Investment Planning & Prioritisation Group

Progress of Interventions to Meet the Needs on the Development List – Draft Report Q2 2022/23



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1. Purpose

This report sets out how Scottish Water is progressing in developing interventions to address the needs on the 'Development List' up to the end of September 2022 (Quarter 2 2022/23). It has been prepared for the Investment Planning and Prioritisation (IPPG) working group (WG), a subgroup of the IPPG, set up by Ministers to provide reassurance and report on the delivery of their Objectives.

What Is Monitored

The Development List contains named Needs and Needs associated with repair, refurbish and replacement activities.

Where interventions are forecast to exceed £3m or are novel or contentious, a Level 1 or 2 project investment appraisal is developed to assess the options to deliver the need.

Each quarter Scottish Water reports to IPPGWG on its progress in developing interventions to address the needs on the Development List. This report includes:

Section 2 – Summary of Current Investment: providing an overview of the current investment forecast over the 6-year investment period

Section 3 - Indicator of overall Progress towards the Committed List (PCL): to provide reassurance to stakeholders on the overall volume of intervention

development relative to what is required to meet expected investment levels in future years.

Section 4 - Progress in the development of interventions with Level 1 and 2 appraisals: to provide reassurance to stakeholders on progress of developing interventions subject to a Level 1 and Level 2 appraisal [and other projects and programmes of interest to stakeholders] and a view of current expectations of when they will reach future appraisal stages.

2. Summary of Current Investment Maturity

The current outturn forecast of investment over the 6-year investment period is provided below (Figure 1). This shows the maturity of investment across the period and how it has developed since the previous quarter (Q1 22/23 versus Q2 22/23). Appendix A contains the inflation assumptions.

Live Investment is categorised by Plan (Gate 30-60), Prepare (Gate 70/80), Deliver (Gate 80 -120) and Non-live Investment, (Pre Gate 30). The "Deliver" category includes both projects which have been committed for delivery (post Gate 90) and those at detailed design stage but not yet committed. The data also includes allowance for risk associated with the potential additional cost increase of the SR15 Completion programme.

The level of investment in delivery for 22/23 and 23/24 has increased by £104m and £83m respectively since previously reported in Q1 (blue bars). This is as a result of projects continuing to mature through the Plan and Prepare phases and is in line with what is necessary to achieve the planned level of annual investment. The total of investment in Delivery is now £2.2bn.

The combination of the Live and Non-Live Investment can exceed the Planned Investment Level shown on the figures as interventions can be initiated but will not necessarily be committed. A tabular view of the data represented in the figure is available in Appendix B.

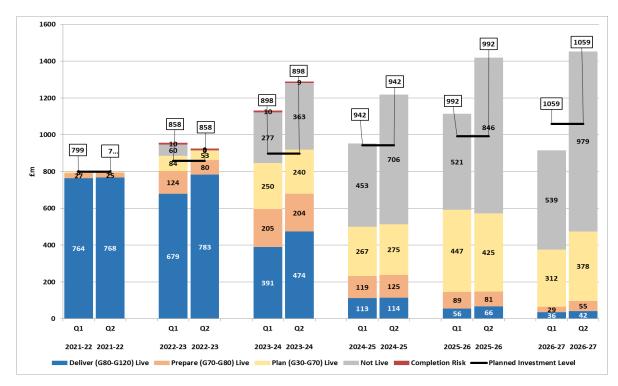


Figure 1: Annual Investment Profile – maturity of investment at the end of Quarter 1 2022-23 (previous) and at the end of Quarter 2 2022-23 (current)

3. Indicator of overall progress towards the Committed 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.

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.

PCL was 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 levels and will allow prioritisation/choice in what to commit to delivery. 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.

At the end of Quarter 2 22/23, year to date PCL was 105% and the end of year forecast is currently 115%, showing that we expect that the overall volume of intervention development will recover. This indicates that we are developing

sufficient volumes of investment across the programme to achieve planned investment in future years.

Some interventions are taking longer to progress through the appraisal process than was originally forecast (Section 3 provides an overview) and continue to be monitored closely. The development and commitment of other interventions that meet the MA policies have been progressed to maintain delivery efficiency.

4. Progress of the development of interventions with Level 1 and 2 appraisals

The purpose of this section is to provide:

- An overview of the progress of interventions in Q2 that are subject to Level 1 and 2 appraisals¹
- Highlights from significant Level 1 or 2 project investment appraisals completed in the last quarter
- A review of lessons learnt from the delivery of PIA forecast in the last quarter and a look ahead to the next quarter.
- The full list of interventions with Level 1 and 2 appraisals, with an indication of the anticipated timing, is shown in Appendix C, which is an additional document to this paper.

