

Time	Speaker	Subject
3mins/ 5mins	James	<p data-bbox="397 247 1501 310">Introduction: James Jesic Hello everyone and welcome to the environment section.</p> <p data-bbox="397 352 1501 478">Here at Severn Trent we understand the importance of the natural environment to our customers, communities, but also our business. All across the Water Cycle, from the abstraction and treatment of water, to the collection, treatment and recycling of waste water back to the rivers across our region we constantly interact with and are dependent upon the health of the natural environment.</p> <p data-bbox="397 520 1501 615">For instance, there is a direct link between the quality of river catchments, the water quality within our rivers and the amount of treatment we need to deliver our wonderful product to our customers every day.</p> <p data-bbox="397 657 1501 888">We have a strong track record of delivering real environmental improvement and in the last 5 years alone we have improved 1600km of the regions rivers through improved catchment management by working with farmers, improving the quality of the water that we recycle back to environment and reducing the number of pollutions from our assets. This is great for the natural habitat of our region but it also delivers real tangible business benefit. Higher quality river water means less treatment to provide our product to our customers. In one area alone we have mitigated the need for £40m worth of investment upgrading water treatment works through this approach alone.</p> <p data-bbox="397 930 1501 1119">It is clear that energy and chemical costs are increasing and the industry has been over reliant on traditional methodologies to deliver core services, combined with the growing challenges of climate change and the reduction of habitat and biodiversity across the UK, we believe that the time is now to build on our expertise and success from AMP6 to take a leading role in shaping the industry with respect to sustainability and efficiency whilst making positive contributions to our local environments and society.</p> <p data-bbox="397 1161 1501 1255">We have chosen four bold ambitions that will make a real difference to the quality of the rivers in our region and enhance the natural environment, benefitting our customers, communities and deliver for our business.</p> <ol data-bbox="448 1297 1501 1873" style="list-style-type: none"> <li data-bbox="448 1297 1501 1455">1. Pollutions are the result of sewage escaping from our operation and are caused by asset failure; our systems being overwhelmed by excess rainfall and surface water; or by customers putting the wrong things down the toilet and into the network. We have gained ODI reward from our pollutions performance during AMP6, but we recognise we should do more. Therefore, we're aiming to halve the number of pollutions over the next 5 years. <li data-bbox="448 1497 1501 1591">2. I have already mentioned the extensive catchment work undertaken during the last 5 years, we invested early in our approach, but our plans are going bolder – and we will work with around 9000 farmers to improve 44 of our most important catchments. <li data-bbox="448 1633 1501 1728">3. Enhanced river quality has a direct impact on the amount of treatment we need to produce wholesome water, building on the 750km improved this AMP we will deliver improvements in quality to over a third of the region's rivers, equating to 2,100km. <li data-bbox="448 1770 1501 1873">4. And finally we want to deliver a sizeable boost to the environment by enhancing the biodiversity of up to 5000 hectares of land by 2027. Delivering multifaceted resilience, quality, efficiency and societal benefits.

