LEGAL NOTICE No. 108

THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT

(No. 8 of 1999)

IN EXERCISE of the powers conferred by section 42 (3) of the Environmental Management and Co-ordination Act, 1999, the Minister for Environment and Natural Resources makes the following Order:-

THE ENVIRONMENTAL MANAGEMENT (LAKE NAIVASHA MANAGEMENT PLAN) ORDER, 2004

1. This Order may be cited as the Environmental Management (Lake Naivasha Management Plan) Order, 2004.

2. The Management Plan set out in the Schedule shall be applicable to the Lake Naivasha Ecosystem.

SCHEDULE

THE LAKE NAIVASHA MANAGEMENT PLAN

The Lake Naivasha Management Plan (hereinafter referred to as "the Plan") is a community-based initiative, spear-headed by the local community and supported by other stakeholders and institutions with common concerns and commitment to the sustainable management and development of the lake ecosystem.

The Plan has been developed to ensure that adverse impacts on the lake ecosystem are minimized and corrected while addressing identified conservation issues for which there is a large degree of consensus.

The Plan shall be implemented by a special committee known as the Lake Naivasha Management Committee (hereinafter referred to as "the Committee"), comprising key stakeholders and institutions through the development and implementation of sectoral codes of conduct in consultation with various sectors. The Committee shall ensure adoption of, and compliance with the codes of conduct.

The Plan emphasises that all developments within the declared Lake Naivasha Ramsar Site and the lake's catchment shall be subject to Environmental Impact Assessment (EIA), as per the provisions of the Environmental Management and Coordination Act, 1999.

The Plan is a dynamic tool that shall be subject to periodic reviews, depending on emerging issues and new knowledge.

The Plan addresses sustainable management issues of the Lake Naivasha environment and the natural resources within the declared Lake Naivasha Ramsar Site and the wider catchment as set out here below:

WATER USE

The Plan shall regulate and control water use by the following measures-

(a) determination of modalities of water allocation and establishment of water use policy;

(b) utilization of all available information to update the water budget;

(c) monitoring the lake levels, rainfall, river flows and evaporation to improve the water budget database;

(d) undertaking a hydrological study on the water budget of the lake;

(e) institute metering for water abstractions as provided for in the water permits;

(f) encouragement of use of information from weather stations to optimise water use;

(g) controlling the expansion of water abstraction through the licensing process;

(h) reviewing water permits and establishing the current levels of water abstraction and efficiency of water usage;

(i) ensuring that the Committee is represented in the water licensing process;

(j) encouraging conservation of water through appropriate technology choices, especially in irrigation and re-use of waste water;

(k) developing suitable incentives for water conservation methods to support the Plan;

(l) promotion of a study on Nakuru water supply with a view to controlling the water abstraction from Lake Naivasha's inflow rivers;

(m) determining the hydrological impact of forest degradation in the catchment and other watershed activities on water resources;

(n) supporting the provisions of the national water policy and the Water Act, 2002; and

(o) avoiding watering livestock directly from the Lake except at designated public access points because it degrades the shoreline and increases nutrient levels in the Lake.

HABITAT MANAGEMENT AND NATURE CONSERVATION

THE LAKE ZONE (THE AREA WITHIN THE MOI NORTH AND SOUTH LAKE ROADS)

Through the Plan, the following actions shall be undertaken-

(a) the Papyrus fringe shall be restored and allowed to grow naturally all around the Lake because of its water purifying effects and as a habitat for wildlife;

(b) the natural vegetation shall be allowed to regenerate and form a buffer zone of at least 100m back from the land-side edge of the Papyrus fringe or from the shoreline where no papyrus exists;

(c) the distribution and health of floating weeds and their biological control agents shall be monitored and appropriate corrective measures taken on any adverse trends;

(d) the natural establishment of the Acacia woodland;

(e) stock watering points shall be provided at strategic locations on the land side of the riparian boundary for large herds including along stock routes;

(f) livestock shall be allowed controlled access to the lake for water only through the designated public corridors;

(g) stock holding points, grazing, night bomas or livestock dips and spray races on Riparian land shall be prohibited;

(h) encouragement of the planting of indigenous vegetation;

(i) re-vegetation of degraded areas in order to conserve the soil moisture and ground water conditions;

(j) security measures shall be undertaken to prevent illegal activities and damage to Papyrus and buffer zones;

(k) the Committee shall propose to the Naivasha Municipal Council by-laws restricting grazing of cattle and other stock in riparian reserve;

(1) the reclamation of flooded land or building of dykes which inhibit the Lake's natural level shall be prohibited;

(m) all agricultural activities on Riparian land shall be prohibited;

(n) all structures except those approved by the Committee on riparian land, shall be prohibited;

(o) the planting of suitable indigenous fuel wood crops and screens for unsightly developments shall be encouraged; and

(p) the cultivation of reverse slopes away from the Lake shall be encouraged.

