SCOTTISH WATER

Water Industry Commission for Scotland (WICS) ANNUAL RETURN 2023/24

SECTION G – Investment Monitoring

Contents

Section G – Investment Monitoring

1 Executive Summary

Scottish Water's investment programme is one of the largest infrastructure programmes in Scotland – delivering the vital assets that enable us to maintain and improve the water and wastewater services people depend on every day - and supporting growth and development to ensure that communities can flourish now and in the future.

The Investment Planning and Prioritisation Framework sets out how investment needs are prioritised and developed and how projects and programmes to meet the prioritised needs are identified and delivered (Water industry: governance note 2021 to 2027 - (www.gov.scot)).

Progress with the development and delivery of the Capital Investment programme is monitored quarterly by the Scottish Government Investment Group (SGIG)[1] and the SGIG Working Group.

Each quarter we report to SGIG on our progress in developing interventions to address the needs on the Development List. The indicator of overall Progress towards the Committed List (PCL) is a high-level measure of the overall volume of intervention development relative to what is required for expected investment levels in future years. This measure assesses whether we are promoting sufficient volumes through the stages in each of its development pathways.

1.1 Total Investment Overview

Total investment is based on IPS24.1 and totals £6,050.6m in outturn prices including SR15 Completion. The total excluding SR15 Completion in 17/18 prices is £4,450.1m. This can be derived from G1 as below. In these figures, we have applied an adjustment of -£50.5m to align with the available funding in the IPS24.1. This is to be resolved through investment phasing and reprioritisation throughout 24/25. This has previously been discussed with WICS in 23/24.

Total Investment Reconciliation £m		2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total
G1.58	Gross Investment	774.1	879.1	1,024.7	1,070.0	1,145.0	1,157.8	6,050.6
G1.57	Completion Programme	118.3	60.3	50.0	18.7	33.2	9.8	290.3
	Total Exc. Completion	655.8	818.8	974.7	1,051.3	1,111.8	1,148.0	5,760.4
G10.1	CPI	111.3%	122.5%	129.4%	132.5%	136.0%	138.7%	
	Total Ex Completion 17/18 Prices	589.4	668.6	753.2	793.4	817.8	827.8	4,450.1

We have invested £1,024.7m in 23/24, taking total investment in SR21 to £2,677.9m. We therefore have £3,372.8m of the £6,050.6m remaining to invest. We have increased investment on all areas of the Programme, except for SR15 Completion, when compared to 22/23.

[1] formerly two forums: Investment Planning and Prioritisation Group (IPPG) and the Delivery Assurance Group (DAG), now merged

We had planned to invest £930m in 23/24 - the out-turn value of £1,024.7m was driven by higher levels of demand and good progress in the solution development stages of live projects as evidenced by the above target performance of the PCL measure.

While we had planned to invest £930m, £942.627m was the forecast based on live investment when AR23 was compiled. Although this informs the overall target for the year, the investment target is based on a management view/plan taking other factors into consideration such as DV capacity, overall demand and available funding for the programme.

1.1.1 Reconciliation between SGIG Report, AR23 and AR24 Investment

The variance between SGIG report and G1 is primarily due to recategorisation of Support expenditure to other areas.

Overheads are negative in the year with a value of -£56.1m, this includes Supplier Rebates and the reallocation of Indirect Overheads to projects. Due to the higher volume of projects going through gates than anticipated run-rate overheads are negative in the year.

Primarily Transformation but also Innovations, projects have been moved from Support to Enhancement. For consistency and to reflect outputs on G5b, Transformation and Innovation projects have been recategorised as Enhancement from Asset Replacement.

Also to align G5a and G5b, several growth projects have been reallocated to Enhancement, either Meters or Water Availability.

Primary Investment Category	AR24	SGIG	Variance	Comment
Asset Replacement	299.4	358.7	-59.3	Overheads (from Support -£56.1m), Various Digital Projects (from Support +£3.9m), Transformation (to Enhancement -£8.9m) Innovation (to Enhancement -£1.1m) and other more minor movements
Completion	50.0	50.0	0.0	
Enhancement	187.3	145.3	42.0	Transformation (from Support +£24.9m), Various Customer Improvement Programmes (from Support +£2.1m), Innovation (from Support +£1.1m), Hydro Nation Chair (from Support +£0.9m). First Time Meters (from Growth +£1.6m), Water Efficiency Campaign and Tankers (from Growth +£0.2m). Transformation (from Asset Replacement +£8.9m) Innovation (from Asset Replacement +£1.1m). Other more minor movements
Growth	72.0	74.9	-2.9	First Time Meters (to Enhancement Other Areas -£1.6m), Water Efficiency Campaign and Tankers (to Enhancement – Water Availability -£0.2m).
Inspections	30.0	30.0	0.0	
Refurbishment	46.2	47.9	-1.7	
Repair	104.0	104.0	0.0	
Support	0.0	-22.0	22.0	Overheads (to Asset Replacement +£56.1m), Transformation (to Enhancement -£24.9m), Various Digital Projects (to Asset Replacement -£3.9m), Various Customer Improvement Programmes (to Enhancement -£2.1m), Innovation (to Enhancement -£1.1m), Hydro Nation Chair (to Enhancement -£0.9m) and other more minor movements
Tier1a	235.8	235.8	0.0	
Total Ex RCC	1024.7	1024.7	0.0	

RCC	33.1	33.1	0.0	
Total	1057.9	1057.9	0.0	

Used in SGIG	SGIG	Comment
Tier 2 Projects	788.9	Total EX RCC - Tier 1a
Enhancement Inc Flooding	145.3	Enhancement
Completion	50.0	Completion
Growth	74.9	Growth
Support	-22.0	Support
Asset Replacement and other Tier 2 Repair, Refurbish	540.6	Asset Replacement + Inspections + Refurbishment + Repair

The table below shows the breakdown of 2023-24 expenditure in AR24 by Primary Investment Category, Tier and how this aligns with G1. This can be generated using the G6a data.

Primary Investment Category	Tier 1a	Tier 2	Total	Line Ref
Asset Replacement	0.0	299.4	299.4	G1.24
Completion	0.0	50.0	50.0	G1.45
Enhancement	0.0	191.5	191.5	G1.40+G1.31 (Service Relocations +£4.2m)
Growth	0.0	67.8	67.8	G1.32 -G1.31 (Service Relocations -£4.2m)
Inspections	6.5	30.0	36.5	G1.06
Refurbishment	28.6	46.2	74.8	G1.18
Repair	200.8	104.0	304.8	G1.12
Total	**235.8**	**788.9**	**1024.7**	**G1.76 - G1.79**

1.1.2 AR23 vs AR24 2022-23 Investment

The table below is based on a comparison between G6 in AR23 and G6a in AR24. Showing the variance in spend for 2022-23. Most of the variance between categories has been generated by 3 significant changes: the removal of Support Category, recategorisation of Transformation to Enhancement and a reassessment of Treated Water Storage programmes from refurbishment to repair.

Projects that were previously categorised as Support have been assessed based on the Investment Need Code and have been allocated to the appropriate Primary Investment Category, generally either Asset Replacement or Enhancement. Overheads and Supplier Rebates were overall negative in the year 2022-23.

Transformation has been categorised as Enhancement both to allow the G5a, G5b to be populated and as this is considered an appropriate category. The Transformation programme is not maintaining core service performance and is instead generating future benefit.

A review of the Treated Water Storage Programmes of work has indicated that the primary investment type is repairs rather than refurbishment. The type of work is predominately repairs

to ensure water quality and will not have a significant impact on the life of the assets.

Projects continue to be assessed at gates to determine the correct funding split (need code), the type of work and its impact on the assets.

Service relocations expenditure is included within Enhancement rather than growth on G6a as it is shown in this section on G5a and G5b.

Primary Investment Category	AR24	AR23	Variance	Comment
Asset Replacement	253.2	281.6	-28.4	Transformation (to Enhancement -£19.8m), Overheads and Supplier Rebates (from Support -£16.5m), Digital Projects (from Support +£3.3m), Reservoir Safety Projects (from Tier1a and Repair +£2.0m), Bertha Park Perth Growth (from Growth +£1.4m) and other minor changes
Completion	60.3	60.9	-0.6	Land Acquisition Run off and Compensation Liabilities partially reassigned to Asset Replacement -£0.5m and other minor changes.
Enhancement	184.5	121.2	63.4	Transformation (from Asset Replacement +£19.8m, from Support +£31.5m), Various Customer Communities, Innovation and Net Zero projects (moved from Support +£4.4m) Service Relocations (previously tagged as Growth +£3.8m) and other minor changes.
Growth	66.5	75.2	-8.7	Service Relocations (now tagged as Enhancement -£3.7m), Meters reassigned to Enhancement -£1.8m, Bertha Park Projects (reassigned to Asset replacement, Enhancement and RCC -£1.5m), S-W-NI-20210917- South Area Drought Issues (reassigned to Enhancement -£0.5m) and other more minor changes.
Inspections	28.3	26.4	1.8	SR21 Consultant Support_Flooding Investigations (reassessed from Asset Replacement +£0.9m), Downiebrae Road Sewer - Local Network Investigations (reassessed from Refurbishment +£0.8m) and other more minor changes.
Refurbishment	28.3	55.1	-26.8	Treated Water Storage projects (reassessed as Repair -£23.7m), Downiebrae Road Sewer - Local Network Investigations (reassessed as Inspections -£0.8m), WQ Responsive Mains Cleaning Ph 1 MA2b_Delivery (reassessed as Repair -£1.0m) and other more minor changes.
Repair	66.6	41.6	25.0	Treated Water Storage projects (reassessed from Refurbishment +£23.7m), WQ Responsive Mains Cleaning Ph 1 MA2b_Delivery (reassessed from refurbishment -£1.0m) Digital Ad Hoc Repairs & Specials (moved from Support +£1.1m) Craigmaddie and Milngavie VT Works (reassessed to Replacement -£1.1m) and other more minor changes.
Support	0.0	24.6	-24.6	Overheads and Supplier Rebates (to Asset Replacement +16.5m) Transformation (moved to Enhancement -£31.5m) Various Customer Communities, Innovation and Net Zero projects (moved to Enhancement -£4.4m) Digital Projects (moved to Asset Replacement -£3.3m) Digital Ad Hoc Repairs & Specials (moved to Repair -£1.1m) and other more minor changes
Tier1a	191.3	193.0	-1.7	Boughden Braes Lesmahagow Sewer Replacement (to Asset Replacement -£0.7m), Roughrigg Reservoir MIOS (to Asset Replacement -£0.4m), WATER INFRA_SWD Responsive Repair_IRONWORKS (to Enhancement Lead -£0.5m) and other minor changes
Total Ex RCC	**879.1**	**879.6**	**-0.5**	Bertha Park Projects partially funded from RCC following gate approval
RCC	33.2	32.7	0.5	Bertha Park Projects partially funded from RCC following gate approval
Total	**912.2**	**912.2**	**0.0**	

The below table shows the breakdown of 2022-23 expenditure in AR24 by Primary Investment Category, Tier and how this aligns with G1. This can be generated using the G6a data.

Primary Investment Category	Tier 1a	Tier 2	Total	Line Ref
Asset Replacement	0.0	253.2	253.2	G1.24
Completion	0.0	60.3	60.3	G1.45
Enhancement	0.0	184.5	184.5	G1.40+G1.31 (Service Relocations)
Growth	0.0	66.5	66.5	G1.32 -G1.31 (Service Relocations)
Inspections	1.8	28.3	30.1	G1.06
Refurbishment	16.5	28.3	44.8	G1.18
Repair	173.0	66.6	239.7	G1.12
Total	191.3	687.7	879.1	**G1.76 - G1.79**

1.1.3 IPS 24.1 Compared with IPS 23.2

There has been significant variance between IPS23.2 and IPS 24.1. Most of the variance for previous years is due to the recategorisation set out in the commentary (1.1.2 AR23 vs AR24 2022-23 Investment). This is mainly Transformation change from Asset Replacement to Enhancement and Treated Water Storage moving from Refurb to Repair.

In addition, totals have changed at MA level and in the years 2023-24 onwards due to reallocation and additional funding between MAs and through greater programme visibility. The below table shows the variance by Primary Investment Category and year in 17/18 prices.

