

SCOTTISH WATER WIC ANNUAL RETURN OUTPUT MEASURES METHODOLOGY June 2010

CONTENTS

		PAGE	
1.0	Restrictions on the use of water	4	
2.0	Pressure of mains water	5	
2.1	Methods and procedures	5	
2.2	Extract from the poor pressure register	5	
2.3	Sources of information	5	
2.4	Scope and coverage	5	
2.5	Assumptions and exclusions	5	
2.6	Other issues	5	
3.0	Supply interruptions	6	
3.1	Methods and procedures	6	
3.2	Extract from Supply Interruptions Register	7	
3.3	Sources of information	8	
3.4	Scottish Water systems	8	
3.5	Scope and coverage	9	
3.6	Assumptions and exclusions	9	
3.7	Other issues	9	
4.0	Response to billing contacts	10	
4.1	Methodology and procedures	10	
4.2	Sources of information	10	
4.3	Responses	10	
4.4	Assumptions and exclusions	10	
4.5	Other issues	10	
5.0	Response to complaints	11	
5.1	Methodology and procedures	11	
5.2	Sources of information	11	
5.3	Responses	12	
5.4	Assumptions and exclusions	12	
5.5	Other issues	12	
6.0	Ease of telephone contact	13	
6.1	Common definitions	13	
6.2	Call receipt	13	
6.3	Call handling	13	
6.4	Messaging	13	
6.5	Scottish Water systems	13	
7.0	Flooding incidents	14	
7.1	Methods and procedures	14	
7.2	Extract from the register	15	
7.3	Sources of information	15	
7.4	Scope and coverage	16	
7.5	Assumptions and exclusions	16	
7.6	Other issues	16	

Scottish Water		AR10
8.0	Properties at risk of flooding	17
8.1	Methods and procedures	17
8.2	Sources of information	18
8.3	Scope and coverage	18
8.4	Assumptions and exclusions	18
8.5	Other Issues	18
9.0	Table of Inflation Indices	19
10.0	General Information	20
10.6	Scottish Water Acronyms	20

1.0 Restrictions on the Use of Water

No methodology required.

2.0 Pressure of Mains Water

2.1 Methods and Procedures

We are continuing to utilise our corporate system for our low pressure register. This has enabled us to capture information from multiple sources, including customer contacts and field work, to identify the unique address of each property with inadequate pressure. The corporate system is now the single location for low pressure properties.

During the financial year 2009/10, we completed the work investigating the outstanding 322 properties which were non-address specific. The spreadsheet previously used is in the process of being decommissioned.

2.2 Extract from the Low Pressure Register

Information in the database continues to be recorded at Water Supply Zone level. For each entry there is the Water Supply Zone name and asset number, the number of properties estimated to be receiving low pressure within that zone, the source of this information, and a confidence grade for the data relating to that zone.

2.3 Sources of Information

The reported figures in the Annual Return are derived from the Corporate Low Pressure Register.

2.4 Scope and Coverage

The Corporate Low Pressure Register holds data in a common format for Water Supply Zones across the whole of Scottish Water. Data is held at the individual property level.

2.5 Assumptions and Exclusions

None.

2.6 Other issues

There are currently no issues with the process.

3.0 Supply Interruptions

3.1 Methods and Procedures

Our Code of Practice and additional guaranteed standards scheme booklets highlight our aims in the event of interruptions, to both household and business customers.

The field staff ensure the completion of an Interruption to Supply sheet for every occasion where the water supply to the customer's property may be interrupted. The Interruption to Supply sheets are completed either on paper or through the Integrated Mobile Solution (IMS) device for each job where an interruption to supply occurs.

The following details are recorded on the Interruptions to Supply sheet or IMS device:

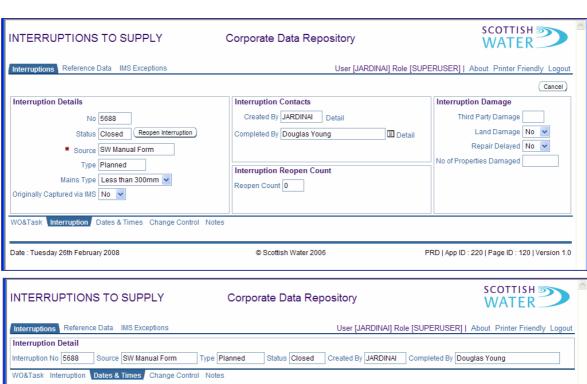
- 1) Local details such as Operations Team Leader Person responsible for dealing with the event and Operations Team Team allocated with the responsibility for completing the planned or emergency work.
- **Type of interruption -** Planned interruption, emergency interruption or no interruption.
- 3) Mains type Trunk main or non-trunk main.
- **4)** Reason for interruption Identifies the reason for the interruption from the following categories: distribution mains burst, service pipe burst, repair / install new apparatus to main, preparation for rehabilitation, mains rehabilitation, interruption caused by third party.
- **Location of works -** Accurate information required allowing Scottish Water to define the location of event, including postcode.
- **Area affected -** Accurate description of the area affected including street names that may be affected by the interruption other than the location given. Part streets are also listed.
- **Number of properties affected -** Number of properties affected by the interruption.
- **8)** Proposed start and finish time Proposed start and end date and time of the planned interruption.
- 9) Actual start and actual end times Actual start and end date and time of the planned interruption.
- **10) Notice -** While planning for a planned interruption, team leaders operate to the Guaranteed Minimum Standard "that where a planned interruption is likely to last more than 4 hours then at least 48 hours notice (to each customer) in advance is required".

11) Duration - A planned interruption starts when the first property loses supply at the cold tap after any valving operations for a planned interruption. The proposed start time and end time is recorded. When the supply is pressurised and restored to the last customer property within the shut off boundary it is recorded whether supply was restored to all customers within the time stated in the notice.

The relevant Networks team leader makes an assessment of when the supply is restored.

12) Properties affected - Staff evaluate the number of properties affected while at the location.

3.2 Extract from Supply Interruptions Register



3.3 Sources of information

We obtain information regarding interruptions to supply by the following methods:

1) From customers

The majority of unplanned interruptions to supply are informed to us through our customers. This is usually at the time of the incident or retrospectively aaaa bout an event following its resolution. The majority of communication i ii s by telephone to the Customer Contact Centre, where details are passed to the appropriate asset team. Repair squads are on 24 hour standby with all information being passed through the control office outwith normal business hours.

2) From operational staff

This is through staff's involvement in the incident, or their own experience.

3) From direct measurement

This includes telemetry systems.

4) From external bodies

This includes the police, fire brigade and local authorities.

3.4 Scottish Water Systems

Customers or Scottish Water staff will call the Contact Centre to record unplanned incidents. Where these are not part of planned works, the Contact Centre will raise a Service Request on the Promise system which will issue an instruction to a Network Services Operator (NSO) via the Integrated Mobile Solution (IMS) to investigate the issue. An NSO visits the site and assesses the situation. Either the NSO will:

- 1. Complete the job and contact the Contact Centre afterwards to close the service request on Promise; or
- 2. Contact the Operations Management Centre (OMC), which raises a work order on Ellipse. The OMC will schedule the job to be completed by a burst squad, and send this out by IMS or manually. When the job is complete, a team member will use either an automated or a manual process to record relevant data. Jobs are given to burst squads either manually (printout from Ellipse) or through IMS.

In addition, the OMC can create a work order in Ellipse directly in response to planned improvement/remediation works and this will be carried out by a burst squad.

Where the OMC and Ellipse are involved, the burst squad will update the OMC work order by the following methods:

- Via the Integrated Mobile Solution (IMS) (on a Promise laptop or through the IMS handheld device); or
- Sending paper forms to the local administration support teams.

In addition, Scottish Water Solutions can outsource improvement works. Where there is a planned interruption involved in the works, there is no job creation on Ellipse or Promise, but the external companies send in

spreadsheets to local administrators listing the interruption when the work is complete.

3.5 Scope and Coverage

This covers all aspects of reporting supply interruptions that are reported both for the Annual Return and OPA reporting

3.6 Assumptions and Exclusions

Interruption to supply relates only to actual interruptions from the customers' perspective i.e. if a backfeed is put in place there is no interruption, and likewise if the main is repaired under pressure, there will have been no interruption.

3.7 Other issues

None

4.0 Response to Wholesale Contacts

4.1 Methodology and Procedures

Water and waste services are now supplied by Scottish Water on a wholesale basis to all the Licensed Providers (LP).

A wholesale service desk has been set up to deal with non-domestic contacts that come through the Scottish Water contact centre. These contacts are redirected, along with all relevant information, to the LP to deal with directly. The main function of the wholesale service desk is to deal with requests from the LPs.

