southern water

The Discharger

Trade Waste Industry Information Bulletin

Issue one: September 2010

From the CEO

Welcome to the first edition of "The Discharger", Southern Water's trade waste customer information bulletin.

We hope, through initiatives such as the Trade Waste Customer Consultative Group, this bulletin and one-on-one engagement, to increase awareness of trade waste issues across the region and develop a better understanding of your requirements as a customer of Southern Water.

Our goal at Southern Water is to deliver appropriate trade waste services in an economically efficient manner, thus helping your bottom line and ours. We look forward to working with you into the future.

Mike Paine
CEO, Southern Water

The local scene

What's happening with liquid trade waste at Southern Water?

The first Customer Consultative Group meeting was held at the Tasmanian Technopark on August 12. This well received meeting attracted 15 industry participants and was identified as the only industry forum available to Southern Tasmanian businesses in which they can share information on issues relating to liquid trade waste treatment and resource management.

The forum was introduced by Southern Water's CEO Mike Paine who discussed the need for Southern Water to work closely with industry to achieve positive outcomes for liquid trade waste management. Joe Tranter from the EPA Division of Department of Primary Industry, Parks, Water and Environment summarised the legal requirements relating to the management of liquid waste and how wastewater treatment plants are regulated.

Source Management Scientists David Holman and Judi Marshall outlined the proposed model and policies under which customers would be managed and charged for treatment of liquid trade waste by Southern Water.

The main issues of interest identified by the group involved information on charging and pre-treatment requirements. These topics will be integrated into future meetings. If you would like to participate in future meetings, please contact Lauren Moraitis on Lauren.Moraitis@southernwatertas.com.au or phone 6233 2845. The next meeting is planned for November 11, 2010, at the Tasmanian Technopark.

in this issue

Meet your Source Management Team

Southern Water's Source Management team are responsible for managing inputs to Southern Water's sewerage systems. The group has a broad range of expertise with David Holman, Cathy Nunn and Nigel McCormick transferring from local councils, Judi Marshall with experience at the Environment Protection Authority, Greg Cooper as a qualified plumber.

Southern Water's aim for liquid trade waste management is to provide an economically efficient and effective liquid trade waste service to its customers, while encouraging sustainable management of liquid trade waste and protecting the health and safety of the public, Southern Water's employees, infrastructure and the environment.

The Source Management team is developing processes to manage liquid trade waste that includes the recovery of true costs associated with providing a liquid trade waste service in a equitable and transparent manner.

Contact details of the Source Management team are listed below.

the team

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Wastewater Source Management Technical Officer
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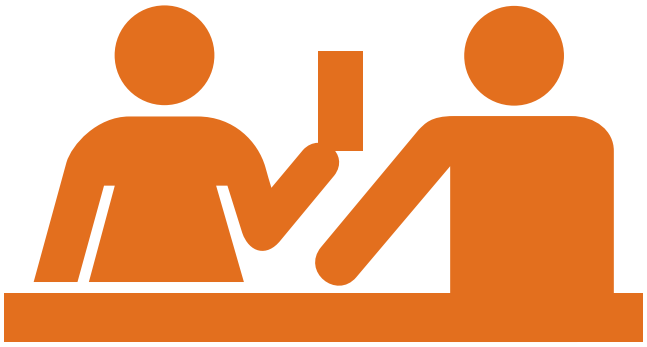

Focus on customers

Liquid Trade Waste Customer Consultative Group Profile

Fifteen of our major customers attended the inaugural Trade Waste Customer Consultative Group on August 12. This group, representing a significant portion of southern Tasmanian employment and revenue, has demonstrated that they are willing to contribute to resource efficiency and improving environmental outcomes by participating in future meetings. Participants at this meeting were:

Trade Waste Customer	Major Product or Service
BlueLine Laundry	Commercial Laundry Services
Cadbury Pty Ltd	Confectionery
Cascade Brewery	Beverages
Clarence City Council	Waste Disposal Services, Recreational Centres
Eastlands Shopping Centre	Shopping Centre
Federal Hotels	Hospitality
Glenorchy City Council	Waste Disposal Services, Recreational Centres
Juicy Isle Pty Ltd	Beverages
Moo Brew	Beverages
National Foods Ltd	Dairy Products
Nyrstar Hobart	Metal Manufacturing
Skretting Pty Ltd	Aquaculture Feeds
Tassal Group Ltd	Fish Processors
Winemaking Tasmania	Beverages
EPA Division	Regulation

This section will be used to profile customer activities in the future and provide customers with the opportunity to tell others in the network about their challenges and achievements with liquid trade waste management. Please contact us to participate.