Variance by Category	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total
Asset Replacement	-26.47	-43.02	-56.49	-26.19	7.36	-45.23	**-190.04**
Repair	13.41	18.79	70.76	21.82	-25.19	3.01	**102.59**
Refurbishment	-12.72	-21.47	-15.62	5.25	-0.16	-17.54	**-62.25**
Enhancement*	25.70	46.48	42.15	58.89	-14.20	-16.21	**142.81**
Growth*	-1.00	-2.20	27.82	-20.41	6.74	21.42	**32.36**
Completion	0.03	-0.47	0.93	-11.17	2.66	10.98	**2.95**
Inspections	0.74	1.49	2.54	-0.81	24.20	-3.61	**24.56**
Total	**-0.30**	**-0.41**	**72.08**	**27.38**	**1.41**	**-47.19**	**52.97**

The below table summarises the above by Enhancement and Growth and AR3. Enhancement and Growth has increased by £175m and AR3 has decreased by £125m. This is due primarily to recategorisation and an additional £50m that has been added to the Enhancement and Growth Programmes. The next table provides a summary of the significant changes within the profiling and totals that have driven the variances above.

Note: The total AR3 in IPS paper IGWG 20/10, Figure 2 has been rounded and is actually £2,988m. Enhancement and Growth is £1,462m. This aligns with the totals in 17/18 prices on G1.

Category	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total
Enhancement and Growth	24.70	44.28	69.96	38.47	-7.46	5.21	175.16
AR3	-25.03	-44.21	1.18	0.08	6.21	-63.38	-125.15
Completion	0.03	-0.47	0.93	-11.17	2.66	10.98	2.95
Total	**-0.30**	**-0.41**	**72.08**	**27.38**	**1.41**	**-47.19**	**52.97**

Commentary	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total
Asset Replacement	-£24.0m Transformation (£23.6m to Enhanced), -£1.9m Innovation (to Enhanced)	-£43.0m Transformation (£42.4m to Enhanced), -£2.3m Innovation (to Enhanced), -£0.7m WW Non Critical Sewers (from Inspections)	-£50.7m reduction in Transformation, -£43.6m reduction in Recurring Customer Interruptions to supply, -£19.4m reduction in WW Non Critical Sewers offset by increased expenditure +£28.9m Sludge Treatment Centres and +£26.8m Reservoir Safety. In addition, reprofiling of Programme Overhead Reallocation has had an impact on the profile and will be addressed in future IPS refreshes.				-£117.8m Transformation Reduced (£86.1m to Enhancement and £32m removed from programme), -£42.7m Recurring Customer Interruptions to Supply, -£20.2m Wastewater Non Critical Sewers, -£16.1m Wastewater Treatment Works - Secondary & Tertiary Treatment
Repair	+£13.7m Treated Water Storage (from Refurbishment)	+£19.3m Treated Water Storage (from Refurbishment)	+£76m Additional Treated Water Storage expenditure, +£42.1m Statutory and Planned Maintenance, +£18.9m Ironworks offset by reductions -£27.1m Distribution Infrastructure - Interruptions to Supply and -£21.7m Wastewater Pumping Stations				+£109.0m Treated Water Storage (£72.1m from Refurbishment and £36.9m allocated from other AR3 Programmes)
Refurbishment	-£13.7m Treated Water Storage (to Repair)	-£19.3m Treated Water Storage (to Repair),-£0.9m Juniper House (from Enhancement)	-£39.0m Reduction in Treated Water Storage expenditure, -£30.3m Juniper House, -£26.3m Water Filtration offset by increases +£20.0m Wastewater Treatment Works - Primary Treatment and +£16.3m Wastewater Pumping Stations				-£72.1m Treated Water Storage (to Repair), -£31.8m Juniper House (£9.9m to Enhancement and -£22.0m removed) offset by +£20m Wastewater Treatment Works - Primary Treatment
Enhancement*	£23.6m Transformation (from Asset Replacement), +£1.9m Innovation (from Asset Replacement)	£42.4m Transformation (from Asset Replacement), £2.3m Innovation (from Asset Replacement), +£0.9m Juniper House (from Refurbishment)	Increase in expenditure +£68.6m Water Treatment Capability Improvement, +£20.1m Transformation and +£19.2m Manage Sewer Flood Risk offset by decreases -£19.8m Wastewater Treatment Works Improvements and -£15.0m UIDs.				+£86.1m Transformation (from Asset Replacement), +£68.9m Water Treatment Capability Improvement, +£18.8m Manage Sewer Flood Risk, +£11.8m Innovation (£8.8m from Asset Replacement and £3.0m added to programme) offset by -£19.5m Wastewater Treatment Works Improvements and -£15.0m UIDs
Growth*	-£0.5m Enabling Development WW (to Asset Replacement)	-£1.7m recategoristation of Enabling Development - Wastewater Portfolio Projects	Increased expenditure +£28.0m Enabling Development - Wastewater Portfolio and +£7.3m Water Treatment Capability Improvement				+£25.1m Enabling Development - Wastewater Portfolio, +£7.3m Water Treatment Capability Improvement
Completion	Minor Changes	Minor Changes	Profile based on fixed list of significant completion projects – changes in forecast years mainly relates to South Uist WTW and how the output is delivered.				Minor changes overall to forecast programme cost
Inspections	Minor Changes	+£0.7m WW Non Critical Sewers (from Asset Replacement)	Significantly higher expenditure planned is 2025-26 for DSEAR Assessments, Trunk Main Inspections and Pump Station Inspections				+8.2m Water Treatment Works - Process Stage Civils and Additional Inspections expenditure across several programme areas – allocation transferred from other AR3 investment categories.
Total	Minor Changes	Minor Changes	Higher than forecast investment in the year due to increased demand, improved project promotion and delivery	Combined with the additional funding, increased demand and DV capacity has increased investment in earlier years of the programme. Prioritisation and reprofiling is being undertaken to ensure that expenditure in future years stays within funding constraints.			Additional £50m funding to programme.

1.1.4 Performance Metrics

We have referenced the impact of the sustained higher level of investment above, and the impact on PCL.

For IPOD, at the end of 2023-24 we have achieved an IPOD score of 889 points against a baseline of 878 points. This performance has improved since 22/23 and is a result of a continued focus on the delivery of project milestones. At the end of 22/23 we were 23 milestones behind, now we are 11 milestones ahead.

1.1.5 SR15 Completion

We delivered 5 No. delayed SR15 Completion projects in 23/24. This was against the previous year's forecast of 14. This portfolio of projects remains challenging in its development and delivery. We have some significant risks and issues in the delivery of the remaining 22 projects, 3 of these are pre gate 90 (MS2) – Roberton, Rockcliffe and Boardhouse.

1.1.6 Table G Development in 23/24.

Over the course of 23/24 we have worked with WICS to develop the new templates which includes the new summary tabs of G2, G3, G4, G5a and G5b and have worked to incorporate changes to the other tabs within the template.

We have continued to improve our output data; this is now reported in G5b. The baseline table (G6b) has been populated to align with IPS23.2. It is our intention to populate this with IPS24.1 in AR25.

The new G2, G3 and G4 tables contain information relating to the Scottish Water asset stock and the investment on those assets split into replacement, repair and refurbishment.

1.1.7 Table G Assurance

Project data within G Tables has gone through multiple assurance steps prior to population as detailed below:

Programme and Delivery Teams continually review Unifier throughout the year Unifier to ensure that data integrity is maintained. This includes live reporting identifying any data anomalies, near daily reporting back to project teams and regular performance metrics tracking forecasting performance. Regular checks are done to ensure that data is consistent between source systems and processes continue to be reviewed where any gaps are identified. System changes are made accordingly to maintain and improve data quality.

Following the end of the financial year, a snapshot of data with the end of year position is taken. This dataset is initially reviewed to identify any corrections required that were not made in the source system. Summarised versions of this dataset are then reviewed by both the Capital Investment Leadership Team and the Scottish Water Investment Group. Both these stages involve cross checks with Finance to ensure consistency between this data set and financial systems.

Key metrics (IPOD and PCL) are reviewed by the Reporter and checks are carried out to ensure that there is alignment between source systems and the finalised reports.

While producing the G tables, further checks are made to ensure that the tables include all projects with spend in the period and that there is consistency across tables. Where necessary, project categories and outputs are checked and corrected to ensure this consistency. Additional lines for G2-G5b have been added to the template where required and this has been discussed with WICS.

The Reporter audits of the G tables provide the check back to the source system Unifier. This provides comprehensive audit trails of any changes made within the system. The audits also check integrity of the formula used in the various summary tables.

Aligning the existing data so that it meets the requirements of the new templates has been challenging, however our intention over the 2024-25 financial year is to embed the new data model into our source system and to use this information internally to provide insights for our investment decision making.

1.1.8 New Needs and Committed List

During 2023-2024, Ministers approved four new needs for inclusion in the Development List (the list of needs and opportunities that have been prioritised for development – this can be found on the Scottish Government Objective Connect platform) following SGIG endorsement.

The total value of the Committed List, at the end of March 2024 is £3,111m.

2 Table G1 - SR21 Investment

Table G1 summarises actual and forecast investment over the 6-year SR21 period. The table breaks down the investment into Repair, Refurbishment, Asset Replacement, Growth, Enhancement and Completion.

It also provides actuals and forecasts for Grants and Contributions.

Additional sections on the table break investment down by Risk/Overhead/Direct Costs, Primary Purpose, Repair and Refurbishment Summary, and the breakdown of Investment by Tiers 2 and 1a.

At the end of 2023/24, the Scottish Water Tier 2 planned investment was £789m, up from £688m in 2022/23 (sum of Lines G1.77 and G1.78) During the year we were able to sustain a higher level of investment than in previous years. This is due to a higher demand and improved project delivery performance through earlier gates.

When we include responsive repair and refurbishment expenditure it was £1,025m, up £146m vs. £879m on the AR23 (line G1.79). The equivalent total investment in 2017/18 prices is £792m in AR24, up £74m from £718m in 2022/23.

We have successfully delivered a year-on-year increase in investment. This has been possible by us putting in place the following:

- working in collaboration with our supply chain partners to bring in new skills, greater capacity and capability into the construction sector.
- embracing innovation and maximising on the benefits brought from digital construction rehearsals; off-site manufacture; new water and wastewater technology; and innovative construction techniques.
- addressing the challenge of reducing embodied carbon with our partners trialling net zero construction sites.
- Putting in place our, ‘Transforming Our Future Delivery’ projects such as ‘Get to Site in Half the Time’
- Scottish Water and its partners taking the opportunity to engage with communities before; during and after the delivery of projects - enhancing our reputation in communities and leaving customers with knowledge of the importance of their local infrastructure.

A significant proportion of our planned investment (£449m or £347m in 17/18 prices – the sum of lines G1.24 and G1.74) has been in the refurbishment and replacement of existing assets. We have also invested in enhancing our asset base to support, for example, water quality and improve environmental performance (£237m or £183m in 17/18 prices) (sum of Lines G1.56 and G1.57) and to facilitate growth (£73m or £56m in 17/18 prices) (Line G1.32)

Note: all figures are rounded to whole numbers.

2.1 PCL (Progress to Committed List)

The indicator of overall Progress towards the Committed List (PCL) determines whether Scottish Water has sufficient work to enable an annual planned level of investment over the 2021-27 period (and beyond).

It is not possible to calculate this measure from the G Tables as the gate data provided in G6 starts at Gate 90. This is included as it is part of the Reporters review.

PCL measures the volume of work through the Gateway stages in comparison with a baseline plan designed to achieve the annual investment expectations. PCL is a leading indicator designed to measure capacity in planned investment and ensure a sufficient volume of investment is flowing through the project delivery runways and it is tracked between Gates 30 and 90.

PCL was created using a top-down approach by splitting the investment profile between each development pathway. PCL tracks the impact of project forecasts on future investment levels, and the target is set at 100% to achieve the required investment profile in future years. A score of less than 100% indicates that the rate of overall progress in developing interventions may not be sufficient. A score of more than 100% indicates that the rate of overall progress is more than sufficient to achieve planned investment. Changes may occur due to 'positive' or 'negative' attrition.

'Positive attrition' occurs if forecast costs for an intervention have reduced or if the required delivery timescales have been extended. 'Negative attrition' occurs if forecasts costs have increased, or additional evidence is required which extends the project appraisal process.

In addition to ensuring volume of investment, PCL is used internally to measure performance across the delivery teams for Gates 30 through to 90. Regular performance reviews are held particularly with teams involved in early-stage project delivery where forecasts are reviewed, and any issues identified and escalated.

SR15 Completion projects are excluded from the measure as there is a fixed baseline programme with project level milestones - all other projects are included. Tier 1a projects are included to provide a complete picture of investment going into construction. This would avoid a circumstance where PCL appeared to be on-track, but the appropriate type of investment was not going to the appropriate delivery vehicle. Furthermore, including all projects simplifies reporting and improves understanding of this relatively new measure in the delivery teams. The argument against including Tier 1a would be that Tier 1a projects do not go onto the Committed List and that Tier 1a projects are generally responsive in nature. On balance, we decided to keep Tier 1a projects in the measure.