The only exception to the above is where there is an issue that relates to public safety. In these circumstances, Scottish Water can deal with the customer contact directly without involving the LP(s). However, the LP(s) must be informed as soon as possible afterwards.

4.2 Sources of Information

The wholesale service desk utilises our corporate telephone and e-mail contact systems to provide the required service to customers, with any Business Stream related queries being redirected to the relevant LP(s) as required.

4.3 Responses

Scottish Water provides a service to all of the LPs as required by the contracts in place, and continues to respond to any telephone enquiry to provide an efficient service to all of our customers.

4.4 Assumptions and Exclusions

None.

4.5 Other Issues

None

5.0 Response to Complaints

5.1 Methodology and Procedures

A complaint is defined as any communication from a customer or a customer's representative (e.g. Citizens Advice Bureau, Solicitor) expressing dissatisfaction with the service provided or offered, the way it is or is not provided, even if offered in mild and friendly terms. General statements of complaint are counted even though a standard type of reply may be sent. Customers may complain unfairly or unjustifiably. Nevertheless, such a communication is a complaint. Some complaints may be frivolous or vexatious. Nevertheless these are reported.

For a written complaint and a telephone complaint requiring a written response, a full or substantive response is sent within 5 working days, to comply with the Guaranteed Service Standard detailing either:

- An explanation of Scottish Water's relevant policy or procedure and indicating why no further action on the customer's complaint is required;
- The action taken to investigate and resolve the customer complaint and when the action occurred;
- When the action to resolve the complaint will be taken if it cannot be taken immediately
- Contact details for who will provide future updates on progress and investigations to resolve the complaint.

Promise is updated to show a response and resolved date or a response date only if customers are updated immediately. Details of all customer updates are detailed in the Promise system.

Telephone and face-to-face complaints should be answered in full at the time of contact if possible. If the response provided for the customer is written then a 5 day response deadline should be met to comply with the Guaranteed Service Standard.

We have an ongoing programme of internal quality and audit reviews within the Customer Service function. This is based on that carried out as part of the Assessed Customer Service written quality audit activity.

5.2 Sources of Information

The customer can complain by letter, by e-mail, by fax, by telephone or in person at their nearest Scottish Water office. All details regarding the complaint are forwarded to the Complaints Management Unit. Responses to the customer are updated on Promise.

The Complaints Management Unit ensures that a 'unresponded complaints' report is run on a daily basis. The report is created using Business Objects.

The report:

- Identifies outstanding contacts
- Identifies the age profile of each of the complaints (tracking towards 5 days)
- Identifies ownership
- Assists in the prioritising of the workload

 Is split in to household customer complaints and Licence Provider complaints.

5.3 Responses

We are increasingly responding to complaints by telephone as this provides a faster solution for many customers, however, where customers request a written response this is provided by either letter or by email. Where customer advisers receive a telephone call and the customer has requested a written response, this is logged on our Promise system and a substantive reply must be sent within 5 working days.

5.4 Assumptions and Exclusions

We can exclude from the reported figures those written complaints that are about the activities of other undertakings and not about the services or functions of Scottish Water.

5.5 Other Issues

None

6.0 Ease of Telephone Contact

6.1 Common definitions

The Contact Centre has a call routing and reporting system (Nortel Contact Centre 6) which provides detailed real time and historical data concerning call handling. This data includes such things as handling times and call volumes. BT network data concerning call volumes is also received which is reconciled with local data.

Calls received/answered

The totals from both our advertised numbers are added together.

Calls abandoned

This figure equates to the total numbers of abandoned calls measured by Contact Centre 6 from calls to 0845 600 8855 and 0845 601 8855.

Recording information

All information is recorded over a 24 hour, 7 day a week timescale.

6.2 Call Receipt

Scottish Water operates a single contact centre for all operational calls. All calls are received at our contact centre in Edinburgh. Once all details are taken from the customer the contact is logged on the Promise system for action. The operational enquiry line (0845 601 8855) is open 24 hours a day, 7 days a week, with an emergency number (0845 600 8855) available to the public.

6.3 Call Handling

Calls are logged on Promise and handled at the time of customer contact unless the enquiry requires further work. In this situation, the customer is informed once the query has been resolved.

