and the methods, treatments and rapid referral systems in place, and to review the previous week’s cases. The meetings bring together nurses, EHPs, NGOs, and community care workers for the integrated management of childhood illnesses while developing enthusiasm and hope.

Evaluation
The DDS plan has followed a ‘quick wins’ approach to break down the complexity of modern urban challenges that negatively impact public health. This has proven very successful in reducing the number of deaths due to diarrhoea and in improving trust between various health partners, City service departments and communities. The DDS plan has become a well-embedded and supported part of the City’s public health system. Attempts are being made to explore the possibility of tackling other diseases (such as pneumonia and malnutrition) in a similar manner.

Sustainability assessment: Diarrhoeal disease season campaign
- Gold star rating
- Promoting and enhancing biodiversity
- Building community
- Improving quality of life
- Creating economic opportunities
- Addressing major ecological challenges
- Enhancing resource efficiency
- Reducing threats and maximizing opportunities
- Ensuring strategic alignment
- Facilitating community engagement
- Promoting transparent and democratic processes
- Alleviating poverty
- Improving productivity and efficiency

Diarrhoea is one of the leading causes of avoidable child mortality in poverty-stricken and informal urban settlements worldwide. Preventative measures were incorporated, including a cost-effective recycled squeeze-bottle that allowed residents to wash their hands frequently where available water to wash their hands frequently, and access to a rehydration salt and sugar solution. The DDS plan was first rolled out in 2008, where a ‘diarrhoea corner’ was set up and nurses and EHPs were trained to identify the various types of dehydration, administer an oral rehydration salt and sugar solution and to fast-track children who had become dehydrated. A rapid response ambulance service and more hospital beds dedicated to dehydrated children were also implemented. Since then, a wider societal approach to break down the complexity of modern urban challenges that negatively impact public health. This has proven very successful in reducing the number of deaths due to diarrhoea and in improving trust between various health partners, City service departments and communities. The DDS plan has become a well-embedded and supported part of the City’s public health system. Attempts are being made to explore the possibility of tackling other diseases (such as pneumonia and malnutrition) in a similar manner.
Economic Vision

Alleviating poverty

Ecological Overview

Stone houses

Ocean View

Project 15

and the crushed material was sold over a

appointed a contractor to remove the rock
deemed too expensive. In 2006, the City
of excavating the rock from the site was
project in the late 1980s, but the cost
situated was subdivided for a housing
The land on which the development is
human health.

Social

58

59

Problem statement

Simply addressing the housing backlog is no longer enough to halt the emerging widespread urban poverty. The provision of low-cost housing in urban areas has been a key focus in post-apartheid South Africa. Not only is the housing waiting list increasing, but time has shown that the typical RDP block houses are far below comfortable and healthy living standards, raising concern about the social and environmental sustainability of housing programmes and the impacts upon the surrounding environment and human health.

Project outline

The land on which the development is situated was subdivided for a housing project in the late 1980s, but the cost of excavating the rock from the site was deemed too expensive. In 2006, the City appointed a contractor to remove the rock and the crushed material was sold over a four-year period. During this process, the City realised this housing project afforded a significant opportunity to deviate from conventional housing delivery models and innovate for sustainability. The strategic opportunity to address both housing and unemployment emerged in the People’s Housing Process (PHP) approach to the construction of human settlements which has enabled communities to overcome unemployment and poverty. The PHP is extensively involved in the Expanded Public Works Programme affording invaluable skills development, training and employment opportunities. A Support Organisation is established for each PHP project to deal with beneficiary and project issues as well as to integrate all active role-players and stakeholders. The Ocean View PHP project offered a more holistic, innovative and sustainable approach to conventional housing delivery models.

Project design

The major innovative concept that underpins the design of the Ocean View PHP and its houses was the use of existing stone, found on site, as the primary building material. From a design point of view, the use of the stone had multiple benefits including its thermal mass and good insulation properties. It also created an upmarket feel to the subsidy housing development that blended into the surrounding natural environment. Stone construction is extremely labour intensive which helped to create many jobs for unemployed residents. The unique design has contributed to it being a positive example of transforming the conceptualisation and implementation of subsidised housing. Design-led thinking has provided an invaluable solution to the housing challenge and simultaneously empowers communities through sustainable livelihoods, education and training.

Project implementation

Over 1 000 EPWP local labourers were employed at various stages of construction, including the prior sorting and preparation of stone for building. In addition to this boost in community employment, 40 local trainee stonemasons, including five women, underwent an intensive six-month training course and now form part of the main construction team as the project nears completion. A major benefit during the implementation was the use of stockpiled surplus material that was left from bulk earthworks. This surplus would have added 6 000 cubic metres to dwindling landfill site facilities. The saving on transport costs was estimated at roughly R6 000 000. The project intends to construct 543 comfortable and resource-efficient households with approximately 150 houses left to construct.

Evaluation

Addressing human settlements-related challenges in Cape Town has been a complex and sensitive issue. This project scores highly in involving all important stakeholders in an innovative and holistic solution. The unique model for PHP that the Ocean View housing project offers has an important place in our expanding green economy, as it enables the development of local skills in sustainable construction techniques. Through design-led thinking, the original constraint to the project’s development was turned into its key benefit.

Through design-led thinking, the original constraint to the project’s development was turned into its key benefit.

Sustainability assessment: Ocean View stone houses

Silver star rating

Problem statement

Project outline

Project design

Project implementation

Evaluation

Mayor’s Portfolio of Urban Sustainability 2016

Social

Economic

Ecological

Projects at a Glance

Overview

Exeter
Problem statement
The City’s Social Development and Early Childhood Development Directorate undertook an initiative to improve Early Childhood Development (ECD) centres across the City. Many areas in Cape Town are under-resourced and unable to provide effective educational service during this most critical phase of a child’s development. The ECD Centre of Excellence Initiative improved the delivery of cognitive stimulation and support at many ECD centres across the city. However, given that the majority of ECD centres are in low-income areas, poverty has continued to undermine the success of these programmes, specifically through its effect on children’s nutrition.

Project outline
The poverty alleviation through food security project aims to build on the existing social development programmes at many ECD centres across the city. Many areas in Cape Town are under-resourced and unable to provide effective educational service during this most critical phase of a child’s development. The ECD Centre of Excellence Initiative improved the delivery of cognitive stimulation and support at many ECD centres across the city.

Project design
The Poverty Alleviation through Food Security project incorporates existing vegetable gardens at the Dora Tamana ECD centre in Khayelitsha and the Joyce Ndinisa ECD centre in Crossroads. These two gardens exemplify the project’s potential for success. The Joyce Ndinisa ECD vegetable garden is currently run by four community members who work at the centre. They have established a mutually beneficial partnership with the principal of the centre allowing for parents to work in the garden to supplement their fees. This garden work has finished. These gardens have the dual benefit of increasing green open recreational spaces in the city, while helping to address food security and accessibility to nutritious food.

Project implementation
In 2013, the Poverty Alleviation through Food Security project incorporated 150 community gardens. Some of these gardens were existing but in desperate need of support to improve their operation while many were established by this project. The Social Development Department supports these gardens with equipment and seedlings, first aid kits, training, pest control, good governance training and irrigation systems with training and irrigation systems with rainwater harvesting tanks. This project partners with the expanded public works programme to employ workers on a short-term basis to provide seasonal assistance in the vegetable gardens.

Evaluation
While urban informality exacerbates poverty, the associated destruction of the natural environment impacts negatively on community wellbeing. Nutritious food has become unaffordable to people living in poverty and this seriously impacts early childhood development.

Sustainability assessment: Poverty alleviation at early childhood development centres

- Promoting transparent and democratic processes
- Facilitating community engagement
- Ensuring strategic alignment
- Addressing major ecological challenges
- Promoting and enhancing biodiversity
- Enhancing resource efficiency
- Improving quality of life
- Reducing threats and maximising opportunities
- Creating economic opportunities
- Improving productivity and efficiency
- Alleviating poverty

Project 16: Poverty alleviation at early childhood development centres

Overview
Alleviating poverty
Economic Vision
centres
development
Poverty alleviation
Project 16
community vegetable gardens at ECD
network. This network will support and integrate these into a dynamic existing social development programmes security project aims to build on the effect on children’s nutrition.

The poverty alleviation through food
project to see 16 more vegetable gardens at ECD centres entering the programme, as well as 80 more community vegetable gardens coming onto the expanded programme in the next financial year.

These gardens have the dual benefit of increasing green open recreational spaces in the city, while helping to address food security and accessibility to nutritious food.

Community vegetable gardens, located around centres for social development, are important in addressing modern urban challenges. These gardens have the dual benefit of increasing green open recreational spaces in the city, while helping to address food security and accessibility to nutritious food.

