

# Farewell...

# End NEWS



IN THIS ISSUE: June 2009

Public servants flex  
their green fingers ...pg 1



Fires rage through  
the province ...pg 13

*We are adapting to a changing environment*



WESTERN CAPE DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING  
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# Editorial Page

## Editor's Note ...

**“Be the change you want to see in the world.” – Mahatma Gannahi**

This edition of END NEWS brings you articles geared towards resource efficiency – from the Clean Development Mechanism aiming to facilitate “green” projects, to public servants and communities taking action to save the environment.

Climate change is the buzz-word. Human activities over the last 200 years, particularly the burning of fossil fuels and the clearing of forests, have increased the concentration of greenhouse gases in the atmosphere. Increased solar radiation is likely to lead to the earth's surface warming up. We have seen our water and energy resources dwindle at an alarming rate and the time has come to shift our mindsets from one of wasting our precious commodities to one of practicing resource efficiency.

We are also pleased and excited to announce the dawn of a new era of creative and innovative milestones as our current publication receives a face-lift. The Department's editorial team has been revamped and geared towards effective, objective driven development communication. We move forward with the mindset of having to educate and empower you, the reader, with information on how best to take care of our environment and also how we as the Provincial Department of Environmental Affairs and Development Planning work towards a sustainable environment.

**It is our duty to change the way we use our planet's resources. By taking small steps now, we will indeed take significant leaps in ensuring that we leave a living planet for future generations.**





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# Public servants dig in and get their hands dirty

Public servants from various provincial government departments recently stood together to drive The Western Cape Provincial Government Green Right's Project in Delft. Central to the project was the aim to create awareness around the greening of properties and the planting of food gardens. A large number of trees were planted and residents were able to plant green lawn at their doorsteps. The Provincial Administration celebrated activism and basic food rights, both tenets which are relevant to this township where 66% of the population earns less than R 1 600.00 per month.

The Department of Environmental Affairs and Development Planning (DEA&DP) together with other Provincial Departments and key stakeholders contributed by working together with the learners of Hindle Road West Secondary School to plant a water wise garden on the school property. The project, which took shape over a period of two days, involved identifying a suitable area for the garden and then planning the layout.



*The earth is prepared for planting*

Photo: CMMS



*Interactive educational session with learners*

*Photos: Department of Agriculture*

Day two of the project drew together the public servants and the learners in preparation for the hard work. The learners were first entertained through an educational programme which focused on children's rights. An attentive crowd was educated

through a show and tell presentation about the importance and how to maintain a water wise garden. The learners together with the team then moved off to work in the soil and implement what they had just learnt.



*From layout to hardwork as students and public servants dig in*

*Photos: CMMS & Department of Agriculture*



*The final product*

*Photos: CMMS*

More than 30 days later the DEA&DP officials conducted a follow-up visit to assess maintenance progress and view the garden. Not only does the garden serve to beautify the school and add character, but the learners now have dedicated responsibilities

of taking care of the garden in ensuring that the weeding and watering is done when necessary. There may not have been a large expenditure in the project, but the lasting investment and value can be seen in the continued active participation of the learners.

By: CMMS



*Learners take on responsibility*

Photos: CMMS

***“Gardening is the art that uses flowers and plants as paint, and the soil and sky as canvas.”***

***- Elizabeth Murray***

# Your own water wise garden...



Water wise gardens are, in essence, gardens that use minimal amounts of water efficiently to maintain the plants that habitate these. Our country's harsh environmental conditions and lack of resources justifies effective garden maintenance as the only way that our gardens will continue to grow and flourish.

**If you want to ensure a good garden maintenance routine, you need to put the following practices into action:**

## **Watering when necessary**

For the first six weeks, water your garden twice a week. After this initial stage, you may water your garden once a week.

## **Weeding**

A weed can be any plant that you did not plan for an area and one that you do not want in your garden. Weekly checks will help keep your garden weed free. When removing the weed, make sure that all the roots are removed and thrown onto your compost heap.

