Best Practices #2.10: Environmental Management Practices

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1 Introduction

The main purpose of a Wildlife Management Area is for communities to benefit from their natural resources, thus the natural environment and protection of it is very important to their revenues and reason for being a WMA.

It is a good practice for a WMA to develop its own environmental management policy and systems in order to guide the accepted standards of environmental management. This system should enable them to identify major environmental impacts in order to avoid, minimize and manage them.

Beyond the environmental policies, the WMA needs to carefully watch its environmental performance, putting in the necessary structures to ensure that they comply with globally accepted environmental standards, the national environmental laws and their locally agreed environmental practices.

Taking care of the environment should be a part and parcel of WMAs sustainability management system.

2 Objectives of Environmental Management Plans

- To ensure ecological sustainability, security and equitable use of resources without degrading the environment or risking health or safety.
- To define an accepted standard of environmental management within the WMA area.
- Promote environmental education and communication related to environmental issues.
- To ensure proper waste disposal to prevent and control degradation of land, water, vegetation, and air.

3 Environmental Impacts Mitigation Hierarchy

Avoid – Minimize – Restore

Avoid

This includes measures that can be taken to avoid creating impacts on the environment, such as careful placement in terms of time and/or location of implementation of an activity.

Minimize

When the Intensity and/or extent of impacts of a certain infrastructure or a project that cannot be completely avoided, effective minimisation can eliminate some negative impacts. Examples include such measures as reducing pollution, or disturbance to existing vegetation as much as possible.

Restoration

Include Measures that can be taken to improve degraded or removed ecosystems following exposure to impacts that could not be completely avoided or minimized. Restoration tries to return an area to the original state that occurred before impacts.

For more reading on the Environmental Mitigation Hierarchy visit: https://www.thebiodiversityconsultancy.com/approaches/mitigation-hierarchy/

4 The Environmental Management Plan Requirements

4.1 Retaining vegetation

Existing natural vegetation is to be protected and retained wherever possible. Trees and grass should be clearly identified and protected from construction or if clearance is unavoidable then try to minimise any unnecessary clearance in the area. Allow vegetation to recover in the vicinity as soon as practical.

4.2 Harmful pollutants management

When fuel or hazardous materials are being delivered, they must be supervised by a responsible person to ensure that containers are not overfilled and spillage does not occur. Any spillage must be reported and cleaned up according to correct procedures. A spill kit should be made available in this area e.g sand.

4.3 Waste management

All WMA areas should be free from litter, this includes construction areas where construction materials and residuals should be carefully collected and stored or otherwise discarded neatly. Any waste material produced by the WMA or lodges must be managed so that it does not harm the environment.

Separate your solid waste into different categories and store them in an appropriate way until they can be collected or disposed of properly.

Waste management plan and its Standard Operations Procedures must be made available by the manager which will include:

- Who is to be responsible for following the waste management plan?
- How and where the waste will be disposed in line with environmental commitment of the WMA
- Measures to ensure the efficient use of materials and reduction of waste produced

4.4 Infrastructure management

All WMA infrastructures construction site must be planned in advance to ensure minimal disturbance and erosion and by considering the following

- Avoiding Ecologically sensitive areas
- Infrastructure construction and any installation must be avoided in most ecologically sensitive areas such as animal breeding areas or particular bird species which might affect their reproductive rate or affect their habitats directly or indirectly.
- Considering Environmentally friendly infrastructures

- Infrastructure and buildings such as WMA offices, management houses, ranger posts, gates, toilets and Water infrastructure such as dams, pipes, sim tanks must be environmentally friendly (e.g. reducing waste disposal, reducing conspicuity, renewable energy). Placement of these infrastructures should also consider concealment and camouflage especially when choosing where to put or which color to paint it.
- All roads in the WMA site must be planned in advance to ensure minimal disturbance and erosion.

4.5 Water drainage system management

Potential risks to water course contamination must be avoided.

Drainage systems must be made with consideration to better management from discharge to the environment and also ensure that you dispose of all your effluent in a responsible manner i.e. not into or close to rivers or streams, or in any way polluting the environment.

Make sure that your septic tanks are built properly and are not within 50m of any kind of surface water i.e. river, stream, pond, swamp etc.

4.6 Water management

Water is a scarce resource in almost any protected area, and a WMA in no exception. As much as possible ensure rainwater is maximum Collected for later use, or divert it so that it does not become waste water. This is a very effective and easy way to conserve water bearing in mind that water is mostly a limited resource for humans as well as for animals (both domestic and livestock) in an area.

Avoiding Unnecessary water losses

- Encourage guests to save water by ensuring that hot and cold mixer taps are used to ensure that the right temperature is reached quickly and water is not wasted if possible, install Low-flow shower heads that can reduce water consumption.
- Measure and monitor your water to enable you to pinpoint areas where it might be leaking or areas you can save it.
- Put in an efficient maintenance system. Leaking taps, pipes and toilets can waste thousands of liters of water unnoticed. Staff awareness and training will be the most effective way to identify leaks and get them fixed as soon as possible.
- Avoid flash toilets as much as possible. A normal flash system can easily throw away up to 10 liters of water on each run.

4.7 Renewable and responsible energy

- Encourage solar system installation for electricity and for water heating system where and when possible
- Ensure that you have an efficient maintenance system in place with qualified electrician inspecting for leaks on a regular basis

5 Procedures and Strategic Actions for Better Environmental Management

Carry out an initial assessment (or baseline) of your current practices and what improvements could be made e.g. energy and water use, waste management, purchasing, how you affect your local community etc.

Once all the baseline information has been gathered, management can start to develop specific targets and goals which will work towards improving current environmental performance.

Write the environmental management programme i.e. how you intend to meet the objectives and targets that you have set. This needs to include a list of procedures to put controls in place, and written tasks for planned improvements and/or further investigation. It also needs to identify the person(s) responsible and a time scale.

The allocation of responsibilities is a vital part of your environmental management system, and you will have to make sure that job descriptions are defined, communicated and understood and that training and awareness raising is carried out related to job responsibilities.

Other elements of a successful EMS are monitoring and measurements and internal auditing. Good record keeping and a practical process are essential. Types of monitoring/measuring techniques that might be used include:

- Metering (energy and water usage, water discharge, noise levels)
- Quantitative estimates (drums of waste)
- Records (complaints, purchases of raw materials)
- Sampling (waste water discharges)
- Checks (correct waste separation and storage)
- Finally, a management review will take place to assess progress, compliance and if the Environmental Management System is effective. Recommendations for improvements can be then made and incorporated into the WMA's environmental policy, and made available for guests and general awareness.