Delivery Plan Update 2020

February 2020

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Overview

This update to our Delivery Plan is submitted to Scottish Ministers for approval. It was prepared in January, approved by the Scottish Water Board on 26 February and circulated to stakeholders for comment shortly thereafter. It therefore takes no account of the developing COVID-19 crisis. At this stage the potential implications and costs of dealing with COVID- 19 are unknown.

The update t highlights those areas where the content of our original Delivery Plan for the 2015-21 period, and the updates provided subsequently, have been revised. We have taken the opportunity to set out key highlights of the year so far and to confirm our investment plans as agreed with the Delivery Assurance Group (previously known as the Output Monitoring Group) to improve drinking water quality, protect and enhance the environment and support economic development.

Key highlights

In our 2015 Delivery Plan we stated that we are determined to deliver significant further improvements for our customers and out-perform our commitments. As we conclude the fifth year of the 2015-21 period, we continue to achieve this aim.

Key highlights of our year so far include:

- The levels of service and experience that we are delivering to our household customers continue to outperform the targets for this period, and we have significantly improved our service to non-household customers. This is despite the significant impact on service which was experienced as a result of severe summer rainfall events.
- We are maintaining momentum in our investment delivery with 90% of our programme started on site. Since April 2015 we have delivered over £2.8 billion of investment and this year are investing, on average, over £54 million a month. While the programme continues to progress well, there are a small number of challenging projects which will not complete by the end of the period and which we are managing closely.
- The water quality we delivered to our customers' taps in 2019 continued to outperform our Delivery Plan target and equals our highest ever level.
- We have delivered further reductions in leakage during 2019/20 and expect to continue to out-perform the target level set in the Final Determination for the end of the regulatory period.
- Our operational carbon footprint for 2018/19 decreased by nearly 13% compared with 2017/18 and by 41% since we started reporting in 2006/07. We forecast this to reduce further still for 2019/20.

- We have maintained our support for new housing and economic growth across the length and breadth of Scotland. In the 5 years of this regulatory period we will have connected over 115,000 new properties to our network.
- Over the year our key learning points have led to focussed attention on inspection programmes for ageing assets that are critical to delivering a reliable water and wastewater service and earlier engagement with our delivery partners to obtain more robust cost estimates before committing to complex investment projects.
- Under our Your Water Your Life campaign we have successfully rolled out public top up taps to 29 towns and cities across Scotland.
- The closing cash position at the conclusion of SR15 investment is forecast in the range of £120 million to £200 million (excluding any early start investment), compared to a range of £60 million to £160 million in our Delivery Plan 2019 update. The changes in the overall forecast cash position reflects primarily the additional household income from the changes in price limits in 2020/21 and improvements in wholesale income.
- We have published our Strategic Plan for the next 25 years. Within it we clearly set out how we will support a flourishing Scotland by focussing on three key strategic outcomes: delivering Service Excellence in all that we do; reducing our carbon footprint to achieve Net Zero Emissions and going beyond that thereafter; and providing Great Value for our customers both now and in the future, while ensuring that we are financially sustainable as an organisation. We will shortly seek to agree prices for the 2021-27 period with the Customer Forum.

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1. Delivering for our Customers

Our plan has been established to ensure that we maintain the high service levels that we have been delivering and further improve services in those areas identified as a priority by our customers. Here we set out updates on our key high-level customer service metrics.

Customer Experience Measure (CEM)

The levels of service and experience that we are delivering to our household customers are continuing to match the highest ever levels we delivered last year as measured by our household customer experience measure which is shown below.

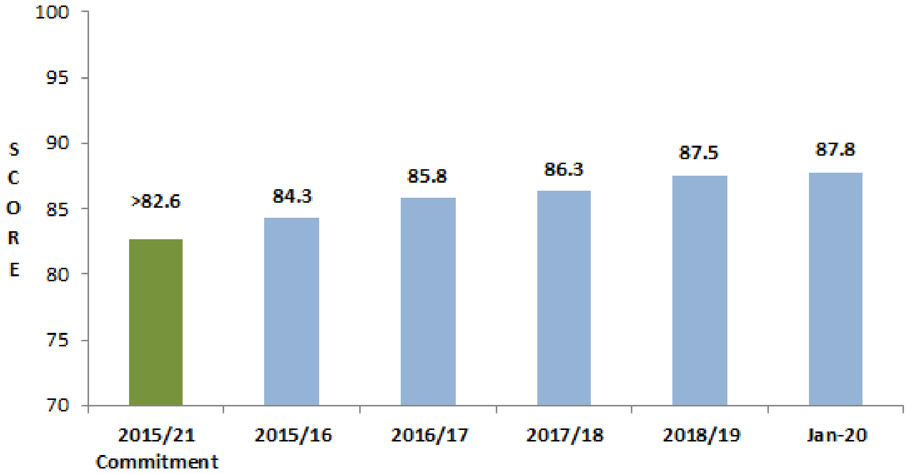

Figure 1 – Household Customer Experience Measure Score

This is the second year of measuring the service and experience we deliver to our non-household customers. At January 2020 we have significantly improved our service, achieving a score of 85.1 against our target of 77.5.

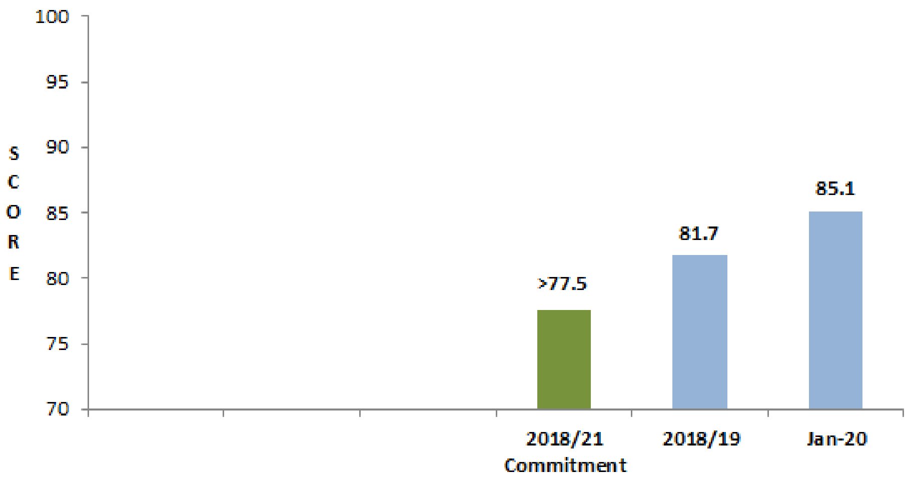

Figure 2 – Non-Household Customer Experience Measure Score

Key to improving our non-household service has been the introduction of the self-service functionality of our Licensed Provider Portal which has driven their experience score up from 90.8% for 2018/19 to 96.6% in December 2019.

Customer Trust

We are pleased that the water industry in Scotland continues to be the most trusted sector among Scottish consumers as recognised by the "Which?" Consumer Insight Tracker (November 2019).

We also continue to benchmark our level of service through the Institute of Customer Service's UK Customer Satisfaction Index (UKCSI) survey to understand customers perceptions of our service experience compared to other services in Scotland. At January 2020 we continue to be ranked as one of the leading utility providers and are above the overall Scottish average.

We are pleased to note that over the last two years we have improved our ranking against Scottish firms from being 14th to 7th.

Overall Performance Assessment (OPA)

In our 2015 Delivery Plan we set out our plan to achieve an OPA score at, or above, the threshold for leading water and waste water companies (380 points in 2015/16 rising to 385 points by 2020/21), and our aspiration to be best in class, achieving an equivalent OPA score at, or above, 400 points.

We are again on track to significantly exceed our 2015 Delivery Plan OPA target, with a good prospect of achieving our aspiration to be above 400 points in 2019/20.

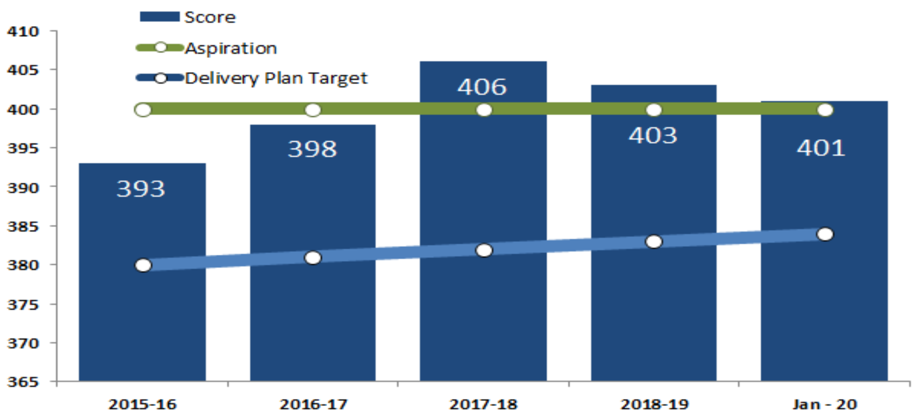

Figure 3 – Overall Performance Assessment (OPA) Score

Customer and Community Engagement

This year's customer engagement programme was designed to educate our customers on how to use water wisely. In our summer engagement programme through an interactive app, customers of all ages took our quiz or played a game to learn about our top 5 water saving tips and pledged to make a difference to their water use behaviours. Through this our 150 employee volunteers engaged 20,000 customers about water efficiency.

We continued our work to further improve community engagement when undertaking capital investment works. We are piloting involving communities in early project development while maintaining our focus on engaging and building trust with communities during project delivery.