		<p>We know these are bold ambitions, not only from a sector perspective but also compared to the rest of FTSE 100. But during AMP6 we outperformed in this area and are on track to deliver a double digit ODI reward, we have carried this momentum into PR19, having committed to further unique and radical ODIs to fund this work and influence the future direction of the industry.</p> <p>During the next 40 minutes we will share more detail of our plans against these ambition, and how we aim to strengthen the linkage between the natural environment, the water cycle and our business.</p> <p>Ultimately delivering improved sustainability and resilience of our raw water sources, making the region a better and healthier place to live for our communities, and reducing costs for the provision of water and wastewater services for our 8 million customers.</p> <p>Let's start by hearing about how we mitigate the potential impact of our operation on the regions rivers and our aim to halve the pollutions from our assets. James then prepares to hand off to Emily</p> <p>I'll hand you over to Emily Timmins, our Head of Waste Water Recycling.....</p>
10mins	Emily	<p>Thanks James, and hello everyone...I am really excited to share with you our ambitious plans to reduce pollutions by half and mitigate the impact on the natural environment.</p> <p>We have made some real progress during AMP6 delivering a reduction in pollutions by 30% during the last 5 years and outperforming our business plan commitment. Furthermore we are one of a handful of companies regularly achieving the highest industry accolade of four star status from our environment Regulator.</p> <p>We run a diverse and complex network of 94000km pipes conveying sewage across 4500 pumping stations and finally reaching 1100 sewage treatment works. There the sewage is treated to high standards and during AMP6 our work has helped improve over 750km of watercourses.</p> <p>It's our job to manage and mitigate the challenges and risks from operating such an extensive network for example</p> <ul style="list-style-type: none"> • We have a problem when Customers often use sewers as bins, disposing all sorts of items down the magic disposal unit that is the toilet. • Commercial customers dispose of fats oils and greases causing accumulations known as fat bergs to form • We can incur third party damage to our network • Extreme weather can stress our assets causing them to fail • We receive illegal discharges which disrupt and in some cases stop our treatment works working effectively <p>All of these challenges have the potential to result in a pollution, which can have a detrimental impact to the health of our rivers and the aquatic life they support, bringing further cost and significant reputational impact. We want to do more, we take our responsibility to positively impact the health of our water courses, we can and want to do more in this space</p> <p>Which is why I am delighted to announce that by 2025 we aim to halve the number pollutions from our network. This goes far and beyond the 40% ambition set by the EA for the industry and our business plan commitment. As a company which prides itself on its environmental ambitions,</p>

we truly believe that this is the right thing to do not only for our business, and the environment but also for our customers, with 70% of customers supporting our ambition to deliver environmental improvements..

Success will be delivered by preventing issues in the first place and then responding quicker when they occur, we have used this approach to deliver success in some of our other performance measures, so let me tell you about some of our key focus areas we have already built into our plans:

Encouraging behaviour change:

You wouldn't believe what customers put down the sewers...we've had lots of pants, fish, toys, motorbikes, a horse. (Chris have you got any killers stats on customer behaviour, telemetry and flushable we can use??) But the main problems are fats, oil and grease (aka FOG) ; wipes and sanitary products.

We're working with customers to explain the problems this causes and going into schools to teach kids what to flush and what not to flush utilising pester power to help drive habitual behavioural change.

We are also using technology to pinpoint where food outlets are causing issues for our customers by tipping fats and grease (FOG) down the sewers. We work with businesses to help them install fat traps – and we take tougher action where necessary to make sure it happens.

Flushables:

We are also playing a key role as an industry in setting flushable standards for wipes – and again – taking a strong stance where necessary in the interests of customers to drive a longer term sustainable operation. Preventing our sewers being blocked will save dozens of pollutions each year and be a key step in our journey to halving pollutions and eliminating serious pollutions.

Telemetry: The majority of the sewer network is a gravitational system which means that it has been difficult to monitor effectively, however by working with innovators we have been able to identify and install spill sensors on *** of our overflows and use data to provide early warnings of asset failure and pollution risk, allowing us to intervene much sooner.

Reactive tankering:

Small pollutions can turn into serious pollutions if we don't react quickly. Containing spills typically takes lots of tankers to suck up the sewage, stopping it getting out into the environment, and taking it to another site. We invested in a clean water tankering fleet and in-house drivers and operators to man them – and they have made a terrific difference to our supply interruptions performance [need a killer stat] – and we are going to do the same thing this year for waste water

So in summary we are going bold in our ambition to reduce the impact of our operations on the natural environment, our contribution to improving the rivers of our region. That ambition goes beyond regulatory expectation and allows us to continue our industry leading position and deliver ODI benefit from a fully funded plan.

<<Now let's hand over to Jodie who's going to tell us about the important work her team does in the Catchments>>

<<Thanks Emily, hi, I'm Jodie Rettino>>

Thanks Emily, so moving on from our operational sites we're going to have a look at what we do in our catchments and how we work with the natural environment...

