



Environmental Data Services

"Where Quality Flows...."



Trade Waste Review Ver3.23

Brief:

In below document is a cross sectional example of benefits and outcomes to EDS clients when monitoring and controlling their trade waste discharges. EDS offer both contact and non contact open channel flow meters designed for term of life operation offering minimal service or maintenance. Below document covers technologies used with benefits and



limitations of each technology and service.

It is one thing to have great technology, but how do you put this to work for you? From over 25 years experience EDS has developed a in-depth knowledge to deliver the best results and savings fo our clients. As part of this EDS finds the most significant cost saving benefit is when using flow meters to adjust the trade waste discharge bill.

Many local councils and authorities apply a “discharge factor” to industry categories, based on their inflow volumes. For example if a shopping centre fills up 1litre of water, the local council with estimate that the shopping centre will dispose of 80% (800ml of that to the effluent network). As we develop a solution EDA works with the clients to determine your specific category and clearly outline what the project cost savings will be. This is before a any works or equipment is installed.

At EDS it is important to deliver our clients a beneficial and profitable outcome. Often EDS finds clients who’s discharges do not warrant the supply of equipment and services. This is mostly because the clients usage is not enough to see any major cost savings made. In these situations EDS will outline reasons and not charge or push any unnecessary equipment to our clients.

EDS often follows this simple philosophy with our trade wast clients. ***If our clients save money, EDS will make money.***

This document is aimed at outlining equipment and services used to improve trade waste discharge fees to councils and authorities, and determining facility performance by viewing detailed usage in realtime. EDS is able to provide equipment and services to give the clients facility demands like no other provider.

Ultimately each trade waste application varies from one to another. At EDS we offer the largest range of equipment designed specifically for the trade waste industry resulting in EDS being the preferred supplier to Australia's largest industries.



Clients:

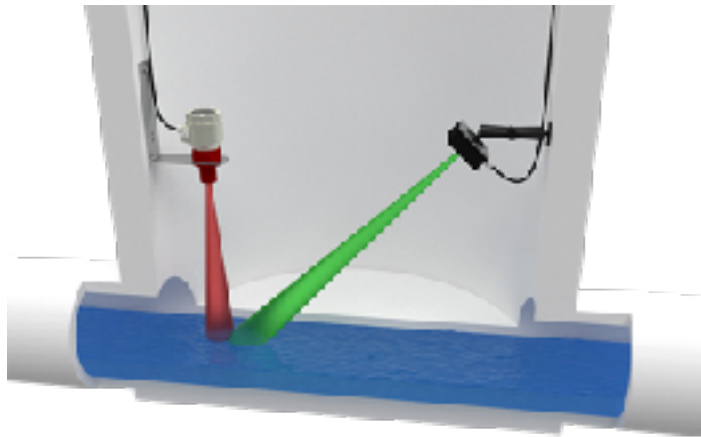
Below is cross sectional example of some of EDS clients. EDS has a vast working history with Australia's largest industries and government and council authorities. Below is a list of the clients EDS has worked with to deliver significant cost saving benefits and detailed understanding of facility performance.



Technologies:

Non contact Flow Meters:

Non contact flow meters are seen through the trade waste industry as the standard for recording long term maintenance free data. There are 2 types of open non contact open channel flow meters. See below.



Area Velocity. Measuring both velocity and depth. No requirement to control flow and remains accurate for longer with little to no maintenance.



Level ONLY Flume (level sensor only controlling flow, lesser cost generally)

The **Non Contact Area Velocity** is the most common flow meter installations carried out as it often delivers the highest cost savings. As the unit uses a radar velocity sensor and ultrasonic sensor, there is zero requirement for maintenance. These often have a life expectancy of 10 years plus in sewer applications. The installation costs for the a non contact area velocity flow meter range from \$10,000 to \$30,000.

The **Level only Flume** has a lower install and purchase cost but requires significantly more routine maintenance and servicing. It requires controlling of the flows to measure a specific depth that is representative of flow. There is a high potential for raging and sediment build up in flumes, resulting in a false increase to the flow volumes being records. And in turn costing additional fees. The install costs for Flumes range form \$2,500 to \$7,000.

