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PROGRESS THROUGH INNOVATION

MAYOR'S PORTFOLIO OF URBAN SUSTAINABILITY

2016

Making progress possible. Together.

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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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A message from the Executive Mayor

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.

The second edition of the Mayor's Portfolio provides a snapshot of the progress made by the City to embed sustainable practice into our everyday work.

Although only a sample of projects is showcased in this portfolio, it provides a glimpse into the areas where we are performing well in addition to areas where more work is needed.

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 multidisciplinary 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



A message from the City Manager

Addressing sustainability in our city is a complex undertaking, requiring an understanding and respect for the interconnected nature of sustainability issues. Although development is essential to satisfy human needs and improve the quality of human life, it must be based on the efficient and responsible use of all of our resources - natural, human and economic. In an increasingly complex delivery environment, many of the problems the City aims to address require multiple departments to work together.

As an administration, we are constantly seeking opportunities to better serve the people of Cape Town and help underpin sustainable economic growth, both through service delivery excellence and through the design, implementation and management of projects and programmes. We have recently taken some bold steps in reviewing and significantly restructuring the organisation in order to better fulfil these goals. In so doing, we are looking to break down traditional stand-alone silos and emphasising cross cutting collaboration.

To further aid collaboration, the Mayor's Portfolio of Urban Sustainability programme is exploring a variety of tools and platforms such as the development of sustainability best practice guidelines. These guidelines will help project managers navigate sustainability thinking and mainstreaming as well as provide an opportunity to share challenges and lessons learnt which will contribute to improved integration and coordination of service delivery.

The Portfolio is also promoting closer interaction and liaison between project managers from different line functions, learning from each other to ensure that City projects reflect strength in all sectors of sustainability - social, economic, ecological and governance.

Together, we have the opportunity to continue to grow a green, low carbon, vibrant and innovative city that remains an inspiring place in which to live and work.

Achmat Ebrahim
City Manager



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.

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. ■



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.



The portfolio

Overview

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 “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 timeous 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.



The restoration of ecosystems and indigenous biodiversity plays a critical role in the transition toward urban sustainability by improving the city’s resilience to climate change as well as adding significant value to citizens through recreational opportunities.

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 falls short of its potential and its outcomes may not be as effective as they could be.

Aims and objectives

The Mayor’s portfolio 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.

- Determine how these elements may demonstrate best practice, and draw attention to the aspects of sustainability that may be present
- Encourage project leaders to incorporate sustainability ideas from other projects, which could contribute to their own projects’ increased success.
- 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.
 - Ensure accessibility to a wider audience through media coverage of the publication via online media, print media and other 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 that have



Not only do Cape Town’s nature reserves, including Blauwberg Nature Reserve, play a vital role in conserving sensitive ecosystems, but they also create economic opportunities through tourism and provide important open spaces for the city’s citizens to enjoy.

a strong economic focus 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,



Upgrading non-motorised transport (page 90) increases the liveability of urban environments and neighbourhoods. The presence of pedestrians gives life to public spaces and contributes greatly to the conditions that make a city or community liveable.

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, about to be completed or works in progress. New and active phases of older projects are also encouraged.
3. Projects should ideally encompass the dimensions of sustainability i.e. 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 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.

7. Projects should contribute to more than one of the focus areas of the City of Cape Town IDP in a definitive way.
8. 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.

9. 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.

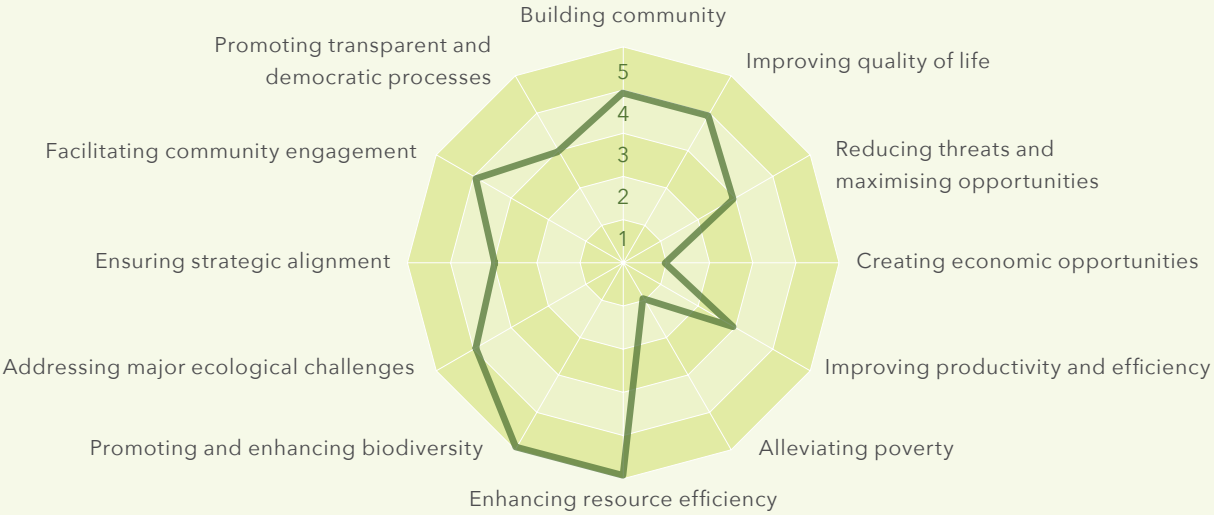
Interviews with project managers facilitated the collation of information on how the project met assessment objectives. This was then translated into an assessment table, diagram and a project profile, which summarised the challenges being addressed by

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. ■

Example of sustainability assessment: Skilpadsvlei wetland rehabilitation





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

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. Where this is not possible, minimising and managing those impacts;
- ensuring that resource efficiency and low-carbon development are embedded in all aspects of its work;
- adopting the methodology of environmentally sensitive and low impact urban design and ensuring the long-term functionality of key ecological infrastructure;
- prioritising and promoting the education and empowerment of all citizens;
- ensuring that the value of both natural and cultural heritage is recognised, protected and promoted, and that the benefits and opportunities it provides to communities are realised.

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.

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. It further encourages the profiling of the City as a tourist destination and a global sustainability leader.

These strategic elements support this portfolio’s emphasis on sustainable future growth. Projects that showcase urban sustainability arose from integrated planning, where design teams sought to create opportunities for investment and job creation.

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;
 - focussing 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



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.

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. ■



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.*

Vision portfolio		
Project	Description	Evaluation summary
1. 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
2. Community cultural planning and redevelopment – Bonteheuwel	Understanding and developing plans for investment in cultural resources through community consultation	Optimises community engagement through an innovative approach to cultural planning
3. Dunoon local area planning initiative	Creative planning for development and service delivery, through community engagement	Demonstrates the value of community participation and transversal management in the City for addressing complex challenges
4. 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
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
Social portfolio		
Project	Description	Evaluation summary
7. Adopt-a-canal	Environmental health education and interventions to improve water quality in an urban canal	Engages and builds the community, improving quality of life by encouraging community-driven improvement of environmental health and safety
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 revive of Bellville Primary Transport 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

Social portfolio (continued)		
Project	Description	Evaluation summary
10. Langa cultural precinct	Upgrade and revival of community involvement in the Guga S'Thebe Art Centre and surrounding cultural space	Improves community engagement and generates job opportunities based on cultural tourism and crafts. Its full tourism business potential has yet to be reached
11. Smart parks	Development of high quality community-designed and resource efficient recreational spaces	Demonstrates 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	Improves efficiency and creates jobs and funding opportunities across sectors through collaboration and communication
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	Demonstrates holistic consideration of design and procurement, to develop a sustainable facility, reduce risks and improve service delivery
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 schemes for communities from ECD centres	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 underserved 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		
Project	Description	Evaluation summary
18. Atlantis green technology park ★	68 ha allocated for the development of a renewable energy hub in Atlantis	Creates employment opportunities and skills development at a local scale while facilitating the development of environmentally friendly products
19. Body of knowledge	Comprehensive support system for all service enquiries to the City of Cape Town	Significantly improves productivity and efficiency of call centre staff, enabling improved service delivery
20. The broadband project	The mass roll-out of broadband fibre infrastructure to improve Cape Town's connectivity and provide business opportunities	Promotes digital inclusion and the ability to participate in the information age, so creating economic opportunities and improving productivity
21. CityMart innovation challenge to enhance Cape Town's informal trading sector	Problem-based procurement of community-derived solutions to urban informal trading in various contexts	Facilitates community engagement through collaborative knowledge sharing about innovative solutions to urban challenges
22. iComply	Comprehensive tool to ensure the City's consistent legal compliance to changing legislation	Promotes good governance through ensuring municipal compliance, with notable benefits to the City management
23. The immovable property asset management framework	Strategic business solution to address the challenges of property management after the amalgamation of the metro	Delivers a streamlined system to optimise property management efficiency, but full implementation will take time
24. South African renewable energy business incubator (SAREBI)	Support for value-adding SMEs to the emerging renewable energy and green technology sector in the Western Cape	Uses inter-sectoral collaboration to support and enable the creation of economic opportunities in an environmentally friendly sector
25. Wallacedene green taxi rank ★	Formalising a taxi rank with resource-efficient architecture and infrastructure	A well-rounded project that minimises environmental impact while improving quality of life and access to transport services

Ecological portfolio		
Project	Description	Evaluation summary
26. Company's Garden VOC vegetable garden	The reconstruction of the VOC heritage vegetable garden within the Company's Garden complex	Improves quality of life by providing a food resource to vulnerable people, and an educational tool to promote awareness about sustainable urban practices
27. Electrolytic chlorination in water treatment	Installation of new water treatment technology with improved safety	Reduces threats and enhances natural resources by improving safety and efficiency of water treatment
28. Green jobs: Biological control for invasive weeds ★	Employment of disabled people to contribute to the biological control of alien invasive species in Cape Town's waterways	Promotes and enhances biodiversity while upskilling members of society through innovative and efficient biological control
29. Upgrade of non-motorised transport	Construction and improvement of NMT infrastructure, including links with the integrated rapid transport system for the City	Provides safer and easier access to employment opportunities, while minimising environmental impact of commuting
30. Northern area sewer upgrade	Sustainable repair of ageing but crucial infrastructure for the growing city	Promotes sustainability thinking through attention to long-term lifespan of infrastructure, while improving capacity for service delivery
31. Shark Spotters and the Fish Hoek exclusion net ★	Alternative and safer methods for the management of sharks and people at Cape Town's beaches	Uses a social and ecological challenge to create economic opportunities, build community and enhance natural resources
32. Skilpadsvlei wetland rehabilitation ★	The reconstruction and restoration of a previously filled-in wetland as a functional ecosystem and recreational space	Promotes community building and benefits biodiversity and natural resources through well-executed restoration

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.