## **Mulching**

Mulch is a layer of material that is placed on soil in a garden to protect the soil. Mulching materials act as a blanket preventing water evaporation by the sun. It also moderates the temperature of the soil as it keeps the soil warm when it's cold outside. Mulching materials include dead leaves, pine needles, bark chips, chipped stone, pebbles, newspaper, plastic sheets, compost etc.

## **Pruning**

Pruning is basically cutting branches off your plants. There are a number of benefits to pruning, including creating a shaped plant, removing dead branches to encourage the development of more flowers and fruit, as well as the growth of more branches to form a thicker plant.

## **Organic feeding**

Organic feeding means using material that will break down to feed nutrients to your soil. Using man-made chemical fertilizers to our soil interferes with the natural relationships between the living and non-living elements in the soil. In other words, if these chemicals are used for a long time, the plants and animals in the soil cannot survive. Using natural products such as bonemeal and compost allow plants and animals living in the soil to make use of them, which improves the structure of the soil. Remember: Working with nature is much better than trying to control it with chemicals. Natural products that may be used to feed your soil include compost, bonemeal and liquid manure.

*Source: South African National Biodiversity Institute (SANBI)*

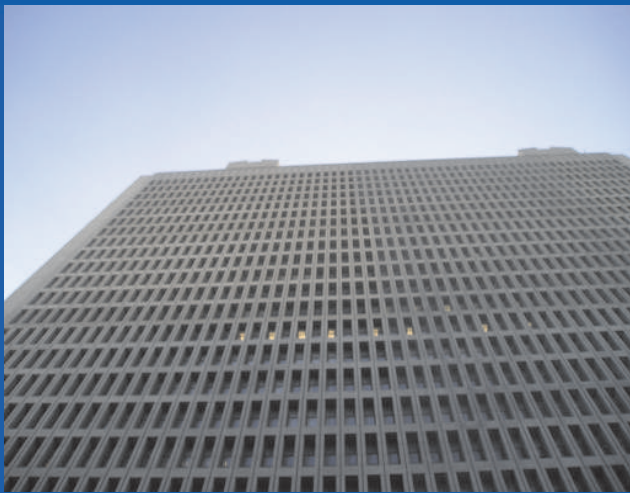
**"Awareness of water shortages worldwide endeavour to persuade individual homeowners that 'every drop counts'"**

**- Ann-Marie Smith**

# Practice what you preach

**C**an you possibly imagine the amount of energy being consumed by employees housed in these large city buildings? How many fossil fuels have to be burnt to supply electricity to ensure daily productivity? These are important questions, yet very difficult to answer if you are not an engineer or a trained individual to measure electricity consumption.

The energy audit served as a means to identifying practical solutions in addressing the challenge of energy efficiency. The audit also entailed a means to determining the actual use of energy in these buildings, set benchmark for savings, to accurately monitor the future use of energy and to raise the levels of conscious savings. The audit pointed out that computers, air conditioning



4 Dorp Street



9 Dorp Street

Government buildings in Cape Town that have been retrofitted

*Photos: Gaussian*

The Department of Environmental Affairs and Development Planning after serious consideration of the impact which burnt fossil fuels have on climate change deemed it necessary to conduct energy audits on buildings which accommodate The Western Cape Provincial Administration.

and lighting consumes the bulk of electricity in public buildings. In light of this, various measures have been implemented to reduce energy consumption and conserve and optimize the use of power in these buildings.



9 Dorp Street



1 Dorp Street

Photos: Gaussian

Lights in buildings have been replaced with Light Emitting Diodes (LEDs) and energy efficient bulbs installed on a continuous basis. A building which houses 200 employees has been fitted with 338 audio sonic occupancy sensors to monitor staff movement and regulate the consumption of energy by switching lights off automatically when the offices are not occupied. Board rooms have also been retrofitted as well as systematic placement of film on windows to retain natural heat during winter and deflect heat during the summer season.