All hardware supplied by EDS is designed to work on the 4G and 3G network. EDS provides a wide range of equipment that is viewable on our website at www.e-d-s.com.au

Automated Sampling:

A combination of flow monitoring and automated grab sampling is often a successful combination. This allows the clients to meet regulatory requirements and carry out independent verification of discharge quality. Automated samplers are a low cost solution for obtaining regular reliable samples.



Inflow Monitoring:

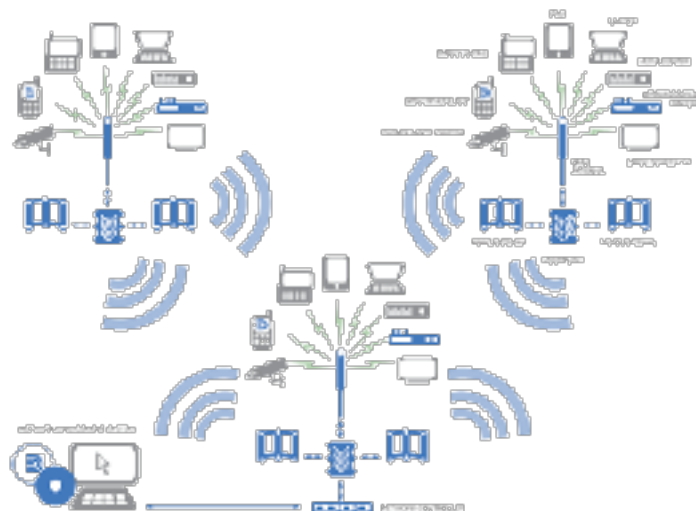
EDS supply low powered 3G or 4G data loggers that connect directly to existing inflow meters. All trade waste clients will have existing inflow meters. By recording the inflow and subtracting from the out flow in real time. EDS provide a realtime discharge figure. Know how much you are spending for every second of the day.



Facility Performance:

EDS uses a MESH network solution to deliver instant faculty status. Alarms and specific data transfers can be automated to deliver realtime instants updates.

No other provider supplies hardware and software from a single manufactures. This means unlike others EDS does not try and make multiple manufactures work together, often unsuccessfully. EDS supplies hardware and software designed to work together and stay together. This is why EDS is provider of choice to leading Australians industries.



Cost Saving Examples:

- Warner Village Road Show installed EDS non contact flow monitoring solutions. At time of install WVTP were sending in excess of \$250,000 per quarter. By installing EDS solution this bill was reduced significantly but \$200,000 per quarter.
- EDS supplied portable Trade Waste solutions to QUU (Queensland Urban Utilities). These units were provided to trade waste customers. EDS saved on average 45% on each monitoring location.
- Carlton United Brewery have a radar based unit operating since 2005 with little muaintenc and servicing. Significant saving in excess of \$425,000 per year are saved on unwarranted trade waste charges.
- Goodman Fielder Bakery saved over \$1,000,000 since install in 2010 of a radar based unit.
- NSW Health have uniformed on radar based flow meters for installation as part of state wide hospital upgrade. The radar based units measures discharge volumes and decreases trade waste charges significantly. As facility sizes vary there is a broad range of saving measures.
- Queensland Health utilise radar based systems providing significant savings at critical facilities. Estimated to be in excess of \$100,000 per year.

Other Services:

EDS deliver a extensive range of services to multiple industries. Below is a cross section of some of the services provided by EDS.



- **Facility Management**
- **Inflow & Infiltration Studies**
- **Pressure Testing**
- **Equipment Servicing and Calibrations**
- **Rainfall Analysis Studies**
- **Regulatory Assessment and Reporting**
- **Asset Performance Auditing**
- **Closed and Open Channel Monitoring**
- **Big Data Analysis and Real Time Access**
- **Network Assessment and Performance**
- **Model Calibrations**
- **Testing and Calibrating**
- **Visual Monitoring and Alarming**



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