

Overarching Targets and Strategies

Country Benchmarks

Where country benchmarks are not available, benchmarks will be established in year one.

OPL Project KPI's and Timeline to 2020

The timeframe for achieving each target should be included in each section

Key Strategies

- All personnel, top structure developers and contractors to attend OPL induction day
- Promote and communicate the OPL Principles as widely as possible especially to key partners through attendance of OPL induction days
- OPL Principles and commitment to Common International Targets will be written into all sale agreements, tender documentation and Management Association Articles
- Ensure the promotion of the OPL Ten Principles operating together to achieve overall positive measurable results
- Seek continuing support from the Municipality and wider communities and roll out the principles to new developments through on-going communications and workshops where necessary
- All residents and tenants to be provided with an OPL Welcome Pack to assist them in understanding OPL principles and OPL facilities provided in the development

Key Barriers

Public buy-in to the OPL principles which will be addressed through communications, public relations and marketing

Zero Carbon - Summary

Reducing carbon dioxide emissions by optimizing building energy demand and supplying from zero carbon and renewable resources.

Introduction

Increased levels of carbon dioxide in our atmosphere from burning fossil fuels have been linked to climate change and global warming. As a result, average global temperatures are predicted to rise between 1.4° and 5.8° by 2100. This rise will affect our weather patterns and sea levels. The Zero Carbon Principle seeks to reduce carbon dioxide emissions associated with heating, cooling, lighting and providing power to buildings by minimising energy demand and supplying energy from renewable sources.

Common International Target (C.I.T)

In summary, the CIT for carbon is that all buildings and their fittings and fixtures must be energy efficient and supplied by renewable energy by 2020. In South Africa there is as yet no indication of a large move to renewable energy sources due to the large high-grade coal deposits in the country. Although challenging, the target of zero carbon will be met for Sibaya by 2020. The use of solar thermal water heating for low density areas, separately financed solar photo-voltaic (PV) systems, off-site renewable electricity (such as wind farms) representing new renewable energy capacity such that the total renewable energy capacity is added to, not diverting it from other uses, and on-site or off-site co-generation (such as bagasse fired generation) could all be used to achieve this target. For off-site generation the benefit of renewable sources will to be hypothecated to the Sibaya site. The aim is by 2020 no fossil fuels will be burned on site to meet the energy demands of the buildings.

Country Benchmarks

The current “typical” energy demand will be compared with a new OPL based energy demand (using all the principles set out in the SAP document) to set common benchmarks which will determine all of the other parameters such as the size of co-generation, wind generation etc. The opportunity exists for these to be turned into national strategies and be mandated to the appropriate government and utility bodies.

OPL Project KPI's and Timeline to 2020

The timeframe for achieving zero carbon through renewable generation will be as follows:

2010	30% of total building energy supplied by renewables
2015	60%
2020	100%

Key Strategies

- Establish energy benchmarks in year one
- All homes installed with solar thermal heating
- All homes designed with bioclimatic features
- All top structure developers to submit energy model for efficiency and renewables and strategy to meet Common International Targets before commencing work on site
- Co-ordination of the goals of OPL, NEEA, SANERI, Eskom and others to produce achievable targets given South African regulations and framework by organising a seminar on OPL.
- Early involvement of large technology groups such as Philips to design and supply the energy efficient appliances, light fittings and other devices needed. Philips has already indicated their interest to develop a completely solar powered street/amenity light fitting.
- Implement, measure and manage the energy reduction and renewable energy generation details in the SAP document.
- Set up of local structures (such as an ESCO) prior to commencement of construction to drive the principles and measurement after the development is complete.
- Opportunity to use renewable electricity generated from bagasse to support and build on the wider activities of Tongaat-Hulett Group – with bagasse used for co-generation on or off the Sibaya site

Key Barriers

- Getting bodies such as the National Energy Efficiency Agency (NEEA), South African National Energy Research Institute (SANERI), Eskom and local government (municipalities) working towards common goals. This will be addressed with support from bodies such as WWF and organising an OPL workshop.

