amref health africa

Sustainable & Inclusive Water Access (SIWA).

20TH MAY 2025

Who We Are

Amref Health Africa in Kenya is a leading health non-profit organisation with a footprint in all 47 counties.

Vision

Lasting health change in Africa

Mission

Transform the health of communities through Primary Health Care with a focus on women and youngpeople.

Core Values

INTEGRITY

demonstrating high ethical standards in all our dealings.

QUALITY

ensuring excellence is core to our planning and execution.

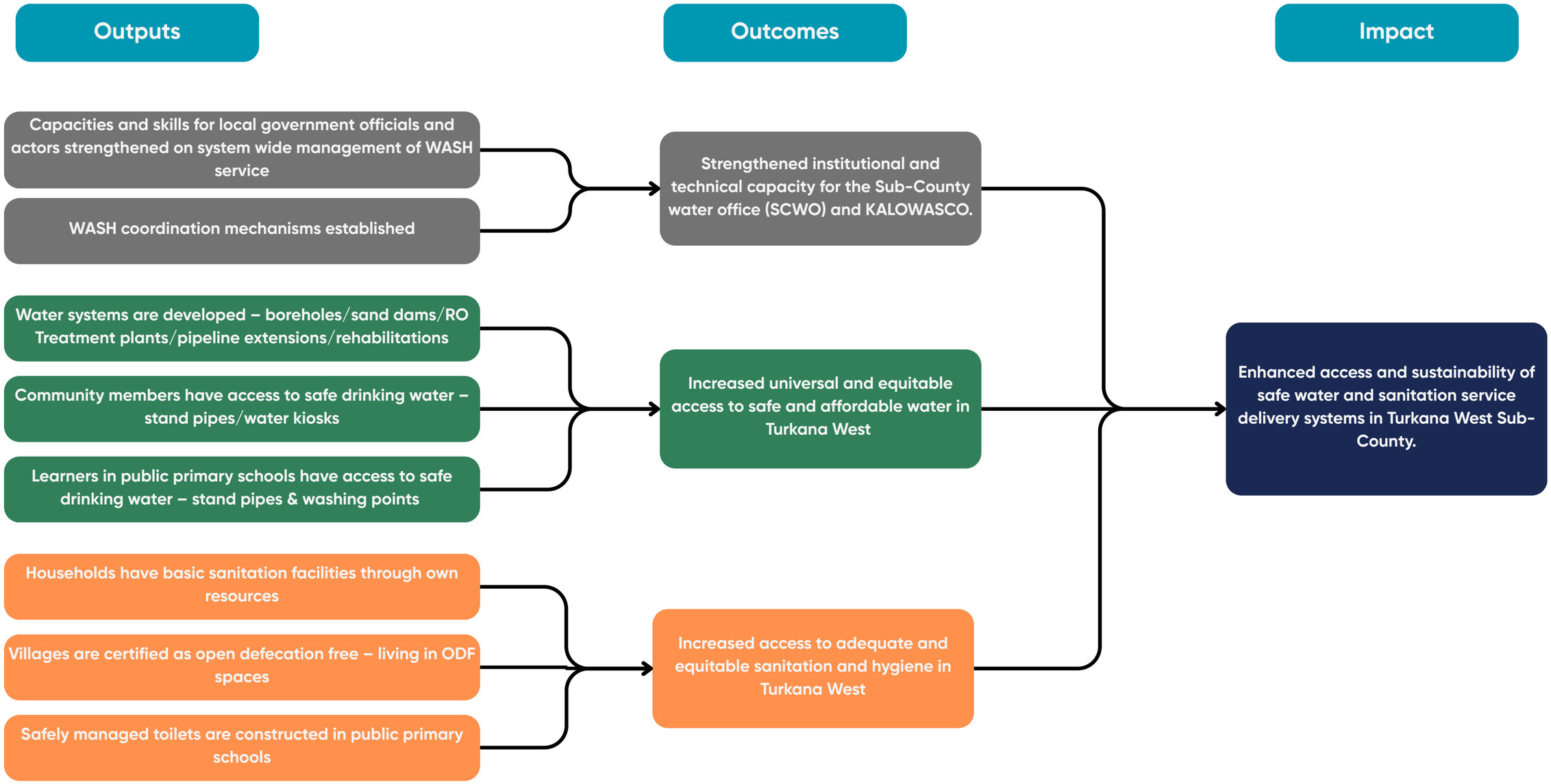
UBUNTU

embracing compassion based on our fundamental shared humanity.

