

DWMP Communications

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19 February 2019

Wessex Water
YTL GROUP



DWMP Communication - contents

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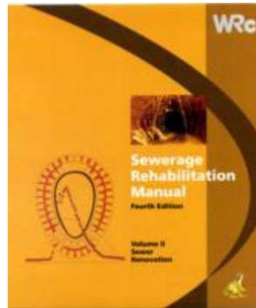


Long term wastewater planning

Wessex Water
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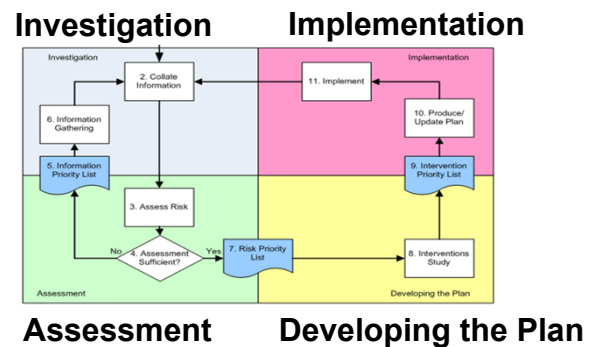
1980s

UK been undertaking wastewater long term planning for decades



• Sewer Rehabilitation Manual

- ✓ Drainage area plans
- ✓ Holistic plans
- WaSC reports
- Collecting dust
- Not consistent
- Not visible

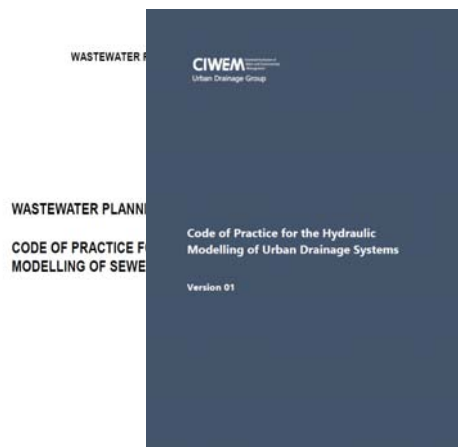


Long term wastewater planning

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1980s

1990s



- WaPUG Code of Practice 1990s
 - UDG update in 2017
- Consistent high quality modelling to provide the tools for long term planning

Long term wastewater planning

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1980s

1990s

2000s

WapUG

INTEGRATED URBAN DRAINAGE MODELLING GUIDE
2009

www.ciwem.org/groups/wapug



- UPM
- SAGIS
- IUDM
- SWMP
- Flood regulations 2009

Long term wastewater planning

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1980s

1990s

2000s

2010s

- FWMA 2010
- Drainage strategy framework 2013

Drainage Strategy Framework

For water and sewerage companies to prepare
Drainage Strategies

Good practice guidance commissioned by the
Environment Agency and Ofwat



Flood and Water Management Act
2010



May 2013



Figure 4 Drainage Strategy framework principles mapped to the drainage planning process

Halcrow
A CH2M HILL COMPANY

Communicating drainage strategies

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1980s

1990s

2000s

2010s

2016

- Wessex Water started producing detailed technical reports (as did some other WaSCs)
- Once written they are out of date – not 'live'
- So we started in 2016 developing an on-line summary version to communicate our short, medium and long term plans

Bridgwater

Drainage Strategy

Wessex Water – Feb 2015



Long term wastewater planning

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1980s

1990s

2000s

2010s

2016

2018

- 21st Century Drainage Programme initiative 2016-18

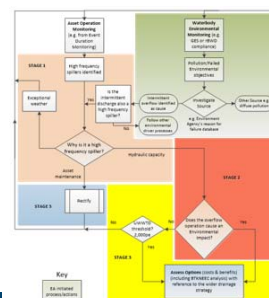
Communication



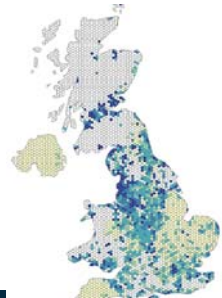
Sewer misuse
(wetwipes)



Storm overflow
assessment
framework



Capacity
assessment
framework



Long term wastewater planning

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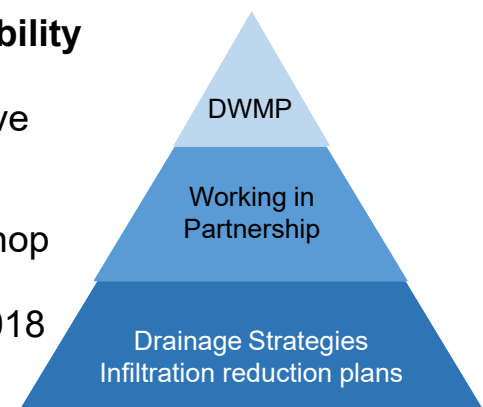
- Drainage and wastewater management plan framework 2018
- Over-arching framework
- Water UK and DWMP Stakeholder group commissioned Atkins to develop framework in less than a year
 - DWMPs are the wastewater equivalent to the Water resources management plans

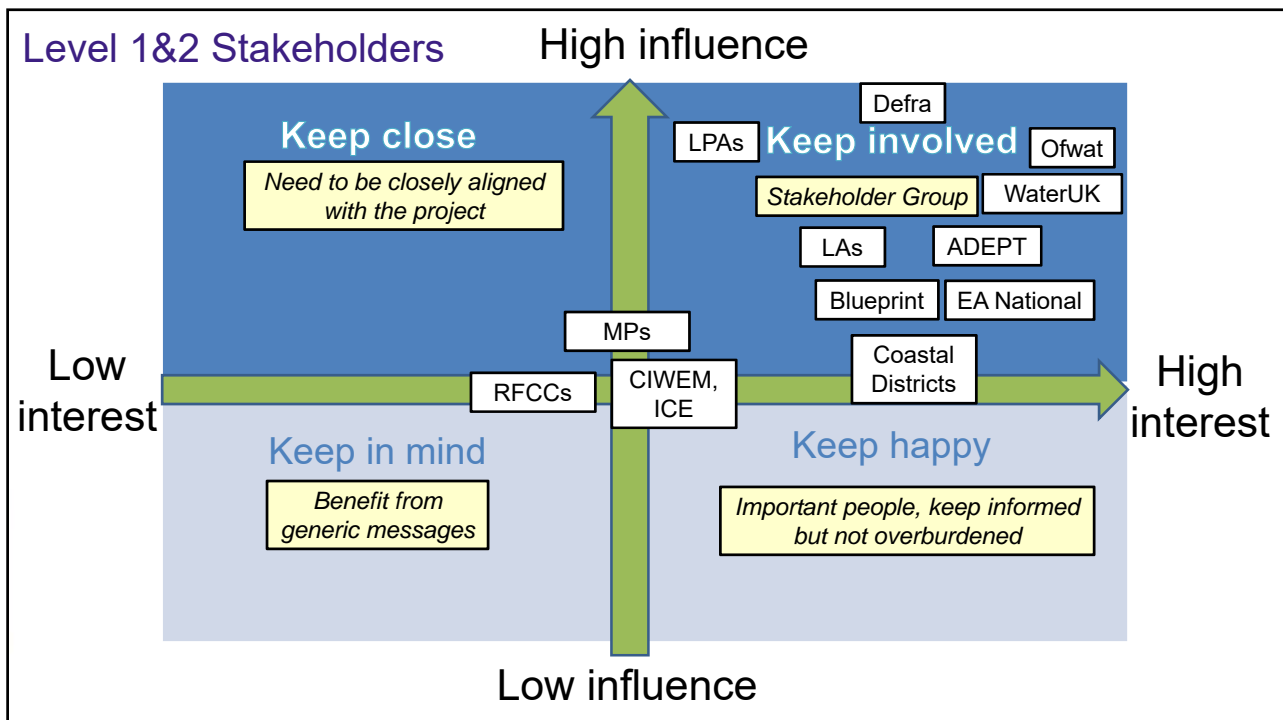


DWMP Framework

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- Address **existing and future challenges**
- Builds on best practice and embed **consistency** of approach
- Provides greater **transparency and visibility** to customers and stakeholders
- Facilitate **partnership working** to improve transparency, opportunities and allow for influence
- DWMP Framework dissemination workshop held on May 2018
- DWMP Framework issued September 2018



