



# DWMP Glossary

## DWMP terms and acronyms

Acronym / phrase	In full	Explanation
AEP	Annual Exceedance Probability	Refers to the probability of a flood event occurring in any year expressed as a percentage. A large flood which may be calculated to have a 1% chance to occur in any one year, is described as 1% AEP.
DWMP ARM	Asset Risk Management	A software package used by Southern Water. It captures risks to our assets, for example, sewers or pumps. It allows users to input the estimated consequence of a risk and the likelihood of it occurring. It is used to help prioritise future work programmes.
Asset Miner	Asset Miner	This is a bespoke tool built by Southern Water within the GIS MapInfo package to view assets and incidents across our region.
BRAVA	Baseline Risk and Vulnerability Assessment	The BRAVA involves a detailed assessment of the risks for each sewer catchment to understand the current system performance and future vulnerabilities - or risks.
CAF	Capacity Assessment Framework	The Capacity Assessment Framework has been developed by Water UK to provide a consistent, transparent and high-level approach to assessing the available and future capacity city within a sewer system to cope with issues such as changes in rainfall due to climate change, increases in population, the increase of impermeable areas due to urban creep, infill development and development growth as well as increases in sewer infiltration.
CBA	Catchment Based Approach	The Catchment Based Approach was developed by Defra to provide a framework to facilitate partnership working to achieve a better water environment.

Acronym / phrase	In full	Explanation
CICS	Common Incident Classification Scheme.	A two-tier system developed by the Environment Agency to classify pollution incidents. The first tier measures the physical response in dealing with an the incident. The second tier describes the impact the incident has on the environment and is used to categorise the potential and actual impact.
CIP	Chemical Investigations Programme	The Chemicals Investigation Programme (CIP), initiated by the UKWIR (Water Industry Research) programme and the Environment Agency, is series of investigations into the occurrence, sources and removal of trace substances from the wastewater treatment works. The investigations commenced in 2010 and is due to finish and report in 2025.
Consequence	The impact of an event occurring	For example, this could be the number of properties flooded. As this would be a negative consequence it can also include financial data such as clean-up costs.
CP	Catchment Partnership	A multi-stakeholder group working at the river catchment level to agree and deliver strategic priorities for the catchment.
Creep	Urban Creep	Where people extend properties and connect into the sewer network, or where gardens and grassed areas are paved over with impermeable surfaces so the water runs off faster and enters our sewer network more rapidly.
CSs	Combined sewers	A combined sewer collects clean rainwater, run off and waste water from toilets, bathrooms and kitchens in the same pipe and conveys it to a sewage treatment works. Much of our sewage system, built in Victorian times, has combined sewers.

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CSOs	Combined Sewer Overflows	During periods of heavy rainfall the capacity of combined sewer pipes can be exceeded and the combined flows could back up and flood peoples' homes, roads and open spaces, unless it is allowed to spill elsewhere. CSOs were developed as overflow valves to reduce this risk by allowing sewage to enter a separate pipe and flow into a river or the sea. CSOs are operated under strict conditions, set by Environment Agency, because it is accepted there is a finite capacity inside sewer pipes.
DAP	Drainage Area Plan	A forerunner to the DWMP at an individual wastewater catchment level.
DETS	Developer Enquiry Tracking System	This plots potential development and housing sites where developers are proposing new developments.
DNO	Distribution Network Operator	A Distribution Network Operator is the company that owns and operates the power lines and infrastructure that connects businesses, homes and sites to the power network.
DWF	Dry Weather Flow	Dry weather flow is the average daily flow to a wastewater treatment works during a period without rain.
DWMP	Drainage and Wastewater Management Plan	These are new plans that set out how all water and wastewater companies in England and Wales must extend, improve and maintain a robust and resilient drainage and wastewater system.
EDM	Event and Duration Monitoring	This system records and monitors rainfall data as well as information on spills of dilute sewage to a watercourse including when it occurred and for how long.
Experian 7	Experian 7	Population forecast data. This data on future population growth forecasts and expected location is provided nationally by an external company.
FME	Feature Manipulation Engineer	This is a specialist data analysis and translation software used within GIS and other information databases.