THE CATCHMENT AND RIVERS

Through collaborative initiatives with authorities in the catchment areas, the Plan shall undertake the following measures-

(a) conduct an environmental appraisal of the watershed including erosion hazards and assist in evolving a District Forestry Action Plan;

(b) ensure that Environmental Impact Assessments are done for major water impoundments and that the Committee participates in their approval;

(c) support the rehabilitation of degraded and damaged areas;

(d) ensure that cultivation on the river banks is stopped;

(e) control tree harvesting and charcoal burning;

(f) collect and collate baseline data on the integrity of the catchment area;

(g) promote afforestation efforts in the catchment area; and

(h) discourage unplanned settlements and unsustainable land subdivision.

SPECIES MANAGEMENT

The health of plant and animal species is a good indicator of the health of the Lake and the Plan shall seek to-

(a) monitor the food chain and support studies of raptors etc;

(b) monitor the composition and abundance of submerged vegetation in the Lake;

(c) protect sensitive areas of the habitat, especially breeding, feeding and resting sites and fragile ecosystems;

(d) preserve and where necessary establish additional wildlife corridors;

(e) carry out regular water bird counts twice each year;

(f) stop introduction of alien invasive species without Environmental Impact Assessments on the ecology of the Lake; and

(g) study and monitor the impacts of wildlife and livestock on the lake.

TOURISM AND RECREATION

As an important resource of national and international significance, tourism and recreation facilities must be enhanced and the Plan shall seek to-

(a) monitor the impacts of tourist activity and sport fishing on the Lake and its environs;

(b) improve tourist infrastructure;

(c) provide information to visitors;

(d) facilitate Lake Naivasha to become part of a tourist circuit:

(e) promote awareness among tourists in support of the Plan; and maintain and enhance the aesthetic value of the Lake.

FISHERIES

The Lake fishery has the potential for greater production and the Plan shall promote the fisheries potential through the following measures-

(a) monitoring and collecting accurate data on the commercial catch necessary for the calculation of Maximum Sustainable Yield;

(b) designing an appropriate management strategy to eliminate illegal fishing, and the enforcement of fishing regulations and the training of fishermen;

(c) enhancement of fish production (including introduction of new species and aquaculture development after suitable Environmental Impact Assessment);

(d) gazettement of existing fish landing sites and establishing additional fish landing grounds;

(e) instituting proper management for fish landing sites;

(f) establishing regulations to protect fish breeding areas, especially within, and 100 meters out from, the lakeside edge of the Papyrus fringe;

(g) setting up appropriate sites for fuelling boats to minimise oil spills;

(h) involving fisherfolk in the licensing process, data collection and fisheries management;

(i) regulating the number of fishers based on the recommendation of research findings; and

(j) promoting the use of infiltration ponds rather than direct abstraction of water from the Lake.

HORTICULTURE AND AGRICULTURE

Horticulture is an important sector in the Lake Naivasha area and the Plan shall regulate the sector through the following measures-

(a) the metered abstraction of water and water use by growers;

(b) encouraging practices that avoid or prevent pollutants entering ground and lake water;

(c) disallowing unacceptable practices on Riparian land;

(d) protecting of the wider environment of Lake Naivasha;

(e) monitoring and self regulating of farm practices within the horticultural sector;

(f) proper storage, handling, application and wise use of chemicals and pesticides; and

(g) listing of banned or dangerous pesticides and those that are potentially harmful to wetlands.

WASTE DISPOSAL

The Plan shall ensure proper disposal of wastewater and other waste products through the following measures-

(a) facilitating the rehabilitation of the Naivasha town sewage treatment works;

(b) developing a constructed wetland around the existing treatment works to purify its output and prevent environmental damage in the event of failure of the system;

(c) regulating the use and siting of septic tanks around the Lake;

(d) seeking alternative sources and appropriate technology for recycling common horticultural materials such as plastics, bamboo and wood;

(e) establishing a mechanism for the disposal of used chemical containers and plastic;

(f) monitoring the discharge of aerial chemicals and disposal of wastewater particularly from the urban sewage plant and industrial developments;

(g) disallowing dumping of chemical, vegetative or sewage waste on Riparian land or in the lake;

(h) disallowing pit latrines, laundry or domestic waste water discharge on riparian land; and

(i) promoting proper solid waste management and disposal.

