

# Creating jobs and improving skills

Annex 05

Severn Trent  
29 January 2021

WONDERFUL ON TAP



## Executive summary

### Our Green Recovery proposals create over 3000 much needed jobs and address green skills gaps.

One of the aims of the Government's Green Recovery plan is to stimulate the economy, create jobs and enhance skills<sup>1</sup>. We have built on our track record of being a responsible and innovative employer and have considered how our investment proposals could be delivered in a way that maximises both short-term job creation and long-term sustainable jobs and skills.

It has never been a more important time to support jobs:

- Unemployment is rising – and expected to hit 2.6 million by mid-2021 according to the Government's own forecasters<sup>2</sup>.
- Firms are struggling – and even those that expect to stay afloat are in difficulties. Close to home, the Midlands Engine reports that 69% of businesses in the West Midlands and 64% in the East Midlands have seen turnover fall by at least 20% due to the pandemic<sup>3</sup>.
- Manufacturing is declining – and expected to reduce by a further 12% because of Covid-19, according to Make UK. Our region is the heartland of UK manufacturing, and this extra fall in an already declining sector is grim news<sup>4</sup>.

Overall, our package will:

- Create over 1,550 direct jobs over the next 4 years, across our six proposals.
- Have an additional impact of a further 1,450 jobs across the water sector supply chain, based on the latest Type 1 employment multiplier<sup>5</sup>.
- Target around 200 job roles at those aged 16-24 years – as young people's employment prospects have been hit disproportionately hard by the Covid-19 crisis.
- Improve the skills of the sector in line with the Government's skills for a Green Economy report<sup>6</sup>, and prepare to meet skills gaps needed to meet the future challenges.

A common thread throughout all of the proposals is the need to accelerate learning – whether it's piloting technology to meet future tighter river water quality standards or how to better integrate nature-based solutions into our communities to better prepare for the increased flooding that is occurring as a result of climate change – we know that we need to do more to equip our sector to

---

<sup>1</sup> Department for Environment Food & Rural Affairs (Defra) et al. (2020) 'Green Economic Recovery – The Water Industry's Role in Building a Resilient Future'

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/902487/green-recovery-letter-to-water-companies-200720.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902487/green-recovery-letter-to-water-companies-200720.pdf)

<sup>2</sup> BBC (2020), 'Spending review: unemployment predicted to rise to 2.6 million' <https://www.bbc.co.uk/news/uk-politics-55072987>

<sup>3</sup> Midlands Engine (2020) 'Midlands Engine Economic impact of Covid-19, Edition 6: 3rd July 2020'

<https://www.midlandsengine.org/wp-content/uploads/Midlands-Engine-Covid19-Monitor-Edition-6-.pdf>

<sup>4</sup> Make UK (2020) 'Manufacturing outlook 2020: Quarter 4' <https://www.makeuk.org/insights/reports/manufacturing-outlook-2020-q4#:~:text=Manufacturing%20Outlook%202020%20Quarter%204&text=The%20Make%20UK%20FBDO%20Manufacturing,down%20from%205.1%25%20last%20quarter>

<sup>5</sup> Office for National Statistics (ONS) (2019) 'FTE multipliers and effects. Reference year 2015, bespoke industry group' Based on an average multiplier of 2.05 across SU114 (36, 37 and 41-43)

<https://www.ons.gov.uk/economy/nationalaccounts/supplyandusables/adhocs/009747fitemultipliersandeffectsreferencenyear2015bespokeindustrygroups>

<sup>6</sup> HM Government (2011) 'Skills for a green economy A report on the evidence'

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/32373/11-1315-skills-for-a-green-economy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/32373/11-1315-skills-for-a-green-economy.pdf)

better meet these challenges. Our proposals include two main areas where we are going to leverage the opportunity offered by our new Academy, and connections we have with further education to make a step change in the skills gap. We are specifically targeting the skills needed to work better within our communities to tackle: (i) lead pipes; and (ii) urban flooding.

## Contents

<b>1. There is a clear need to create jobs.....</b>	<b>5</b>
1.1 There is an evident need for economic stimulus.....	5
1.2 Jobs and skills needed to meet the future challenges.....	6
1.3 Our proposals seek to tackle the gaps and future challenges.....	7
<b>2. Customers support this approach .....</b>	<b>8</b>
<b>3. Building on a strong track record .....</b>	<b>10</b>
3.1 Supporting young people.....	10
3.2 Future skills .....	10
<b>4. Maximising the impact on jobs and skills .....</b>	<b>11</b>
4.1 Construction jobs .....	12
4.2 Future jobs required .....	12
4.3 FTE multiplier and effect.....	13
4.4 Job creation over AMP7.....	15
4.5 Enhancing and improving skills.....	16
<b>5. Conclusion .....</b>	<b>17</b>

