

## SAFE WATER PROJECT FIJI – Savusavu Rotary

### Background:

Nanuca (pronounced na-new-tha) Village is some distance from the main town of Savusavu, a town in the Fijian Province of Cakaudrove on the island of Vanua Levu. Nanuca Village had a 20+ year old water supply system that used untreated water from a nearby stream. The stream water was collected, stored and distributed in an untreated manner to the village. However, the problem was an ongoing issue with bacterial contamination and high turbidity during periods of moderate to heavy rainfall. These conditions resulted in the water supply being contaminated and unsafe on a regular basis. The objective of this project was to provide pre-treatment and final filtration to the entire village water supply. The goal was to provide clean, reliable and safe water for the residents of Nanuca village.

### The Project:

Currently, diarrhoea, stomach ache, and skin disease--especially during rainy times, are the most common and widespread sicknesses that are attributed to Nanuca's dirty water. The prevalence of chronic diarrhoea is most common in children. The community is concerned because they are aware of more serious water borne illnesses such as typhoid, and that if they do not take action then they could experience more serious disease outbreaks in the village

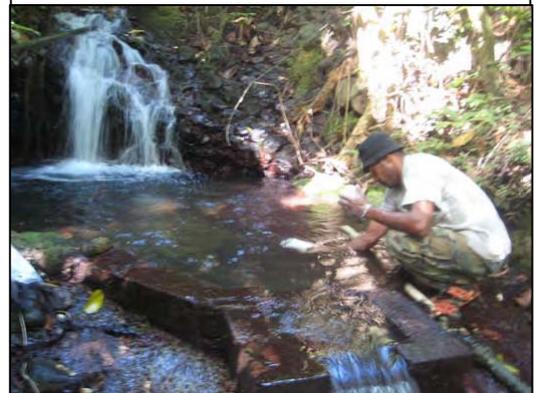
The village of Nanuca has a long established and functioning, seven-member, Tabana Ni Wai (Village Water Committee) and together with the **Rotary Club of Savusavu**, a safe water project plan was proposed and implemented.

### The Proposed Solution:

The new water supply system utilizes 2 stages of filtration to produce clean bacteria free water. The first stage is a standard roughing filter designed to remove 80 percent of turbidity and large particles. The second stage is a dual bank of high capacity SkyHydrant ultra filtration units specifically designed for long term service. Each SkyHydrant can produce up to 10,000 litres per day. The roughing filter is located on a timber frame tower and serves as a header tank for the SkyHydrants. The SkyHydrants have a long service life and do not require replacement modules, therefore there are minimal ongoing costs for the community. Nanuca community members, with supervision and direct assistance from the



**Nanuca Village which currently relies on unprotected stream water for all potable water requirements.**



**Village water committee members cleaning out the existing water tank in preparation for the installation of the SkyHydrant water filtration system**

**Rotary Club of Savusavu**, worked together to complete construction of this project. The Rotary Club of Savusavu was responsible for the financial management and final reporting for the project. Even though the village did not have sufficient village funds to initiate this project by themselves, the people of Nanuca are hard workers and contributed their labour.

### **Project sustainability:**

Following construction and implementation of the SkyJuice system, the Nanuca Water Committee, led by Illimo Reponi, continue to conduct tank checks and maintenance on all aspects of the filtration system on an ongoing basis. Aside from periodic flushing, the SkyHydrant filters require no replacement parts and negligible maintenance costs. Occasional chlorination of the membrane will be necessary to remove any bio fouling that may occur due to high turbidity, especially in the wet season. The Nanuca Water Committee (and especially its leader and four youth members) are trained in this process by project partners from the Savusavu Rotary Club to ensure the long term viability and sustainability of the system.

In order to ensure that the newly filtered water is not wasted, the Nanuca Water Committee (under the direction of its leader, Illimo Reponi, and the Nanuca Village Peace Corps Volunteer, Melissa "Milika" Goldman) designed and implemented an education campaign to teach the community about the value of clean and tasty water. After conducting a series of workshops with the students at Kasavu Primary School and with residents in Nanuca Village itself, the goal is that at least 70% of participants will demonstrate an understanding of water conservation.

Rotary have installed a water meter and are now recording actual daily delivery of clean water to the village. And the good news is that, since Rotary installed the water meter on Nov 1st, the village has not run out of water. The average daily delivery from the filtered water storage tank is about 28,000 litres and the tank level is holding at near full level. It seems the village is more attentive to conserving water now that a daily meter record is being kept.

This Nanuca Village project illustrates that a combination of the generous donation from Sargents Charitable Foundation and Peter Ackland, plus donations and expertise from the **Rotary Club of Savusavu**, has resulted in a highly successful water treatment project. Partnerships such as this maximise the effectiveness, viability and sustainability of the project.

**Photos courtesy Rotary Club of Savusavu**



**Two SkyHydrant water filtration units can produce up to 20,000 litres of safe water per day**



**The extremely sturdy tank stand and SkyHydrant enclosure built by the community**