All these initiatives provide an indication to seriously consider the design of buildings, and the future procurement of energy efficient equipment for government offices. Did you ever imagine not having to switch off lights as these are able to sense your presence or absence in the room and turn off automatically? Today, government practices what it preaches to the community, save energy and lead by example.

Ultimately, it is all about saving our planet. We all have a role to play to get ready for accelerated global warming, no matter how insignificant it may seem. If we save a little, it would add up and ultimately slow down the process of climate change.

By: CMMS

All building plans and site development plans will, in future, be evaluated in terms of measures to promote low energy consumption buildings.

- Philip Harrison



## 6 easiest money and energy saving tips at home.



Here are a few of the easiest ways to save energy and therefore save electricity around the home. Of course, energy costs money, so if you're saving energy, you're saving money.

### ❁ Fridge

Your fridge is working hard all day and night, working harder when it's warm outside and when it's full. In most fridges there is a dial on the inside which regulates how cold it keeps your food. You don't need to turn this all the way up and you may even set it lower during winter.

### ❁ Geyser

The geyser uses a lot of power to heat up your water. So, when going away for more than a couple of days, turn the geyser off at the main power board (the electrical mains). This could cut your electricity bill by up to 30%.

### ❁ Hot water

Using more hot water means the geyser needs to warm up more, which means using more power. A quick and easy tip is to use the shower/bathroom nearest the geyser, mainly in winter. The reason behind this is that water from the geyser will need to travel through the pipes to the taps, losing a lot of its heat along the way, until the pipes have warmed up.

### ❁ Electrical Appliances

Here's a list of things that you might benefit from by unplugging them from the wall:

- TV, computers and laptops, networking equipment like wifi routers, if you use them;
- Kitchen appliances like toasters, microwaves, kettles, etc.;
- Remember, even if something uses a small amount of energy, it all adds up.

### ❁ Kettle

If you're making coffee for one person, only heat the correct amount. If you're making coffee for 2 people, put 2.5 cups of water, etc. It takes a lot less energy to heat up one cup of water than it does to heat up 4.

### ❁ Lights

You can save energy by replacing your current light bulbs with the low energy bulbs. These light bulbs don't get as hot as normal bulbs (hence their energy saving capabilities)

Source: [www.houseintohome.co.za](http://www.houseintohome.co.za)

# CDM boosts energy reduction projects

**T**he United Nations Environmental Programme (UNEP) once stated that we must no longer think of human progress as a matter of imposing ourselves on the natural environment. The world, the climate and all living things are a closed system; what we do has consequences that will eventually come back to affect us. Rainfall, for instance, may be influenced due to high temperatures caused by climate change. A decrease in the rainfall would further strain the already limited amount of water resources available for human consumption. Various other natural phenomena run the risk of being altered if we do not act now to curb climate change.

Prior to the Second Earth Summit in 1992, great attention was being paid to the possibility that climate change was well underway as a result of human activities such as the burning of fossil fuels (oil, coal and natural gas) and the clearing of forests. This led to the creation of a draft treaty, now known as the United Nations Framework Convention on Climate Change (UNFCCC), which was subsequently accepted and signed by more than 150 nations.

The ultimate objective of the UNFCCC was to stabilise green-house gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The consensus was that we have to lower our carbon emissions while allowing our ecosystems to adapt naturally to climate change. Food production would need to remain a priority to ensure positive economic development.

The UNFCCC met annually at what is now known as the Conference of the Parties (CoP). The agreement reached, stated that industrialised countries will reduce their combined greenhouse gas (GHG) emissions by at least 5% during the period 2008 – 2012. The Kyoto Protocol was born as a set of legally binding agreements to reduce greenhouse gas emissions for several industrialised nations. As our country is the highest greenhouse gas emitter in Africa, accounting for 73% of Africa's emissions, we are obliged to reduce emissions such as Carbon Dioxide in accordance with the Kyoto Protocol.

The Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) has always been an avid supporter of the UNFCCC protocol programme and recently launched the Western Cape Clean Development Mechanism Desk (CDM Desk).