Acronym / phrase	In full	Explanation
FoC	Flooding other causes	Internal or external flooding of properties by sewage that is not the result of hydraulic overload (extreme rainfall) but caused by other issues such as blockages due to wet wipes, fat, oils and grease, tree roots or mechanical failures.
FOG	Fats, Oils and Grease	When FOG is washed down the drain, it cools and forms thick grease that mixes with other solids and wastes which will build up over time and clog drain pipes and sewer mains. Clogged drain pipes and sewer mains can result in sewer backups and spills, creating environmental problems and flooded homes and businesses.
FTSS	First Time Sewerage Scheme (S101A)	A First Time Sewerage Scheme (Section 101 Agreement) is a mechanism for settlements not currently connected to mains sewage networks to be connected for the first time. The Scheme transfers the responsibility for consents, liability and maintenance from the public to the water company where stricter controls can be placed on effluent discharge resulting in a net improvement in groundwater or surface water quality.
GIS	Geographic Information System	A framework for gathering, managing, and analysing many types of data and spatial locations, and which organises layers of information into visualisations using maps.
Hydraulic incapacity	The size of the sewer is not big enough	The standard sewer is designed for a 1 in 30 year storm and a certain population size. If population growth is too high or a rainfall event too large than the sewer does not have enough capacity to deal with the flow.
Hydraulic model	The sewer network as a computer model	This takes a sewer catchment (an area that drains to a single wastewater treatment works) and has the locations and sizes of the sewers (sometimes detailed but with others in a more simplified model). It allows scenarios, such as 'if we had an X rainfall event or a blockage in this location, what would be the predicted outcome?' to be run and understood.
Hydraulic overload	Where a sewer pipe is full and spills as a result of a heavy rainfall event	This can result in flooding or a pollution event where sewage overflows out of a manhole.

Acronym / phrase	In full	Explanation
Level 1 (plan)	Southern Water's regional DWMP	The regional DWMP will incorporate policies and investment proposals to inform the Southern Water's wastewater submission to the 2024 Price Review.
Level 2 (plan)	River basin catchment	The river basin catchment level plans that will provide future management strategies for each of the sewer catchments within the river basin.
Level 3 (plan)	Sewer drainage catchment - an individual complete drainage and wastewater system	Sewer catchment level plans that will provide detailed assessments of the priority catchments to inform the Level 1 policies and investment proposals.
Likelihood	The chance of an event occurring	This is used in the calculation for risk. A score of 1 means an incident that is likely to happen once per year.
NIA	National Infrastructure Assessment	The National Infrastructure Assessment looks at the UK's future needs up to 2050 and makes recommendations on how to deliver water and wastewater infrastructure, transport, low carbon energy, digital networks, recycle more and waste less, and how this should be paid for.
Normalised	A figure divided by length of sewer or properties	This allows for direct comparisons between wastewater companies. For example, X pollutions per 10,000 properties.
ODA	Options Development and Appraisal	The Options Development and Appraisal uses the outputs from the Problem Characterisation to identify which strategies for future management and investment in a sewer catchment will provide the best value solution.
PADLS	Prioritised Asset Deficiency Listing for Sewerage	Is this a list that takes into account historic performance, costs and impacts. It is used to prioritise which sewers will be repaired first.

Acronym / phrase	In full	Explanation
PE	Population Equivalent	The ratio of the sum of the pollution load produced during 24 hours by industrial facilities and services to the pollution load in household sewage produced by one person in the same time. PE measures the amount of oxygen-demanding substances, usually bacteria, in wastewater that will consume oxygen as it biodegrades. For practical calculations, it is assumed that one unit equals 60 grams of biochemical oxygen demand (BOD) per 24 hours. The assumption is that one person living in a normal house will produce 200 litres of effluent per day, and that will contain 60 grams of biochemically active material.
Percentiles	Between 1 and 100 gives relative position with 50 being in the middle.	Percentiles allow for water industry comparisons based on normalised values.
Pioneer	An asset & infrastructure planning model	This looks at deterioration statistics to help inform us when to replace an asset and the average costs to do so. It is a bespoke software package.
Pioneer deterioration model	A model that assesses Southern Water's assets by age and condition and compares its life expectancy, estimated failure rate and costs.	The deterioration model shows how the wastewater assets will deteriorate through time if no maintenance, improvement or remedial works are undertaken.
PIRF	Pollution Incident Record Form	Southern Water's record of pollution incidents which is provided to the Environment Agency on a quarterly basis.
Problem Characterisation		The problem characterisation identifies the primary drivers, for example, hydraulic, operational or behaviours, that are causing issues within sewer catchments and points to the best ways of addressing the concerns.
Quartile values	Comparing the performance of individual water companies to the rest of the industry	For example, upper quartile means being assessed as in the top 25% of water industry performance results. The assessments generally use normalised results.
RBC	River Basin Catchment	A River Basin Catchment is the entire geographical area where rain is drained by a river and its tributaries before discharging to the sea.

