



Welcome to the SkyJuice Foundation E.Newsletter where we keep our friends and stakeholders updated.

## HIGHLIGHTS FOR 2008

Hi to all our friends and supporters! Although 2007 was an impressive year, 2008 has surpassed all our expectations. We now have installations in 25 countries. This is almost double last year's number with approximately 500 units globally in 6 continents. It is pleasing to see many of our recent projects extending to Africa where there is an enormous need. As usual, our achievements and progress would not be possible without the ongoing support of our growing team of committed volunteers, supporters, friends and associates.

SkyJuice™ continues to further develop stakeholder relations with global agencies, non-government organisations and community groups. This year we built on the extensive installation base and experience gained since 2005. Production of the lightweight rota moulded SkyHydrant™ and expansion of our emergency response equipment range by Larry James has resulted in an extremely robust unit which will become our "workhorse" treatment system and packaged potable water platform.

We have presented technical papers and exhibited at all the major global forums in 2008 in order to advocate, communicate and consolidate the enormous need to fulfil the Millennium Development Goals (MDG's) as well as further establish strong working relationships and mutually collaborative opportunities for the Foundation.

These forums have included:

- ◆ WEFTEC - Chicago
- ◆ IWA World Water Congress in Vienna
- ◆ Water and Sanitation in International Development & Disaster Relief in Edinburgh
- ◆ IFAT Munich
- ◆ Singapore International Water Week
- ◆ Rotary International Global Watsan Conference in Los Angeles



**Presentation at IFAT in Munich May 2008**

As we head into 2009 we are collaborating on projects in Tanzania, Uganda, Kenya, Nigeria, Philippines, Kiribati, Cambodia and India. We continue to foster key relationships with NGO's and proactive community based organisations.

Our ongoing working relationship with Siemens Caring Hands and employees of Siemens Water Technologies has been a terrific experience. It has resulted in some excellent projects and success stories. The 2008 World

Water Day initiative was a great success and we hope that 2009 will result in some even better outcomes. Expect to hear more about our World Water Day initiative in early 2009.

## CHAIRMAN'S REPORT

It is most assuring that our key partners have continued to support us in 2008. As outlined above, individual employees of Siemens Water Technologies and Siemens Caring Hands have got right behind our projects in 2008. Their support for emergency projects, schools and hospitals has meant that we can more effectively deliver and resource projects. Again, many thanks to our friends and supporters. Your efforts and generous contributions make a real and ongoing difference in people's lives. Thank you.

As many of you will know it all seamlessly comes together with the efforts of Jann Hughes our Executive Officer who continues to shine and excel. Jann is our anchor. We all sincerely admire her

tremendous energy, ongoing professionalism, enthusiasm and effort.

My thanks again go to our friends and supporters who have contributed in many ways throughout the year. There are plenty, but again we thank:

- ◆ Employees of Siemens Water Technologies and Memcor Ltd
- ◆ Siemens Caring Hands Foundation
- ◆ Crown Project Services Pty Ltd
- ◆ Manser Tierney & Johnston Accountants
- ◆ Australian Aid International (AAI)
- ◆ Men's Shed Mary MacKillop Outreach Centre in Lidcombe for the enthusiasm and support whilst working on the SkyHydrant.



**Volunteers at the Men's Shed, Mary MacKillop Outreach Centre in Lidcombe working on the SkyHydrant to ensure 100% quality control**

There has been a sustained effort this year in extending our broad network of linkages and relationships. The continuous improvements to the core equipment means we have a "world best" platform to take forward. We are much indebted to Larry for his active participation in the development work. Larry is fast becoming a SkyJuice legend.



**Larry James installing a SkyHydrant water treatment unit in the cyclone devastated delta area in Myanmar in August 2008.**

Sadly, a lot of our joint projects centre round emergency response and disasters. It is most gratifying to see we have had a dramatic impact on outcomes under testing and difficult circumstances. Again, David and Larry have clocked up a lot of travel and their dedication to skilfully project manage outcomes has been exceptional.

As usual we have an incredible group of core volunteers and workers. Again thank you for continuing to support our cause. Many have put aside some long hours so thanks David Hughes, Brian O and Brian T, Michael, Rob and others.

Expect to see amazing things in 2009. I encourage all of you to pass on the message of SKYJUICE. Low cost potable water is a "basic human right" and is affordable. We can all make it happen and certainly please bring worthy projects to us so we can match them with willing partners and donors.