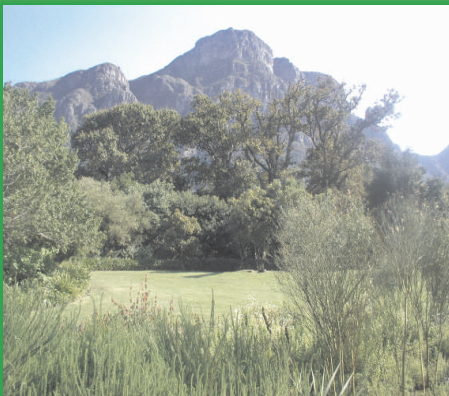
The responsibility falls on us to lead the fight against climate change. We, as humans, are largely responsible for the current concentrations of greenhouse gases in the atmosphere. In light of our contribution to climate change, developed nations should provide financial and technological aid to the developing nations to produce interventions and work toward more efficient energy use.

The Clean Development Mechanism (CDM) is a funding facility under the Kyoto Protocol allowing industrialised countries with a greenhouse gas reduction commitment to invest in projects that reduce emissions in

developing countries such as South Africa, as a mitigation measure to compensate for excess carbon emissions. The CDM desk aims to promote and finance cleaner production, agro-ecology and environmental economic growth projects in developing countries. The effect? The CDM will ultimately stimulate the shift from hydrocarbons to a more sustainable use of carbohydrates, foster renewable energies and encourage carbon and other greenhouse gas reduction.

Internationally, the CDM is supervised by the CDM Executive Board. In South Africa, a regulation under section 25 of the National Environmental Management Act established the Designated National Authority (DNA) within the Department of Minerals and Energy and provides the DNA with its legal mandate to oversee the CDM governing process in South Africa.

... continued Pg 12



*The CDM Desk aims to ensure that our natural resources remain unspoiled.*



*Mrs Dipolelo Elford, Chief Director: Department of Environmental Affairs and Development Planning, speaking at CDM Desk launch.*



*The crowd listens intently as CDM is explained.*

Photo: CMMS

“Climate change is here, it is real and has to be dealt with urgently.”

- Abdoulie Janneh

## How does CDM work?

### Registering a CDM project

#### Stage 1:

##### The Project Idea

The idea behind a CDM project is normally recorded in a Project Idea Note (PIN) document. This contains the most important information concerning the project, together with a rough estimate of the possible emission reductions.



#### Stage 2:

##### The Project Design Document (PDD) and the Consent of the Host Country

The PDD contains all information about the project and stipulates the anticipated volume of emission reductions over a certain time period.

The focus point of the PDD is the selection of a suitable methodology to calculate the GHG savings. The PDD, and thus the suggested CDM project, must be authorised through the responsible authorities in the developing country (Designated National Authority, DNA). Attention is focused on the contribution of the project to the sustainable development of the country.



#### Stage 3:

##### Validation

In addition, the PDD must be checked by a United Nations accredited organisation.

#### **Stage 4: Registration**

Once given the green light after validation, the project developer then makes an application to register the intended project with the CDM Executive Board. This Executive Board has the last word, as it is the executive organ of the United Nations in all CDM matters. Once the CDM Executive Board agrees, the project is officially registered and Certified Emission Reductions (CER'Ss) can be generated.



#### **Stage 5: Monitoring**

It is far from over with the registration of the project under the CDM. After all, the PDD only depicts the intentional performance of a project toward emission reductions over a certain time (credit period). The project developer must prove whether this performance is actually generated over the credit period of the project.



#### **Stage 6: Verification**

Despite the monitoring reports, accredited organisations keep a close eye on project developers. This process is called Verification and is normally carried out on a yearly basis. After inspection, the independent Verifier goes on to make a statement concerning the integrity and accuracy of the information provided in the monitoring report.



#### **Stage 7: Issuing of the CERs**

Provided that the monitoring reports are approved without objection during the verification, the CDM Executive Board is allowed to issue the generated CERs. A CER is a certificate which is tradable in various emission trading systems, transferred between the accounts of seller and buyer in electronic form.