So, as James mentioned over the next 5 years we're aiming to improve the quality of over 2,100 Km of river. This builds on a legacy of work and significant investment we've made over the last decade, removing phosphate from our waste water sites. This will ensure that over 50% of our rivers are protected and improved in terms of nutrient levels.

Phosphate is one the biggest nutrient issues we deal with, creating water quality problems - it broadly comes from two places – either down our sewers and through our works from things like washing powders – or it runs off the land from fertiliser that farmers use.

Our catchment work has decreased these contributions by around 66%, however farming contributions are going to increase from around 30% to over 50% by 2027. This is because there has been a surplus of phosphorous applied to agricultural land over the last 70 years that has created large 'legacy' reserves in the soil.

For us to reduce our phosphorus contribution to lower and lower levels it will take lots of chemicals and power. So over 10 years ago we started working with farmers and utilising natural solutions <<**and here to tell you more about how 2 of these help manage phosphate, is one of our Catchment Scientists, Dr. Alex Cooke**>>

Thanks Jodie – hi there: Instead of using expensive engineering solutions we're trying to remove the background phosphate levels in the rivers upstream of where we discharge to.

The lower we get this, the less work we need to do at our sites. In some cases we hope this could be the total answer, and we'll invest completely in natural solutions, and we will work with farmers to encourage change in farming practices - and so we won't need to invest in these expensive technologies at our sites. I'm going to give you two examples of this work

Over the last while we have started to trial the use of phosphate socks in catchments where phosphorus run-off from agricultural land is polluting the local river.

Demonstration P sock running alongside of the river

They do what they say on the tin = these are 'giant socks or fishnet tights' which are filled with material that absorbs phosphorus and sediment. The technology has been adapted from filter socks developed in the US, where they are commonly used as a way to control sediment in run-off from construction sites. By adapting the fill media of the socks and placing them along the edge of farmers' fields or in streams.

Our trials have suggested they could remove up to 99% phosphorous in run-off. This could save us £13M in capital costs in just one catchment!

We are the first water company in the UK to use this technology and by doing so in targeted catchments **we may not need** to invest in expensive technologies and treatments to achieve the required phosphorous reductions at our waste water works. We may even be able to use them on our waste water sites to polish effluent before it's discharged back into rivers.

The second solution is a wetland, we are investigating and trialling these at some of our smaller rural works.

	<p>A wetland is a shallow vegetated pond planted with plants which treat wastewater. After passing through the system the treated effluent is allowed to discharge safely into a river. These are very cost effective with low operating and maintenance requirements. They offer real savings in terms of energy use and operations staff time. And they are great for creating habitats for wildlife...</p> <p>Beyond the operational benefits they protect and enhance the environment, increase biodiversity, facilitate carbon capture and storage, providing a robust and sustainable process.</p> <p>We're confident using natural based solutions will bring significant benefits to our operations, customers and the environment.</p> <p>We've already seen results using natural based solutions over the last 10 years in our leading catchment management programme, which Jodie will tell you more about...</p>
10mins	<p>Right then, thanks Alex... Yes, in the last 10 years, we've achieved some incredible results from our programme... the work has already delivered £11M in ODI benefit and avoided over £74M in TOTEX in AMP6 alone.</p> <p>We know that for every £1 we invest in catchment solutions we avoid £2 - £20 in treatment costs, so it's not only a long term sustainable solution it makes great business sense.</p> <p>Our AMP7 ODI target is to have successful catchment schemes in 16 catchments, however we know we can go further than this and are now working in 44 catchments. To do this we will need to proactively engage with and improve the farming practices of over 9,000 farmers. That's a whopping 64% of all the farmers in our region. We therefore have one of the largest and most successful programmes of work across the water industry.</p> <p>Our Farming for Water programme has been running for the last 10 years. We have been working in partnership with the agricultural community to reduce pollution from farming activities at source such as pesticides, nitrate, cryptosporidium, colour or metaldehyde (main ingredient in slug pellets).</p> <p>We have a team of highly experienced, qualified and trusted agricultural advisors who work with farmers on a day to day basis – out in their wellies on farms and in farmers markets - to encourage infrastructure improvement and encourage farmers to go above and beyond current best management practices.</p> <p>To help with this we've developed our own schemes and grants – STEPS (Severn Trent Environmental Protection Scheme), and we run an annual Farm to Tap scheme, mitigating the use of pesticides and awarding farmers to improve water quality downstream of their farm. We also offer training, expert advice visits and as well as an annual pesticide amnesty.</p> <p>To date we've engaged with over 5000 farmers, 98% of which said it was a positive experience working with us, we've awarded over 1,500 grants of which farmers have match funded to the tune of over £5M. We have also removed 16 tonnes of old or unwanted pesticides from farms, traditionally these might have been buried or poured down the drain!!</p> <p>Our high level of engagement and participation in our schemes has now started to bring significant water quality improvements. The Farm to Tap scheme has resulted in a 40 – 90% reduction in peak pesticide concentrations coming into our treatment works. We no longer need to install 5 new</p>