Background

- **Water Access**: 59% of households use unimproved water sources. Water collection is time-consuming, with 67% of households spending more than 30 minutes per trip. Women and girls bear the burden of water collection in over 80% of households.
- **Water Safety and Hygiene**: 74% of households do not treat drinking water despite good hygiene awareness. Chlorination is the most common method among those who do.
- **Sanitation**: 69% of households have no toilet facility. Open defecation is widespread, particularly in rural wards. Of those with toilets, 48% use pit latrines with slabs. Child faeces are often disposed of unsafely.
- **Hand Hygiene**: Only 5% of households have fixed handwashing stations. Soap and water were lacking in nearly half of the observed handwashing facilities.
- **Institutional Capacity**: KALWASCO has a functioning structure but faces critical gaps in tools, spare parts, and financing. Non-revenue water stands at 55%. The utility lacks key strategic documents and faces financial strain due to insufficient revenue and political interference.

Sustainable and Inclusive Water Access for Refugees and Host communities in Turkana West project (SIWA) Snapshot



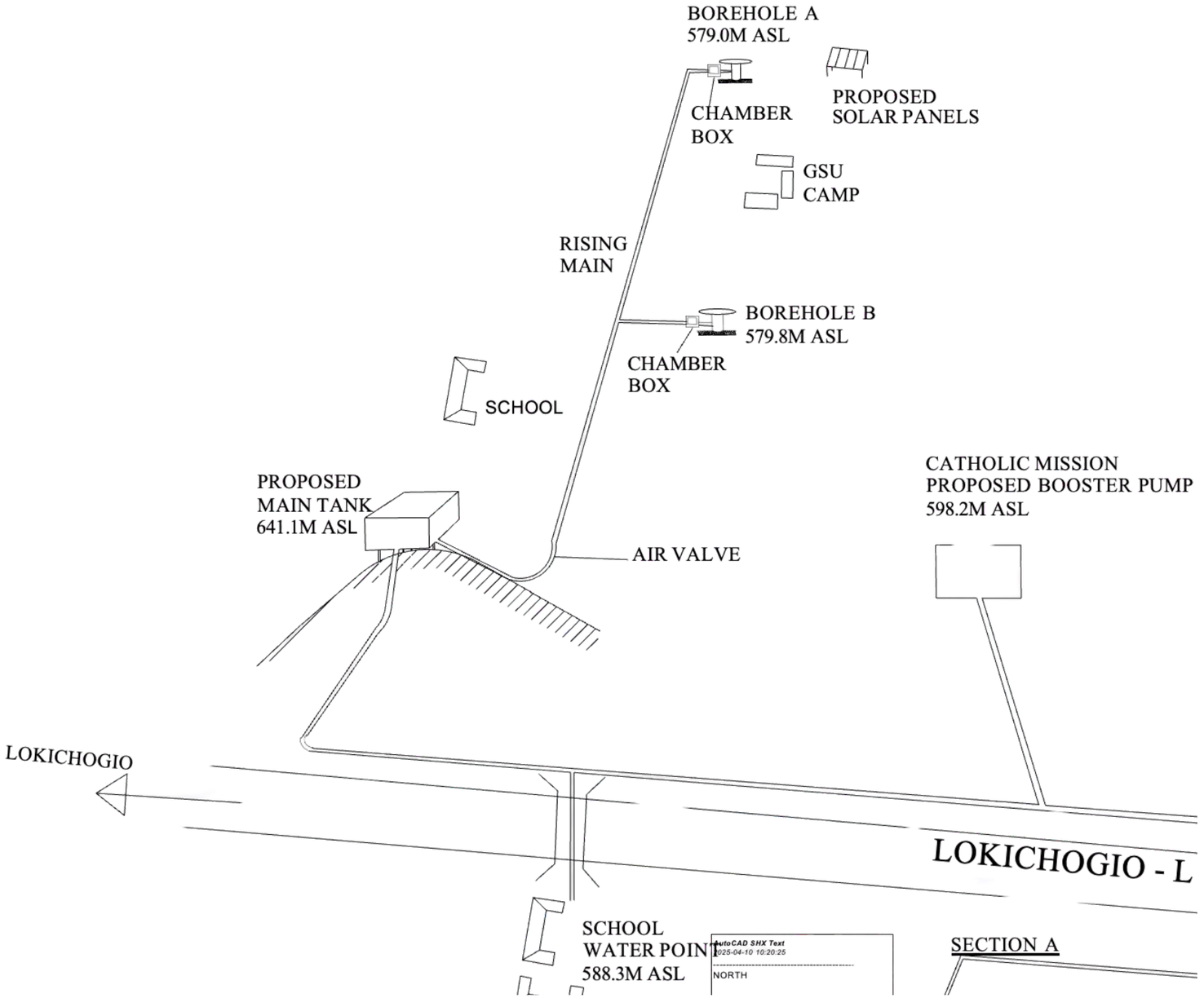
Progress Overview – Borehole Works

