

**SECTION G**

**INVESTMENT PLAN**  
**(Actuals and Forecasts)**

## ANNUAL RETURN 2010-11

### EDITION CHANGES – SECTION G

<u>Edition</u>	<u>Description of Change</u>
<u>9</u>	<u>This edition has been restructured completely.</u>

**SECTION G****INVESTMENT PLAN (ACTUALS & FORECASTS)****Purpose**

The objective of this Section G is to enable SW to present its capital expenditure programme showing the actual expenditure and outputs delivered for the Report Year and updated forecasts for the future years. It also records service to customers for the Report Year.

All tables identify separately any capital investment towards the completion of the current Q&S3b investment programme as well as investment for the completion of the remaining Q&S3a & Q&S2 programmes.

**Definitions**

The main definitions used throughout the investment planning and monitoring processes are set out below, under the headings of outputs, inputs, investment and asset categories.

**Guidance**

Table G is based on Scottish Water's Investment Plan that consists of a series of projects which is reflective of the work that Scottish Water plans to implement across its asset base<sup>1</sup> (asset creation, replacement, refurbishment etc.), including studies etc. considered necessary to deliver the required outputs.

The current Table G is a concise set of investment delivery information when compared with previous Annual Returns. It is important that information in Table G is aligned fully with the detailed project from which it is based; the Annual Return shall fully align with the summarised project level information contained in Scottish Water's Capital Investment Returns.

The financial basis for any year shall be the same as that used for the Scottish Water's published audited Annual Accounts; i.e. the gross value of work completed in the period. Accordingly the total of the submitted investment data for each Report Year will equal the Asset Additions in the Balance Sheet for that year.

All costs shall be expressed in outturn prices. Scottish Water shall explain in its commentary their inflation assumptions in a table as well as the corresponding total forecast and actual expenditure for each year. An example of this table is shown below:

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<sup>1</sup> Infrastructure and non-infrastructure including management and general (support services) expenditure

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	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16
<b>Total Expenditure</b>	50	50	50	400	400	400	400	400	50
<b>Inflation assumption</b>	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%

**Capitalisation of operating costs**

All expenditure related to the replacement of existing assets and creation of new assets is to be included on the Investment Tables and capitalised. For example, the costs of project preparation including appraisal, outline and detailed design, planning approval preparatory work, legal and survey fees are to be included. Where preparatory work has been carried out for PPP contracts, costs for legal fees, land survey fees and engineering consulting fees are to be added to the Investment Plan as if they were to be capitalised if the project was being implemented directly by SW. The final accounting destination of the PPP related costs and fees should be noted in the Plan.

**Serviceability**

Lines G3.12 and G3.13 require Scottish Water to record the number of properties at risk of sewer flooding. SW shall clearly document the basis for its assessment including the return period, its treatment of sewer incapacity and flooding arising from severe weather, etc. It shall document all assumptions made. In addition Scottish Water is required to record the criteria used to differentiate internal from external flooding (the latter is used in reporting line G4.29).

**The Overall Measure of Delivery**

The Commission introduced the notion of a single, objective measure of investment performance around 2008. The Overall Measure of Delivery (or OMD) was conceived and is now established as one of the reported, high-level metrics under the 2010-15 Regulatory Contract.

The OMD assessment relies on a comparison of actual delivery performance against a forecast. Generally, it uses information on output delivery at five milestone stages combined with progress with expenditure delivery. Table K3 captures the information necessary to baseline the OMD score profile at the outset of the 2010-15 period.

Since it is unlikely that the initial forecast of delivery performance conceived at the outset of a regulatory period (the 'baseline profile') will be correct for the latter years Table G4 allows the reprofiling of forward outputs. This shall align with Scottish Water's annually, updated Delivery Plan forecast and the agreed Technical Expression.

