

**Conserve  
Water.** Save the  
Planet.



**Eliminating water wastage-  
not just a pipe dream...**

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*Netcare Alberlito/Umhlanga Hospitals*



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# Context

- With Healthcare being a water intensive industry and water becoming a scarce resource, we are all at risk of not being able to supply perfect healthcare unless we optimize our water usage. We at Alberlito were one of the first facilities that faced a severe threat with the impact of the recent drought. By the time the rest of the country started to catch up with water restrictions we were already battle hardened and using water wisely.
- We don't want people to stop using water, we want people to stop wasting water. *The key to water efficiency is reducing waste, not restricting use.* About one third of the water each person uses on a daily basis is wasted – it runs straight down the plughole or down the toilet without being used. It is this wastage we want to cut down.



# Problem

- In 2015 long term severe drought patterns, inadequate water infrastructure upgrades, inadequate alien vegetation eradication programs and illegal sand mining meant that Ballito's water security was severely threatened. No water would mean the closing of our essential facility within 48 hours.
- Our local water supplier installed a tanker refill point and we were prioritized to receive tanker supply after the first priority- the Fire Station.



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## Aim

- **We want to obtain the greatest possible savings in water and optimize its use as far as possible without affecting patient and staff safety.**



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# Planning and strategy

- ***Audit current water use.*** Install water meters at strategic locations in the facility. Read/record water readings weekly (or more frequently at first) and analyze the data. Look for high water use areas, trends, and unusual occurrences.
- ***Identify water conservation opportunities,*** including low hanging fruit (drips, leaks and unnecessary flows), changes to operations (e.g., improved practices in cleaning, laundry and kitchen), and opportunities requiring engineering/equipment solutions (toilets, sterilizers, boiler, chillers, etc.).
- ***Determine cost of opportunities and potential return*** on investment.
- ***Prioritize*** water conservation opportunities.
- ***Develop a phased plan*** that fits your budget.
- ***Obtain funding*** (revise plan, if necessary).
- ***Implement plan.***
- ***Measure and document success.***