Paisley's Community Engagement Initiative

Scottish Water's £17m investment project in Paisley's waste water infrastructure won the Community Engagement Initiative of the Year award at this year's New Civil Engineer Tunnelling Festival Awards. This international award was given in recognition for the work that was done with St Charles Primary School during the project delivery.

2. Delivering our investment programme

Our investment programme is continuing to progress well, delivering both the maintenance and improvements required to our assets to fulfil Ministers' objectives for improvements in drinking water quality and the environment, and to support growth in the Scottish economy. Key points to note include:

- We are maintaining momentum in our investment delivery with over 90% of our programme started on site;
- Since April 2015 we have delivered over £2.8 billion of investment and this year are investing on average over £54 million a month. As a result, our Overall Measure of Delivery score at the end of January 2020 is 209, already at our Delivery Plan year-end target;
- While all projects are moving forward, inevitably, given the size of the programme, there are a small number of projects for which challenges to delivery are emerging and these are being closely managed;
- We continue to make good progress in delivering the remaining projects from the 2010-15 period. At December 2019, we have completed 35 projects leaving only 2 remaining. Construction activity has now been completed on both of these projects and they are progressing through the acceptance process.

Overall Measure of Delivery (OMD)

The Water Industry Commission for Scotland introduced the Overall Measure of Delivery (OMD) as a single objective indicator of overall performance in delivering Ministers' objectives. We agreed with the Delivery Assurance Group (previously Output Monitoring Group) to apply a range of +/- 10 points around OMD to better reflect the risks to delivery for the final 2 years of the programme. An OMD score within this range is considered to be "on target". The proposed target range for 2020/21 is to deliver within 240- 260 points. We are currently forecasting our OMD position at the end of the regulatory period to be in the lower half of this range and are taking all possible steps with our delivery partners to secure improved performance. However, if risks associated with the delivery of a number of projects materialise, this could delay delivery and impact our score.

3. Providing continuous high quality drinking water

In this section we set out our highlights so far in 2019/20 and the changes we are proposing to our 2019 Delivery Plan update for providing our customers with a safe and reliable supply of drinking water.

Key highlights

Improving drinking water quality

The water quality delivered to our customers' taps in 2019, at 99.917%, continued to outperform our Delivery Plan target and equals our highest ever level.

Over 2019 we have continued with our focus to inspect improve and refurbish our treated water storage assets. Over the last 2 years our activities have included cleaning and inspection and simple and complex repairs to assets such as leaking hatches, upstands and wall head joints as well as installing membranes to protect assets from weather effects.

What have we learned?

Over the last two years we have focused a maintenance and improvement programme on treated water storage assets. Whilst we experienced a relatively higher number of sample fails in 2019 largely due to the heavy storms in July and August, we have identified that only one of these fails occurred at storage tanks under the programme. By continuing this programme to cover all 1300 water storage tanks across our network we believe that we will reduce the risk of future failures.

Our key investment projects this year included completing the replacement of Lochmaddy WTW with a new nano-filtration membrane plant on the Western Isles in June 2019, which also allowed the maining out of Bayhead WTW in September 2019.

We continue to invest in the capability of our people to deliver excellent customer service at all times. An example of this is the Water Treatment Licence to Operate system currently being rolled out, which will ensure that ongoing competence training is provided for our operators as technology and standards develop.

Improving Drinking Water Resilience

The Ayrshire Strategic Resilience Scheme will provide improved water supply resilience to around 85,000 properties in 4 water operational areas: Bradan, South Moorhouse, Corsehouse and Amlaird.

The first phase of the work allowed the closure of South Moorhouse and Corsehouse water treatment works, and the blending of treated water at Amlaird, improving the quality of water that all these customers received.

The second phase – the Highlees project – included the construction of a new pumping station and has completed the link between the Bradan and Milngavie water treatment works and this is now in operational use.

Phase 3 of the scheme – to augment the supply available across the City of Glasgow – will involve the reconfiguration of three existing trunk mains and the building of a new pumping station and trunk main. This scope has been the subject of significant design development, enabled by improved network intelligence available from the hydraulic models that have been built over the past 3 years. Compared with the original proposal, this option offers better network resilience across Greater Glasgow.

What have we learned?

While our forecast cost for this scheme is now significantly greater than first anticipated, once delivered the Ayrshire Resilience Scheme will meet all the water quality and environmental objectives and give all of the supplies in the 4 operational areas covered greater resilience to drought, raw water contamination, loss of treatment and strategic mains failure events.

We now engage our Alliance partners and contractors earlier in the option selection process to get more realistic cost estimates, taking into consideration the potential need for temporary works, access requirements and site specific issues. Together with our regulators and stakeholders we have designed a new investment planning and prioritisation framework for SR21 which will allow us to carry out more robust appraisals and ensure that commitment to delivery is not made until costs are well understood.

Final construction and commissioning work is under way on the South Edinburgh Resilience project. When complete, it will provide improved water supply resilience for customers normally supplied by Marchbank (around

137,000 customers) and Glencorse (up to 450,000 customers) water treatment works.

Leakage

Our leakage level continues to be significantly below the 575 Ml/d minimum service level for the SR15 period. We have achieved the leakage incentive level set for the end of SR15 in each year of the period.

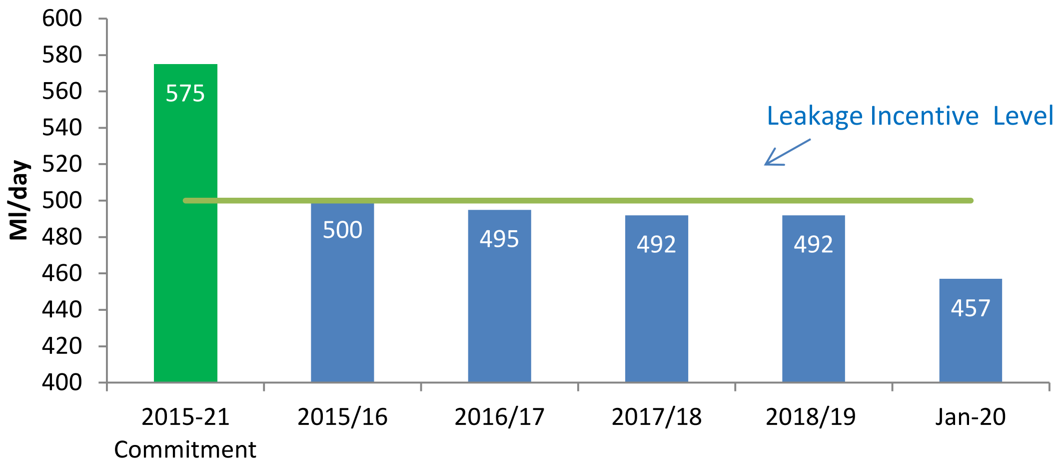

Figure 4 – Leakage Performance

During this year we identified an error in our reporting of leakage for 2018/19. Correcting this error increased our reported leakage by 12 ML/D from 480 to 492, the same level as we achieved in 2017/18.

As of January 2020 our leakage is below 460ML/d, the lowest level achieved to date. Managing the natural rate of rise and delivering continued reductions has been achieved primarily through continued focus on delivery of find and fix activity and pressure management.

What have we learned?

As a result of identifying the error we have strengthened the processes to make changes within the current leakage management system. We are also developing an improved in-house leakage management system which will provide greater transparency and a more detailed understanding of the leakage calculation.

Drinking water quality programme delivery profile

We set out below our planned delivery profile of drinking water outputs for those programme areas that have altered as a result of Technical Expression changes approved by the Delivery Assurance group since our 2019 Delivery Plan update.

	Programme area		2019-20	2020-21	2021-22	2022-23	2023-24	Post 2024
2	Number of water supply zones made compliant with iron and manganese standards	Current	48	61	72			
		Previous	53	66	79			
5	Length of distribution mains cleaned	Current	1,734	3,668	6,482	6,657		
		Previous	1,976	4,159	6,647	6,822		

Table 1: Drinking water quality programme – cumulative outputs profile

Technical Expression changes approved during the year are set out below and included in the table above:

- Number of water supply zones made compliant with iron and manganese standards – 7 trunk mains (282 km) have been transferred to length of distribution mains cleaned programme.
- Length of distribution mains cleared – This programme has been profiled following an improvement in the methodology used to assess water quality risk associated with the pipe network, principally relating to discoloration, Iron and Manganese. This has resulted in:
    - The removal of 450Km to allow for an additional Lead pipe removal pilot project, a strategic led sampling programme and an increase in the scope of the sampling exercise that will inform the study into lead concentrations at private schools and nurseries
    - The addition of 282km transferred from the Number of water supply zones made compliant with iron and manganese standards programme.

4. Protecting and enhancing the environment

We set out in this section our highlights so far in 2019/20 to protect and enhance the environment and the changes we are proposing to our 2019 Delivery Plan update for protecting and enhancing the environment.

Key highlights

Wastewater Treatment

We have opened our new waste water treatment plant at Inverurie. The plant uses award-winning 'Nereda' technology to deliver faster settlement, making the treatment process quicker and more efficient by avoiding the need for pumps and mixers. We will apply the learnings from this project to the new waste water treatment plant in Winchburgh to deliver long term savings and improved treatment levels.

We are delivering operational improvements to our wastewater treatments works to reduce the need to upsize existing treatment works. Examples include installing process intensification technology at Ellon WWTW to increase capacity in the biological treatment stage and successfully trialling a new filter technology to reduce settlement stage.

Reducing flooding and pollution from sewers

We've completed a project in Paisley which involved the construction of a one mile–long sewer and the installation of combined sewer overflows in the town centre. The investment is part of our programme of work to improve river water quality and the natural environment, and tackle flooding across the Greater Glasgow area.