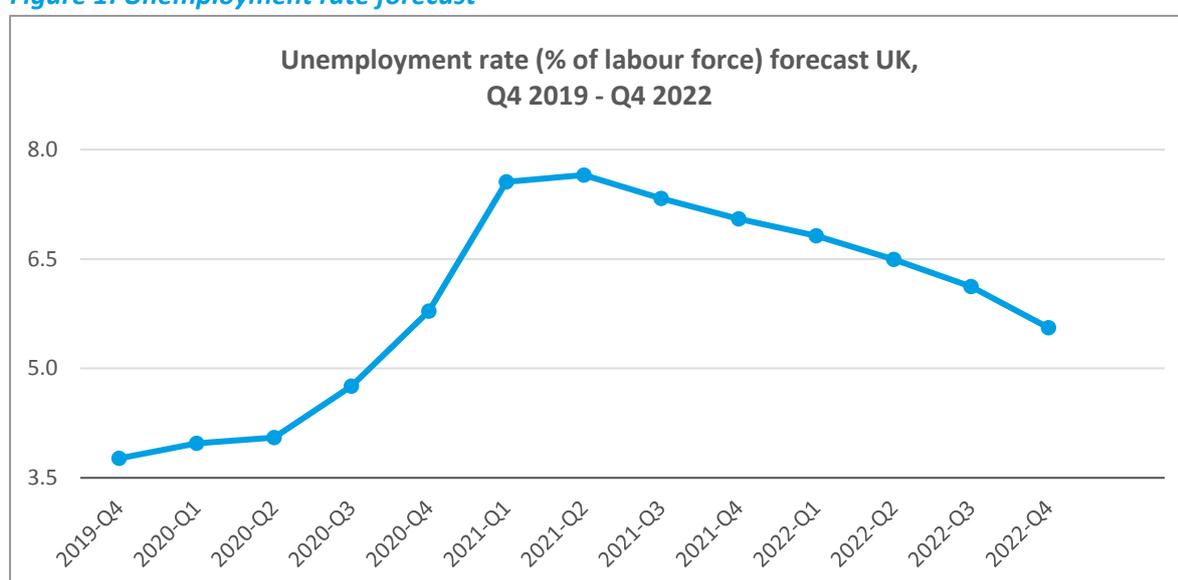
# 1. There is a clear need to create jobs

We have sought to understand the national and regional impact Covid-19 has had on employment. This is so that we can consider how best to support recovery both in the short and long term.

## 1.1 There is an evident need for economic stimulus

The Covid-19 pandemic has had a detrimental effect on the livelihoods of our communities and the economy. Figures show that in the second quarter of 2020, the UK economy plummeted due to the 'stay at home' restrictions<sup>7</sup>. Such restrictions caused economic activity to decline and output to fall significantly for sectors such as construction<sup>8</sup>. Subsequently, this has led to record levels of redundancies. Official data up until December 2020 reveals there have been more than 800,000 job losses since the start of the pandemic<sup>9</sup>. Further estimates for August to October 2020 suggest that 1.69 million people were unemployed – up 411,000 on the same period the previous year<sup>10</sup>.

Figure 1: Unemployment rate forecast



Source: OECD (2021) *Economic Outlook: Statistics and Projections*<sup>11</sup>

Despite an economic recovery on the horizon, the outlook for the labour market appears bleak in the short term and particularly in our region. The unemployment rate in the West Midlands and East Midlands region for August to October 2020 was on average 5.4% – which is 0.5% above the UK average rate<sup>12</sup>. Largely this is the result of the type of work in our region.

<sup>7</sup> Office for National Statistics (ONS) (2020) 'GDP monthly estimate, UK: April 2020'

<https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/april2020>

<sup>8</sup> Irwin Mitchell (2020) 'Coronavirus and the UK economy' <https://irwinmitchell.turtl.co/story/coronavirus-and-the-uk-economy/page/4/18>

<sup>9</sup> People Management (2020) 'Redundancies hit record high amid second Covid wave'

<https://www.peoplemanagement.co.uk/news/articles/redundancies-hit-record-high-amid-second-covid-wave>

<sup>10</sup> Office for National Statistics (ONS) (2020) 'Labour market overview, UK: December 2020'

<sup>11</sup> OECD (2021) 'Economic Outlook: Statistics and Projections' <https://data.oecd.org/unemp/unemployment-rate-forecast.htm>

<sup>12</sup> Office for National Statistics (ONS) (2020) 'Labour market in the regions of the UK: December 2020'

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/regional-labourmarket/december2020>

In the West Midlands, Birmingham has traditionally been a centre of manufacturing and engineering, and it is evident that these industries will struggle to adapt to home working. As a result of the first lockdown, sectors such as construction and manufacturing saw their output fall substantially<sup>13</sup>. According to Make UK, manufacturing is declining and expected to reduce by a further 11% because of Covid-19. For the West Midlands, the construction sector saw the third biggest loss of GVA (Gross value added) per day in the region<sup>14</sup>. Fundamentally, this highlights the vulnerabilities of our region to economic changes and stresses the importance of safeguarding jobs and essential skills within our supply chain.

Looking closer at the demographics of unemployment, we found that the age group most severely affected were those aged between 16-24. This comes as no surprise; previous recessions have highlighted young peoples' vulnerabilities to changes in economic conditions, when unemployment for this age group have soared. Since then, employers have been encouraged to support the younger generation on the path to sustainable employment. By providing meaningful work now, we can play our part in helping to avoid a lost generation whose life-chances are blighted by a prolonged period out of employment or training.