Key Partners

- Department of Minerals and Energy through their National Energy Efficiency Agency (NEEA) and the South African National Energy Research Institute (SANERI).
- The National Electricity Regulator.
- Eskom.
- eThekweni Electricity and other municipalities.
- Organizations such as the Sustainable Energy Society of South Africa (SESSA).

Zero Waste

Reducing waste arising, then reclaiming, recycling and recovering to create 'closed-loop' systems of sustainable resource management.

Introduction

Across the world, unsustainable linear consumption patterns result in the majority of our extracted and refined resources being used once, and then discarded in landfill sites. Some predictions estimate a five-fold increase in global waste generation above 2005 levels by 2025. The Zero Waste Principle seeks to develop closed resource loops through considered design and use of consumer goods, first reducing the amount of waste produced, then reclaiming, recycling and composting the remainder. If all products were designed to be re-used, recycled, composted or used as clean, renewable energy, it would become possible to eliminate the concept of waste completely.

Common International Target (C.I.T)

Reduce waste at source, then reuse, recycle, compost or generate clean energy with the remaining waste, provided careful monitoring of emissions is in place and international best practice standards on operations are applied. The broader goals are to minimize exploitation of virgin resources and to prevent waste going to landfill sites. The Common International Target is to achieve 70% recycling by mass and 98% diversion from landfill by 2020. Per capita waste production should be monitored and targets set for reduction in per capita waste during construction and estates management phases.

Country Benchmarks

Considering South Africa consists of many rural and urban areas, Country Benchmarks may not be fully representative of the local area and therefore only benchmarks within the eThekweni Municipal Area will be considered. Benchmarks within the Municipal area also vary from area to area and therefore only 3 areas of similar income levels surrounding Sibaya Precincts have been considered. The average household waste expected for Sibaya using local benchmarks is 267kg/Person/Annum.

OPL Project KPI's and Timeline to 2020

Implement Key Strategies to achieve C.I.T. by 2020 as follows:

DATE	Re-use of Construction Waste %	Household (kg/pers/annum to landfill) Current expected - 267	Household Waste to be diverted from landfill %
2010	7.5%	214	16%
2015	52.5%	80	57%
2020	90%	5	98%

Key Strategies

- Central recyclables collection areas and on-site composting facilities included in masterplan on each hilltop development during construction and estates management phases
- Top structure developer to provide an outline of how they will implement waste minimisation in construction and integrate with the estates management company to reduce waste during operation of the development through monitoring and re-use
- Engagement with supplier to reduce supplier packaging waste, construction waste and investigate construction techniques efficient in use of material by inducting them into the ethos of OPL through workshops and seminars.
- Top structure developer to provide plan showing how all buildings will be installed with facilities and services to make recycling easy.
- Seek continuing support from the Municipality, wider communities, established recycling agents and roll out the principles to new developments through a process of engagement, public relations and seminars.

- Create job opportunities for refuse collection, street cleaning, recycling, composting or providing clean energy sources and management of facilities as part of the estates management plan.
 - Establish management association to undertake waste monitoring and annual reporting working with BioRegional representative.
-

Sustainable Transport

Reducing the need to travel and providing sustainable alternatives to private car use

Introduction

Transport is the fastest growing contributor to greenhouse gas emissions, and will continue to be for the foreseeable future. For example, air travel is expected to double between 2005 and 2030. The first step in reducing the environmental impact associated with an individual's transport pattern is to reduce their need to travel. This strategy can manifest itself through the provision of diverse amenities and facilities within walking and cycling distance and to enable living and working close to home. This can be augmented by services such as delivered local vegetable box schemes, farmers' markets and supermarket home deliveries. Public transport must be provided. The target is not necessarily a car free community but one where car dependence is greatly reduced in line with a One Planet Lifestyle.