While Tier 1a projects should not go on the Committed List, there have been projects on added to the Named Committed List in error. We have kept them on the Committed List for historical consistency, and have a check and review process now in place to ensure this doesn't happen in future.

At the end of 23/24, PCL out turned at 117% indicating that we are developing sufficient volumes of investment across the programme to achieve planned investment in future years.

- The Baseline PCL value for 2023-24 was £863.7m. The cumulative PCL Baseline value as of 31 March 2024 was £1,623.2m (as of 31 March 2023) + £863.7m = £2,486.9m.
- The Forecast PCL value for 2023-24 was £1,069.5m. The cumulative PCL Forecast value as of 31 March 2024 was £1,843.9m (as of 31 March 2023) + £1,843.9m = £2,913.4m.
- The PCL Score at the 2023-24 year-end is 117.2%.
- As we currently have more 'live demand' than available funding, we have begun Investment Phasing: moving projects into the next investment period (SR27). Analysing our investment by Management Approach allows us to identify particular areas where investment is 'over-heating' and make informed decisions about which projects to Phase.

PCL Baseline vs Actual by Gate - YTD Actual	Baseline	Actual	Variance	Percentage
Tier1a	195.0	179.6	-15.4	92.1%
Tier2	668.6	889.9	221.3	133.1%
Total YTD	**863.7**	**1,069.5**	**205.9**	**123.8%**
Cumulative to 2022-23-P12	1,623.2	1,843.9	220.7	113.6%
Cumulative Total	**2,486.9**	**2,913.4**	**426.6**	**117.2%**

PCL Baseline vs Actual by Gate - Actual Score	Baseline	Actual	Variance	Percentage
G30	90.5	201.5	111.0	222.7%
G40	83.1	121.5	38.4	146.2%
G50	79.3	143.2	63.9	180.5%
G70	158.9	125.4	-33.5	78.9%
G80	167.9	140.4	-27.6	83.6%
G90	283.9	337.5	53.6	118.9%
Total YTD	**863.7**	**1,069.5**	**205.9**	**123.8%**
Cumulative to 2022-23-P12	1,623.2	1,843.9	220.7	113.6%
Cumulative Total	**2,486.9**	**2,913.4**	**426.6**	**117.2%**

2.2 Performance Trends

All values reported on G1 and in the commentary are in outturn prices unless explicitly stated.

Retrospective changes to previously reported actuals: As detailed below on a section-by-section basis, retrospective changes to the 2022-23 previously reported actuals have occurred. The G tables reflect our current best view of the 6-year investment period categories. While changes to project categorisation through the project lifecycle are expected to occur regularly, there have been changes due to the implementation of the SR21 programme (particularly classification of AR3 (Asset Repair Refurbishment Replacement) projects that were initiated in the SR15 period).

Project classification changes can be caused for the following reasons:

- **Further upgrades to Unifier functionality**. This allows SR21 project investment to be split across multiple needs / drivers / purpose. This is an improvement in the accuracy of the programme and more accurately reflects larger projects contributing to the delivery of multiple needs within the programme.
- **Management Approach Reviews**. Internally, regular Management Approach reviews are conducted with the Management Approach owners. These reviews highlight any data incorrectly assigned to a Management Approach and where necessary this has been changed. AR3 projects that started in SR15 (prior to the current system of Need and Management Approach mapping) and have been remapped to SR21 Needs have formed a substantial number of these changes.
- **Assessment of projects through the Capital Analysis Form process**. As part of the Gate 90 and Gate 110 approval process, projects are assessed in detail to determine how much of the work is refurbishment, replace or repair. This can lead to changes in the categorisation of projects between the AR3 categories and could potentially change the project from being Tier 1a or Tier 2.

- **Review and assessment of projects generated through the Non-Complex Service Delivery process**. One of the improvements put in place over the previous years has been the introduction of an app to promote projects through the Non-Complex Service Delivery route. This enables projects to be raised quickly by the CSD teams and gives greater granularity of projects which would have previously been part of 'block lines' and not visible. Reviews have indicated that categorisation of some projects generated through this app needed to be changed and the process updated to improve the accuracy of the categories at project initiation.
- **Scope change**. During the project lifecycle the scope of work may change to incorporate different refurbishment, replacement or repair activities. This is generally updated at Gate review changes where scope changes are approved.

Furthermore, the combined Repair and Refurbishment category has been split into two unique categories for AR24, while Inspections is a new category.

Currently we do not have sufficient data to separate Wastewater into Foul and Surface Water Only. Therefore, these have been included in Wastewater.

Lines G1.01-G1.06 Inspections and Testing

These lines break down Inspections and testing for Water and Wastewater, with £37m invested in AR24 and a total of £219m forecast in the SR21 period (G1.06).

Lines G1.07-G1.12 Repair

These lines break down Repair into Water, Wastewater and General, with £305m invested in AR24 and a total of £1,427m forecast in the SR21 period (G1.12).

Lines G1.13-G1.18 Refurbishment

These lines break down Refurbishment into Water, Wastewater and General, with £75m invested in AR24 and a total of £442m forecast in the SR21 period (G1.18).

Lines G1.19-G1.24 Asset Replacement

These lines break down Asset Replacement into Water, Wastewater and General, with £299m invested in AR24 and a total of £1,768m forecast in the SR21 period (G1.24).

Lines G1.25-G1.32 Growth

These lines break down Growth into Strategic Capacity and Strategic Network Capacity for Water and Wastewater, with £72m invested in AR24 and a total of £455m forecast in the SR21 period (G1.32).

Lines G1.33-G1.40 Enhancement

These lines break down Enhancement into various categories, most notably Water Quality with £59m invested in AR24 (G1.33) and Managing Quantity of Flows with £27m (G1.38). The total invested across all Enhancement categories in AR24 was £187m, and the total forecast for the SR21 period is £1,449m (G1.40).

Lines G1.41-G1.45 Completion Programme

Lines G1.41 details SR10 Completion, while lines G1.42-44 detail SR15 Completion. There was £50m spend across the full Completion Programme in 2023/24, and a total forecast of £290m in the SR21 period (G1.45).

Table G7 further details Completion by Outputs and by projects remaining.

Lines G1.46-G1.50 Grants and Contributions

Lines G1.46-G1.50 details Grants and Contributions for infrastructure and non-infrastructure, with £3m in 2023/24, and a total forecast of £37m in the SR21 period.

Lines G1.51-G1.61 Expenditure Totals

Line G1.58 totals Inspections and testing, Repair, Refurbishment, Asset Replacement, Growth, Enhancement and Completion, for a 2023/24 Gross Investment figure of £1,025m.

Less Capital Contributions of £3m, Net Investment for 2023/24 is £1,022m.

Growth (G1.55), Enhancement (G1.56) and Completion (G1.57) combine to give Total Asset Additions of £309m in 2023/24 (G1.61).

Lines G1.62-G1.65 Risk and Overhead Investment Breakdown

These lines break down the total gross investment into Direct Costs, Project Overheads and Risk Allowance. This is not profiled and is in the table as a total.

Project overheads reflect the incremental portfolio, programme and project support costs which are not project specific. The costs are primarily driven by Capital Investment and Environment, Planning & Assurance (EPA; formerly Strategic Customer Service Planning (SCSP)), where the activities are directly associated with planning and managing the investment portfolio and programmes of work. The activities of the teams are captured through time recording and activity-based analysis to provide robustness to the cost analysis and ensure that only those activities which are incremental to the investment activities are allocated to the investment portfolio.

A proportion of other incremental business costs required to support these teams such as digital, property, HR and finance are also included. These support costs are allocated to delivery projects at a rate of 7% of their LBE (Latest Best Estimate). These indirect support costs projects should be fully allocated to delivery projects by the end of the regulatory period and have an LBE £0m. This is a standard business practice and was implemented at the formation of Scottish Water.

Risk registers for appropriate projects are developed and used to appropriately hold contingent sums for events that have the potential to materialise as projects are delivered – based on best practice and detailed experience of delivering capital projects. This results in risk allowances of £108m captured by the project teams within Scottish Water's Unifier system. These costs are captured using project level risk registers, included within the project LBE, and are identified through Scottish Water's Portfolio Management Risk Management Process. These are maintained and updated by the project teams. Generally, these allowances are expended as part of the normal delivery of the programme and management of risk.

Lines G1.66-G1.71 Primary Purpose Investment Breakdown

These lines split the investment into Primary Purpose: Water, Wastewater and General. 52% of AR24 investment was Water, 43% Wastewater and 6% General (Note this does not total 100% due to rounding).

Lines G1.72-G1.75 Planned and Responsive Repair & Refurbishment

These lines split the Repair and Refurbishment investment into: Responsive repair and refurbishment investment previously expensed as operating expenditure ('Tier 1'), Remaining responsive repair and refurbishment investment ('Tier 1'*) and Planned repair and refurbishment investment ('Tier 2').

*This is referred to internally as 'Tier 1a'

The total of £380m (G1.75) is also the sum of Repair at £305m (G1.12) and Refurbishment at £75m (G1.18), with £1,869m forecast in the SR21 period.

Lines G1.76-G1.80 Tier Investment Breakdown

These lines split the gross investment of £1,025m into Tier 1a (£236m, G1.76) and Tier 2 (£789m, G1.77 plus G1.78).

They further split the Tier 2 investment into Committed List projects (Named and Programmes; £702m, G1.78) and Pre-committed List (£87m, G1.77).

Line G1.80 is a calculation of net Tier 2 investment excluding Asset Replacement and Support.

Lines G1.81 and G1.82

These lines provide the profiles of Water and Wastewater RCC investment, with Water (£8m, G.81) and Wastewater (£25m, G.82) totalling £33m in AR24.

Line G1.83

This line provides the total gross investment including RCC as a historical comparison with previous returns. This totals £1,058m for 2023-24.

Line G1.84

This line reflects the Infrastructure Charge contributions for infrastructure assets. The actual for the current year is £18.5m and future forecasts of £18.604m per year for remaining years is estimated based on the previous 5-year run-rate.

Lines G1.85 and G1.86

These lines are calculations. Line G1.85 is the Total Contributions excluding Infrastructure Charge and Line G1.86 is calculated to provide the total Net Capital Investment.

2.3 Data

2.3.1 Data sources and confidence grades

The majority of data in Table G1 is sourced from Table G6a, using the profile in Block G: Forecast Expenditure (outturn). This is multiplied by the appropriate columns in Block B: Allocations.

Calculations have been left in Table G1 to allow easier reference back to Table G6a.

Lines not sourced from G6a are:

- Grants and Contributions (Lines G1.46-G1.50) actual data is sourced from the Finance and Billing System (FAB).
- G1.84 Infrastructure charge contributions for infrastructure assets is sourced from the Finance and Billing System (FAB).

The live project data is based on project level forecasts and data from Scottish Water's systems and are accorded a Confidence Grade of A1. Non-live data is significantly less certain and has a Confidence Grade of B1. Estimates for future contributions have also been allocated a Confidence Grade of B1 as it is estimated based on run-rates.

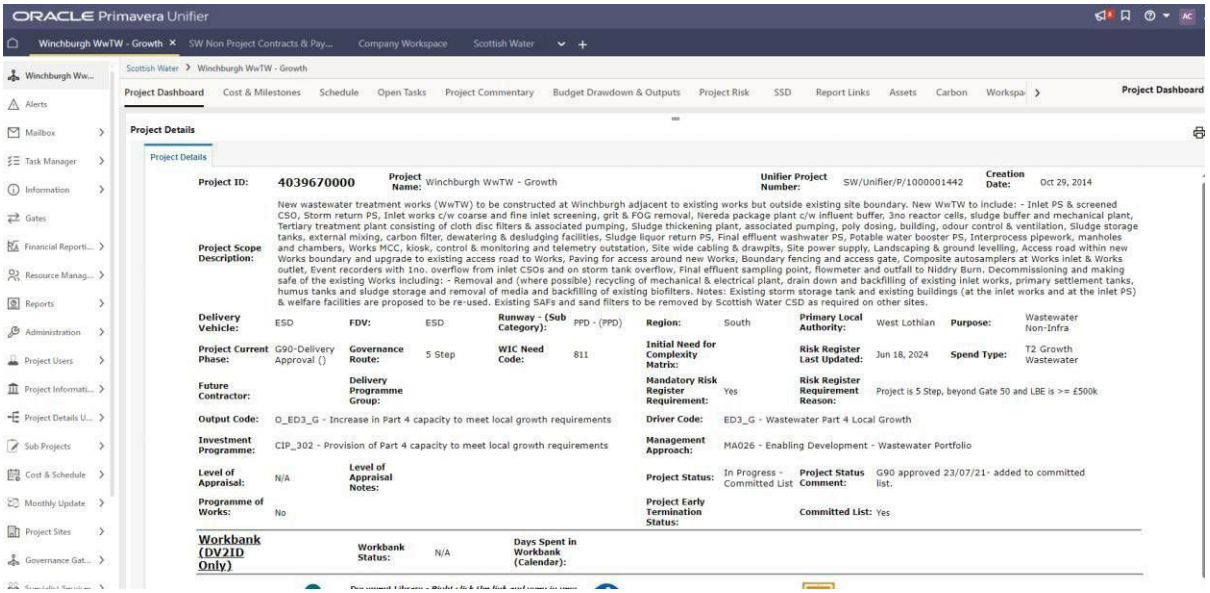
2.3.2 Data Improvement Programmes

We continue to undertake data improvement initiatives across the Capital Programme. As part of an assurance exercise, some projects were re-tagged relative to their previous Need code to Project code mapping.