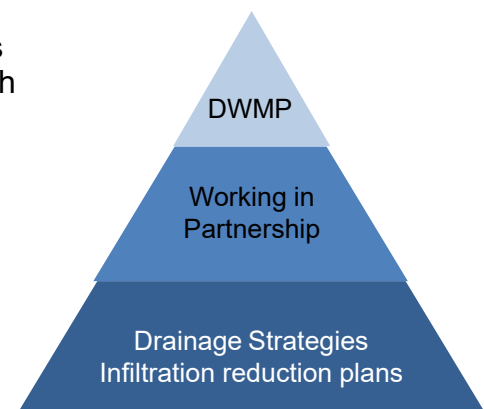


DWMP consultation and reporting

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• Consultation and Reporting at many levels:

- Level 1 – National / Regional
- Level 2 – River basin catchment partnerships
- Level 3 – Drainage Strategy summary reports and/or infiltration reduction summaries for high risk treatment works catchments



DWMP Communication – WWW

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How to provide visibility?

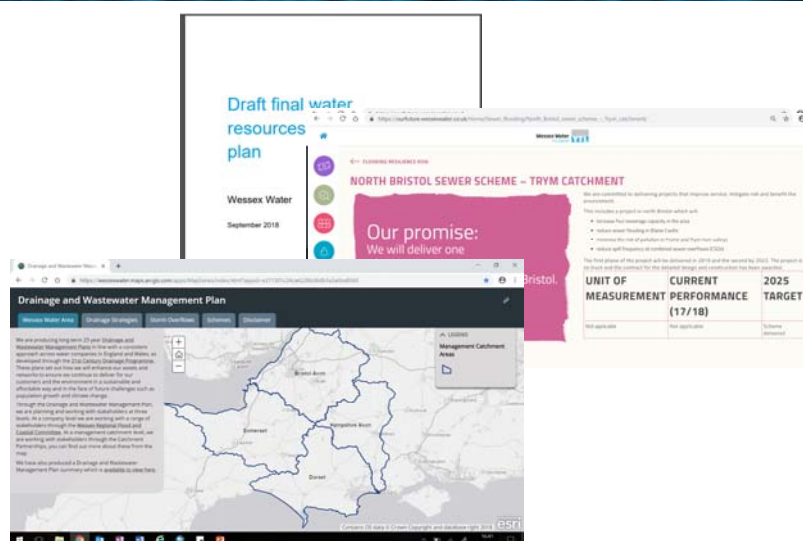
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Print - Documents

Digital options

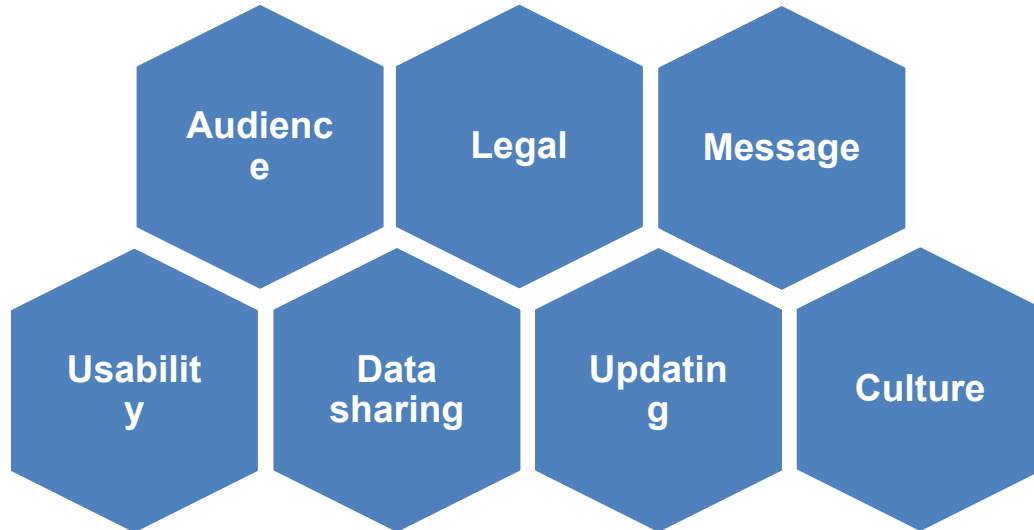
➔ Website

➔ GIS systems



Considerations

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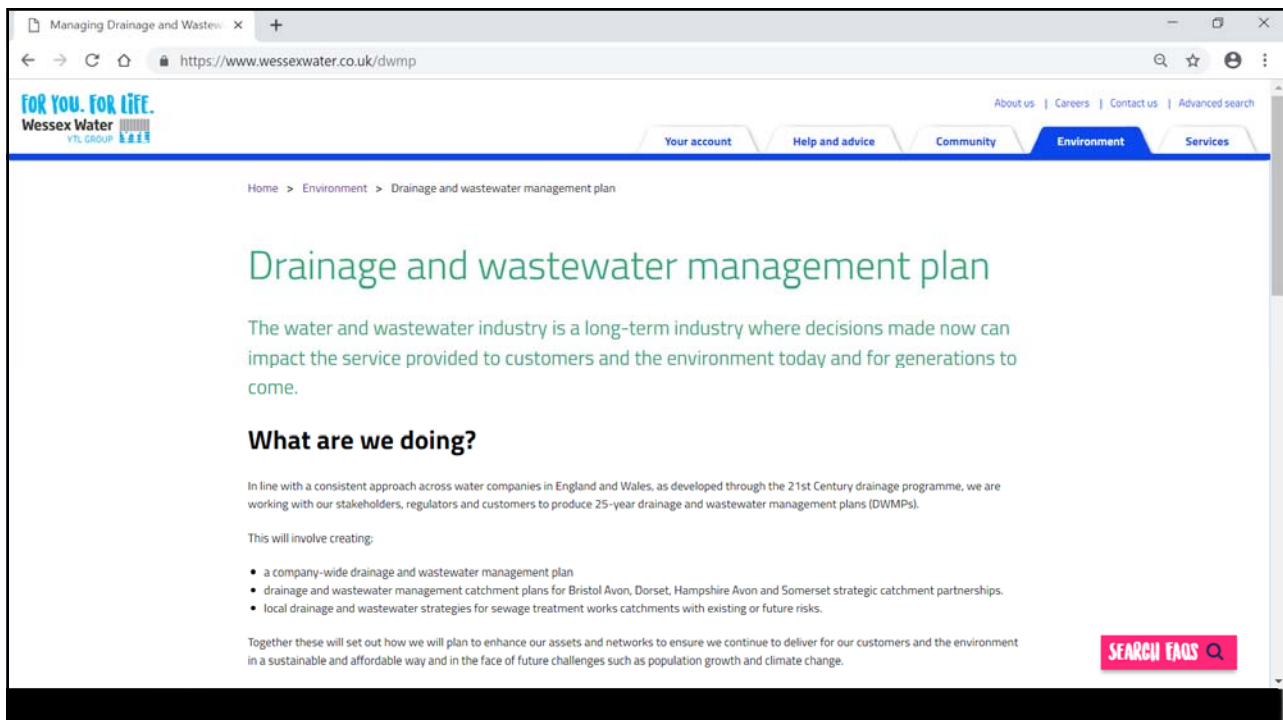
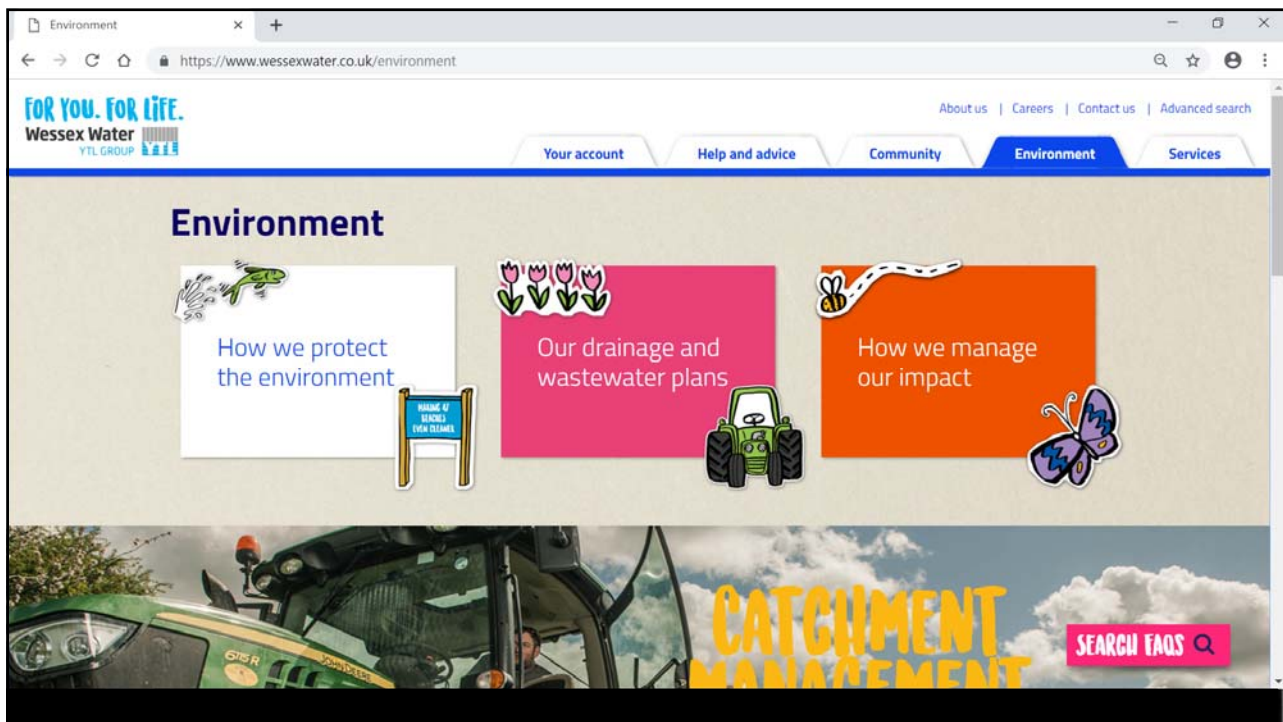