The BT Inbound Services plans for Scottish Water's main numbers allow callers from specific geographical areas to be given recorded messages containing information regarding operational issues affecting that area.

6.4 Messaging

Customers phoning either of Scottish Water's helplines get a message service while they are in the queue. SW does not employ touch-tone, multi-optioned IVR at this time.

6.5 Scottish Water Systems

The main telephony system used by Scottish Water is a Nortel Meridian Option 61 which is sited at the Fairmilehead office in Edinburgh. Contact Centre 6 is used on top of this to provide extra call-routing and statistical functionality.

This set-up is fed by 105 dedicated lines into the contact centre.

7.0 Flooding Incidents

7.1 Methods and Procedures

We will respond to all internal or external flooding incidents as stated in the Code of Practice, and the additional floodcare scheme booklet.

On attendance at the incident, the squad identifies the cause and scale of the problem and will resolve it where internal flooding has occurred. For most cases of external flooding we use specialist firms, who are contracted by Scottish Water to resolve the situation. Squads provide a comprehensive report, containing the following details, for all external and internal incidents attended.

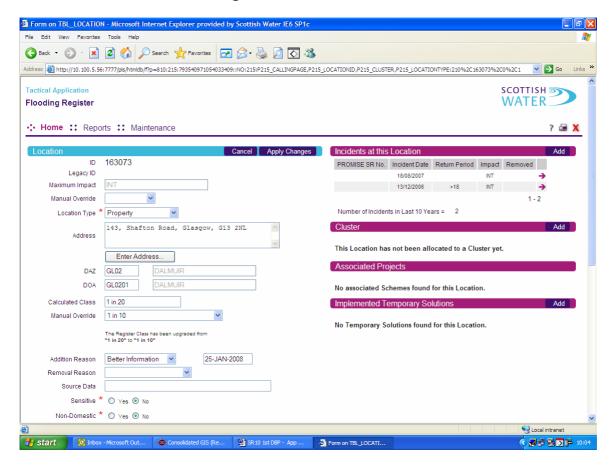
A customer contact sheet is used to record:

- The time spent and a summary of any action taken and/or actions outstanding
- Confirmation of all advice provided to the customer about any damage, claims, etc
- Advise if a claim is being made

A Flooding Incident Record Sheet is used to record details about:

- The location of the flooding
- The extent of the flooding
- The cause of the flooding
- The clean-up time on site for internal flooding only
- Confirmation of action taken

7.2 Extract from the Register



7.3 Sources of Information

We obtain information regarding flooding incidents by the following methods:

1) From customers

The majority of flooding incidents are informed to us through our customers, usually at the time of the incident. Communication is by telephone, or in some cases letter, to the Customer Contact Centre with details being passed to the appropriate operations team. Squads are on 24 hour standby with all information being passed through the control office outwith normal business hours.

2) From operational staff

Staff have knowledge of areas that are at risk of flooding in severe weather. They are proactive and inform customers that their property is at an increased risk. Scottish Water is progressing the installation and fitting of non-return valves, and other flood devices to properties susceptible to flooding from under-capacity sewers. Scottish Water is also supporting local communities by attending regular flood groups which are set up to promote flood prevention.

3) From external bodies

This includes the police, fire brigade and local authorities.

The information used to report the flooding data is collated from the following main corporate sources: the Promise System (the Scottish Water customer

contact management system); and the Sewer Flooding Register Corporate Satellite Application (CSA).

7.4 Scope and Coverage

The flooding from sewers standard operates consistently throughout Scottish Water.

7.5 Assumptions and Exclusions

None.

7.6 Other Issues

None

8.0 Properties at risk of flooding

The source data for these reports comes from Scottish Water staff creating and updating information within the Promise - Customer Contact system. This information can be input by various methods:

- Contact centre staff responding to a customer calling into Scottish Water and reporting an incident
- Scottish Water staff using laptops in the field and submitting the data into the Promise system via a remote connection
- Scottish Water staff accessing the Promise system in the office.