On the National Scene

The annual Water Services Association of Australia National Wastewater Source Management Network Meeting took place from August 16-18, 2010 in Perth, Western Australia. This meeting brings together people from major water utilities throughout Australia who are responsible for management of inputs to wastewater systems at the source.

The main focus of the 2010 meeting was to plan the review of the National Wastewater Source Management Guideline for which this network is responsible. The meeting also covered presentations and discussion relating to infiltration to wastewater systems, domestic sources of contaminants, online monitoring, decentralised sewerage systems, tankered waste, chemical registration, anaerobic treatment of high strength organic sludge, water conservation, recycled water and indirect potable reuse.

The topic of anaerobic treatment of high strength sludges may be of particular interest to some trade waste customers. Some Australian water authorities are currently trialling direct disposal of high strength organic sludges, such as those typically produced by the food processing industry, to anaerobic digesters. Although more research is required, the potential to produce beneficial outcomes for both water utilities and producers of these sludges is encouraging.

High strength organic wastes present a problem if disposed to the sewerage system and disposal of sludges from trade waste pre-treatment equipment often represent a significant portion of trade waste customer waste disposal expenditure. If these trials indicate that these wastes can be safely and efficiently disposed to anaerobic digesters to reduce greenhouse gas emissions, and facilitate better cogeneration of electricity, Southern Water and its trade waste customers may be able to explore opportunities for mutual benefit.

FAQ

Question: When will the new trade waste pricing policy be released and how will it apply to my business?

Current pricing is set in accordance with the Interim Price Order (IPO) which currently governs prices in the sector. Under the IPO, Southern Water is required to publish a trade waste pricing policy. This is currently scheduled to be reviewed by the board in February 2011. During this period Southern Water will begin communicating with customers about the possible impact on their business and the transitional price plan.

The regulatory space

Trade Waste and the Tasmanian Environment Protection Authority

The Environment Protection Authority's (EPA) role is to protect the environment from unacceptable levels of pollution, including from the effluent discharged from wastewater treatment plants into the environment. Consequently, the EPA has a keen interest in improvements to liquid trade waste management and the flow-on improvements in environmental performance at wastewater treatment plant discharge points.

Liquid trade waste disposed into the sewerage system becomes part of the wastewater stream transported to wastewater plants for treatment. Treated wastewater from these wastewater treatment plants eventually enters inland waterways, estuaries, and the marine environment or is re-used for purposes such as irrigation.

A suite of policy, legislation and guideline documents create the broader framework within which industry and the water corporations are required to operate in Tasmania.

The key framework documents for preventing unacceptable levels of pollution arising from sewerage reticulation and treatment include:

- *Environmental Management and Pollution Control Act, 1994 (the Act)*
- *The State Policy on Water Quality Management, 1997*
- *Emission Limit Guidelines for Sewerage Treatment Plants that discharge Pollutants to Fresh and Marine Waters, 2001.*

All wastewater treatment plants regulated by the EPA are issued with a Permit or Environment Protection Notice containing environmental conditions (requirements).

Importantly, the Permit will contain specific water quality discharge limits. These discharge limits specify the water quality that is expected to support the environmental values (such as ecosystems, recreation, aquaculture, agriculture) of the receiving environment.

The operator of the waste water treatment plant must ensure that the water being discharged from their plant meets the discharge limits prescribed in the Permit.

The EPA has legislative powers to enforce breaches of Permits and laws. For example, if the regulatory discharge requirements within a Permit are exceeded, the EPA may take action against the plant operator. If the pollution constitutes serious material environmental harm, criminal charges may apply. Therefore, wastewater treatment plant operators are focussed on ensuring wastewater entering their plant does not contain pollutants likely to reduce the performance of the plant and cause breaches of Permit conditions.

The EPA also promotes and facilitates the adoption of clean and sustainable practices across industry and the community. It does this by supporting programs like the State Government-funded CleanBiz program.