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The Webs

The screenshot shows the Wessex Water website. The header includes the Wessex Water logo and navigation links: Customers, Retailers, Developers, Careers, Environment, and About us. The main content area is titled 'Drainage and wastewater management plan' and includes sections for 'What are we doing?', 'How we are working with partners', and 'What's next?'. A sidebar on the left lists various topics like 'Protecting the environment', 'Wildlife and conservation', 'Catchment management', 'Investigations', 'Water resources', 'Bathing waters', 'Carbon, climate, waste', 'Drainage and wastewater management plan', and 'Infiltration reduction plan'. At the bottom, there is a 'Postcode Lookup' form with a map of the region and a search button.

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Managing Drainage and Wastewater x +

← → ↻ 🏠 🔒 https://www.wessexwater.co.uk/dwmp 🔍 ☆ 👤 ⋮

How we are working with partners?

We are working with a range of stakeholders through the Wessex regional flood and coastal committee to identify priority areas and solutions that will deliver benefits for society, the economy and the environment.

We are also working with stakeholders at a strategic management catchment level through catchment partnerships - Bristol Avon, Dorset, Hampshire Avon and Somerset - to develop a more localised understanding and approach to drainage and wastewater management that is appropriate for the area.

What's next?

Over the coming years we will be working with our stakeholders, regulators and customers to develop more strategies and plans. As these are developed, we will be updating our drainage and wastewater management website and portal.

[Drainage and Wastewater Management Portal](#)

Bristol Avon drainage and wastewater management

Bristol Avon spans across parts of Wiltshire, Gloucestershire and Dorset including key urban areas such as Bath.

Dorset drainage and wastewater management

The rivers Stour, Piddle and Frome and the West Dorset streams are within this catchment area.

Hampshire drainage and wastewater management

Wiltshire, parts of Hampshire, the city of Salisbury and the town of Christchurch make up this area.

Somerset drainage and wastewater management

Infiltration reduction plans

[SEARCH FAQS 🔍](#)

Windows taskbar: 16:05 12/02/2019

Bristol Avon drainage and waste x +

← → ↻ 🏠 🔒 https://www.wessexwater.co.uk/environment/drainage-and-wastewater-management-plan/bristol-avon 🔍 ☆ 👤 ⋮

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Your account | Help and advice | Community | **Environment** | Services

Home > Environment > Drainage and wastewater management plan > Bristol Avon

Drainage and wastewater management for the Bristol Avon

In the Wessex Water area, we have four management catchments aligned with the river catchments, where we are working closely with strategic partners to identify and deliver solutions for the long-term management of drainage and wastewater.

The Bristol Avon management catchment

The Bristol Avon management catchment spans across parts of Wiltshire, Gloucestershire and Somerset. Key urban areas include Bristol and Bath with strategic development planned through the Joint Spatial Plan in the coming years.

How we are working with partners

We are working with a range of stakeholders through the Bristol Avon catchment partnership and working groups to identify priority areas and solutions that will deliver multiple benefits for society, the economy and the environment.

[SEARCH FAQS 🔍](#)

Windows taskbar: 16:06 12/02/2019

Bristol Avon drainage and waste x +

← → ↻ ⌂ https://www.wessexwater.co.uk/environment/drainage-and-wastewater-management-plan/bristol-avon 🔍 ☆ ⚙

The Bristol Avon management catchment spans across parts of Wiltshire, Gloucestershire and Somerset. Key urban areas include Bristol and Bath with strategic development planned through the Joint Spatial Plan in the coming years.

How we are working with partners

We are working with a range of stakeholders through the Bristol Avon catchment partnership and working groups to identify priority areas and solutions that will deliver multiple benefits for society, the economy and the environment.

Our stakeholders include regulators, such as the Environment Agency and Natural England, councils, developers, non-government organisations (wildlife trusts, rivers trusts), as well as customers.

[Drainage and wastewater management portal](#)

Find out what we are doing in your area

Bristol drainage and wastewater strategy

This strategy covers the Bristol area including Yate and Avonmouth, served by Bristol (Avonmouth) sewage treatment works.

Bath drainage and wastewater strategy

This strategy covers the Bath area, including Bathampton, Bathampton and Saltford, served by Bath (Saltford) sewage treatment works.

Corsham drainage and wastewater strategy

This strategy covers the area served by Corsham (Thingley) sewage treatment works.

[SEARCH TAGS](#)

CONNECT WITH US ON SOCIAL MEDIA [f](#) [@](#) [in](#) [v](#) [p](#)

16:07 12/02/2019

Bristol drainage and wastewater x +

← → ↻ ⌂ https://www.wessexwater.co.uk/environment/drainage-and-wastewater-management-plan/bristol-avon/bristol-strategy 🔍 ☆ ⚙

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Home > Environment > Drainage and wastewater management plan > Bristol Avon > Bristol

Bristol drainage and wastewater strategy

This strategy covers the Bristol area including Yate and Avonmouth, served by Bristol (Avonmouth) water recycling centre (sewage treatment works). This area is a part of the Bristol Avon management catchment and Wessex Water's drainage and wastewater management plan.