**Rhett Butler  
Chairman**

## **EXECUTIVE OFFICER'S COMMENTS**

Anyone who has ever climbed a really large mountain has the same experience. At some point in the climb, you look back at how far you have come and are amazed at what you have achieved. Then you look forward and see what lies ahead and you wonder if you will ever make it to the top.

Safe water is becoming an increasingly scarce commodity around the globe, for many different reasons, and the demand for our services is probably greater now than at any time in the past. Climate change, natural disasters, increasing populations and the lack of infrastructure and stability in developing nations, all mean that, although we have accomplished a great deal, there is still much to achieve.

Every time we commission a unit we not only help a community but deepen our own knowledge base. Our expertise is acknowledged and more and more governments and NGO's are coming to recognise the accessibility of affordable water through SkyJuice.

So while the mountain top still seems elusive, we know that we have in place a team whose technical expertise and commitment mean that we are on track. Undoubtedly the journey is presenting challenges but we know how important the journey is because of the thousands of people who have benefited by having access to safe water. However, there are millions of people who are still waiting desperately to meet us, so that they can also enjoy access to affordable safe drinking water.

I look forward to the challenges and opportunities in 2009.

**Jann Hughes  
Executive Officer**

## Highlights of 2008 Partnership Initiatives

### • EMERGENCY RESPONSE

#### Myanmar

Cyclone Nargis caused the worst natural disaster in the recorded history of Burma (officially known as Myanmar) causing catastrophic destruction with at least 130,000 fatalities and thousands more missing. Labutta Township, (one of the lowest points in Myanmar) was reported to have 80,000 dead.

Siemens Caring Hands was quick to respond to the emergency, and donated ten SkyHydrants for the relief effort. Larry James, volunteered to project manage the installation and commissioning of the units in the devastated delta area. Labutta is the main town where most of the NGOs were working; however, the selected SkyHydrant sites were a good 20 – 100 kms by boat from Labutta Township.

Operational constraints in Myanmar included almost non existent transport, difficulty in accessing remote areas and resourcing ancillary equipment which is commonly available in most other countries. Despite these obstacles Larry, with the assistance of ADRA, installed and commissioned all ten units and trained local operatives in maintenance and operations. There is a great need for more SkyHydrants systems for medium to long term water supply in Myanmar and SkyJuice hopes to join forces again with ADRA to provide additional access to safe water in 2009.



Hand pumps were used to pump the contaminated water from the pond to the header tank, ensuring a safe sustainable water supply.

#### China

An earthquake measuring 7.9 on the Richter scale devastated the mountainous province of Sichuan in western China in May 2008. 70,000 lives were lost, homes and infrastructure destroyed and livelihoods devastated. More than 40 SkyHydrants were supplied by Siemens AG and the ACPPRC to provide clean drinking water to survivors. As the area of rehabilitation and reconstruction work was so large-scale, coordination among various stakeholders was necessary. The SkyHydrants were donated to the coordinating authority; the Ministry of Housing and Urban Rural Development who had access to the

devastated area. Although the SkyHydrants were deployed for emergency use, it is anticipated that the units will be used as an integral component of the medium term water supply.

### • COMMUNITY WATER SUPPLY

#### Bangladesh

Community water supply in Korail, Dhaka, which includes a 'sit down' service area for the water collectors.



In the wake of Cyclone SIDR and the commissioning of 20 SkyHydrants in November

2007, a team from Siemens Bangladesh coordinated and undertook a SkyHydrant community water system in a severely disadvantaged slum area in the capital city Dhaka. The unit is producing 800 litres per hour for approximately 500 people. We are hoping it will develop into a more advanced water kiosk facility or micro finance model. This is a great example of the "developing world" intersecting with "new world" technology. It even has a 'sit down' service for 8 water collectors at the tap stands!

#### Philippines Mobile Water Vendor

Solution Network Australia and the SkyJuice Foundation joined in partnership to make a significant difference to many thousands of people on the Island of Siargao, in southern Philippines in 2007. The SkyHydrant is transported in a vehicle to each town twice weekly which provides 5000 people with access to clean water. What makes this possible is the SkyHydrant water filter, - it is light, robust, easy to transport and quick to set up with almost zero maintenance.

The Living Water Project has been extremely successful, and exceeded initial expectations. The impact of access to safe water means that attendance at school for children is increased, there is better health outcomes for the community and a real investment in the future for the people of Siargao Island. Due to this success and further demand for clean water, a team of volunteers are currently in Siargao with 2 more SkyHydrants,



Siargao Island – mobile water vendor providing free safe water using the SkyHydrant system

expanding the mobile water network. Discussions are under way to explore opportunities for a micro finance enterprise whereby a vendor will supply clean water containers and water in exchange for a nominal fee.