Quarterly review of progress of appraisals

Good progress has been made in project level decision making within Q2:

- 16 project investment appraisals stages were completed within the quarter. This includes the additions to the forecast in the quarter (15% of the initial demand).
- 15 of the 16 projects progressed through first time at the Investment Group/Investment Approval Group. These projects had a value of c.£190m.
- A session with the Independent Customer Group (ICG) was held on 29th September. The feedback at the session was positive on the progress made to date in the development of the PIA, and the joint approach to the session by the PIA team and Corporate Affairs.
- A positive session with Consumer Scotland held with the purpose of providing an update on the progress of PIA development within FY22/23 and to seek to understand any further expectations.
- Project investment appraisal documents continue to be shared with stakeholders at Stage 3a (preferred option) and Stage 4 (Commitment).

¹ Level 1 appraisals are carried out for needs that require the early identification of placemaking and external partnership involvement. These are likely to be complex and time intensive. Level 2 appraisals are carried out for needs that are likely to require substantive system, programme and project investments and will be subject to a robust economic appraisal

Highlights from project investment appraisals completed within the quarter are shown below.

Project Investment Appraisal Highlights

Dunside reservoir Stage 3a Aug-22

Project on a non-operational reservoir that has investment needs for matters in the interests of safety.

The appraisal considered the resilience requirements due to the impact of climate change and assessed the community use of the asset. We plan to breach the reservoir and planting trees in the land space available. This removes an asset which would have ongoing liabilities and maintenance requirements, and turns it into a carbon sequestration opportunity, returning the land to a natural state and contributing to our net zero target. The PIA has been shared.

Erskine WwTW Stage 3a Sept-22

There were 21 strategic needs² previously identified in the Erskine catchment. A system strategy is being developed to ensure these long-term needs are addressed optimally. Whilst this system strategy is developed, a tactical solution is required for Erskine WwTW to enable short-term growth and maintain compliance with the Controlled Activities Regulations (CAR) licence requirements. This appraisal considers the tactical needs only to a nominal horizon of 2026 to enable forecast short-term growth which exceeds the design capacity of the WwTW by c.70%.

The recommended intervention for Erskine WwTW will restore the health and safety risk for operating the site to an acceptable level, restore operation of failed assets, can be constructed offline from the existing process reducing complexity, brings the WwTW into compliance with technical standards for primary treatment, meets the requirement for short term growth as well as recovers primary sludge for future digestion. The option is a least regrets approach. The PIA has been shared.

Udny Green WwTW Stage 4 Sept-22

The WwTW has had a number of consent failures. To reduce the risk of compliance failure, a temporary chemical dosing system has been in use since 2018. There is no capacity to treat any additional load and flow due to growth. The Stage 4 PIA confirmed that constructing a new WwTW on the adjacent land is the best intervention option to be implemented. The PIA has been shared.

² Including trunk main incapacity, WwPS incapacity, growth requirements and identified flooding

A review of lessons learnt from the delivery of PIA forecast in the last quarter

An overview of the appraisals at Stage 2/3/4 that were forecast to be delivered during Q2 2022/23 and the appraisals delivered is shown in Table 1.

The purpose of Table 1 is to provide internal visibility to enable forward planning for Level 1 and 2 interventions and to ensure enough work is being appraised to support the investment programme. It is not intended to be a fixed set of dates and the dates presented are the earliest that those will be achieved. A target of c.50% of milestones to be achieved is targeted due to the dynamic nature of the programme. 16 PIA Stages or 41% of the initial forecast were completed up from 36% in the previous quarter.

For example:

- The projects are subject to reprioritisation in a dynamic programme
- Dates have been reforecast to take into account lessons learnt from previous project investment appraisals, recosting of scopes and alternative options
- The dates are set to align with our challenge of achieving 50% less time to start on site, which results in ambitious milestone forecasts
- Some PIAs will require iterating after senior review at the Investment Group, which can have knock-on impacts on the rest of the programme.

There are three main themes driving the missed forecasts:

- Repriorisation due to workload. This affected 23% (9) of the projects which had forecasts adjusted to the following quarters in line with the dynamic programme. Projects which were prioritised include Daer WTW and Bradan WTW.
- Confirmation of scope & costing. This affected 18% (7) of the forecast projects.
 - In a demonstration of the PIA approach driving the best value decision, cost escalations for the preferred option have driven costing of alternative options (Eela Water WTW Stage 3b) or rescoping options (Kirk Yetholm WwTW Stage 3a).
- Further investigation required. This affected 10% (4) of the initial projects.

Table 1: Appraisal at Stage 3a/b and 4 anticipated for Q2 compared to actuals

Appraisal Portfolio										
Stage	Water		Wastewa	ater	Other					
	Jun-22 forecast	Oct- 22 actual	Jun-22 forecast	Oct-22 actual	Jun-22 forecast	Oct-22 actual				
Stage 2: Strategic Optioneering Review (G40)	6	2	3	1	0	0				
Stage 3a: Outline Investment Appraisal (G50)	6	2	10	3	0	0				
Stage 3b: Outline Project Appraisal (G70)	6	2	3	3	0	0				

Stage 4: Project	0	0	3	1	2	2
Appraisal for						
Commitment (G80/90)						

Projects reforecast by 12 months

In line with the dynamic programme a small number of projects have been reforecast by >12 months since the baseline forecast in April 2022. These are listed in Table 2 with the known consequences explained.