The growth of the Poverty Alleviation through Food Security project will see 16 more vegetable gardens at ECD centres entering the programme, as well as 80 more community vegetable gardens coming onto the expanded programme in the next financial year.
Project 17: Monitoring and evaluation in informal settlements: Mitchells Plain

Problem statement
Section 24 of the Constitution of South Africa states that every citizen has the right to a clean and healthy environment. The influx of people to Cape Town has led to an increase in informal urban settlements. Although many of these have access to basic water, sanitation and solid waste services, some services are often in bad working order, and do not meet minimum standards. Broken ablution facilities and uncollected waste become major public health hazards.

Project outline
The Mitchells Plain health sub-district has 89 informal settlements within its boundaries - by far the most in the city. The Environmental Health plan involves the environmental health practitioners (EHPs) conducting health and hygiene projects in every informal settlement in the sub-district. They assess whether services in the community comply with standard norms and ratios of use, and then report on those areas. Wilful vandalism and theft are also reported to appropriate service departments.

Project design
The EHPs conduct weekly site inspections and evaluate water, sanitation, waste services and infrastructure. Problems or non-compliance are identified and issues are reported on a weekly basis on the City of Cape Town C3 notification system. Each EHP compiles a pictorial report, recording evidence of all problems, which is then sent on to the appropriate service department with the C3 number to facilitate corrective action. Frequent problems and hotspots are identified and compiled into a monthly report from the entire Mitchells Plain Informal Settlements portfolio in the Environmental Health office. These are analysed at an interdepartmental ‘Urbanisation Meeting’ to ensure that all involved departments are implementing their functions timeously. Each department is given an opportunity to respond and explain why corrective action has not taken place. If necessary, departments collaborate to derive alternative strategies to address challenges. Urbanisation meetings greatly improve working relations and interdepartmental communication to the benefit of these poor communities.

Project implementation
A team of 10 EHPs from the Mitchells Plain Environmental Health office undertakes regular inspections of the surrounding informal settlements. The EHPs are a regular sight in many communities and residents often assist EHPs with service alerts. The EHP team collaborates with workers from the EPWP programme to improve capacity and extend the reach of their monitoring and evaluation. In addition to the regular monitoring and evaluation, the EHPs also collaborate with students from Cape Peninsula University of Technology (CPUT) to do experiential training on a quarterly basis. During this time, outreach programmes are intensified in the informal settlements where particular focus is placed on hand washing, diarrhoea, personal hygiene, pest control and the responsible use of water and sanitation services. In 2014, the university students were part of an integrated working group including NGOs, sub councils and ward councillors and these departments:
- City Parks
- Water and Sanitation
- Stormwater and Sustainability
- Solid Waste and
- Disaster Risk Management

The working group completed a project to rehabilitate the Samora Machel pond in the Mitchells Plain area and create a functional and recreational space for the surrounding community.

Sustainability assessment:

- Promoting transparent and democratic processes
- Facilitating community engagement
- Ensuring strategic alignment
- Addressing major ecological challenges
- Promoting and enhancing biodiversity
- Enhancing resource efficiency
- Improving quality of life
- Reducing threats and maximizing opportunities
- Creating economic opportunities
- Improving productivity and efficiency
- Alleviating poverty

Evaluation
The health and hygiene intervention projects conducted by EHPs ensure that corrective action is taken to address challenges in informal settlements. This raises the profile of these problems to corporate level which helps to improve quality of life in these areas. Definite progress has been seen in the informal settlements but there is still room for improvement in the short- medium- and long-term. The outreach projects and site visits are appreciated by the communities as they see first-hand that corrective action is being taken to alleviate their plight.
Given South Africa’s high unemployment rate, significant inequality, and globally competitive markets, projects of an economic nature are designed and implemented to stimulate economic activity and generate economic growth.

The projects are aligned with the need to create sustainable employment opportunities and facilitate the alleviation of poverty. As a result, these projects perform strongly in the economic field of the assessment, and are primarily driven by the need to ensure optimal use of existing resources in a responsible and balanced manner to ensure continued functioning profitability.
**Problem statement**

South Africa has made commitments to renewable energy and to lower the carbon footprint of its development in line with a global shift toward developing the green economy. The City of Cape Town and the Western Cape Provincial Government have recognised this shift in thinking as an important economic opportunity. Atlantis was identified as a location with significant potential to host the green economic drive for the City and Province. It is strategically located in the West Coast development corridor with lower land values, existing functional infrastructure, a large, skilled but unemployed labour pool, and a pressing need to uplift and empower the local population.

**Project outline**

The underpinning objectives of the Atlantis green technology park are to attract job and business opportunities to the area through building and enabling the green economy. The key project goals are the removal of barriers to the growth of the green economy; the realisation of employment and manufacturing potential that Atlantis can offer the green economy; and the establishment of Atlantis as an investment destination of choice for business development.

**Project design**

The expansion of the green economy in the Western Cape has the potential to provide socio-economic upliftment. Therefore, the development of the Atlantis green technology park has been designed to encourage and facilitate investment in Atlantis and to ensure that the wider economic benefits are realised locally. The green technology park promises rapid land release for building and development applications coupled with an Investment Incentive Scheme to reduce ‘red tape’. Similarly, the pending declaration of the Atlantis green technology park as a special economic zone (SEZ) promises to bring additional national incentives to the area.

**Project implementation**

The City has designated 68 hectares in the Atlantis industrial area for the development of the technology park. Non-financial incentives, such as a one-stop-shop for investment facilitation and the fast-tracking of development applications, as well as financial incentives, such as a waiver of scrutiny fees for building plans and land use applications, free biodiversity offset, and substantial discounts for development contributions and electricity tariffs, have been put in place to encourage investment and establishment of the park and Atlantis as a ‘green hub.’ A number of supplementary services such as broadband and a MyCiTi route are already in place to support investors. To date, a large international company has established a wind turbine tower factory in the green technology park that employs 230 workers from Atlantis.

**Evaluation**

This project represents an exciting initiative that will place Atlantis on the map within the ground-breaking green technology and renewable energy field. If the economic benefits of large scale investment, such as employment creation and skills development, can be realised within Atlantis, the local community should experience significant socio-economic upliftment. However, the site has yet to address some spatial planning suggestions that could contribute to ‘high mobility’ and ‘low carbon’ characteristics of Atlantis in general. The imminent declaration of the area as a special economic zone (SEZ) will be one of the key mechanisms that will create an enabling environment for positive economic development.

**Sustainability assessment: Atlantis green technology park**

- Building community: 5
- Improving quality of life: 4
- Facilitating community engagement: 3
- Reducing threats and maximising opportunities: 2
- Ensuring strategic alignment: 4
- Creating economic opportunities: 5
- Addressing major ecological challenges: 4
- Improving productivity and efficiency: 3
- Promoting and enhancing biodiversity: 4
- Enhancing resource efficiency: 3
- Alleviating poverty: 2
Problem statement
Delivering basic services with efficiency and transparency is the mandate of local government. As an aspiring ‘well-run city’, the City of Cape Town is constantly improving its customer relations to ensure that its citizens are provided with top quality, accurate and consistent information. The Customer Relations Department deals with a large amount of information from the City’s line functions and is well-suited to consolidate this information for use by various channels. These include the contact centre, walk-in centres, sub-councils and service departments. However, providing citizens with a consistent experience across all of these channels has been a particular challenge.

Project outline
The body of knowledge provides a central location to access up-to-date standard operating procedures, service alerts and outages as well as campaign information from different service departments. It has been designed to complement the SAP service request (C3 notification) system and to revolutionise City service delivery as a collaborative content development platform. By providing universal access to all City staff and councillors, the Body of Knowledge aims to ensure consistent information is provided across the City’s communication platforms for the benefit of the citizen.

Project design
The body of knowledge is a SharePoint application that is published on the City’s Intranet for use by City staff. It is designed to provide a centralised and standardised ‘body of knowledge’ covering the different service departments (e.g. Revenue, Water, Electricity, Solid Waste, etc.), allowing agents to efficiently find the information required to respond to customer enquiries. It is also accessible to City councillors who are often a first port of call for community concerns. The body of knowledge also aims to enable City councillors who are often a first port of call for community concerns.

Project implementation
This project was initiated in November 2014 and designed in collaboration with the City’s Information and Knowledge Management (IKM) Unit and an external knowledge management service provider. It was built entirely in-house with the expertise of the City’s Information Systems and Technology (IS&T) Department. The body of knowledge system has two interfaces:

1. The ‘agent area’ which is the front-end system directly accessible to City staff members.

2. The content development area which contains the templates and workflows required to manage the content of service alerts, process alerts, incidents, standard operating procedures, service level agreements, and customer feedback.

The Customer Relations Department has put the system through user-acceptance testing and launched the site, internally, in June 2015.