- **PARTNERED PROJECTS**

### Rotary in Guatemala City

Mahiya Norton from Amigos de Australianos y Zelandeses Inc in Guatemala and the Rotary Safe Water Saves Lives project in Adelaide took an innovative approach to supplying a community of 8000 people with potable water. Mahiya linked an educational water and hygiene program with an offer of discounted safe water. Women are given a card to purchase water for 15c for 20 litres if two members from their family attend 8 hours of classes on sanitation etc. If they haven't attended the classes the cost of water is

45c for 20 litres. As more and more families see the benefits of safe water and attend the water and sanitation classes it is anticipated that the safe water project will expand and further



**Families are provided with safe water for 20c per litre after attending water and hygiene educational classes.**

SkyHydrants will be required to meet with demand.

This safe water project is part of an integrated approach to community development which includes micro finance for women and youth, installation of new cooking stoves, a goat cheese farm, educational classes for women and computer classes.

### FIJI

A consortium of partners came together to supply two impoverished villages in a remote area of the main island of Vitu Levu in Fiji. The villages do not have access to electricity or a reticulated water system; however the SkyHydrant is a gravity fed system and is ideal for rural and remote villages. Each village has more than 500 people who currently access water from an unprotected river source. After much consultation and engagement with the communities, a site was located, a team of volunteers organised and the SkyHydrant systems were installed and commissioned. There is a great deal of excitement in the village at the prospect of safe water as there had been serious water borne illness consistently plaguing the communities, which hampered their ability to attend school, work and function effectively. The program has been so successful that a further 3 units are anticipated for 2009.

### World Water Day: Timor-Leste

Siemens Water Technologies (SWT) employees and Siemens Caring Hands recently raised funds to support two potable water projects. This global initiative of SWT was a direct result of an internal SWT fundraiser in support of World Water Day March 22, 2008.

The SWT World Water Day projects have resulted in outstanding outcomes for the people of Timor-Leste. Two separate



projects were commissioned by the SkyJuice Foundation, a volunteer from SWT and Australian Aid International (AAI) in August 2008.

The first project was for the Hope Community Orphanage located in Gleno a couple of hours by road from Dili. The Orphanage currently caters for 36 children, 5 permanent staff and free kindergarten facilities for the local Gleno community. The existing water supply (town water) had high levels of bacteria, so the orphanage had to purchase bottled water for all potable requirements. When they ran out of funds they boiled the water which still led to low levels of gastrointestinal diseases.

It was important that the project was sustainable and maintained community support. SkyJuice involved the orphanage community in the construction of the water system. SkyJuice volunteer David Hughes instructed the staff in operations and maintenance, as they will be responsible for continued operation of the system. Mr Isa Bradridge, principal of the Orphanage, thanked SWT and emphatically declared *'I have worked and lived in Timor Leste for the past 10 years and this is the first time I have been able to drink water straight from the tap'*.

The second SWT World Water Day Project was for the Bairo Pite Health Clinic in Dili which offers a free health service to more than 300 people each day.

The source water is contaminated town water, which is pumped to the header tank. The water is gravity fed through the SkyHydrant to the filtrate tank and then to a three tap distribution point.

The distribution points are readily accessible and free to all out-patients, in-patients, staff and nearby kitchen facility.

AAI sought advice from the clinic staff on water usage, appropriate location, distribution points, security and operational issues.



**The completed SkyHydrant system in Bairo Pite Clinic - Dili**

The clinic nominated the head of security and maintenance to monitor and maintain the unit.

The patients and staff were excited and appreciative to have free clean water available on site. A tangible and immediate bonus of this project is that the money saved by utilizing this free safe water will go

towards better free health care facilities for the community.

The Timor-Leste projects resulted in a powerful impact on this community. This project demonstrates that a simple initiative undertaken by generous and committed individuals can enhance our human spirit. Most importantly, the concept that global neighbours can care for each other is exemplified by these successful projects. Thanks to everyone who contributed to the SWT World Water Day Project.



### Timor-Leste: Refugee Camp

In January 2008, Larry James from the SkyJuice Foundation worked in partnership with UNICEF and Australian Aid International (AAI), to undertake a safe water project in an internally displaced persons (IDP) camp in the Dili, the capital of Timor-Leste.