CleanBiz Tasmania's facilitators provide a free sustainability facilitation service to encourage increasingly efficient use of resources in business.

The primary regulations relating to liquid trade waste - the Water and Sewerage Industry (General) Regulations, 2009 (The Regulations) – are not administered by the EPA. These regulations are currently being reviewed by the Urban Water Policy Unit of the Department of Primary Industries, Parks, Water and Environment. However, EPA has published guidelines on trade waste management - Guidelines for Acceptance of Liquid Wastes to Sewer. Future changes to these guidelines will be informed by the review of the regulations and consultation with the wastewater sector.

For further information on the functions of the Tasmanian EPA please visit www.epa.tas.gov.au.

What's new State-wide?

Statewide Liquid Trade Waste Policies and Categorisation of Customers

The three Tasmanian Water Corporations; Ben Lomond Water, Cradle Mountain Water and Southern Water; are working together to achieve a consistent and transparent framework for liquid trade waste management through the Liquid Trade Waste Reference Forum.

The Liquid Trade Waste Pricing and Management Policy has been developed to define Tasmanian standard customer categories, pricing methodologies and management processes (Fig 1). Underpinning this policy are robust scientifically based risk assessment and pricing models.

Customer Categories

The customer categorisation and risk assessment model is based on the National Wastewater Source Management Guideline (July 2008 Water Services Association of Australia (WSAA)). This Guideline can be downloaded from the following link: www.wsaa.asn.au/Publications/Pages/Guidelines.aspx

The customer categorisation and risk assessment model has been developed to provide a transparent mechanism to determine the appropriate customer category and set audit frequencies. The risk assessment methodology is summarized below.

The information in the model will allow customers to identify potential mechanisms to reduce or improve their discharge which may be reflected in reduced costs. In the future, it is planned that the components identified in the model will be reflected in customer invoicing.

The model initially calculates a category score, which determines criteria by which a customer will be charged. Secondly a risk management score is calculated which sets the level of management each individual customer will require. The category score will only change if there is a change in liquid trade waste volume or quality, but the risk management score may change through improvements in customer compliance.

Customer Categorisation & Risk Assessment Model

This model calculates a Total Risk Score by adding a Category Score (V + S) to a Risk Management Score (A + P + C):

i.e. Total Risk = (V + S) (A + P + C)

Where:

V = Volume score (Table 1)
S = Substance score (Table 2)
A = Activity score (Table 4)
P = Pre-treatment complexity score (Table 5)
C = Compliance Score (Table 6)

Step 1. Category Score

The combination of the volume and substance score will provide the Category Score:

Category Score= V + S

The calculation of the category score is the first step of determining the appropriate customer category (Table 3)

Table 1. Determination of the Volume Score

Volume (kL/year)	% of WWTP capacity	Trade Waste Category	Volume Score
< 300	<0.001	Category 0	0
< 300	0.001 - < 0.006	Category 1	5
<10,000	0.006 - < 0.02	Category 2	10
<10,000	0.02 - < 0.06	Category 3	25
>10,000	0.06 - < 0.15	Category 4	50
>10,000	>0.15	Category 4	100

Table 2. Abridged version of the Substance Score

Low Impact	Substances which may cause sewer blockages • Substances which may cause undesirable elevation of effluent or sludge concentrations if discharged in large amounts • Substances which may cause damage to sewer fabric under some conditions • Substances of some OH&S concern	10
Medium Impact	• Substances which are of moderate OH&S concern, including those which are likely to be rendered harmless on contact with wastewater • Substances of moderate concern with respect to accumulation in effluent or sludge	40
High Impact	• Substances of high OH&S concern • Substances of high concern with respect to accumulation in effluent or sludge • Substances which may upset wastewater treatment processes if discharged in moderate quantities • Substances of high concern with respect to damage to sewer fabric	70

Table 3: Preliminary determination of the Customer Category

Trade Waste Policy Category	Customer Category Score
Category 0	0-9
Category 1	10-24
Category 2	25-99
Category 3	25-99
Category 4	100+

Step 2. Risk Management Score

The Risk Management Score is calculated through the assessment of the activity, the pre-treatment complexity and the compliance of the customer. The score determined by these three components will assist in determining the risk factors and allow the development of appropriate management strategies.