Reducing internal flooding from sewers is one of our customers' highest priorities. We have made good progress against our commitment to address internal sewer flooding for customers at highest risk with 271 properties removed from the internal sewer flooding register by December 2019, 30 of which have been delivered since April 2019.

This year we started construction on a number of notable projects that will reduce the risk of internal and external sewer flooding for customers and communities. These include:

- Burnbank Street, Airdrie where we are delivering a solution for 5 properties and 7 external areas which have suffered recurring sewer flooding problems for many years.

- Muirhead Way, Bishopbriggs where we are investing to reduce the sewer flood risk affecting 4 internal properties and 1 external area.

- Conon Avenue, Bearsden where we have developed an integrated and complex solution in collaboration with Glasgow City Council and East Dunbartonshire Council. This sewer network solution will address a frequent longstanding sewer flooding issue that affects 8 internal properties and 27 external areas. A complimentary project to be delivered by Glasgow City Council will address flooding caused by surface water and watercourses.

By 2021 we aim to have fewer than 300 properties on our internal sewer flooding register, but this outcome will be dependent upon the rate of emerging properties over the remainder of this regulatory period.

Bathing Waters

Scottish Water and SEPA continue to engage closely at director and working level to address the investment and broader challenges associated with bathing water quality. The projects to improve bathing waters being progressed are:

- Largs: Our project to help protect and enhance the environment of the Firth of Clyde and coastal waters in Largs has been completed. The improvement work involved the renewal and upgrade of sections of the existing waste water infrastructure near to the beachfront in Largs. A significantly longer screened outfall pipe has been constructed to replace a short storm outfall. This now means that combined storm water is screened and can be returned much further out into the deeper sea channel, thereby reducing the potential impact on the bathing water and the wider marine environment.

- Fisherrow and Portobello West: we have carried out changes, as agreed with stakeholders, to reduce spills from Nantwich Drive Combined Sewer Overflow. In addition, we have installed monitoring equipment to help identify when bathing waters may be impacted and have undertaken additional feasibility assessment work to identify wider asset improvement interventions that could be implemented if cost/benefits are considered appropriate. We continue to work with SEPA and the Scottish Government to identify and remove possible foul misconnections from the storm water network particularly to support improvements at Fisherrow.

- Ayrshire Bathing Waters: we have identified that improvements can be made to three of our assets which will limit the volume of storm spills to Ayr South bathing water and help to improve bathing water quality. We anticipate that delivery of the improvements will commence in 2020.

- Rockcliffe: we have explored a number of options to reduce the impact of Kippford WwTW on Rockcliffe bathing water. We have determined that the current site is not suitable for the additional treatment assets that are required. We are consulting with the local community to determine the most appropriate site for the new waste water treatment works. We are continuing to investigate short term, temporary options to minimise impacts from Kippford in order to help prevent 4 successive poor classifications of the bathing waters in 2020.

Environment programme - delivery profile

We set out below our planned delivery profile of environmental outputs for those programme areas that have altered as a result of Technical Expression changes approved by the Delivery Assurance Group.

	Programme area		2019-20	2020-21	2021-22	2022-23	2023-24	Post 2024
1	Number of improvements delivered to meet UWWTD – networks	Current	31	42	58			
		Previous	31	42	59			
2	Number of improvements and studies to meet the Revised Bathing Waters Directive	Current	2	11	12			
		Previous	2	12	12	13		
3	Number of studies to prepare for future investment periods	Current	60	134	137	139		
		Previous	58	132	135	137		

Table 2: Environment programme – cumulative outputs profile

Technical Expression changes approved during the year are set out below and included in the table above:

- The number of improvements delivered to meet UWWTD – networks programme has been reduced by 1 output (SR15-088 - Ailsa Drive Dual Manholes Removal).
- The number of improvements and studies to meet the Revised Bathing Waters Directive programme has been reduced by 1 output (SR15-087 Removal of Gairloch Bathing Water Study).
- The number of studies to prepare for future investment periods programme has been increased by 2 outputs (SR15-089 Ayr FTP Study Addition & SR15-090 Dhoon Bay FTP Study Addition)

5. Supporting Scotland's economy and communities

We set out in this section our highlights so far in 2019/20 and the changes we are proposing to our 2019 Delivery Plan update to support Scotland's economy and communities.

Key highlights

Supporting economic development

We continue to support new housing and economic development across the length and breadth of Scotland with high demand for new connections to our water and wastewater network. In the first 5 years of this regulatory period we will have connected over 115,000 new properties

We are constantly seeking ways to improve the level of service we provide to developers and the wider Scottish community. Our current improvement plan includes:

- Our award winning remote "track inspection app" has given our developer customers the ability to submit necessary information in a digital format. This has reduced timescales for the approval of supply pipe installations from five business days to four hours. The app has been endorsed by major developers for the benefits it offers. The app is an example of the enhanced ways of working we will pursue in future to achieve all three ambitions in our Strategic Plan. It is reducing our costs, providing excellent customer service to developers and is contributing to our net zero emissions target by reducing the need for travel across Scotland.
- We are developing an online digital portal which will enable our developer customers to manage their application(s) for connection online providing improved visibility, transparency and experience. The portal is expected to go live in Spring 2020.

Asset Vesting

We launched the Project Vesting Cycle in July 2015 to ensure developer constructed assets with an intention to vest in Scottish Water were progressed and completed, and to improve our processes in this area for future assets. In November 2019 we reached a key milestone having vested 3,000 assets.

Over the next two years our focus is to continue engaging with 1000+ developers and accelerate the current rate of vesting. We have extended the project to 2022 to ensure that all intended assets have vested in Scottish Water.

Energy programme and Climate Change

We have exceeded our energy efficiency and renewables target for SR15 by 3.8GWh at January 2020. We are also proud to have achieved ISO 50001 certification for our energy management programme in 2019. By quarter 1 of

2020/21 we expect to have increased the proportion of our electricity supplied from renewable sources to two thirds.

Our operational carbon footprint for 2018/19 decreased by nearly 13% compared with 2017/18 and by 41% since we started reporting in 2006/07. We forecast this to reduce further still for 2019/20. While operational efficiency, leakage reduction and increased renewable power generation have all contributed, the main driver has been reductions in grid emissions factors.

To play our full role in responding to the climate emergency as set out in the Programme for Government we will increase the renewable energy generated or hosted on our land and assets to 300% of our annual usage by 2030 and to achieve net zero emissions by 2040. During 2020 we will set out a routemap of how we will achieve these demanding targets.

Research and Innovation

Innovation is a key enabler for delivering a sustainable high quality affordable service for our customers and we have a track record of delivering innovative performance improvements across all aspects of our business. We have an active research and development programme working to accelerate the adoption of new technologies and to embed innovation as a core capability.

Key highlights over the last year are:

- In 2018 we launched a 'CanDo Open Innovation Challenge' with Scottish Enterprise to source new ways to address high levels of organics in small rural treatment systems. Phase 1, which looked at a range of innovative technologies to enhance the water quality in small rural and island communities, was completed in March 2019. Phase 2, supported with funding from Scottish Enterprise, will allow two companies to develop and test prototypes of their small-scale treatment solutions and run for the next 12 -18 months.
- We carried out 6-month pilot trials to evaluate a new microbial intensification process, "Microvi", at our Bo'ness wastewater development centre. The main objective of the trial was to establish if this technology can deliver the required treatment performance to achieve the typical effluent consent requirement. The technology aims to drastically reduce the amount of sludge produced. Reducing sludge cuts the energy, transport and chemical requirements to manage bio-solids. As part of an EU funded project we installed a pilot plant at Littlemill WWTW in Nairnshire to test utilising nature based systems (earthworms, zooplankton and microalgae) to treat wastewater. If successful, this has the potential to provide sustainable wastewater treatment for small systems.
- This year we concluded further site-specific trials of ceramic membranes for the removal of natural organics. The output of this work is informing investment decisions for treatment works in our future investment

programme to address disinfection by-products caused by organics in treated water.

Peat Restoration

Having already completed three restoration phases on the land around Sandy Loch, near Lerwick, Shetland, a fourth phase is underway with a planned completion date by the end of this financial year. Working closely with land owners, the Shetland Amenity Trust and Scottish Natural Heritage we provided a solution that will deliver improved water quality to the treatment works and significant environmental benefits.

We are undertaking peat restoration in several of our other drinking water catchments with co-funded restoration projects taking place on the Moss of Kinmundy, in the Ugie catchment in Aberdeenshire and on Loch Orasaigh, North Lochs, Isle of Lewis. To achieve this we have worked with local communities, Scottish Natural Heritage, Ugie Peatland Partnership[1] (Aberdeenshire), and grazing committees (North Lochs).

[1] A cross agency body chaired by Scottish Water

6. Financing our services

The main changes reflected in this final update to our Delivery Plan for 2015-21 are:

- inclusion of the audited actual results for 2018/19;
- updated forecasts for 2019/20 and 2020/21;
- revised delivery profile and costs for the investment programme; and
- revised customer charges to be applied in 2020/21.