Catchment background

The area

The Bristol area is part of a limestone landscape spanning from the Mendip Hills to the Cotswolds, with the rivers cutting through the limestone to the underlying clay. It is located on the Bristol Frome and Bristol Avon rivers which discharges to the Severn Estuary at Avonmouth.

Sewer network

The Bristol area has both combined and separate sewer systems to convey wastewater, sewage from homes and businesses, and storm water, rainwater collected from roofs and yards. Under heavy storm conditions, where the sewer conveys both wastewater and storm water, sewer capacity can be exceeded and built in safety valves called storm overflows, permitted by the Environment Agency, can operate to prevent sewer flooding.

Water recycling centre

Flows to Bristol water recycling centre (WRC) are treated under normal flow conditions. Under heavy storm conditions, flows into the WRC can exceed its capacity. These excess flows will first overflow to storm storage tanks. If these tanks become full, they in turn spill to the Severn Estuary as storm overflows, as permitted by the Environment Agency, having benefited from screening and a degree of settlement within the storm tank.

The WRC receives high trade loads, including discharges from the onsite organic waste and food waste facilities. In addition, Bristol WRC receives sludge reports from other WRCs for treatment, which produces additional liquor loads for treatment through the WRC process.

[SEARCH TAGS](#)

16:08 12/02/2019

Strategy

Partnership working

We are working in partnership with Bristol City Council to develop surface water management plans. These plans set out how surface water will be managed in the long term to prevent flooding from sewers, drains, groundwater and runoff from land and small watercourses.

We are also working in consortium with Bristol City Council and other European organisations on project RESCCUE, an initiative to evaluate climate change implementations and intervention strategies.

Short term

- Complete the North Bristol Strategic sewer project (£65m) to support future development and reduce flood and pollution risk.
- Review capacity at the WRC, considering growth in the catchment and climate change, and identify mitigation measures if required.
- Work with the West of England Combined Authority to twin the sewer network as a part of the Metrobus scheme, to improve performance and resilience of the network.
- Assess flooding incidences and potential solutions to reduce flood risk.