Evaluation
The project’s next steps involve more training of City staff to operate the body of knowledge system. The use of this system notably decreases the amount of time and resources needed to train City call centre staff. The body of knowledge system builds trust between the City and its citizens through the transfer of reliable and accurate service delivery information. It complements the C3 notification system to facilitate good governance and aligns strongly with objective 1.4 of the IDP of ensuring responsiveness to citizens’ concerns.
Problem statement
Access to telecommunications is critical for cities across the world. This is primarily for their local administrations' operations, but also to enable social and economic opportunities and the development of their citizens. There has been an underinvestment in telecommunications infrastructure in South Africa and limited competition within the market. This has lead to the lack of infrastructure in certain areas or the inability to afford the services by citizens in others. The City of Cape Town’s broadband project aims to address these challenges.

Project outline
This project uses an open access model whereby the City invests in the construction of its own telecommunications fibre infrastructure. This improves its operations and reduces its telecommunications bill. The City then provides access to both large electronic communications network service (ECNS) providers and smaller players who were previously unable to enter a market without the necessary investment capital. The model has also been extended to facilitate the provision of public Wi-Fi around transport nodes and other key public spaces. Most importantly, the broadband project provides these services to areas which were previously poorly connected due to a lack of telecommunications infrastructure.

Project design
The Broadband Project adopted a similar model to its provision of telecommunications infrastructure as the city of Stockholm in Sweden. The City makes the initial investment to establish a metro area fibre optic telecommunications network and then leases capacity within the infrastructure to service providers. They are then able to share this infrastructure and provide innovative and inclusive services to the public. This sustainable and self-funding open access model enables small operators to enter the market which in turn drives competition and improves the quality of service delivered to the public.

Project implementation
The rollout of the broadband infrastructure started in 2010 and since then the City has built a network of 789 kilometres of core cable for telecommunications infrastructure across the city. This was done for two primary reasons:
• To improve the City’s operations by providing connections to its critical services. This included many clinics and libraries in previously unconnected areas. The City’s corporate network is now 3000 times faster than it was prior to the broadband project roll-out. The City’s telecommunications bill has reduced in excess of R50 million per annum.
• The roll-out of this project included the installation of Wi-Fi access points through which local service providers can use the infrastructure to enable wider economic and social opportunities. A total of 200 access points across the City now service over 200 000 users per week.

Evaluation
The broadband project is one of the City’s flagship projects and is a strategic lever to enable important City objectives as outlined in the IDP. There has been a significant capital investment into this infrastructure and the returns will be realised by the City and the broader local economy. This project promotes digital inclusion by ensuring that individuals and less advantaged groups have access to information and communication technologies. This means they are able to participate in, and benefit from, the City’s growing knowledge and information society.
Problem statement
The City is presently developing informal trading plans for 41 areas across Cape Town. There are 2,600 informal traders already registered on the City’s electronic trading permit system. These sites are located in various settings, from the city centre to informal settlements and tourism hotspots like Cape Point. At many of these sites, infrastructure for trading such as stalls, kiosks, and ancillary services are sub-standard and not conducive to trading. This often discourages trade and negatively affects the consumer’s experience and the benefits to the trader.

Project outline
In an effort to optimise informal trading within the city, the Economic Development Department approached CityMart, a non-profit organisation that combines global research and design, to call for innovative solutions for Cape Town’s informal trading sector. This was structured as an ‘innovation challenge’ and asked for proposals to help meet the needs of all interested and affected stakeholders including the traders, formal businesses, customers and City authorities.

Project design
The CityMart informal trading sector innovation challenge was not prescriptive about the innovations. The call was made for solutions that could optimise operational management practices, beautify or enhance trading space, improve infrastructure, or support traders themselves. The project team considered various solutions that would either strengthen the City’s approach to informal trading through knowledge share pilot project. The pilot will focus on a particular trading area to demonstrate the impact of co-learning with traders.

The three expected outcomes of the pilot process for the City are to:
1. Determine draft norms and standards for consistent informal trader infrastructure to achieve a quality public trading environment;
2. Empower City district co-ordination staff and informal trader representatives through participation in a developmental workshop to learn and co-develop the solution;
3. Allow Economic Development to assess whether the Asiye eTafelini workshop methodology should be expanded to a number of trading areas.

Project implementation
The Economic Development Department selected a solution proposed by Asiye eTafelini, a Durban-based NPO that applies research and experiential studies to the widening gap between municipalities’ urban agendas and the realities faced in South African cities. With a specific focus on informal workers in the public space, the Asiye eTafelini solution will help strengthen the City’s approach to informal trading through a knowledge share pilot project. The pilot will focus on a particular trading area to demonstrate the impact of co-learning with traders.

Sustainability assessment: CityMart innovative solutions for Cape Town’s informal trading sector
- Improving quality of life
- Reducing threats and maximising opportunities
- Creating economic opportunities
- Improving productivity and efficiency
- Alleviating poverty
- Enhancing resource efficiency
- Promoting and enhancing biodiversity
- Addressing major ecological challenges
- Ensuring strategic alignment
- Facilitating community engagement
- Building community
- Promoting transparent and democratic processes

Evaluation
The CityMart innovation challenge promotes collaborative knowledge sharing through international partnerships. The approach demonstrates solving city-level challenges by ‘thinking globally and acting locally’. Through the Asiye eTafelini solution, the effort to further learn about and develop the informal trading space embraces Cape Town as an opportunity and inclusive city.
Problem statement
The legislative structures that govern municipalities are consistently developing. As a result, municipalities are not always up to date with the latest legislative requirements. Local authorities are challenged to keep up with advancing regulations, and often the view is held that they are over-regulated. The iComply tool was created to help local government monitor and update its compliance, promoting good governance and service efficiency.

Project outline
The iComply tool exists on the City’s server and holds all information pertinent to actions that govern the City’s operations and decision-making. The tool was launched with the support and collaboration of the Western Cape Provincial Government and is operational in a number of other municipalities in the province. It assists with highlighting education and training needs within the municipality where responsibilities are not attended to in accordance with the requirements of the system, and are therefore not compliant with the municipality’s legal mandates.

Project design
The iComply system plays a major role in improving the efficiency of the municipality’s resource utilisation and helps to enable staff to effectively perform their duties. Key staff members are trained and provided with access to the system to report and monitor compliance of their respective departments. iComply promotes constant awareness of statutory and operational responsibilities by important role-players in the municipality. This tool enables proactivity towards legal compliance and improves the response time of corrective measures taken by local government.

Project implementation
The roll-out of the iComply tool required the dedicated training of staff to operate the system. To date, some 146 officials have been trained. Training on the effective use and utilisation of the system is on-going. Over 108 laws have been captured on the system and are monitored for updates. A SharePoint site has been created to enable users to upload evidence to support the actions recorded on the system.

Evaluation
The iComply system has been implemented by the majority of municipalities within the Western Cape Province. Collaboration with other municipalities and Provincial Government is paramount for the uniform application of the system throughout the province, which contributes to legal certainty for municipal administrations and exemplifies effective cooperative governance. This makes iComply an important tool to enable transversal management. For the City of Cape Town, the iComply system plays a pivotal role in helping it to become a well-run City that transparently and efficiently delivers services to its citizens. The performance of the iComply system will be reported in the City’s annual report, which is subject to public participation. In this way, iComply also contributes towards an active citizenship, which is necessary for a corruption-free government.

Sustainability assessment: iComply

- Building community
- Promoting transparent and democratic processes
- Facilitating community engagement
- Ensuring strategic alignment
- Addressing major ecological challenges
- Promoting and enhancing biodiversity
- Enhancing resource efficiency
- Improving quality of life
- Reducing threats and maximising opportunities
- Creating economic opportunities
- Improving productivity and efficiency
- Alleviating poverty
- Economic
- Ecological
- Social
Project 23: The immovable property asset management framework (IPAMF)

Problem statement
Between 1994 and 2000, the 58 local authorities and administrations operating in the greater Cape Town area merged into one, forming the City of Cape Town. Each of these entities held its own property portfolio and the need emerged to fully record and understand the amalgamated portfolio of immovable property (IP) assets owned by the City. Traditionally, the City’s Property Management function was reactive and involved the processing of transactions, including acquisition, disposal, leasing, and granting of rights. The move towards proactive custodianship will address the need to consolidate the City’s IP asset inventory and create clear mandates and accountability for the departments responsible for IP assets.

Project outline
The immovable property asset management framework (IPAMF) is designed to maximise the service potential of existing assets in support of strategic objectives. This includes ensuring appropriate use, maintenance, safe-guarding and risk mitigation.

The IPAMF will enable the City to know what IP assets it has, where these are located, which departments are accountable and how these assets are performing. The City can use this tool to inform decisions on how it can improve IP asset performance for better service delivery.

Project design
The development of the IPAMF results from a strategic business improvement intervention undertaken in the City’s Property Management Department. The challenge was to consolidate the City’s 30 020 erven, 48 000 usage areas and 87 usage types across its 12 directorates, 70 departments and over 200 branches into a single comprehensive data set and initiate performance measurement of IP assets.