As projects progress through the governance Gates, the repair, refurbish and replacement categories are also assessed. This regularly occurs when the Capital Analysis Forms (CAF) are assessed by Scottish Water's Tax team in our Finance Directorate. In some instances, this will change categories on previously incurred investment.

As part of ongoing data cleansing activities, we continue to increase the overall integrity of information captured within our systems for the circa 35,500 projects detailed in the return.

We also continue to improve cost and date forecasting within the Unifier system through system improvements. We have improved point of entry data validation and also enhanced reporting made available to the Project Managers, Quantity Surveyors, P6 Planners and Programme Managers. In 2024, we developed a live reporting hub – this provides all project stakeholders a single place for summarised project, programme and portfolio information. An extract from our Oracle Unifier system is provided below



Categorisation of projects continues to improve, and data anomalies encountered during the production of the Section G Tables will be fed back into either system or process improvements.

There have been several enhancements to Unifier in the AR24 period.

- automation of the Complexity Matrix to derive appropriate Project Governance Route
- design introduced to allow early closure or abandon of projects where criteria is met, allowing closedown data to be captured in a controlled process
- facility to manage a Rolling Investment Programme was introduced to allow spend to be forecast across multiple SR periods
- introduction of forms to manage projects that are held in a Workbank by the Delivery Vehicle (DV2ID) due to resource constraints. This manages the forecast dates based on expected delay and ensures no further costs are incurred to the project whilst in Workbank state
- improvements to the Project Risk Register design to streamline the data capture and improve user experience
- automation of Future Delivery Vehicle selection for correct allocation and forecasting
- improved robustness of our integrations with Oracle Fusion (Finance) to increase accuracy
- simplified user update to record latest Project Carbon values across the delivery lifecycle and allow updates in between Governance Gates
- the facility to trigger Electronic Signature requests from Unifier (using Adobe eSign) has been developed and is now being trialled by the Commercial area
- governance of Water Into Supply approval has been moved from a standalone form onto Unifier with approval managed through workflow, with resulting Reporting
- wider technical build of a data warehouse to enable external reporting directly from Unifier and remove dependency on external databases

Redesign of Outputs Management will be rolled out to simplify data capture with enhanced validations to improve data quality, and is well underway in June 2024.

2.3.3 Assumptions used for forecast data

The forecast and actual profiles are based on project forecasts. These are the best estimates of the forecast cost of the programme for projects that are live.

While the actual Grants and Contributions are taken from the FAB system, the forecasts are based on the run-rate of the previous 5 years and extended for the remainder of the investment period.

3 Table G2 - Replacement, G3 Repair, G4 Refurbishment

G2, G3 and G4 are new tables and detail Replacement, Repair and Refurbishment, respectively. The tables follow the same layout and as such, G2 is interchangeable with G3 and G4 in the below commentary.

The investment data contained with G2-G4 is generated from Unifier data for the split between Replacement, Repair and Refurbishment, expenditure profiles and the need codes. An assessment was carried out to allow the tables to be populated. This aligns need codes to asset and sub asset categories. This was done both for the IPS24.1 data and retrospectively for IPS23.2 data. While the mapping of need to asset data is broadly correct, further work is required to make this alignment more robust. This includes new needs to ensure the correct granularity of investment and asset stock data.

The MEAV and asset stock data is generated from the H table dataset. Costs and volumes in the G Table are based on the number of unit level records that are operational and where a MEAV valuation is calculated – i.e., a cost model can be allocated. The costs and volumes are aligned to the sites that are reported in Table H.

For MEICA:

Volumes – this is calculated as the total number of units where the gross MEICA valuation is greater than zero – i.e., the cost model for that unit includes a split of costs associated with MEICA assets.

Costs – this is calculated as the total gross MEICA valuation for the assets for a particular category. Note, the gross MEICA valuation excluded the estimate of land value (3.5%) that is included in the Table H MEAV as it was deemed to not be applicable for the valuation of interventions.

For CIVIL:

Volumes – this is calculated as the total number of units where the gross CIVIL valuation is greater than zero – i.e., the cost model for that unit includes a split of costs associated with CIVIL assets.

Costs – this is calculated as the total gross CIVIL valuation for the assets for a particular category. Note, the gross CIVIL valuation excluded the estimate of land value (3.5%) that is included in the Table H MEAV as it was deemed to not be applicable for the valuation of interventions.

The cost base for Table G is adjusted to the CPI index for 2017/2018, whereas the valuation in Table H is reported in the CPI index for the Annual Return period (AR24).

Asset lives are derived from Scottish Water's analytical deterioration models. These models have been calibrated to the current performance of the asset base to allow forecasting of capital maintenance demand. For asset categories that do not have a deterioration model developed, the lives have been based on subject matter expert elicitation.

Where an Asset Category contains Civil and MEICA sub assets the summed total for asset stock has not been included as this could cause confusion when comparing with other tables such as H where the asset stock total is for the site and not the sub assets within a site. Whereas the value is consistent given the value is calculated as sub asset level and summed to calculate the site valuation.

The G table separates out sewers under three different categories: Surface water, Foul only and Foul sewage & surface water shared (Combined). Surface water and foul were entered in

their categories. Combined, laterals and remaining minor types e.g., Trade effluent and Treated effluent were entered into Foul sewage & surface water shared as this was the closest category. This enabled complete inclusion of sewers so totals to the same length as H4.1 and E7.8.

3.1 Background

While the tables have been populated with the data that is available within our systems, it has not been possible to conduct detailed analysis of the information held within the tables. Further work is required by Scottish Water to understand the impact of investment on specific assets, their expected life and condition. The generation of the tables and planned update of data models within Scottish Water systems should facilitate this for future returns.

It has also not been possible to populate Block B (Investment consistent with asset management policies). This is intended to be populated in future returns.

3.2 Explanation of Blocks

Block A: Asset Information

Column 1 Asset Value (2017-18 prices)

Column 2 Asset Stock

Column 3 Assumed Asset Life

Column 4 Annual run rate (no.) for replacement

Column 5 Annual run rate (£) for replacement (2017-18 prices)

Block B: Investment Consistent with Asset Management

Column 6: Projected expenditure from 2021-22 to 2026-27 (2017-18 prices)

Column 7: Projected expenditure from 2027-28 to 2032-33 (2017-18 prices)

Column 8: Projected expenditure from 2033-34 to 2038-39 (2017-18 prices)

Column 9: Projected expenditure from 2039-40 to 2044-45 (2017-18 prices)

Column 10: Projected expenditure from 2045-46 to 2050-51 (2017-18 prices)

Block C: Investment baseline (Investment Planning Scenario 23.2)

Column 11 Projected expenditure in investment baseline pre 2021-22 (2017-18 prices)

Column 12 Projected expenditure in investment baseline in 2021-22 (2017-18 prices)

Column 13 Projected expenditure in investment baseline in 2022-23 (2017-18 prices)

Column 14 Projected expenditure in investment baseline in 2023-24 (2017-18 prices)

Column 15 Projected expenditure in investment baseline in 2024-25 (2017-18 prices)

Column 16 Projected expenditure in investment baseline in 2025-26 (2017-18 prices)

Column 17 Projected expenditure in investment baseline in 2026-27 (2017-18 prices)

Column 18 Projected expenditure from 2021-22 to 2026-27 (2017-18 prices)

Column 19 Projected expenditure from 2027-28 to 2032-33 (2017-18 prices)

Column 20 Projected expenditure from 2033-34 to 2038-39 (2017-18 prices)

Column 21 Projected expenditure from 2039-40 to 2044-45 (2017-18 prices)

Column 22 Projected expenditure from 2045-46 to 2050-51 (2017-18 prices)

Column 23 Surplus/deficit relative to high-level asset replacement work (£)

Block D: Actual to date and updated forecast

Column 24 Actual number of replacement interventions pre 2021-22

Column 25 Actual number of replacement interventions 2021-22

Column 26 Actual number of replacement interventions 2022-23

Column 27 Actual number of replacement interventions 2023-24

Column 28 Actual number of replacement interventions 2024-25

Column 29 Actual number of replacement interventions 2025-26

Column 30 Actual number of replacement interventions 2026-27

Column 31 Actual expenditure pre 2021-22 (2017-18 prices)

Column 32 Actual expenditure 2021-22 (2017-18 prices)

Column 33 Actual expenditure 2022-23 (2017-18 prices)

Column 34 Actual expenditure 2023-24 (2017-18 prices)

Column 35 Projected expenditure in 2024-25 (2017-18 prices)

Column 36 Projected expenditure in 2025-26 (2017-18 prices)

Column 37 Projected expenditure in 2026-27 (2017-18 prices)

Column 38 Projected expenditure from 2021-22 to 2026-27 (2017-18 prices)

Column 39 Projected expenditure from 2027-28 to 2032-33 (2017-18 prices)

Column 40 Projected expenditure from 2033-34 to 2038-39 (2017-18 prices)

Column 41 Projected expenditure from 2039-40 to 2044-45 (2017-18 prices)

Column 42 Projected expenditure from 2045-46 to 2050-51 (2017-18 prices)

Column 43 Surplus/deficit relative to high-level asset replacement work (£)

3.3 Explanation of Rows on Sheet

Lines G2.01-G2.50 Water
Lines G2.01-G2.50 detail the Water service, and are further broken down into the following Functional Activities:

- Source
- Water Treatment Works
- Distribution

Lines G2.51-G2.84 Foul sewage & surface water shared assets
Lines G2.51-G2.84 detail Foul sewage & surface water shared assets, and are further broken down into the following Functional Activities:

- Collection
- Wastewater Treatment Works
- Discharge

Lines G2.85-G2.118 Foul sewage only
Lines G2.85-G2.118 detail the Foul sewage service, and are further broken down into the following Functional Activities:

- Collection
- Wastewater Treatment Works
- Discharge

Lines G2.119-G2.147 Surface water only
Lines G2.119-G2.147 detail the Surface water service, and are further broken down into the following Functional Activities:

- Collection
- Wastewater Treatment Works
- Discharge

Lines G2.148-G2.156 Shared
Lines G2.148-G2.156 detail the Shared service, with a single Functional Activity of Business Services, and single Asset Category of Support Services.

The lines are further broken down into Sub Asset Category:

- Vehicles
- Digital
- Facilities and estates
- Renewable energy
- Scientific services
- Customer meters
- Transformation
- Other

4 Tables G5a and G5b Enhancement and Growth

Table G5a summaries the data contained within G5b - Outputs by Output Category.

4.1 Overview

G5b details the SR21 funded Enhancement and Growth programme by Investment area (Growth, Enhancements – Water Quality, Enhancements – Water Environment, Enhancements Climate Change Mitigation, Enhancements – Circular Economy, Enhancements – Water Continuity, Wastewater – Managing Quantity of Flows and Enhancements – Other).

4.1.1 G5b Outputs

The table provides the Output Category, Description of output, Output Code and Units for each output, the spend profile for the SR21 period from IPS 23.2 and IPS 24.1 in 17/18 prices (using the CPI index) and the profile in outturn prices. It also includes the forecast and actual output profiles from IPS 23.2 and IPS 24.1.

4.2 Data

4.2.1 Data sources and confidence grades

Data within G5b is sourced from G6a and G6b and formula within the sheet can be used to trace back to the project/need level information.

Expenditure data, including the spend profiles and need code breakdown, is generated from the Scottish Water Unifier system using a snapshot taken at year end. Where necessary, need codes have been corrected post the snapshot being taken.

Rephasing of investment continues at project level so that the SR21 programme remains within the funding level. However, this exercise is not complete and to align the live project investment with funding, adjustments have been added. These are made at need level and are split between T1a and T2 where the need has a mixture of planned and responsive investment.

Output data is also generated from the Unifier system. While the data quality of outputs has improved significantly since the first inclusion of outputs within the SR21 annual returns. There are still some data quality concerns within Unifier and misalignment with investment needs. A substantial system improvement is likely to be completed by July 24 which will address output data quality and force the link between need and output code in the source system. The benefit of the system improvement will be realised during 2024-25.