In short, the current climate has demonstrated a clear need for economic stimulus. Within our region there is a clear need for employment opportunities, especially in areas such as the West Midlands. From our review, we have defined that there is a real need to:

- Boost opportunities for employment; especially for those aged 16-24.
- Promote job security within our supply chain.

## 1.2 Jobs and skills needed to meet the future challenges

Besides the immediate need to address unemployment, there are also potential long-term threats we need to take into consideration. By considering these long-term threats, it means we can ensure that any action we take is in our customers' best interests for the long term – as well as for the national good in the short term. Looking at the future, we need to consider as a sector, do we have the right balance of skills and diverse talents to tackle challenges such as climate change in an affordable way?

Skills gaps and shortages can be considered as a 'bottleneck' for our industry. It has been recognised that an ageing workforce and changing technologies are the key influencers in these skills gaps<sup>15</sup>. The future challenges tackled through our Green Recovery proposals will all require new skills, both for newly emerging jobs and for the existing workforce who will need to adapt.

To develop our response, we have also considered the Government's 'Skills for a green economy' report<sup>16</sup>, which sets out the key areas in which we should consider focussing our skills development:

---

<sup>13</sup> Irwin Mitchell (2020) 'Coronavirus and the UK economy' <https://irwinmitchell.turtl.co/story/coronavirus-and-the-uk-economy/page/4/18>

<sup>14</sup> Irwin Mitchell (2020) 'Coronavirus and the UK economy' <https://irwinmitchell.turtl.co/story/coronavirus-and-the-uk-economy/page/4/18>

<sup>15</sup> ENERGY & UTILITY (EU) SKILLS (2018) 'Water Industry: workforce and skills profile' [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiK493mvK\\_uAhW\\_OEMAKHdy4AhgQFjAAegQIARAC&url=https%3A%2F%2Fwww.euskills.co.uk%2Fwp-content%2Fuploads%2F2018%2F05%2FWater-Profile-2017-Final-140518-v2.pdf&usg=AOvVaw3pqwYeyloXSuPbKteKdl6S](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiK493mvK_uAhW_OEMAKHdy4AhgQFjAAegQIARAC&url=https%3A%2F%2Fwww.euskills.co.uk%2Fwp-content%2Fuploads%2F2018%2F05%2FWater-Profile-2017-Final-140518-v2.pdf&usg=AOvVaw3pqwYeyloXSuPbKteKdl6S)

<sup>16</sup> HM Government (2011) 'Skills for a green economy A report on the evidence' [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/32373/11-1315-skills-for-a-green-economy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/32373/11-1315-skills-for-a-green-economy.pdf)

- **Engineering** – replacement of expert engineers as the current workforce ages and skills to deploy new technologies/processes.
- **Climate resilience** – operator level actions to improve climate resilience (e.g. retrofitting water efficient technologies in households and business premises) and risk management such as assessments of future resource availability.
- **Land management (natural assets)** – climate change adaptation; conservation; flood management; operation and maintenance; carbon capture and storage; and carbon management.

Our proposals tackle these gaps in the context of each of the challenges we are addressing. The overall additional cost of developing training is less than 0.1% of the total proposals. In part this cost is being minimised because of the investment we have already made in our Training Academy and developing strong relationships with education providers across our region. More detail is provided in Section 3.0 of this annex.

We recognise that a diversity of talent brings different ideas and perspectives which improve how we work as a business and enable us to understand and meet the needs of the communities we serve. As a company named in the top 10 Social Mobility Index for the second year running along with being above sector average for BAME representation (8.86% versus an 4.1% average), we’re making steady progress in our workforce reflecting the communities we serve. Through our proposals we strive to encourage the communities we serve to engage with their natural environment and play their part in long-term solution. This makes it important that our recruitment process recognises the need for diversity.

### **1.3 Our proposals seek to tackle the gaps and future challenges**

As a growing workforce, which has nearly 7,000 employees, we understand the importance of creating a diverse and skilled team. In addition, we recognise the important role we play in contributing to a successful society and economy across our region by stimulating job creation in our supply chain through investments. Therefore, we are seizing this opportunity to play a bigger role in society and doing so in a way that better equips our workforce to meet the future challenges.

When considering how best to achieve the outcomes in our Green Recovery proposal we have sought to maximise the impact it will have by:

- Targeting employment opportunities on 16-24-year olds, who are the group that is hardest hit by unemployment.
- Retaining jobs in the supply chain (which maximises the impact of the multiplier effect).
- Focusing on improving skills in the areas identified as gaps in the Government’s “skills for a green economy” report – namely engineering, sustainability and natural land management.

Focusing on driving these three core objectives will ensure the creation of sustainable jobs and skills that will be needed for many years to come.

## 2. Customers support this approach

In previous research, our customers have told us that they expect us to do more for the towns, cities, and villages where they all live and work. Essentially, they want us to play a bigger part in society. Since then, we have taken on board our customers' thoughts and made a step-change in being a 'socially purposeful company' – embedding our social purpose into everything we do. In recent months we have seen the deep challenges Covid-19 has presented to our customers, and how this has changed their values, behaviours and needs.

