



Environmentally Friendly Alternatives within eLan Developments

(Draft working document)

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Good living is in your nature...

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1. Introduction and purpose of this document

The purpose of this document is to provide Environmental management guidelines for implementation by all eLan staff, contractors, estate managers, reserve managers and residents within eLan developments. The élan group prides itself in the development of eco-estates and wants to ensure that within all its developments sound environmental practices and environmentally alternatives are always given consideration and implemented where ever possible. It is the responsibility of all stakeholders to ensure these practices are implemented.

Body corporates are also encouraged to use this document and develop a set of environmental friendly rules for residents.

2. Vision of the Elan Group

The eLan Group is a dynamic company committed to developing strategically located, environmentally responsible and economically viable developments that will generate substantial returns for their investors and shareholders.

3. Enviromental Practices

Waste

Residents should be encouraged to reduce the amount of waste they produce.

This can easily be achieved through simple lifestyle changes:

- Switch from using disposable items to reusable ones where ever possible. Using washable dishes instead of paper ones and reusable razors instead of the disposable versions will not only help to minimize waste, it will also prove to be more cost effective. Another example would be the use of cloth towels and dish rags in the kitchen instead of paper toweling.
- Try minimizing the amount of junk mail received. And why not consider cancelling magazine and newspaper subscriptions that also come in online versions? This not only cuts down on paper wastage but also saves on the power and pollution associated with making and delivering newspapers.
- Instead of using standard batteries, which must be thrown away when depleted, use rechargeable ones. They can be used in most electronic devices, from digital cameras to your TV remote.
- Try to reuse items as much as possible before throwing them out.
- Donate or sell whatever you don't need. For example clothes, toys, furniture and old computers.
- Buy secondhand. Sites such as "eBay" and "Bid or Buy" provide great opportunities for buying good quality secondhand products online. Buying secondhand eliminates the added waste produced from the production and packaging of new items.
- Make food at home instead of getting takeaways in order to minimize packaging waste.
- Buy recycled products wherever possible.
- Dispose of old paints chemicals, batteries and oil responsibly using proper disposal sites.
- Buy products with a long shelf life in bulk. I.e. One big box instead of three smaller boxes. For example buy a two liter cool drink instead of cans.

- Buy refillable or concentrate versions of products. Detergents, juices and cleaning products all come in these forms.
- When buying items in plastic packaging try to always purchase recyclable plastics. All plastics have a number printed on them indicating what type of plastic they are. Products labeled 1, 2 or 3 are recyclable.

These steps may seem small and inconsequential but will dramatically decrease the amount of waste a home generates and will also help individuals to save money.

There are also many things that the estate/reserve can do to help reduce waste:

- Shops and other amenities on the estate should be encouraged to provide recyclable paper bags or to minimizing packaging. They should also be encouraged to stock 'eco friendly' products.
- Each estate should provide communal skips in which residents and staff can place glass, waste foods, paper and cardboard for recycling. Residents should also be encouraged to separate refuse at home and place items for recycling in the correct communal skips. An area should be identified where appropriate yard and kitchen wastes can be placed, forming a communal compost heap which residents can use in their gardens.
- A pay to remove policy should be implemented within the estate. Under this policy residents are allocated a certain amount of trash bags per week/month which are removed free of charge. Any extra trash bags must then be purchased from the estate with an attached 'removal levy'. This not only encourages residents to reduce their waste and promotes recycling options, but the additional income can be pumped back into community based projects.
- Illegal dumping must not be tolerated within the estate and offenders should be adequately dealt with.

Water Wise

Water is a scarce and valuable resource in South Africa and residents and estate management should make every attempt to save it. The following are some simple measures that can reduce the consumption of water.

- Take a short shower instead of running a bath.
- Install a water saving device on toilets to reduce water use when flushing.
- Don't water the garden before it rains. Check weather forecasts for the likelihood of rain. Do not water gardens when it is excessively windy and always try to water gardens when it is cooler to minimize evaporation.
- Consider watering gardens manually instead of using a sprinkler system. If a sprinkler system is installed make sure the system is accurately watering the garden and not spraying water onto walls or paving. Check and maintain sprinkler system regularly.
- Plant locally indigenous gardens as they need less water than exotic gardens. Always avoid overwatering your garden. This not only wastes water but can be detrimental to your plants as well.
- Don't keep taps open whilst brushing teeth or shaving.
- Use a bucket of water to clean vehicles instead of a running hose pipe.
- Do not hose down drive ways, patios and paths, rather sweep them clean.
- Check taps and pipes regularly, have any leaks repaired immediately.
- Reduce water pressure in taps within houses and the estate, except for firefighting hoses.
- Collect rain water into holding tanks using roofs as catchment areas. This water can then be used in the garden or to wash your car.
- Insulating water pipes in the home will provide hot water faster, thus avoiding water wastage from a running tap waiting while it heats up.
- Use dishwashers and washing machines for full loads only and wherever possible try to operate them on their most economical settings. This will not only save water but electricity as well.
- Reduce the size of the lawn on your property by planting small shrubs or flower beds. Although lawns may be visually appealing they require large volumes of water to be maintained.



