

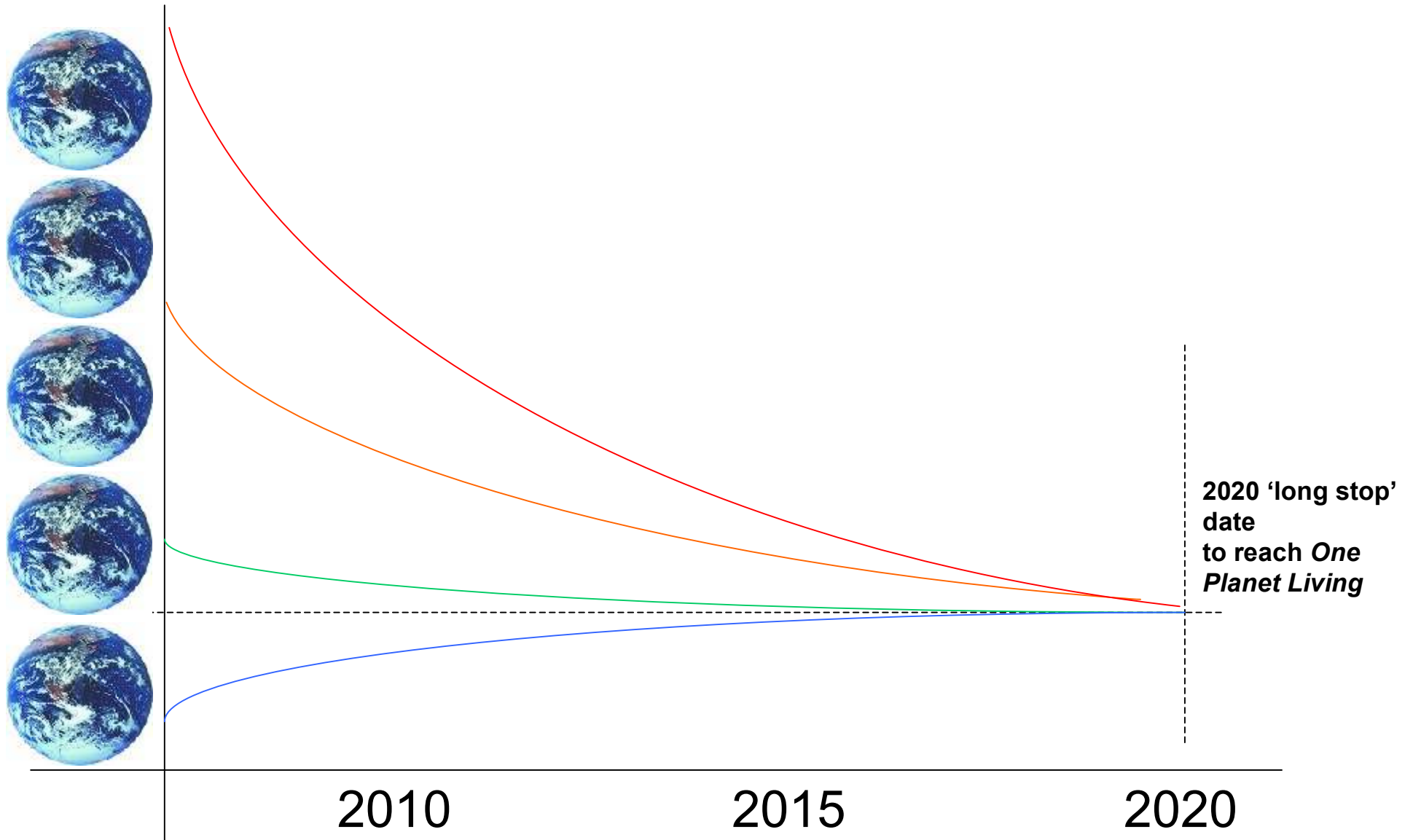
OPL Sustainability Action Plans - an introduction

BioRegional Development Group
www.bioregional.com

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What we need to do



Lifestyle Patterns

5 Planet Living

- High energy use: air conditioning, heating, electronic equipment
- High car use, frequent long haul flights
- High levels of packaged products and waste
- High meat and dairy intake

0.25 Planet Living

- Domestic energy through wood and low quality coal
- Walking as main mode of transport
- Small quantities of waste
- Lower levels of meat and dairy in diet

What OPL communities aspire to do

MAKE IT EASY for residents to choose to live within a fair share of the earth's resources (One Planet Living), while enjoying a higher quality of life

This is the defining trait of an OPL community

Enjoying a high quality of life

Go beyond ecological footprinting to also help create communities that:

- Have a sense of identity and their relationship with local culture and heritage
- Contribute towards social equity locally and globally
- Contribute towards the health and happiness of residents and users

A Sustainability Action Plan (SAP)

SAP shows how the facilities and accommodation will make it easy and attractive to live sustainably

Provides the vision, targets, strategies and mechanisms.