To populate G5b each enhancement / growth project has been assigned an Output Category and Output Code. This allows the table to be populated and ensures alignment between G1, G5a, G5b and G9. In many cases the Output quantity will be 0. This is either because the project is not delivering the output, is an investigation, is not expected to reach gate 100 in the SR21 period or because the output is not yet known / understood.

Where the Primary Investment Category is Completion, no SR21 outputs are reported. This is to avoid double counting of outputs across investment periods.

4.3 Commentary

While the G5a and G5b tables have been populated with the data that is available within our systems, it has not been possible to conduct detailed analysis of the information held within the tables.

Further work is required by Scottish Water to incorporate tracking and monitoring of outputs at the level detailed in G5b. This. combined with the system improvements, will generate the more detailed commentary for future returns.

5 Table G6a - Actuals and Forecast

G6a is a data extract that is used to generate the summary tables within the G tables. It primarily details the output and investment data for projects at need level. It has been aligned with IPS 24.1.

Block A: Base Information

Column 1 Unique ID.

This is a concatenation of the Project Autocode (Column 2), Need ID (Column 53) and Driver (not included in the AR24 backup data).

Column 2 Project Autocode

This gives the unique ID that is used by Scottish Water to track projects through our systems.

Column: 3 Project Title

This is the name of the project in our systems.

Column 4 Asset category

Asset category is populated based on the Need ID in column 53. The categories align with those used in G2-G4.

Column 5 Sub-asset category

Sub asset category is populated based on the Need ID in column 53. The categories align with those used in G2-G4.

Column 6 Functional activity

Sub asset category is populated based on the Need ID in column 53. The categories align with those used in G2-G4.

Column 7 Primary Investment Category**.** This is a calculated field that shows the main component of the project. Categories used are:

- Completion - SR10 and SR15 Completion
- Enhancement –SR21 Enhancement
- Growth – Growth
- Inspections – Inspections and testing
- RCC – Reasonable Cost Contributions (RCC)
- Refurbishment – Refurbishment
- Repair – Repair
- Asset Replacement – Replacement.
- Support – removed from AR24 and allocated to the other categories as appropriate.

Column 8 Project location - Local Authority. The local authority where the project is located. In some cases, the project will span multiple areas and be regional (East, West, North, South) or may be Scottish Water Wide. For operational reasons, some Unitary Authorities are split further depending on where the asset is managed from

Column 9 Water resource zone. This shows the name of the water resource zone where a project has either a Letter of Commitment, Enforcement Notice or Management Interests of Safety (MIOS).

Column 10 Sewerage District

It has not been possible to populate this data.

Column 11 Asset units

Asset units is the unit of the intervention

Column 12 Number of interventions

For enhancement, growth and completion projects, this is the number of projects and for AR3 (Refurb, Replace, Repair) this shows the number of outputs associated with a project.

Block B: Allocations

Block B shows the allocations assigned to each category. As the data is populated at a need level, the allocations to the categories (except Water / Wastewater) will be 100% and align with the Primary Investment Category.

Column 13 % allocation of expenditure to replacement

Column 14 % allocation of expenditure to repair

Column 15 % allocation of expenditure to refurb

Column 16 % allocation of expenditure to enhancement

Column 17 % allocation of expenditure to growth

Column 18 % allocation of expenditure to water

Column 19 % allocation of expenditure to wastewater

Column 20 % allocation of expenditure to foul sewage

Column 21 % allocation of expenditure to surface water drainage

Column 22 % allocation of interventions to replacement

Column 23 % allocation of interventions to repair

Column 24 % allocation of interventions to refurb

Block C: Likelihood of Delivery

Column 25 Committed Status. This column indicates whether a project is on the Committed List Named or Programmes however it also gives some additional information for the project status. The categories are:

- **Adjustment –** The lines tagged as adjustment have been added to the tables to align the live (in Unifier) projects to the IPS totals at need level and aligns with the planned investment level. Rephasing of investment continues at project level so that the SR21 programme remains within the funding level. However, this exercise is not complete and to align the live project investment with funding, adjustments have been added. These are made at need level and are split between T1a and T2 where the need has a mixture of planned and responsive investment.
- **Committed Exclusions** - This flag is for projects that are not on the Committed List Project/Programmes either because they are excluded due to being Tier1a/RCC or have no budget on the Committed List Programmes.
- **Committed List Named** – This identifies projects that are on the Named Committed List due to meeting the Committed List Criteria. Projects on the Named Committed list are used to generate the IPOD metrics. The information provided is from the Committed List 2023-24 Q4.

- **Committed List Programmes** – This identifies projects that form part of the Committed List Programmes sheet within the Committed List from 2023-24 Q4. Projects are entered onto the list when they achieve G90, are Tier 2 and have a G90 budget. It is primarily used to track the volume of committed investment for projects not fully meeting the criteria for being on the Named Committed list.
- **Pre-committed** – This identifies projects that are pre gate 90.
- **Pre-committed Named** – This identifies projects that are expected to form part of the Named Committed List based on LBE being greater than £1m. Projects in this category will need to be further assessed at G90 to determine whether they fit other criteria.

Column 26 Projected period of delivery.

The Investment Period the project has been or will be delivered in.

Block D: Actual/Forecast Dates

Columns 27-30 Forecast dates. This shows the forecast or actual dates associated with a project. If a date is pre-April 2024, then it is an actual otherwise it is a forecast date.

Block E: Number of Asset Interventions

Block E shows the profile of interventions totalled in column 12 and is based on the G100 data for each project.

Column 31 Number of interventions pre 2021-22

Column 32 Number of interventions in 2021-22

Column 33 Number of interventions in 2022-23

Column 34 Number of interventions in 2023-24

Column 35 Number of interventions in 2024-25

Column 36 Number of interventions in 2025-26

Column 37 Number of interventions in 2026-27

Column 38 Number of interventions post 2026-27

Block F: Outputs actual to date and forecast

Column 39 Ministerial objective (primary purpose). This provides the Ministerial Objective that the project is contributing towards. It is derived from the Need Ref.

Column 40 Output category description

All Enhancement and Growth projects have an output category description populated. This is based in the Need ID and is used within the return to populate G5a and G5b.

Column 41 Output description

The output description gives the full description of the output code used in column 51.

Column 42 Number of outputs (or output value).

This provides the quantity or number of outputs where project outputs have been identified.

Column 43 Output units. This provides the unit where project outputs have been identified. This is generally 'Nr.' for number but also includes population equivalent (PE), GWhr and metres.

Columns 44 to 50 Outputs Delivered

These columns show the profile of the outputs totalled in column 43 and is based on the G100 date when the output will be delivered and singed off.

Column 51 Output code This provides the code where project outputs have been identified for SR21 projects. SR15 Completion outputs are detailed in Block K and do not have outputs populated in this field. The output code is used to populate G5b for enhancement and growth projects.

Column 52 Need ID The Need ID is the lowest level coding for a project and is used to determine the Management Approach, Sub Programme, Programme, Sub Portfolio, Portfolio and Ministerial Objective. This is identified on project setup and is monitored for accuracy. Where projects were created prior to SR21, a review has been undertaken to establish the correct coding.

Block G: Forecast Expenditure (outturn)

Columns 53 to 65 Expenditure These give a forecast or actual profile of investment over the 6-year period with totals pre 2021-22, and forecast totals post 26-27. Actual costs are extracted from Scottish Water's FAB system and the forecast profile is extracted from Unifier for all live projects.

The Pre-2021-22 column is completed to allow the Total Project value to be calculated.

Projects are included on the table based on having a financial transaction in the SR21 period or from having outputs. For more information and a complete view of Scottish Water's spend Pre- 2021-22, previous Annual Returns would need to be reviewed.

Block H: Forecast Expenditure (2017-18 prices)

Column 66 to 78 Expenditure (2017-18). As per lines 53 to 65, but in 2017-18 prices.

Block I: Forecast Expenditure (2017-18 prices) (Cumulative)

Column 79 to 89 Cumulative Expenditure.

Full cumulative expenditure, in 2017-18 prices, of all projects with financial transactions or outputs in the SR21 period, from Pre 2021-22 until 2051. Currently the SR21 period shows investment that aligns the IPS and SR27 period onward only shows live investment. It is planned to populate this more fully in future returns.

Block J: Carbon

Columns 90 to 97 Carbon Impacts. The Carbon Impact data that Scottish Water collects is held in columns 90 and 91. Scottish Water do not currently collect data in a format that allows the population of columns 93 to 96. All operational carbon impact is assumed to be Annual scope 1 operational carbon impact CO2.

Block K: Reference to previous regulatory periods (Completion investment)

Column 98 Completion Investment.

This shows the forecast cost of the SR15 Completion Programme post-March 21 and can be compared with column 105 Total Budgeted Expenditure for Completion Projects.

Column 99 Investment Period (SR15).

This shows the investment period the Completion Project with which it is associated.

Column 100 Planned or Delayed Completion Projects.

This shows whether the project forms part of the SR15 Completion programme for remaining outputs as either 'Planned' (projects due to be delivered after the 31 March 21) and the 'Delayed' (projects due to be delivered before 1 April 21) completion projects. In some cases, projects are delivering more than 1 output, the additional output is flagged as 'Duplicate Delayed' or 'Duplicate Planned'. This associates the dates, outputs and OMD points with the project.

Column 101 SR15 Output Name.

This gives the output name used in the SR15 period and aligns with the OMD extract and DAGWG (now SGIGWG) graphs from the end of 20-21 reporting. It is only populated for projects that were outstanding at the end of SR15.

Column 102 SR15 Output Quantity.

This gives the output quantity used in the SR15 period and aligns with the OMD extract and DAGWG (now SGIGWG) graphs from the end of 20-21 reporting. It is only populated for projects that were outstanding at the end of SR15.

Column 103 Technical Expression Autocodes.

This gives the output reference code used in the SR15 period and aligns with the OMD extract and DAGWG (now SGIGWG) graphs from the end of 20-21 reporting. It is only populated for projects that were outstanding at the end of SR15.

Column 104 OMD Points.

This gives a breakdown of the remaining OMD points that were not delivered in the SR15 period.

Column 105 Total Budgeted Expenditure for Completion Projects. This gives the baseline budget for the SR15 Programme. This aligns with the values provided in AR23 and outperformance assessment. It does not include the £13m reduction for investment planned after 20-21 in the SR15 Table K. If this is included the column would total £290.7m.

Columns 106 to 110. Baseline MS1-MS5. This gives the baseline for MS1 to MS5 dates for the SR15 Completion Programme. This was fixed and aligns with the OMD extract reported at the end of 20-21 reporting. Dates here may differ from the Committed List as when projects were added to the list, the forecast dates were re-assessed considering known delivery risks to provide a more robust view.

Columns 111 to 115 Forecast MS1-MS5. This gives the latest forecast (post March 2024) and actual (pre April 2024) milestones for the SR15 Completion Programme.

Block L: Reference to Committed list

Over the course of the year projects of a total value of £528m[1] were committed for delivery and were added to the Committed List (the list of projects and programmes Scottish Water has committed to deliver - this can be found on Objective Connect and Table G6a). In addition, programmes of work increased by £490m[2]. The total value of the Committed List, at the end of March 2024 was £3,111m[3].

[1] Table G6a. Column 25 **Committed Status** = "Committed List Named"; Column 27 **Forecast Gate 90 Date** = April 2023 to March 2024 inclusive*. The subtotal of £528m is stated in Column 122 **Project Value Post March 21 £m**.

*Note: E-WW-NI-020821-Kennethmont WWTW Inlet screen and washwater replacement, Unique ID 514551:725:WW1_M, was originally given G90 approval on 20/12/2021 (Table G6a, column DR/122) and placed on hold pending work undertaken at the same site under Project ID 403782. Project 514551 was subsequently re-approved in October 2023 to be added to the Committed List. As such, it is necessary to manually add this project to the selection to view the project total of £528m.

[2]This is derived by comparing AR23 and AR24

[3] Table G6a. Column 25 **Committed Status** = "Committed List Named" and "Committed List Programmes". The subtotal of £3,111m is stated in Column 122 **Total Project Value Post March 21 £m**.

Progress in delivering the Committed List for projects over £1m is measured at high level by our Indicator of Progress of Overall Delivery (IPOD), which assesses the progress of investment projects monitored by SGIG across 3 delivery milestones (Start on Site, gate 100 and gate 110) combining this information to give an overall score. At the end of March 2024 IPOD out turned at 889 points (Line G8a.96), within the target range of 819 to 937 points.

Column 116 MA Ref. This identifies the Management Approach a project is in and is based on the Need Reference. SR15 shows SR10 and SR15 Completion projects and SR21_Prog_Over shows lines covering programme overheads.

