# Glossary of Practitioner Portal Layers

Some results were reported in the form of data tables and risk maps at catchment level (L3), sub-regional level (L2) and company level (L1)

| Layer | Sub-layer | Description |
|---|---|---|
| **WFD River Status 2016**<br>Water Framework Directive<br>Catchment Data Explorer | | WFD river, canal and surface water transfer bodies (Cycle 2) symbolised by overall classification for 2016. |
| **Risk Based Catchment Screening**<br>The initial stage of the DWMP which aims to filter out catchments that are not as vulnerable to long-term pressures and so do not warrant long-term planning | L3 Screening Results | Catchments that have been identified as been vulnerable to long term pressures. |
| | L3 Number of Indicators Breached | A count of which of the 17 different indicators have breached the measure for that specific indicator for each L3 area. Indicators include sewer flooding, pollution incidents and compliance with permits, for a full list of indicators see Appendix B – Risk Based Catchment Screening. |
| **BRAVA National Picture**<br>Baseline Risk and Vulnerability Assessment<br>• current baseline infrastructure risks in 2020<br>• how these change in the future due to growth and climate change by 2050<br>Risks have been assessed against the performance thresholds and are reported against three risk category groupings (0, 1 and 2) to indicate whether future pressures are likely to significantly impact system performance | Internal Flooding | The risk of properties being flooded internally (flooding which enters a building or passes below a suspended floor) from our sewers.<br><br>How this objective is measured: An average of the last three years performance data and modelled risk based on internal escape locations in a 1 in 30 year event in 2020. |
| | Pollution | The risk of polluting discharges to the environment (classed as Category 1 to 3 by the Environment Agency) arising from either network or treatment sites.<br><br>How this objective is measured: An average of the last three years of annual performance for Category 1 to 3 pollution incidents as set out in the Environmental Performance Assessment (EPA) in 2020. |
| | Sewer Collapse | The risk of a sewers collapsing so that its ability to convey wastewater is compromised, specifically defined as the number of sewer collapses.<br><br>How this objective is measured: An average of the last three years of annual performance. |
| | Risk of sewer flooding (foul) in a 1 in 50 year storm | The risk of residential properties experiencing flooding in a storm that might be experienced once in every 50 years on average, equating to a 2% probability of the rainfall event occurring in any given year.<br><br>How this objective is measured: Percentage of population at risk of flooding in a 1 in 50 year storm event. |

| | Storm Overflow Performance | The ability of the sewerage system (including STWs) to operate in storm conditions with an acceptable frequency of overflow to the environment. How this objective is measured: Modelled annual average frequency of discharge (number of events) from storm overflows using forecast rainfall data. |
|---|---|---|
| | STW Compliance | The ability of Sewage Treatment Works (STWs) to treat and dispose of sewage in line with current discharge permit quality conditions. How this objective is measured: Modelled sewage treatment works compliance against current permit quality conditions. |
| **BRAVA Detailed View** Baseline Risk and Vulnerability Assessment • current baseline infrastructure risks in 2020 • how these change in the future due to growth and climate change by 2025 / 2050 | Risk of Sewer Flooding (1in 50 year storm) | A heatmap showing the density of residential properties at risk of experiencing sewer flooding in a storm that might be experienced once in every 50 years on average, equating to a 2% probability of the rainfall event occurring in any given year. |
| | Total Escapes From Manholes in a (1 in 30 year storm) | A heatmap showing the density of volume that escaped. More dense areas refer to a higher volume and less dense areas a lower volume. This is for a 1 in 30 year storm Polluting discharges to the environment arising from either network or treatment sites. |
| | Capacity Assessment Framework (CAF) | The main sewer network colour coded by the first year in which the pipe is predicted to surcharge in a 1 in 2 year storm. The measure provides an indication of capacity constraints in the network as a leading indicator to service failure. |
| | External Flood Risk (1 in 30 year storm) | A heatmap showing the density of properties at risk of external sewer flooding in a 1 in 30 year storm. |
| | Internal Flood Risk (1 in 30yr storm) | A heatmap showing the density of properties at risk of internal sewer flooding in a 1 in 30 year storm. |
| **BRAVA Workshops** Virtual workshops sessions were held with our partners from across the region to share and discuss the risk assessment results | BRAVA Workshops | Outputs from the BRAVA workshops we held in Autumn 2020 with our stakeholders. Areas identified by stakeholders as priority areas of risk, vulnerability and improvement opportunities within our region. |
| **Problem Characterisation** This stage ensures that the approach to the Options Development and Programme | Problem Characterisation RAG | A risk assessment matrix was used to assign a level of concern to catchment risks and therefore the optioneering complexity required. These complexities were then broken down into 3 bands of Red, Amber & Green which an associated meaning for each colour. |