The key assumptions and factors, including those for inflation in table 3 below, underpinning our financial projections are that:

Inflation	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
CPI Inflation applied to prices	1.3%	-0.1%	0.9%	3.0%	2.4%	1.5%
RPI inflation applied to costs	1.1%	2.14%	3.74%	3.06%	2.5%*	2.8%*

Table 3: Inflation Forecasts *Forecast rates

- Our domestic customer base will grow by 0.76% p.a. on average;
- Household prices will increase in 2020/21 by 0.9%. This will deliver an overall reduction of 0.1% less than CPI over the 2015-21 period rather than the 1.8% less than CPI assumed in our Delivery Plan 2019. This supports the smoothing of long-term charge levels, in line with the Scottish Government's request in its revised commissioning letter of 26 June 2019 for the 2021-27 period.
- Wholesale charges for 2020/21 will increase by 2%. The 2% annual tariff increase is part of the tapered implementation for the move to live rateable values (RVs) during the 3 years from 2018/19 to 2020/21.
- Tax payments reflect an estimated impact of £15 million from the restriction in use of tax losses introduced by the Finance Act 2017.
- The forecast for SR15 financed investment that will be completed in the early years of the SR21 period has increased from £170 million in our Delivery Plan 2019 to a central forecast of £235 million which includes a re-phasing of IR18 investment for flooding and growth of £35 million. This is within a range of £215 million to £255 million. This has been partially offset by a £15 million increase to SR21 early start investment, to £45 million, on projects that are confirmed through the SR21 investment planning and prioritisation framework (IPPF).
- The closing cash position at the conclusion of SR15 investment is forecast in the range of £120 million to £200 million (excluding any early start investment), compared to a range of £60 million to £160 million in our Delivery Plan 2019 update. The change in the overall forecast cash position reflects primarily:

- £16 million additional household income from the change in price limits to CPI - 0.1% (previously CPI – 1.8% across the 2015-21 period).

- Improvements in wholesale income of £38 million although there remains uncertainty around the extent of refunds which may be required in respect of historic billing.

- £31 million of net cash savings offset by a £24 million reduction in working capital and other movements.

- Uncertainty on the extent of construction cost risk that will materialise in the completion of the capital investment programme.

Table 4 sets out our forecasts for key financial metrics. Our financial projections are presented at forecast outturn prices.

Financial projections (IFRS) Outturn prices - £m	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Turnover	1,121	1,149	1,191	1,217	1,253	1,264
Profit before interest and tax	**275**	**270**	**278**	**273**	**286**	**264**
Net interest payable (inc PFI)	172	170	170	167	165	167
Profit before tax	**103**	**100**	**108**	**106**	**121**	**97**
Tax	-21	-3	18	20	25	21
Retained profit (IFRS)	**124**	**103**	**90**	**86**	**96**	**76**
Capital investment	462	627	647	660	670	730
Net new borrowing	-	-	120	165	219	220
Closing debt	**3,424**	**3,424**	**3,545**	**3,710**	**3,929**	**4,149**

Table 4: Key financial projections

Financing

Revenue forecast

Table 5 sets out our forecast revenue based on the assumptions set out above. Household revenue reflects average household growth of 0.76% and a 0.9% tariff increase in 2020/21. The forecast increase in total wholesale revenue across 2018-21 of £38 million (from Delivery Plan 2019 update) to £1,907 million includes £20 million of one-off adjustments which relate to:

- Releases from income uncertainty provisions of £13 million (£10 million of which is reflected in 2019/20 revenue).
- The impact of prior year final settlement runs of £3 million; and
- Adjustment to vacant charging income of £4 million.

Wholesale revenue in 2020/21 reflects the underlying 2019/20 revenue of £328 million increasing by the tariff increase of 2%. Forecast growth in the wholesale customer base has been offset by a forecast reduction in consumption.

Revenue Forecast Outturn prices - £m	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21	Total
Household revenue	821	840	861	882	903	918	5,225
Wholesale revenue	292	298	320	324	338	335	1,907
Other revenue	8	11	10	11	12	11	63
Total revenue	**1,121**	**1,149**	**1,191**	**1,217**	**1,253**	**1,264**	**7,195**

Table 5: Revenue 2015 to 2021

Borrowing requirements

We are forecasting £724 million of net new borrowing from the Scottish Government over the 2015-21 period. The forecast is £36 million lower than the original planned borrowing of £760 million. The reduction is due to the external debt brought into the Scottish Water group following the acquisition of the North-East PFI companies in December 2018 by Scottish Water Horizons Holdings Ltd.

Forecast costs of delivering services 2015 to 2021

Table 6 summarises the forecast financing and costs of delivering this plan over the 2015-21 period, excluding IFRS adjustments.

Financing and Expenditure £m	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21	Total
Customer revenue	1,121	1,149	1,191	1,217	1,253	1,264	7,195
Net new borrowing	-	-	120	165	219	220	724
Infrastructure Charges Income	12	14	17	16	17	16	92
Grants and contributions	16	10	11	6	9	12	64
Disposals	16	7	7	2	1	0	33
Use of/(increase in) cash balances	-23	134	-36	-40	-58	6	-17
Total financing	**1,142**	**1,314**	**1,310**	**1,366**	**1,441**	**1,518**	**8,091**
Capital investment	462	627	647	660	670	730	3,795
Operating costs	368	381	396	428	419	431	2,423
PFI contracts	154	155	159	148	169	176	961
Interest	153	148	150	148	147	150	896
Tax	-	-	-	5	5	5	15
Working capital	5	3	-42	-23	31	26	0
Expenditure for trading purposes	**1,142**	**1,314**	**1,310**	**1,366**	**1,441**	**1,518**	**8,091**

Table 6: Financing and expenditure 2015 to 2021

Our assessment, in outturn prices, of the overall cost of delivering our plan is £8,091 million during the 2015-21 period. We will finance this with revenue from customer charges of £7,195 million, net new government borrowing of £724 million and £189 million from infrastructure charges, customer contributions and asset disposals.

While the above and subsequent tables by their nature show a point forecast, there are a range of factors that will impact these forecasts. A summary of these and their impact on our forecast outturn cash position in 2021 is included on page 27.

Capital investment

Our forecast investment profile for the 2015-21 period is shown in Table 7.

Capital Expenditure profile (£m)	2015-19 (actual)	2019-20	2020-21	Total in Period	Post 2021	Total SR15
Sustaining existing high service for customers	1,092	293	295	1,680	-	1,680
Enhancement 2015-21 (i)	612	114	105	831	-	831
IR 18 Investment (ii)	62	116	128	306	29	335
Sub total (2012/13 prices)	**1,766**	**523**	**528**	**2,817**	**29**	**2,846**
Nominal inflator (RPI)		1.187	1.220			
Sub total (nominal prices)	**1,960**	**621**	**644**	**3,225**	**35**	**3,260**
Re-phasing of investment	-37	-70	-50	-157	146	-11
SR10 completion costs	300	36	24	360	-	360
PFI completion	7	-	-	7	-	7
Infrastructure charges investment	44	15	14	73	-	73
Exceptional capital maintenance	65	7	13	85	54	139
Additional investment financed from customer contributions	41	12	11	64	-	64
Sub total (nominal prices)	**2,380**	**621**	**656**	**3,657**	**235**	**3,892**
Additional capital maintenance and enhancement risk	17	33	50	100	-	100
Transfer to operating costs	-2	-2	-3	-7	-	-7
SR15 investment profile	**2,395**	**652**	**703**	**3,750**	**235**	**3,985**
SR21 early start (iii)	-	18	27	45	-	
Total Investment Profile	**2,395**	**670**	**730**	**3,795**	**235**	

Table 7: Forecast investment profile to 2021

(i) Our Table K regulatory submission for the SR15 period included £11 million to be financed from SR21 to complete outputs that spanned regulatory periods.

(ii) Following agreement with Ministers, IR18 investment in the 2015-21 period was boosted by £100 million (£82 million in 2012/13 prices). Post 2021 investment of £129 million (2012/13 prices) was also committed. We have changed our forecast of the timing of required IR18 investment for flooding and growth – this has reduced pre 2021 investment by £29 million (2012/13 prices) and increased post 2021 investment by the same amount as shown in the table below.

IR 18 investment profile (2012-13 prices (£m))	2015-19	2019-20	2020-21	Total in period	Committed post 2021	Total IR 18
2019 DP update	62	131	142	**335**	129	**464**
Re-profile growth and flooding	0	-15	-14	-29	29	0
2020 DP update	**62**	**116**	**128**	**306**	**158**	**464**

(iii) We have included £45 million for early start SR21 investment on needs that have been approved for inclusion on the Development list.

We expect to deliver annual capital investment within +/- 10% of the overall annual profile of forecast investment set out above.

Operating costs

Our forecast operating costs for the 2015-21 period are set out in Table 7.

Operating costs - £m	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Forecast total operating costs per 2015 Delivery Plan (2012/13 prices)	**354**	**355**	**354**	**352**	**350**	**350**
Revised nominal inflator (RPI)	1.060	1.083	1.124	1.158	1.187	1.220
Forecast Total Operating Costs per 2015 Delivery Plan (outturn prices)	**375**	**385**	**398**	**408**	**416**	**427**
Adjusted for: Movement in actual & forecast costs	-4	-1	1	-1	-	-
Transfer from capital to operating costs (see Table 7)	-	-	-	2	2	3
Lower local authority rates charges - impact of 2010 and 2017 revaluations	-3	-3	-5	-6	-6	-6
Additional legislative and pension costs (Table 9)	-	-	2	9	7	7
Forecast Total Operating Costs (Outturn Prices)	**368**	**381**	**396**	**412**	**419**	**431**
Increased costs as a result of extreme weather events and leakage recovery	-	-	-	10	-	-
IT transition costs (one off)	-	-	-	6	-	-
Forecast Total Operating Costs (outturn prices)	**368**	**381**	**396**	**428**	**419**	**431**

Table 8 Annual operating costs (non IFRS)

Around £7 million of new costs associated with cyber security and IT costs for the transfer of system operations to cloud based environments are included but have been offset by reductions in capital costs as shown in Table 6.