**Guidance to Scottish Water**

The OMD will be used to monitor deliverables arising from capital investment expenditure allowed for in the 2010-15 period. It purposefully excludes

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deliverables financed through capital maintenance and unfinished projects from preceding periods. It does not include specific outputs which are considered jointly by WICS and Scottish Water as not relevant and reasonably beyond its control to plan or manage - such as customer driven lead removal.

## APPENDICES

**APPENDIX A: PROJECT DRIVER CODES****Capital Maintenance Drivers**

Driver Code	Summary of Requirements
WWNI	Maintain serviceability of Wastewater Non-Infrastructure assets to ensure a high customer service standards
WWI	Maintain serviceability of Wastewater Infrastructure assets to ensure a high customer service standards
WSNI	Maintain serviceability of Water Non-Infrastructure assets to ensure a high customer service standards
WSI	Maintain serviceability of Water Infrastructure assets to ensure a high customer service standards
SS	Maintain serviceability of Support services (Management & General) to ensure a high customer service standards

**Drinking Water Quality Drivers**

Driver Code	Summary of Requirements	Date of Compliance
DW1A	Compliance with lead standard of 10mg/l set in EC Directive 98/83 on the quality of water intended for human consumption – Orthophosphate dosing	25 Dec 2013 <sup>2</sup>
DW1B	Ongoing reduction of lead communication pipe in distribution	31 Mar 2015
DW1C	Compliance with lead standard of 10mg/l set in EC Directive 98/83 on the quality of water intended for human consumption – customer requested lead pipe replacement	31 Mar 2015
DW2	Compliance with trihalomethane standard of 100mg/l.	31 Dec 2008
DW3A	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Colour	31 Mar 2015
DW3B	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Coliforms	31 Mar 2015
DW3C	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Manganese	31 Mar 2015
DW3D	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Bromate	31 Mar 2015

<sup>2</sup> Only DW1A has legislative compliance date of 25/12/2013. DW1B and DW1C also contribute to this outcome but they have not been allocated the same date.

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DW3F	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Iron	31 Mar 2015
DW3G	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Aluminium	31 Mar 2015
DW3H	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Pesticides and/or Taste + Odour	31 Mar 2015
DW3J	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Turbidity	31 Mar 2015

Driver Code	Summary of Requirements	Date of Compliance
DW3K	Compliance with the Drinking Water Directive 98/83/EC EC including standards specified in the Water Supply (Water Quality)(Scotland) Regulations 2001 for the following specific parameters: Final pH	31 Mar 2015
DW4	Compliance with the Cryptosporidium (Scottish Water) Directions 2003 and any subsequent revisions including: i) annual risk assessments for all water supplies for the presence of Cryptosporidium ii) installation of turbidity meters on all filters iii) continuous monitoring of specific water supplies for Cryptosporidium.	31 Mar 2015
DW5	The quality of water put into supply must not be downgraded by the condition of the water mains through which it is supplied. In particular, the condition of a water main must not result in exceeding the iron and manganese standards set in Directive 98/83/EC. Unplanned operational activity and maintenance work disrupt the flow in water mains and put water quality at risk. SG policy is that there should be no deterioration in the infrastructure asset stock.	31 Mar 2015
DW6	The Abstraction Directive	N/A
DW7	The Birds Directive/The Habitats Directive	31 Dec 2007
DW8	Reduce reliance on mutual aid during emergencies by the provision of emergency tanker fill-points.	31 Mar 2015
DW9A	Physical security arrangements to protect drinking water quality in accordance with Security Service guidance – Enhancement of WTW security.	31 Mar 2015
DW9B	Physical security arrangements to protect drinking water quality in accordance with Security Service guidance – Enhancement of Borehole security.	31 Mar 2015
DW9C	Physical security to protect raw water intakes and aqueducts – Installation of trial raw water pollution monitors.	31 Mar 2015