| | | |
|---|---|---|
| Appraisal stage is proportionate to the nature of any problems identified | | |
| **Optioneering**<br>In-depth consideration of various alternatives and options to find the best or preferred alternative or option | Catchments progressed to Optioneering | The L3 catchments which did or did not progress from BRAVA to ODA. |
| | Selected Options | The options that were progressed through the ODA process to assess their costs and benefits. |
| | Rejected Options | The options that were not progressed further in the ODA process on the grounds of excessive cost, adverse environmental impact that cannot be mitigated, and/or detailed assessment identifying that the option will not address planning objective targets. |
| **Programme Appraisal**<br><br>The objective of the PA stage is to assess and identify our preferred long-term investment plan that addresses our DWMP planning objectives. | Performance of our preferred plan | The performance of our preferred plan against other scenarios is shown in the radar plots. The plan with the largest area under the radar plot indicates that plan provides the greatest value across all value criteria. The closer the line is to the outside of the graph, the better the outcome for any particular metric. |
| **Preferred Draft Plan**<br><br>Provides the best value as it meets our ambitious environmental and property flooding reduction targets, while providing high performance outcomes for environmental, natural capital and wellbeing. We have assessed and identified our preferred long-term investment plan that addresses our DWMP planning objectives. | STW Upgrades | The forecasted Sewage Treatment Works with a planned upgrade within the next 25 years |
| | L2 Number of Sewage Treatment Work Upgrades | The forecasted number of Sewage Treatment Work (STW) upgrades across the 25 year period (2025-2050) for each of the Level 2 planning areas. |
| | L2 Number of Storm Overflows Resolved | The forecasted reduction in the number of storm overflows across the 25-year period (2025-2050) in each of the Level 2 planning areas. These reductions will meet our 2050 DWMP spills target. |
| | L4 (London) & L3 (Thames Valley) Capex Investment | The investment required across the 25 year period (2025-2050) in each of the Level 3 planning areas for Thames Valley and the Level 4 planning areas for London to meet our 2050 FWMP targets. |
| | L2 Capex Investment | The investment required across the 25 year period (2025-2050) in each of the Level 2 planning areas to meet our 2050 DWMP targets. |
| | L2 Properties Protected from Sewer Flooding in a 1-in-50 year Storm | The forecasted number of properties with a reduced risk of sewer flooding up to a 1 in 50-year storm event, across the 25 year period (2025-2050), in each of the Level 2 planning areas. |
| | Groundwater Impacted System Management Plans (GISMP) | Wastewater catchments which have a Groundwater Infiltration System Management Plan in place. These are areas where there is a risk of groundwater infiltration of the sewers, following persistent heavy rain. |

| | | |
|---|---|---|
| Potential Partnership Projects | Partnership Opportunities | Point data of potential partnership projects including information such as the scheme name, the planning outcome and the name of the partner. |
| | Level 2 Partnership Opportunities | The number of potential partnership projects currently identified at draft plan stage in each of the Level 2 planning areas. |
| Boundary | Level 1 Thames Water Company region | The operating region of Thames Water |
| | Level 2 TRFCC | The 13 sub-regional partnership areas that make up the sub-committees of the Thames Regional Flood and Coastal Committee (TRFCC). |
| | Level 3 System (STW catchment) | Wastewater catchments that drain to a Sewage Treatment Works (STW) |
| | River Basin | Area of land from which all surface run-off flows through a series of streams, rivers and, possibly, lakes to a particular point in the water course such as a river confluence. |
| | Catchment Partnerships | Boundaries of Catchment Partnerships as defined under the Catchment-Based Approach (CaBA). |
| | Lead Local Flood Authority | Boundaries of Risk Management Authorities as defined by the Flood and Water Management Act. They have statutory duties with respect to flood risk management, investigating flooding and the compilation of surface water management plans. |
| | Local Planning Authority | Boundaries of the public authority whose duty it is to carry out specific planning functions for a particular area. |
| | STWs | The location of Sewage Treatment Works |
| EA Flood Defences | | Assets maintained by the EA that provide flood defence or coastal protection functions. These include both man-made and natural defences. |
| EA Areas Benefitting from Flood Defences | | Areas that benefit from the presence of defences in a 1 in 100 (1%) chance of flooding each year from rivers. If the defences were not there, these areas would flood in a 1 in 100 (1%) or larger flooding incident. Note that we do not show all areas that benefit from all flood defences. |
| EA Flood Storage Areas | | Areas that act as a balancing reservoir, storage basin or balancing pond. Their purpose is to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel. |
| EA Flood Zone 3 (1 in 100) | | Land having a 1 in 100 or greater annual probability of river flooding |
| EA Flood Zone 2 (1 in 1000) | | Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding. |

| | | |
|---|---|---|
| EA Surface Water Flood Risk 1 in 30 | | The extent of flooding from surface water that could result from a flood with a 1 in 30 (3.3%) chance of happening in any given year. |
| EA Surface Water Flood Risk 1 in 100 | | The extent of flooding from surface water that could result from a flood with a 1 in 100 (1%) chance of happening in any given year. |
| EA Surface Water Flood Risk 1 in 1000 | | The extent of flooding from surface water that could result from a flood with a 1 in 1000 (0.1%) chance of happening in any given year. |

.