To achieve this, the IPAMF is supported by three key structures:
1. The immovable property asset register – advanced (IPARA), which contains details including the responsible department and contact information of precincts, usage areas, buildings and building usage areas across the City;
2. the immovable property asset management system (IPAMS) which places the IP assets into 38 portfolios and assesses the performance of the assets against the key performance areas and indicators;
3. the immovable property asset management policy which is designed to provide the required governance framework to support the implementation of the IPAMF across the City’s administration.

Project implementation
To date the IPARA has registered 24 757 active land parcels; identified 30 305 uses of these land parcels, and linked 19 271 land parcels with responsible departments. As a more detailed level, 6 141 usage areas, buildings and building use areas have been spatially captured on the City’s SAP and geographic information system (GIS). Using IPAMS, the performance of IP assets is measured against criteria including costs and utilisation; maintenance; functional suitability; and governance and strategic compliance. Both IPARA and IPAMS business system solutions were launched in March 2015 and the first performance assessment was initiated involving the City’s Sports Facilities and Halls.

Evaluation
The IPAMF enables informed decision-making and more effective use of the City’s assets to facilitate cohesion, optimise the socio-economic benefits of assets and improve delivery of services. As the implementation of the IPAMF progresses, the City’s Property Management Department will work on demand-side management and improving the allocation, use and management efficiency of IP assets. The development and implementation of the IPAMF indicates the City’s commitment to immovable property asset management at the level of international best practice. Collecting the vast amount of data to implement the IPAMF fully will take time. However, the journey has begun and substantive, sustainable progress has already been made.

Sustainability assessment: The immovable property asset management framework

- Improving quality of life
- Reducing threats and maximising opportunities
- Creating economic opportunities
- Improving productivity and efficiency
- Enhancing resource efficiency
- Alleviating poverty
- Promoting and enhancing biodiversity
- Ensuring strategic alignment
- Facilitating community engagement
- Promoting transparent and democratic processes

The move towards proactive custodianship will address the need to consolidate the City’s IP asset inventory and create clear mandates and accountability for the departments responsible for IP assets.
Problem statement
The green technology and renewable energy sector is gaining momentum in South Africa, and the Western Cape is positioning itself as a key economic hub to drive its development. In response to the call from national government to upscale local content in manufacturing and supplying renewable energy, the City of Cape Town partnered with the national Department of Trade and Industry, GreenCape, the Cape Chambers of Commerce and Industry, the University of the Western Cape and the Small Enterprise Development Agency to create the South African Renewable Energy Business Incubator (SAREBI).

Project outline
SAREBI aims to unlock upstream and downstream opportunities for the demand for products and services to supply to the renewable energy sector. The incubator is mandated to contribute to the growth of small and medium-sized enterprises (SMEs) in the sector and localise the economic benefits this would create.

Project design
The SAREBI business model is aligned to the broader development imperatives of the Western Cape Provincial Government, the City of Cape Town’s Economic Growth Strategy as well as sector development within the broader green economy. SAREBI focuses on entrepreneurs in the renewable energy and energy efficiency sectors. The business model centres around a full service incubation package that is based on mentoring and coaching, operational support, facilitation, networking, and advisory services. Small businesses on the incubation programme have access to the Manufacturing Technology Centre (MTC) which contains the necessary machinery and infrastructure for incubatees to develop their products from prototype to full scale.

Project implementation
SAREBI was formally launched in 2013 in Atlantis, because of the focus of establishing the area as a green business hub. Currently there are three resident incubatee businesses and six incubatee businesses located off the SAREBI premises. Small businesses are accepted onto the incubator programme based on their potential to produce a realistic intervention with long term impact within the renewable energy sector. The current incubatee businesses operate mainly in the industries of photovoltaic and other solar products; solar water heaters and geysers; and LED lighting. At present there is a focus on manufacturing businesses, but as the incubator grows, it will be able to take on more businesses that offer relevant services.

Evaluation
SAREBI has engaged significantly with other government departments, agencies, private sector partners, academic institutions and potential technical and funding partners in an effort to expand its supportive and enabling ‘development ecosystem.’ The nature of these collaborations can increase the scale of interventions and ensure that even more small businesses benefit from the programme. SAREBI’s integrated strategy could become a best practice model for integrated local economic development which could be applied to other sustainability sectors.
Problem statement

In 2010, the City became aware of the informal taxi rank that was servicing the communities of Wallacedene, Scottsdene and neighbouring areas. Over 5,000 commuters were boarding taxis at a bare, open field with no infrastructure, often waiting in long queues exposed to the elements. Given the substantial number of daily commuters that were being transported from this site, there was a critical need to formalise this facility.

Project outline

The new Wallacedene taxi rank, unveiled in August 2015, is the first ‘green’ transport facility in South Africa. The combination of intelligent architectural design and modern technology allows the facility to provide an efficient delivery of transportation services while simultaneously being energy and water self-sufficient. The City anticipates that, once the rating process is concluded, the Wallacedene public transport facility will achieve a four-star rating from Green Star South Africa, a rating tool used by the Green Building Council of South Africa.

Project design

This project was launched in connection with a Human Settlements development in the Scottsdene area. This enabled a faster approval of funding which significantly fast-tracked the project’s development. As part of a Transport for Cape Town initiative that aligns with the City’s by-laws on sustainable infrastructure, the project management team tasked the contractors to include green and sustainable features in the taxi rank infrastructure. From the LED lights under the roof, to the electronic gates at the entrance, the entire facility is solar powered. It uses a rooftop solar photovoltaic (PV) panel system, arrayed at optimum orientation to the sun, for electricity generation. 24 large batteries store reserve solar electricity for use at night or on cloudy days. The City’s architects also took into account the huge demand for water for the washing of taxis.

As a result, the taxi rank was designed to allow self-sufficiency in meeting basic water needs through:
1. Harvesting rainwater
2. Recycling up to 70% of the water through an underground filtering and reclamation system

Project implementation

There has been overwhelming support from the community and the Taxi Association with regards to the implementation of the project. One permanent and 53 temporary local jobs were created within the community for the duration of the project. Trading opportunities were created for local entrepreneurs through the installation of six informal trading bays and two kiosks just outside the facility. The water-wise wash bays will be managed by local operators. The building contractor made a particular effort to assist the community by also upgrading the crèche immediately adjacent to the taxi rank.

Evaluation

Transport for Cape Town sought to design a dignified space for commuters to board taxis and socialise. The project team engaged with the community and garnered their support to the point that there were no incidents of theft or vandalism during construction. Both the public transport operators’ and the commuters’ daily travel experiences have been significantly improved and commuter usage has grown due to this better functioning facility. A dedicated position to oversee the management of the facility, now that it is completed, is a challenge given capacity constraints within Transport for Cape Town.

Project 25: Wallacedene green taxi rank

| Silver star rating |

Problem statement

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Ecological portfolio

These projects are directly linked to the capacity of the biosphere to meet the needs of current and future generations. By using natural resources responsibly in the short term, the projects ensure these are available in the long term. These projects are primarily focused on empowering people and organisations to carry out their activities and obligations in an ecologically sustainable manner.
**Project 26: Company’s Garden VOC vegetable garden**

**Problem statement**
Rapid urbanisation and the associated development can result in the loss of functional green open spaces as well as culturally important heritage resources. Similarly, urban development can negatively impact human behaviour, especially by forcing a disconnection between people and nature. It has become increasingly important to reintegrate nature into the urban environment due to the value it holds for future urban food security, health and well-being, climate change resilience, and even the preservation of important cultural and heritage practices.

**Project outline**
The re-establishment of the VOC (Dutch East India Company) Vegetable Garden within the Company’s Garden in Cape Town CBD is an important step towards eking out space around the Company’s Garden for the use of the vegetable garden. Situated in what was a parking area, the VOC vegetable garden now contains historical varieties of herbs, vegetables and fruit trees in demonstration food and water-wise gardens. In 2014, this project was recognised in the World Design Capital portfolio for creatively raising awareness about contemporary urban challenges in an inclusive and accessible way.

**Project design**
The design of the VOC Vegetable Garden has carefully considered the existing historical plans and drawings from the Dutch period. These records commemorate the origins of the garden and its multifaceted historical importance. The design also incorporates the conversion of underutilised and wasted space around the Company’s Garden to ensure that all may benefit from this important resource. Creating functional open spaces in the urban environment is critical to ensuring the access to food and wellbeing, especially to the many that are affected by homelessness.

**Evaluation**
Due to its location in the heart of the city, the garden is freely accessible and available to all who may want to learn or harvest from it. There is an emphasis on sharing and conservation to promote the importance of urban agriculture for social and cultural reasons as well as the benefit of future generations. The VOC vegetable garden stands as an excellent example for aspiring community gardeners to follow.