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DW9D	Physical security arrangements to protect drinking water quality in accordance with Security Service guidance – Enhancement of GRP enclosed alarm panels.	31 Mar 2015
DW9E	Physical security arrangements to protect drinking water quality in accordance with Security Service guidance – Enhancement of designated vulnerable points.	31 Mar 2015
DW10	Raw Water Supplies - Compliant Water at Point of Use. Private Supply.	31 Mar 2015
DW11	Investment necessary on SW assets to ensure SW compliance with Water Fittings Byelaws. (Note that this driver does not include the cost of ensuring third party Byelaw compliance)	31 Mar 2015
DW12	Article 11 of the EC Directive 98/83 provides for a review of the annexes to the Directive every 5 years. The first such review commenced during 2003. There are strong indications that the standards for THMs, disinfection by-products will tighten.	31 Mar 2015
Driver Code	Summary of Requirements	Date of Compliance
DW13	Improve the aesthetic quality of drinking water by meeting chlorine targets measured using the Disinfection Index set by DWQR in Information Letter 3/2006.	31 Dec 2014
DW14	Extend provision of telemetry at water treatment works and service reservoirs	N/A
DW15	Compliance with recommendations made as a result of investigations into drinking water quality incidents in Scotland	31 Mar 2015
DW16	Provision of Drinking Water safety Plans for all water supply systems in line with World Health Organisation Guidelines.	Various
DW17A	Removal/Backfilling of confirmed cross connections between water mains & sewers.	31 Mar 2015
DW17B	Investigations of unconfirmed cross connections between water mains & sewers.	31 Mar 2015
DW18	Extend public water distribution network at "unreasonable cost" to provide a water supply to these areas because the level of return is not considered economic in relation to the capital investment required.	N/A
DW19	The Water (Scotland) Act 1980 requires that SW shall provide a wholesome supply of water sufficient for the domestic purposes of all owners and occupiers of premises within their limit of supply	N/A
DW20	Reservoir spillway capacity checks using the Flood Estimation Handbook published by the Institute of Hydrology which introduces a new method of calculating rainfall depth	31 Mar 2015
DW21	Duplication of critical mains to provide security of supply	N/A
DW22	Provide treatment to address algae problems in raw water sources	N/A
DW23	Reduction in risk to public health from cryptosporidium and provision of appropriate treatment at Simple Disinfection sites that may be under the influence of surface water.	31 Mar 2015
DW24	Provision of sampling facilities at to monitor raw water quality to comply with requirements of WFD Article 7	31 Mar 2015

**Environmental Drivers**

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Driver Code	UK Act/EC Directive	Date of Compliance
WQ01	Water Environment and Water Services Act 2002 (Secondary legislation to replace Control of Pollution Act 1974, Section 34)	31 Mar 2015
WQ01A	Water Environment and Water Services Act 2002 (Secondary legislation to replace Control of Pollution Act 1974, Section 34)	31 Mar 2015
WQ01B	Water Environment and Water Services Act 2002 (Secondary legislation to replace Control of Pollution Act 1974, Section 34)	31 Mar 2015
WQ01C	Water Environment and Water Services Act 2002 (Secondary legislation to replace Control of Pollution Act 1974, Section 34)	31 Mar 2015
NH01A	Water Industry (Scotland) Act 2002, Section 54	31 Mar 2015
EC01A	Urban Waste Water Treatment Directive (91/271/EEC) – continuous discharge	31 Mar 2015 (or earlier if TE identifies)
EC04A	Freshwater for Fish Directive (78/659/EEC) – continuous discharge	31 Mar 2015 (or earlier if TE identifies)
Driver Code	UK Act/EC Directive	Date of Compliance
EC06	Sludge Use in Agriculture Directive (86/278/EEC)	31 Mar 2015
EC10A	Water Framework Directive (2000/60/EC) – continuous discharge	31 Mar 2015
EC16	Revised Bathing Water Directive (2006/7/EC) study	31 Mar 2015
EC01B	Urban Waste Water Treatment Directive (91/271/EEC) – intermittent discharge	31 Mar 2015
EC01C	Urban Waste Water Treatment Directive (91/271/EEC) – dual manholes	31 Mar 2015
EC01D	Urban Waste Water Treatment Directive (91/271/EEC) – intermittent discharge study	31 Mar 2015
EC03B	Shellfish Waters Directive (70/923/EEC) – intermittent discharge	31 Mar 2015
EC03C	Shellfish Waters Directive (70/923/EEC) – intermittent discharge study	31 Mar 2015
EC04B	Freshwater for Fish Directive (78/659/EEC) – intermittent discharge	31 Mar 2015
EC04C	Freshwater for Fish Directive (78/659/EEC) – intermittent discharge study	31 Mar 2015
EC04D	Freshwater for Fish Directive (78/659/EEC) – dual manholes	31 Mar 2015
EC09B	Dangerous Substances Directive (76/464/EEC) – intermittent discharge	31 Mar 2015
EC10B	Water Framework Directive (2000/60/EC) – intermittent discharge	31 Mar 2015
EC07C	Birds Directive (79/409/EEC) – intermittent discharge	31 Mar 2015
EC08C	Habitats Directive (92/43/EEC) – intermittent discharge	31 Mar 2015
EC09C	Dangerous Substances Directive (76/464/EEC) – intermittent discharge	31 Mar 2015
EC10C	Water Framework Directive (2000/60/EC) – dual manholes	31 Mar 2015
EC10D	Water Framework Directive (2000/60/EC) – SWOs	31 Mar 2015
EC10E	Water Framework Directive (2000/60/EC) – intermittent discharge study	31 Mar 2015
WR1	UKTAG guideline abstraction thresholds (All SW surface and groundwater abstractions)	31 Mar 2015