Column 117 Baseline Gate 90 Date

Column 118 Baseline Start On Site Date. The target Start on Site Date for Committed List projects, set at the time of committal (Gate 90 Delivery Approval).

Column 119 Baseline Gate 100 Date. The target Acceptance (Gate 100) Date for Committed List projects, set at the time of committal (Gate 90 Delivery Approval).

Column 120 Baseline Gate 110 Date. The target Financial Completion (Gate 110) Date for Committed List projects, set at the time of committal (Gate 90 Delivery Approval).

Column 121 Total Project Value £m. The Total Project Value for the full Committed List across all years.

Column 122 Project Value Post March 21 £m. The Total Project Value for the full Committed List post March 2021.

Column 123-131.

The Committed List Budget profiled by year, from 2021-22 onwards. The sum of these columns is the equivalent of column 122: Project Value Post March 21 £m.

Column 132 Direct Costs.

This gives the Committed List Budget without risks or overhead.

Column 133 Risk Site Specific.

This gives the value of risk within the LBE when the project was added to the Committed List. Risk forms part of the project's cost breakdown structure within Unifier.

Column 134 Risk Programme /General.

This gives the value of risk not within the LBE when the project was added to the Committed List. For new projects this is 12% based on previous experience of LBE increases post G90. For projects added when the Committed List was initiated, the risk added varied based on a line-by-line assessment through Scottish Water's Commercial Team.

Column 135 Overhead.

This gives the value of Scottish Water's overhead when the project was added to the Committed List. It is applied to a project at its various governance stages and is actualised. If it has not been actualised, it will be forecast and forms part of the project's cost breakdown structure in Unifier.

Column 136 to 144

Columns 136 to 144 show the indexation forecast and actual that was used when the project was added to the Committed List.

Block M: Reference to Baseline

Column 145 Baseline reference code

Column references to the line the baseline reference code used in G6b.

Column 146 G1 REF

Added to the sheet to allow the calculation of G1

Column 147 G9 REF

Added to the sheet to allow the calculation of G9

Column 148 TIER.

Either Tier 1a, Tier 2 Committed List, Tier 2 Pre Committed, or RCC. Added to the sheet to allow the calculation of G1

Column 149 Forecast Direct Costs.

This gives the Total Project Value over 2021-27 without risks or overhead. Non-live Investment is fully allocated to this category.

Column 150 Forecast Risk Site Specific.

This gives the value of risk within the Total Project Value over 2021- 27. Risk forms part of the project's cost breakdown structure within Unifier.

Column 151 Forecast Risk Programme /General. This gives the value of risk not within the LBE and held within Scottish Water's risk registers at either a project, programme or delivery vehicle level.

Column 152 Forecast Overhead.

This gives the value of Scottish Water's overhead within the Total Project Value over 2021-27. It has been assumed that the overhead has been applied at a constant rate over the 6-year period. Overhead is applied at governance gateways and while this may change how much overhead is in the project during the any period, over 6 years this should average out.

6 Table G6b - Baseline

G6b is a data extract that is used to generate the summary tables within the G tables. It primarily details the output and investment data for projects at need level. It has been aligned with IPS 23.2. Where necessary adjustments have been applied in the same format as G6a and corrections have been made to allow the summary tables to calculate correctly.

Block A: Base Information

Column 1 Baseline Reference Code

This is a concatenation of the Project Autocode (Column 2), Need ID (Column 53) and Driver (not included in the AR24 backup data).

Column 2 Project Autocode. This gives the unique ID that is used by Scottish Water to track projects through our systems.

Column: 3 Project Title.

This is the name of the project in our systems.

Column 4 Asset category

Asset category is populated based on the Need ID in column 53. The categories align with those used in G2-G4.

Column 5 Sub-asset category

Sub asset category is populated based on the Need ID in column 53. The categories align with those used in G2-G4.

Column 6 Functional activity

Sub asset category is populated based on the Need ID in column 53. The categories align with those used in G2-G4.

Column 7 Primary Investment Category. This is a calculated field that shows the main component of the project. Categories used are:

- Completion - SR10 and SR15 Completion
- Enhancement –SR21 Enhancement
- Growth – Growth
- Inspections – Inspections and testing
- RCC – Reasonable Cost Contributions (RCC)
- Refurbishment – Refurbishment
- Repair – Repair
- Asset Replacement – Replacement.
- Support – removed from AR24 and allocated to the other categories as appropriate.

Column 8 Project location - Local Authority. The local authority where the project is located. In some cases, the project will span multiple areas and be regional (East, West, North, South) or may be Scottish Water Wide. For operational reasons, some Unitary Authorities are split further depending on where the asset is managed from

Column 9 Water resource zone. This shows the name of the water resource zone where a project has either a Letter of Commitment, Enforcement Notice or Management Interests of Safety (MIOS).

Column 10 Sewerage District

It has not been possible to populate this data.

Column 11 Asset units

Asset units is the unit of the intervention

Column 12 Number of interventions

For enhancement, growth and completion projects, this is the number of projects and for AR3 (Refurb, Replace, Repair) this shows the number of outputs associated with a project.

Block B: Allocations

Block B shows the allocations assigned to each category. As the data is populated at a need level, the allocations to the categories (except Water / Wastewater) will be 100% and align with the Primary Investment Category.

Column 13 % allocation of expenditure to replacement

Column 14 % allocation of expenditure to repair

Column 15 % allocation of expenditure to refurb

Column 16 % allocation of expenditure to enhancement

Column 17 % allocation of expenditure to growth

Column 18 % allocation of expenditure to water

Column 19 % allocation of expenditure to wastewater

Column 20 % allocation of expenditure to foul sewage

Column 21 % allocation of expenditure to surface water drainage

Column 22 % allocation of interventions to replacement

Column 23 % allocation of interventions to repair

Column 24 % allocation of interventions to refurb

Block C: Likelihood of Delivery

Column 25 Committed Status. This column indicates whether a project is on the Committed List Named or Programmes however it also gives some additional information for the project status. The categories are:

- **Adjustment –** The lines tagged as adjustment have been added to the tables to align the live (in Unifier) projects to the IPS totals at need level and aligns with the planned investment level. Rephasing of investment continues at project level so that the SR21 programme remains within the funding level. However, this exercise is not complete and to align the live project investment with funding, adjustments have been added. These are made at need level and are split between T1a and T2 where the need has a mixture of planned and responsive investment.
- **Committed Exclusions** - This flag is for projects that are not on the Committed List Project/Programmes either because they are excluded due to being Tier1a/RCC or have no budget on the Committed List Programmes.
- **Committed List Named** – This identifies projects that are on the Named Committed List due to meeting the Committed List Criteria. Projects on the Named Committed list are used to generate the IPOD metrics. The information provided is from the Committed List 2023-24 Q4.

- **Committed List Programmes** – This identifies projects that form part of the Committed List Programmes sheet within the Committed List from 2023-24 Q4. Projects are entered onto the list when they achieve G90, are Tier 2 and have a G90 budget. It is primarily used to track the volume of committed investment for projects not fully meeting the criteria for being on the Named Committed list.
- **Pre-committed** – This identifies projects that are pre gate 90.
- **Pre-committed Named** – This identifies projects that are expected to form part of the Named Committed List based on LBE being greater than £1m. Projects in this category will need to be further assessed at G90 to determine whether they fit other criteria.

Column 26 Projected period of delivery.

The Investment Period the project has been or will be delivered in.

Column 27 MA Ref. This identifies the Management Approach a project is in and is based on the Need Reference. SR15 shows SR10 and SR15 Completion projects and SR21_Prog_Over shows lines covering programme overheads.

Block D: Actual/Forecast Dates

Columns 28-31 Forecast dates.

This shows the forecast or actual dates associated with a project. If a date is pre-April 2024, then it is an actual otherwise it is a forecast date.

Block E: Number of Asset Interventions (cumulative)

Block E shows the profile of interventions totalled in column 12 and is based on the G100 data for each project.

Column 32 Number of interventions pre 2021-22

Column 33 Number of interventions in 2021-22

Column 34 Number of interventions in 2022-23

Column 35 Number of interventions in 2023-24

Column 36 Number of interventions in 2024-25

Column 37 Number of interventions in 2025-26

Column 38 Number of interventions in 2026-27

Column 39 Number of interventions post 2026-27

Block F: Outputs Baseline

Column 40 Ministerial objective (primary purpose). This provides the Ministerial Objective that the project is contributing towards. It is derived from the Need Ref.

Column 41 Output category description

All Enhancement and Growth projects have an output category description populated. This is based in the Need ID and is used within the return to populate G5a and G5b.

Column 42 Output description

The output description gives the full description of the output code used in column 52.

Column 43 Number of outputs (or output value). This provides the quantity or number of outputs where project outputs have been identified.

Column 44 Output units. This provides the unit where project outputs have been identified. This is generally 'Nr.' for number but also includes population equivalent (PE), GWhr and metres.

Columns 45 to 51 Outputs Delivered

These columns show the profile of the outputs totalled in column 43 and is based on the G100 date when the output will be delivered and singed off.

Column 52 Output code.

This provides the code where project outputs have been identified for SR21 projects. The output code is used to populate G5b for enhancement and growth projects.

Column 53 Need ID.

The Need ID is the lowest level investment category held for a project and is used to determine the Management Approach, Sub Programme, Programme, Sub Portfolio, Portfolio and Ministerial Objective. Projects can have one or Need IDs associated with then and will have a percentage of total cost established. Outputs are also aligned at need level. Need codes are identified on project setup and is monitored for accuracy. Where projects were created prior to SR21, a review has been undertaken to establish the correct coding.

Block G: Forecast Expenditure (2017-18 Prices)

Columns 54 to 64 Expenditure. These give a profile of baseline investment over the 6-year period with totals pre 2021-22, and totals post 26-27.

The Pre-2021-22 column is completed to allow the Total Project value to be calculated.

Projects are included on the table based on having a financial transaction in the SR21 period or from having outputs. For more information and a complete view of Scottish Water's spend Pre2021-22, previous Annual Returns would need to be reviewed.

Column 67 to 77 Expenditure (2017-18). As per lines 54 to 64, but cumulative.

Block H: Carbon

Columns 78 to 85 Carbon Impacts.

The Carbon Impact data that Scottish Water collects is held in columns 78 -80. Scottish Water does not currently collect data in a format that allows the population of columns 81 to 84. All operational carbon impact is assumed to be Annual scope 1 operational carbon impact CO2.

Column 78 embodied total carbon impact tCO2e

Column 79 embodied total carbon impact £m

Column 80 Annual scope 1 operational carbon impact CO2

Column 81 Annual scope 1 operational carbon impact CH4 (tCO2e)

Column 82 annual scope 1 operational carbon impact N2O) (tCO2e)

Column 83 annual scope 2 operational carbon impact tCO2e location based

Column 84 Annual scope 3 operational carbon impact tCO2e

Column 85 Annual total scope 1-3 operational carbon impact tCO2e

Block I: Inflation Assumptions at the time of adding project

Columns 86 to 91. Shows the CPI inflation index in 2017-18 prices for each year from 2021-22 to 2026-27).

7 Table G7 – Summary: Completion Investment

7.1 Overview

Table G7 shows the forecast for the Planned and Delayed SR15 Completion programme broken down into the output descriptions as used in SR15. The population of projects and outputs is based on the position reported at the end of March 2021.

7.2 Performance Trends

7.2.1 Lines G7.1-G7.18 2015-21 outputs remaining that were planned to complete in the 2021-27 period – Planned

These lines show the cumulative outputs forecast for Acceptance (MS4 or Gate 100) for all projects in the Planned Completion programme. Projects achieving RSO (MS5) before 1 April 2021 are excluded from this table.

As the criteria for inclusion in the baseline was the RSO (MS5) milestone being outstanding, 8 outputs already have Acceptance as shown in the Pre-2021-22 column.

7.2.2 Lines G7.19-G7.36 2015-21 Completion outputs remaining – Delayed

These lines show the cumulative outputs forecast for Acceptance (MS4 or Gate 100) for all projects in the Delayed Completion programme. Projects achieving RSO (MS5) before 1 April 2021 are excluded from this table.

As the criteria for inclusion in the baseline was the RSO (MS5) milestone being outstanding, 67 outputs already have Acceptance as shown in the Pre-2021-22 column.

7.2.3 Lines G7.37-G7.40 SR10 and SR15 Completion projects

Line G7.37 shows the SR10 Completion projects remaining

Line G7.37 counts projects rather than outputs. The starting point is shown in Pre-2021-22 and shows the 19 SR10 projects within the 143 Completion projects in the programme. At the end of 2023-24, 6 SR10 Completion projects are pre Gate 100 (MS4).