Common International Target (C.I.T)

Targets set for Sustainable Transport are not clearly quantifiable and are context and site specific. The EF arising from transport has to be consistent with the overall EF target of achieving One Planet Living i.e. living within an EF of 1.5 hectares per person. Targets need to be set specifically for Sibaya Precinct based on local opportunities and constraints applicable to the area and will be based on a transport CO2 per capita. CO2 emissions of persons travelling to and from the site and within it must be reduced relative to an agreed regional benchmark and progression year on year to the 'One Planet' level, with community specific targets to be set in context to National Policy and local eThekweni Transport Authority - Integrated Transport Plan (ITP) and reviewed in terms of OPL SAP for Sustainable Transport Strategy to reduce the need to travel. All unavoidable CO2 emissions from transport should be offset by a certified carbon sequestration scheme, ideally meeting the WWF Gold Standard reference.

Country Benchmarks

Considering South Africa consists of many rural and urban areas, country benchmarks may not be fully representative of the local area and therefore benchmarks within the eThekweni Municipal Area to be considered.

OPL Project KPI's and Timeline to 2020

Establish benchmarks in year one based on 1. CO2 emissions per person per annum from private car use in comparable local development and 2. use of public transport. Implement Key Strategies to reverse the historical trend of greater private car use vs. public transport usage and apply community specific targets (also aligned with national by 2020 as follows:

DATE	Private Car Usage (Mileage) % reduction of CO2 per person over local benchmark	Public Transport % Of residents using public transport at least once per week
2010	50	50
2015	35	65
2020	20	80

Key Strategies

- Seek continuing support from the eThekweni Transport Authority, wider communities, and roll out the principles to new developments through engagement, communications and seminars on OPL.
- Masterplan to show facilities are located within walking distance to reduce the need to travel.
- Provide sustainable alternatives to private car use such as public transport provision e.g. buses, taxis, possibility of a railway link, with extranet communication interface detailing routes and

times. Private multi-use vehicles must have security mandates with radio contact to a control centre.

- Provision for electric vehicle charging points and biofuel refuelling on or near site
- Private parking limited to no more than 1.5 cars per household.
- Car club established with extranet/internet booking facilities.
- Walking and cycling promoted through provision of route networks. Layout and gradients critical to success and clearly identified in the masterplan.
- Home zone design in masterplan limiting car access and promoting walking and cycling
- All homes to have access to high performance IT facilities incorporated to enable home-working and community extranet/internet with opportunities for ordering goods, either through provision in the home for wealthy residents or in a community centre.
- Introduce motorised rickshaws running on natural gas or biogas to offer eco-friendly taxi service
- Formal adoption of a plan including Incentives to encourage non-air tourism
- Reduce net transport emissions to zero by 2020 by offsetting CO2 emissions from transport.

Local and Sustainable Materials

Maximising the use of local, reclaimed, renewable, recycled and low environmental impact materials in construction and estate management

Introduction

To promote the choice of materials that give high performance in use coupled with minimised impact in manufacture and delivery. Using local materials can also benefit the local economy while supporting traditional and vernacular solutions to contemporary challenges.

Common International Target (C.I.T)

Use of local, reclaimed, renewable, recycled and low environmental impact materials in construction and estate management should be increased and optimised.

Country Benchmarks

Refer to CSIR “Sustainable Buildings CD: Indicators and Benchmarking Database”

OPL project KPI's and timeline to meet OPL 2020 target

- Target to source at least 50% of materials by weight within 50km radius. Local sourcing policy for skills and materials
- On-going research on materials to enable targets to be set for use of recycled, reclaimed, low embodied energy, reduced toxicity, natural, green materials