PUBLIC ACCESS

The Plan provides for the identification and designation of public access routes as well as the development of suitable management practices to promote education, recreation and sustainable use.

However, the following specific areas in and around the Lake shall be protected from human interference-

(a) breeding sites for wildlife and fish;

(b) sensitive and fragile ecosystems;

(c) areas under a rehabilitation programme;

(d) wildlife corridors between the Parks and the Lake; and

(e) river-mouths and other water inlet points.

RESEARCH

The Plan recognises the importance of research, and to ensure maximum return from research activities it shall be necessary to set up research priorities particularly to-

(a) develop understanding of the water balance;

(b) study the food chain, including plankton and their relationship to ecological factors;

(c) develop knowledge on fishery resources, including the ecology of Crayfish Black Bass and submerged hydrophytes stands; and

(d) monitor impact of socioeconomic activities on biological resources, both within the Catchment and the Lake.

AWARENESS AND INFORMATION

Success of the Plan shall only be attained when all concerned understand its objectives and proactively implement its principles. This shall be achieved by-

(a) establishing a data information centre;

(b) mounting awareness campaigns for stakeholders;

(c) producing field guides on the ecology of the Lake;

(d) providing information signboards at the main junctions to direct visitors to public places of general interest;

(e) promoting the Plan and inviting input;

(f encouraging the production of Sectoral Codes of Conduct to be added to the Plan; and

(g) promoting awareness and sense of participation among the Catchment area community.

MONITORING AND EVALUATION PROGRAMMES

The main objectives of a monitoring programme shall be to provide information to-

(a) establish trends and allow forecasting;

(b) aid in understanding the Lake ecosystem and water budget, and how these are affected by environmental factors and human activities;

(c) establish reasons for changes in the vitality of the Lake and its environs;

(d) monitor changes in water quality; and

(e) update and measure the success of the Plan.

PHYSICAL AND SOCIO-ECONOMIC PARAMETERS TO BE MONITORED

Physical parameters to be monitored shall include-

(a) climatic elements - rainfall, evaporation, humidity, air temperature, wind speed and wind direction;

(b) river flow and lake levels;

(c) lake water quality;

(d) endemic and invasive species both plants and animals;

(e) wildlife and bird censuses;

(f) fish population and catches;

(g) health of species at the top of the food chain; and

(h) status of the watershed.

Socio-economics parameters to be monitored shall include-

(a) water usage, metering, acreage under irrigation and water permit status;

(b) population, employment, health and education and statistics;

(c) land use, vegetation and soil degradation;

(d) level of awareness and understanding of management issues;

(e) compliance with the Plan; and

(f) catchment activities.

REVIEW OF THE PLAN

The Plan is intended to be dynamic, constantly changing as fresh knowledge becomes available. In updating the Plan the Committee shall-

(a) assess whether the operational objectives are being achieved;

(b) examine whether the implementation of the Plan is on track;

(c) evaluate the implementation team;

(d) evaluate the cost-effectiveness of the implementation process;

(e) evaluate the validity of previous assumptions in the light of monitoring results;

(f) evaluate public opinion on the Plan; and

(g) evaluate the status of the watershed.

MEASURE OF SUCCESS

The main parameters by which the success of the Plan shall be measured include-

(a) status of water quantity and quality;

(b) employment provided and foreign exchange earned;

(c) status of biodiversity;

(d) community awareness and support for management issues and the Committee;

(e) donor interest and levels of funding;

(f) quality and usefulness of research;

(g) quality of the watershed; and

(h) local community development.

The Plan including the background information to the Plan, the facts upon which the Plan is based and the Codes of Conduct relating to the Plan is deposited at the offices of the Lake Naivasha Riparian Association (LNRA) and the Director General, National Environment Management Authority (NEMA) whose addresses are provided below-

The Chairman
Lake Naivasha Management Committee
P.O. Box 1011, Naivasha 20117, Kenya
Tel: (254) 050 50136
Fax: (254) 050 2021009

The Director-General
National Environment Management Authority (NEMA)
P.O. Box 67839, Nairobi 00200, Kenya
Tel: (254) 026 605526/609013/79
Fax: (254) 020 608997

Dated the 3rd September, 2004.

S. K. MUSYOKA,
Minister for Environment and Natural Resources.