**Sustainability assessment: Company’s Garden VOC vegetable garden**

- **Promoting transparent and democratic processes**
- **Improving quality of life**
- **Reducing threats and maximising opportunities**
- **Creating economic opportunities**
- **Improving productivity and efficiency**
- **Enhancing resource efficiency**
- **Enhancing biodiversity**
- **Addressing major ecological challenges**
- **Facilitating community engagement**
- **Ensuring strategic alignment**
- **Building community**

- **Parts of the project’s implementation:**
  - Expert heritage and environmental consultation services were accessed from within the City of Cape Town. A public-private partnership with Woolworths has contributed greatly to the construction of the garden, ongoing maintenance, as well as the garden’s function as an important educational resource. A series of free public workshops, with the support of the Iziko Museum, have been held to educate people about the importance of urban farming, permaculture and sustainable livelihoods through community gardens. Presently, the VOC Vegetable Garden project team is exploring opportunities through the Cape Town Partnership’s ‘Green Cluster’ as well as the viability of establishing a regular farmers’ market on the site.

- **Creating functional open spaces in the urban environment is critical to ensuring the access to food and wellbeing, especially to the many that are affected by homelessness.**
Problem statement
All the water treatment plants in the Bulk Water Branch of the Water and Sanitation Department use gas chlorination in the final stage of treatment to eliminate bacteria and disinfect water. Gas chlorination is also used at storage reservoirs to ensure bacterial regrowth does not occur after initial water treatment. However, the handling of chlorine gas in bulk is hazardous. The security concerns include daily risks to the operational staff who handle the one tonne gas cylinders. There is considerable danger, in the event of a leak, to both the staff controlling it and to surrounding areas as chlorine is a volatile and potentially hazardous gas.

Project outline
In order to address safety concerns, the Bulk Water Branch has looked at improving the technology used in the disinfection of water. To align with being both a safe and caring city, the branch continuously seeks to be innovative when designing effective solutions for improved safety and service delivery. To this end, the branch identified electrolytic chlorination as a viable alternate technology for water disinfection. This will be implemented at selected water treatment and service reservoir sites.

Project design
Electrolytic chlorination is the conversion of dissolved salt using electrolysis to produce sodium hypochlorite. This is then used to disinfect the treated water. Hydrogen gas is produced as a by-product of this process, of which all components are non-hazardous. The choice to adopt this state of the art technology, which is produced by the world’s leading manufacturers, was made for the urban context and with the safety of personnel and the public as a priority.

Project implementation
Three sites were identified with operational and public safety risks: Plattekloof, Tygerberg and Glen Garry Reservoirs. These were the specific service reservoirs selected for the implementation of this technology. During project implementation, existing operational staff underwent two months of thorough training to prepare them for work with the new technology. All three systems were commissioned and were operational by June 2016.

Evaluation
The sites where this new technology has been implemented will be declassified as major hazard Installations, massively improving public safety. The project sustainability assessment strongly corroborates this project’s commitment to ensuring that Cape Town is a safe and caring city.

Sustainability assessment: Electrolytic chlorination in water treatment
- Promoting transparent and democratic processes
- Facilitating community engagement
- Ensuring strategic alignment
- Addressing major ecological challenges
- Promoting and enhancing biodiversity
- Enhancing resource efficiency
- Improving quality of life
- Reducing threats and maximising opportunities
- Creating economic opportunities
- Improving productivity and efficiency
- Alleviating poverty

During project implementation, existing operational staff underwent two months of thorough training to prepare them for work with the new technology. All three systems were commissioned and were operational by June 2016.
Problem statement
The City’s catchments are under threat from a number of invasive aquatic plant species. These include water hyacinth (Eichhornia crassipes), water lettuce (Pistia stratiotes), parrot’s feather (Myriophyllum aquaticum) and kariba weed (Salvinia molesta). The methods used to control invasive plants can be manual, mechanical, chemical, or biological or make use of fire. For control to be effective, these methods need to be integrated.

Project outline
The conventional method for clearing aquatic weeds, was mechanical, but with the inception of the Kader Asmal Integrated Invasive Species Management project in 2011, the City employed more manual clearing methods. In 2012, the City started integrating biological control into aquatic weed management. At the time, there were only two facilities in South Africa for the mass rearing of insects used to control aquatic weeds, namely, in Grahamstown at Rhodes University and the South African Sugar Research Institute (SASRI) in Durban. Insects for the City’s needs were obtained from both, but competition with the rest of the country for insects meant that the City was often unable to get the numbers required to control the weeds. This shortage led to the Green Jobs Unit establishing its own insect mass rearing facility for Cape Town which became operational in October 2014.

Project implementation
Since the biological control mass rearing facility’s opening in 2014, staff members have reared and released over 300 000 insects for aquatic weed control, the cochineal insect for the control of drooping prickly pear (Opuntia monacantha) is also reared here. These insects destroyed the plants within a mere six months on the sites where they were released.

Evaluation
The rivers in the Zand River catchment are some of the most invaded freshwater ecosystems in the city. The endangered western leopard toad which occurs in this period resulting in aquatic weeds quickly covering the rivers. Biological control is an environmentally friendly and very effective method and the Green Jobs Unit uses this on plants such as parrot’s feather, kariba weed and water lettuce. By using biological control when no other method is appropriate, aquatic weeds are being kept under control. It is the most cost-effective control option as it can still be used during this period and fortiﬁes any efforts made using either manual, mechanical or chemical control methods. Rearing efforts for insects to control the water lettuce and kariba weed need to be scaled up in order to improve the effectiveness of control on these species. The insect rearing capabilities will be increased by a second mass rearing tunnel that will be erected. The expansion of the current facility provides additional job opportunities and increases the City’s capacity to rear and release agents. A social beneﬁt is that it provides people with training and long-term career opportunities for decent work and employment.

Sustainability assessment: Green jobs: Biological control for invasive weeds

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<thead>
<tr>
<th>Building community</th>
<th>Improving quality of life</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Facilitating community engagement</th>
<th>Reducing threats and maximising opportunities</th>
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<table>
<thead>
<tr>
<th>Ensuring strategic alignment</th>
<th>Creating economic opportunities</th>
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<tbody>
<tr>
<td>3</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Addressing major ecological challenges</th>
<th>Improving productivity and efﬁciency</th>
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<tbody>
<tr>
<td>4</td>
<td></td>
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<table>
<thead>
<tr>
<th>Promoting and enhancing biodiversity</th>
<th>Enhancing resource efﬁciency</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
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<table>
<thead>
<tr>
<th>Promoting transparent and democratic processes</th>
<th>Alleviating poverty</th>
</tr>
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<tbody>
<tr>
<td>5</td>
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</tbody>
</table>

The expansion of the current facility provides additional job opportunities and increases the City’s capacity to rear and release agents. This beneﬁt is that it provides people with training and long-term career opportunities for decent work and employment.

Silver star rating

Prominent features of the Green Jobs Unit include: the facility’s capacity to rear and release agents. The expansion of the current facility provides additional job opportunities and increases the City’s capacity to rear and release agents. A social beneﬁt is that it provides people with training and long-term career opportunities for decent work and employment.

Project 28: Green jobs: Biological control for invasive weeds

Sustainability assessment: Green jobs: Biological control for invasive weeds

The expansion of the current facility provides additional job opportunities and increases the City’s capacity to rear and release agents. A social benefit is that it provides people with training and long-term career opportunities for decent work and employment.

Silver star rating

Prominent features of the Green Jobs Unit include: the facility’s capacity to rear and release agents. The expansion of the current facility provides additional job opportunities and increases the City’s capacity to rear and release agents. A social benefit is that it provides people with training and long-term career opportunities for decent work and employment.
Problem statement
52% of Cape Town’s population is reliant on public transport. The majority of these users fall within the low to middle income bracket. The remaining 48%, approximately 1,228,450 people per day, make use of private vehicles, choking the city and generating tonnes of carbon dioxide. If Cape Town is to transition toward a sustainable city, it must address the serious social and environmental implications of conventional transport habits and design. Non-motorised transport (NMT) has been identified by Transport for Cape Town (TCT) as a key intermodal link and a significant mechanism to provide universal access to all income groups and improve the sustainability of the city’s transport system.

Project outline
NMT routes represent the critical five to ten kilometres which people must travel in order to reach public transport intersections. These routes connect people with public amenities and economic opportunities. It is especially important to ensure that safe, good quality NMT infrastructure is provided to communities that were previously restricted from accessing public transport. Currently the project team is developing and upgrading NMT routes in multiple communities to improve access to the integrated Rapid Transport network whilst delivering a range of co-benefits. These have been successful at Eerste River and Kuils River.