Strategies

- Moreland to create and issue “Materials List” for top structure developers of preferred materials; use of natural & high tech materials: natural material such as woods & stone are to be encouraged (except natural rainforest timbers) – all other material origins should also be considered and selected for their low CFC gas output & energy use in manufacture and transport.
- All contractors and top structure developers to ensure that timber source is known and that all if possible from certified sustainable sources such as FSC timber; monitoring of timber use to improve supply chain and achieve 100% target for later phases; create links with South African suppliers of FSC timber such as Global Forest Products
- All contractors and top structure developers required to monitor percentage of waste re-used in construction and increase in each phase
- Moreland to prepare a short report on research into indigenous and appropriate precedence, responsive to context and climate (historical audit)
- Moreland to analyse innovative systems already being implemented, both locally and internationally
- Create public awareness in the use of alternate materials e.g. recycled material through public relations and exhibition on site.
- Training of contractors to use alternate systems guided by local and international studies
- Low maintenance materials, increase life span (value engineering)
- Moreland to encourage top structure developers in the innovative use of materials and methods, which are environmentally responsive, (support active and passive systems) through a series of workshops
- Top structure developers to provide information on how they will use responsive bioclimatic design generated by technology, materials, environment and context
- Top structure developers to provide report on how structural design is optimised to save materials and achieve optimal balance between lean construction and heavyweight construction to maximise thermal properties and buildability
- Contractors and top structure developers to provide outline plan of how they will use of efficient construction techniques
- Moreland to provide a list to contractors and top structure developers to prioritise skills and materials that build on local culture and traditions
- Moreland to identify training partner to organise skills training on new and environmental construction methods
- Green facilities management package for offices and grounds maintenance; estates Management plan to list eco / low-impact cleaning and other materials as part of green facilities management; top structure developers to be inducted on long term aims of OPL so these are incorporated into their designs and sales and marketing strategy

-
- Moreland to create a list and set up key partners: Local public enterprises; national and regional; private business developers; local communities and groups; NGO's and Government departments; other OPL partners
 - The design review process will monitor and control using OPL principles and Common International Targets as a guide
 - Moreland will identify education departments (universities, colleges etc.) who will work alongside the design and delivery teams to monitor and support development of OPL strategies for South Africa and in particular the Durban context
 - All suppliers to the development to be made aware of OPL and through a process of engagement aim for delivery (transport, packaging, storage, etc.) to adhere to other established OPL principles
 - Encourage local municipality support and harness their ideas and enthusiasm through public relations, and seminars on OPL
-

Local and Sustainable Food

Minimise environmental degradation due to food production, processing, packaging and transport by demonstrating and promoting local and low input food production that has positive environmental benefits.

Introduction

Of the 2.8 ha/per person ecological footprint food alone accounts for 25% of the footprint, whilst its transport and packaging further increases CO2 emissions. To reduce these disturbing figures Sibaya will promote the consumption of locally grown, seasonal, organic and low environmental impact produce and encourage healthy eating habits.

Common International Target (C.I.T)

The C.I.T. standards will be interpreted to reflect the different urban and rural challenges in SA. However, Sibaya will promote healthier diets high in local, seasonal, organic and low environmental impact foods. Year one will be to establish benchmarks. By 2010 at least 25% (by weight) of all food consumed to be locally (max 100km radius) sourced and by 2020 this to be increased to 50% by weight.

Country Benchmarks

Currently there are no accepted country benchmarks but the following 2020 targets are proposed to reduce local food footprint by 15%

OPL Project KPI's and Timeline to 2020

- Enable and manage increase in local, seasonal and organic produce by 2020 to achieve C.I.T.

DATE	Footprint
2010	-5%
2015	-10%
2020	-15%

- Establish local food market in Sibaya by 2010
- Establish restaurant specializing in local, low energy food by 2009
- Provide edible fruit criteria planting in the public domain of Sibaya in 2007
- Establish Sibaya market garden by 2010

Key Strategies

- Establish job creation opportunities in food growing for the adjacent Waterloo and Verulam communities
- Reduce transport, costs, carbon emissions and packaging of food consumed in Sibaya through provision of local, low energy food on site
- Establish market for selling and purchase of local, organic and seasonal produce (and allotments / kitchen gardens)
- Create a central composting facility on site or reasonably adjacent
- Kitchen design to allow for waste separation at source and to encourage home cooking
- Establish a food delivery system with Sibaya with reusable containers

Sustainable Water

Minimise negative environmental impact of water use and management by implementing water efficiency, re-use and recycling; minimising water extraction and pollution; foster sustainable water management in the landscape and restoring natural water cycles

Introduction

We often overlook the importance of conserving water. As our population continues to grow, demands on our precious water resources increase. At current levels of supply and demand, South Africa will run out of water by the year 2030 (WWF SA, 2006). Sustainable development must take place in a way that allows the water resources to re-accrue. Water resources should therefore be exploited in such a way that they will be able to sustain human, plant and animal life over the longest possible period. Reduction in water usage is one of the key requirements of Sibaya to deliver a one planet living development.