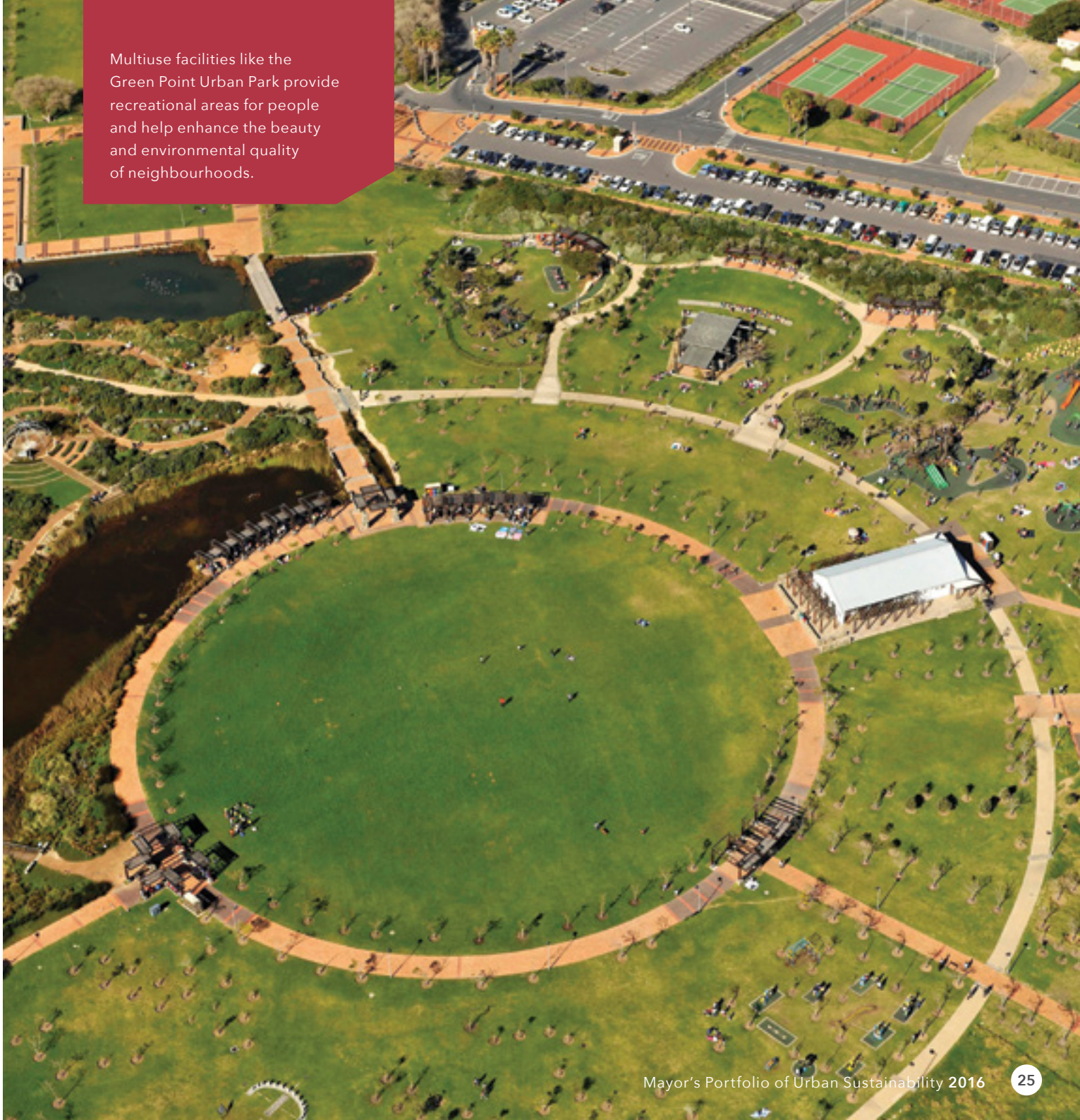
This edition of the Mayor’s portfolio introduces the Vision category. This category arose to accommodate projects which do not necessarily result in direct “on-the-ground” development, but which have involved a substantial level of planning and design based on sustainability thinking. This has led to 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.

Project 1: Cape Town Energy2040

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 its exposure to external threats. This detailed, strategic information tool for decision-making will contribute to institutionalising sustainability awareness

and practice. Energy2040 demonstrates Cape Town’s leadership at a regional and global level and is the most comprehensive energy report for the city to date. It informs the full review of the City’s Energy and Climate Action Plan (adopted by Council in 2010). The process involved extensive expert input and stakeholder engagement resulting in the agreed measures required to achieve energy and carbon targets.

Project design

The Cape Town State of Energy Report 2015 and Energy Futures study, which is based on extensive data collection and analysis, served as the basis for the Energy2040 vision. Local and international city economies are heavily dependent on energy and require a strong commitment to identify and enact innovative and sustainable responses for their energy and climate futures. From the Long-Term Energy Alternatives Planning modelling undertaken, it is clear that a more sustainable energy future path is achievable if action is taken and sustained. City staff members have received training, allowing them to make

changes and test for sensitivities around various assumptions. The model identifies the measures that should be taken to achieve a sustainable energy future, and these inform the Action Plan.

Energy2040 envisages:

- Reductions:
 - 16% in energy used per economic unit;
 - 37% in carbon emissions (21% from energy efficiency alone – including 500 000 solar water heaters and heat pumps);
- less dependency on coal, with 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. ■



Project 2: Community cultural planning and redevelopment – Bonteheuwel

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.

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.

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.



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.

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 same level of engagement is then applied to City role-players where the parameters of functional settlements are workshopped 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

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

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 facilities 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, backyarders 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. ■



Project 4:

Source to sea river corridor project

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 Prinskasteel/Keysers 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

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.

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. ■



Project 5: Sustainable public procurement

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 maximising an organisation’s resource efficiency and promoting environmental sustainability while using its public market power to bring about major environmental and social benefits. 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.

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 these tenders. All traffic lights in the City have been retrofitted with energy efficient light emitting diodes (LED). The R29 million investment will result in a saving of 7 459 MWh of electricity, 7 384 tons of carbon, and R11 million per annum, with a payback period of three years. Progress has also been made in the energy retrofitting of many City buildings; large low-cost housing development designs; solid waste

While the support for sustainable public procurement is strong at policy level, the implementation thereof still faces challenges.

minimisation and recycling initiatives; and the improvement of desktop power savings and Information Systems & Technology remote services efficiencies. These efforts have been assisted by criteria being incorporated into the City’s Supply Chain Management Policy and 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.

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. ■



Project 6: Recreational clustering

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.



Social portfolio

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.

Project 7: Adopt-a-canal



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 environmental awareness initiatives. Langa community members were brought together to understand the behavioural causes and challenges of

poor water quality. A door-to-door health education package was disseminated to address gaps in community knowledge and practice. Simultaneous efforts to clean the canal, prevent illegal dumping and improve public open spaces along the canal were undertaken. The duties associated with these activities encouraged the community to take responsibility for the canal and also created short-term employment for some of the residents in Langa. By improving education, providing work opportunities and increasing community supervision of the canal, the incidents of dumping decreased, and the water quality improved noticeably.

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 community was afforded the opportunity to take ownership of the canal and the

quality of the water within it; and that short-term jobs were created. The project made use of EPWP workers to clean the canal and also empowered community members to assume supervisory liaison roles to promote good practice around the canal.

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



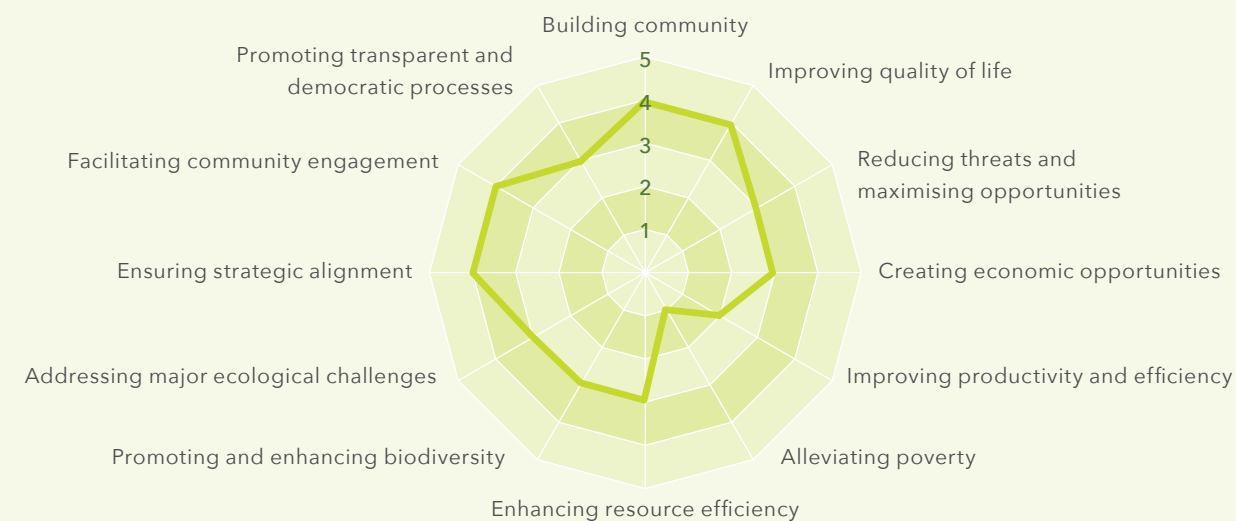
Ultimately, the long-term success of the project will depend on the level of ownership that the community takes over the interventions.

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.

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. ■

Sustainability assessment: Adopt-a-canal



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

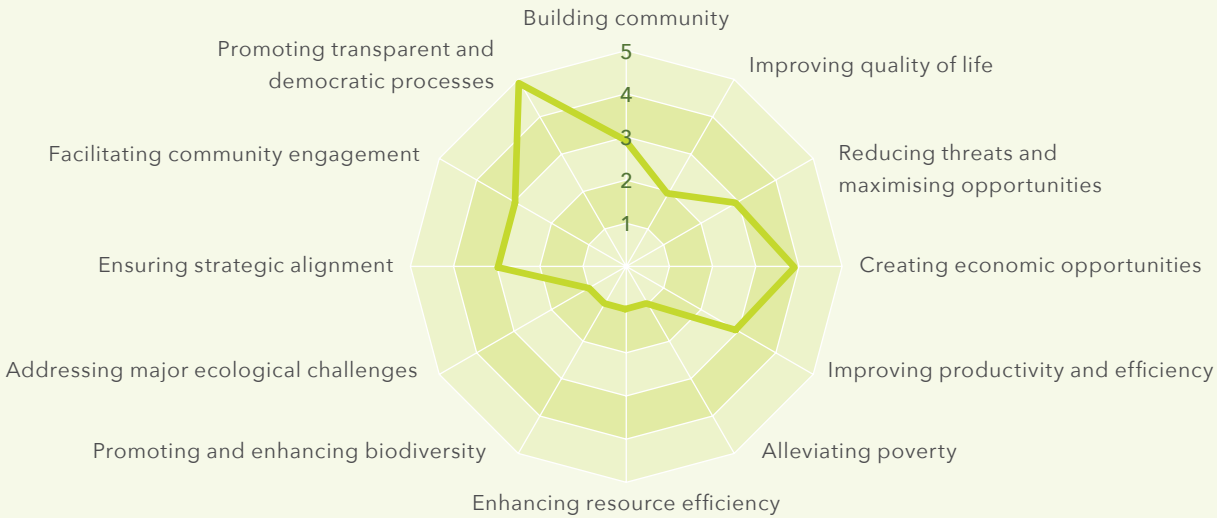
Cape Town is the first African city to open its data to the public through an open data portal. The open data portal makes it easy for the public to access data and promotes transparency and accountability thus aiding citizen engagement with the City. It also contributes to the creation of an enabling environment which will attract investment to generate economic growth and create jobs. As a result, this project



More and more local governments are availing their data to empower their citizens with transparent knowledge of the workings of local authorities.