The Western Cape CDM Desk will provide the registration of CDM projects with the DNA and assist individuals, second economy stakeholders, communities, companies and government institutions to comply with the various mandatory steps. The CDM office will assist in assessing, facilitating and co-coordinating project applications favoured by donors and municipalities. In short, the Desk will, after the public calls for expressions of interest and proposals compile a detailed database

of clean development service providers, project engineers and renewable energy innovators. Projects registered as CDM projects are required to illustrate clear and definitive seamless partnerships among communities, local governments, provincial, regional or national governments and international funding or technology partners.

The Province could benefit from the vast potential revenue from CDM projects if appropriate projects are rolled out.

*By: CMMS*

## GLOSSARY

<b>AGRO-ECOLOGY:</b>	The study of ecology in relation to agricultural systems.
<b>ANTHROPOGENIC:</b>	Relating to the study of the origins and development of human beings.
<b>CARBON MARKET:</b>	Markets resulting from the buying and selling of emission allowances and reduction credits in order to enable countries under the Kyoto Protocol to meet their GHG emission targets.
<b>GREENHOUSE GASES:</b>	Gases, such as water vapour, carbon dioxide, nitrous oxide and methane, which are transparent to solar radiation, but opaque to long wave radiation.
<b>RENEWABLE ENERGIES:</b>	Energy generated from natural resources, such as sunlight, wind, rain, tides and geothermal heat, which are renewable (naturally replenished).

*Sources: [www.pestmanagement.co.uk](http://www.pestmanagement.co.uk)  
[www.wordnet.princeton.edu](http://www.wordnet.princeton.edu)*

# In the line of fire

**D**rought conditions, high temperatures, low humidity and strong winds are all driving forces which influence the occurrence of wild fires. Humans are also at fault by being reckless with flammable goods. Wild fires have a negative impact on the ecosystem as they accelerate soil erosion and deplete water supplies. These, in turn, have negative

economic implications which affect businesses, farms and even your own home as a result of rising costs of water and agricultural products. Inevitably, it's the poorest communities that are most affected. Poverty-stricken communities such as those in informal settlements lose entire homes when fires spread.

*... continued Pg 15*



*Runaway fires blaze over our mountains*



*Photos: City of Cape Town*



*Fires ravage all caught in its path*



*Firefighters come to the rescue...*



*Helicopters join the battle*



*... devastation*

Photos: City of Cape Town, CMMS, Joan Ward



Fire-fighters cannot fight these fires alone. It is your responsibility to help prevent the threat of a runaway fire impacting on the lives of you

and your loved ones. Fire safety begins in your home, so take heed of the following measures to safeguard you and your family:

By: CMMS

# Safety at home



- ⚠ **Keep items that can burn, like dishtowels, paper or plastic bags, and curtains away from a hot stove or fireplace.**
- ⚠ **Never leave your cooking equipment unattended while they are in use.**
- ⚠ **Store matches and lighters out of reach from children.**
- ⚠ **Always turn off heaters when leaving a room.**
- ⚠ **Do not plug too many appliances into one socket.**
- ⚠ **Consider installing fire alarms in your home as a warning mechanism in the event that a fire does occur.**
- ⚠ **If you're a smoker, always make sure that cigarettes are completely destroyed when you've finished smoking. Never throw burning cigarettes out of moving vehicles in any area. Make use of an ashtray – they are there for a reason.**
- ⚠ **Never leave burning candles unattended and blow them out when leaving a room.**

Source: [www.homesafetycouncil.org](http://www.homesafetycouncil.org)