		<p>nitrate plants and we have shelved plans to introduce pesticide treatment (GAC) at one of our surface water works.</p> <p>So proactive catchment management is our first treatment process. It helps us reduce the raw water challenge to our WTWs and ensures we have a calm network its also a great strategy to avoid future costs.</p> <p>But catchment management goes wider than that – we know that our work generates £4 of wider environmental benefits - but we can't do this without working in partnership with farmers, land owners and NGOS such as the region's Wildlife Trusts, Rivers Trusts, Woodland Trust, National Trust and RSPB. Our many years of working with these partners gives us confidence of our plans for AMP7.</p> <p>Moors for the Future in the Upper Derwent Valley is a great example of a long term project that brings together many of these NGOs, with water companies, landowners and many more... working for the good of the natural environment... and, now I'd like to hand over to Malcolm who's going to tell you more about our Biodiversity commitment...</p>
10mins	Malcolm Horne	<p>Thank Jodie, and Alex ...</p> <p>So, we know that the wider upstream environment is important to securing water quality, but it may not be obvious to everyone why nature, biodiversity and ecosystems are so important for water..? I want to show you how they are intrinsically linked...</p> <p>Which is why we are really excited today to announce that as well as expanding our Farming for Water programme to include biodiversity improvements for farmers, we are going further than ever before...</p> <p><i>Today we are launching our Big Nature Boost..!</i></p> <p>The aim of our wider nature programme is to make it all about places, people and our partners so we are launching our Nature Boost – at its heart is the audacious goal of to improve over 5,000 hectares of biodiversity over the next seven years, that's around an area the size of Gloucester. Better still we have managed to secure an ODI linked to this ambition. More on that later.....</p> <p>We believe that when we look after nature, we look after your water. Biodiversity, or a more simple term, nature is the crucial building block for creating a sustainable environment where both wildlife and communities can thrive.</p> <p>Wildlife and habitats are impacted by water and land management decisions and can, in turn, influence water availability and quality. For example if we work with farmers to plant wildflower margins. I'm sure you will all agree with me that these look extremely pretty and are great for encouraging bees and butterflies but why would we a water company want to do this?</p> <p>Here's how - believe it or not wildflower margins will help to reduce the amount of pesticides farmers use. The wildflowers encourage up to 130% more beneficial insects such as ladybirds which act as natural predators to mildew, mites etc which would damage the farmers crop. This natural control method means the farmer has to apply less pesticides and fungicides to the crop and therefore reduces the risk of pesticide reaching our water treatment works. The wildflowers also act as a barrier to pesticide spray drift and reduce run-off.</p>

Beetle banks work similarly to a wildflower margin – they are simply placed in the farmer’s field instead on the field edge. Beetle banks are long strips of banked soil which are sown with grasses. They act as winter homes for beetles which in the spring and summer move out into the farmer’s crop and munch happily on pests which can damage the crop.

As well as reducing the need for pesticide applications they also reduce run-off and soil erosion from the field all of which reduces the challenge to our water treatment works.