In phase one of our green recovery customer deliberative event we asked customers what they thought were the biggest issues facing the UK today – more information regarding the research can be found in **Annex A03: Customer engagement**. Our customers defined the economic impacts of Covid-19 and threats to the environment as the two biggest issues. In addition, our customers spontaneously voiced concerns about the impact the pandemic has had on areas such as jobs, the economy and isolation within communities.

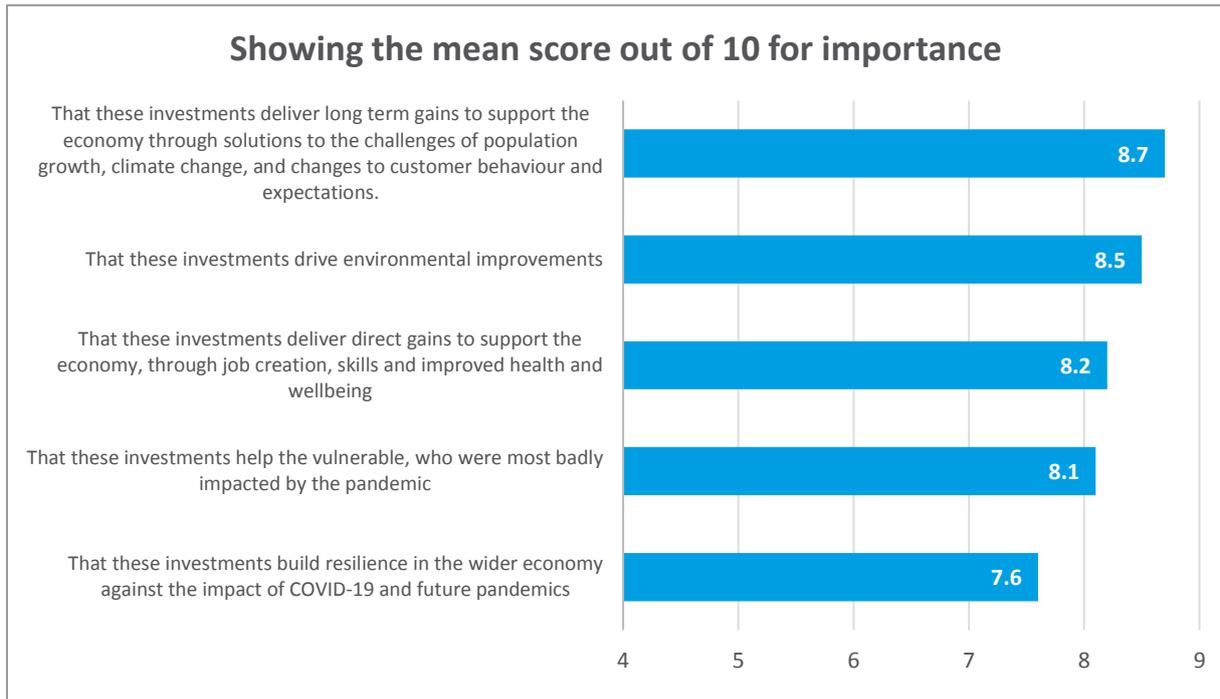
*“Jobs and business. If you're not in a job, how are you going to pay for your bills? I have a horrible feeling that things are only going to get worse.”* **Customer, Deliberative research**

When probing customers on the role they think we have in supporting economic recovery, many of our customers did not immediately connect Severn Trent as having a direct role. Once they were provided with more information on the concept of the green recovery and the Government's ask, the idea of Severn Trent helping with the recovery from Covid-19 was seen positively. This subsequently helped to bolster opinion of Severn Trent “doing its part.”

*“I think the government idea is a positive one. It makes sense economically to ask infrastructure organisations to invest in a green recovery by upgrading their current systems and processes and creating jobs and training opportunities, especially with so many jobs at risk”* **Customer, Deliberative research**

When thinking about what any additional investment should achieve, our customers want to see bolder environmental improvements that will deliver long-term gains. When asked more directly to select the areas they felt were the most important outcomes from the green recovery investments, the top three were: addressing long-term challenges (such as climate change and population growth), environmental improvements and supporting the economy and jobs. This insight tells us that our customers recognise the importance of stimulating the economy and jobs in line with environmental improvements. *Figure 2* displays the areas which customers felt were vital outcomes from the green recovery for Severn Trent.

**Figure 2: Customers ranking of the most important outcomes from the green recovery investment**



In summary, our customers identified that the three biggest challenges for the UK were: Covid-19, the economy, and the environment. When we proposed the idea that Severn Trent should step in and take a role in supporting the economy and creating jobs, our customers supported this idea. Essentially, the customers' views align with the expectations of a Green Recovery. It is important to highlight that in this research we did not question our customers about the cost of creating jobs but instead the cost of the proposals as whole. Fundamentally, it is about delivering the desired outcomes in a way that creates sustainable jobs and our customers should only pay for the most efficient costs.

