



## Huruma Centre Well Project Frequently Asked Questions

### What is wrong with the existing well at the Huruma Centre?

The existing well was drilled only to 30 meters. During a number of recent dry seasons, the water table has fallen below that depth, threatening the well's functioning. When the well finally ran completely dry in 2018, the well and its pumping system stopped operating properly; the old well cannot be reused as part of a new well.

### What is the water supply for the Huruma Centre since the existing well failed?

When the existing well failed in 2018, the water distribution system of the Huruma Centre was connected to the water main of the city of Iringa. City water is expensive and not potable. Because of the extra expense, the water was being prepaid each month up to a set cost limit. Once that limit was reached, water was turned off for three or more days at the end of each month. In recent months, when city water has been turned off at the end of each month, government health officers have threatened to shut the Huruma Centre down because of the lack of water. As a result, city water is now on continuously at increased cost. Friends of Huruma currently provides additional operational support for this cost. There is a small operational handpump near the garden that is used for drinking water, but it is not practical for all the children and staff to use it for other needs.

### How deep will the new well be?

Saint Paul Partners (SPP) proposes drilling a new well to 100 meters. Nearby wells drilled to that depth provide abundant water regardless of season. SPP believes a 100 meter well at Huruma Centre well will perform in a similar fashion. They project that by drilling a well to 100 meters, the water supply will meet the water demand as the number of children served by the Huruma Centre increases in years to come. We are planning with a 10 to 15 year horizon to get the most from this project.

### What are the costs involved in the well project?

Here is an estimated cost breakdown (upper end of estimate range):

Air-Hammer Drill New Well	8,000
Purchase, Transportation, Installation:	7,500
-Submersible Pump	
-Solar Panel Array	
-Control Systems	
Well Casing, Pipes, Plumbing Labor	4,000
Contingency	1,000
SPP Overhead	<u>1,000</u>
TOTAL	\$21,500

### Why is the cost of drilling and equipping a new well estimated and not fixed before work begins?

Saint Paul Partners cannot provide a firm cost for drilling a new well until they complete the hammer drilling process. Only when drilling is completed to 100 meters will they know whether the water supplied at that depth will be sufficient to meet present and future water demands at the Huruma Centre. However, wells at properties near the Huruma Centre that are drilled to 50 and 100 meters provide abundant water, giving greater confidence in SPP's cost estimate. Once abundant water is reached, we will have a firmer project cost.



### **Why does Friend of Huruma have a goal of raising \$15,000 when the cost estimate is \$22,000?**

Saint Paul Partners has generously agreed to share the cost of drilling and equipping a new well at the Huruma Centre. SPP will provide one-third of the total cost, with Friends of Huruma paying the remaining two-thirds, or about \$14,700.

### **How does the matching fund process work?**

Several donors have committed together to match total gifts up to \$7,500 for the well project. This means that every dollar you give will be matched by a dollar from the matching fund. Once Friends of Huruma donors give \$7,500, that total will be combined with matching funds for a total of \$15,000, the amount Friends of Huruma wants to raise for the well project. Thank you!

### **Can you tell me more about St. Paul Partners?**

Information about St. Paul Partners can be found at <https://www.stpaulpartners.org/>. St. Paul Partners has completed more than 60 wells and water distribution projects in southern Tanzania. One project SPP completed that is similar to the Huruma Centre project (but on a larger scale) was completed at the Lutangilo Secondary Boarding School. That project included a well and solar array, with a storage tank and gravity-fed distribution of water, much like the system designed for the Huruma Centre.

### **How much water is needed at the Huruma Centre?**

For a well project of this type, SPP plans for a minimum demand of 25 liters per person per day. The maximum population at present is about 100 persons, when all resident children, secondary and vocational students, preschoolers, and staff are present at the Centre – a minimum load of 2,500 liters (about 670 gallons) per day.

### **Why is the installation and use of a solar array part of the project?**

The submersible pump of the well will be working at full power for at least six hours per day, drawing a large amount of power from the Iringa electricity grid. The power draw would add significantly to the monthly utility bill of the Centre. In addition, the local power grid is also not entirely reliable; if electric power at the Centre failed for more than a few days, water would become scarce.

### **How much money will the Centre save by drilling a new well and using a solar array to power the submersible pump?**

Water service from the city of Iringa would cost \$2,500 annually. Power drawn from the grid to power the pump is estimated to cost \$700 annually. Thus, installation of a new well and solar array to power the pump will save the Centre annually about \$3,200 US, or about 7,250,000 Tanzanian shillings in operating cost. It will take seven to eight years to recover the cost of the project.

If you have additional question, please call or email Pastor Chris Smith, Coordinator of Friends of Huruma, at the contact information provided below.

**Thank you for your generosity!**

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