

## Water Sub-Metering

Almost all facilities will experience water loss due to leaks and wastage. Water sub-metering can help easily identify the location of water leaks and identify high water consumption equipment. With more detailed water consumption records available, trends and water saving opportunities can be identified and managed.



Andy's Sprinkler Service Inc. (2018).

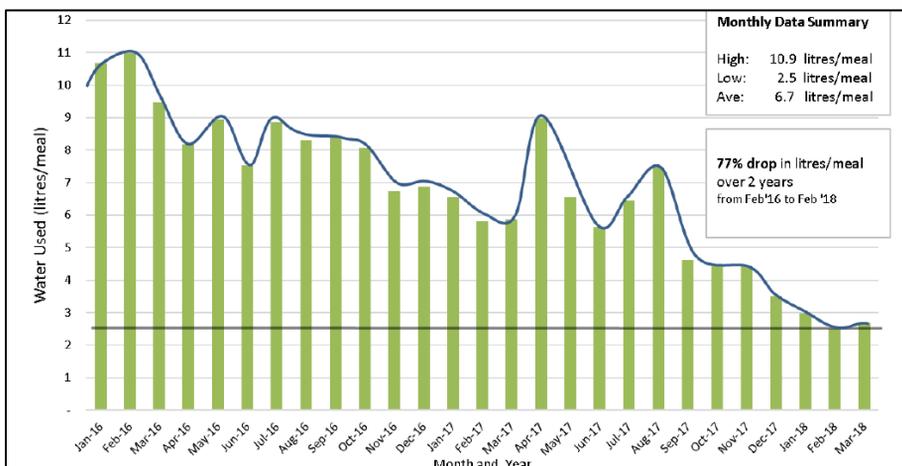
## Recommendations

- Identify and implement submetering in areas where it will be most beneficial:
  - Larger water users (HVAC, kitchen, laundry etc.)
  - Areas prone to leaks or wasted water (toilets, car wash etc.)
  - Recycled water or rainwater use
- Isolation valves and sub-meters would need to be installed.
- Track and record the measurements hourly/daily for monthly review.
- Use information for a potential Behaviour Change Campaign.
- Collect building usage (such as occupancy) data to provide context for water use.
- Capture data over a year for a thorough water usage baseline and usage trend.
- Implement a leak detection programme and/or leak detection sensors.
- For accurate measurement and verification consult ASHRAE Guideline 14.
- Contact [Ecolution](http://www.ecolution.co.za) for more details.

## Savings and Benefits

- Enables more accurate water management.
- Drives water conservation.
- Identifies high water usage areas.
- Overall water consumption data can be compared with and validated against the utilities bills.
- Ease of detection of water leakage; especially during out of hours periods when water use should be minimal.
- Data capturing can be integrated into the Building Management System (BMS) for large buildings.
- The installation is cost-effective and modular.

Environmental Improvement	High
Awareness Impact	Medium
Capital	Medium
Payback	< 2 years



## Water Sub-Metering – GREEN STAR

Water Meters (Credit WAT-2):

2 points are awarded as follows:

1 point is awarded where it is demonstrated that:

Water meters are installed for all major water uses in the development; these include the following:

- Base building bathrooms;
- Evaporative heat rejection systems;
- Irrigation systems; -
- Car wash facilities;
- Food preparation facilities;
- Laundry;
- Wash-down systems;
- Recycled/rainwater supply;
- Humidifiers;

1 additional point is awarded where it is demonstrated that:

- The first point is achieved;
- There is an effective automated mechanism for monitoring water consumption data, which is able to perform as a leak detection system.