The "At Risk" register is an intranet application which is populated manually with information that has been identified as requiring addition to the "At Risk" register. The application keeps a record of which properties are on the "At Risk" register and into which category they fit. (1 in 10, or 2 in 10)

8.1 Methods and Procedures

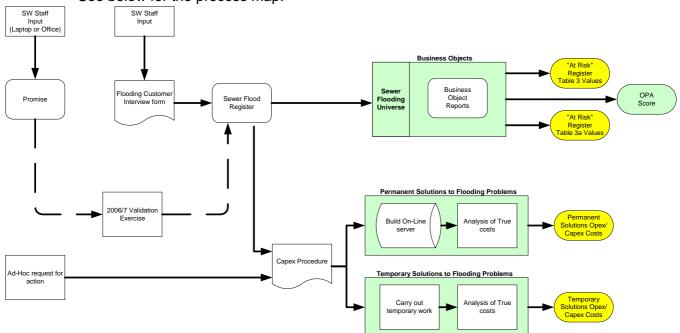
The sewer flooding "At Risk" register has processes in place so that it can be populated with data from the Promise system where it can be tracked and monitored.

Once the information is in the "At Risk" register it can be used to identify areas where permanent or temporary flood prevention works are required.

From the information held on Promise, a report is produced which identifies all the sewer flooding incidents and this is used by staff in each region to identify where there have been incidents that may require to be added to the "At Risk" register.

These incidents are analysed to determine the level of impact (i.e. internal or external flooding) and the cause of the incident (i.e. overloading sewers or any other causes). This information is required to fill out the form that is used to initiate an entry onto the "At Risk" register.

See below for the process map.



8.2 Sources of Information

The source of the data comes from a corporate risk register database, which has been populated from the Promise system.

8.3 Scope and Coverage

The register has been checked for completeness and accuracy. A process for management of the register has been established and is outlined below.

- The first time a property is flooded, it is put in the 1 in 10 year category (B)
- If a second or greater number of incidents within 10 years occurs, the property is transferred into the 2 in 10 year category (A)
- A property may be assessed as either A or B by investigation of records
- If the property is in A but is not flooded for 8 years it will be transferred to B
- If no further flooding occurs after a further 8 years it is removed from category B onto a historic flooding list
- Any properties removed from either A or B by virtue of capital investment are transferred to a separate list
- Properties that are flooded due to extreme / severe weather are held in the system but not in category A or B where it can be demonstrated that the flooding occurrence was due to exceptional weather.

8.4 Assumptions and Exclusions

The register only includes properties for which operations staff have knowledge of the flooding or where the customer has confirmed the flooding. As part of the Drainage Area Study, hydraulic network models will identify properties that may flood. Additional properties highlighted as "at risk of flooding" in Drainage Area Studies are recorded on the register as unconfirmed or unreported. Scottish Water is currently confirming if there is good reason for these properties being at risk of flooding and will reclassify these properties accordingly.

8.5 Other Issues

None.

9.0 Table of Inflation Indices

See AR10 Information requirements – Introduction document (page 24) for table

10.0 General Information

10.6 Scottish Water Acronyms

ABC Activity Based Costing
ABM Activity Based Management

AIM Asset and Investment Management

ALC Active Leakage Control

APAM Achieving Planned Asset Maintenance

ARR At Risk Register

AVD Actual Volume Discharged

AVSE Almond Valley, Seafield and Esk (PPP project)

AWUG Aberdeen Water Users Group

BABE Burst and Background (methodology)

BCD Business Critical Data

BCM Business Customer Management
BOD Biological Oxygen Demand
CAR Controlled Activity Regulation
CAS Corporate Address Server
CCTV Closed Circuit Television
CDR Corporate Data Repository

CEH Centre for Ecology and Hydrology CFA Common Framework Approach

CG Confidence Grade

CID Capital Investment Delivery
CIR Capital Investment Return

CIMS Capital Investment Management System
CISP Capital Investment Systems and Processes

CMA Central Market Agency
CMU Complaints Management Unit
COD Chemical Oxygen Demand
COPA Control of Pollution Act

COPI Construction Outputs Price Index
CSA Corporate Satellite Application
CSD Code Subsidiary Document
CSO Combined Sewer Overflow

DAP Drainage Area Plan
DAS Drainage Area Study
DI Distribution Input
DM Dual Manhole
DMA District Meter Area

DOA Drainage Operational Area

DSEAR Dangerous Substances & Explosive Atmospheres Regulations

DSOU Distribution System Operational Use

DWF Dry Weather Flow

DWQR Drinking Water Quality Regulator

DZS Distribution Zone Study E&M Electrical and Mechanical

E&W England & Wales (or English & Welsh)
EARC Equivalent Asset Replacement Cost

EO Emergency Overflow

ERDF European Regional Development Fund

EWA Estimated Weighted Average
FEH Flood Estimation Handbook
FBM Full Business Metering
FCA Field Customer Advisor
FTE Full Time Equivalents