Common International Target (C.I.T)

The World Health Organization says that 75 litres of water a day is necessary to protect against household disease and 50 litres a day necessary for basic family sanitation, but individual consumption varies widely around the globe.

Country Benchmarks

Big challenge in South Africa is to reduce current daily usage from 250 litres/person/day to 150 litres/person/day.

OPL Project KPI's and Timeline to 2020

Minimum target of 39% water savings by 2020.

Key Strategies

- Top structure developer to install water efficient appliances, including low flush dual flush toilets, in all homes and infrastructure; use of water conserving appliances (low water use washing machines & dishwashers low flow shower heads & baths with low volume to depth ratio)
- Dual water (white & grey) reticulation to be considered for all buildings
- Gardens to be irrigated by harvesting rainwater and use of recycled grey water
- Recycled grey water to be used for commercial vehicle washing
- OPL centre to educate on the benefits of being water wise and encourage behavioural change
- Meet with representatives of local residents to promote the Sustainable Water concept as part of OPL induction

Natural Habitats and Wildlife

Conservation of existing biodiversity, regeneration of degraded land and increased access to nature by residents

Introduction

With the onset of global warming the habitat around human settlements will have to be resilient and robust to provide the daily and seasonal life requisites not only for humans but for other forms of urban adapted fauna and to a lesser extent flora. The Sibaya precinct is a large tract of land owned by Moreland; a single owner makes the development more manageable and the streamlined decision making process translates to a more focused development taking into account the life requisites of both flora and fauna on and near the site.

Common International Targets

Integrate approaches for the conservation of existing biodiversity and the regeneration of degraded land, as well as increased access to nature by residents, such that the development makes a net positive contribution to local native biodiversity and habitats. Aims include:

- Key species must be identified and monitored and a site-specific conservation action plan drawn up to maintain, enhance or revive valuable aspects of biodiversity. At least 2 case studies should be showcased, one for biodiversity and one for natural resource stocks.
- Enhance and/or protect local natural areas, making environmental improvements that contribute to local economic and social regeneration and lead to improved quality of life for residents and local people.
- Secure ecological enhancement of site and protection of ecological features.
- At least one opportunity should be identified to regenerate degraded local natural resource stocks (soils, trees, fisheries etc).
- Use OPL principles and translate them into the South African benchmarks set out by the CSIR.

Country Benchmarks

Use the CSIR Best Practice Sustainable Building Assessment Tool (SBAT), aiming for good to excellent in each area.

OPL project KPIs and timeline to meet OPL 2020 target

Use the CSIR (SBAT) system or procedure as our benchmark, as the process has been developed for local conditions in the southern African sub-continent.

Strategies

For the natural habitat and wildlife component of this project the key strategy is to create sufficient habitat that the guild species of each habitat type represented on site will be able to have a Minimum Viable Population (MVP), using the Habitat Evaluation Procedure (U.S. Fish and Wildlife Service tool) to measure habitat viability. Habitat evaluation procedures would need to be done for each species of animal that occurs on site. Then only will it be possible to plan for viable populations into the future. Local research figures on how many hectares of land are needed to have viable floristic habitats will also be used.

Targets for Sibaya:

- **Local Biodiversity and natural resource stocks must be increased.** This will happen with increased habitat creation of existing cover types plus the addition of 3 other new cover types.

- **Key species to be identified and monitored.** The guild crest species of African Rock Python and Crowned Eagle will ensure that the fauna and flora at levels below these species must be in place to support these two species. As a water guild crest species Sibaya to adopt the target to entice a breeding pair or more of Cape Clawless Otter to the site.