### **3. Building on a strong track record**

As nearly 90% of our workforce are also customers, we recognise the importance and value of being reflective of the communities we serve. We have already made huge strides in our approach to recruitment and development of our people to ensure we have talented and diverse employees to serve our customers. This section includes two case studies which we aim to build on through our green recovery proposals to add even more value to the communities we serve.

- Promoting sustainable employment for young people.
- Ensure we have the right skills for the future – Training Academy.

#### **3.1 Supporting young people**

Long before the pandemic, we understood the importance of providing young people with the opportunity to experience work and gain employability prospects – and still do. Not just because this is the right thing to do, but because this enables us a real opportunity to reflect the communities we serve and show leadership in supporting them.

So far, our early careers programmes have brought great successes for young people and Severn Trent. Our Employability scheme, which offers supported work experience for students with special educational needs, has seen 67% of interns entered paid employment after going through the scheme. In addition, over the years we have increased the amount of apprenticeships we offer, along with undergraduate and graduate schemes which provide supported on-the-job learning as young people make the transition from full-time education into the workplace.

We recognise by providing meaningful work experience, investing in business skills and employability skills we can aid young people's future employment prospects. Furthermore, this enables us to fill business critical positions and nurture skills in-house which align with our desired strengths, attitudes, and behaviours. As young people's employment prospects have been hit disproportionately hard by the Covid-19 crisis, we believe it is important to engage young people in the green recovery where possible. Involving young people as we make the step-change to using nature-based assets, will begin the process of equipping the sectors future workforce with green skills.

#### **3.2 Future skills**

To achieve our ambitious commitments across 2020-25, we are making sure our people have the right skills, knowledge, and behaviours. In our new Academy, we deliver a range of learning programmes which all play a key role in our bid to build a resilient workforce. Such as preparing the next generation of 'expert engineers' – which falls in line with the ask outlined in the Government's Skills for a Green Economy report. As we make a step-change from typically grey infrastructure to green resources and nature-based assets, we recognise that this will require new skills.

So far, we have been working with consultants to roll out biodiversity net gain calculation training based on the Defra model. This enables engineers to recognise the negative impacts on habitats arising from a development and calculate how much new or restored habitat, and of what types is required to deliver sufficient net gain. Educating our engineers in green calculations to promote the sustainability of our asset base is key to meeting future environmental challenges. This is an example of the learning that will help support the development across all our proposed schemes.

## 4. Maximising the impact on jobs and skills

We need a workforce that is resilient to change and has a sustainable skill set in order to meet the challenges of the future. When considering the possible options within each of our proposals we have assessed the contribution each option will have on jobs and skills, by assessing them against the following criteria:

- Do they particularly support the hardest impacted group, i.e. 16-24-year olds?
- Do they retain jobs in the supply chain?
- Do they focus on improving skills in the areas identified as gaps in the Government’s ‘Skills for a green economy’ report – namely engineering, climate resilience and natural land management – both for us and the sector more broadly?

The details of the options we have considered are included in the relevant business cases, but the table below sets out the extent to which each proposal does address these three priority areas.

**Table 1: Jobs and skills created in the three priority areas**

	Support 16-24-year olds	Create jobs in the supply chain	Focus on Government’s green skills gaps
Creating bathing rivers	54 construction workers	306 construction workers	<ul style="list-style-type: none"> <li>• Engineering skills</li> <li>• Skills to manage natural asset – land management</li> </ul>
Decarbonising water resources	36 construction workers	206 construction workers	<ul style="list-style-type: none"> <li>• Engineering skills</li> <li>• Skills to manage natural asset – land management.</li> <li>• Increase capacity and resilience of supply</li> <li>• Climate resilience</li> </ul>
Flood-resilient communities	51 construction workers	290 construction workers	<ul style="list-style-type: none"> <li>• Skills to manage natural asset – land management</li> </ul>
Taking care of customers’ supply pipes	18 apprenticeships	95 contracted network technicians / local plumbers	<ul style="list-style-type: none"> <li>• Engineering skills</li> </ul>
Smart metering		78 contracted meter installation engineers	<ul style="list-style-type: none"> <li>• Engineering skills</li> </ul>
Accelerating Environmental Improvements (AMP8 WINEP)	44 construction workers	252 construction workers	<ul style="list-style-type: none"> <li>• Skills to minimise and manage waste to prevent pollution.</li> <li>• Engineering skills</li> </ul>

We have developed three methods in order to estimate:

- The number of jobs required across the supply chain for the construction of these proposals.
- The longer-term impact on jobs.
- The multiplier effect on the wider economy.
- The number of jobs created across AMP7.

We set out these assumptions in the following sections and the checks and balances we have done in order to test the validity of these assumptions.

## 4.1 Construction jobs

In establishing how we define the amount of jobs required in the construction phase of these projects, we have drawn on data from a set of 20 projects that are of similar nature – in terms of the type and mix of inputs required to deliver them – to the schemes that we are proposing for the decarbonising water resources and bathing rivers proposals. In the sample of 20 waste treatment projects, every £1 million of capital expenditure during the construction phase gave rise to employment for 6 people.