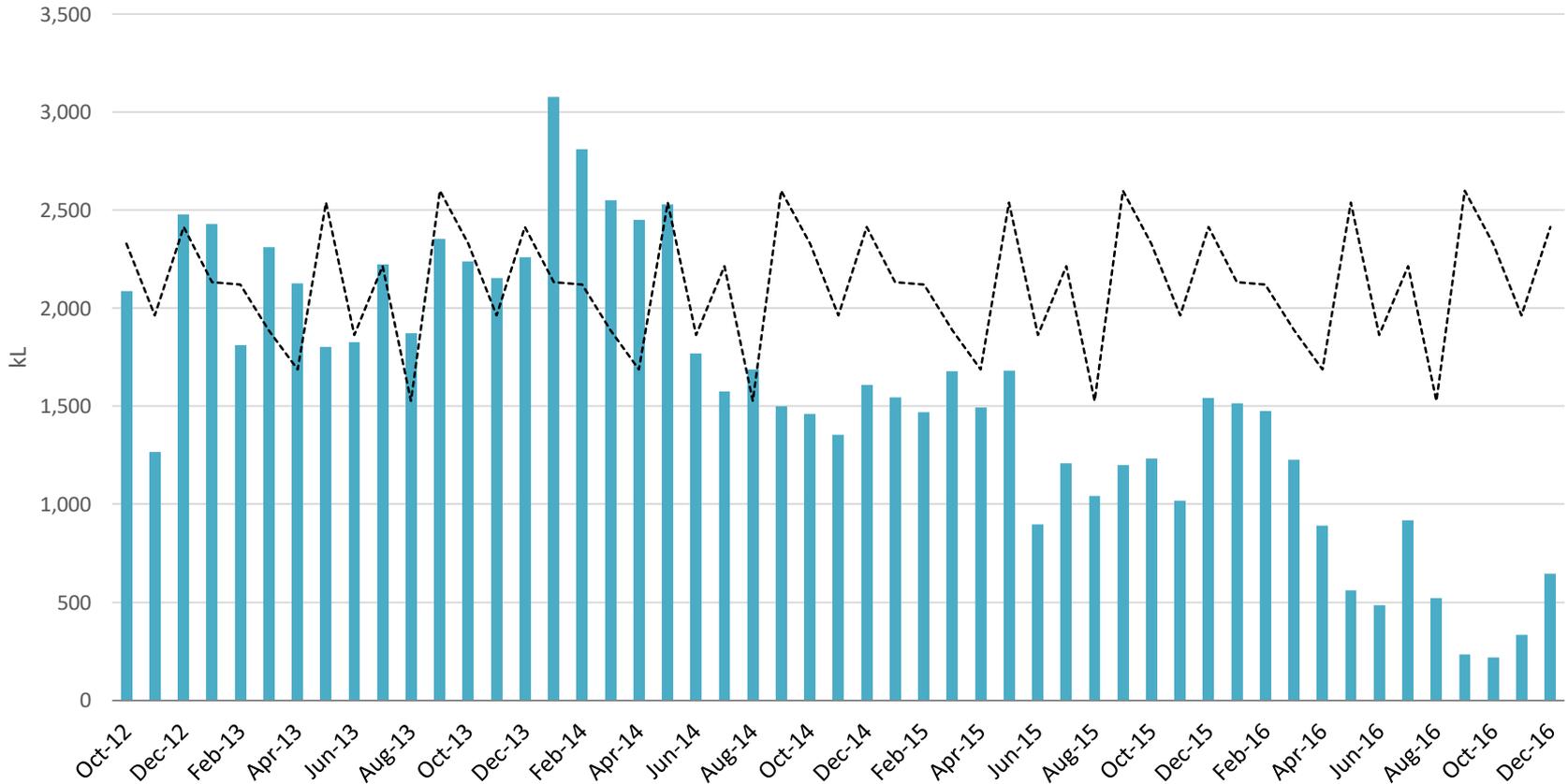
# Interventions

- **Human intervention has always been at the forefront of my saving strategy. I regard it as the single most important factor. This is an intensive long term and repetitive task that includes educating and monitoring and re educating of staff and so on.**
- **Water consumption has decreased significantly with the implementation of a thorough leak management program.**
- **Intensive meetings were held to evaluate individual departmental water usage and ways in which to lower consumption were implemented.**
- **Boreholes were sunk, unfortunately due to water table levels their yield could not sustain us alone.**
- **Water is reclaimed from the Renal Reverse Osmosis Plant- this has become a National Rollout Project.**
- **Water is reclaimed from our two Autoclaves.**
- **This reclaimed water is filtered and disinfected along with our borehole water and mixed with our municipal supply.**
- **Water saving shower roses and hand showers were fitted as part of a national rollout.**
- **Aerators were fitted where possible.**
- **Pressure pump settings were lowered.**
- **A reducer project will soon be implemented to assist pressure reduction.**
- **Awareness campaigns are constantly carried out.**