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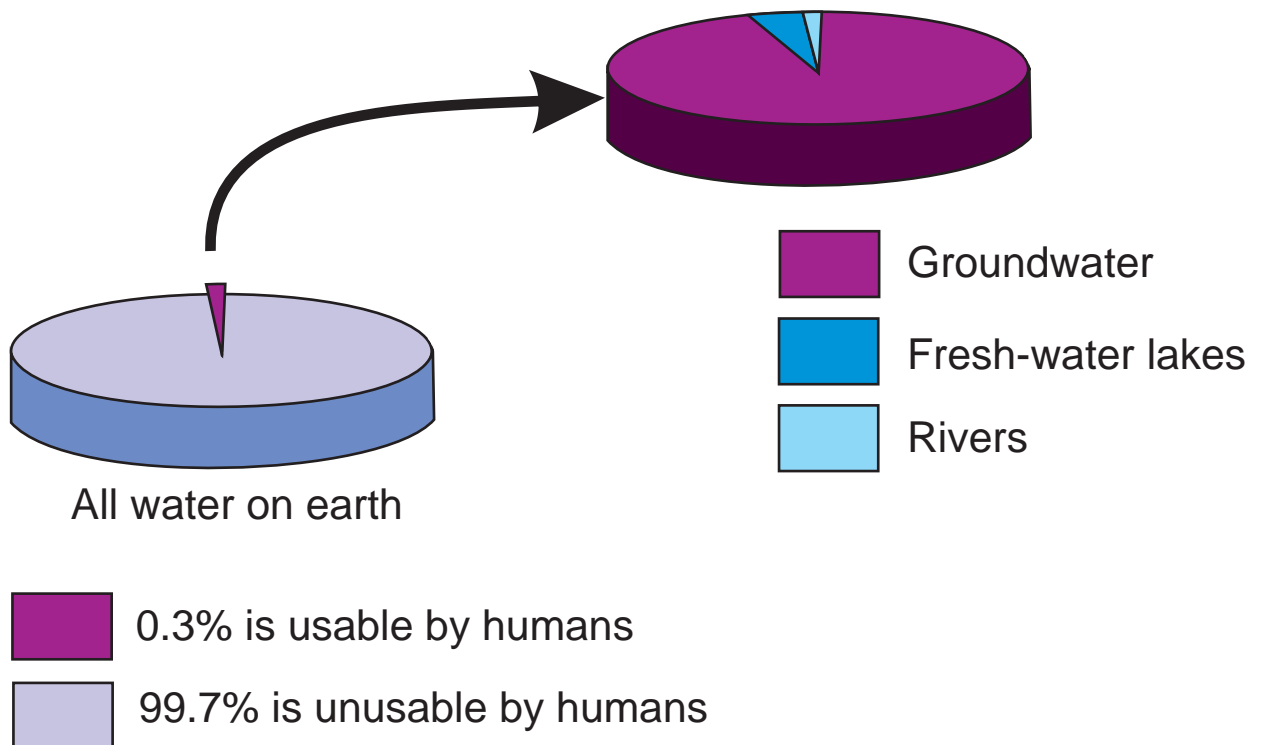
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# Saving Water – 1 drop at a time

**P**etrol – R 7, 25 per litre; white bread – R 9, 00 per loaf; your next shower – priceless? Far from being a commodity our planet has in abundance, water remains one of our most precious resources. Only 0,3% of fresh water on earth is available for use by humans. The World

Wildlife Fund (WWF) warns that South Africa will become one of the driest places on earth as climate change tightens its grip, while the Western Cape may very well run out of water by 2015. **Do you need any further incentive to save water?**

## Water usable by humans



Source: [www.foyetecountrygroundwater.com](http://www.foyetecountrygroundwater.com)

South Africa has been described as a semi-desert region due to our shortage of water. We are now able to understand and appreciate why we must use this resource efficiently. If we do not conserve water now, the water crisis in the already drier parts of the Western Cape is likely to increase in the near future. In addition, by conserving water, we

are ultimately conserving energy and resources such as money (in terms of water bills), chemicals (used to sterilise water for human consumption) and manpower that go into the treatment of larger volumes of overflowing sewage and water treatment plants.