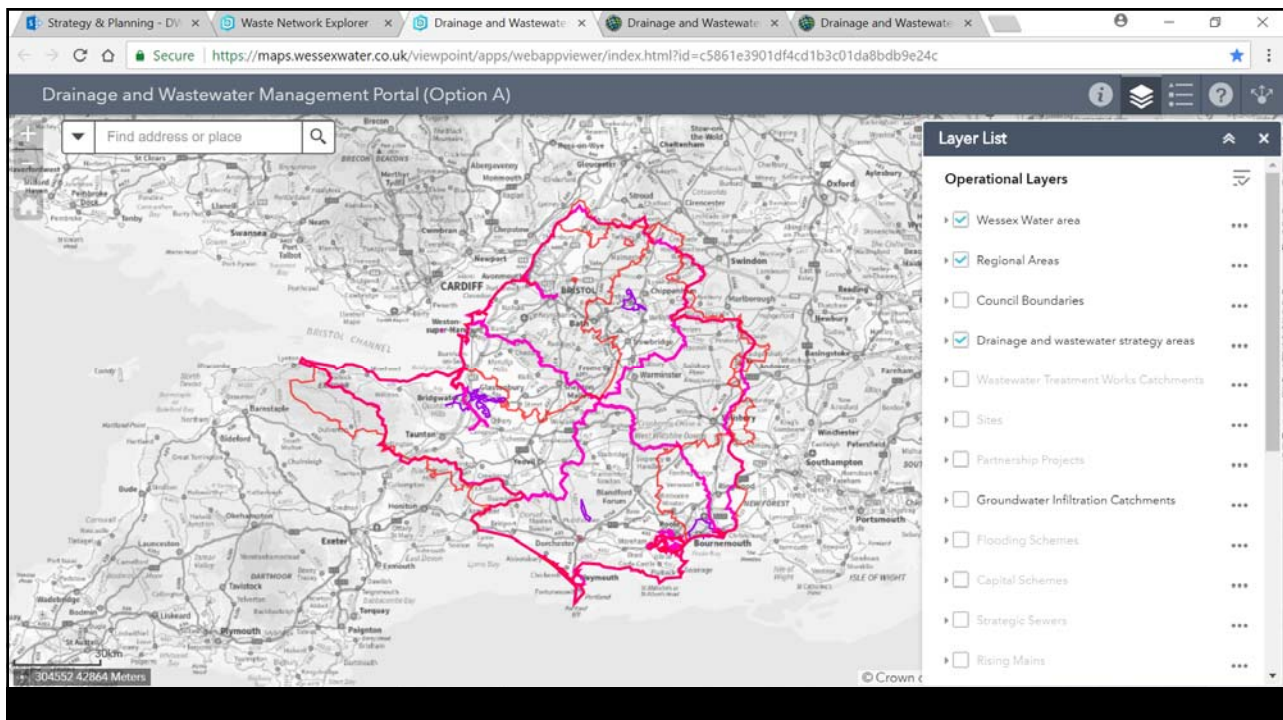
Medium term

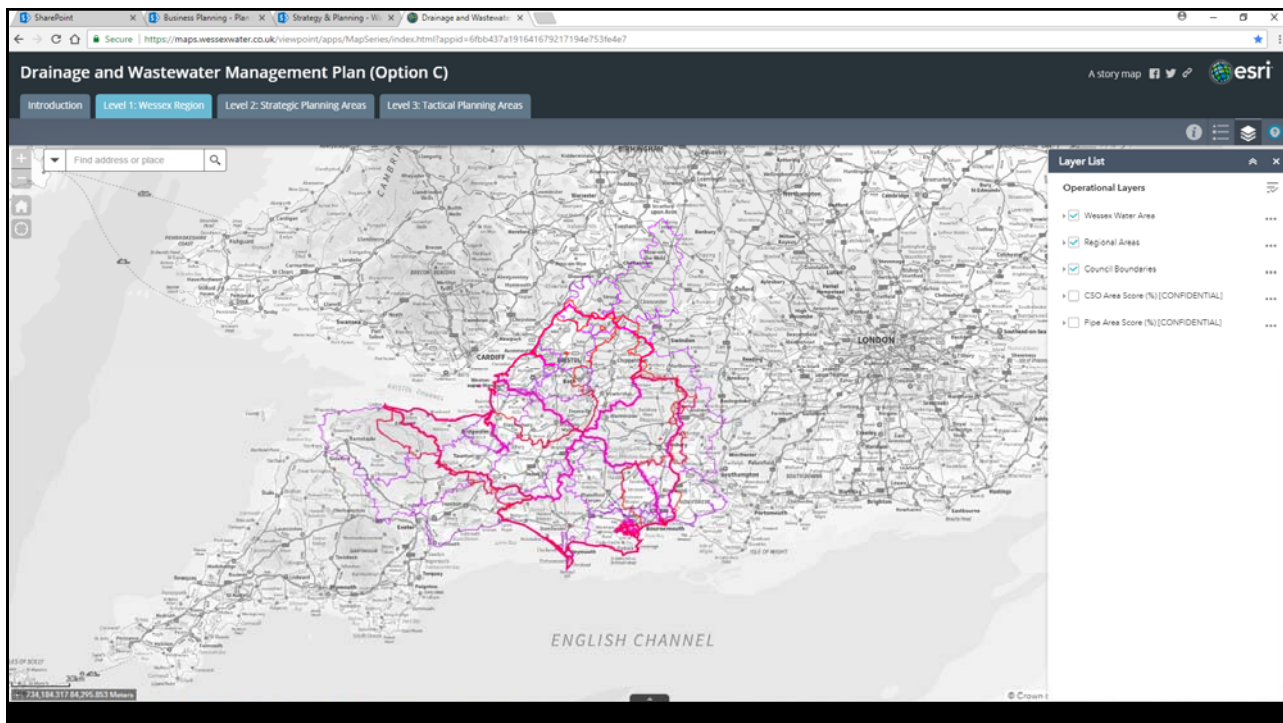
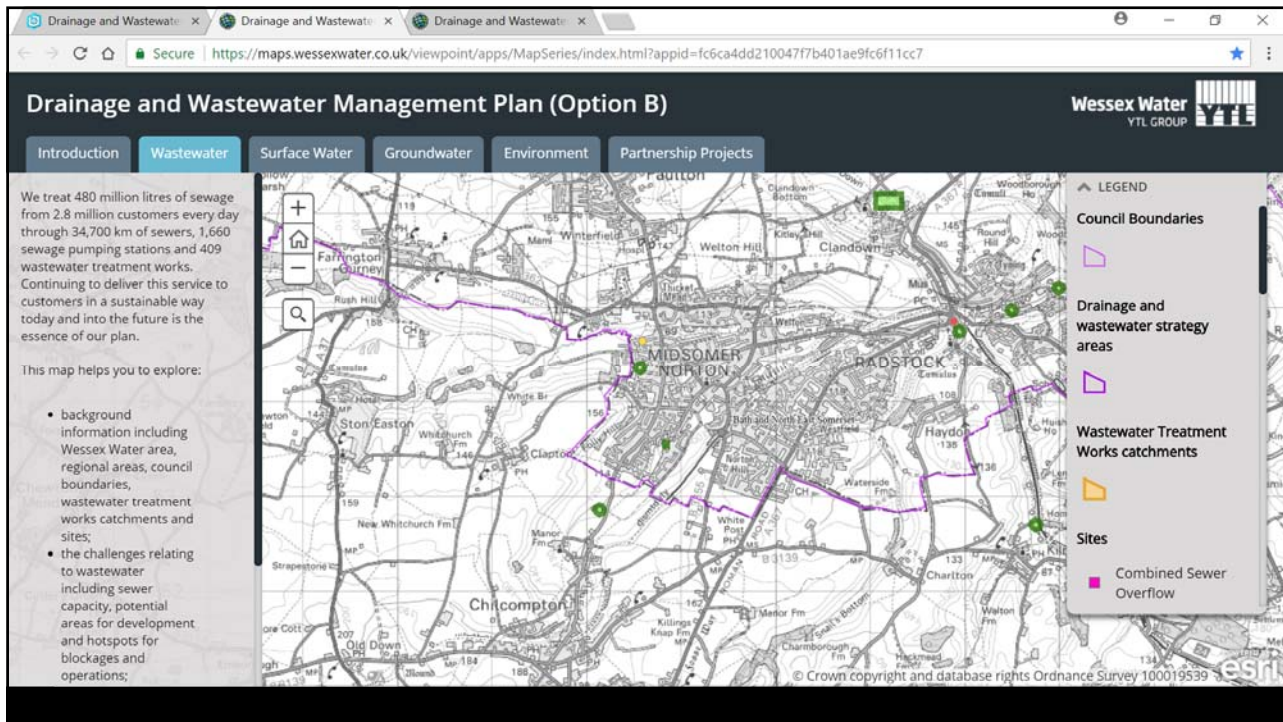
- Increase capacity at the WRC to accommodate development in the catchment.
- Investigate the condition of Shirehampton Lamplighters rising main and, if required, carry out improvements.
- Reline priority sewers to reduce risk of collapse.
- Investigate and, if applicable, identify solutions for improve any frequent spilling overflows.
- Separate surface water from the foul sewer at Ashton Avenue and reconnect to the watercourse to reduce the risk of flooding.
- Work with Bristol City Council to modify surface water sewer network and outfalls where required to protect against tidal flooding.
- Assess the impact of the Metro West transport scheme on the sewer network and identify solutions.

Long term

- Produce and implement a South Bristol strategy to support future development and reduce flood and pollution risk.

We are developing further long-term options that address and mitigate for climate change, development, urban creep and other future challenges as a part of the drainage and wastewater management plan process.





Drainage and Wastewater Management Plan

Wessex Water Area | Drainage Strategies | Storm Overflows | Schemes | Disclaimer

We are producing long term 25 year Drainage and Wastewater Management Plans in line with a consistent approach across water companies in England and Wales, as developed through the 21st Century Drainage Programme. These plans set out how we will enhance our assets and networks to ensure we continue to deliver for our customers and the environment in a sustainable and affordable way and in the face of future challenges such as population growth and climate change.

Through the Drainage and Wastewater Management Plan, we are planning and working with stakeholders at three levels. At a company level we are working with a range of stakeholders through the Wessex Regional Flood and Coastal Committee. At a management catchment level, we are working with stakeholders through the Catchment Partnerships, you can find out more about these from the map.

We have also produced a Drainage and Wastewater Management Plan summary which is [available to view here](#).

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Drainage and Wastewater Management Plan