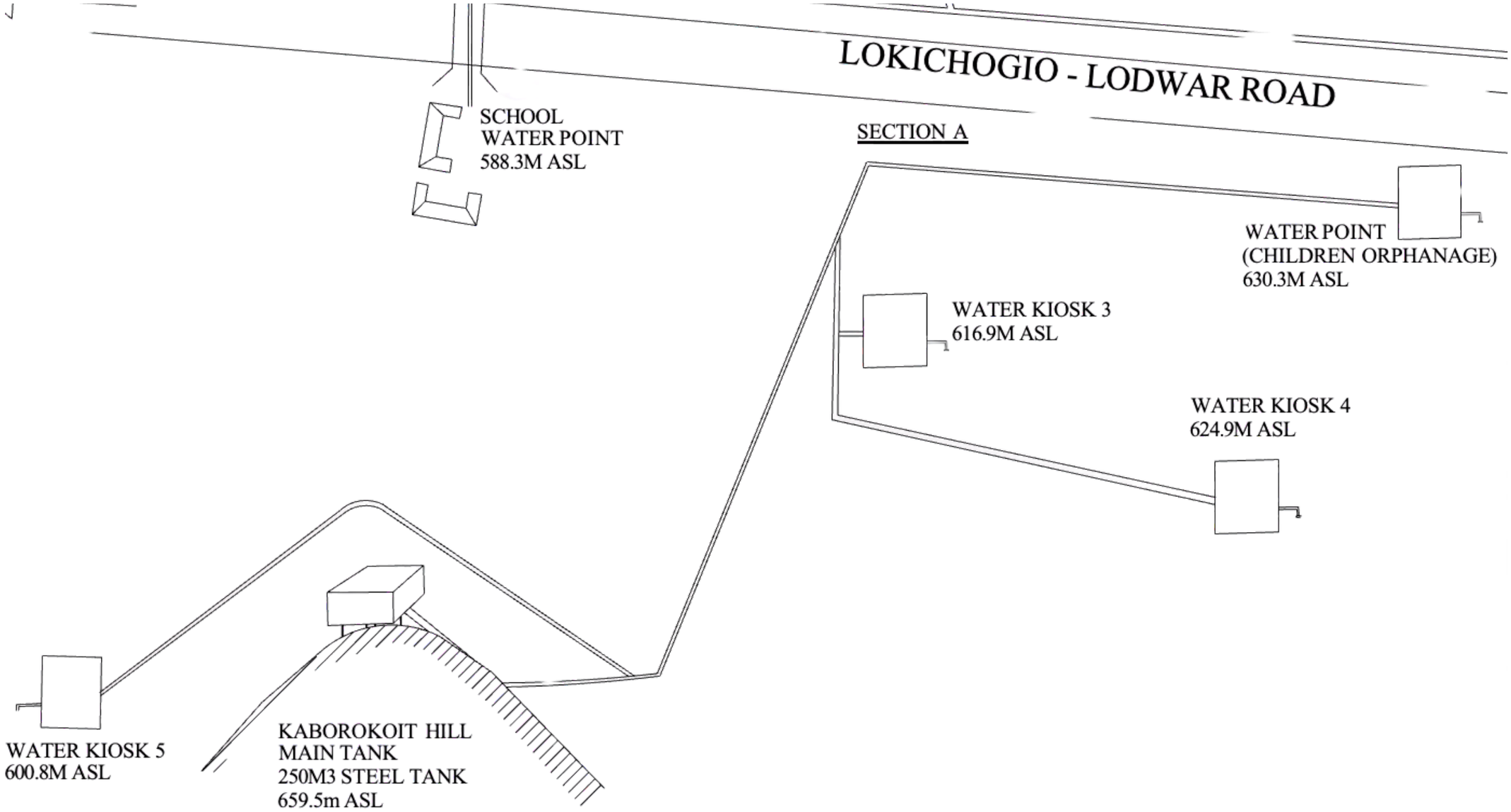
Site	Progress	Works undertaken	Works planned for the next half year
Lopiding BH	50%	•Test pumping conducted (yield is 18.1 M3/hr) •Equipping conducted & 2 storage towers installed	•Pipeline connection and associated fittings. •Construction of water dispensing mechanisms. •Borehole equipping and storage tanks installation
Nakururum BH	50%	•Test pumping conducted (yield is 7.2 M3/hr) •Pipeline survey and design conducted •storage tower installed	
Lokudule BH	50%	•Water quality analysis conducted •Storage tank installed for 1 school •Pipeline survey and design conducted	
Kalemchuch 1 BH	25%	•Test pumping conducted (yield is 70 M3/hr) •Pipeline survey and design conducted	•Procure & install 250,000 & 50,000 liters galvanized steel tanks •Pipeline connection & associated fittings. •Pipeline repairs and replacement where appropriate .
Lodoket BH	25%	•Test pumping conducted (yield is 4 M3/hr) •Pipeline survey and design conducted	
Kalemchuch 2 BH	25%	•Test pumping conducted (yield is 13.5 M3/hr)	
Naburankito BH	25%	•Test pumping conducted (yield is 2.5 M3/hr)	• Pipeline and associated fittings. •Construction of water dispensing mechanisms •Installation of elevated storage tanks
Loreng BH	25%	• Test pumping conducted (yield is 3.6 M3/hr)	