"Water saving should be an ongoing and long term priority in SA because of our growing population and relative aridity in global terms. This project showed that relatively small investments can yield good returns. Nevertheless, technology alone is only part of the solution; the other part is education and a change in mind set." – Catherine Bill, DEA&DP

### ***Government advocating water efficiency in schools***

The Western Cape Department of Environmental Affairs and Development Planning (DEA&DP), in 2008 launched a Resource Efficiency Programme during World Water Week. This programme targeted water, energy and waste management and aimed to demonstrate the

water savings that can be achieved by retrofitting schools with water efficiency devices in taps, showers and toilets. These simple and cost effective devices restrict and decrease the water flow, thereby reducing consumption.

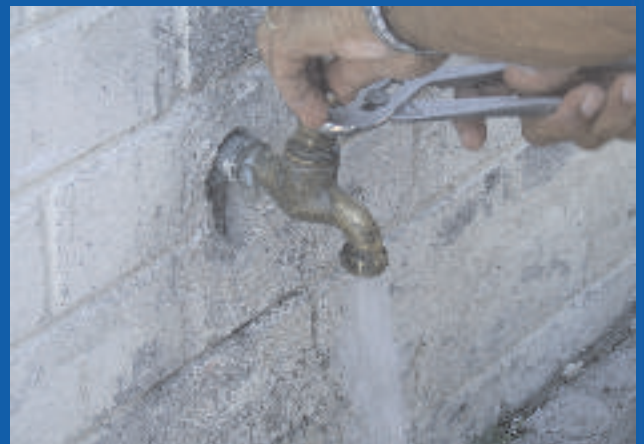


***A toilet is retrofitted***

Photos: City of Cape Town



*Let the water savings begin!  
A tap is repaired to prevent dripping*



*Photos: City of Cape Town*

### ***Positive Results lead to sustainable development...***

The Lainsburg High School, Teske Primary School and Bridgton Secondary School located in the water scarce Karoo region were identified to be a part of the pilot project for the programme. These schools also house hostel facilities for learners which inevitably increases water consumption. The DEA&DP, through this initiative, aimed not only to create awareness about reducing water consumption in schools, but there was a need to educate and capacitate maintenance staff, supervisors, decision makers and learners on how to adapt to the water crisis.

A post project analysis conducted by the Department at the retrofitted schools revealed significant decreases in water consumption of 15 – 35%. This indicated monetary savings of between R 1 274.00 and R 6 098.00 annually. Due to the successful results of the projects, the Department deemed it necessary to expand the project into the Mitchell's Plain and Khayelitsha regions where eleven schools were identified as part of the retrofitting initiative.

The Department incurred a minimal cost of R 48 568.00 to retrofit the schools and the water consumption will be monitored during the current financial year 2009/10. These projects are not possible without the co-operation and support of the local authorities and continued involvement of the community.

The responsibility to save water rests not with the Department of Environmental Affairs and Development Planning but it is the duty of each individual to contribute and save our precious commodity to ensure the continued preservation of mankind and the environment within which we live.

By: CMMS

*This is what you  
can do to  
conserve water:*



- \* **Save and recycle rain water;**
- \* **Have short showers as these are more water wise than having a bath which uses 30 litres more water;**
- \* **Repair dripping taps;**
- \* **Close your tap while brushing your teeth or shaving;**
- \* **Instead of running water each time you need to quench your thirst, rather keep water bottled in the fridge;**
- \* **Wash your dishes and clothing using the short cycle function on your dish washer and washing machine.**

Source: [www.americanwater.com](http://www.americanwater.com)

*"Actions  
speak louder  
than words..."*

Your help today will ensure that our future generations may never have to experience a cold and desolate landscape. Small steps and simple measures like the above can collectively ensure that your well never has to run dry.

Please be at liberty to contact our Department using the contact details provided on the editorial page.



### Which article has been relevant and interesting to you?

Name and Surname: \_\_\_\_\_

Preferred language: \_\_\_\_\_ Age: \_\_\_\_\_

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Which article appealed to you?: \_\_\_\_\_

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What would you like to read about in future publications?

\_\_\_\_\_

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