We have validated this assumption using data from previous projects that are similar in scale for the construction phase, such as the Birmingham Resilience Scheme to ensure that this assumption is equally valid for the decarbonising water resources scheme. Data from our AMP6 Birmingham resilience scheme shows that 900 individuals were on site over the three-year duration of the project, responsible for £300m of total spend. Based on this ratio, £1m requires 3 construction jobs. It is important to highlight that this figure only accounts for people that were physically on our site and does not account for the economic journey of the raw material to the site (which has an influence further up the supply chain), which is estimated in section *FTE multiplier and effect of our proposals* (section 4.3).

We have sought independent data to validate this estimate. Metrics from the Homes and Communities Agency (HCA) and the ONS state that around 14-15 people are required over one year to deliver £1 million of construction output<sup>17</sup>. We have used the data from our past projects, but this shows that we are not overstating the likely impact our proposals will have on employment.

In relation to employment opportunities for those aged 16-24 years within the construction sector, the CITB proposes in their '*Workforce Mobility and Skills in the UK Construction Sector 2018/19*' report<sup>18</sup> that on average, 17.5% of the UK's construction workforce is made up of individuals aged 16-24 years. If we apply this assumption to our estimate of construction jobs required through our proposals, we can estimate that nearly 200 job roles in the construction figure could be filled by a young worker.

## 4.2 Future jobs required

All of our proposals create future jobs outside of construction, because increased assets require operation and maintenance. For Decarbonising water resources, Creating bathing rivers, Accelerating AMP8 WINEP and Smart metering this cost is minimal relative to the total cost of the proposal or relative to the current costs of running the wider asset base, therefore we have not included this in our assessment. It is worth noting that each proposal's cost in relation to jobs and skills can be found within their main documents. The number of future jobs is an important part of the supply pipes and flood resilient communities' proposals. In both cases, we see this as long-term (20-year plus) job creation given we are proposing pilots which would then be rolled out across our region over the long term.

---

<sup>17</sup> Homes and Communities Agency (2015) "Calculating cost per job", page 9; and ONS (2019) "Type I employment multipliers and effects, reference year 2015".

<sup>18</sup> CITB (2019) 'Workforce Mobility and Skills in the UK Construction Sector 2018/19' <https://www.citb.co.uk/documents/research/workforce%20mobility%202018-2019/18-19-workforce-mobility-skills-west-midlands.pdf>

### Taking care of customers' supply pipes – 129 jobs based on assuming:

- 18 Apprentices to support delivering lead pipe replacement.
- 78 Delivery technicians (in-house) to roll out the replacement scheme.
- Team of 18 to manage the programme (traffic management, job scheduling, etc.)
- 12 Customer design engineers / Project co-ordinators.
- 3 internal communication roles

### Flood resilient communities – 95 jobs based on assuming:

- 63 maintenance officers to oversee routine and major maintenance of SuDS.
- 32 design planners and modellers.

Through these pilots we will gain valuable experience in terms of the job roles required in relation to scale in order to deliver and maintain these investments. For blue and green infrastructure – which typically requires more maintenance than grey infrastructure, this will mean that, given a successful roll out, the delivery of blue and green infrastructure in future AMPs will lead to the creation of more jobs.

## 4.3 FTE multiplier and effect

Every five years the Office for National Statistics (ONS) produces estimates of “Type I employment multiplier and effects”<sup>19</sup>. These are produced at the level of industry groups, which are categorised by SU114 codes. *Table 2 Type I FTE multiplier and effects* is an extract of the most current employment multiplier and effects published at the date of writing, showing the number for those industry groups that seem most relevant to our proposals.

**Table 2: Type I FTE multiplier and effects**

SU114	Industry	FTE multiplier	FTE effects
36	Water collection, treatment, and supply	1.81	7.04
37	Sewerage	2.36	6.06
38	Waste Collection, Treatment and Disposal Activities; Materials Recovery	1.84	14.81
41-43	Construction	1.97	15.04
71	Architectural and Engineering Activities; Technical Testing and Analysis	1.54	17.12

Source: ONS (2019) “Type I employment multipliers and effects, reference year 2015”

The ‘FTE effects’ provides a value intended to estimate the total amount of jobs created throughout the wider economy as a direct result of the per £m invested. *Table 3 the FTE effects of our six proposals* shows the average FTE effects value based on each proposal’s TOTEX. From this we have been able to estimate that from our investment of over £730m, approximately 10,000 jobs will be created across the wider economy.

<sup>19</sup> Office for National Statistics (ONS) (2019) ‘FTE multipliers and effects. Reference year 2015, bespoke industry group’ <https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetable/adhocs/009747fitemultipliersandeffectsreferenceyear2015bespokeindustrygroups>

**Table 3: The FTE effects of our six proposals**

Business proposal	FTE Effect value	TOTEX	Jobs created using FTE Effect
Taking care of customers' supply pipes	7.04	£98m	690
Smart metering	7.04	£22m	155
Decarbonising water resources	15.04	£206m	3098
Creating bathing rivers	15.04	£153m	2301
Flood-resilient communities	15.04	£85m	1278
Accelerating Environmental Improvements (AMP8 WINEP)	15.04	£168m	2527
		<b>Total</b>	<b>10,049</b>

The 'FTE multiplier' provides a value for the number of direct and indirect jobs required as a result of creating one additional job in the chosen industry. If we were to apply this assumption to our figures we already have for direct employment, we can establish how many jobs could be provided in the wider supply chain. Using the construction industry for instance, for every 1 job required in the construction sector, it is estimated that 0.97 (1.97 – 1) jobs will be created, across those sectors linked to the construction sector through the supply chain.