Sitting alongside our Nature Boost ambition we are also aiming to plant 1.3M trees over the next 10 years. I’m sure you are all aware that trees have huge climate change benefits but they also help reduce flooding and improving water quality by capturing rainfall and gradually releasing it so it contributes less to river flows and pollution loads. The roots and leaf litter also promote slow absorption of water back into the ground help with groundwater re-charge. They basically act as big sieves!

Furthermore, not only does this improve the quality of the water we abstract and potentially reduce the amount of treatment needed, we have also secured a bespoke ODI – whereby for each hectare of land where we deliver a biodiversity improvement above our FD, we will secure a £3600 per hectare outperformance reward. This funds our improvement ambitions and the reason why we are announcing some significant investment and partnership schemes which will deliver early in AMP7.

So I hope you can see that our Nature Boost has multi-functional benefits that range from protecting our water quality, habitat improvement, increased biodiversity, carbon sequestration, run-off reduction and landscape diversity.

Flourishing habitats such as forests, grasslands, soils, rivers, lakes, streams, wetlands and aquifers provide services that influence the availability of water and its quality. These services are also vital to meet our water management goals such as water storage and flow regulation, filtering and flood and drought protection, among others.

And of course, it great for our communities and for people, our customers. Over the forthcoming year we will work closely with our visitor experience teams, and our partner organisations to ensure that everyone who lives or visits our region can visit or see the work we are doing and learn about why, when we look after nature, we look after our water...

In true spirit of partnership working, **let me introduce to you Emma Marsh, the RSPB’s Director for England**, to tell you a bit more about the impact we can have when we work together... we’ve got a long history of working together at Lake Vyrnwy – and are now embarking on an exciting project in the Sherwood Forest together...

<< Emma – suggest cover a) who the RSPB are b) we already work together c) what we plan to do d) why this is a good thing...

At the RPSB we have *** members – manage 170 nature reserves and work to...

With Severn Trent (Hafren Dyfrdwy in Wales) we work together to look after the land that surrounds Lake Vyrnwy. And we have been doing this for many years. Peat bog restoration, largest organic farm in the UK, benefit this has had to key species etc...

	<p>In England, Sherwood Forest is a really important place for us. <i>The evolution of the site at Sherwood Forest, the strategic importance of the site, for nature, ancient oaks, visitor centre, the intensity of the industrialised scale of agricultural land management, the desire to reconnect the landscape, and to restore some critical nature corridors where we can.</i></p> <p>[<i>facts around the ancient woodlands and preservation of those will be a real showstopper for people/investors/journos</i>]</p> <p><i>And of course... why its great to work together and why these partnerships make sense in order to achieve our mutual goals and ambitions..</i></p> <p>End – and please handback to Malcolm>>.</p> <p>Thanks so much Emma for being part of today - and the next time you are at Centre Parks Sherwood – or passing near Nottingham – do go and see their amazing visitor centre and enjoy and experience what you are helping to deliver on the ground.</p> <p>And here is are reminder of how it all works together – beautifully (Play video)</p>
3mins	<p>Thank you everyone for listening so intently –</p> <p>I hope the sessions has helped bring to life our the four bold ambitions we have set ourselves, and the fact that our past performance, and understanding of the importance of the natural environment, underpinned by radical ODIs gives real confidence that we will deliver against these ambitions.</p> <p>We’re not complacent and realise that these commitments require different thinking, but our plans are coming together and you’ve had the chance to see, through some of the exciting partnerships we’ve announced today, how we are tapping into the expertise of others to build on our own knowledge to shape these plans.</p> <p>Our Environmental Strategy, delivered through our ambitions to;</p> <ul style="list-style-type: none"> • Halve pollutions • Work with over 9000 farmers and landowners to Improve 44 catchments • Improve 2100km of the regions rivers • And enhance biodiversity across 5000 hectares <p>Will truly change the landscape of our region. Improving the environment for our communities, arresting the decline and enhancing nature, whilst improving operational resilience, efficiency and sustainability for generations to come.</p> <p>Thank you again – have a great rest of the day...</p> <p>ENDS</p>