# Measurement- then till now

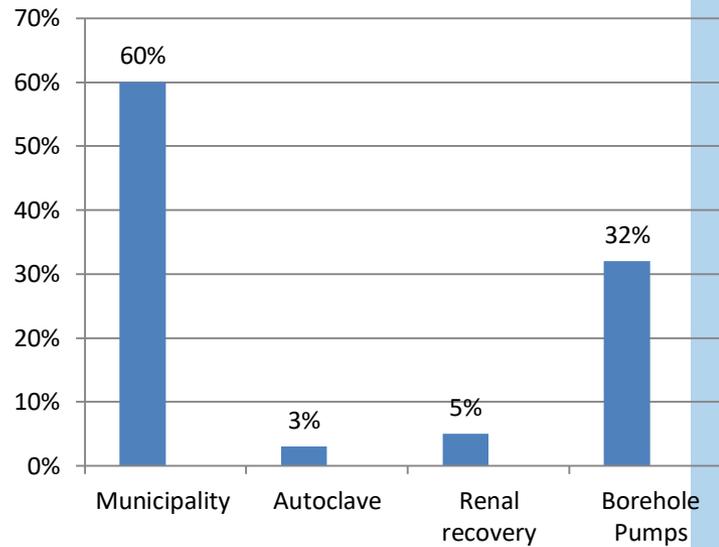
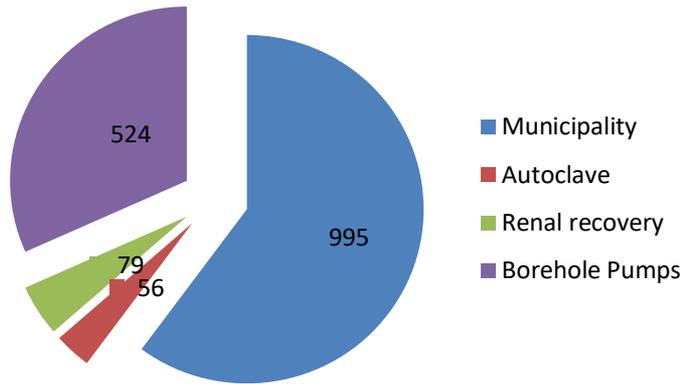
Alberlito - water consumption (kL)



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# Measurement- recovery and reclaim

## WATER USAGE:



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# Hospital usage theory

**Domestic: 25%**

- Sinks
- Showers
- Toilets/Urinals



**Non-Domestic: 75%**

- Cooling Towers
- Boilers/Chillers
- Food Services (Kitchen)
- Operating Room
- Sterile Processing (Autoclaves)
- Radiology (Film Processing)
- Analytical Labs
- Pure Water Systems (RO/Still)
- Medical Air/Vacuum
- Irrigation



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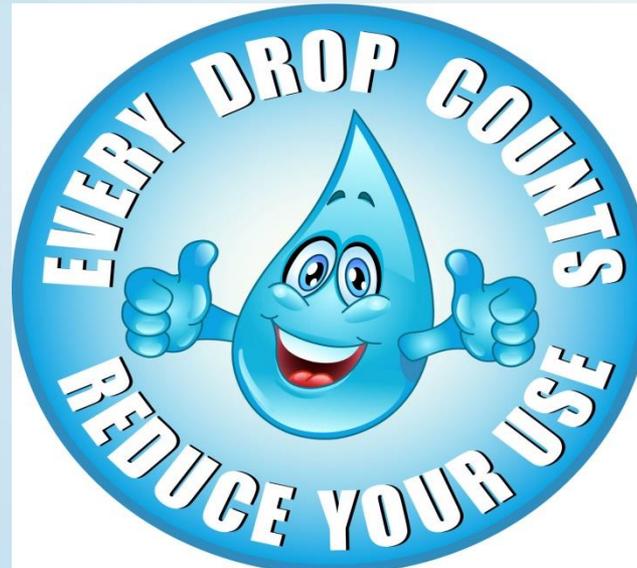
# Challenges

- Getting the support on a large scale from Hospital Staff is a big challenge and one easily loses motivation. The secret is to focus on the great savings already produced and to know that one's effort is making a difference. **We are constantly learning at how to reduce our water consumption and so we regard this as a continual challenge.**
- All departments are complicit in water wastage, managing these dynamics can be difficult.
- One can always do more, but the more you do the harder it becomes.



## Message for Others:

- I consider the main message to be that we are all responsible to our Company and environment. We can save costs at work and at home plus save our environment *whilst not compromising patient care/quality of life.*
- Individually we can make a difference- one drop at a time...
- Collectively our impact is huge.



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