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



Project 9:

Inter-sectoral collaboration between City directorates: Operation revive of Bellville PTI

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 comes 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



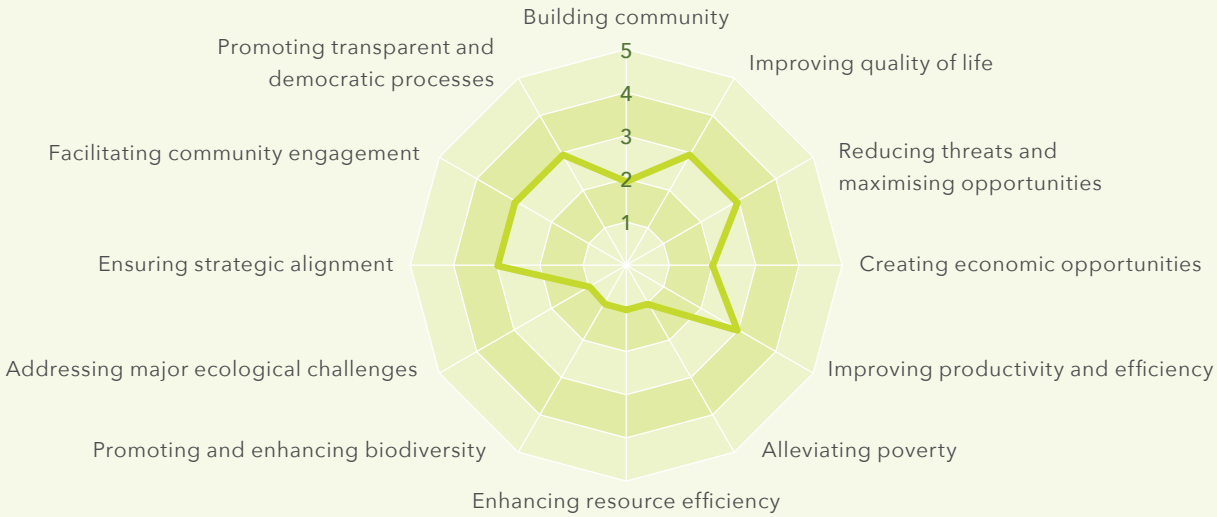
Through a number of interventions the public environment in and around these areas has been and continues to be improved for the benefit of all to create a clean and safe urban public space.

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



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 workshopped, 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



Since the initial re-imagination of the Langa cultural precinct, the usage of space, specifically the theatre, has tripled.

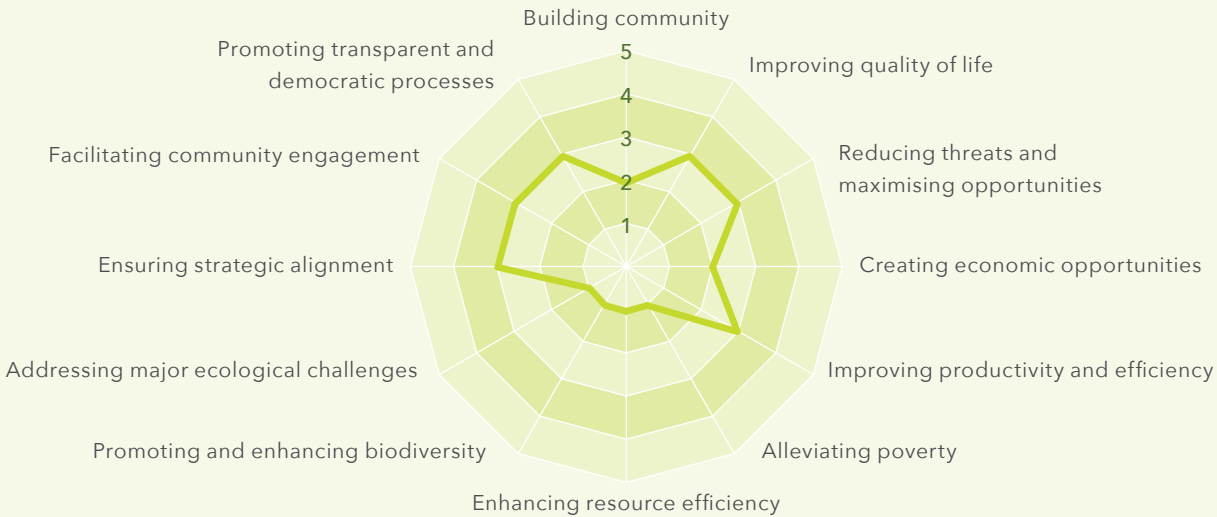
feature in both the Open Design Festival and Cape Town Fringe Festival in 2015.

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, benefitting the Langa community. The true potential of improving tourism business in the area needs to be fully explored. ■

Sustainability assessment: Langa cultural precinct



Project 11: Smart parks



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



Well-designed public open spaces can successfully draw residents to the park.



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.

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.

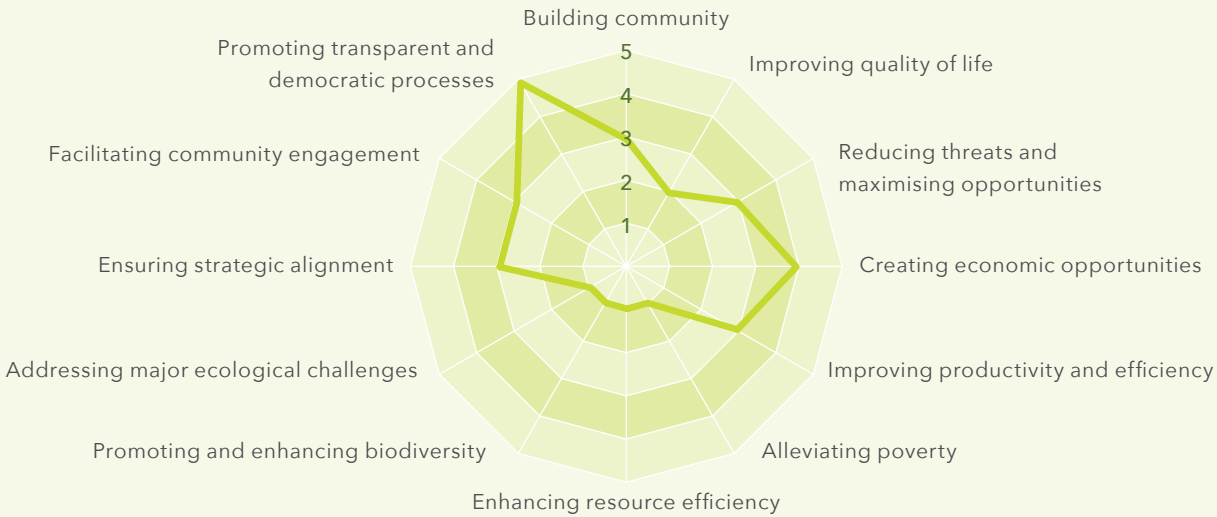
Priority areas for the development of smart parks are those that have the highest need for additional, multipurpose recreational spaces for communities to access and enjoy. At the time of writing, smart parks had been launched in Delft,

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. ■

Sustainability assessment: Smart parks



Project 12: Multi-sectoral action teams (MSATs)



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.



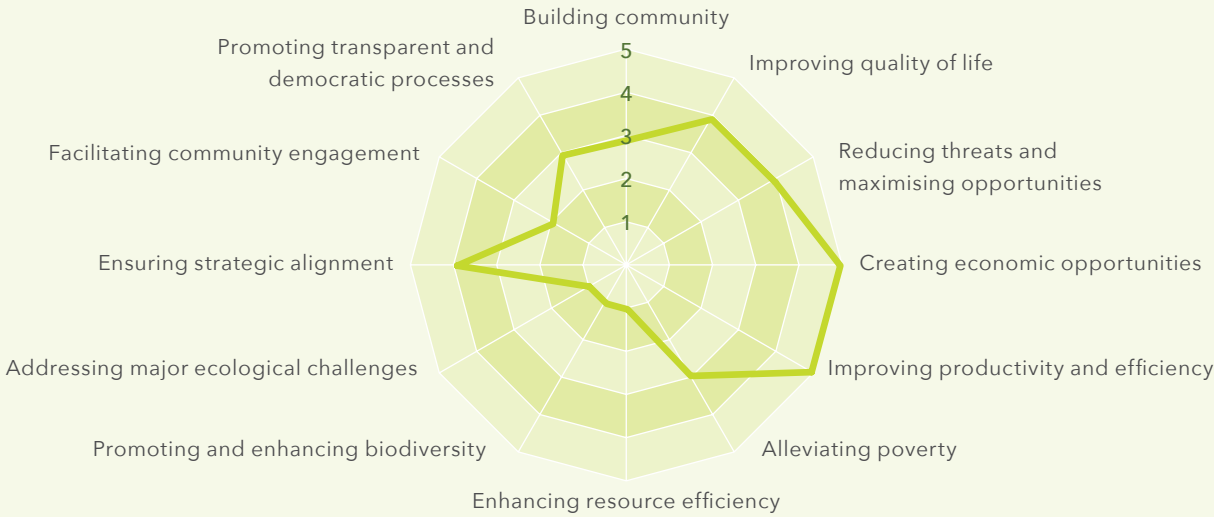
The MSATs aim to mobilise all sectors to act against HIV/Aids and TB, with priority areas including prevention; treatment, care and support; research; monitoring and evaluation; and human and legal rights.

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. ■

Sustainability assessment: Multi-sectoral action teams



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 with 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 enhances the indoor environmental quality by increasing fresh-air intake, inviting daylight into the workspace and incorporating 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.



This project harnessed a network of skills and expertise, and formulated a constructive coordination across City departments and important external partners.

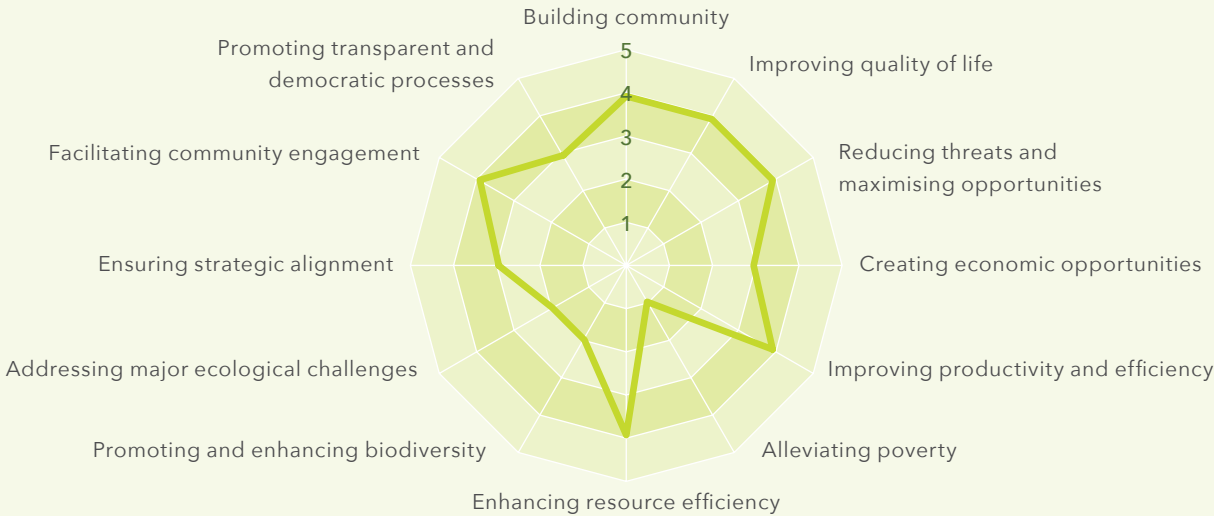
Project implementation

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. ■

Sustainability assessment: New Manenberg human settlements contact centre



Project 14: Diarrhoeal disease season campaign

★ Gold star rating

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 to address these challenges is critical.