Ten One Planet Living Principles

Zero Carbon	Sustainable Water
Zero Waste	Natural Habitats and Wildlife
Sustainable Transport	Culture and Heritage
Local and Sustainable Materials	Equity and Fair Trade
Local and Sustainable Food	Health and Happiness

Zero Carbon



Reduce energy needs

Provide sustainable supply



Reducing energy needs

- Good levels of thermal efficiency in built fabric
- Use of energy efficient appliances and fittings
- Good building energy management systems
- Mix of buildings to balance energy loads
- Water efficient appliances to reduce hot water demands

Providing sustainable supply

Meet all energy requirements through a combination of on and off site sustainable production

Beach Solar Laundromat





Zero Waste



Waste treated as a resource – eliminate concept of waste
Reduce waste arisings in construction and operation

Local recycled paper



Sustainable Transport



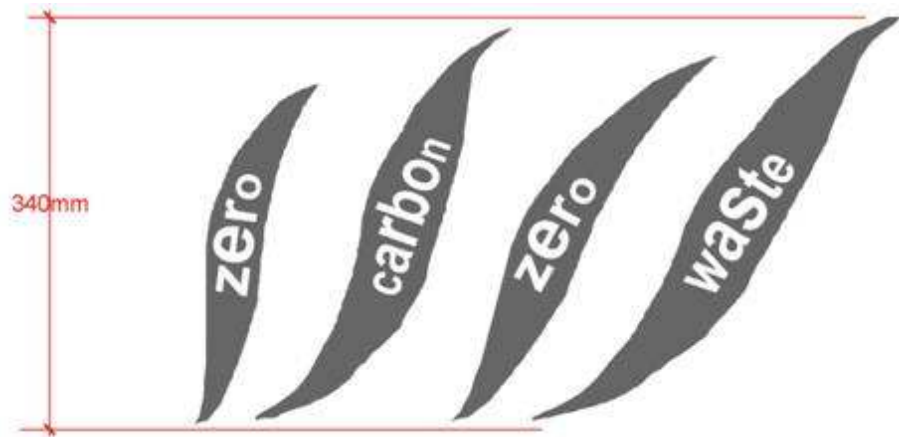
- Reducing the need to travel
- Providing sustainable alternatives to private fossil-fuel based vehicles

Reducing need to travel

- On site employment opportunities
- Mix of uses – retail, leisure, office, residential
- Live-work units / starter units
- Good links to public transport
- All common facilities within walking or cycling distance
- Targeted strategies for small journeys such as ‘walking buses’ to school
- Internet ordering of groceries encouraged through community-level receipt and storage services
- Opportunities for high speed ICT network to reduce need to travel

Electric vehicles for cities





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Local and Sustainable Materials



- Use of local, reclaimed and recycled materials
- Use of low toxicity, 'healthy' materials

Sustainable Food



- Encourage local and low input food production and consumption
- Provide food growing opportunities on site

Sustainable Food

- Encourage local and low input food production and consumption
- Ethical and organic food retailers encouraged
- Farmers market and food fairs on site
- Allotments / mini allotments on site
- Edible landscaping

Sustainable Water



- Maximise water efficiency
- Maximise water recycling
- Foster sustainable water management in the landscape

Sustainable Water

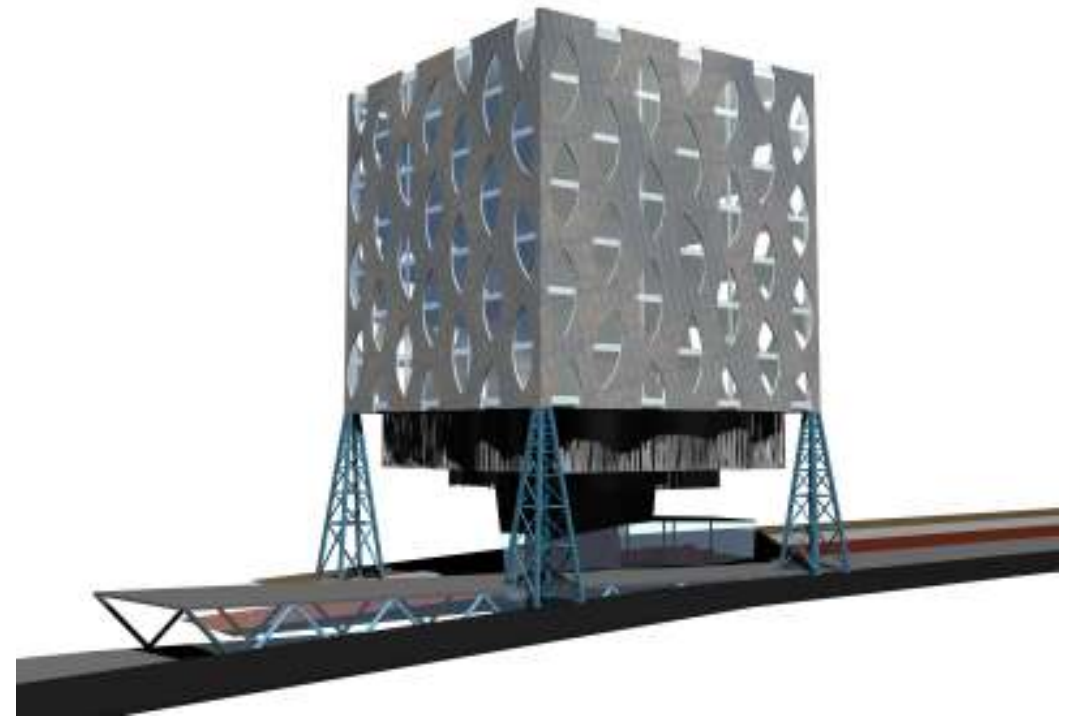
- Use of water efficient appliances and fittings
- Rain and waste water managed locally for reuse
- Flood management issues addressed
- Water for amenity and recreation
- Foster sustainable water management in the landscape