Power

Always investigate alternative sources of power.

- Install gas stoves to reduce electricity consumption.
- Install gas geysers to reduce electricity consumption.
- Outside garden and security lighting should be solar powered.
- Solar power within homes can adequately augment and often replace Eskom power and save money.
- Wind power is a new technology being developed in South Africa and could reduce traditional forms of power. This option should be investigated when considering the installation of power.

A few simple steps can reduce electricity consumption substantially. For example:

- Switch off lights that are not required, especially in unoccupied rooms. Households have a habit of leaving all house lights on whilst sitting in the lounge for example.
- Turn geysers and electric appliances off whilst away on holiday.
- Fit energy saving globes such as fluorescent lights.
- Don't overfill the kettle when making a cup of tea, only fill and boil what you need. Also, when boiling water for cooking purposes, consider using the kettle instead of a pan on the stove. Not only will this be quicker, it is also more energy efficient.
- Public bathrooms should all be fitted with electric dryers instead of paper towels as they are ultimately more energy efficient and will minimize paper waste.
- Use cold water wherever possible instead of hot.
- Install ceiling fans to reduce the need for air conditioners.
- Hang clothes up to dry instead of using a tumble dryer. Not only does this save electricity but it prevents clothes from being damaged or covered in lint.
- In homes with central heating try turning down your thermostat by one degree in winter and up by one degree in summer. The difference is hardly noticeable but can save large amounts of power.
- The thermostat on your geyser can also be turned down to reduce energy use and can reduce the likelihood of a person being burnt by boiling hot water.
- Purchase energy efficient appliances.
- Switch appliances like televisions and hi-fi's off at the wall instead of leaving them on standby where they still draw power.
- Unplug cell phone chargers when they are not in use as they, surprisingly, still draw power.
- Set your computer screen to turn off when not in use instead of using the screensaver function, as this draws a lot more power than one would expect. Setting a PC to hibernate if not used for a certain period of time (i.e. 30 minutes) saves even more power. This is also more energy efficient than turning your machine off and on between usages.
- Outside garden and security lighting should be set on a timer, light or motion sensor so that they only come on when necessary.
- Use your microwave. It can be almost twice as energy efficient as your stove or oven
- When purchasing a new computer, consider buying a laptop instead of a desktop. Laptops require far less power.

Plant indigenous

Indigenous plants occurring within the area of the estate should be the choice of plants for planting in both estate gardens and private gardens within the estate. These plants require less water than, for example, an English country garden.

Indigenous gardens, if planted with a good variety of appropriate species, will provide habitats for a variety of wildlife; this can be most rewarding for bird watchers.



Chemicals

- Only registered chemicals will be allowed in the estates, users must ensure the correct application and use of necessary safety equipment when applying.
- Alternative use to chemicals should be a preference.
- Bat houses should be installed in the estates to reduce mosquito densities. Open water should be stocked with appropriate indigenous fish (provided permits are obtained from EKZNW) to reduce mosquito larvae.
- No insecticides that indiscriminately kill second party wildlife will be allowed, alternative poisons are available that will destroy exotic house rats and not kill birds of prey like owls, should they prey on a poisoned rat.
- Roosting poles and nesting boxes for owls should be encouraged to increase owl numbers and other raptors which will in return reduce rodent numbers.
- Discourage the killing of geckos within the estate, as they play a significant role in keeping insect numbers low.

Estate management

A management plan to assist in the management (including alien plant control) of natural areas in the estate will be developed; this document is to provide management guidelines and management continuity for the management of the estate. It will also provide stakeholders, including investors and Ezemvelo KwaZulu Natal Wildlife some comfort, knowing that a management plan exists and is being implemented by management staff.

- Mowing areas within the estate should be reduced and allowed to revert to a natural state, this will in return provide better wildlife habitat and save costs in man hours, petrol or diesel for tractors and mowers.
- Estate vehicles should be diesel operated vehicles, as diesel is more economical and will reduce fuel needs in the estate.
- Equipment and vehicles should be well maintained to ensure they operate effectively and not need to be replaced unnecessarily due to maintenance negligence. With good maintenance the chances of oil and fuel leaks will also be reduced.