Site specific plants to be enumerated. This will be once benchmarks have been established in Year 1. The opportunity to improve and increase degraded cover type will be by improving the grassland component to create functional habitat. The increase in faunal carrying capacity will be the one study using the whole

landscape by creating functional habitat design (FHD) © Ben Breedlove.

The Conservation of existing habitat or cover types are Coastal Lowland Forest, Dune Forest, Foredune plant community, Riverine forest and wetlands along streams and seepage lines. The marine habitat will remain virtually untouched other than the interface of sandy beach or rocky shore.

Masterplan to show the new habitats that will be created are Grassland, Wetland in two forms - Swamp Forest dominated by woody species and Reed beds dominated by non woody species, planting steep north and south facing slopes with Cliff dwelling species that would grade into Valley Bushveld that is a semi-succulent broadleaved Woodland or Thicket. All these habitats will not be pristine they are secondary cover types that will have the functionality of the real thing but all human constructed using the above principles of FHD ©.

2 areas of degraded land will be identified and showcased as examples of land restoration.

Equity and Fair Trade

Promoting social equity, inclusion, local economic development and fair trade

Introduction

To improve the welfare of the community and population in general, primarily through a process of inclusiveness, resource distribution and the creation of opportunities in all aspects of business and trade.

Common International Targets

The target goals, both locally and internationally, must be viewed as common, with the main focus being on holistic sustainability to ensure that we all enjoy and maintain a high quality lifestyle by developing methods in which to promote this vision and foster sustainability.

The underlying principle is to set country specific targets to address equity priorities so that the welfare of selected disadvantaged populations, on site or elsewhere, is improved, as well as the ratio of goods and services in relation to fair trade. Country-specific priorities of equity and fair trade must be identified and where products are imported, targets should be set for the proportion that must be certified fair trade. At least 2 case studies should be showcased.

In South Africa, where huge poverty and disintegration is prominent, there is huge opportunity to develop and promote this ideal so as to boost the local economy.

Country Benchmarks

Currently there are no specific benchmarks set in SA, but the following indicators need to be benchmarked in relation to Fair Trade & Equity (outlined in following section). Benchmarks and key performance indicators will be established in year one.

OPL project KPIs and timeline to meet OPL 2020 target

Moreland will identify a local economic and social development body to become a partner for this part of the project and will develop KPIs in partnership with them.

A provisional list is given below:

- 20 - 30% in terms of trade within local communities/region
 - 60 - 70% local community employment content
 - 60 - 70% local materials and labour component
 - 20% "improvement factor" year on year of KPIs starting year 1 until target is met.
 - Affordable units/housing – target 20% component at each phase
 - ratio household incomes to be monitored and target set to reduce disparity between the richest and poorest quartiles
 - Top structure developers to adopt best practice in terms of disabled access
 - Education/Training Inequalities – Moreland to investigate and monitor local statistics and aim to improve the situation by at least 5 to 10% year on year.
 - poverty – monitor and set targets with aims of improving by 20% year on year until target met
 - health inequalities – monitor and set targets with aims of improving by 10% year on year
 - Household income – international target is 4.61 in Day 1 / Sibaya target should be targeted towards 2.0 what and by when?
 - Poverty – we need to reduce poverty and set ourselves a target in line with international trends at 30% in Day 1.
 - Unemployment – target improving by 5 to 10%
 - Value of certified fair trade goods sold on site will be monitored and targets set to improve these year on
 - Value of Proudly South African goods sold on site will be monitored and targets set to improve these year on year
-

Strategies must have a glossary for acronyms

- Moreland to identify key partner to monitor and support on Equity and Fair Trade