Project outline

The Diarrhoeal disease season (DDS) plan is an integrated response executed every year between November and May. Environmental health practitioners (EHPs) undertook investigations of locations



where deaths due to diarrhoea were recorded. The factors contributing to the disease in fatal cases were used to inform a multi-stakeholder plan to integrate health facilities, including referral hospitals and environmental health partners across all City sub-districts. The plan also integrates representatives from most City service delivery departments, including Water and Sanitation and Solid Waste. In addition, the DDS plan promotes basic education and disease prevention through simple, cost effective behaviour changes.

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 mortality 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 first rolled out in hospitals and clinics in 2008, where a 'diarrhoea corner' was set up and nurses 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 has been implemented and EHPs have been integrated into the plan to gain a better understanding of where fatal diarrhoea disease in children is most



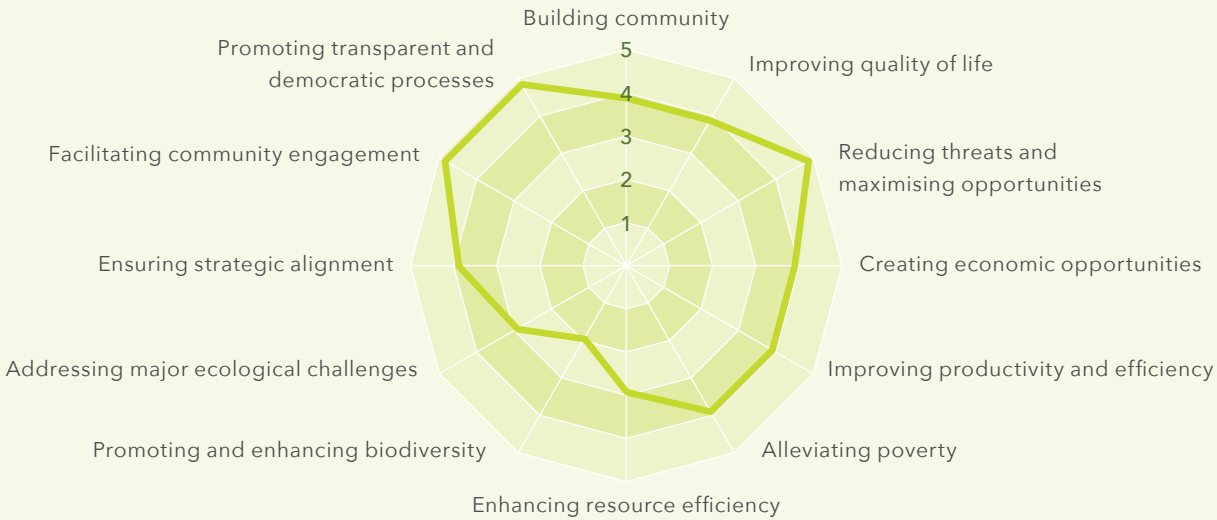
Diarrhoea is one of the leading causes of avoidable child mortality in poverty stricken and informal urban settlements worldwide.

prevalent. Living environments and other factors contributing to diarrhoeal disease were also studied to direct environmental health interventions. This brought access to water, sanitation and waste services, food safety and personal hygiene practices to the fore. The wider network of health practitioners, including general practitioners, pharmacists and traditional healers, was progressively integrated into the DDS plan to build a consistent and unified response to the diarrhoeal disease season. Education about simple preventative measures was incorporated, including a cost-effective recycled squeeze-bottle that allowed residents without adequate access to running water to wash their hands frequently enough to prevent disease.

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



Project 15: Ocean View stone houses

★ Silver star rating

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,



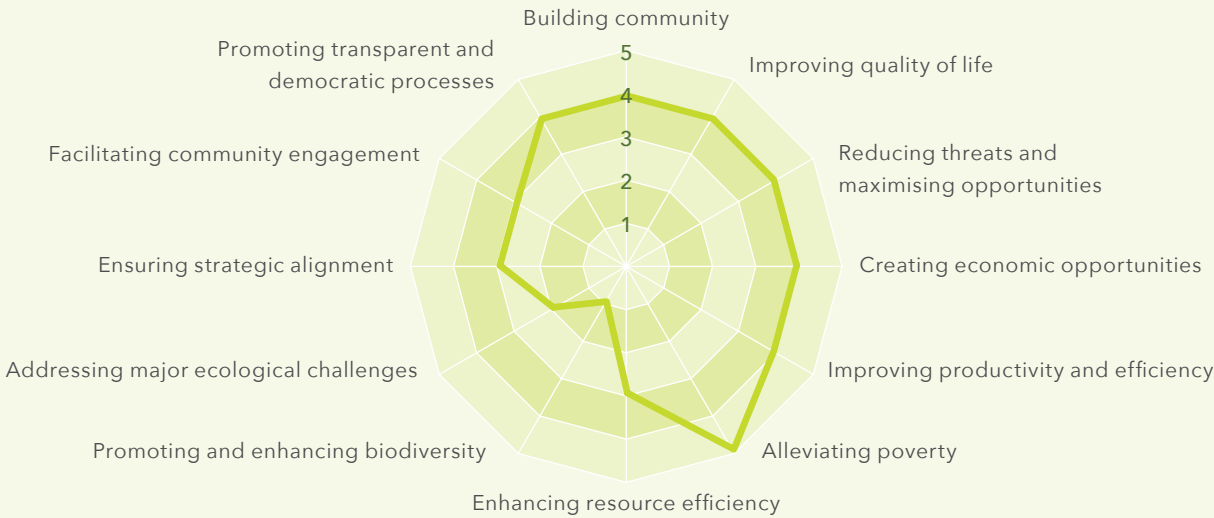
Through design-led thinking, the original constraint to the project’s development was turned into its key benefit.

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. ■

Sustainability assessment: Ocean View stone houses



Project 16: Poverty alleviation at early childhood development centres

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 and integrate these into a dynamic network. This network will support the establishment and maintenance of community vegetable gardens at ECD



centres. It is currently being enacted through the City’s ECD centres but will expand to include other social development centres, for example those focussed on substance abuse, youth development, vulnerable groups, and social entrepreneurship. Currently the focus is on ECD centres to ensure that the children there receive nutritious meals and experience the full benefit of improved educational programmes implemented through the Centre of Excellence Initiative.

Project design

The Poverty Alleviation through Food Security project currently supports 20 gardens at ECD centres across the city, with the expanded programme supporting 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

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.

Project implementation

In 2013, the Poverty Alleviation through Food Security project incorporated 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 has improved the productivity of the garden and, through skills and knowledge sharing, inspired the creation of other vegetable gardens in these parents’ homes. The Joyce Ndinisa garden also has a partnership with the local Shoprite where they supply vegetables in exchange for items needed



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.

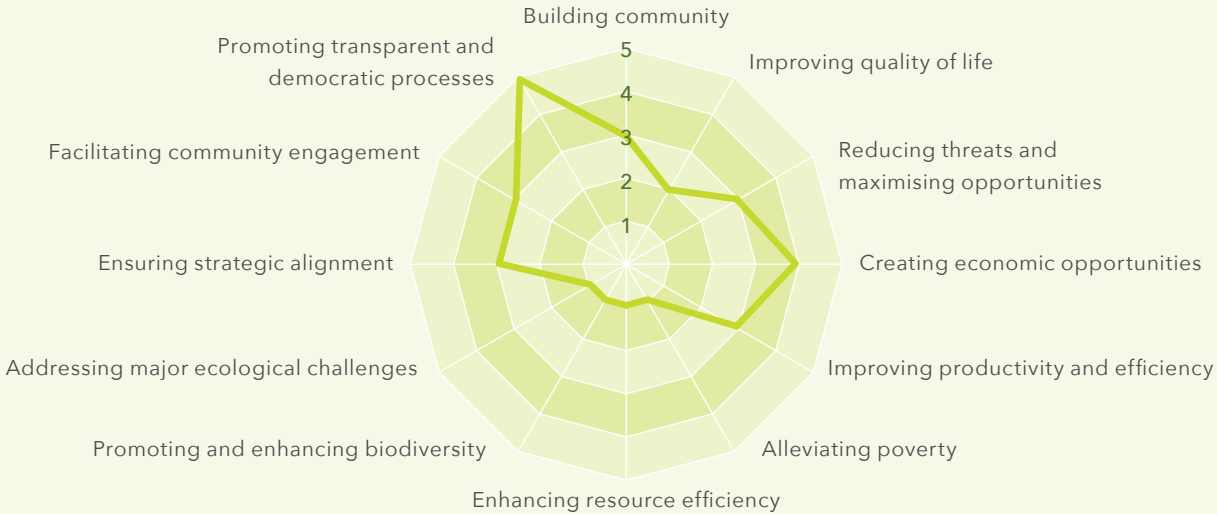
at the ECD centre. The Dora Tamana ECD vegetable garden employs young men from the surrounding community to work daily in the garden. The young children also learn about vegetable varieties and planting methods every day after the garden work has finished.

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.

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. ■

Sustainability assessment: Poverty alleviation at early childhood development centres



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 lead 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 and environmental 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 monitoring and evaluating 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



The EHP team collaborates with workers from the EPWP programme to improve capacity and extend the reach of their monitoring and evaluation.

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:

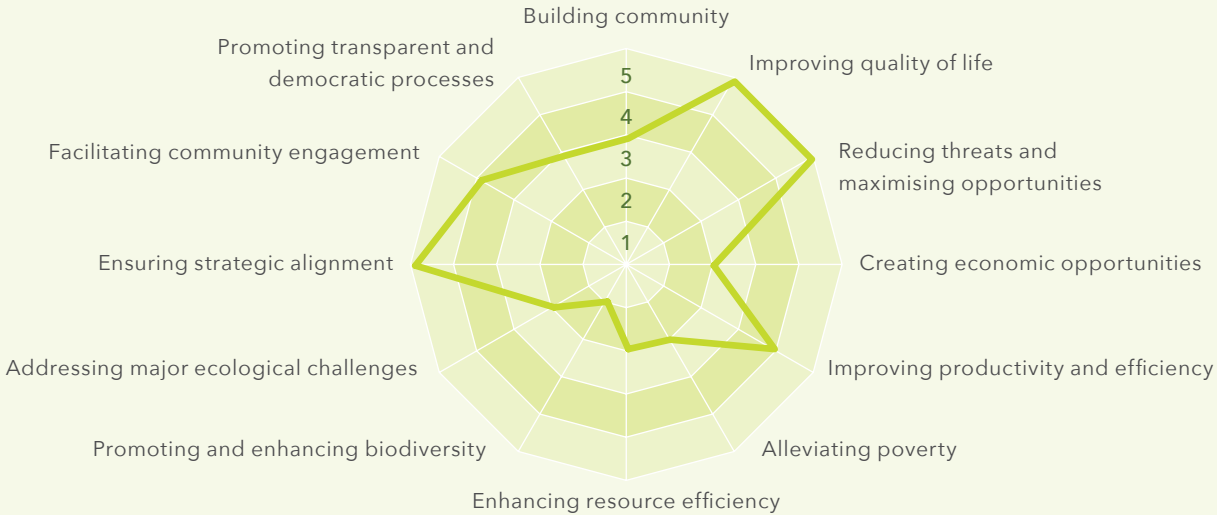
- City Parks
- Water and Sanitation
- Stormwater and Sustainability
- Solid Waste and
- Disaster Risk Management

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.

