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NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

Popo Road Off Mombasa Road
P.O BOX 67839-00200, Nairobi, Kenya
Tel ;(254 020)6005522, 6001945, Fax: (254 020) 6008997)
Email:dgnema@nema.go.ke Website: www.nema.go.ke

NOTICE TO THE PUBLIC TO SUBMIT COMMENTS ON AN ENVIRONMENTAL IMPACT ASSESMENT STUDY REPORT FOR PROPOSED REHABILITATION, AUGMENTATION, EXTENSION AND CONSTRUCTION WORKS OF TOWN - KIBABII SEWERAGE PROJECT IN BUNGOMA COUNTY

Pursuant to Regulation 21 of the Environmental Management and Corporation (Impact Assessment and Audit) Regulations, 2003, the National Environment Management Authority (NEMA) has received an Environment Impact Assessment Study Report for the above proposed project.

The proponent Lake Victoria North Water Works Development Agency is proposing Rehabilitation, Augmentation, Extension and Construction works of Town- Kibabii Sewerage project ,located in Bungoma Town, Wamunyiri and Kibabii, through funding from Government of Kenya. The schemes proposed include; wastewater collection systems ;Waste Water Treatment Plants (WWTPs)and associated facilities; sludge drying beds; and onsite sanitation facilities or pumping stations for areas that cannot be served by centralized sewerage systems.

The following are the anticipated impacts and proposed mitigation measures;

Impacts	Proposed Mitigation measures
Disruption of social order	<ul style="list-style-type: none">• Sensitize all workers to ensure awareness of and sensitivity to the local cultures, traditions and lifestyles,• Implement the HIV/AIDS impact mitigation plan that will involve providing a comprehensive range of services, information materials• HIV/AIDS sensitization, identification of possible HIV/AIDS cases, testing with pre- and post- counseling, the treatment of associated infections, referral of appropriate cases, education to promote better quality of life and promotion of precautions, provision of condoms and the application of HIV occupational exposure policies.
Loss of Land and structures, tree and crops	<ul style="list-style-type: none">• Cash compensation for taking into account replacement cost for land, structures• Disturbance allowance (15%)• Project to prioritize processing and disbursing of compensation

	<ul style="list-style-type: none"> • Right to salvage assets and materials • Resettlement Action Plan for project prepared • Compensation of lost land, structures as per valuation cost, market value and as per Kenyan constitution and Resettlement Action Plan • Cash compensation for lost crops and trees • Right to harvest mature trees and crops
Occupational health and safety impacts, accidents	<ul style="list-style-type: none"> • Carefully plan for construction sanitary facilities • Provide personal protective equipment (PPE) appropriate to working area for staff and visitors to the site; • Regular site reporting on health, safety and environment (HSE) issues by an appointed HSE representative; compliance to OSHA 2007 • Develop a monitoring programme to assess noise performance in accordance with the revised Noise Prevention and Control Rules (April 2005); and NEMA Noise Control Regulations, 2009 • Assessment of HSE mitigation measures and recording of any matters arising as per Legal Notice No 40, The Factories (Building Operations and Works of Engineering Construction) Rules • Project should comply to Public Health Act, Cap 232 (1986).

<p>Solid waste generation and wastewater generation and disposal (cause soil degradation and surface water pollution)</p>	<ul style="list-style-type: none"> • Develop a solid waste management plan prior to project commencing, identifying optimal waste re-use options and licensed disposal areas; • Minimize waste production by utilizing best available techniques for site preparation; • Re-use construction waste to the maximum extent possible; • Excavation activities and dumping of spoils should be properly managed such that land which is not required for the project is left undisturbed. • The waste bins at the construction site should be adequately designed and covered to prevent access by vermin and minimize odour. • The bins at the construction site should be emptied regularly to prevent overfilling. • Disposal of the contents of the bins should be done at an approved disposal site. The Bungoma Town dump site is recommended. Appropriate permission should be sought (from the NEMA) as appropriate. • Provide portable sanitary conveniences for the construction workers • Conduct wastewater tests to ensure they meet NEMA, WRMA standards before discharge.
<p>Disturbance and interruption of commercial and social activities</p>	<ul style="list-style-type: none"> • Inform local communities about the construction programme in advance. • In case access roads have to be closed, inform local communities in advance. • Provide temporary access ways with the approval of local authorities where access roads are closed. • Carry out work under mild weather (not strong rains or winds). • Protect any items and/or sites of archaeological or cultural value (e.g. private graveyards) discovered during works with the aid of the appropriate authorities.

<p>Foul Odours/ Air pollution emanating from wastewater treatment works</p>	<ul style="list-style-type: none"> • Monitor and ensure that influent sulphate levels are below 240 mg/l. • Ensure that the pond series have adequate water flow to reduce the potential of odour formation. <ul style="list-style-type: none"> • Plant trees especially bamboo and eco friendly indigenous trees around the waste water treatment plant to limit exposure of neighbourhood to odour menace. • Ensure appropriate handling and removal of grit/grease; • Ensure proper sizing and alignment of the lagoons, appropriate disposal of scum and stabilization; • Ensure that the pond series have adequate water flow and aeration to reduce the potential of odour formation; • The (WWTP) perimeter should be vegetated with trees and plants of varying heights thereby forming windbreaker and reduce dispersion of odour; • Repair the roofs of the sludge drying beds to ensure quick drying of sludge and appropriate disposal to reduce odour emanating from wet sludge
<p>Risk of Sewer blockage and overflows to the environment, impacts on the local stream and the neighbourhood</p>	<ul style="list-style-type: none"> • Awareness rising among community members not to dump solids in manholes. • Regular cleaning of grit chambers and sewer lines to remove grease, grit, and other debris that may lead to sewer backups • Development of an inventory of system components, with information including age, construction materials, and drainage areas served elevations. • Design manhole covers to withstand anticipated loads and ensure that the covers can be readily replaced if broken to minimize entry of garbage and silt into the system • Ensure sufficient hydraulic capacity to accommodate peak flows and adequate slope in gravity mains to prevent build-up of solids and hydrogen sulphide

	<p style="text-align: center;">generation</p> <ul style="list-style-type: none"> • Timely maintenance of sewer conveyance, distribution system; • Monitor water quality, both in the river and in the conveyance system
Sludge handling and disposal	<ul style="list-style-type: none"> • Repair the roofs of the sludge drying beds to ensure quick drying of sludge and appropriate disposal to reduce odour emanating from wet sludge. • Provide workers with education and awareness on safe management, handling and application of the sludge cake. This will include appreciation of the materials for soil conditioning to surmount the cultural barrier, • The quality and safety of the sludge cake should be ensured on a collaborative basis with (public health, agriculture, water and soil experts) before it is released to the users. • Ensure efficiency of the sludge digestion and effective sludge drying.

The full report of the proposed project is available for inspection during working hours at:

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| <p>1. Principal Secretary,
Ministry Of Environment And Natural Resources,
NHIF Building 12th Floor,
Ragati Road, Upper hill,
P.O BOX 30126-00100
<u>NAIROBI</u></p> | <p>2. Director General NEMA
Popo Road, Off Mombasa Road,
P.O BOX 67839-00200
<u>NAIROBI</u></p> <p>3. County Director of Environment
<u>BUNGOMA COUNTY</u></p> |
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A copy of the EIA report can be downloaded at www.nema.go.ke

NEMA invites members of the public to submit oral or written comments **within (30) days** from the date of publication of this notice to the Director General, NEMA, to assist the Authority in the decision making process for this project. Kindly quote Ref.No. **NEMA/EIA/5/2/1729**