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WR1A	UKTAG guideline abstraction thresholds (All SW surface and groundwater abstractions) – study only	31 Mar 2015
WR2A	WFD – provision of fish passage freshets.	31 Mar 2015
WR2B	WFD – provision of fish passage freshets (study only to identify future requirements).	31 Mar 2015
WR3	Protect water quality in Drinking Water Protected Areas so as to avoid the need to increase the level of treatment needed to meet standards set in EC Directive 98/83. All SW drinking water sources supplying more than 10m <sup>3</sup> /day or 50 people).	31 Dec 2007
WR4	Compliance with hydro-morphological standards in order to meet WFD ecological objective. (All obsolete engineering works associated with abandoned water supply operations).	31 Mar 2015
WR5	To demonstrate compliance with water abstraction licences under the Controlled Activities Regulations (CAR).	31 Dec 2006

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**Customer Service Drivers**

Driver Code	Driver Description
CC1	Climate Change – Renewable Power Generation
CC2	Climate Change – Energy Efficiency
CC3	Climate Change – Network Carbon Emission Reduction Studies
CC4	Climate Change – Data Collection and Management Systems
CC5	Climate Change – Treatment Carbon Emission Reduction Studies
CC6	Climate Change – Renewable Power Generation Potential Studies
CS1	Pressure. Removal of properties from the register of properties at risk from poor pressure. (Consistent with Water (Scotland) Act 1980)
CS1A	Pressure. Removal of properties from the register of properties at risk from poor pressure. (Exclusions under Water (Scotland) Act 1980)
CS2	Odour Management. Compliance with odour management standards.
CS4	Business Metering. Compliance with business metering standards
CS11	Sewer Flooding (Internal). Removal of properties from at risk register.
CS11A	Sewer Flooding. No underlying increase to flooding register.
CS12	Reduction in Unplanned Interruptions to Supply
CS15	Sewer Flooding (external). Removal of properties from at risk register.
CS16S	Compliance with Flooding Bill Wastewater Assets
CS16W	Compliance with Flooding Bill Water Assets
CS17	Creation of an external sewer flooding register.
CS18W	Developing Section 29E opportunities
CS18W	Incentivising developers to adopt water efficiency measures
CS19	Household metering trials
CS20	Strengthening the regulatory framework