> G&S General & Support

GEARC Gross Equivalent Asset Replacement Cost

Geographical Information System GIS **GMS Guaranteed Minimum Standards GROS** General Register Office for Scotland

GSS Guaranteed Service Standard **HNDA** High Natural Dispersion Area International Accounting Standards IAS **ICF** Infrastructure Condition Factor

ID Intermittent Discharge

Information Data and Reporting IDR **IFOC** Internal Flooding due to Other Causes **IFOS** Internal Flooding due to Overloaded Sewers

IMC Infrastructure Maintenance Charges

Integrated Mobile Solution **IMS**

Integrated Network Management System **INMS IPPC** Integrated Pollution Prevention and Control

Information Technology ΙT JSP Joint Supply Point **LBS** Lochs, Burns and Springs

LGPS Local Government Pension Scheme

LIMS Laboratory Information Management System

Levels of Service LOS LUT Large User Tariff

LUVA Large User Volume Agreement Mechanical and Electrical M&E **MEAV** Modern Equivalent Asset Value MLE Maximum Likelihood Estimate

Meadowhead, Stevenston, Inverclyde (PPP project) MSI

NDWW Non Domestic Wastewater Allowance **National House Building Council** NHBC NRSWA New Roads & Street Works Act

NRV Non Return Valve

Network Service Operator NSO **OFWAT** Office of Water Services

OPA **Overall Performance Assessment**

OSAPR Ordnance Survey Address Point Reference

OU Operational Use

Р3е Primavera (SWS capital monitoring system)

PCC Per Capita Consumption

PCV Prescribed Concentration Value

PΕ Population Equivalent PFI Private Finance Initiative PPP Public Private Partnership

Pre and Post Rehabilitation Assessment **PPRA**

Public Sector Capital Equivalent **PSCE**

Q&S **Quality and Standards** RARiver Abstraction

Resource Accounting and Budgeting RAB

Return Period RP RV Rateable Value

RWA **Raw Water Aqueducts**

Scottish Chemical Oxygen Demand SCOD

SEMD Security & Emergency Measures Directions Scottish Environment Protection Agency SEPA SFID Sewer Flooding Incident Database

SIIOP Sewerage Infrastructure Investment and Operational

Planning

SME Small to Medium Enterprises SNH Scottish Natural Heritage

SNIFFER Scotland & Northern Ireland Forum for Environmental

Research

SOC Scheme of Charges
SOSI Security of Supply Index
SPL Supply Pipe Leakage
SPS Sewage Pumping Stations

SR Service Reservoir

SR06 Strategic Review of Charges 2006-2010 SR10 Strategic Review of Charges 2010-2014

SRM Sewer Rehabilitation Manual

SS Suspended Solids

SSSI Sites of Special Scientific Interest

SVCP Small Value Capital (works) Programme

SW Scottish Water

SWARM Scottish Water Asset Risk Management

SWBS Scottish Water Business Stream

SWD Surface Water Drainage

SWH Scottish Water Horizons Limited

SWO Surface Water Overflow SWS Scottish Water Solutions SWWS Scottish Water Waste Services

TE Trade Effluent
THM Trihalomethanes
TOC Total Organic Carbon

TP² Tactical Planning & Performance

UA Unitary Authority

UCSO Unsatisfactory Combined Sewer Overflow UDWD Unmeasured Domestic Water Delivered

UGSP Underground Supply Pipe

UID Unsatisfactory Intermittent Discharge UITS Unplanned Interruptions to Supply

UKWIR United Kingdom Water Industry Research

UW Unmeasured Water

UWWTD Urban Waste Water Treatment Directives

WAFU Water Available For Use

WAMS Works and Assets Management System

WaSC Water and Sewerage Company

WOA Water Operational Area
WPS Water Pumping Station
WQZ Water Quality Zone
WRC Water Research Centre
WRP Water Resource Plan
WRZ Water Resource Zone

WST Water Supply and Treatment

WSZ Water Supply Zone

WTIU Water Taken Illegally Unbilled WTLU Water Taken Legally Unbilled WTW Water Treatment Works

WWPS Waste Water Pumping Station

WWT Waste Water Treatment

WWTW Waste Water Treatment Works

YVE Yearly Volume Estimate