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 can see first-hand that corrective action is being taken to alleviate their plight. ■

Sustainability assessment: Monitoring and evaluation in informal settlements: Mitchells Plain





Economic portfolio

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.

Project 18: Atlantis green technology park

★ Silver star rating

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.

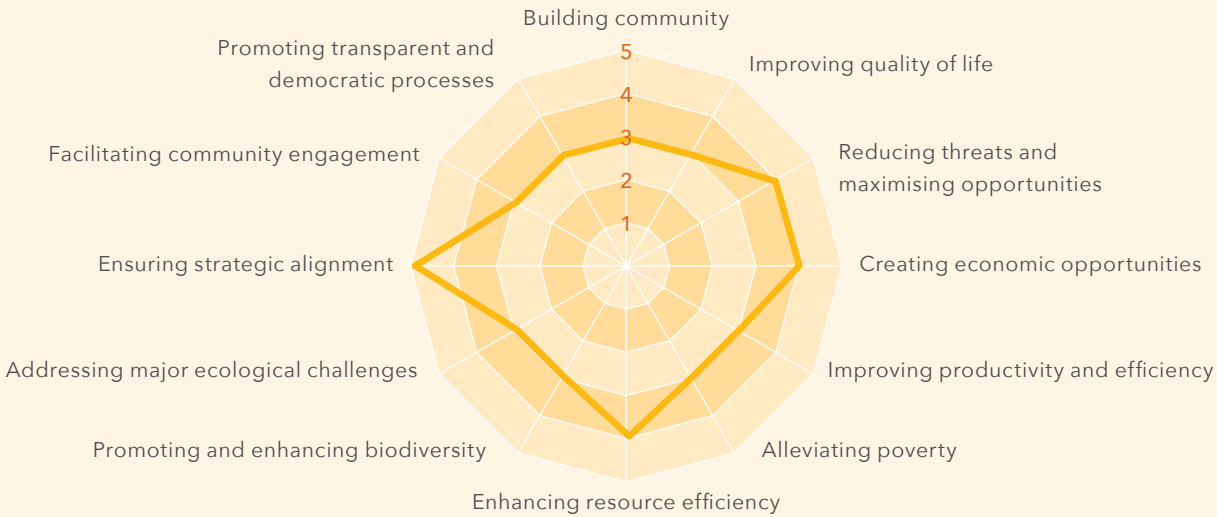


The City has designated 68 hectares in the Atlantis industrial area for the development of the technology park.

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 localised 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



Project 19: Body of knowledge



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 provide on-going, collaborative content management with service departments to support the creation and maintenance of standard operating procedures, alerts, service level agreements and other relevant content.

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.

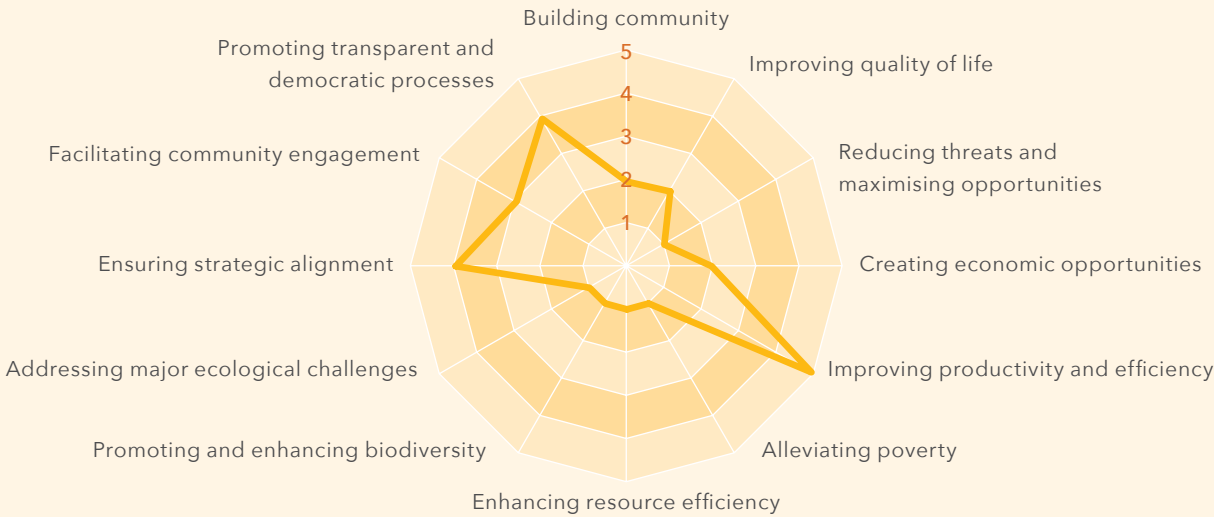


The body of knowledge is a SharePoint application that is published on the City’s Intranet for use by City staff.

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. ■

Sustainability assessment: Body of knowledge



Project 20: The broadband project

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 3 000 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.

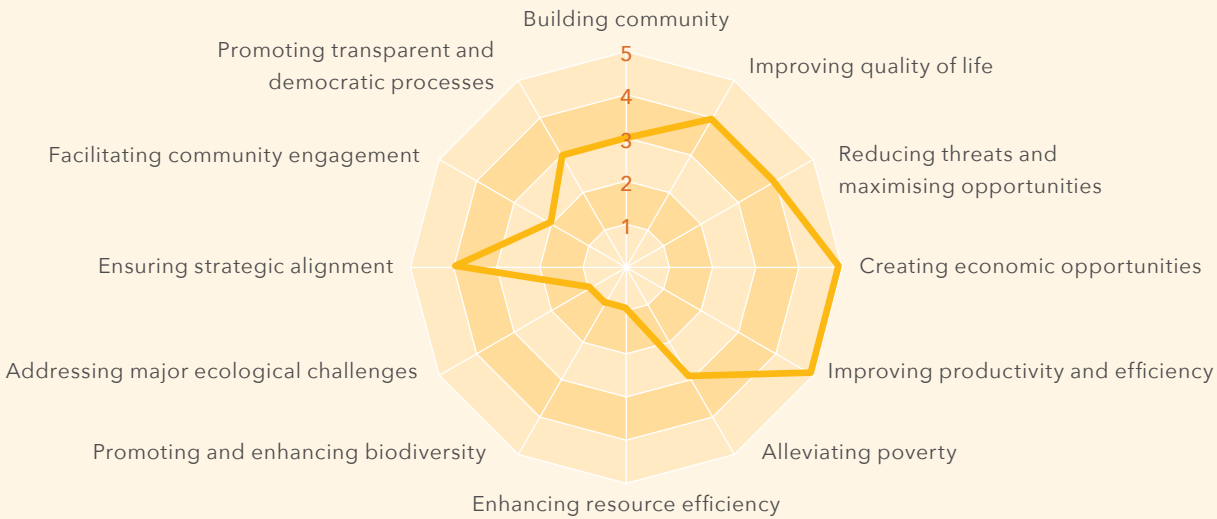


The rollout of the broadband infrastructure started in 2010 and since then the City has built a network of 789 kilometres of core cable for telecommunications infrastructure across the city.

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. ■

Sustainability assessment: The broadband project



Project 21: CityMart innovation challenge to enhance Cape Town's informal trading sector



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, a pilot or other demonstration of the impact of the winning solution in the city.

Project implementation

The Economic Development Department selected a solution proposed by Asiye eTafuleni, 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 eTafuleni 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.

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 eTafuleni workshop methodology should be expanded to a number of trading areas.

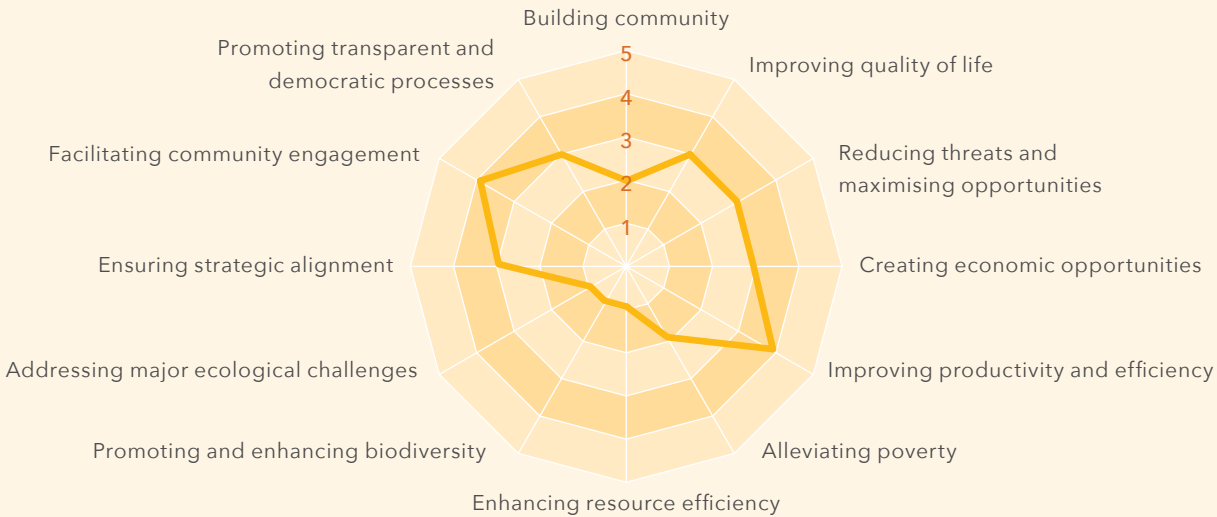


At many of these sites, infrastructure for trading such as stalls, kiosks, and ancillary services are sub-standard and not conducive to trading.

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 eTafuleni solution, the effort to further learn about and develop the informal trading space embraces Cape Town as an opportunity and inclusive city. ■

Sustainability assessment: CityMart innovative solutions for Cape Town's informal trading sector



Project 22: iComply



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

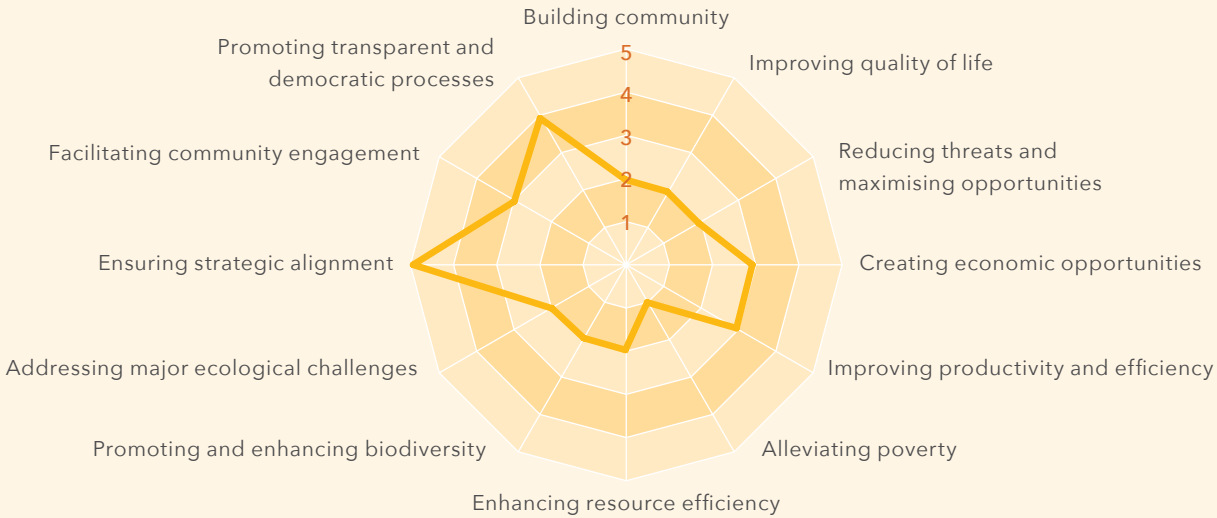
The iComply system has been implemented by the majority of municipalities within the Western Cape Province. Collaboration with other municipalities and Provincial Government is paramount for the uniform application of the system throughout the province, which contributes to legal certainty for municipal 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



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.