Risk management score = A + P + C

Table 4: Determination of the Activity Score

Category	WSAA Definition	Score
Variable Chemical	Potentially many variable chemicals of concern. eg Inorganic chemical manufacturing.	100
Consistent Chemical	Consistent and well defined chemicals of concern eg Anodising plant	75
Variable Organic	Organic or solids of variable strengths e.g. Abattoir	20
Consistent Organic	Consistent strengths of organic and solids e.g. Brewery	0
Consistent Low Strength	Consistent low strengths of organics & Solids, large and complex sites e.g. Laundries	-1

Table 5: Abridged version of the Pretreatment Complexity Score

Definition	Pre-treatment fixtures	Score
Complex	DAF Unit	30
	Silver recovery Unit	25
	Oil Arrestor	20
	Plaster/Bucket trap	15
	Attenuation tank	10
Simple	Cooling Tower	0

Table 6: Abridged version of the Compliance Score

Level of Non-Compliance	Definition (abbreviated)	Examples	Score
High	Customer known/ assumed to discharge untreated liquid, faulty or unacceptable pre-treatment systems	Customer regularly involved in accidental discharges	50
Medium	Customer known to have faulty or unacceptable pre-treatment systems with documented Customer Improvement Plan or effluent quality that is not being properly assessed	Customer failing to upgrade pre-treatment equipment after 2 or more audits	30
Low	Known customer with history of minor issues relating to the quality of liquid waste or recently undergone upgrades	Customer failure to pump out grease arrestors. Inadequate or inappropriate pre-treatment	15
Neg	Known customer with no history of non-compliance	Customer recent history of passing 2 or more sequential audits	0

Step 3. Total Risk Score

The Total Risk Score is calculated by adding the Category Score (V + S) to the Risk Management Score (A + P + C):

i.e. Total Risk = (V + S) (A + P + C)

A higher risk results in greater customer management effort and costs, for example:

- Higher audit frequency
- Higher sampling frequency
- A Trade Waste Agreement rather than a consent

This score informs Southern Water's prioritisation of management effort to address individual customers or industry groups on liquid trade waste management issues. The risk score places a customer or customer group into a category for management and pricing

The system also provides opportunity to easily identify areas for improvement for the customer to reduce costs.

On the calendar

12 October

Get to know your local Wastewater Treatment Plant: Hobart/Glenorchy Catchment

Take a tour of the Prince of Wales Bay and Selfs Point Waste Water Treatment Plants (WWTP).

Time: 2-4 pm

Date: Tuesday, 12 October, 2010

Location: Prince of Wales Bay and Selfs Point WWTP

RSVP: Please RSVP by email to Lauren Moraitis at Lauren.Moraitis@southernwatertas.com.au or phone 6233 2845 to secure your place and receive a map and directions for the tour.

14 October

Get to know your local Wastewater Treatment Plant: Cambridge/Clarence Catchment

Take a tour of the Cambridge and Rokeby Waste Water Treatment Plants (WWTP).

Time: 2-4 pm

Date: Thursday, 14 October, 2010

Location: Cambridge and Rokeby WWTP

RSVP: Please RSVP by email to Lauren Moraitis at Lauren.Moraitis@southernwatertas.com.au or phone 6233 2845 to secure your place and receive a map and directions for the tour.

4 November

Customer Consultative Group

The next meeting of the Trade Waste Customer Consultative Group will present the draft charging model.

Time: 2-4:40pm

Date: Thursday 4 November, 2010

Location: Goodwood Technopark

RSVP: Please contact Lauren Moraitis by email on Lauren.Moraitis@southernwatertas.com.au or phone 6233 2845 to RSVP for this session.

8-12 November

Hobart IWES Course

IWES are holding their first ever educational event in Tasmania in November, running a course in Hobart on Trade Waste and Industrial Wastewater Treatment.

A full course description and registration information can be found at www.iwes.com.au or for more information call **1800 000 404**.

2010

southern water

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Southern Water is the council owned water and wastewater corporation in southern Tasmania. We focus on providing lasting value for our communities by providing sustainable water and wastewater solutions. We are Tasmania's largest water and wastewater service provider, servicing over 90,000 customers in 12 southern council areas.