Domestic animals

- Cats should not be allowed into estates due to their negative impact on wild birds and reptiles.
- Dogs will not be allowed to free range out of their fenced gardens due the damage they can cause, especially to small game found in the estates.
- All uncontrolled dogs and cats found in the estates should be captured and taken to the SPCA by management.

Golf Courses

- Water for golf courses should be derived from the collection of rain water or other sources such as a sewerage works or attenuation pond systems.
- Only environmentally friendly pesticides and fertilizers should be used.
- All golf carts should be electric powered and well maintained although golfers should be encouraged to rather walk the course.
- Golf designers when designing a golf course should reduce the areas of fairways due to there water requirements, ideally only t -box and greens areas should be lawned. Fairways that consist of natural grassland will provide additional habitats for wildlife, require little maintenance and water, these types of golf course would also be more challenging for the golfer.

Environmentally friendly products

Residents and estate management are urged to try and buy environmentally friendly manufactured and grown products, including organic grown vegetables etc, perhaps an appropriate area can be identified in the estate where residents would be allowed to grow organic vegetables for residents' use.



Transport

Residents and day visitors are encouraged to walk or cycle around the estate. Not only will this reduce carbon emissions from cars but it will also reduce traffic and noise pollution within the estate.

House design

Architects should be encouraged to design 'eco friendly' houses.

- Design the roofs for water catchment and solar panel fitment.
- Minimize heat loss and maximize light and solar energy gain by appropriately orientating houses.
- Use permeable paving which allows water to soak through instead of washing away.
- Plumb houses for grey water recovery
- Design windows and skylights to minimize the need for electric lighting and heating/cooling
- Encourage the use of reclaimed or recycled building materials during construction.
- Utilize recyclable insulation materials.

Legislation

All residents, contractors, estate management and eLan staff are to adhere to all environmental legislation.

Carbon Emission

All estates should strive to have zero carbon levels; this is achieved by planting enough trees, so that the carbon generated by humans by their need for energy, is absorbed by the planted trees within the estate. The Wildlands Conservation Trust should be approached to monitor carbon neutral status of the estates.

The unsustainable human consumption patterns over the past decades are resulting in climate change, which adds to water shortages, rising sea levels and food insecurities-all of which threaten social and economic development, as well as human health. Inevitably, solutions entail people changing their behavior to reduce consumption of unsustainable energy. The Elan would like to make a difference and encourage all stakeholders to make a difference.

The following initiatives can make a difference in reducing carbon levels:

- Change a light: replacing one regular light bulb with an eco-friendly compact fluorescent light bulb will save 70 kg of carbon dioxide a year.
- Drive less: Walk, cycle, carpool or take public transport more often. You will save 0.5 kg of carbon for every km you don't drive.
- Recycle more: You can save 1100kg's of carbon dioxide per year by recycling just half of your household waste.
- Check your tyres: Keeping your tyres inflated properly can improve fuel consumption by more than 3%. Every 10 liters of petrol saved keeps 9kg's of carbon dioxide out of the atmosphere.
- Use less hot water: It takes a lot of energy to heat water: install low showerheads and wash your clothes in cold or warm water.
- Choose products with less packaging: you can save 550 kg of carbon dioxide if you cut down your rubbish by 10%.
- Adjust your thermostat: Adjusting your geyser thermostat down by a few degrees can save up to 800 kg's carbon dioxide per year.
- Plant a tree: A single tree will absorb one ton of carbon dioxide over its lifetime, just make sure it's an indigenous species.
- Turn off electric devices: Turn off your TV, DVD, Hi-Fi and computer instead of leaving them on standby and you will save thousands of kilograms of carbon dioxide a year.
- Turn off the tap when brushing your teeth: Leaving the tap running when you brush your teeth can waste 16 bath's worth of water every year. *(Extracted from eLan newsletter Issue 20, July 2007)*

4. Conclusion

These efforts to reduce the impact on the environment within the estates may be viewed as extreme by some or be considered insignificant by others but they should rather be viewed as methods which estate management, developers and residents can use to protect and reduce negative impacts on our environment.

Project leaders, contractors working in estates, body corporates and eLan staff should now develop appropriate environmental rules and regulations for implementation in their various fields of influence.

Please assist the Elan in improving this document by contacting the Land and Conservation Manager of The Elan Group and giving feedback and suggestions.

All for a healthy environment.

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