Line G7.38 shows the total number of projects remaining at the end of each quarter

Line G7.38 counts projects rather than outputs and the calculations exclude the additional completion outputs. The starting point is shown in Pre-2021-22 and shows the 124 SR15 and IR18 projects within the 143 Completion projects in the programme. At the end of 2023-24, 25 SR15 Completion projects are pre Gate 100 (MS4).

Line G7.39 counts the number of projects remaining at the end of each quarter in the Planned Completion programme

Line G7.39 counts projects rather than outputs and the calculations exclude the additional completion outputs. The starting point is shown in Pre-2021-22 and shows the 57 total projects in the programme. At the end of 2023-24, 9 projects remain to be delivered in the Planned Completion Programme.

Line G7.40 counts the number of projects remaining at the end of each quarter in the Delayed Completion programme

Line G7.40 counts projects rather than outputs and the calculations exclude the additional completion outputs. The starting point is shown in Pre-2021-22 and shows the 86 total projects in the programme. At the end of 2023-24, 22 projects remain to be delivered in the Delayed Completion Programme:

Project	Delivery Vehicle	Stage	Baseline Month	Forecast per AR23	Forecast per AR24	Commentary
403146 - SR15 ES - Amlaird WTW and Corsehouse WTW Strategic Main Out and Decommission	WINF	On Site	Dec-22	Apr-24	Apr-24	This project has gained G100 but an output to remove abstraction cannot be claimed until the C1A project is commissioned and a further project to provide enabling works at Amlaird WTW is completed. This is estimated at June 25.
404135 - Dalwhinnie WTW - TTU	DV2ID	On Site	Jan-23	Jun-24	Jun-24	Ongoing delays to WTW Acceptance due to optimisation activities associated with new Limestone Tank.
503595 - Yarrowfues WTW main-out 2019	WINF	On Site	Mar-22	Jun-23	Jul-24	Water Into Supply (WIS) anticipated June 2024 with G100 in July 2024
401668 - S043 - UID - Cambuslang Road Richmond Laundry - South East of Railway Rutherglen	WWINF	On Site	Aug-21	Sep-23	Jul-24	Land issues now resolved and can move forward. Project is currently being remobilised and contractor appointed.
502944 - IR18 CAS Compliance Improvements - Networks East & North Complex	DV2ID	On Site	Jul-21	Oct-23	Jul-24	Weather and operational concerns have caused delays in the completion of work. SW and Delivery Partners are working together to resolve these concerns, which has included an additional site visit. This work needs to be done during low tide and favourable weather (dry period) to avoid risk of discharge, therefore forecast dates remain at risk.
501232 - Whitehillocks WTW - Quality and CM	NONINF	On Site	Feb-22	Dec-23	Aug-24	High rainfall events causing variable raw water quality outside of the design envelope indicated that larger dosing pumps are required. Network maintenance issues delayed access to the CWT for installation of the remaining baffle curtain.

Project	Delivery Vehicle	Stage	Baseline Month	Forecast per AR23	Forecast per AR24	Commentary
401705 - S087 - UID - Scotwood Overflow North East of Lay-by Busby Road	WWINF	On Site	Oct-21	Nov-23	Sep-24	Repeatedly delayed power supply due to protracted legal negotiations. Remobilisation in progress following agreement of head lease with East Renfrewshire Council. Gate 100 revised to reflect power supply contractor availability
500245 - Galashiels Manse Street WTW	NONINF	On Site	Aug-22	Nov-23	Oct-24	In commissioning phase. Delays due to problems commissioning existing boreholes have led to delays to the project.
502132 - Burncrooks WTW Quality THM Compliance	WINF	On Site	Jan-23	Feb-24	Nov-24	Delays due to provision on main power supply. Protracted Legal negotiations continue.
503425 - West Lewis - WG4 - Improvement to Supply-Demand Balance	WINF	On Site	Jan-23	Dec-23	Nov-24	Revised project scope. Issue identified with proposed temporary by-pass arrangement to allow construction works at the dam to proceed. Design alterations and temporary work requirements agreed, discussions underway with contractor to agree return date to site, likely July 24.
500509 - South Edinburgh Service Resilience	WINF	On Site	Aug-21	May-24	Jan-25	Information pertaining to this project may be subject to legal privilege.
503126 - IR18 - Boardhouse WTW Inlet Screen	DV2ID	Pre	Jun-23	Aug-24	Jan-25	Original scope did not comply with Technical Expression. New scope agreed with proposed Start on Site of April 2024 however weather has historically proven difficult.
500523 - Ayrshire Strategic Resilience	WINF	On Site	Sep-23	Sep-24	Feb-25	Project in commissioning phase. Delays due to problematic tunnelling and finding small leaks on pipeline
404132 - Picketlaw WTW - Main Out	WINF	On Site	Mar-23	May-25	Mar-25	Work progressing with a forecast Acceptance date of March 2025 (was May 2025 in AR23).

Project	Delivery Vehicle	Stage	Baseline Month	Forecast per AR23	Forecast per AR24	Commentary
502930 - Easdale - Seaview Cottage ST (Option 1A Part 1)	DV2ID	On Site	Feb-22	May-25	Apr-25	Delayed previously due to assessment of solution for Clachan Balvicar STW. Decision now taken to proceed as standalone solution. Customer engagement sessions held, construction partner appointed, revised planning submitted and currently planning to start works in Autumn 2024.
403106 - QS3b AR - P014 UID Westbank Quadrant at Eldon Street Bridge CSO NS273667	SWD	On Site	Oct-22	Sep-23	Aug-25	Access constrained due to pipework within Primary School grounds.
503618 - Roberton WTW - pH correction for coagulation	NONINF	Pre	Feb-24	Dec-25	Oct-25	Delayed on account of requirement for specification waivers.
502243 - Mannofield WTW - Improvements to Treatment Process	NONINF	On Site	Jun-22	Mar-25	Dec-25	End date driven by remedial works to filters - unable to start these works until Invercannie CWT is commissioned
403995 - SR15 ES - Londornoch WTW	DV2ID	On Site	May-23	Feb-26	Feb-26	Further review of future water treatment needs at Londornoch suggests alternative treatment solution required (which also impacts on separate sludge treatment project 502280). EPA and DWQR discussion being progressed.
501001 - SR15 TE CM Staney Hill North (Q Sandy Loch WTW)	NONINF	On Site	Feb-23	Apr-25	Feb-26	Tank location and network configuration required re-optioneering. Now awaiting planning permission
403951 - Rockcliffe BW - Improvement	NONINF	Pre	May-24	Jan-26	Sep-27	Awaiting planning permission and various licences. Project cost has escalated and may require challenge of design.

Project	Delivery Vehicle	Stage	Baseline Month	Forecast per AR23	Forecast per AR24	Commentary
to Sufficient Status						
502280 - Londornoch WTW Sludge Lagoon Upgrade	DV2ID	On Site	Mar-22	Jan-27	Aug-29	Further review of future water treatment needs at Londornoch suggests alternative treatment solution required which would remove need for proposed sludge treatment investment. Discussions ongoing with SEPA and DWQR.

7.3 Data

7.3.1 Data sources and confidence grades

The table is generated using data from Table G6a using columns: 100 – Planned or Delayed Completion Projects; 101 - SR15 Output Name; and 114 – Forecast MS4 date.

The data source for the above columns is the OMD Calculations file from the end of March 2021 combined with the latest actual and forecast MS4 (Gate100) date for the output.

Calculations have been left in Table G7 to allow easier reference back to Table G6a.

There are no confidence grades associated with Table G7.

7.3.2 Data improvement programmes

SR15 Completion Projects continue to be closely monitored internally. These projects are subject to the same data improvement initiatives as those in the SR21 Programme.

7.3.3 Assumptions used for forecast data

Forecast dates are provided by project teams. These are subject to monthly reviews and updates resulting in reforecasting of dates and costs.

8 Table G8a – Summary IPOD by Ministerial Objective

8.1 Overview

Table G8a shows the IPOD points broken down by Ministerial Objective, forecast and actual, cumulatively by quarter.

8.2 Performance Trends

At the end of 2023-24 Scottish Water had achieved an IPOD score of 889 points against a baseline of 878 points. More information on IPOD achievement by portfolio can be found in the section G8b.

8.3 Data

8.3.1 Data sources and confidence grades

Data is sourced from Table G8b. It uses column 11 for the Baseline Quarter and column 12 for the Forecast Quarter. Column 13 Ministerial objective (primary purpose) is used to establish the Ministerial Objective category.

Calculations have been left in Table G8a to allow easier reference back to Table G8b.

There are no confidence grades associated with Table G8a.

8.3.2 Data improvement programmes

In 2023/24 we drove the adoption of a ‘quarterly mindset’ – focusing on quarter-end rather than year-end targets; put significant focus on individual project milestones; and provided greater visibility of forecast and target dates through interactive Power BI reporting.

Further P3M system improvements are detailed in the Table G1 ‘Data Improvement Programmes’ section.

8.3.3 Assumptions used for forecast data

Forecast milestones are based on the latest best estimate from the project teams.

9 Table G8b – Detail IPOD

9.1 Overview

The table shows the IPOD data aligning with G8a (Summary IPOD by Ministerial Objective), with one line per milestone, and can be used for calculating the IPOD score.

The IPOD indicator provides a high-level measurement of Scottish Water's progress in delivering the Committed List for projects over £1m. It assesses the progress of these investment projects monitored across 3 delivery gates combining this information to give an overall score with the intention of gaining and implementing learning and monitoring delivery. The overall capital programme is considered 'on track' if IPOD is within the forecast range.

IPOD ended 2023/24 within range - 889 points against a target range of 819 to 937. The score of 889 is in the top half of the range indicating performance is ahead of the central baseline target (878), for the first time since year-end 2021/22.

For the 3 delivery gates, progress is: -

• **Start On Site** – 241 points against a forecast range of 215 to 253, Committed List Baseline 236

> The performance of the Start on Site milestone has been consistently high, and while there can be challenges (including but not limited to unforeseen access issues), the milestone is typically achieved within a few months of G90 Delivery Approval.

• **Acceptance** - 324 points against a forecast range of 311 to 356, Committed List Baseline 333

> Gate 100 has historically proven to be the most challenging of the 3 IPOD milestones, but has seen significant improvement throughout 2023/24, ultimately finishing the year inside the target range for the first time since 2021/22.

• **Financial Completion** - 324 points against a forecast range of 293 to 328 points, Committed List Baseline 309

> The G110 milestone was below the target range at the end of Quarters 2 and 3 but saw significant recovery in Quarter 4 to end the year near the top of the target range.

Recovery of both the Gate 100 and Gate 110 milestones was driven by adoption of a 'quarterly mindset' – focusing on quarter-end rather than year-end targets; putting significant focus on individual project milestones; and providing greater visibility of forecast and target dates through interactive Power BI reporting.

While Gate 100 is collectively within the target range, 30 milestones were achieved early and 39 are currently late. Of the 39, 11 are now substantially complete and forecasting Acceptance in Q1, with a further 9 forecasting Acceptance in Q2.

For Gate 100, all Portfolios are within the target range. CE&FS and Wastewater are on, or marginally ahead, of the Committed Baseline; Support Services is behind by 1; and Water is behind by 9.

REASON FOR DELAY	CE&FS	SUPPORT SERVICES	WASTEWATER	WATER	TOTAL
Additional scope required to complete	0	0	1	2	3
Construction risks realised	0	0	1	14	15
Design issues	0	2	0	1	3
Third party issues	0	1	9	8	18
Total Behind	**0**	**3**	**11**	**25**	**39**
Total Ahead	0	2	12	16	30
Net Behind	**0**	**1**	**-1**	**9**	**9**
Total Committed Baseline	0	27	139	167	333
Percentage of projects behind		**3.7%**	**-0.7%**	**5.4%**	**2.7%**

Additional scope required to complete: Due to the complex nature and size of some of the projects on the Committed List, it is inevitable that there will be additional scope items on a number of projects that are required before the Acceptance can be achieved (3 projects). The scope required for a project should be fully understood at Gate 90, however the nature of complex construction projects is such that there will be some 'scope creep'.

Construction risks realised: We have seen several projects, particularly in the water programme, where previously identified risks have materialised. We continue to undertake a 'lessons learned' approach to this, ensuring that we continue to feed any knowledge gained back to Operational staff and Management Approach owners to better inform future project delivery.

Design issues: There are only 2 projects that have been delayed due to design issues. Design risks should be mitigated pre-Gate 90, however infrequently errors are found during the construction phase where design errors need to be rectified.

Third party issues: This is the most frequent reason for delay and can involve landowner, planning and power issues as well as others specific to the project site.

