



GROUND

WATER

RELIEF

**Groundwater Development
School Summer 2021**

The Need for the Groundwater Development School

- Water security remains a key issue for much of the world. 2.2 billion people lack safely managed drinking water ([UN stats – Sustainable Development Goals Report](#)).
- Groundwater is the solution for many communities, especially in rural areas with extended dry seasons often made worse and less predictable by climate change.
- There is significant demand for boreholes to be drilled to meet the Millennium Development Goals. Importantly, poorly executed and maintained boreholes, which are common across the global South, lead to high rates of borehole failure, over abstraction, poor yields, and poor water quality.
- Expertise is rare in this field so training needs to be given to professionals to ensure boreholes are sited well, expertly drilled and adequately maintained and monitored for sustainable long-term yield.
- The Groundwater Development School is an opportunity to improve technical capacity in the sector.



Groundwater Development School Overview

- A **four-week** hands-on training course held in late July/ August 2021.
- Provides training on every aspect of **siting, developing, managing, and monitoring a borehole.**
- For **recent graduates, young professionals,** as well as **WASH engineers.**
- Is **taking 14 students** in 2021 (places will be allocated based on an interview).
- It will be **held in Uganda** in an area that is in need of a borehole to improve their water security.
- Costs **£3900 per student*** – this covers all training and in-country expenses (accommodation, food & drink, transport & Groundwater Development School (GDS) equipment pack) as well as some of the costs for developing the water supply.
- Trainees will be **responsible for their own flights, visas and vaccines.** However GWR will support all applicants in fundraising for the course.

* We are currently applying for subsidisation funding so this cost may be reduced. Please do not let cost put you off applying. Groundwater Relief will support you through out this process and we will happily work with you to try and find solutions to financial difficulty.

Course Content and Opportunities

Practical and theoretical training in:

- **Borehole siting** using remote sensing, field data, geological mapping and Groundwater Relief's geophysical survey equipment.
- **Drilling supervision and construction** of a borehole using drilling equipment supplied by a local partner – Includes training on how to: **sample and log** the geology encountered; **design** a borehole based on the lithology logged; **install** a borehole casing and screen, gravel pack and sanitary seal; then **develop** the borehole.
- **Pumping tests**, including how to carry out a constant rate, recovery and step test. **Analysis of pumping test data** to determine aquifer potential and to determine the optimum pump to be installed into the borehole.
- Practical and theoretical training on how to **construct the apron and well head** and how to design (based on pumping test and water quality results) the pipe, storage, treatment and distribution infrastructure for the water being pumped out the borehole.
- **Classroom sessions**, briefings and onsite Q and A sessions giving access to our wide range of expertise and practical experience.
- **Safety training** for all the equipment.
- **Two weekend trips** to explore some of Uganda.
- **Networking opportunities** amongst the group to develop strong collaborative links in the hydrological and engineering community, as well as with local authorities.
- A **certificate of completion** confirming a participant has finished the course with Groundwater Relief.



Groundwater Relief's Expertise

Groundwater Relief (GWR) specialises in the sustainable development and management of groundwater resources. Our object as a charity is to bring people out of poverty and relieve suffering through providing communities and households with better access to groundwater resources.

GWR's core staff and our global volunteer membership of over 320 groundwater experts have undertaken over 100 projects in the last 5 years, with some of the world's most vulnerable people, providing direct technical support to a range of partners including International Organisation for Migration (IOM), the International Committee of the Red Cross (ICRC), Oxfam, Medecins Sans Frontieres (MSF-F, MSF-OCB), Solidarites International, and the British Red Cross.

GWR has multiple years of experience in training groundwater professionals in borehole construction having run one-off drilling trainings in Bangladesh and Myanmar amongst others and an annual drilling school in the UK with RedR and Cranfield University. Many years of experience has helped GWR create the GDS syllabus in Uganda to provide a comprehensive hands-on training programme.

For more information about Groundwater Relief please see our website:

<https://groundwater-relief.org/>



The Groundwater Development School Experience

First and foremost this will be **an experience you will remember for the rest of your life**, rural Uganda is an amazing place to visit and work.

You will receive high quality training by groundwater experts, working closely with lots of likeminded people from around the world in an engaging practical setting.

This will be a **high intensity but massively rewarding experience**. The benefit that the borehole will bring to a community in Uganda will be gratifying in itself, but additionally you will understand and be able to replicate that work.

The training you receive will greatly improve your career opportunities in the WASH and humanitarian aid sectors and the **certificate of completion will make you more employable**.



Impact and Beneficiaries

- Provides a **sustainable groundwater source for a local community**.
- **Up-skills young graduates helping them into their future careers** with a solid theoretical and practical understanding of all aspects of drilling.
- Provides trainees an opportunity to **gain experience from a live project** in a testing overseas environment.
- **Builds the capacity of local professionals** who can take their knowledge on to other projects in their country.
- **Develops interorganisational collaboration** by providing networking opportunities not just between the trainees but also with the partnered charitable organisation, government agencies and the local community.
- Helps reach the **UN's 6th Sustainable Development Goal** of clean water and sanitation for all.

Application Process

We would encourage anyone who is interested to apply. If you would like more information before doing so then please join one of our **GDS Q & A session. These will be held via Zoom on the dates below:**

10th February - 10 am GMT
25th February - 1 pm GMT
24th March - 1 pm GMT

For Zoom link please go to: <https://groundwater-relief.org/services/supporting-groundwater-professionals/groundwater-development-school>

Application deadlines:

There will be two opportunities to apply.

- The first application window has commenced and will end at **12pm on the 8th March**. Interviews will be undertaken within two weeks of the application deadline.
- The second application window will commence on the 19th March and end at **12pm on the 4th April**.

To Apply:

- **Please complete our application form that can be downloaded the above [webpage](#)**
- **Please complete the form and send this with your CV to admin@groundwater-relief.org**

Places will be allocated after each round of interviews has taken place. **To accept a place a £500 deposit will need to be paid.** If all places are filled following the first application window then the second application window will be closed automatically.

Footnote on Covid-19

With the rapid roll out of vaccines across many countries and the easing of measures in Uganda, we are **feeling optimistic that the Coronavirus situation will have improved** enough by July that the GDS will be possible.

Currently a negative Covid-19 test is required on entry to Uganda. There is no quarantine on arrival.

We have carried out a risk assessment and during the 4-weeks of training, **precautions will be put in place** to minimise the risks of transmission to students and local people.

Additionally, as we are fully aware how swiftly things are changing at the moment, any **fees paid will be fully refundable if the course cannot go ahead** or if a participant cannot attend due to changes in the coronavirus situation (providing they have reasonable evidence of this).