Additional costs associated with legislative changes and pension increases are detailed below in Table 9.

Operating costs (£m)	2017-18	2018-19	2019-20	2020-21
Apprenticeship Levy (i)	0.8	0.7	0.7	0.7
Land Registration (ii)	0.3	0.3	0.3	0.3
Holiday Pay (iii)	0.5	0.5	0.5	0.5
Water Quality Regulation charges (iv)	0.4	0.4	0.5	0.5
Brexit preparation costs (v)	-	1.7	0.2	-
General Data Protection Regulation (vi)	-	0.5	-	-
Increased pension contributions (vii)	-	4.9	5.1	5.2
Additional legislative and pension costs	**2.0**	**9.0**	**7.3**	**7.2**

Table 9: Additional legislative and pension costs

Notes:

(i) Apprenticeship Levy costs were introduced by HMRC from 1 April 2017, as announced in the 2015 UK Budget, on all employers with annual pay bills over £3 million.

(ii) To meet Scottish Government’s target for voluntary registration of land on the new digital register.

(iii) Due to the European Working Time Directive, recent case law means all employers need to ‘top up’ eligible employees’ holiday pay to include other payments that are an appropriately permanent feature of that employee's normal remuneration.

(iv) Scottish Ministers, under the Scottish Water (Payment) (Scotland) Directions 2017, have directed Scottish Water to fund the exercise of functions by the DWQR in relation to Scottish Water.

(v) Increased costs have been incurred in 2018/19 and 2019/20 associated with chemicals in order to de-risk the consequences of a potential no-deal Brexit.

(vi) New obligations with regard to data protection have arisen since the Delivery Plan 2015 was agreed. These legislative changes place more onerous duties on organisations which collect and process personal data.

(vii) Following the March 2017 triennial valuation of the Scottish Local Government Pension Funds, annual pension contributions have increased by c. £5 million to maintain the funding positions of the Strathclyde and North East Pension Funds and improve the funding position of the Lothian Pension Fund.

It is important to note that the above forecast costs do not include any allowance for exceptional operational events.

PFI costs

Our forecast PFI operating costs for the 2015-21 period are set out in table 10 and include receipt of a commercial claim (in 2018/19) by Scottish Water against the operators of the North-East PFI scheme in relation to historic performance under the contract.

PFI costs - £m	**2015-16 (actual)**	**2016-17 (actual)**	**2017-18 (actual)**	**2018-19 (actual)**	**2019-20**	**2020-21**
Forecast total PFI costs per 2015 Delivery Plan (2012/13 prices)	**152**	**152**	**152**	**152**	**152**	**152**
Revised nominal inflator (RPI)	1.060	1.083	1.124	1.158	1.187	1.220
Forecast Total PFI Costs per 2015 Delivery Plan (outturn prices)	**162**	**165**	**171**	**176**	**181**	**186**
Adjusted for: (i) lower flows and reduced costs including the result of site closure at Meadowhead and Stevenson	-8	-10	-12	-14	-12	-10
(iii) Receipt of commercial claim in relation to North-East PFI raised in 2016/17	-	-	-	-14	-	-
Forecast Total PFI Costs (Outturn Prices)	**154**	**155**	**159**	**148**	**169**	**176**

Table 10: PFI annual costs (non IFRS)

Combined Operating and PFI costs

Table 11 compares forecast operating and PFI costs within the 2015 Delivery Plan. The table demonstrates that, in total, forecast costs in 2020-21 are £6 million lower than the 2015 original plan.

Operating and PFI costs - £m	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Operating costs per 2015 Delivery Plan (Outturn prices) (Table 8)	375	385	398	408	416	427
PFI Costs per 2015 Delivery Plan (outturn prices) (Table 10)	162	165	171	176	181	186
Total Operating and PFI Costs per 2015 Delivery Plan (outturn prices)	**537**	**550**	**569**	**584**	**597**	**613**
Forecast Total Operating Costs (outturn prices) (Table 8)	368	381	396	428	419	431
Forecast Total PFI Costs (Outturn Prices) (Table 10)	154	155	159	148	169	176
Forecast Total Operating and PFI Costs per 2020 Delivery Plan (outturn prices)	**522**	**536**	**555**	**576**	**588**	**607**

Table 11: Combined Operating and PFI costs (non IFRS)

Interest payable

Closing debt as at 31 March 2019 was £3,710 million. The forecast weighted average interest rate of the outstanding long-term debt as at 31 March 2020 is now 3.58%, a reduction from 4.86% at March 2015. The forecast average interest rate for new borrowing in 2020/21 is 2.5%. Interest charges also include interest payable to Licensed Providers at 4% on prepaid charges, amounting to c. £2 million p.a.

Financial Strength

We exited the 2010-15 regulatory period with £346 million of cash balances. The planned cash movement profile during the 2015-21 period, assuming borrowing of £724 million over the 2015-21 period, is summarised in Table 12.

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19	2019-20	2020-21
Opening cash balance	346	369	235	271	311	369
Closing cash balance	369	235	271	311	369	363
Cash utilised/(addition)	**-23**	**134**	**-36**	**-40**	**-58**	**6**

Table 12: Cash balance profile

Table 12, shows a cash balance in 2021 of £363 million. The table below summarises the change in cash forecasts since the Delivery Plan 2019.

Summary forecast cash reconciliation £m	2018/19	2019/20	2020/21	Total to March 2021
Cash forecast in 2019 Delivery Plan update after completion of all SR15 investment				109
Additional household revenue:				
Tariff change for 2021 (0.9%)			16	16
Revised exemptions & lower CPI (i)		5	-2	3
Additional wholesale revenue:				
Income uncertainty provision releases (one-off)	1	10	2	13
Prior year settlement runs (ii)	1	2	4	7
Revised forecasts to reflect actual billing profiles to date (iii)	2	7	9	18
Other changes				
Lower interest charges (iv)	1	7	6	14
Lower PFI costs (v)	4	6	4	14
Lower RPI indexation (vi)		5	5	10
Increase in tax payments (vii)	-2	-1	-4	-7
Working capital and other movements (viii)	20	-17	-27	-24
Cash forecast on completion of all SR15 investment				**173**

Reconciliation to cash forecast in Delivery Plan	
Cash forecast on completion of all SR15 investment within a range of £120m-£200m	173
SR15 completion costs	146
Ayrshire resilience completion	54
SR21 early start	-45
Re-phasing of required IR18 investment for flooding and growth	35
Cash forecast at 31 March 2021	**363**

Table 13: Summary Forecast cash

(i) Delivery Plan 2019 included an increasing trend for the household charge reduction scheme which has not materialised. The resulting increase in cash has been offset in 2020/21 as a result of lower CPI when compared to the forecast in Delivery Plan 2019.

(ii) Lower provision requirement in respect of final RF and prior year settlement runs.

(iii) Including impact of revenue from GAPs project and the transition to live RVs.

(iv) Forecast interest costs at 3% for 2019/20 and 2020/21 in Delivery Plan 2019 update. The current forecast in this Delivery Plan update is c.1.5% and 2.5% respectively.

(v) Five year average flows have reduced annually throughout the 2015-20 period and impacts of updated contractual indexation factors.

(vi) RPI inflation forecast in Delivery Plan 2019 was 3.4% in 2018/19 followed by two years at 2.8%. Actual inflation in 2018/19 was lower at 3.06% and current forecasts are estimating 2.5% for 2019/20 and 2.8% in the final year.

(vii) Higher revenues and lower interest charges over 2018-21 have resulted in increased tax. The corporation tax rate also increased from 17% to 19% in 2020/21.

(viii) Working capital requirements are based on the forecast revenues and costs set out in this Delivery Plan update. The movements in 2018/19 are due to slightly higher cash collection rates on receivables and the actual payables balances being higher than those forecast in the Delivery Plan 2019, resulting in higher cash. The movement in the 2019/20 forecast is due to the timing difference on payables. The forecast movements in 2020/21 are primarily driven by higher receivables due to the forecast increase in revenue, household cash collection rates and wholesale billing patterns.

The key factors that impact the outturn cash level are uncertainties on wholesale revenue, any exceptional impacts on operating and PFI costs and the extent to which the cost of the investment programme can be contained within forecast risk allowances.

Overall we expect the outturn cash level to be within a range of £120 million to £200 million on conclusion of the SR15 investment programme but this excludes any charges that may be incurred should we pursue options for restructuring or refinancing PFI contracts or historic debt in 2020/21.

Financial Projections

Profit and Loss Account (IFRS)

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Turnover	**1,121**	**1,149**	**1,191**	**1,217**	**1,253**	**1,264**
Operating expenditure	368	381	396	428	419	431
PFI operating costs	113	114	118	107	128	137
Depreciation charges - non infrastructure assets	226	238	235	244	253	260
Depreciation charges - infrastructure assets	17	16	18	18	19	19
Depreciation charges - PFI assets	19	19	19	19	19	20
Infrastructure capital maintenance charge	119	118	135	130	131	134
Amortisation of deferred income	-1	-1	-1	-1	-1	-1
Operating Profit	**260**	**264**	**271**	**272**	**285**	**264**
Profit or loss on disposal of fixed assets	15	6	7	1	1	-
Net interest payable	-149	-148	-150	-148	-147	-150
Interest on PFI and pension scheme net liabilities	-23	-22	-20	-19	-18	-17
Profit Before Taxation	**103**	**100**	**108**	**106**	**121**	**97**
Taxation - current	-	3	-2	-4	-8	-1
Taxation - deferred	21	-	-16	-16	-17	-20
Retained Profit	**124**	**103**	**90**	**86**	**96**	**76**

Statement of Comprehensive Income

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19	2019-20	2020-21
Retained profit for the year	**124**	**103**	**90**	**86**	**96**	**76**
IAS19 adjustments:						
- Actuarial gains/(losses), net of tax	83	-90	65	-41	-	-
- Service & finance costs, net of tax	-17	-13	-28	-19	-	-
Total comprehensive income for the year	**190**	**0**	**127**	**26**	**96**	**76**

Table 14: Profit & loss account and Statement of Comprehensive Income

The Statement of Comprehensive Income includes all of the International Financial Reporting Standard (IFRS) adjustments resulting from International Accounting Standard 19 ‘Employee Benefits’. This layout is consistent with the layout in the Regulatory Accounts (M Tables) as agreed with the Water Industry Commission for Scotland in 2016.