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



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 30 000 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 usages of these land parcels; and linked 19 271 land parcels with responsible departments. At 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



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.

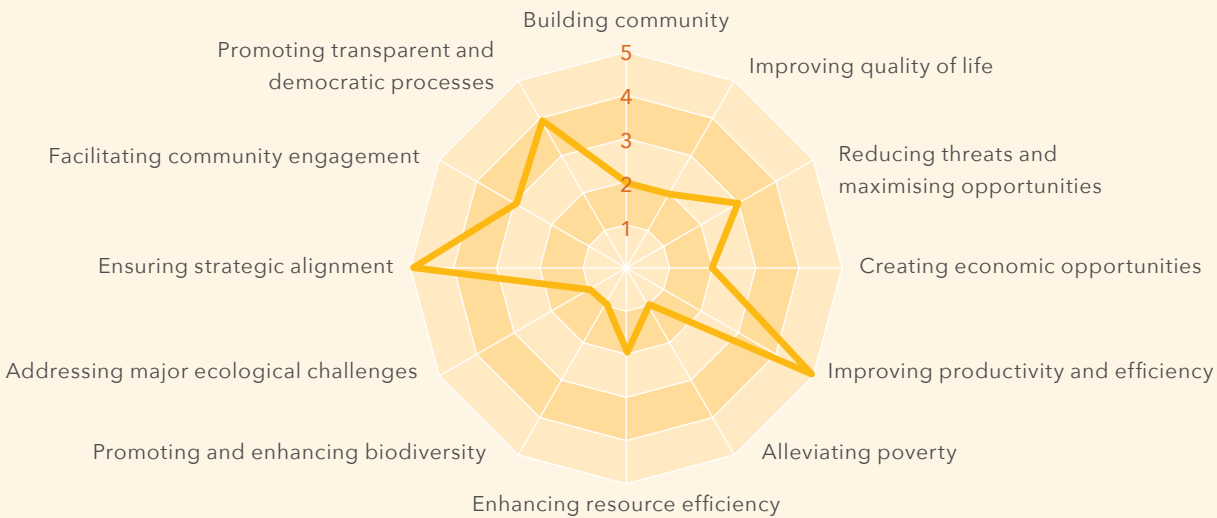
against criteria including costs and utilisation; maintenance; functional suitability; and governance and strategic compliance. Both IPARA and IPAMS business system solutions were launched in March 2015 and the first performance assessment was initiated involving the City's Sports Facilities and Halls.

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



Project 24: South African renewable energy business incubator (SAREBI)



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 that forms part of the

value-adding chain, thereby eliminating the need for large manufacturers or energy producers to import these interim products or services. SAREBI enables SMEs in this sector to enter the market, as viable businesses operating at an internationally accredited standard, to improve the uptake of local content within 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.

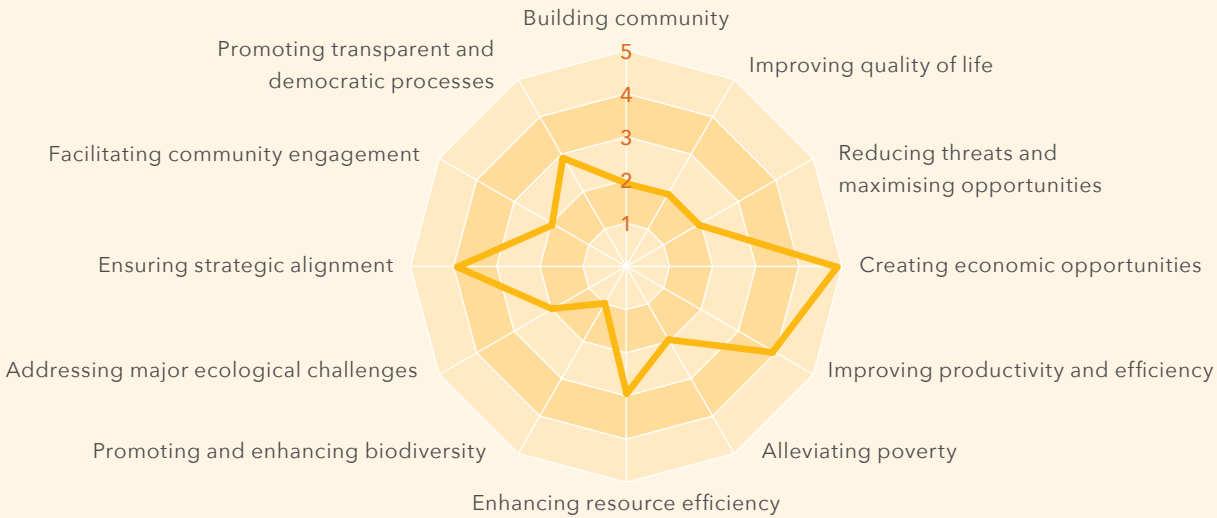


SAREBI aims to unlock upstream and downstream opportunities for the demand for products and services to supply to the renewable energy sector.

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. ■

Sustainability assessment: South African renewable energy business incubator



Project 25: Wallacedene green taxi rank

★ Silver star rating

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.

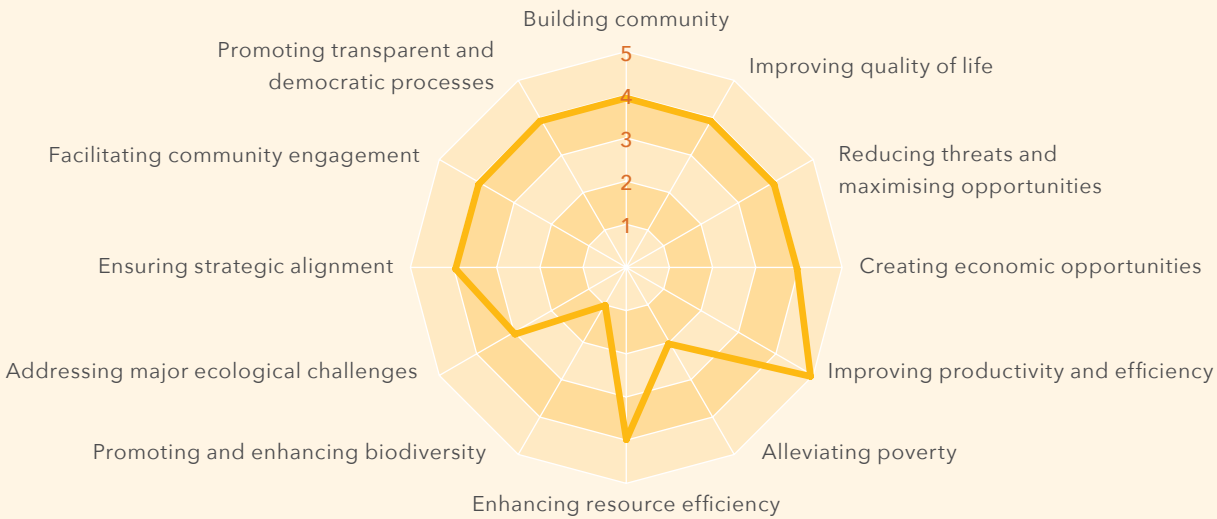


The new Wallacedene taxi rank, unveiled in August 2015, is the first ‘green’ transport facility in South Africa.

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. ■

Sustainability assessment: Wallacedene green taxi rank





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 educating people about the importance of community gardens. Food gardens that are established in underutilised urban green spaces are essential in the transition toward

urban sustainability, especially when considering their contribution to food security, adaptation to climate change and benefit through encouraging cultural and recreational activity. Importantly, this project recognises the historical value of this particular garden in Cape Town's heritage. In the 17th century the VOC garden provided the ships of the spice trade with fresh fruits and vegetables and later became an 18th century Victorian pleasure garden. Today, the restored VOC Vegetable Garden provides a historical reference for Capetonians and tourists. It is also a resource for exhibiting and teaching urban agricultural skills while raising environmental awareness.

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 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 implementation

Partnerships have been an integral part 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



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.

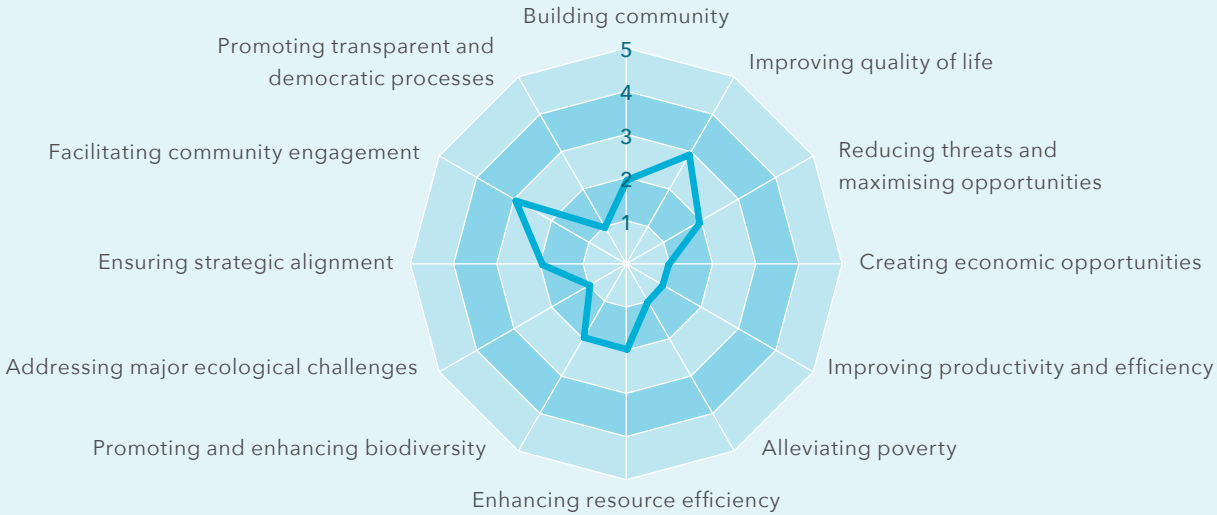
farming, permaculture and sustainable livelihoods through community gardens. Presently, the VOC Vegetable Garden project team is exploring opportunities through the Cape Town Partnership's 'Green Cluster' as well as the viability of establishing a regular farmers' market on the site.

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 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. This project aligns strongly with the City's strategic focus on being an inclusive and caring city by promoting 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



Project 27: Electrolytic chlorination in water treatment

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: Platteklloof, Tygerberg and Glen Garry Reservoirs. These were the specific service reservoirs selected for the implementation



During project implementation, existing operational staff underwent two months of thorough training to prepare them for work with the new technology.