- Discuss, agree and set local baseline benchmarks against which future performance / achievement can be measured and monitored
- Identify all business opportunities, capital investments through local and international groups e.g. the DTI, DBSA, SEDA, SMEDP, EMIA, developers etc.
- Local employment opportunities and skills development programmes for service providers via organizations like SITA, SMEDP, CIBD etc.
- Trade opportunities within local communities locally and other OPL organizations worldwide
- Marketing strategies, communication, advertising and loyalty programmes and campaigns
- Concessions for local traders within retail outlets
- Simple cost effective design solutions that create local business opportunities – windows, pavings etc.
- Local material resourcing rather than imported content – see materials
- Implement recycled materials and products such as glass, plastics etc. Specify some targets
- Cost effective solutions to water and energy consumption inter alia, to reduce waste production
- Investigate government subsidies for lower income groups
- Target the construction and other sector charter parameters in relation to BEE participation
- Initiate recycling business opportunities in the communities
- Facilitate training, skills development schemes, literacy centres etc. And sponsorship opportunities via SITA, RSDN (rural development services network) and other organisations
- Farming activities and co-ops e.g. grassing, fertilization (compost)
- Strategic partnerships with local public enterprises, national and regional, private business, developers, local communities, NGOs, the DTI etc.
- Source funding for health and educational facilities via e.g. the Oprah Winfrey Foundation

Culture and Heritage

Engendering a sense of community through enhancing or reviving valuable aspects of local culture and heritage

Introduction

Acknowledging and learning from our past is essential in understanding how we can live in the future in a way that responds to our local geography and culture. By engendering a sense of place and identity, references to local history and culture can spur commercial and tourist interest, leading to substantial benefits for the local economy and human identity. The Culture and Heritage Principle fosters strategies to acknowledge, interpret, rediscover and promote local cultural heritage in and around the Sibaya site.

Common International Targets (C.I.T)

- To design and create a 'unique place' with local character and identity, engendered in a site specific action plan which will maintain, enhance or revive valuable aspects of local culture and heritage. This can be anything from local buildings and building techniques to local produce or arts and crafts, with at least 2 case studies to be showcased.
- To embrace the ideal of living lightly on the earth using innovative green technologies and systems.
- To have a positive social, economic and environmental impact on the broader community and positively engage people of all ages, ethnicity and backgrounds about local cultural heritage.

Country Benchmarks

Current cultural and heritage benchmarks for South Africa do not exist and are yet to be determined.

OPL project KPIs and timeline to meet OPL 2020 target

- Masterplan will clearly show the creation of public spaces and streetscapes, which value the collective (historic African lessons) and the integration of people into a community and the natural landscape.
- In partnership with BioRegional and WWF, Moreland will establish an OPL Centre promoting the culture of OPL by 2010
- Moreland will promote environmental research and awareness and the protection of our natural heritage. (One Planet Living centre /Botanical Society/WESSA) Moreland will establish a centre for local craft as part of the OPL Centre, and the estates management plan will include programmes and events for cultural performances.
- As part of OPL centre, establish an interpretation centre containing maps, artefacts, replicas, text and illustrations related to archaeological heritage.
- Moreland will identify a partner with which to work and promote research and development of traditional medicinal plants and practices for healing, showcasing as part of the OPL centre and perhaps finding an operator for a natural healing centre on site.
- As part of the masterplan and estates management, establish outdoor sporting facilities and beach related activities.
- Establish a school on site, to be built and operated using OPL principles.

Strategies

- Celebrate the dynamism of culture, and the current transition in South Africa via OPL centre.
- Determine and preserve the archaeological heritage of the site, producing report and showcasing in OPL centre.
- Provide top structure developers will a report considering buildings, infrastructure and landscape designs which respond to local cultural, environmental and aesthetic traditions.
- Emphasise local food and traditional crafts in on-site shops and restaurants through engagement with operators and running of workshops.
- Organise seasonal cultural events as part of the estates management plan
- Masterplan will identify a site (possibly as part of the OPL Centre which will serve as a community facility for use by residents and visitors, for cultural events and traditional performances e.g.: music,

theatre, story telling.