Balance Sheet (IFRS)

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Fixed Assets						
Tangible assets	5,168	5,396	5,635	5,876	6,098	6,382
PFI assets	364	345	328	309	290	271
Grants and contributions	-14	-13	-12	-11	-10	-9
Other Operating Assets and liabilities						
Working capital	-309	-309	-364	-372	-328	-308
Cash	369	235	271	311	369	363
Net operating assets	**5,581**	**5,657**	**5,861**	**6,113**	**6,419**	**6,699**
Non-operating assets and liabilities						
Borrowings (excluding Government loans)	-1	-1	-1	-1	-1	-
Investment in subsidiaries	38	38	38	38	38	38
Total non-operating assets and liabilities	**37**	**37**	**37**	**37**	**37**	**38**
Provisions for liabilities & charges						
Deferred tax provision	-371	-371	-389	-404	-424	-440
Post-employment liabilities	-92	-192	-144	-202	-202	-202
Other provisions	-19	-15	-21	-34	-28	-18
Total provisions	**-482**	**-578**	**-554**	**-640**	**-654**	**-660**
Net assets employed	**5,133**	**5,113**	**5,341**	**5,510**	**5,802**	**6,077**
Capital and reserves						
Government Loans	3,423	3,423	3,544	3,709	3,928	4,149
PFI debt/lease	364	344	324	302	279	257
Retained earnings	1,213	1,213	1,340	1,366	1,462	1,538
Other reserves	133	133	133	133	133	133
Total capital & reserves	**5,133**	**5,113**	**5,341**	**5,510**	**5,802**	**6,077**

Table 15: Balance Sheet

Cashflow statement

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Turnover	1,121	1,149	1,191	1,217	1,253	1,264
Operating expenditure	-368	-381	-396	-428	-419	-431
PFI operating costs	-113	-114	-118	-107	-128	-137
Capital maintenance expenditure	-261	-301	-314	-325	-348	-360
Amortisation of deferred income	1	1	1	1	1	1
Operating profit for regulatory purposes	**380**	**354**	**364**	**358**	**359**	**337**
Reconciliation of regulatory operating profit to net cash flow						
Operating profit for regulatory purposes	380	354	364	358	359	337
Movement in working capital	8	22	27	6	-39	-26
Capital maintenance expenditure	261	301	314	325	348	360
Amortisation of deferred income	-1	-1	-1	-1	-1	-1
Net cash flow from operating activities	**648**	**676**	**704**	**688**	**667**	**670**
Taxation						
Taxation paid	-	-	-	-5	-5	-5
Returns on investments & servicing of finance						
Interest received	1	1	1	1	2	1
Interest paid	-154	-149	-151	-149	-149	-151
PFI interest payable	-23	-22	-21	-19	-18	-17
PFI finance lease repayments	-18	-20	-20	-22	-23	-22
Net cash flow from returns on Investment & servicing of finance	**-194**	**-190**	**-191**	**-189**	**-188**	**-189**
Net cash flow before investment and maintenance charges	**454**	**486**	**513**	**494**	**474**	**476**

Capital expenditure and financial investment						
Capital enhancement expenditure	-198	-340	-307	-312	-305	-358
Capital maintenance expenditure	-261	-301	-314	-325	-348	-360
Infrastructure Charges Income	12	14	17	16	17	16
Disposal of fixed assets	16	7	7	2	1	0
Net cash outflow from investing activities	**-431**	**-620**	**-597**	**-619**	**-635**	**-702**
Net cash flow before financing	**23**	**-134**	**-84**	**-125**	**-161**	**-226**

Financing						
New Government loans	324	343	243	288	344	354
Government loans repayments	-324	-343	-123	-123	-125	-134
Net cash inflow from financing	**-**	**-**	**120**	**165**	**219**	**220**
Decrease (increase) in cash and cash equivalents	-23	134	-36	-40	-58	6
Net cash flow	**-23**	**134**	**84**	**125**	**161**	**226**

Table 16: Cashflow statement

Risks

In 2015 we identified the key risks to the Delivery Plan which included the associated potential financial impacts for the 2015-21 period. This analysis has been subsequently reviewed in 2019, alongside consideration of risks to viability of the business as reported in our 2018/19 Annual Report & Accounts.

Key risks we face at this time are:

INTERNAL RISKS	
Water Quality	We face extensive risks to the supply of continuous high quality drinking water to customers across all of our supply systems. Management of this risk is discharged though a number of robust business activities which range from monitoring and analysis of water quality in catchments, treatment works and networks; employing, engaging and developing a skilled workforce, and undertaking significant investment in a targeted and prioritised manner.
Critical Assets	We have many assets that are so critical to service that, should they fail, drinking water quality, drinking water supplies or environmental performance could be adversely impacted. Knowledge and understanding of water and waste water assets has continued to mature since the production of the 2015 Delivery Plan. During 2016, water resilience assessments were completed on 17 of the largest water systems which provide water to around 3.4m customers. These assessments involved the detailed consideration of low likelihood/high consequence risks, and a walk-over assessment of circa 600km of associated trunk mains. Development of the risk mitigation strategy continues, with proposals for the initial phases being developed for consideration for prioritisation for delivery under IPPF. Assessments for the remaining systems serving greater than 15,000 customers are planned for completion by March 2021.
Strategic Water Mains	Bursts from large water mains can result in flooding of customers' properties and/or other surrounding infrastructure. A review of flooding events has identified a number of known sites. Further analysis of these sites has identified, where appropriate, risk reduction or risk removal schemes, with solutions developed for delivery during this period or for consideration for prioritisation for

	delivery under IPPF. In addition to these considerations, work is also progressing to proactively model and assess flood risk from other water mains.
Health & Safety	In undertaking our business activities our people (including the contractors and the supply chain we engage), our customers and the public can be exposed to health and safety risks. In order to effectively manage this risk we employ a range of tools and techniques including a detailed health and safety management system and supporting processes; embedment of an appropriate health and safety culture via training and awareness raising; completion of risk assessments and routine inspections; and investigations of all accidents, incidents and near misses to ensure appropriate learning and remedial action.
Data Protection	New obligations with regard to data protection have arisen since the Delivery Plan 2015 was agreed with the introduction of the EU General Data Protection Regulations and the UK Data Protection Act 2018. These legislative changes place more onerous duties on organisations which collect and process personal data. Failures may result in significant fines and could impact the reputation and level of trust in Scottish Water should these obligations fail to be effectively implemented. We continue to develop our policies, processes and procedures to support our obligations.
EXTERNAL RISKS	
UK Departure from the European Union (Brexit)	On 31 January 2020 the UK formally left the European Union. Until the UK-EU future relationship has been agreed however, potential remains for a 'No Deal' scenario. In order to proactively manage the risks associated with a 'No Deal' Brexit, or an agreement which could impact operations, our short-term management is associated with procuring key products and materials to enable the continuity of our core services.

Cyber Security	The technology landscape has evolved significantly in recent years. A number of global cyber-attacks have occurred across 2018 and 2019; some with far reaching ramifications for the businesses affected. We undertake continual review of our technology processes, procedures, organisational culture and behaviours. Additional IR18 investment is enabling further improvements in our cyber security, in accordance with the requirements of the EU Network and Information Systems Directive (NIS), as well as the latest guidance from the National Cyber Security Centre and the Scottish Government's cyber resilience requirements. While this investment will significantly reduce Scottish Water's risk exposure, it will not eliminate the risk given the external and continually evolving nature of this risk.
PFI Operations	Scottish Water operates a number of PFI contracts for the provision of waste water services. Financial and operational risk may arise should a PFI plant or operations fail to deliver in accordance with the contract terms. This risk may increase as PFI contracts enter their final stages of their contract period.
Climate Change	The impact and effect of climate change continues to be considered, debated and discussed by a range of external experts. Internally, Scottish Water continues to develop our knowledge of the impact of extreme and unpredictable weather events on our assets, infrastructure and the essential services we provide to our customers by assessing current and future risks in several ways. This includes Climate Change Risk Assessments; Vulnerability Assessments which are incorporated into our 25 year Water Resource Plan; Water Resilience plans, Integrated Catchment Studies; and Asset Flood Risk Assessments. We are developing our wastewater resilience strategy, the aim of which is to identify and undertake mitigation and adaptation measures to enhance our resilience to future climate change. Under our Sustainable Growth Agreement with SEPA we are working together to explore new and innovative ways to manage resilience in rural and urban drainage catchments. We also contribute action on a number of objectives in the Scottish Climate Change Adaptation Programme. We are developing a route map of how we will achieve our commitment to increase further the renewables that

	we host and generate to over three times the amount of electricity that we consume by 2030 and achieve net zero emissions by 2040.