**Growth Drivers**

Driver Code	Driver Description
WG1	Provision of strategic Part 4 capacity for water
SG1	Provision of strategic Part 4 capacity for wastewater
WG1A	Provision of strategic Part 4 capacity for water – study
SG1A	Provision of strategic Part 4 capacity for wastewater – study
WG2	New Development/Reasonable Cost Contributions for water
SG2	New Development/Reasonable Cost Contributions for wastewater
WG3	First Time Provision of water services (studies/properties connected)
SG3	First Time Provision of wastewater services (studies/properties connected)
WG4	Improvement to Supply/Demand balance towards policy Level of Service over and above delivery of SRELL.
WG5	Strategic Water Network Reinforcement (Infrastructure Charge)
SG5	Strategic Wastewater Network Reinforcement (Infrastructure Charge)

**APPENDIX B: OUTPUT MEASURES & UNITS****Drinking Water Quality Outputs**

Driver Code	Definition of Output	Output Unit
DW1A	Number of Water Quality Regulatory Zones made compliant with the Regulations	Number
DW1B	Number of communication pipes replaced	Number
DW1C	Number of communication pipes replaced	Number
DW2	Number of sites made compliant with standard(s)	Number
DW3A	Number of sites made compliant with standard(s)	Number
DW3B	Number of sites made compliant with standard(s)	Number
DW3C	Number of sites made compliant with standard(s)	Number
DW3D	Number of sites made compliant with standard(s)	Number
DW3F	Number of sites made compliant with standard(s)	Number
DW3G	Number of sites made compliant with standard(s)	Number
DW3H	Number of sites made compliant with standard(s)	Number
DW3J	Number of sites made compliant with standard(s)	Number
DW3K	Number of sites made compliant with standard(s)	Number
DW4	Number of sites made compliant with standard(s)	Number
DW5	Length of main improved to meet the required standard	Km
DW5A	Investigation	Number
DW6	Number of sites made compliant with standard(s)	Number
DW7	Number of sites made compliant with standard(s)	Number
DW8	Number of sites provided	Number
DW9A	Number of sites made compliant with standard(s)	Number
DW9B	Number of sites made compliant with standard(s)	Number
DW9C	Number of trial sites	Number
DW9D	Number of sites made compliant with standard(s)	Number
DW9E	Number of sites made compliant with standard(s)	Number
DW10	Number of raw supplies made compliant with Ministers Objectives	Number
DW11	Number of sites made compliant with standard(s)	Number

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Driver Code	Definition of Output	Output Unit
DW12	Number of sites made compliant with standard(s)	Number
DW13	Number of sites made compliant with standard(s)	Number
DW14	Number of sites made compliant with standard(s)	Number
DW15	Number of sites made compliant with standard(s)	Number
DW16	Number of sites made compliant with standard(s)	Number
DW17A	Number of sites made compliant with standard(s)	Number
DW17B	Number of sites made compliant with standard(s)	Number
DW18	Population equivalent benefiting from work	Population Equivalent
DW19	Population equivalent benefiting from work	Population Equivalent
DW20	Number of sites made compliant with standard(s)	Number
DW21	Km of critical mains duplicated	Km
DW22	Number of sites made compliant with standard(s)	Number
DW23	Number of sites made compliant with Ministers Objectives	Number
DW24	Number of sites made compliant with Ministers Objectives	Number

**Environmental Outputs**

Driver Code	Definition of Output	Output Unit
WQ01	Number of continuous discharges improved or removed	Number
WQ01A	Number of sites made compliant with non-sanitary license requirements	Number
WQ01B	Number of sites made compliant with non-sanitary license requirements	Number
WQ01C	Number of sites made compliant	Number
EC01A	Number of continuous discharges improved or removed	Number
NH01A	Number of unsatisfactory intermittent discharges improved or removed	Number
EC04A	Number of continuous discharges improved or removed	Number
EC06	Number of improved sludge management facilities to meet the requirements of the Safe Sludge Matrix	Number
EC10A	Number of continuous discharges improved or removed	Number
EC16	Number of studies completed	Number
EC01B	Number of unsatisfactory intermittent discharges improved or removed	Number