Project design
NMT projects deliver comprehensive network plans that enable bicycle, pedestrian, and universal access. The primary goal is to construct safe and efficient infrastructure to link people to schools, malls, churches and other community facilities, as well as train stations for public transport. These projects are intended for the betterment of communities in low to middle income areas where public transport and walking are the primary means of mobility. Project implementation
The non-motorised transport facilities projects at Eerste River and Kuils River entailed the provision of a shared pedestrian and bicycle path along various highly trafficked pedestrian routes; widening of existing pathways along selected adjoining roads; and provision of universal access infrastructure (tactile blocks for wheelchairs and the visually impaired) to all intersections. Other interventions included planting trees, constructing bollards and benches and improving street lighting along designated pedestrian routes. Significantly, all NMT tenders required contractors to employ labour from the local community and to support local small, medium and micro enterprises (SMMEs) throughout the project’s duration. There was particular emphasis on skills development and training to help uplift each community where NMT projects have been completed.

Sustainability assessment: Upgrade of non-motorised transport

- Building community
- Improving quality of life
- Facilitating community engagement
- Reducing threats and maximising opportunities
- Ensuring strategic alignment
- Creating economic opportunities
- Addressing major ecological challenges
- Improving productivity and efficiency
- Promoting and enhancing biodiversity
- Enhancing resource efficiency
- Alleviating poverty

Evaluation
The improvement in infrastructure has resulted in more widespread NMT use. However, this is predominantly within low to middle income groups and there is significant room to improve the uptake of NMT by wealthier communities. The transition to NMT reduces energy consumption and carbon emissions, and contributes greatly to improving the accessibility of economic opportunities to Cape Town’s citizens. The transparent and engaging way in which these projects are implemented leads to their full acceptance and ongoing support by communities. The increased use and presence in these spaces has also contributed to improving the perceived and actual safety within these communities. TCT recognises NMT as the most important form of transport in the Integrated Public Transport Network 2032 plan and continues to promote NMT as an aspect of transport design for Cape Town.
Problem statement
All underground services within the City have a limited life expectancy. There are roughly 10,000 kilometres of water and sewer reticulation across Cape Town. The bulk sewers were primarily constructed with conventional concrete technology, and some were installed as long ago as the 1950s, when sustainable development and technology were not on the agenda. In a modern, rapidly growing city, the need for capable and efficient infrastructure is increasingly important. Therefore, the City needs to replace failing infrastructure and increase capacity, while leveraging the opportunity to design for the future and simultaneously improve the sustainability of the City’s underground services.

Project outline
The upgraded northern area sewer (NAS) services include 4,500 hectares of sub-catchments including portions of Plattekloof, Panorama, Parow, Elsie’s River, Goodwood, Ravensmead, Thornton, Ruyterwacht, Acacia Park, Wingfield, Thornton, Epping, Matroosfontein, Bishop Lavis, Pinelands and Langa. The sewer provides sufficient capacity for the planned Voortrekker Road corridor densification. The upgrade was necessary in order to address capacity constraints and sustainability issues such as corrosion to pipes, groundwater infiltration, longitudinal cracks, damaged joints and obstructions.

Project design
One of the biggest challenges for underground sewer services is the distances they span to reach wastewater treatment plants. The material used for the pipeline infrastructure needs to be resistant to hydrogen sulphide gas which is produced as a result of the oxidation of the sewerage. A life-cycle costing and feasibility study was conducted in order to determine the material that would deliver the greatest sustainability for this project. Calcareous aggregate was used for the manufacturing of the pipes and a sacrificial layer, containing calcium aluminate cement, was added to the inner wall of the pipe. The materials were selected for their superior ability to withstand corrosion. The northern area sewer was designed as a gravity sewer system, despite the low natural gradients.

Project implementation
The project made use of beneficial transversal cooperation with other service departments in order to make the required compromises in terms of servitudes. The NAS project team had to ‘pipe-jack’ (sink and dig beneath) at least eight sections of pipeline underneath other major services. This level of construction activity required a number of heavy excavators and significant temporary construction safety measures. The project team made the specific effort to undertake proactive community engagement through community meetings and media releases, ensuring minimal impact on daily economic activity. Furthermore, the project team undertook to provide the community with some temporary employment and training opportunities.

Evaluation
The refurbishment of ageing infrastructure in developing countries is expensive and challenging, but this project shows how to achieve maximum benefit through thinking about the wider sustainability opportunities that can be achieved in addition to carrying out core business.

Sustainability assessment: Northern area sewer upgrade

- Building community
- Improving quality of life
- Promoting transparent and democratic processes
- Facilitating community engagement
- Ensuring strategic alignment
- Addressing major ecological challenges
- Promoting and enhancing biodiversity
- Enhancing resource efficiency
- Alleviating poverty

There are roughly 10,000 kilometres of water and sewer reticulation across Cape Town.
Project 31: Shark Spotters and the Fish Hoek exclusion net

Problem statement
False Bay is home to the second largest group of great white sharks in the world, as well as many other apex predators. Human activities often encroach into their habitat and this has led to unfortunate incidents like shark attacks. These tend to disseminate fear and misconceptions that negatively impact society’s relationship with these marine creatures, resulting in the mismanagement of sharks and large mammals in coastal cities all over the world.

Project outline
In 2004, a grassroots partnership between surfers, car guards and lifeguards on Muizenberg beach launched the successful Shark Spotters programme. Shark Spotters, a registered NPO, partners with the Save Our Seas Foundation, Two Oceans Aquarium and several research institutions to inform the public perception of sharks and apex predators in False Bay. The programme team makes every effort to ensure that the programme remains rooted at the community and grassroots level.

Project design
The Shark Spotters team has grown from strength to strength. Spotters also assist in reporting City service and infrastructure alerts as their consistent public presence makes them an obvious first port of call for these issues. The programme’s holistic, inclusive approach has ingrained the Shark Spotters into daily life on the beaches where they operate.

Project implementation
A shark spotter’s day starts early, armed with binoculars and a radio to inform team members on the ground of shark sightings. These are communicated by a flag system on the beach as well as through the Shark Spotters’ social media platforms. In November 2014, the Shark Spotters opened a dedicated information centre at Surfer’s Corner in Muizenberg, which has received significant interest and numerous visitors. The centre is an important resource for public education about sharks and shark safety, reducing the risk of shark attack and allowing people to better assess their recreation choices.

Sustainability assessment: Shark Spotters and the Fish Hoek exclusion net

The Shark Spotters have also installed an exclusion net at the Fish Hoek beach. This was done after thorough public consultation, using award-winning net technology for its ‘eco-innovation’ and minimal impact on the coastal ecosystem in the area. This net has enabled the advanced training of ten Shark Spotters to skipper the boat and maintain the net on a daily basis.

Evaluation
The Shark Spotters programme addresses considerable social and ecological challenges that are common in many developing coastal cities. The integrity with which Shark Spotters operates builds community and careers and promotes conservation along the False Bay coastline.

The programme team has been approached by Australian cities to consider implementing the system in Australia. Conventionally, the risk of shark attacks is addressed by elimination - catching and killing sharks. Shark Spotters has found an innovative and inclusive way to protect the important marine ecosystems in a manner that builds community and socio-economic opportunity in Cape Town, and distributes the benefits much further afield than the beaches of False Bay.

The Shark Spotters team makes every effort to ensure that the programme remains rooted at the community and grassroots level.
**Project 32: Skilpadsvlei wetland rehabilitation**

**Problem statement**

Between the 1940s and 1960s, the Skilpadsvlei wetland in Kommetjie was filled in for a number of speculative reasons. Previous aerial photography proves there was a wetland, and biologists confirmed that this was indeed the only breeding site for the critically endangered western leopard toad in the Kommetjie area. There was also the possibility that Skilpadsvlei was a breeding site for two other endangered frog species, the Cape platanna and the micro frog. Cape Town boasts one of the most unique endowments itself as one of Cape Town’s most important breeding sites for western leopard toads.

**Project outline**

The restoration of ecosystems plays many important roles in the transition toward urban sustainability. Not only does this practice improve the city’s resilience in the face of climate change through the preservation of important ecosystem services and biodiversity, it also holds significant value to citizens in terms of recreational opportunities. At Skilpadsvlei, the rehabilitation focus included the excavation of the infilled wetland to allow the system to recover after years of neglect. The sites identified included a new wetland area, a larger seasonal wetland, and a remaining senescent seasonal wetland area.

**Project design**

The Skilpadsvlei rehabilitation proposal included the excavation and rehabilitation of the previously filled-in wetland area to re-establish the last remaining seasonal wetland toad breeding site; the remainder of the disturbed area required scraping for alien clearing and re-vegetation in order to reconnect the entire wetland system. The larger seasonal wetland area required an ecological burn to remove the excess biomass and nutrient load. Additional proposed deliverables included signage, the construction of boardwalks, replacement of bollards and enhancing the aesthetics of the area by refurbishing pathways and planting locally indigenous vegetation.