Under the backdrop of violence which followed Timor-Leste's Independence in 2002 and the turmoil of the ongoing years, Timor-Leste's ethnically based population has been largely displaced and there were some 30,000 East Timorese living in 36 IDP Camps throughout the capital of Dili. The bore water available was contaminated with faecal coliforms and unsuitable for drinking.

The official handover to UNICEF in February 2008 means that clean water is now available to the IDP communities of Balide-Canossian, Fatumeta and the Transitional camp of Becora Unital. All three camps have a SkyHydrant™ water filtration system. A main collection tank is used to store 'raw' water from underground bores, gravity fed into the



**Since the installation of the SkyHydrant water treatment unit, water tankers are no longer required for the IDP camp, saving thousands of dollars per month**

SkyHydrant and then to the potable water storage tank. The filtered water is accessible from a bank of water tap stands.

Water tankers are no longer required, saving the camp thousands of dollars per month. The quality of water and frequency of delivery are issues that no longer create frustration and tension within the camps.

Due to the success of SkyJuice™ technology in the IDP camps, a SkyBank™ (bank of 4 SkyHydrants) has been installed and commissioned in the Ministry of Finance in Dili, supplying thousands of litres of safe water per day.



**SkyBank™ water treatment unit providing more than 3000 litres per hour**

### Safe Water Kiosk Kenya No. 2

After the successful completion of the safe water kiosk in Obamba-Kadenga villages in Kenya in February 2007, a further safe water kiosk has now been completed at Tinga Dam near the village of Oyaya, Siaya District in Western Kenya. In Western Kenya diarrhoeal diseases are a major cause of morbidity and mortality among children younger than 5 years, largely because of inadequate water treatment and lack of human waste disposal infrastructure. The Village of Oyaya and Tinga Dam epitomizes these problems.

Tinga Dam is highly silted; lacks protection from soil erosion and animals. Sanitation is almost non-existent in the whole catchment area. The feed water is almost always turbid (>400NTU) and is contaminated by human and livestock waste. A physical disinfection barrier high rate filter was

essential for the water treatment solution. The SkyHydrant water filtration units were chosen as the



Community members inspecting the SkyHydrants prior to installation in the Safe Water Kiosk No. 2

most affordable, appropriate, robust and sustainable water treatment system. This project included 4 SkyHydrants to provide a safe drinking water supply for approximately 1000 people.

Tweed Shire Council, SkyJuice Foundation and the International River Foundation donated funds and resources to make this project happen. Valuable lessons were learnt from Phase 1 Safe Water Kiosk at Gona Dam.

Despite the challenges of working in a remote and very poor rural location, Tom Alletson, volunteer from the Tweed Shire Council said that the SkyHydrants were easy to install using glue-together UPVC pipes and fittings provided by SkyJuice. "The local community in Tinga were overjoyed to have the water treatment system in operation". "This community really appreciates and understands the value of safe water".

A Safe Water Committee will be formed to monitor and maintain the Kiosk and ensure long term optimum results for the community.

## • TECHNICAL DEVELOPMENTS

2008 has been a busy period for product development. We have successfully launched the lightweight SkyHydrant Mark 2. This unit has been showcased in global water forums and is a significant improvement on the previous design. Our original mark 1 design lends itself to local community based manufacture using common components.

The Mark 2 has significant operating and technical advantages. Most importantly, we have further invested time to move to our Mark 3 design, which will become our stable platform. Our thanks and

congratulations to both Larry and Michael who have worked relentlessly to get the initial units finished for evaluation.

This retooled rota moulded design constructed of food grade polyethylene will meet all international food and water approvals.

During 2009 we will be able announce some very exciting developments in ancillary equipment, which will dramatically enhance our capability to offer fully decentralised potable water solutions.

Additional equipment will include stands, tanks as well as distribution systems which will be readily deployable for humanitarian programs as well as emergency and disaster relief.



SkyHydrant™ Mark 2

## • LOOKING FORWARD

Access to clean water is the key to the Millennium Development Goals as water is crucial to all forms of social and economic development. SkyJuice™ has continued to reach into rural and remote communities and respond quickly to natural disasters around the world.

Managing water resources and supplying safe water are two of the greatest challenges for the present generation. The ongoing enthusiasm of our members, volunteers and supporters will assist us to continue our efforts to provide pure water for every child.

For further information please visit our website [www.skyjuice.org.au](http://www.skyjuice.org.au)