We continue to work to understand, and learn from, risks to improve the forecast and delivery of new projects. When committing to the delivery of a project, we balance the likelihood of delay due to risks against setting an over cautious target with the potential to lose focus on the need to drive delivery.

Water Portfolio Gate 100

The Water Portfolio is within the range of 153 to 182, with 158 projects now through Acceptance. This is behind the Committed List Baseline of 167 by 9 milestones. The following 25 projects are behind:

PROJECT ID	DESCRIPTION	BASELINE QUARTER	FORECAST QUARTER	REASON FOR DELAY
404093	SR15 ES - Greenock WTW - SCADA Replacement	2023_24_Q2	2024_25_Q2	Construction risks realised
404135	Dalwhinnie WTW - TTU	2022_23_Q4	2024_25_Q1	Third party issues
500523	Ayrshire Strategic Resilience	2023_24_Q2	2024_25_Q4	Construction risks realised
500509	South Edinburgh Service Resilience	2021_22_Q2	2024_25_Q4	Construction risks realised
501001	SR15 TE CM Staney Hill North - Q Sandy Loch WTW	2022_23_Q4	2025_26_Q4	Design issues
500245	Galashiels Manse Street WTW	2022_23_Q2	2024_25_Q3	Construction risks realised
500755	North Coast SCADA Replacement	2023_24_Q3	2025_26_Q1	Construction risks realised
501390	WTW000627 - ROSEBERY WTW 1940 NT305570	2022_23_Q3	2025_26_Q1	Construction risks realised
500896	Craighead WTW - CM	2022_23_Q3	2024_25_Q1	Construction risks realised
501243	Invercannie WTW Pre-Treatment CWT and CM	2022_23_Q4	2024_25_Q1	Construction risks realised
501232	Whitehillocks WTW - Quality and CM	2021_22_Q4	2024_25_Q2	Additional scope required to complete
501393	WTW000712 - HOWDEN WTW NT456275	2022_23_Q1	2024_25_Q1	Additional scope required to complete
501379	WTW000640 - MARCHBANK WTW NT165645	2022_23_Q2	2024_25_Q1	Construction risks realised
502132	Burncrooks WTW Quality THM Compliance	2022_23_Q4	2024_25_Q3	Third party issues
502651	Afton WTW_Ayrshire_THM Research and Investigation	2022_23_Q2	2024_25_Q3	Construction risks realised
502783	Balmore Pipebridge Repairs	2022_23_Q1	2025_26_Q1	Third party issues
502649	Dhu Loch_Argyll and Bute_THM Research and Investigation	2022_23_Q4	2024_25_Q1	Construction risks realised
503235	Galashiels Manse Street Infra	2022_23_Q3	2024_25_Q3	Third party issues
503162	Auchneel WTW - Lime to Caustic	2022_23_Q2	2024_25_Q1	Construction risks realised
503595	Yarrowfues WTW main-out 2019	2021_22_Q4	2024_25_Q2	Third party issues
503678	SR21 ES Camps	2023_24_Q4	2026_27_Q2	Third party issues
506149	RCI Tankerness and Foubister DMA Tankerness	2023_24_Q4	2024_25_Q3	Construction risks realised
506779	Stoneybridge WTW - Essential Capital Maintenance	2023_24_Q4	2024_25_Q1	Construction risks realised
513433	SR21 Glenfarg WTW - Air Curtain	2023_24_Q4	2024_25_Q3	Third party issues
513923	Black Isle Trunk Main - Valve Replacement	2023_24_Q2	2024_25_Q4	Third party issues

Wastewater Portfolio Gate 100

The Wastewater Portfolio is ahead of the Committed List Baseline of 139 by 1 milestone, within the range of 135 to 145, with 140 projects through Acceptance. 12 projects are ahead of the baseline, and the following 11 projects are behind:

PROJECT ID	DESCRIPTION	BASELINE QUARTER	FORECAST QUARTER	REASON FOR DELAY
401705	S087 - UID - Scotwood Overflow North East of Lay-by Busby Road	2021_22_Q3	2024_25_Q2	Third party issues
401668	S043 - UID - Cambuslang Road Richmond Laundry - South East of Railway Rutherglen	2021_22_Q2	2024_25_Q2	Third party issues
403106	QS3b AR - P014 UID Westbank Quadrant at Eldon Street Bridge CSO NS273667	2022_23_Q4	2025_26_Q2	Third party issues
404026	SR15 ES - Main Street Newtonmore	2022_23_Q1	2024_25_Q3	Third party issues
500052	Carstairs Village WwTW - Growth	2022_23_Q2	2024_25_Q1	Construction risks realised
500233	Burrelton WwTW - Growth	2021_22_Q4	2024_25_Q1	Third party issues
500229	East Linton WwTW - Growth	2023_24_Q2	2025_26_Q1	Third party issues
501159	Alloa STW	2023_24_Q1	2025_26_Q3	Additional scope required to complete
502944	IR18 CAS Compliance Improvements - Networks East & North, Complex	2021_22_Q2	2024_25_Q2	Third party issues
503362	Infra-Kingdom Park	2021_22_Q2	2024_25_Q2	Third party issues
503638	SR21 Carstairs Junction Overland Sewer	2023_24_Q4	2025_26_Q1	Third party issues

Support Services Portfolio Gate 100

The Support Services Portfolio is behind the Committed List Baseline of 27 by 1 milestone, but within the range of 23 to 29, with 26 projects through Acceptance. 2 projects are ahead of baseline, and the following 3 projects are behind:

PROJECT ID	DESCRIPTION	BASELINE QUARTER	FORECAST QUARTER	REASON FOR DELAY
510727	Infrastructure Tactical Project	2022_23_Q3	2024_25_Q1	Design issues
512639	Server and Storage Project	2023_24_Q4	2024_25_Q2	Design issues
514598	Networks Refresh Project	2023_24_Q4	2024_25_Q2	Third party issues

10 Table G9 – Growth

10.1 Overview

Table G9 shows the expenditure Scottish Water has incurred or is forecast to incur on growth for the SR21 programme.

10.2 Commentary

At the start of SR21 new master projects were created to track all new Connections and RCC activity. There are currently **16 SR21 Master codes** made up of 1 Domestic Water, 1 Domestic Waste, 1 Non-domestic Water and 1 Non-domestic Waste for each of the 4 regions North, South East & West.

The total Growth expenditure shown in Table G9 aligns with the total Growth on Table G1 as follows.

From Table G9:

- G9.16 Total Gross Expenditure on Growth
- G9.17 Service Relocations Water
- G9.18 Service Relocations Wastewater
- G9.23 and G9.24 Service Relocations foul sewage and surface water contributions. These are currently not populated; we do not hold data for these categories. All wastewater service relocations are in G9.22.

These three lines total £659m for the SR21 period and £105m for the current year. This aligns with Table G1 when combining expenditure in:

- Line G1.32 Total Growth
- Line G1.81 Water Reasonable Cost Contributions
- Line G1.82 Wastewater Reasonable Cost Contributions

10.3 Data

10.3.1 Data sources and confidence grades

All data has been sourced from the FAB financial system including the general ledger, projects, ledger, Accounts Payable records (payments to vendors) and the Water Utility Billing customer billing & management system.

The report has been produced using the same methodology as G1 with the projects actual expenditure taken from the financial systems and the forecast expenditure taken from Primavera.

The percentage allocation assigned to each project has been taken from the systems which hold Scottish Water's Gate approval forms. Most projects are assigned 100% to growth but there may be significant growth investment delivered as part of large quality schemes.

The above data from the multiple corporate systems, which feeds into Table G9, has a Confidence Grade of A1. The estimated Confidence Grade for the Contributions is B1 – future Contributions forecasts (G9.21 and G9.22) are based on run rate from the previous 5 years.

The Confidence Grade for the outputs in Lines G9.56 and G9.57 are also allocated as B1. Outputs data is being developed and will require future improvement to data quality and process.

10.3.2 Data improvement programmes

Further enhancements of the data captured in Astro to be developed.

10.3.3 Assumptions used for forecast data

Forecast connection numbers in Lines G9.35-G9.40 are based on **a baseline of 22,000 connections in 21/22 with a growth rate of 0.9% in future years**. These figures are also used Lines G9.50-G9.55.

The forecasted connection numbers are the basis for the total Infrastructure receipts in Lines G9.28-G9.32 at a rate of **£486.20 per Connection which is the 23/24 standard connection charge**.

Forecast number of properties receiving RCC in section Lines G9.44-G9.49 are based on the forecast RCC spend in Lines G9.1-G9.7 divided by the **average cost per plot for RCC in 23/24 which were Water £425.85 and Waste £790.34.**

11 Table G10 – Inflation Assumptions

11.1 Overview

Table G10 shows the forecast and actual Cost Inflation and Capital Price Inflation used in the return.

11.2 Commentary

G10.1 is the Cost inflation (RPI until 2021 and CPI from 2021-22; financial year average) profile.

G10.2 is the Inflation index (2017-18 base year).

11.3 Data sources and confidence grades

Data sources for inflation are detailed below. Investment summary data is taken from Table G1.

11.3.1 Data improvement Programmes

There have been no data improvement programmes during 2023-24.

11.3.2 Assumptions used for forecast data

Where Consumer Price Inflation (CPI) has been used in any calculations, it is based on the following:

- FY 21/22 to 23/24 taken from Office of National Statistics published data.
- FY 24/25 to 26/27 taken from Bank of England forecast February 2024.

This in turn generated the CPI profile as follows:

Description	Units	Actual Year 2017-18	Actual Year 2018-19	Actual Year 2019-20	Actual Year 2020-21	Actual Year 2021-22	Actual Year 2022-23	Actual Year 2023-24	Forecast Year 2024-25	Forecast Year 2025-26	Forecast Year 2026-27
Cost inflation (RPI until 2021 and CPI from 2021-22; financial year average)	%		3.06%	2.59%	1.21%	3.98%	10.06 %	5.67 %	2.40%	2.60%	2.00%
Inflation index (2017-18 base year)	Nr.	1.000	1.031	1.057	1.070	1.113	1.225	1.294	1.325	1.360	1.387

Methodologies Employed

Scottish Water now undertakes a six-monthly review of cost inflation to understand the impact compared to CPI. Due to the dynamic nature of the fluctuations and the inherent complexities in assessing their impact accurately, we now undertake a six-monthly review of the impact using a top down and bottom-up assessment, and then combining these to estimate impact at a generic level. The two assessment methodologies are explained below:

Top-Down Approach

- Takes a high-level view of the capital programme and the main cost buckets of spend
- Utilises actual cost increases where appropriate
- Takes a wider industry view of future cost risks, building on our own experience, that of our supply chain and partners and also feedback from CECA Scotland
- Assumes non-construction elements of the Capital Programme inflate in line with CPI forecasts

Bottom-Up Approach

- Looks at individual frameworks
- Builds in actual cost increases to date during SR21
- Takes into account contractual arrangements regarding inflation. For example, no increases during fixed price periods
- Utilises a framework level view of future cost risks based on feedback from our Framework Managers

Outcome

- It was agreed to use the average of the two above approaches.
- To allow for future changes to CPI, the profile was also provided as a percentage above CPI.

Capital Price Inflation will next be updated in September 2024. The average profile is show in Table 151 below.

Description	Units	Actual Year 2017-18	Actual Year 2018-19	Actual Year 2019-20	Actual Year 2020-21	Actual Year 2021-22	Actual Year 2022-23	Actual Year 2023-24	Forecast Year 2024-25	Forecast Year 2025-26	Forecast Year 2026-27
Capital price inflation	%		3.06%	2.59%	1.21%	5.98%	11.26 %	6.47%	3.30%	3.00%	2.00%
Capital price inflation factor	Nr.	1.000	1.031	1.057	1.070	1.134	1.262	1.343	1.388	1.429	1.458

Note: CPI has been used across the tables rather than Capital Price Inflation. If Capital Price Inflation were to be used rather than CPI then Scottish Water would be spending £181.7m less in real terms across the SR21 period. Delivering the requirements of programme with the particular inflationary pressures on the capital programme creates additional constraints.

Inflation Impact		2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total
G1.58	Gross Investment	774.1	879.1	1,024.7	1,070.0	1,145.0	1,157.8	6,050.6
G10.1	CPI factor	111.3%	122.5%	129.4%	132.5%	136.0%	138.7%	
G10.4	Capital price inflation factor	113.4%	126.2%	134.3%	138.8%	142.9%	145.8%	
	17/18 Prices using CPI	695.7	717.8	791.9	807.5	842.2	834.9	4,689.9
	17/18 Prices using Capital Price Inflation	682.6	696.7	762.8	771.0	801.0	794.1	4,508.2
	Variance	-13.1	-21.1	-29.1	-36.4	-41.1	-40.8	-181.7