**Project implementation**

Construction began in April 2012, with the initial excavation being completed in the first two weeks. The rock was separated from the clean sand fill material and used for landscaping, re-creation of habitats and creating informal seating around the vlei later on in the project. The clean sand, amounting to 1920 cubic metres, was used in the Ocean View housing development nine kilometres away, thus saving it from being transported to a landfill site and otherwise wasted. The seasonal wetland was ‘scrapped’ to remove all alien vegetation, followed by the ongoing re-establishment of locally indigenous species. EPWP workers from the Green Jobs Unit, as well as a number of unemployed people from Kommetjie and the neighbouring communities, joined the project team for the duration of implementation. Many of these individuals remain involved with the project to ensure ongoing management of the site. Exceeding all expectations, breeding adult western leopard toads returned to the re-established wetland for the very first breeding season which was within three months of the initial rehabilitation interventions. The successful breeding event negated the need to obtain the necessary permits in the plans to reintroduce western leopard toads to the area.

**Sustainability assessment: Skilpadsvlei wetland rehabilitation**

- **Building community**
  - Promoting transparent and democratic processes
  - Facilitating community engagement
- **Improving quality of life**
  - Ensuring strategic alignment
- **Reducing threats and maximizing opportunities**
  - Addressing major ecological challenges
- **Creating economic opportunities**
  - Promoting and enhancing biodiversity
- **Improving productivity and efficiency**
  - Enhancing resource efficiency
- **Alleviating poverty**
  - Promoting and enhancing biodiversity

After only two years since the project’s completion on the main and seasonal wetland areas, Skilpadsvlei has established itself as one of Cape Town’s most important breeding sites for western leopard toads. The restoration of this wetland has significantly contributed towards the conservation of a threatened species. The rehabilitation process provides lessons for effectively and sustainably managing wetland areas which include continuous and inclusive communication with partners and community members to ensure ownership and buy-in.
Through biological control of invasive weeds, the Green Jobs Unit (page 88) directly improves ecosystem functioning and the ecological integrity of the city’s rivers and other urban green assets. Biocontrol is known to be more cost-effective and environmentally friendly than other methods of controlling weeds.

**Cape Town - Sustainability beyond publications**

In the previous edition of the Mayor’s Portfolio of Urban Sustainability, we expressed our pride that the assessment of 24 projects reflected project managers’ increasing awareness of the importance of building aspects of sustainability into project conception and outcomes. This awareness continues to sharpen as the importance of balancing the natural and cultural resources of the city with the imperatives of economic and social development becomes ever more apparent.

Local government aims to understand these different needs, and consider how to balance and make development-related decisions. In a city which recognises its natural resources as its primary economic asset, development at all costs can never be an option. Equally, programmes of conservation which fail to take into account the needs of people will always fall short of their potential. Simplistic debates around the respective importance of people or plants often fail to grasp the interdependence of development and ecological conservation and how these needs can be balanced and met with the right kind of planning.

This 2016 edition of the portfolio also demonstrates how sustainable development can be achieved through a sustainability assessment of key City projects. This highlights standards of excellence in existing project planning, implementation and operation. ‘Gold star’ or ‘silver star’ projects featured in this publication have delivered strong all round results, enhancing ecological, economic, social and governance dimensions of sustainability. These projects are important in continuing to build a legacy of sustainability for Cape Town and its citizens.

The previous edition emphasised that close engagement with project managers on an urban sustainability agenda did not end with that publication. Equally so with this one. Initial steps have been put in place to break down traditional ‘silos’ through facilitating exchanges of best practice ideas across line functions. This will be done through forums, round tables and communications, with the intention to grow these interactions into a fully-fledged initiative which will assist in developing Cape Town as a world-class sustainable city.
Extras

Portfolio extra 1: More about the City’s five strategic focus areas

Portfolio extra 2: Defining the sustainability objectives of the projects

Portfolio extra 3: More about project evaluation

Portfolio extra 4: Abbreviations

Portfolio extra 5: Acknowledgements and resources
The City of Cape Town’s Integrated Development Plan (IDP) provides the strategic framework that guides the municipality’s planning and budgeting over the course of its political term.

When the new City administration was elected, a strong plan of action for Cape Town was developed. This plan is based on a clear understanding of what needs to be achieved during this term of office, and is built on the following five key pillars:

1. The opportunity city
2. The safe city
3. The caring city
4. The inclusive city
5. The well-run city

These pillars help to focus the City’s message and purpose of delivery. They also help us to translate our electoral mandate into effective organisational structures.

In the IDP, these pillars are called strategic focus areas (SFAs), because they are the key ‘themes’ encompassing all the City’s programmes and initiatives. The result is a detailed format that enables effective programme implementation and accurate performance measurement of the focus areas.

While these programmes and objectives often overlap across SFAs, classifying them under the five pillars allows the City to effectively measure their outcomes. They can then act together to produce the objectives of the administration, and help the City address the structural inequalities of the past. Being drivers of social and economic development, they will help the City fulfil its constitutional mandate as local government and will help change people’s lives.

The IDP has been developed with maximum citizen participation. This has involved input from all levels of the administration as well as the most extensive public participation process ever undertaken by the City. Based on this inclusive approach, the IDP describes the programmes under each SFA, as informed by the overarching principle of infrastructure-led growth. These five SFAs can briefly be described as follows:

1. **The opportunity city**
   - The core focus of the opportunity city is to create the economically enabling environment in which investment can grow and jobs can be created. Creating such an opportunity city involves the following:
     - Using numerous levers to attract investment
     - Providing adequate support to the market via efficient regulation, planning and infrastructure support
     - Continued investment in infrastructure
     - Ongoing development and strengthening of economic partnerships
     - A focus on key projects that will promote growth and sustainability
     - Making the most of City assets to aid development and growth
     - Encouraging the growth of small businesses and entrepreneurs
     - A focus on taking care of the natural environment and managing natural resources more efficiently

2. **The safe city**
   - Citizens need to be safe in their city. However, safety is a broader issue that goes beyond policing. A truly safe city manages disasters and risks, enforces traffic regulations, and provides fire and rescue services. Safety is essential to the public enjoyment of open spaces, city beaches and nature reserves. The City of Cape Town’s focus on building a safe city includes the following:
     - Continued dedication of resources and programmes to ensure effective safety provision
     - Local and international partnerships to allow for training and education
• Ongoing roll-out of neighbourhood watch programmes
• Increased public awareness of, and participation in, safety and security initiatives
• Alignment of staffing models with national and international best practice
• Investment in staff training and capacity-building
• Enforcement of environmental compliance
• Investment in innovative safety policies, specialised units and programmes

3. The caring city
In order to be a world-class city, Cape Town must be welcoming to all people, and make residents feel that their government is doing everything it can to provide for them so that they can truly access opportunities. Key to realising the vision of a caring city is the following:
• Continued implementation of the rates rebates policy to help reduce poverty
• Provision of amenities, such as parks, libraries, sports and recreational facilities, and community and youth centres
• Greater focus on more direct ways of promoting social development
• Offering effective substance abuse programmes to help minimise the number of people who are excluded from society
• Increased efforts to make all people feel that they are a part of their communities
• A focus on creating integrated human settlements by building communities, not just houses
• Ongoing review of the provision of services to informal settlements
• Investment in primary health-care facilities

4. The inclusive city
An inclusive city is one where everyone has a stake in the future and enjoys a sense of belonging. While achieving this relies on the proper functioning of the programmes, the City of Cape Town will also concentrate on the following:
• Developing effective public transportation programmes
• Ensuring greater recognition of culture and heritage
• Proper use of resources to address the backlog of community facilities in underdeveloped areas
• Responding effectively to the needs of its citizens

5. The well-run city
Citizens need to know that their government works for them, is accountable to them, and answers to them at all times. To achieve this, the City of Cape Town will do the following:
• Keep Council meetings open to the public to ensure that the actions and decisions of the City’s political leaders are always transparent
• Publicly advertise all City tenders above a prescribed rand value
• Stick to its budgets and programmes of debt collection and revenue projections
• Manage its staff structure to ensure service delivery
• Maximise staff potential through effective human resources management, staff training and staff development
• Strictly monitor all services to ensure delivery
• Remain open and transparent in all its dealings

Creating pedestrian-friendly spaces in the CBD linked to efficient public transport helps to make the city more liveable and to reduce carbon emissions that contribute to climate change, supporting the transition to a more sustainable urban future.
1. Building community
   - facilitating community participation;
   - creating social cohesion and capital.

2. Improving quality of life
   For example through:
   - meeting basic needs;
   - enhancing participation in arts, culture, sports and heritage;
   - improving current living conditions, promoting dignified human settlements and good-quality open spaces; and
   - promoting health and well-being.

3. Reducing threats and maximising opportunities
   For example through:
   - improving safety and security;
   - addressing historical inequity and lack of access to amenities; and
   - promoting education, training and awareness.

4. Creating economic opportunities
   For example through:
   - creating jobs;
   - facilitating skills development and training;
   - creating small, medium and micro-sized enterprises; and
   - developing infrastructure for growth.

5. Improving productivity and efficiency
   For example through:
   - providing efficient utilisation of resources;
   - reducing input costs and costs to taxpayer; and
   - promoting beneficial partnerships.