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Driver Code	Definition of Output	Output Unit
EC01C	Number of dual manhole systems improved	Number
EC01D	Number of studies completed	Number
EC03B	Number of unsatisfactory intermittent discharges improved or removed	Number
EC03C	Number of studies completed	Number
EC04B	Number of unsatisfactory intermittent discharges improved or removed	Number
EC04C	Number of studies completed	Number
EC04D	Number of dual manhole systems improved	Number
EC10B	Number of unsatisfactory intermittent discharges improved or removed	Number
EC07C	Number of studies completed	Number
EC08C	Number of studies completed	Number
EC09C	Number of studies completed	Number
EC10C	Number of dual manhole systems improved	Number
EC10D	Number of SWO sites made compliant with standard(s)	Number
EC10E	Number of studies completed	Number
WR1	Number of sites made compliant with standard(s)	Number
WR1A	Number Of Studies Completed	Number
WR2A	Number of sites made compliant with standard(s)	Number
WR2B	Number of investigations completed	Number
WR3	Number of sites made compliant with standard(s)	Number
WR4	Agreed restoration of abandoned engineering works undertaken	Number
WR5	Number of sites made compliant with standard(s)	Number

**Customer Service Outputs**

Driver Code	Definition of Output	Output Unit
CC1S	Renewable energy generated – wastewater assets	GWh
CC1W	Renewable energy generated – water assets	GWh
CC2S	Reduction in CO2 emissions – wastewater	Tonnes
CC2W	Reduction in CO2 emissions – water	Tonnes
CC3S	Number of studies completed	Number



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Driver Code	Definition of Output	Output Unit
CC3W	Number of studies completed	Number
CC4S	Number of systems delivered – wastewater	Number
CC4W	Number of systems delivered - water	Number
CC5S	Number of studies completed	Number
CC5W	Number of studies completed	Number
CC6S	Number of studies completed	Number
CC6W	Number of studies completed	Number
CS1	Removal of properties from the register of properties at risk from poor pressure.	Number of properties
CS1A	Removal of properties from the register of properties at risk from poor pressure.	Number of properties
CS2	Number of WWTW made compliant with odour management standards.	Number of works
CS4	Number of meters made compliant with business metering standards	Number of meters
CS11	Sewer Flooding. Removal of properties from at risk register.	Number of properties
CS11A	No underlying increase to flooding register.	Number
CS12	Reduction in Unplanned Interruptions to Supply	Number of reductions
CS15	Sewer Flooding. Removal of properties from at risk register.	Number of properties
CS16S	Compliance with Flooding Bill	Number
CS16W	Compliance with Flooding Bill	Number
CS17	Creation of an external sewer flooding register.	Number
CS18W	Developing Section 29E opportunities	To be agreed in joint working
CS18W	Incentivising developers to adopt water efficiency measures	To be agreed in joint working
CS19	Household metering trials	To be agreed in joint working
CS20	Strengthening the regulatory framework	To be agreed in joint working

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**Growth Outputs**

Driver Code	Definition of Output	Output Unit
WG1/SG1	Increase in system capacity to meet growth from new and existing customers i.e. Population equivalent freed up by investment	Population Equivalent
WG1A/SG1A	Number of studies completed	Number
SG2	Number of new housing connections to sewerage.	Number of properties connected
WG2	Number of new housing connections to water.	Number of properties connected
WG3	Number of studies completed or house connected (as specified in TE)	Number
SG3	Number of studies completed or house connected (as specified in TE)	Number
WG4	Number of zones with SDB improved towards Policy L.O.S. over and above delivery of SRELL	Number
WG5	Strategic Water Network Reinforcement (Infrastructure Charge)	To be agreed in joint working
SG5	Strategic Wastewater Network Reinforcement (Infrastructure Charge)	To be agreed in joint working