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7. Looking forward

Over the past year we have been working with our stakeholders to develop our Strategic Plan. This sets out how we will meet our customers' current and future expectations to achieve three strategic outcomes that are aligned with our role in achieving Scotland's ambitious water sector vision.

Delivering our Strategic Plan is both exciting and challenging and requires us to transform our business. We have identified the key challenges we need to focus on in the short, medium and long term with activities already underway towards delivering the transformation required. Some examples are outlined in the sections below.

We have agreed the Strategic Plan with the Customer Forum and published it on the 5 February 2020. We are now seeking to agree customer prices for the 2021-27 period with the Customer Forum. The Water Industry Commission for Scotland has stated they are minded to accept such an agreement as part of their Draft Determination if prices are within the range set out in their 2020 Decision Paper.

Investment Planning, Prioritisation & Delivery

We have worked with our stakeholders to develop a new investment planning and prioritisation framework that will prioritise investment to improve asset capability, address compliance issues and risks, meet areas of greatest customer impact, and support new housing and business growth while achieving our net zero emissions commitment. This new approach will allow us to continually incorporate the latest evidence, collaborating with stakeholders to ensure the costs and benefits of competing investment priorities are considered appropriately.

As part of this work we have identified named and sub-programmes of needs that, following stakeholder consideration and Ministerial agreement form the current Development List. Over the next year we will develop management approaches for the sub-programmes and are developing all needs through our Plan and Prepare process, Once options for meeting the needs are sufficiently appraised we will commit to delivery and transfer them onto the Committed List.

Supply chain

We are working on how we transform the way in which we deliver investment through a strengthened supply chain and on improved ways of working to support the supply chain and get investment projects to site quicker, therefore reducing costs and enabling earlier benefits. We are building our capability, capacity and flexibility to deliver ever more effectively and efficiently, and accessing leading expertise through our existing and new suppliers.

Net Zero Emissions

We're committed to achieving net zero emissions by 2040 and going beyond that thereafter. During 2020 we will produce a route map setting out our plans to achieve this which will include:

- Increasing our own and hosted renewable energy generation from 200% to 300% of our electricity usage by 2030.
- Working in partnership with others to maximise the role our land and catchments can play in capturing and storing carbon.
- Investing in energy efficiency to further reduce our operational carbon footprint.
- Partnering with our supply chain to support low carbon construction, innovation and the transformation in skills needed.
- Seeking out new technology to eliminate greenhouse gas emissions from our processes, fleet and buildings, working with our regulators where innovative approaches are required.

Community Engagement

As Scotland's most trusted consumer industry we already have good relationships with the customers and communities we serve.

We are continuing to build on good examples of community engagement such as the highly successful River Kelvin community engagement strategy where our work with local, influential community groups and stakeholders has resulted in no planning objections to our project to improve the water quality of the River Kelvin in Glasgow's West End and an invitation to join the community council.

We recognise that societal expectations are changing and in our Strategic Plan we set out we will therefore transform our relationships with customers and communities, making them active and two-way. This means enhancing the way we involve them in investment projects: embracing joint working with communities where this creates better places to live; implementing world leading public engagement; and extending our education programme.

We are developing a way of engaging primary & secondary schools through the development of an open learning platform on how Scottish Water looks after our water; how we treat waste water and protect the environment; and build understanding of how we all need to better protect water for future sustainability. The content is being designed to support the Curriculum for Excellence and will help pupils develop a broad understanding of water. We plan to launch this for the new academic year.

Employee Engagement

Delivering service excellence depends on the engagement and skills of our people in all aspects of our activities. We will continue our industry leading focus on the safety, health and well-being of our employees. We will further enhance our diversity and develop the people and skills we need for the future, through investment in training.

Over the next year we will:

- develop the cultural characteristics required to deliver our strategic objectives through a highly engaging and collaborative campaign;
- support leaders, building their ability to own and lead people through change;
- explore the requirement for changes to our operating model, organisational structure, role types and role design
- propose a reward architecture to enable sustained future outperformance in the transformed organisation

Technology

We have made a commitment to drive transformation and innovation throughout our business and build the capacity and skills to lead, inspire and influence others to explore new approaches and drive value. Our people and their skills are important to the successful development and implementation of our technology. Examples of activities already taking place are:

- We have revisited the delivery model for technology to make it more agile. As an example of this we have created an "apps factory" in Glasgow with our partner CapGemini to enable the rapid development of apps for the business.
- Our new Portfolio, Programme and Project Management system, P3M, is now live. P3M replaced a number of systems, documents and processes that were used to manage and promote the Capital Investment Programme. This makes it easier for us and our delivery partners to access the information we need.
- Scientific Services are digitally transforming how we operate our sampling and analytical activities through the use of handheld devices

and the development of a sample request app to enable the team to track and manage workload. Our Laboratory Information Management System (LIMS) is being refreshed to include a LIMS mobile solution which will enable our samplers to electronically register and record samples in the field during 2020. We are also examining how we could use robotic processes to automate repetitive tasks such as process checks and audits.

- We are introducing a new system that will replace our current cost estimating tool (EES). The new system will provide our costing services and estimating teams with leading-edge technology for use in SR21 and beyond.

We are introducing a new HR and Recruitment system, Workday, which will replace our current systems and will deliver a user friendly and secure platform to carry out activities.

8. Scottish Water's Group Plan

- Supporting the Hydro Nation

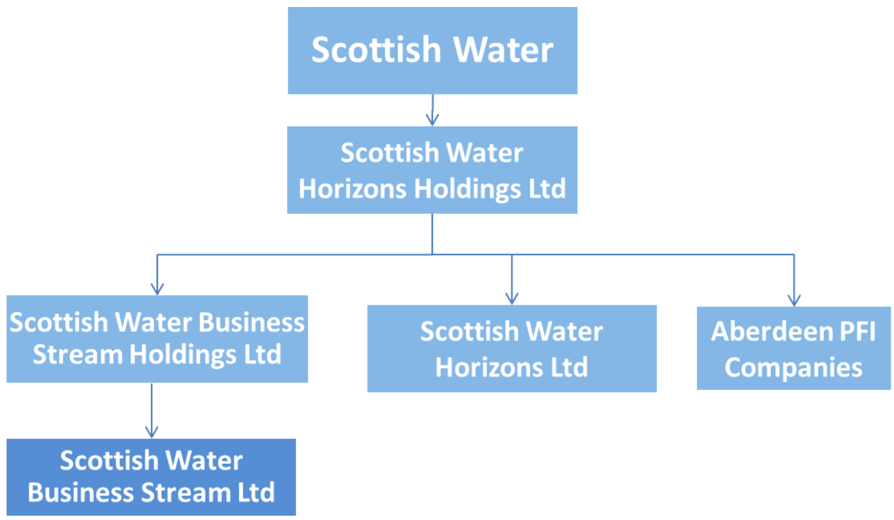
Business model

Scottish Water operates a business model comprising 4 main trading areas:

1. Scottish Water, which supplies households and wholesale licensed providers with regulated water and waste water services;
2. Scottish Water Business Stream Ltd (Business Stream), our licensed retail subsidiary which supplies water and waste water services to business customers;
3. Scottish Water Horizons Ltd (Horizons) which provides non-regulated services to customers in Scotland and consultancy services to clients outside Scotland.
4. Aberdeen PFI Companies which provide wastewater services in the Aberdeen area under a PFI contract.

The Scottish Water group structure is summarised in Figure 2:

Figure 2 – Scottish Water group structure at March 2019



In accordance with the Governance Code (agreed with the Water Industry Commission for Scotland) Business Stream, which provides retail services to non-domestic customers, is operated and managed independently of Scottish Water.

We have set out our plan for Scottish Water's core water and waste water services in Sections 2 to 7 above, and below we set out how else we support the Hydro Nation agenda.

Supporting the Hydro Nation Agenda

Scottish Water maintains its commitment to support the Hydro Nation agenda of developing the value of Scotland's water resources. The main pillars of our work in this area remain renewables, supporting innovation and developing the next generation of water experts. During 2018 we added a new element of installing water bottle refill points in public places.

Under our Your Water Your Life campaign we have successfully rolled out public top up taps to 29 towns and cities across Scotland.

Renewable energy

Since 2013 we have more than doubled our installed, renewable capacity to over 71.5GWh and diversified our portfolio to include hydro, wind, biomass, photovoltaic and combined heat and power (CHP).

We currently have 38 hydro turbines on 28 sites in operation; 20 small/medium-scale wind schemes; 44 photovoltaic solar schemes; 3 biomass boilers, 1 water source heat pump and 4 combined heat and power schemes. These are helping to offset the amount of electricity we need from the grid, with more than 70 of our sites now either partially or fully self-sufficient.

Between April and December 2019 we have delivered three further solar photovoltaic projects at Assynt WTW, Camphill WTW, Glenconvinth WTW. A fourth project is under construction at Dunfermline WWTW, scheduled for commissioning in February 2020. Further systems at Finmont DSR, Glassford DSR, and Loch Ashie WTW are consented and scheduled for delivery in 2020/21. In addition, we are working on a project to host a large wind scheme on the Daer catchment. Supported by funding from the Scottish Government’s Low Carbon Infrastructure Transition Programme, Horizons commissioned a low carbon energy centre at Stirling WWTW in October 2019. The energy centre comprises wastewater heat pumps, a gas combined heat and power engine (CHP) and back up boilers supplying heat for a district heating network operated by Stirling Council. The CHP also supplies electricity to the WWTW. Our second low carbon energy centre at Campbeltown is under construction and expected to be delivering heat to customers by March 2020.

International Activities

We will continue to support international activity in three ways: through knowledge exchange with European and international partners to promote the Scottish water industry model; through international consulting assignments; and through our support for international WaterAid.