Project	Name	PIA Stage	G40 Original forecast dates (Apr 22)	G40 Current dates	Reason for the movement	
			NL 00	(Nov 22)		
5032240000	Philipshill WwTW	Stage 2	Nov-22	Oct-23	One Planet Choices consideration and future licence requirements	
Consequenc	e					
Risk to compl	eatment ma	w he rea	uired if the develo	oer build ou	t rate exceeds the	
Temporary tre		• •	uired if the develo ent consent is fully G40 Original forecast dates		t rate exceeds the Reason for the movement	
Temporary tre site's capacity	y and the tra	ade efflu PIA	ent consent is fully G40 Original	vutilised. G40	Reason for the	
Temporary tre site's capacity	y and the tra	ade efflu PIA	ent consent is fully G40 Original forecast dates	G40 Current dates	Reason for the	

Table 2: Projects reforecast by >12 months

The results from the NDT surveys will inform the extent of the Need. There is a chance that there is no Need (if NDTs show asset does not qualify for promotion under the MA025).

Initial need was raised as between 2012 and 2016 there were over 60 bursts in the Liberton Trunk Mains (TMs) and associated distribution mains attributed to the Alnwickhill PRVs. Since the PRV replacement in 2017 there have been no bursts. There are 4 mains downstream of the PRVs that are cross connected and run as one network. Although all the bursts can be attributed to the performance of the PRVs, work is being carried out by Scottish Water to understand if the mains present a security of supply risk.

Forecast for remainder of 22/23

The forecast for 22/23 is shown below (Table 3) and the details are provided here

Table 3: Forecast of project appraisals at each gateway to be delivered during the following quarters of 22/23

	2022 Q3	2022 Q4
Stage 2: Strategic Options Review (G40)	6	6
Stage 3a: Outline Investment Appraisal (G50)	13	17
Stage 3b: Outline Project Appraisal (G70)	8	10
Stage 4: Project Appraisal for Commitment (G80/90)	2	11

5. Summary

The IPPG members are asked to:

- Note the developing maturity of the current Investment forecast.
- Note that the Q2 Progress to Committed List (PCL) was 105%, indicating that the rate of overall progress is more than sufficient to achieve planned investment levels.
- Note the progress and learning on project investment appraisals.

Appendices

Appendix A – Inflation Assumption

The revised inflation assumption used are shown in Table A. We recognise that some costs within our capital programme are increasing at a greater rate than the current CPI projection. We continue to assess and monitor this Capital Price Inflation value to allow us to better understand potential cost increases across the programme.

Table A: CPI Assumption (%)

Inflation Assumption	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Programme Inflation Assumption	4.0%	11.5%	8.5%	1.5%	1.0%	1.5%

Appendix B - Tabular information for Figure 1: 6 Year Investment Profile – PPD stage comparing investment forecast at the end of Quarter 1 2022-23 (previous) and at the end of Quarter 2 2022-23 (current) investment.

	2021-22				2022-23			2023-24			2024-25			2025-26		202.6-27		
6 Year Investment £m	Previous (Q1)	Current (Q2)	Variance	Previous (Q1)	Current (Q2)	Variance	Previous (Q1)	Current (Q2)	Variance	Previous (Q1)	Current (Q2)	Varlance	Previous (Q1)	Current (Q2)	Variance	Previous (Q1)	Current (Q2)	Variance
Deliver Live	763.7	767.8	4.1	678.8	782.6	103.8	390.6	474.0	83.4	113.1	113.5	0.4	55.6	66.4	10.8	35.9	41.9	6.0
Prepare Live	27.1	25.3	-1.9	124.1	80.0	-44.2	204.8	204.2	0.7	119.0	124.7	5.7	89.1	81.0	-8.1	29.1	54.7	25.7
Plan Live	8.1	5.9	2.2	83.7	53.4	-30.3	250.0	240.3	-9.7	267.4	274.8	7.4	447.3	425.1	22.2	311.5	378.2	66.7
Not Live	0.0	0.0	0.0	60.0	0.0	-60.0	277.0	362.6	85.7	452.8	705.6	252.8	521.3	846.4	32 5.1	539.0	978.5	439.6
Completion Risk	0.0	0.0	0.0	10.1	8.7	-1.5	10.0	8.7	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	799.0	799.0	0.0	956.8	924.6	-32.2	1,132.4	1,2 89.8	157.4	952.3	1,218.6	266.3	1,113.4	1,418.9	305.6	915.5	1,453.4	538.0
Planned investment Level	799.0	799.0	0.0	858.0	858.0	0.0	898.0	898.0	0.0	942.2	947.7	0.0	9973	9973	0.0	1 059 3	1 059 3	0.0



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