Wessex Water Area | Drainage Strategies | Storm Overflows | Schemes | Disclaimer

Drainage Strategies

Drainage and Wastewater Strategy Areas | Infiltration Reduction Areas

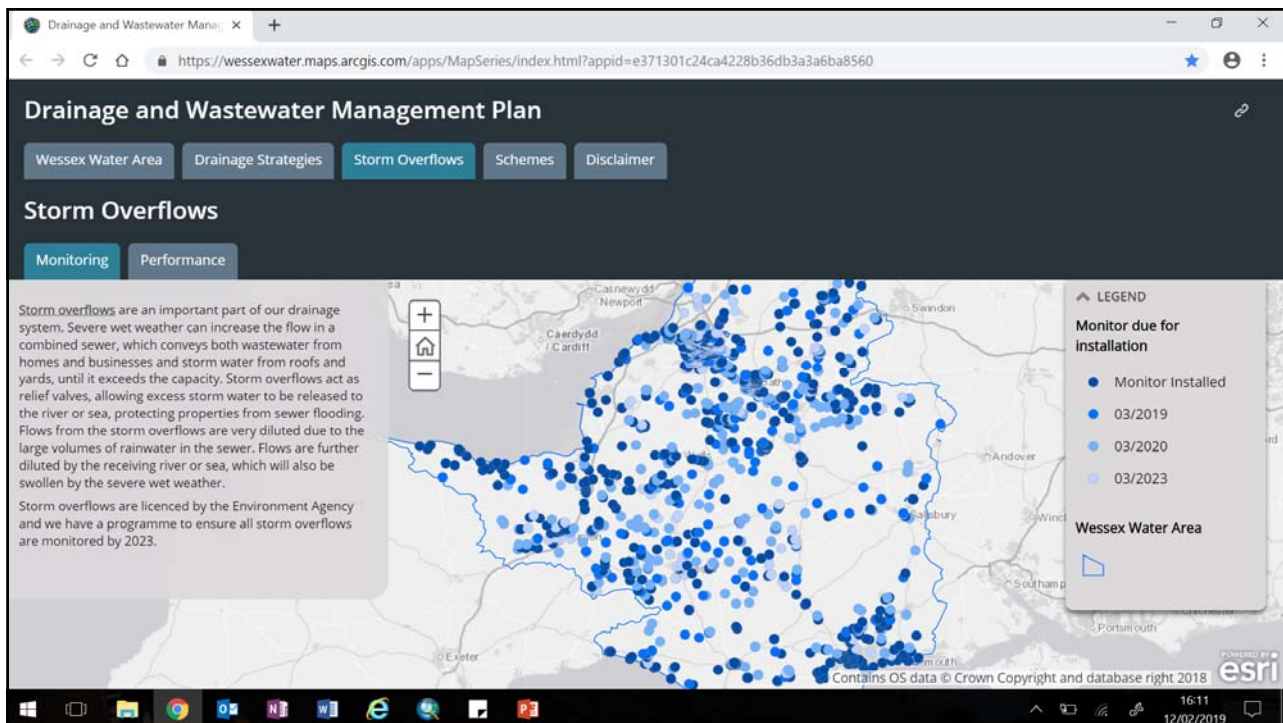
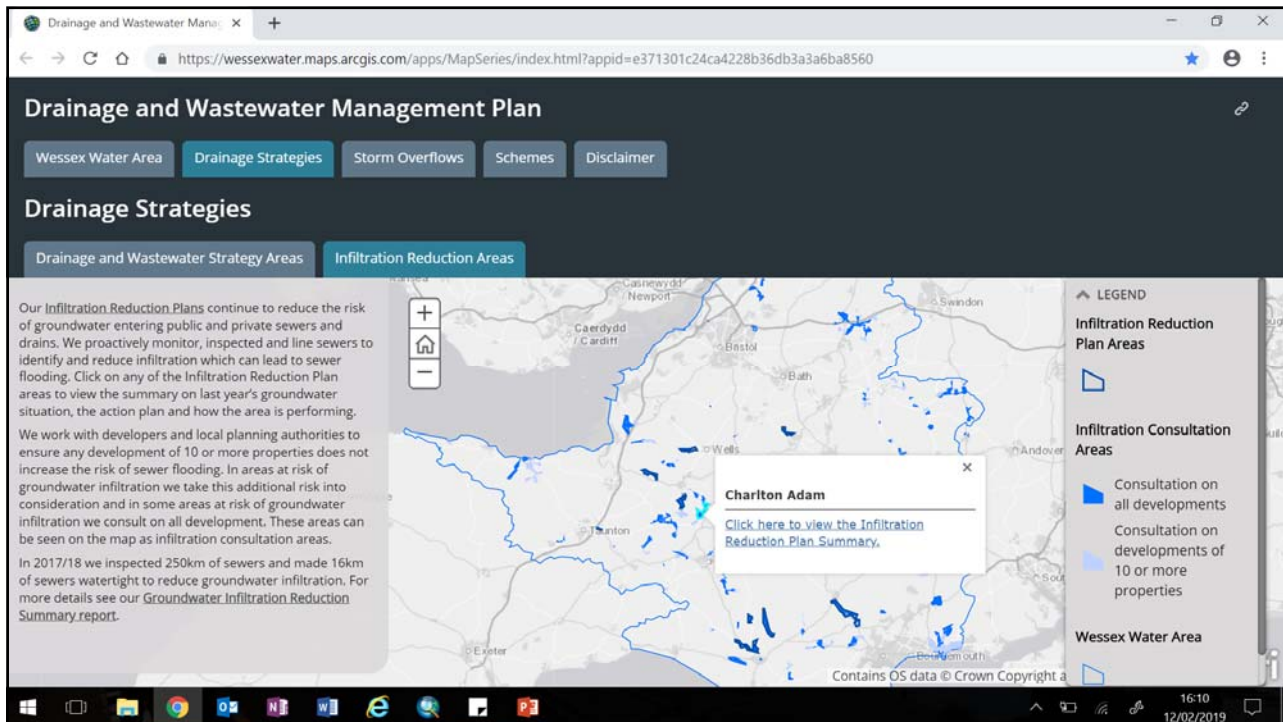
Through the Drainage and Wastewater Management Plan, we are planning and working with stakeholders at three levels, the most local being at an individual Sewage Treatment Works (STW) level to produce locally specific Drainage and Wastewater Strategies. These strategies detail how ours and partners' objectives for the networks and STWs are delivered in a particular STW catchment depending on its individual characteristics, specific challenges, and the partners we are working with.

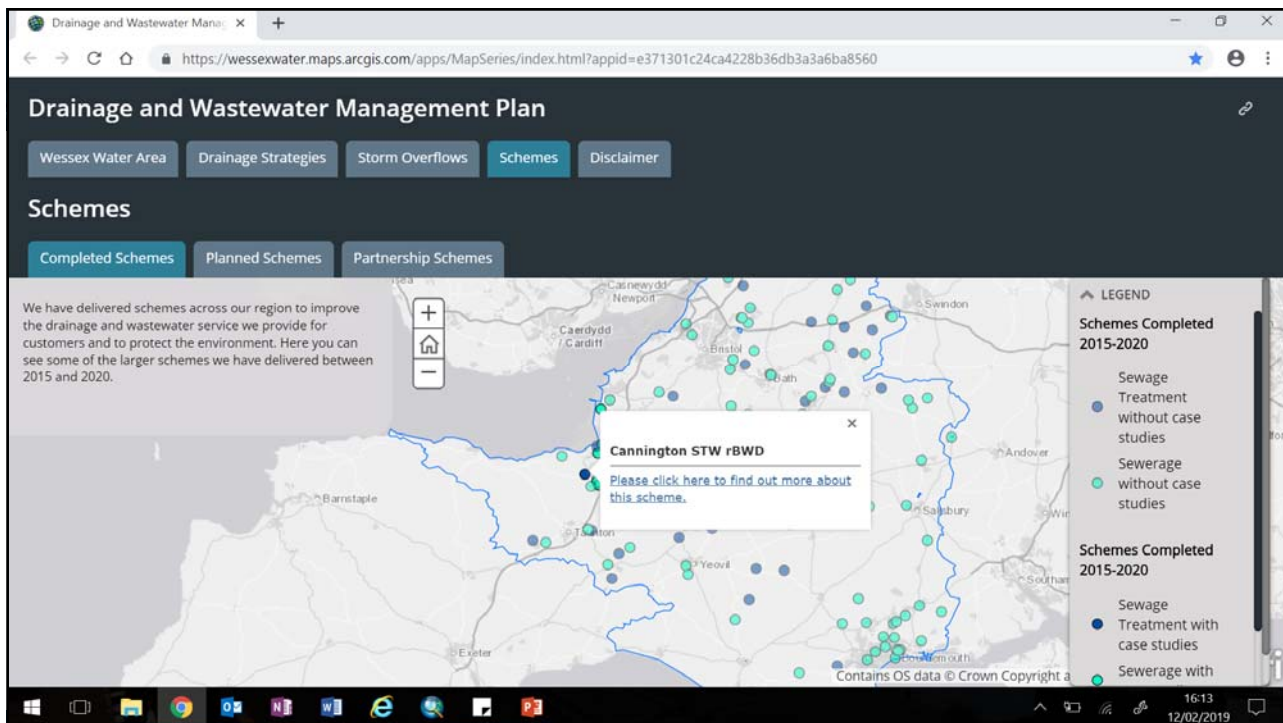
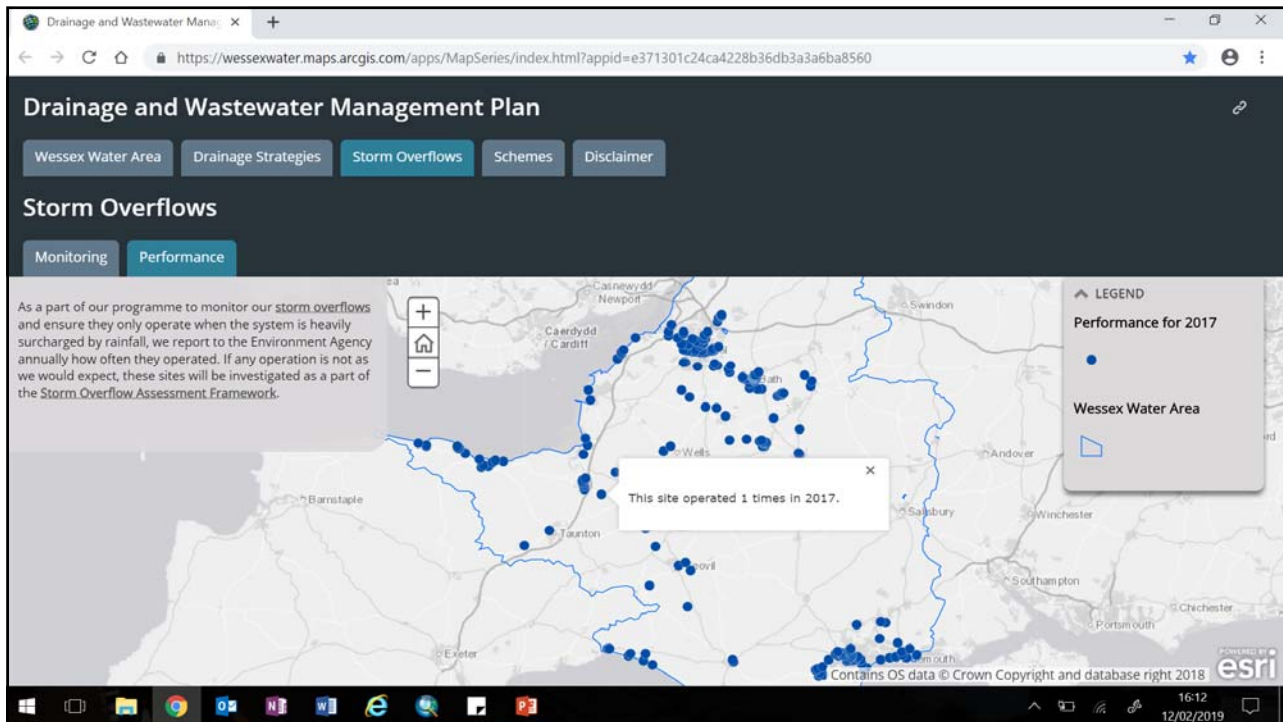
Bridgwater