We will continue to support international activity through promotion of the Scottish water industry model via consulting assignments. In particular we will:

- continue to develop business in Ireland by building on mature relationships and delivering on existing commitments;

- respond to opportunities that may arise from current relationships and strategic partners in Australia, or elsewhere that aligns with our capability and ability to resource;
- concentrate on Client Side / Government water reform strategic advice;
- support wider Scottish initiatives such as Hydro Nation Commercial (Regulatory Strengthening) and New Zealand Water Reform.

In 2018 Scottish Water and WaterAid were successful in winning match funding grants from the Scottish Government for projects in Rwanda and Malawi. The field work for these projects is progressing well with toilet blocks, including menstrual health facilities, and rainwater harvesting systems being built in the southern Rwandan territory of Nyamagabe, and several boreholes and child friendly bathrooms being built to support Early Childhood Development Centres in Malawi. The Scottish Water supporters continue to find innovative new ways to fundraise and we are well on target to raise over £200,000 by March 2020 to support these projects. This money will in effect be doubled due to the match funding grants.

Supporting innovation in the water sector

The Development Centres at Bo'ness and Gorthleck, created in partnership with Scottish Enterprise, are fully operational and visibly supporting the Scottish Government's Hydro Nation Agenda. Horizons is leading the Interreg funded project to create a network of test centres in Northern Europe.

As part of developing new technologies to meet future challenges Scottish Water is a partner in two European funded projects, Innoqua and Phos4U. We hosted a test plant from Glasgow Caledonian University at Bo'Ness as part of the Phos4U project to assess the use of algae as a means to recover phosphorous from waste water. The pilot plant for Innoqua, utilizing earthworms and daphnia (water fleas) to treat waste water, was installed at Littlemill WWTW in the Autumn of 2019. This plant will run over the winter months to test the resilience of the nature systems in cold weather conditions.

We were also successful in securing funding through Scottish Enterprise for phase 2 of the CanDo Challenge to develop treatment for small systems to remove organics from water. This funding will enable two technology companies to develop and test prototypes of their treatment technology. These will be tested at Gorthleck development centre over the coming year.

Developing the next generation of water experts

Scottish Water's commitment to youth strategies continues through apprenticeship, graduate and intern routes as well as mentoring programmes to develop the next generation of experts for the water industry. Our activities include:

- Being a key partner in the Hydro Nation Scholars programme through our involvement in the advisory steering panel. We act as mentors/ sponsors to several of the scholars.
- Sponsorship of the 2050 Climate Group Young Leaders Development Programme, which is now in its 4th year.
- Our Future Leaders Programme, a 2 year accelerated development programme for selected individuals with long-term senior leadership potential, is ensuring a pipeline of emerging leadership talent.
- Actively supporting modern apprenticeship and graduate programmes by working with our partners and suppliers to create opportunities for young people to learn new skills. We now have 162 apprentices in development within Scottish Water and 48 graduates. Each year we typically support 10 STEM interns to complete development programmes with us and we provide work placements and mentoring for 10 Career Ready students from high school during 2019.

Annex 1: Scottish Water Consolidated Financial statements

The financial projections in the tables below present the consolidated total of the following Scottish Water group companies: Scottish Water (regulated and non-regulated activities); Scottish Water Horizons Holdings Ltd (SWHH); and Scottish Water Horizons Ltd (SWH) which includes the international activities of Scottish Water International Ltd since 1 April 2018. For the purposes of these financial statements the North-East Scotland PFI companies, acquired by SWHH in December 2018, have been treated as a simple investment in accounting terms.

Scottish Water Consolidated Profit and Loss Account (IFRS)

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Turnover	**1,141**	**1,171**	**1,212**	**1,235**	**1,271**	**1,284**
Operating expenditure	385	401	415	449	443	453
PFI operating costs	113	115	118	107	128	137
Depreciation charges - non infrastructure assets	227	239	236	245	255	261
Depreciation charges - infrastructure assets	17	16	18	18	19	19
Depreciation charges - PFI assets	19	19	19	19	19	20
Infrastructure capital maintenance charge	119	118	135	130	131	134
Amortisation of deferred income	-1	-1	-1	-1	-1	-1
Operating Profit	**262**	**264**	**272**	**268**	**277**	**261**
Profit or loss on disposal of fixed assets	15	6	7	1	1	0
Net interest receivable less payable	-149	-148	-150	-148	-147	-150
Interest on PFI liabilities	-23	-22	-21	-19	-18	-17
Dividends receivable from subsidiary	6	6	6	6	12	6
Profit Before Taxation	**111**	**106**	**115**	**108**	**125**	**100**
Taxation	21	3	-18	-20	-25	-21
Retained Profit	**132**	**109**	**97**	**88**	**100**	**79**

Consolidated Statement of Comprehensive Income

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Retained profit for the year	**132**	**109**	**97**	**88**	**100**	**80**
IAS19 adjustments:						
- Actuarial gains/(losses), net of tax	82	-90	65	-41	-	-
- Service & finance costs, net of tax	-17	-12	-28	-19	-	-
Total comprehensive income for the year	**197**	**7**	**134**	**28**	**100**	**80**

The Statement of Comprehensive Income includes all of the International Financial Reporting Standards (IFRS) adjustments resulting from International Accounting Standard 19 ‘Employee Benefits’. This layout is consistent with the layout in the

Regulatory Accounts (M Tables) agreed with the Water Industry Commission in 2016.

Scottish Water Consolidated Balance Sheet (IFRS)

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Fixed Assets						
Tangible assets	5,180	5,411	5,651	5,895	6,122	6,409
PFI assets	364	345	328	309	290	271
Grants and contributions	-14	-13	-12	-11	-10	-9
Other Operating Assets and liabilities						
Working capital	-310	-309	-361	-373	-330	-305
Cash	408	277	316	342	401	389
Net operating assets	**5,628**	**5,711**	**5,922**	**6,162**	**6,473**	**6,755**
Non-operating assets and liabilities						
Borrowings	-1	-1	-1	-1	-	-
Investment in subsidiaries	35	35	35	51	51	51
Total non-operating assets & liabilities	**34**	**34**	**34**	**50**	**51**	**51**
Provisions for liabilities & charges						
Deferred tax provision	-373	-373	-390	-405	-425	-441
Post employment asset / (liabilities)	-92	-192	-144	-202	-202	-202
Other provisions	-19	-15	-22	-34	-29	-18
Total provisions	**-484**	**-580**	**-556**	**-641**	**-656**	**-661**
Net assets employed	**5,178**	**5,165**	**5,400**	**5,571**	**5,868**	**6,145**
Capital and reserves						
Government Loans	3,423	3,423	3,544	3,709	3,929	4,149
PFI debt/lease	364	344	324	302	279	257
Retained earnings	1,258	1,265	1,399	1,427	1,527	1,606
Other reserves	133	133	133	133	133	133
Total capital & reserves	**5,178**	**5,165**	**5,400**	**5,571**	**5,868**	**6,145**

The increase in investment in subsidiaries, of £16 million to £51 million in 2018/19, was due to the acquisition by SWHH of the North-East Scotland PFI companies. The financing company (AES Ltd) is forecast to pay dividends of c.£6 million per year to SWHH. At the same time, SWHH will provide additional funding to the operating company (Scottish Water Services (Grampian) Ltd). These elements are shown in the cash flow statement below.

Scottish Water Consolidated Cash Flow Statement

£m, actual / forecast outturn	2015-16 (actual)	2016-17 (actual)	2017-18 (actual)	2018-19 (actual)	2019-20	2020-21
Operating profit	262	264	272	268	278	261
Depreciation charges	263	274	273	282	292	300
Amortisation of grants	-1	-1	-1	-1	-1	-1
Infrastructure capital maintenance charge	119	118	135	130	131	134
Change in working capital	8	21	27	10	-33	-25
Net cash flow from operating activities	**651**	**676**	**706**	**689**	**667**	**669**
Taxation						
Taxation paid	-	-	-	-5	-5	-5
Returns on investments & servicing of finance						
Interest paid - net	-153	-149	-151	-149	-147	-150
PFI interest payable	-23	-22	-21	-19	-18	-17
PFI finance lease repayments	-18	-20	-20	-22	-23	-22
Investment in subsidiaries	-	-	-	-16	-	-
Intercompany loans / financing	-	-	-	-2	-6	-3
Intercompany dividend income:						
- AES Ltd	-	-	-	-	6	6
- SW Business Stream Holdings Ltd	6	6	6	6	6	-
Net cash flow from returns on Investment & servicing of finance	**-188**	**-185**	**-186**	**-202**	**-182**	**-186**
Net cash flow before investment and maintenance charges	**463**	**491**	**520**	**483**	**480**	**478**
Capital expenditure and financial investment						
Capital enhancement expenditure	-200	-342	-310	-316	-308	-366
Capital maintenance expenditure	-261	-301	-314	-325	-349	-360
Infrastructure Charges Income	12	14	16	16	17	16
Disposal of fixed assets	16	7	7	2	1	-
Net cash outflow from investing activities	**-433**	**-622**	**-601**	**-623**	**-639**	**-710**
Net cash flow before financing	**30**	**-131**	**-81**	**-140**	**-159**	**-232**
Financing						
New Government loans	324	343	243	288	344	354
Government loans repayments	-324	-343	-123	-123	-125	-134
Net cash inflow from financing	**-**	**-**	**120**	**165**	**219**	**220**
Decrease (increase) in cash & cash equivalents	-30	131	-39	-25	-60	12
Net cash flow	**-30**	**131**	**81**	**140**	**159**	**232**