Our work in pictures

Fully installed and equipped solar plant at the lopiding borehole that provides energy for pumping water from the borehole.

Kalemchuch - Kakuma Water Pipeline Design




LOKICHOGIO - LODWAR ROAD
SCHOOL
WATER POINT
588.3M ASL
SECTION A
WATER POINT
(CHILDREN ORPHANAGE)
630.3M ASL
WATER KIOSK 3
616.9M ASL
WATER KIOSK 4
624.9M ASL
WATER KIOSK 5
600.8M ASL
KABOROKOIT HILL
MAIN TANK
250M3 STEEL TANK
659.5m ASL

Progress Overview – Latrine Construction in Schools

Site	Status	No. of cubicles planned	Remarks
St. Mathews Pri Sch	75%	Boys – 6 Girls – 8 Teachers – 2	Very loose soil formation and prone to flooding Community contribution - sand, ballast
Lokudule Pri Sch	50%	Boys – 5 Girls – 6 Teachers – 2	Very rocky ground making pit digging difficult Community contribution - ballast, hardcore
Nakururum Pri Sch	25%	Boys – 6 Girls – 6 Teachers – 2	Very rocky ground making pit digging difficult, loose soil formation
Kakuma Arid Zone Pri Sch	10%	Boys – 16 Girls – 18 Teachers – 2	Very loose soil formation - sandy
Kamudei Pri Sch	10%	Boys – 10 Girls – 10 Teachers – 2	Very loose soil formation - sandy

Our work in pictures

A water station within one of our intervention schools featuring drinking water and handwashing stations

Our work in pictures

The back side of a school VIP latrine featuring the manholes which will allow for emptying of waste once the pits fill up.

Human-centered Social Behavior Change

Community mobilization and engagement meetings on sanitation and hygiene. 580 people reached.

Hand hygiene – hand washing facility constructed using locally available materials

Latrine use and hand washing for disease prevention. A household member in Lopiding village demonstrating hand washing after using latrine.

Human-centered Social Behavior Change

Equipping Village Sanitation Committee members with knowledge to effectively promote sanitation within their communities. 25 VSC members trained.

From open defecation to simple traditional latrine. Latrine construction ongoing using locally available materials – leaving no one behind.

Understanding and addressing individual and social factors that influence behaviour change through inter-personal communication.

KALOWASCO Institutional Audit Summary

Institutional capacity

- Currently managing 11 boreholes (3 non-functional), 26 kiosks (only 7 viable), 7 water tanks (6 functional).
- High non-revenue water (NRW) at 55% due to illegal connections, outdated pipes, and unmetered pro-poor communities.
- O&M Limitations: Lacks spare parts and tools, relies on ad-hoc procurement.

Financial and Operational Capacity

- Monthly Revenue: KES 0.8M-1M vs. Expenditure: KES 2.2M (unsustainable deficit).
- Main Costs: Salaries and generator fuel.
- No government subsidies; depends solely on water sales.
- Billing: Tiered tariff system based on LOWASCO's rates; Mpesa Paybill used exclusively for payments.