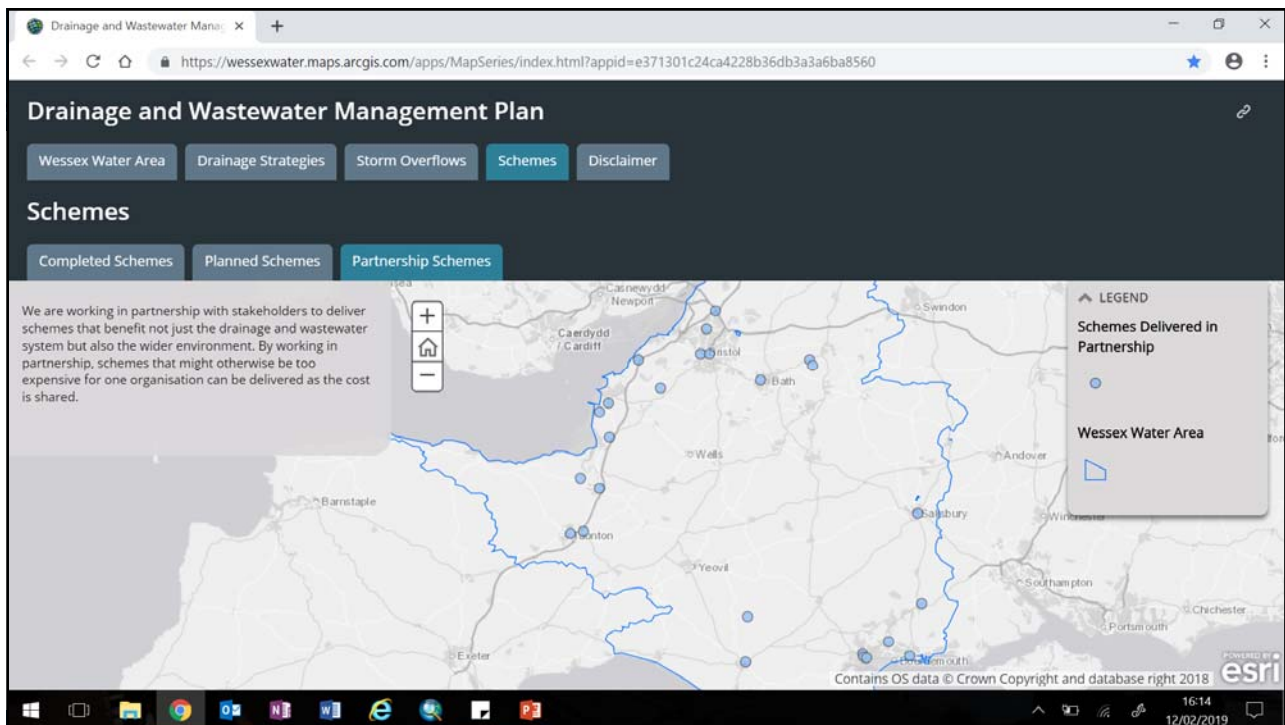
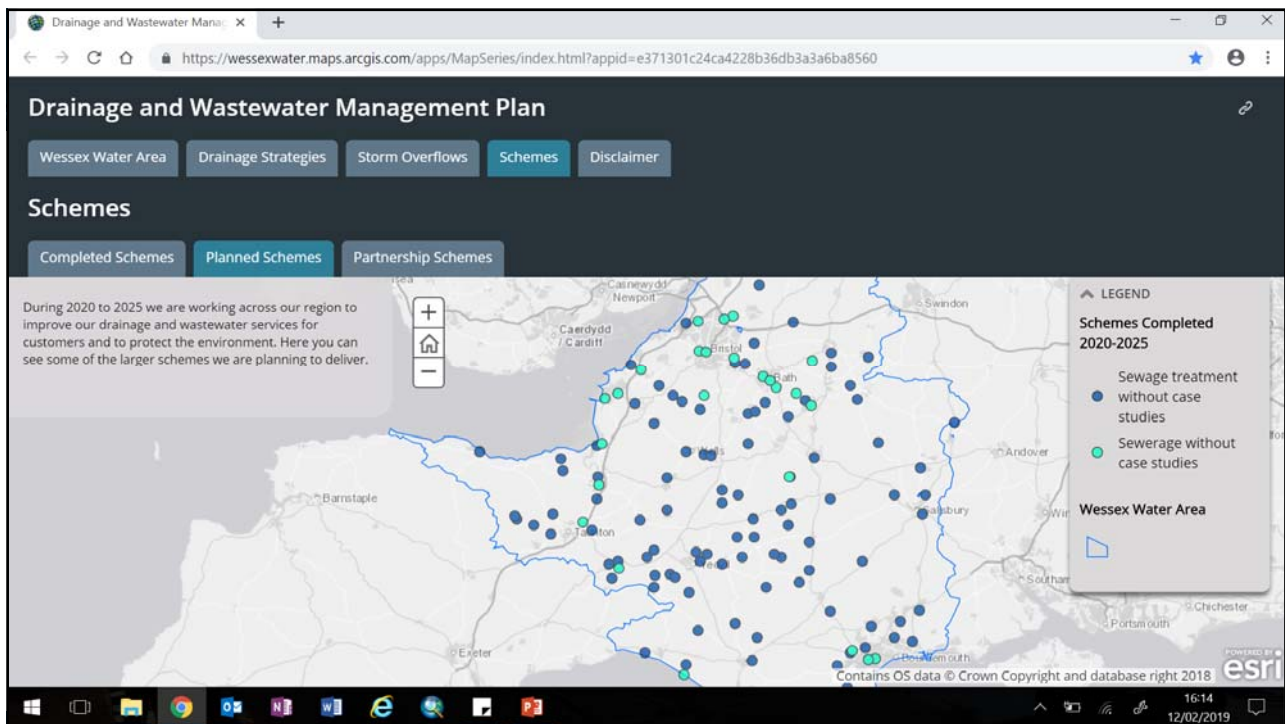
This catchment has a total sewer length of approximately 198.9 kilometres and has 76 pumping stations to support the network. This catchment serves a population of approximately 81,384.

