



## KENYA

## WATER SUPPLY NYERI



Nyeri Treatment Plant

<b>Client</b>	Nyeri Water and Sewerage Company Ltd. / NWSC), Nyeri	<b>Scope of Services</b>	<ul style="list-style-type: none"> <li>• Inventory of existing installations</li> <li>• Environmental Impact Assessment including site visit / field investigation, identification of impacts, assessment of impacts, mitigation measures and monitoring program</li> <li>• Topographic surveys, mapping and soil investigations</li> <li>• Condition survey of existing infrastructure</li> <li>• Leakage detection, determination of the extent of unauthorised connections, detailed hydraulic analysis of distribution network, water loss analysis in the existing distribution network, development of strategies for regularising unauthorised connections</li> <li>• Hydraulic design for raw water intake, transmission mains, water distribution, storage reservoirs, and sewerage network</li> <li>• Preparation of detailed engineering design on rehabilitation and expansion of treatment plant Ihawa, extension Kamakwa water treatment plant, distribution, storage tanks, and infill sewers</li> <li>• Construction Supervision</li> <li>• Consumer survey and customer registration, block mapping, establishment of GIS database</li> <li>• Supervise network digitalisation and integration of network and customer survey data</li> <li>• Institutional strengthening and corresponding training of NWSC staff</li> </ul>
<b>Financing</b>	KfW Entwicklungsbank		
<b>Duration of Services</b>	09/2002 – 04/2004 (Phase 1) 05/2004 – 11/2008 (Phase 2)		
<b>Cost of Implementation</b>	11.25.Mio EUR (Phase1+2)		
<b>Consulting Fees</b>	300,000 EUR (Phase 1) 1,100,000 EUR (Phase 2)		

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## Essential Data on Project

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- **Water Supply System**  
Expansion of Kamakwa Water Treatment Plant  
Production from 5,700 to 21,000 m<sup>3</sup>/d  
  
Kiganjo Water Treatment Plant  
Production 900 m<sup>3</sup>/d
- **Sewerage System**  
Nyeri Waste Water Treatment Plant  
Existing capacity 6,000 m<sup>3</sup>/d  
  
Kiganjo Waste Water Treatment Plant  
Existing capacity 2,000 m<sup>3</sup>/d
- **Waterworks components:**
  - Raw water intake
  - Chemical mixing & dosing plant
  - Clarifiers and filters
  - Sedimentation tanks
  - High lift clean water pump station
  - Flocculation basins
  - Maturation ponds
  - Highrate biological filter
  - Sludge digestion lagoons
  - Anaerobic ponds

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## Brief Project Description

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### Background



Nyeri is the Provincial and District Capital of the Central Province of Kenya. It is an important administrative centre with relatively high economic potential. The Municipality of Nyeri covers an administrative area of some 200 km<sup>2</sup> and comprises of the sub-centres of Nyeri and Kiganjo.

The present population of Nyeri is around 118,000 inhabitants with a growth rate of nearly 3% per year.

### Objectives of the project

The general objective of the Project is to contribute to the improvement of the health standards of the population by making available, affordable drinking water in sufficient quantity and acceptable quality for Kiganjo and Nyeri. The Project is considered as a first, but very important step for improvement and development of Kiganjo and Nyeri and the surrounding areas within the municipality and will in particular offer safe potable water by an improved system throughout the year. On the other hand, waste water will be transmitted and disposed in such a way that there will be no health risks or other hazards related to water borne diseases.

An important objective of the project is to achieve the goal of making the company self-sustainable in its operations.



Nyeri STP, sludge digestion lagoons Nos. 3 and 4