In *Table 4 Total jobs created within proposed schemes: direct and indirect*, we have used the Type I FTE multiplier to provide insight into how many indirect and direct jobs could be required as a result of the investment.

**Table 4: Total jobs created within proposed schemes: direct and indirect**

Scheme	Direct jobs: type and industry	Direct jobs	Indirect jobs (multiplier)
Decarbonising water resources	Internal: Water collection, treatment, and supply	15	12
	Internal: Architectural and Engineering Activities; Technical Testing and Analysis External: Construction	20	11
	External: Construction	206	200
Creating bathing rivers	Internal: Waste Collection, Treatment and Disposal Activities; Materials Recovery	8	7
	Internal: Architectural and Engineering Activities; Technical Testing and Analysis	18	10
	External: Construction	306	297
Flood-resilient communities	Internal: Sewerage	63	86
	Internal: Architectural and Engineering Activities; Technical Testing and Analysis	32	17
	External: Construction	290	281
Taking care of customers' supply pipes	Internal: Water collection, treatment, and supply	242	196
Smart metering	Internal: Water collection, treatment, and supply	78	63
Accelerating Environmental Improvements (AMP8 WINEP)	Internal: Sewerage	9	12
	Internal: Architectural and Engineering Activities; Technical Testing and Analysis	18	10
	External: Construction	252	244
<b>Total</b>		<b>1,557</b>	<b>1,446</b>
			<b>3,003</b>

## 4.4 Job creation over AMP7

Through our proposals we have sought to maximise the benefits of job creation in a bid to support the key objective of the Green Recovery. Given the current climate and that unemployment is on the rise – expected to hit 2.6 million according to the Government’s own forecasters<sup>20</sup> we recognise the urgency to promote job creation within the early stages of this AMP.

*Figure 3 Jobs created across AMP7 per year* demonstrates the estimated amount of jobs that will be created per year across our proposed schemes. As highlighted previously, given the current economic outlook it is essential to create jobs as soon as possible. As displayed in *Figure 3 Jobs created across AMP7 per year*, you can see that of our 6 proposed schemes, ‘Taking care of customers’ supply pipes’ and ‘Smart metering’ have the largest percentage of jobs created in years 2021-23 in relation to their total investment. This is due the nature of work, that requires shovel-ready jobs that can be deployed quickly. Through our estimates based on the percentage of investment spent per year, we have estimated that between 2021-23, nearly 500 jobs will be created as a direct result of our proposed schemes.

**Figure 3: Jobs created across AMP7 per year**



Our other four proposals see the majority of jobs created between 2023-25. This is mostly due to these proposals involving complex design and planning. For these four proposed schemes this will also offer support and much-needed jobs within the supply chain. Furthermore, due to the nature of these proposals, they will create the opportunity to generate jobs in areas which will better equip the sector to deploy low carbon, nature-based solutions in the future.

<sup>20</sup> BBC (2020), ‘Spending review: unemployment predicted to rise to 2.6 million’ <https://www.bbc.co.uk/news/uk-politics-55072987>

## 4.5 Enhancing and improving skills

In making the transition to a greener sector it requires new skills, both for newly created jobs and for the existing workforce. Through our pilots we aim to develop and upskill our workforce leveraging the investment we have already made in our Academy. This will ensure our new workforce and partners who will be delivering our green recovery proposals have the necessary skills.

In *Table 4 Proposals focus on the Government's skills for a green economy* we have listed the essential green skills outlined by the Government (in bold) and how our 6 proposals align with the adoption of these skills. This shows that our workforce will be better equipped to meet future challenges.