Acronym / phrase	In full	Explanation
RBCS	Risk Based Catchment Screening	Risk based catchment screening is one of the first stages of a DWMP. It is used to identify which sewer catchments are likely to be most vulnerable to future changes, such as climate change or new development, so effort can be focused accordingly and catchments of concern can proceed to a more detailed BRAVA evaluation.
Remote Communications	Sites with an alarm system connected back to the control centre	This lets the Southern Water control centre know about warnings or failures.
Rising Mains		Rising mains are pipes that convey sewage (or water) under pressure from a pumping station to a higher point of discharge such as a gravity sewer or a sewage treatment works.
Risk	Calculation of consequence times likelihood	This calculation takes the consequence (the impact of an event for example, 100 houses flooded) x the likelihood (for example, a 1 in 50 year rainfall event. The calculation of this risk would be 100 x 0.02 and provide a risk score of 2.
RMA	Risk Management Authority	Risk Management Authorities are defined in the 2010 Flood and Water Management Act. RMAs have specific responsibilities for flood and coastal erosion risk management. They include a number of organisations such as the Environment Agency, Lead Local Flood Authorities, District Councils, Internal Drainage Boards, Highways England alongside water and wastewater companies.
S101A	Section 101 Agreement	Section 101A is a mechanism for settlements to obtain a public sewerage system where they are not currently connected to mains sewerage. The Agreement transfers the responsibility for consents, liability and maintenance from the public to the water company where stricter controls can be placed on effluent discharge resulting in a net improvement in groundwater or surface water quality.

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Serious Pollutions		The most serious pollution incidents are categories 1 and 2. Category 1 incidents are spills and other pollution events that have a serious, extensive or persistent impact on the environment, people or property. Category 2 incidents have a lesser, yet significant, impact.
Sewerage System		The sewerage system is the network of drains, pipes and pumping stations that collect wastewater from a sewage catchment and take it to a wastewater treatment works. Sewerage systems fall into two categories – separate and combined. A combined system provides only one network of pipes, mains, and outfall sewers for all types of sewage, rain and runoff and can be overwhelmed in periods of extreme wet weather causing CSOs to overflow. Separate systems, with one network for domestic and industrial waste which is treated before discharge, and a separate network for storm runoff which is directed towards discharge points in a stream or river, is the preferred option.
Sewer collapse		Sewers can collapse as a result of poor drain maintenance, blockages, damage to the pipes and sewer systems, or degradation of the pipes through time. A sewer collapse can cause serious environmental and social harm.
SIRF	Sewer Incident Record Form	Southern Water’s process to capture incidents and associated data of flooding by sewage that impacts customers or the environment. It is stored within our mapping system.
SOAF	Storm Overflow Assessment Framework	The assessment framework is intended to assess the scale of the problems caused by discharges from storm overflows that operate at too high a frequency, and ensure that the water industry is proactively monitoring and managing the performance of its overflows in light of the pressures of growth, urban creep and changing rainfall patterns.

Acronym / phrase	In full	Explanation
Storm Overflow		This an overspill within the sewer network. It is designed into the sewerage system to discharge storm water from sewage network when it is overwhelmed during heavy rainfall. Overflows are designed as a release mechanism to prevent flooding to homes and businesses and are operated in strict accordance with a permit from the Environment Agency.
SuDS	Sustainable Drainage Systems	Sustainable drainage systems are designed to manage storm water locally and minimise flood and pollution risks resulting from urban runoff. They mimic natural drainage through infiltration, attenuation and passive treatment. SuDS enhance the environment and provide multi-functional, multiple benefits.
Tidal locking	When an outfall of surface water that discharges to the sea gets blocked by high tides or shingle	This can stop the outfall from discharging the surface water and can cause flooding to properties higher up the network.
Urban creep		The process whereby gardens and other vegetated areas which help soak up rain are converted to hard impervious surfaces. Creep is an important factor affecting surface water flood risk.
WaSCs	Water and Sewerage Companies	Water companies that provide both water and wastewater services to customers.
WOCs	Water Only Companies	Water companies that only supply water and do not provide wastewater services.
WPS	Wastewater Pumping Station	Pumping stations are used to move wastewater through a pressurised pipe to higher elevations in order to allow transport by gravity flow to a wastewater treatment works.
WRMP	Water Resources Management Plan	Published every five years by water companies, a statutory water resources management plan is designed to ensure an effective, long-term balance between supply and demand is maintained whilst keeping customers' bills affordable. The plan sets out a company's intended approach for the next 25 years.

Acronym / phrase	In full	Explanation
WRSE	Water Resources South East	WRSE is an alliance of the six water companies that cover the South East region of England with the aim of securing, through a collaborative, regional approach to water resource management, the water supply for future generations.
WTW	Wastewater Treatment Works	A wastewater treatment works receives all used water and sewage. It will first be screened to remove debris including items that should not have been put into the drains such as nappies, wet wipes and cotton buds and to filter out grit. Solids will be allowed to settle as sludge to be recycled for energy production and fertilisers. Secondary treatment is aeration which encourages the breakdown of bacteria, and finally the remaining clean water is filtered through sand beds before it is safely returned to rivers or the sea.