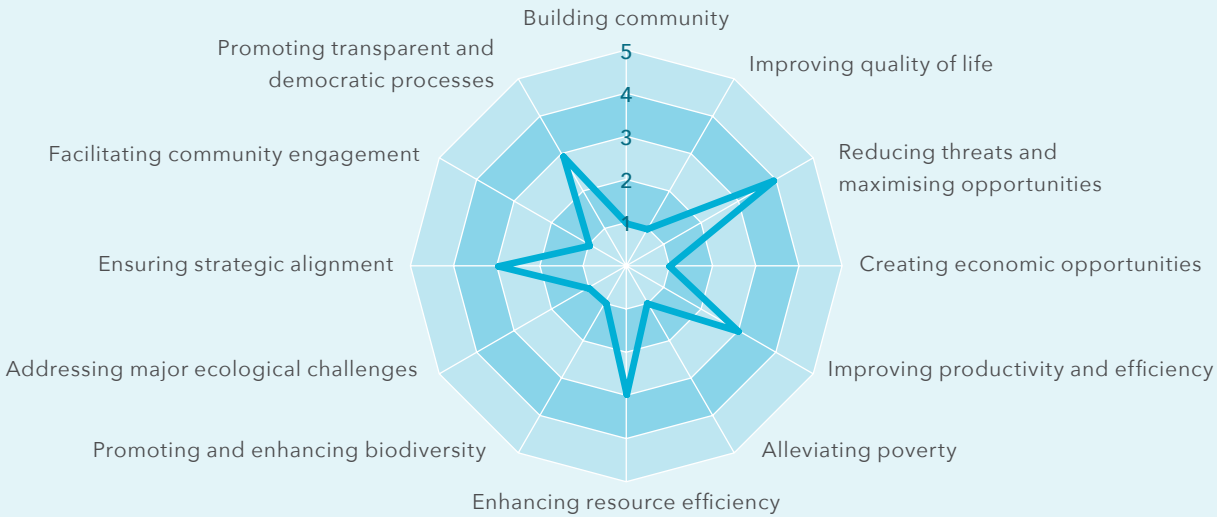
Gas chlorination is used at storage reservoirs to ensure bacterial regrowth does not occur after initial water treatment.

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



Project 28: Green jobs: Biological control for invasive weeds



★ Silver star rating

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 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 design

The Biocontrol Green Jobs project for the Green Jobs Unit makes use of transversal partnerships to ensure its operation. Within the City, the project partners with various departments to improve the management of invasive plants across the Metro. The project is supported by Rhodes University which provides scientific input, expertise and training. The programme has also trained ten people from the Bethesda Society for the Disabled in Hout Bay. The facility,

situated in Westlake, provides inclusive training and job opportunities for people with special needs in order to rear insects that are used in combination with other control methods.

Project implementation

Since the biological control mass rearing facility's opening in 2014, staff members have reared and released over 300 000 insects into the City's catchment systems. In addition to the 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 catchment is sensitive to disturbance during the September to January period. Therefore, no work can occur during

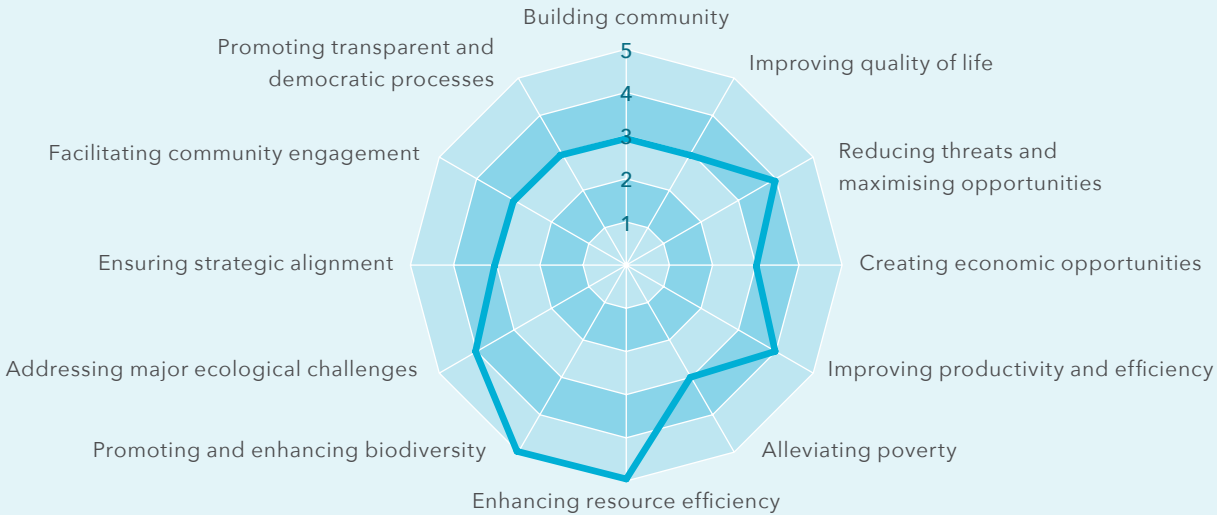


The expansion of the current facility provides additional job opportunities and increases the City's capacity to rear and release agents.

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



Project 29: Upgrade of non-motorised transport



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.



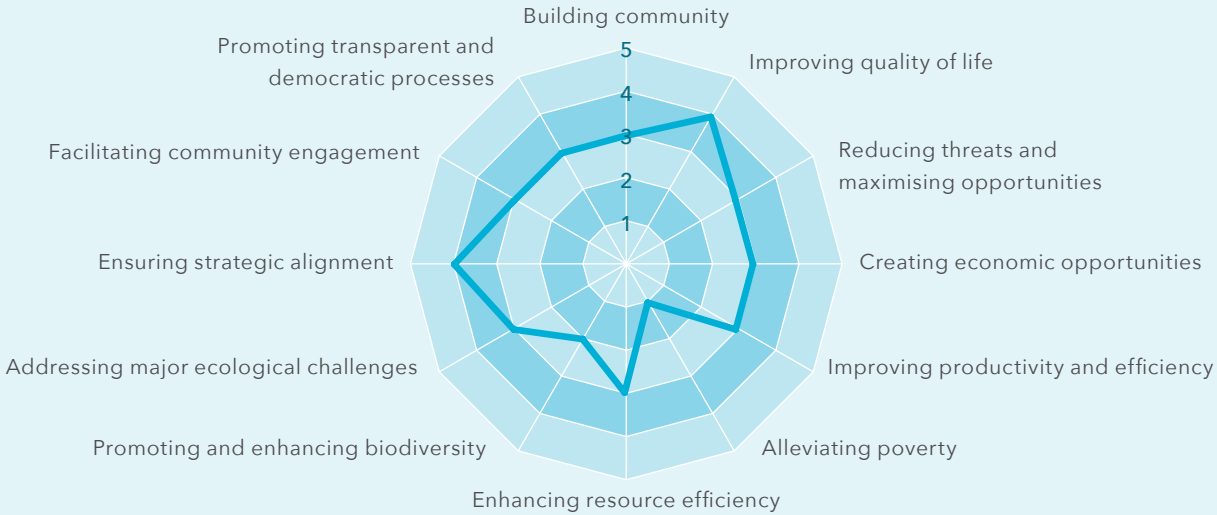
If Cape Town is to transition toward a sustainable city, it must address the serious social and environmental implications of conventional transport habits and design.

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. ■

Sustainability assessment: Upgrade of non-motorised transport



Project 30: Northern area sewer upgrade

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 Platteklloof, Panorama, Parow, Elsies 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. The construction of this project required heavy machinery and specialised skills



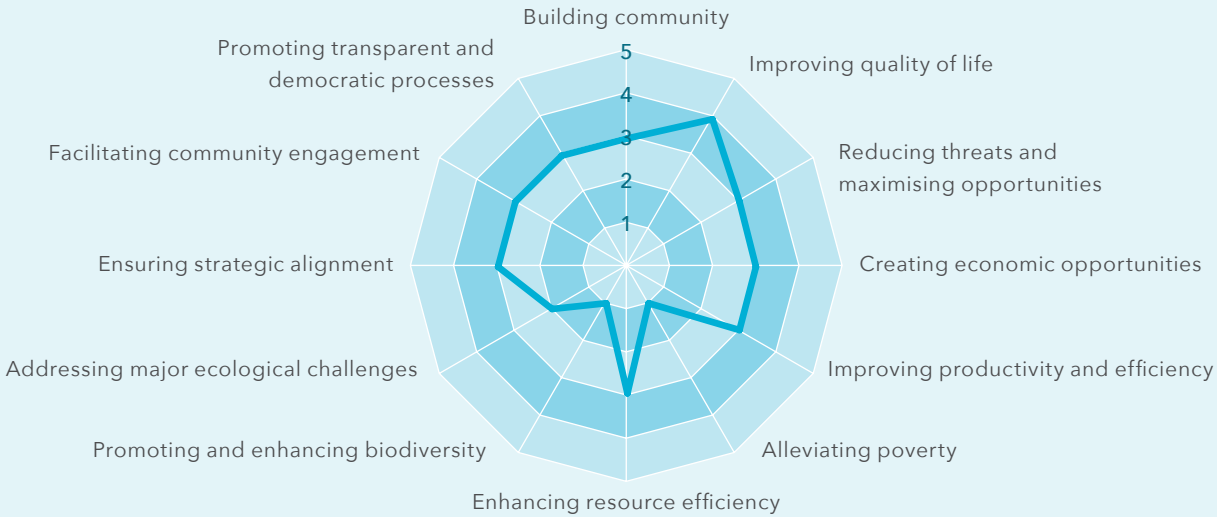
There are roughly 10 000 kilometres of water and sewer reticulation across Cape Town.

which were not conducive to EPWP level employment. More than R500 000 was spent on targeted employment which equates to between five and ten employment opportunities per month, for the duration of the construction.

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



Project 31: Shark Spotters and the Fish Hoek exclusion net



★ Gold star rating

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.

Shark Spotters strives to protect people and conserve sharks in Cape Town by applying innovative and responsible shark safety solutions, furthering knowledge with applied research, and raising awareness for better understanding. Shark Spotters has been operating for over a decade now, and the programme has grown from strength to strength.

Project design

The Shark Spotters team makes every effort to ensure that the programme remains rooted at the community and grassroots level. The shark spotting aspect of the programme integrates people from surrounding communities with local businesses, beachgoers, law enforcement and tourists by employing them as spotters. However, Shark Spotters do much more than look out for great whites. Partnerships between spotters and partner agencies have contributed to progress outside the immediate ambit of the spotters. Data captured from shark sightings as well as over a decade of fieldwork studying great white

shark behavioural ecology has informed numerous ground-breaking marine research efforts. 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.



The Shark Spotters team makes every effort to ensure that the programme remains rooted at the community and grassroots level.

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.