Natural Habitats and Wildlife



- Protect existing flora and fauna
- Create new habitats and enhance biodiversity

Culture and Heritage



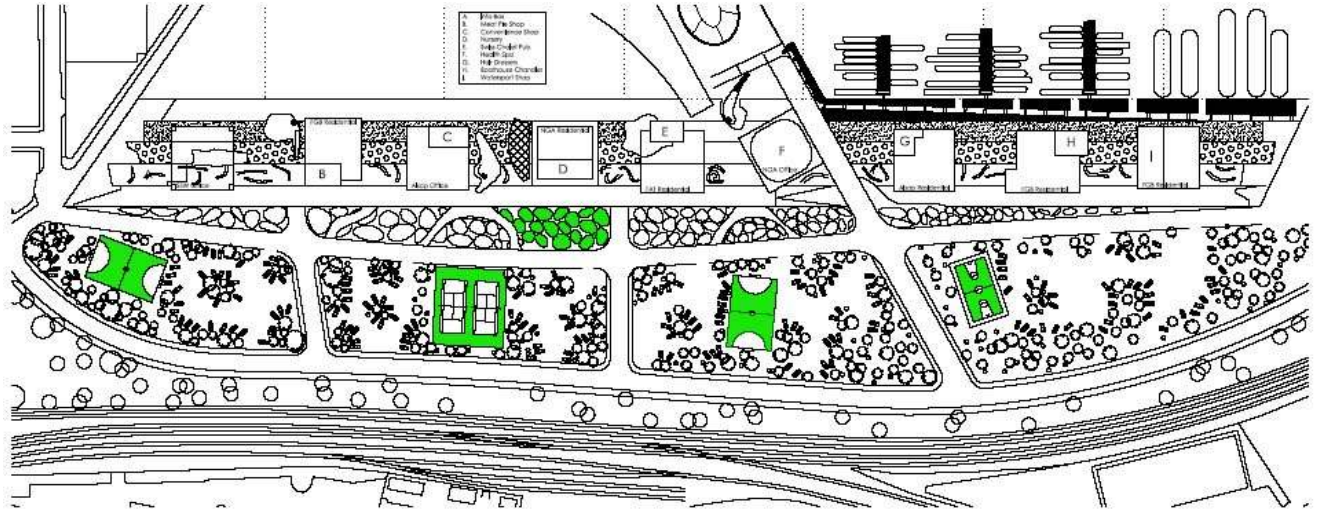
- Protect or revive sense of local identity
- Foster a new culture of sustainability

Equity and Fair Trade

- Use investment for local economic development especially of disadvantaged groups
- Attract mixed income groups
- Promote fair trade and social equity within the development
- Promote fair trade products



Health and Happiness



- Promote healthy lifestyles and genuine physical, mental and spiritual well being
- Use community engagement and design processes towards this

Targets

Common International Targets (CITs)

Regional standards (BREEAM, LEED, BRE SmartWaste etc.) and targets are envisaged as 'sub-sets' of OPL SAP targets

Roles and responsibilities

When:

- Design stage
- Construction stage
- Estates management up to 2020

Benchmarks and indicators

Indicator	Need over time	Benchmark	Day 1	2015	2020	Monitoring
CO2 emissions	Reduce to zero	20kg/m2	10kg/m2	0	0	ESCo report on use and supply
Total waste arisings per household	Reduce	25 kg/hh/week	-15%	-50%	-75%	Physical monitoring by waste operator
Car club participation levels	Increase	1 in 25	1 in 20	1 in 15	1 in 10	Car club operator report
Diet (5 or more fruit/veg per day)	improve	15%	20%	50%	75%	surveys
Ecological Footprint Average model (e.g. transport section)	Reduce	0.42 planets	0.35	0.20	0.10	Eco-footprinting tool (to be developed)

Summary

One Planet Living approach

- Taking long term, holistic view
- Improving quality of life, health, equity
- Job creation opportunities
- Empowering vision