Introduction to new green initiatives

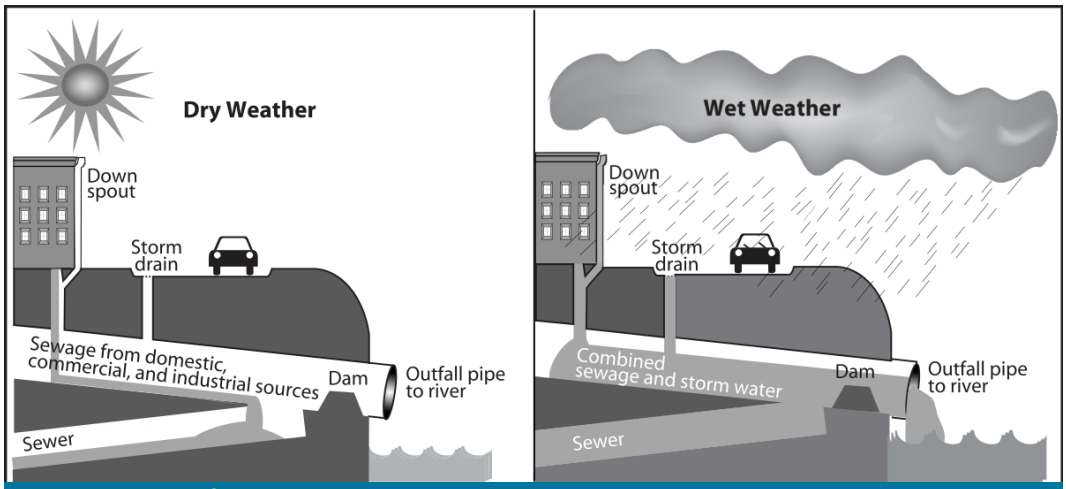
United Utilities are supporting the Government's agenda to support the economy and help ensure a green recovery from COVID-19.

In the following screens we describe five initiatives that United Utilities are planning which are designed to support a green recovery, support the economy (through job creation and increased economic activity) and improve the environment. These initiatives have been part of United Utilities' long-term plans but are now being brought forward to support the green recovery agenda.

Storm Overflow Monitoring

What is a storm overflow and why does it happen?

Heavy or prolonged rainfall can cause sewers to overflow. Storm overflows act as a relief mechanism, allowing the excess storm water (sewage and rainwater) to be released into rivers or the sea. This protects properties from flooding and prevents sewage from backing up into streets and homes during heavy storms.



How a storm overflow works

One way to address this could be to increase sewer capacity but this is a very large and expensive project which could cause a lot of disruption to the services we provide to customers.

What do United Utilities want to do?

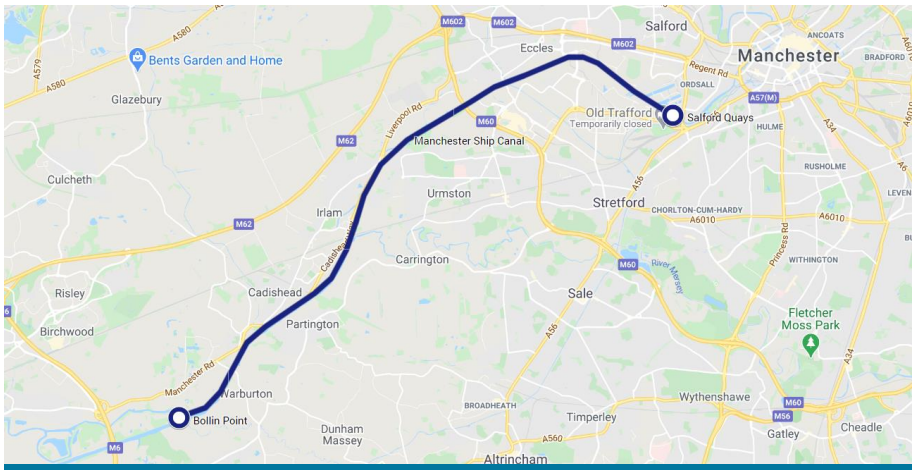
United Utilities plan to improve understanding about when and where storm overflow spills occur to reduce the risk of overflows in the future. United Utilities plan to fit more storm overflow sensors to monitor the whole network. These would alert United Utilities every time there is a spill from a storm overflow. We also plan to increase our investigations into the impact of overflows operating.

Understanding more about sewer spills across the network would help United Utilities identify where and why they occur so that they can find the most effective solutions to reduce them. This would allow United Utilities to make investments which will protect the environment, reduce pollution and improve service.

Irwell and Manchester Ship Canal Environmental Improvement scheme

What is the Irwell and Manchester Ship Canal Environmental Improvement B scheme?

When the Victorians constructed the Manchester Ship Canal between Salford Quays and Bollin Point it replaced the natural river system. The majority of Greater Manchester now drains into this canal. It is deep and slow moving, which leads to low concentrations of dissolved oxygen – a significant threat to fish.



Manchester Ship Canal between Salford Quays and Bollin Point

What do United Utilities want to do?