**Table 5: Proposals focus on the Government's skills for a green economy**

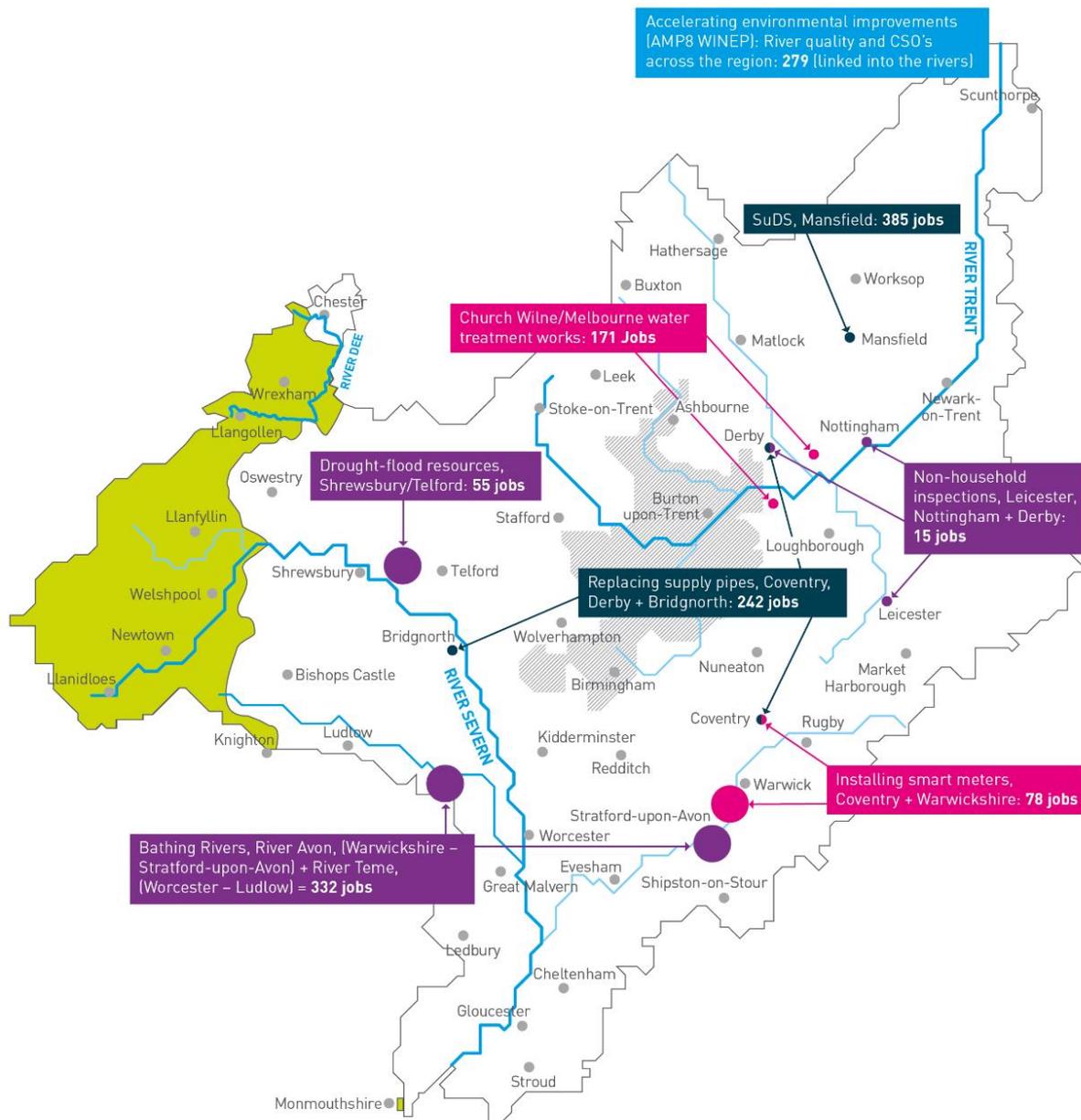
Business proposal	Focus on Government's skills for a green economy
Creating bathing rivers	<b>Engineering</b> – developing the skill set in creating bathing rivers (biodiversity calculations) Skills to manage natural asset – land management – Skills in managing catchment
Decarbonising water resources	<b>Engineering</b> particularly on renewable energy, High value design engineers – transferable skill for hydrogen generation <b>Natural asset</b> – land management – Constructed wetlands and nature-based treatment in clean water <b>Climate resilience</b> – Innovative grey water recovery products
Flood-resilient communities	<b>Natural asset</b> – land management – designing, constructing, and maintaining SuDS Using nature-based solutions to prevent pollution and improve water quality
Taking care of customers' supply pipes	<b>Engineering</b> – upskilling engineers on lead pipe detection and replacement techniques
Smart metering	Skills to support <b>climate resilience</b> – technical skills to read granular data to manage demand, supporting water efficiency, combined with behavioural techniques to encourage people to use water more wisely.
Accelerating Environmental Improvements (AMP8 WINEP)	Skills to minimise and <b>manage waste discharges to prevent pollution.</b>

## 5. Conclusion

Across our six proposals we will create approximately 3,000 jobs; 1,550 directly needed to deliver our package of over £730m of investment; and a further 1,450 within our sector’s supply chain. This would make a material, and much-needed difference to employment across our region. Evidently, our region is in a need of a real boost in employment. As the heartland of UK manufacturing – a sector, which is facing a decline, it is essential to create jobs that will build resilience within our region’s economy and communities.

Figure 4 displays how our investments have been spread across our region and the impacts in terms of direct jobs creation.

Figure 4: Number of direct jobs created in our region.



A strong transition into a green economy will require a sector with the right skills. Through our six proposals, we will be able to provide skills defined as essential in the Government's '*Skills for a green economy*'. Learning in areas such as climate resilience and natural assets will unlock knowledge and skills which are needed to meet future challenges. *Our* green recovery proposals will provide the opportunity to trial methods of recruitment and gain skills in these areas, to establish models which work best for the sector.

Overall, the wider benefits our proposals bring in terms of creating jobs and improving skills, promote getting our region's economy back on its feet, as well as improving our customers' livelihoods.