Gaps Identified

- Missing strategic documents: Strategic Plan, Investment Plan, and Service Delivery Charter.
- Lacked a formal operations budget.
- Tariffs not aligned with WASREB guidelines - plan to align are underway
- Inadequate transport/logistics: 1 vehicle, 3 motorbikes, 3 grounded tuktuks.

Capacity Strengthening of SCWO and KALWASCO

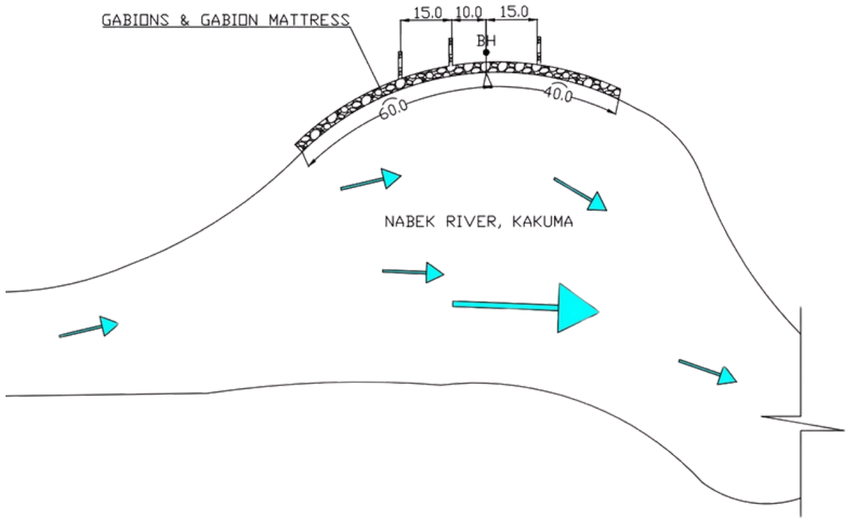
- KALOWASCO supported to conduct public participation on a number of issues including; water tariffs,tranision of water user associations to KALWASCO management, service delivery among others. About 90 community members reached.
- Joint monitoring of water infrastructure constion conducted with Subcounty water officers
- Siting for schools latrine contruction conducted jointly with public health officers from the county government

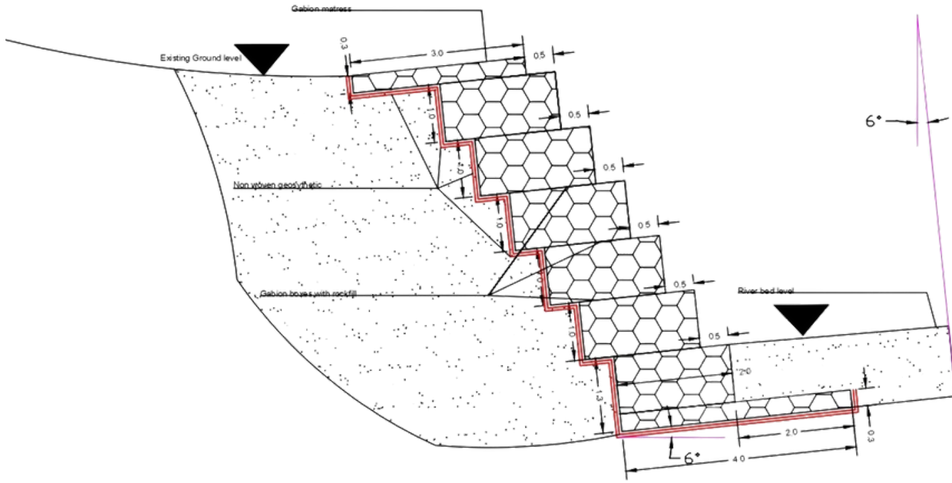
Conclusion and Recommendations

- Likely unexpected budgetary adjustments, e.g., the need to flood-proof Kalemchuch borehole, bigger storage tanks/distribution tanks, and security provisions in borehole sites.
- Longer pipelines than initially planned.
- Higher student population than expected, determining toilet construction to meet Kenyan MoE standards.

Outputs may reduce, but the total reach will be surpassed

Proposed gabions along River Nabek to protect Kalemchuch 1 BH





Our work in pictures

Pit lining to avoid collapsing due to loose soils

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Thank You.