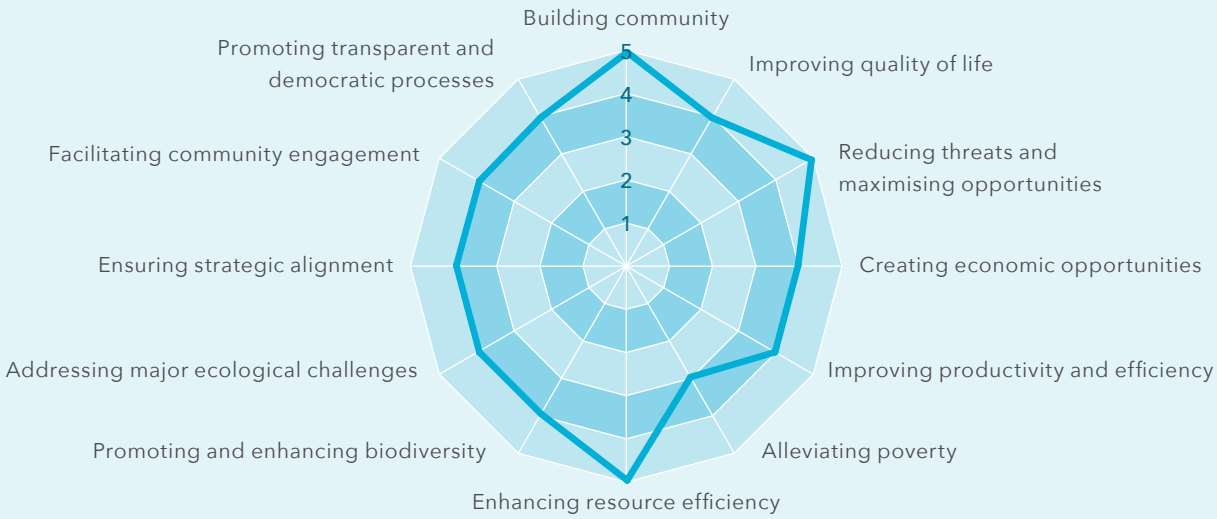
Evaluation

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. ■

Sustainability assessment: Shark Spotters and the Fish Hoek exclusion net



Project 32: Skilpadsvlei wetland rehabilitation



★ Silver star rating

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 of precious natural resources in an urban environment. It has become critically important to conserve what is left of these natural resources and to recover urban natural and open space from unsustainable practices and development.

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 lost western leopard 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 senescent 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 'scraped' to remove all alien vegetation, followed by the ongoing



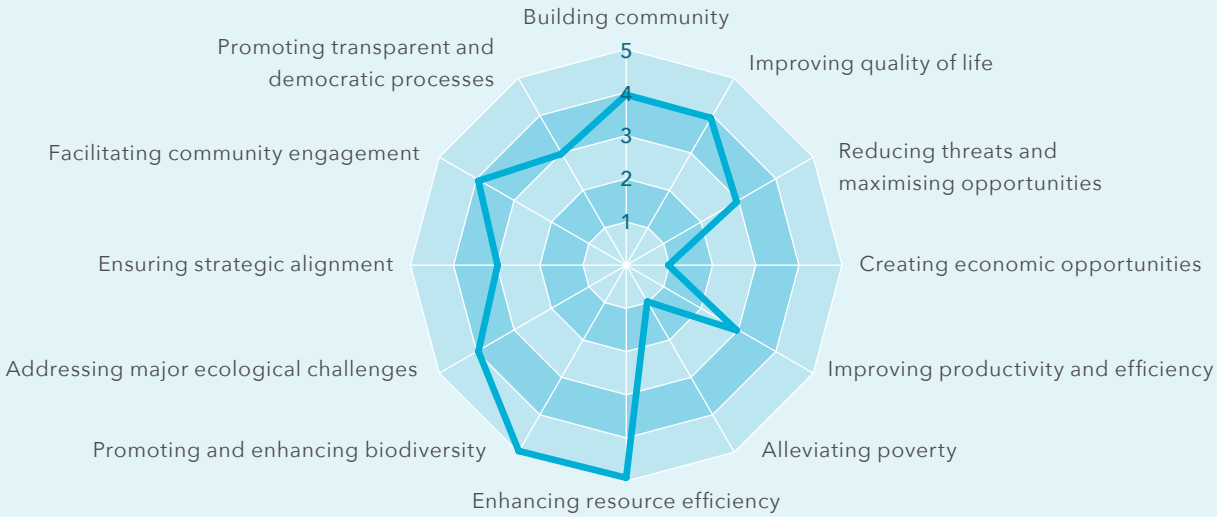
Skilpadsvlei has established itself as one of Cape Town's most important breeding sites for western leopard toads.

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.

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. ■

Evaluation

Sustainability assessment: Skilpadsvlei wetland rehabilitation





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 34 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
OPPORTUNITY
CITY

THE
SAFE
CITY

THE
CARING
CITY

THE
INCLUSIVE
CITY

THE
WELL-RUN
CITY

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

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 five 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

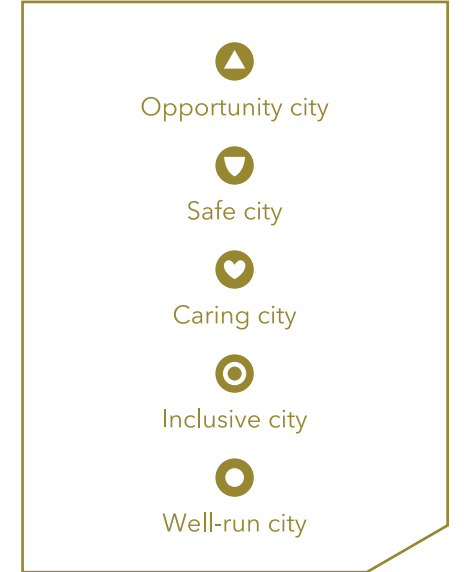
inequalities of the past. Being drivers of social and economic development, they will help the City fulfil its constitutional mandate as local government and will help change people's lives.

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

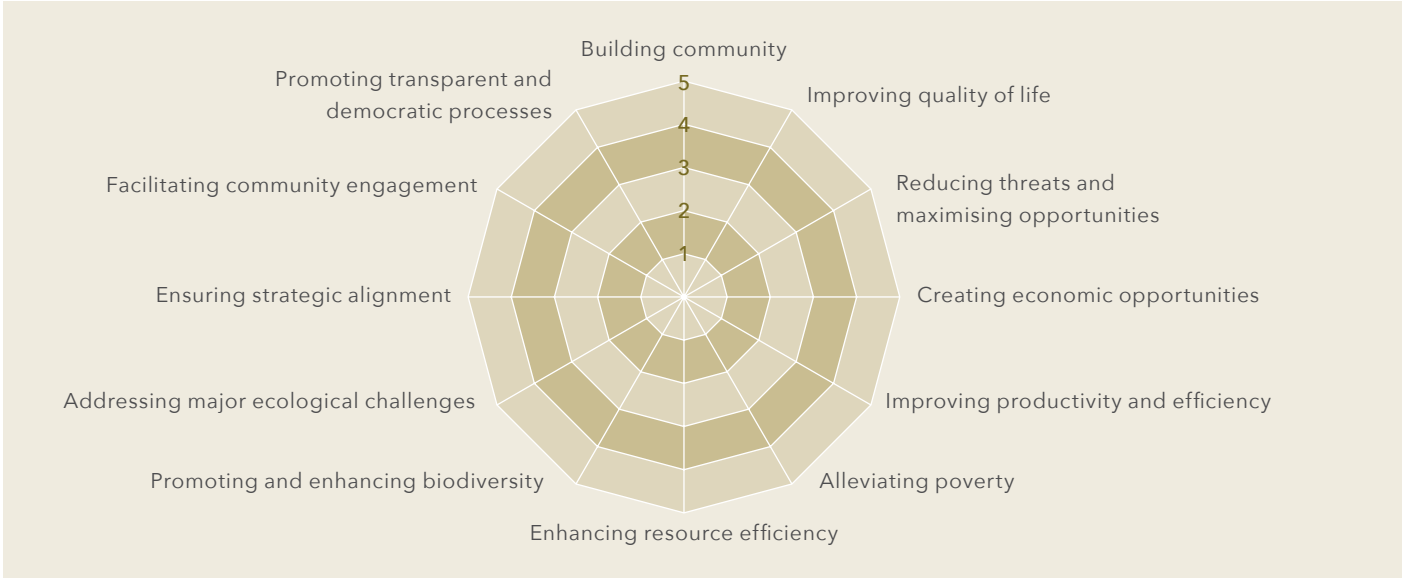
Citizens need to know that their government works for them, is accountable to them, and answers to them at all times. To achieve this, the City of Cape Town will do the following:

- Keep Council meetings open to the public to ensure that the actions and decisions of the City's political leaders are always transparent
- Publically 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.



Portfolio extra 2: Defining the sustainability objectives of the projects



1. Building community

For example through:

- facilitating community participation; and
- 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

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.

7. Enhancing resource efficiency

For example through:

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;

- promoting sustainable livelihoods; and
- facilitating public input.

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.

Portfolio extra 3: More about project evaluation

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)			
How does the project address the following objectives?			
Sustainability objectives	Project approach	Assessment	Scoring
Creating economic opportunities		Well	3
Creating jobs	6 EPWP workers from the community were employed to perform the door-to-door health education and assisting the communities to complete the survey.	Well	3
Facilitating skills development and training	ERMD smart living training programme to EPWP workers.	Well	3
Improving quality of life		Very well	4
Meeting basic needs	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 <i>E.coli</i> .	Very well	4
Enhancing participation in arts, culture, sports, heritage	Enhancing creativity in the area by using illegally dumped building materials to construct artwork along canal corridor.	Very well	4
Improving current living conditions – promoting dignified human settlements and good quality open spaces	Using the canal corridor to create recreational spots and improving water quality by reducing levels of <i>E.coli</i> count causing diseases and deaths of children using the canal for recreation.	Excellently	5

Portfolio extra 4: Abbreviations

- CCT** – City of Cape Town

DDS – diarrhoeal disease season

ECD – early childhood development

ECNS – electronic communications network service

EHP – environmental health practitioner

EPWP – expanded public works programme

GBCSA – Green Buildings Council of South Africa

GIS – geographical information system

IDP – Integrated Development Plan

IPAMF – immovable property asset management framework

IPAMS – immovable property asset management system

IPARA – immovable property asset register – advanced
- IRT** – integrated rapid transport

LADI – Local Area Development Initiative

LAPI – Local Area Planning Initiative

LED – light emitting diode

MSAT – Multi-sectoral Action Team

MTC – Manufacturing Technology Centre

NGO – non-governmental organisation

NMT – non-motorised transport

NPO – non-profit organisation

OGBI – open government business initiative

PCP – public community partnership

PHP – Peoples Housing Project

PTI – primary transport interchange

RDP – Reconstruction and Development Programme

SAPS – South African Police Service
- SAREBI** – South African renewable energy business incubator

SASRI – South African Sugar Research Institute

SEZ – special economic zone

SPP – sustainable public procurement

SRA – Sports, Recreation and Amenities

TCT – Transport for Cape Town

VOC – “Vereenigde Oost-Indische Compagnie” (United East India Company)

VRCID – Voortrekker Road Corridor Improvement District

WCG – Western Cape Government

WDC – World Design Capital

WESSA – Wildlife and Environment Society of South Africa

Portfolio extra 5: Acknowledgements and resources

This portfolio was made possible by the support, guidance and cooperation of various stakeholders.

Advisory forum

Firstly, to the City of Cape Town’s advisory forum that availed their time toward establishing a vision for the portfolio and offering practical advice on the choice of projects and assessment procedure.

Review panel

Secondly, to the external review panel who attended the final assessment workshop, Anna Taylor, David Shandler, Julie-May Ellingson, Kirsten Wilkins, Peter Willis and Rory Williams, that provided helpful advice on the overall portfolio, methodology and specialist insight to the assessment phase.

Publication

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Project managers

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

Photographic credit

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