6. Alleviating poverty

7. Enhancing resource efficiency
   For example through:
   - improving water quality;
   - reducing reliance on non-renewable energy;
   - reducing impact on land;
   - improving air quality and reducing emissions;
   - reducing waste and pollution; and
   - promoting urban densification.

8. Promoting and enhancing biodiversity
   For example through:
   - promoting consolidation of the biodiversity network;
   - reducing the incidence of invasive biotic species; and
   - protecting sensitive ecosystems.

9. Addressing major ecological challenges
   For example through:
   - building resilience to climate change;
   - addressing environmental degradation; and
   - addressing historical inequities in accessing natural resources.

10. Ensuring strategic alignment
    For example through:
    - promoting cooperative governance and aligning with provincial, national and international priorities and responsibilities; and
    - ensuring alignment with the Spatial Development Framework, Integrated Development Plan and other key strategies.

11. Facilitating community engagement
    For example through:
    - communicating and raising awareness on sustainability issues;

12. Promoting transparent and democratic processes at a high level
    For example through:
    - promoting cooperation and collaboration;
    - promoting access to information; and
    - ensuring replicability of project principles/methods/approaches/outcomes.

In a city which recognises its natural resources as its primary economic asset, development at all costs can never be an option. Equally, programmes of conservation which fail to take into account the needs of people will always fall short of their potential.
A custom-designed table was used to record and assess projects' performance according to sustainability objectives. The table below is an extract from the Adopt-a-canal project (page 42). The objectives were broadly defined so that project managers could relate each objective to their respective projects. A scale of 1 to 5 (‘Poorly’, ‘Partly’, ‘Satisfactorily’, ‘Very well’, ‘Excellently’) was employed to assess how well the projects met each objective. These were later tallied to identify portfolio star-rated projects.

### Project title: Adopt-a-canal (extract)

<table>
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<tr>
<th>Sustainability objectives</th>
<th>Project approach</th>
<th>Assessment</th>
<th>Scoring</th>
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<tr>
<td>Creating economic opportunities</td>
<td></td>
<td>Well</td>
<td>3</td>
</tr>
<tr>
<td>Creating jobs</td>
<td>6 EPWP workers from the community were employed to perform the door-to-door health education and assisting the communities to complete the survey.</td>
<td>Well</td>
<td>3</td>
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<tr>
<td>Facilitating skills development and training</td>
<td>ERMD smart living training programme to EPWP workers.</td>
<td>Well</td>
<td>3</td>
</tr>
<tr>
<td>Improving quality of life</td>
<td></td>
<td>Very well</td>
<td>4</td>
</tr>
<tr>
<td>Meeting basic needs</td>
<td>Creating a healthy liveable environment for the children using the canal to swim by creating education and awareness to reduce the dumping of night soil which may result in the decrease of E.coli.</td>
<td>Very well</td>
<td>4</td>
</tr>
<tr>
<td>Enhancing participation in arts, culture, sports, heritage</td>
<td>Enhancing creativity in the area by using illegally dumped building materials to construct artwork along canal corridor.</td>
<td>Very well</td>
<td>4</td>
</tr>
<tr>
<td>Improving current living conditions</td>
<td>Using the canal corridor to create recreational spots and improving water quality by reducing levels of E.coli count causing diseases and deaths of children using the canal for recreation.</td>
<td>Excellently</td>
<td>5</td>
</tr>
</tbody>
</table>

### Project evaluation

- Creating economic opportunities
- Creating jobs
- Facilitating skills development and training
- Improving quality of life
- Meeting basic needs
- Enhancing participation in arts, culture, sports, heritage
- Improving current living conditions

### Project overview

<table>
<thead>
<tr>
<th>Project title</th>
<th>Project approach</th>
<th>Assessment</th>
<th>Scoring</th>
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<tr>
<td>Adopt-a-canal</td>
<td>6 EPWP workers from the community were employed to perform the door-to-door health education and assisting the communities to complete the survey.</td>
<td>Well</td>
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<tr>
<td>ERMD</td>
<td>ERMD smart living training programme to EPWP workers.</td>
<td>Well</td>
<td>3</td>
</tr>
<tr>
<td>EPWP</td>
<td>Creating a healthy liveable environment for the children using the canal to swim by creating education and awareness to reduce the dumping of night soil which may result in the decrease of E.coli.</td>
<td>Very well</td>
<td>4</td>
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### Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>CCT</td>
<td>City of Cape Town</td>
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<tr>
<td>DDS</td>
<td>diarrhoeal disease season</td>
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<td>ECD</td>
<td>early childhood development</td>
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<td>ECNS</td>
<td>electronic communications network service</td>
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<td>EHP</td>
<td>environmental health practitioner</td>
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<td>EPWP</td>
<td>expanded public works programme</td>
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<td>GBCSA</td>
<td>Green Buildings Council of South Africa</td>
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<tr>
<td>GIS</td>
<td>geographical information system</td>
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<td>IDP</td>
<td>Integrated Development Plan</td>
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<tr>
<td>IPAMF</td>
<td>immovable property asset management framework</td>
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<tr>
<td>IPAMS</td>
<td>immovable property asset management system</td>
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<tr>
<td>IPARA</td>
<td>immovable property asset register - advanced</td>
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<tr>
<td>IRT</td>
<td>integrated rapid transport</td>
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<tr>
<td>LADI</td>
<td>Local Area Development Initiative</td>
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<td>LAPI</td>
<td>Local Area Planning Initiative</td>
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<td>LED</td>
<td>light emitting diode</td>
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<tr>
<td>MSAT</td>
<td>Multi-sectoral Action Team</td>
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<td>MTC</td>
<td>Manufacturing Technology Centre</td>
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<tr>
<td>NGO</td>
<td>non-governmental organisation</td>
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<td>NMT</td>
<td>non-motorised transport</td>
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<td>NPO</td>
<td>non-profit organisation</td>
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<td>OGBI</td>
<td>open government business initiative</td>
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<td>PCP</td>
<td>Peoples Housing Project</td>
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<tr>
<td>PHP</td>
<td>Peoples Housing Project</td>
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<td>PTI</td>
<td>primary transport interchange</td>
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<tr>
<td>RDP</td>
<td>Reconstruction and Development Programme</td>
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<tr>
<td>SAPS</td>
<td>South African Police Service</td>
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<tr>
<td>SAREBI</td>
<td>South African renewable energy business incubator</td>
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<tr>
<td>SASRI</td>
<td>South African Sugar Research Institute</td>
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<tr>
<td>SEZ</td>
<td>special economic zone</td>
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<tr>
<td>SPP</td>
<td>sustainable public procurement</td>
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<tr>
<td>SRA</td>
<td>Sports, Recreation and Amenities</td>
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<tr>
<td>TCT</td>
<td>Transport for Cape Town</td>
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<tr>
<td>VOC</td>
<td>Vereenigde Oost-Indische Compagnie (United East India Company)</td>
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<tr>
<td>VRCID</td>
<td>Voortrekker Road Corridor Improvement District</td>
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<tr>
<td>WCG</td>
<td>Western Cape Government</td>
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<tr>
<td>WDC</td>
<td>World Design Capital</td>
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<tr>
<td>WESSA</td>
<td>Wildlife and Environment Society of South Africa</td>
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### Economic

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<thead>
<tr>
<th>Ecological</th>
<th>Economic</th>
<th>Social</th>
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<td>Vision</td>
<td>Overview</td>
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Further information
Organisations interested in further information, or seeking to enter into discussions about the Mayor’s Portfolio of Urban Sustainability, are invited to contact:

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Project managers
Most importantly, we are grateful to the project managers who generously gave of their time in sharing their experiences, and challenges.

Economic
18. Atlantis green technology park
   - Manager: Economic Business
   - Manager: Environmental Business

Social
19. Body of knowledge
   - Manager: Social Business

Vision
20. The broadband project
   - Manager: Vision Business

Projects at a Glance

<table>
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<tr>
<th>Project</th>
<th>Project manager(s)</th>
<th>Contact details</th>
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<tbody>
<tr>
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<tr>
<td>3. Dunoon local area planning initiative</td>
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<td>4. Source to sea river corridor project</td>
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<td>8. Open data portal</td>
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<td>9. Intersectoral collaboration: Operation Revive of Bellville P1</td>
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<td>10. Langa cultural precinct</td>
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<td>13. New Manenberg human settlements contact centre</td>
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<td>14. Ocean View stone houses</td>
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<td>16. Poverty alleviation at early childhood development centres</td>
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<td>17. Monitoring and evaluation in informal settlements: Mitchells Plain</td>
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<td>20. The broadband project</td>
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<td>26. Company’s Garden VOC vegetable garden</td>
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<tr>
<td>27. Electrolytic chlorination in water treatment</td>
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<td>30. Northern area sewer upgrade</td>
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