United Utilities would like to improve water quality standards in the Manchester Ship Canal by reducing spills from sewage overflows into the canal and upstream rivers. Spills happen when the amount of water entering into a sewer exceeds capacity.

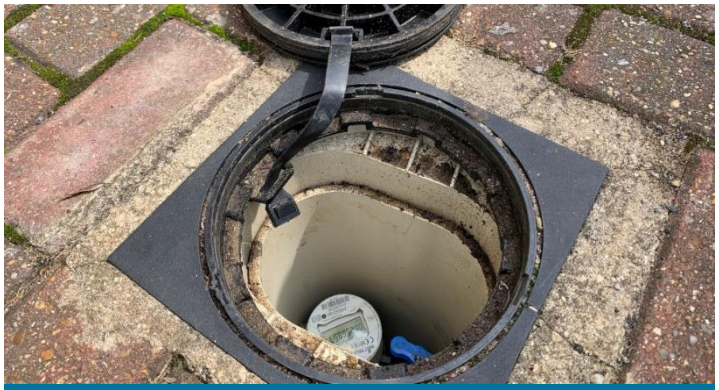
United Utilities would like to construct two large underground tanks to reduce the frequency of overflows. This would mean that during a storm sewage would first be directed into the tank, rather than into the canal. This would result in improvements to the water quality of the Manchester Ship Canal, improving conditions for fish and wildlife.

Water Meter Installation

United Utilities (UU) are planning to install 165,000 new water meters across the region to help them better understand how much water is used and to find and fix leaks more quickly. UU plan to fit these extra meters at homes that don't currently have a meter, in areas where they will provide the greatest benefit.

Installing water meters would mean UU can ensure the whole water network is more water efficient and has less negative impact on the environment.

The new water meters would be installed in the pavement outside homes. Customers would still continue to get a bill for a fixed amount each year – their charges will not change. However if a water meter is installed outside their home, their water bill would show them the amount they would pay if they had a water meter, so that they can compare that to the current fixed cost. This would give customers greater control and understanding of their water use, and more control over their bills.



Water meter outside customer premise

Greening Catchment Areas

The land immediately surrounding reservoirs has a significant impact on water quality and maintaining it well can benefit the environment.

United Utilities are planning to expand the work they do to protect the land and rivers in the North West by working with neighbouring landowners, farmers and businesses to ensure their sustainable practices have a positive impact across the region.

How do United Utilities plan to do this?

There are four main ways United Utilities are planning to protect the environment in their catchment areas:

	What is it?	What do United Utilities plan to do?
Phosphorous management 	Phosphorous is a nutrient that is present in sewage. Too much phosphorous can be bad for aquatic creatures as it reduces the levels of oxygen in the water	Rather than use chemicals to remove phosphorous at sewage works as is currently done, United Utilities plan to work with local environmental bodies, businesses and landowners to reduce phosphorous pollution at source
Sustainable drainage 	United Utilities plan to invest in ways to take surface water out of their network and drain it sustainably.	United Utilities will invest in technology that will mimic natural drainage solutions (like rain gardens and street trees which filter and soak up water) and prevent rainwater going into the sewers. This will reduce the likelihood of sewage flooding homes and streets, as well as reducing the environmental impact of spills into waterways.
Invasive species management 	Overgrowth of weeds like Japanese Knotweed, Himalayan Balsam and Giant Hogweed can block sunlight to other plants below the water's surface harming biodiversity. Giant Hogweed can also be harmful to humans.	Working in partnership with landowners and farmers United Utilities' plan to tackle these weeds. They will do this with a reduction in the use of pesticides **over time** that are detrimental to the environment and water quality. This will mean that people can safely access this land without fear of being affected by these harmful plants.
Peatland restoration 	The peatlands are a type of wetland which store a lot of water (70% of the UK's drinking water come from this area) and is also beneficial to the environment as it is a natural carbon store. This means it absorbs more carbon than the carbon dioxide it gives off. Unfortunately, this area has been degraded by wildfires, industrial pollution and overgrazing.	United Utilities propose to restore more peatland by: • **investing in sustainable ways** to naturally hold more water e.g. blocking drainage channels and planting moss to hold more water • creating fire breaks to protect against wildfires • Installing fencing to protect wildlife and prevent over-grazing from farm animals.

Bioresources

Every year United Utilities treat around 200,000 tonnes of sewage sludge. Sewage sludge is generated as a by-product from sewage treatment. The sewage sludge is safety treated and can be converted to generate renewable energy that can be fed into the National Grid.

Bioresource treatment facility

In order to meet new environmental regulations, United Utilities will need to make improvements to many of their sludge treatment sites.

What improvements do United Utilities want to make?

- Install new instruments to enhance the way they monitor environmental emissions
- Add measures to prevent spillages or bursts
- Improve equipment to ensure their gas systems and odour control is improved to meet better air quality standards.

United Utilities also plan to build an advanced sludge treatment process to serve much of the North West that will produce renewable gas which can be injected into the National Gas Grid or used to generate renewable electricity.

These proposed improvements will reduce harmful industrial emissions and improve the environment. Overall, this will reduce United Utilities' total annual carbon emissions by around 10%.