- Masterplan will identify spaces for formal and informal expressions of local and regional art.
 - A community intranet will be established before first residents move in to provide accessible information on local culture and heritage products and events.
 - Masterplan will show where landscape walks will be established, which include cultural heritage information and showcase local vegetation.
 - Moreland will research and write a report on viable local historical industries and crafts and identify opportunities to revive them – showing 2 examples.
-

Health and Happiness

Fostering strategies to promote health and well-being, both in the present and into the future

Introduction

Diverse recent studies have established a strong correlation between peoples' 'happiness' and the state of our environment and wider social relations, while the linkage between our health and factors such as buildings and lifestyles have long been clear. Meanwhile, the long-term 'health' of the planet is fundamentally related to how we choose to live now; i.e., to the sustainability of our lifestyles. Living unsustainably may not only lead to poor quality of life today, but may also jeopardise the quality of life of our descendants in the future or of those living in other communities or countries.

Common International Targets (C.I.T)

The Health and Happiness Principle fosters strategies to promote health and well-being, both in the present and into the future. Key aims include:

- To provide facilities and services that support healthy living and a sense of well-being
- To provide a safe and secure environment for all

A plan for promoting the health and happiness of residents must be produced, building on emerging findings from happiness research, with residents' satisfaction levels and concerns being regularly monitored. The feasibility of meeting UN standards for health, security and environmental quality should be investigated and at least 2 examples of strategies to promote health and happiness showcased.

Country Benchmarks and Key Performance Indicators to 2020

- Commitment to gather data and measure baseline performance in the first year, in the absence of reliable local/national data, to produce benchmark figures for indicators where applicable
- Achieve high levels of satisfaction for all residents groups – performance measured using questionnaires and annual resident's satisfaction surveys
- Establishment of a Community Trust or similar body to act as residents' association and management company; a community intranet and community centre, the latter to include an OPL education centre
- Employ a Green Caretaker service to co-ordinate monitoring, provide information and support to residents
- Commitment to produce 'green lifestyles' induction information in the form of a 'green lifestyles' pack for residents to provide information, incentives and ongoing support
- Commitment to provide ICT-enabled homes, flexible work spaces, homeworker support facilities and a community time-bank
- To provide homes which offer a healthy internal environment – setting targets for levels of daylighting, ventilation, sound insulation and private space, in excess of current typical practice, with ongoing monitoring of air quality, noise, light etc.
- Target to achieve maximum credits relating to 'health and wellbeing' under LEED certification scheme.
- Periodic increases in all targets during construction phase to facilitate 'future-proofing' and ensure performance beyond improving best practice
- Ongoing monitoring and reporting against indicators during the design, construction and occupation phases

Strategies

- Promote healthy lifestyles including exercise, healthy food and community involvement
- Engender a sense of community and identity via community structures and networks
- Establish process in the estates management strategy to undertake ongoing monitoring of buildings and support services to measure levels of resident satisfaction and happiness
- Masterplan to minimise traffic movement in development to decrease vehicle emissions and air pollution on site, leading to better health for residents
- Masterplan to incorporate extensive opportunities for exercise provided for all age groups, e.g. pedestrian-friendly landscape to encourage walking, cycling facilities, outdoor play and sports areas
- ‘Secure-by-design’ principles used in landscape design
- Production and implementation of a “community safety report and strategy” to help reduce crime and opportunities for crime
- Design for ‘Healthy’ buildings (see local and sustainable materials section) - for example using no toxic materials in the finishes, flooring or exposed inner surfaces, by having natural ventilation and high daylighting levels to create wholesome internal spaces.
- Design for buildings to use ‘long life loose fit’ principles to minimise building obsolescence and premature demolition
- Provision of on-site community and sports facilities
- Production and implementation of a plan to establish facilities to cater for all age groups on site e.g. school, crèche for child care, youth groups etc
- OPL principles to inform educational facilities on site
- Primary health care facility provided on-site, with health promotion and AIDS awareness as a focus
- Introduction of the concierge or “green caretaker” facility to help people get settled within the community when they first move in, then address their ongoing needs or concerns about “green lifestyles” over the duration of their tenancy and to promote all aspects of the OPL
- Information about local social and cultural events provided via OPL Centre and community intranet/extranet system
- Organic food growing to promote health, provide jobs, protect the environment and by creating a link to nature to create a general sense of wellbeing
- Production and implementation of plan to create opportunities for spiritual development e.g. places of worship on site