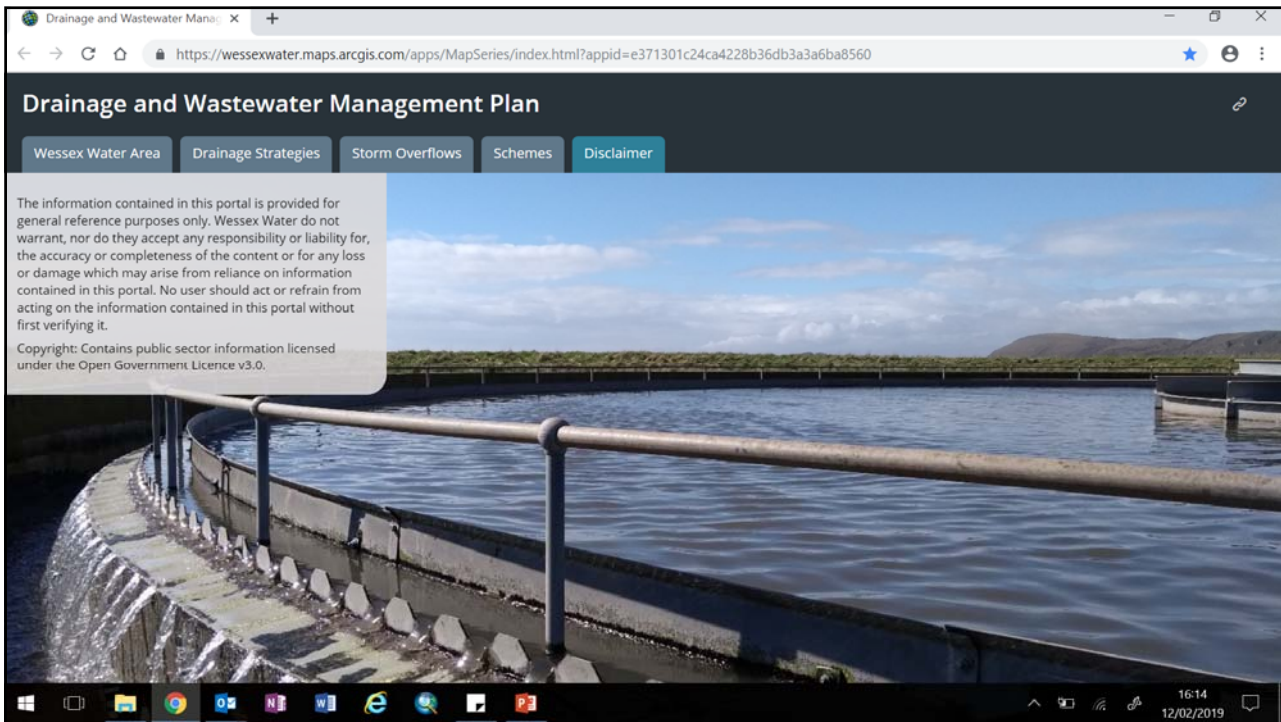
[Click here to view the Drainage and Wastewater Strategy.](#)

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The Portal – Visibility so far

Level one and two areas

Drainage strategies

Infiltration Reduction plans

Overflows

Schemes

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WWW Summary

Portal provides visibility
Enables engagement
Right level of data
Manageable maintenance
Expandable
Limitations

ArcGIS REST Services Directory

Home > services > projects > dwmp_agol (MapServer)

2008 | SOAP

projects/dwmp_agol (MapServer)

View In: [ArcGIS JavaScript](#) [ArcGIS.com Map](#) [ArcMap](#) [ArcGIS Explorer](#)

View Footprint In: [ArcGIS.com Map](#)

Service Description:

Map Wessex Water - Content

Legend Search DWMP - Live

1-16 of 20 in DWMP - Live

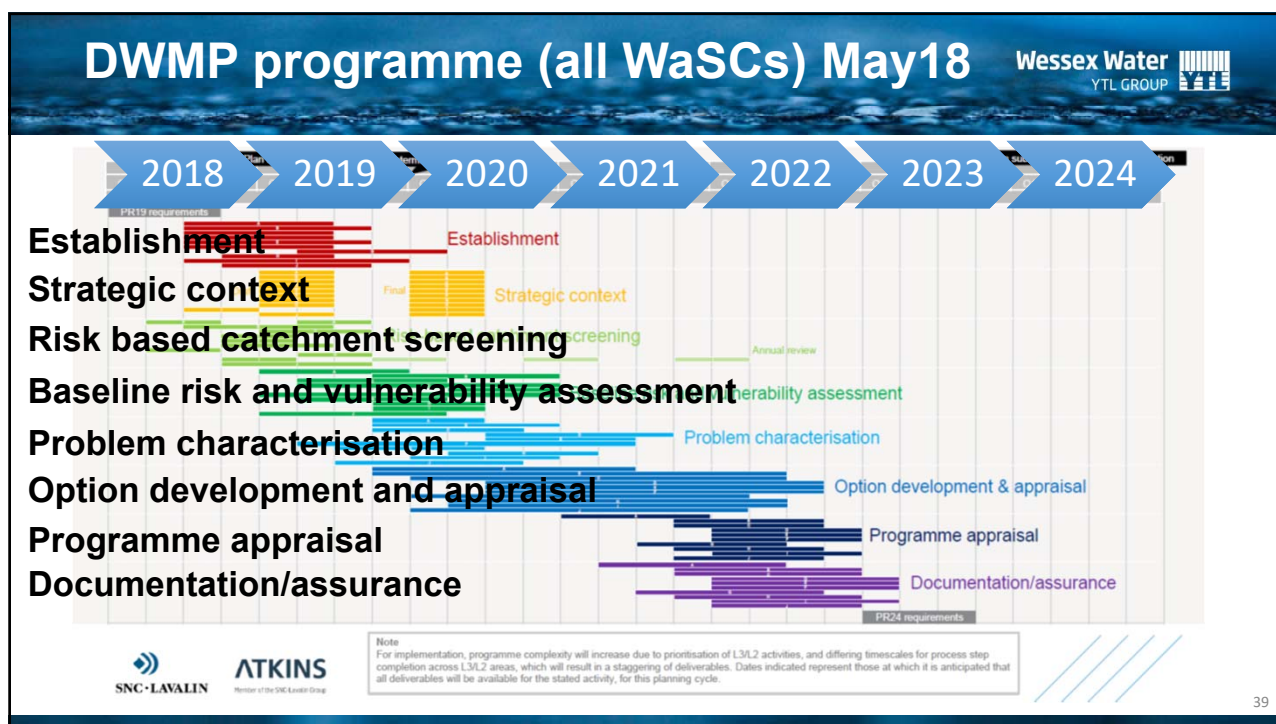
Title	Modified
DWMP App 2 - Drainage Strategies	Nov 6, 2018
Drainage and Wastewater Management Plan	Oct 12, 2018
DWMP Map 2 - Drainage Strategies	Sep 17, 2018
DWMP Map 1 - WW Area	Sep 17, 2018
DWMP Catchment Overview Map	Sep 3, 2018
DWMP Map 4 - Schemes	Aug 21, 2018
PR15 Scheme Locations	Aug 31, 2018
DWMP App 4 - Schemes	Aug 31, 2018
DWMP App 3 - Overflows	Aug 31, 2018
DWMP Map 3 - Overflows	Aug 31, 2018
dwmp_agol_blank_scale_series	Aug 31, 2018
dwmp_agol_blank_scale_series	Aug 31, 2018
DWS Catchments	Aug 21, 2018

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DWMP Communication – where next



- DWMP Programme
- Communicating our plans

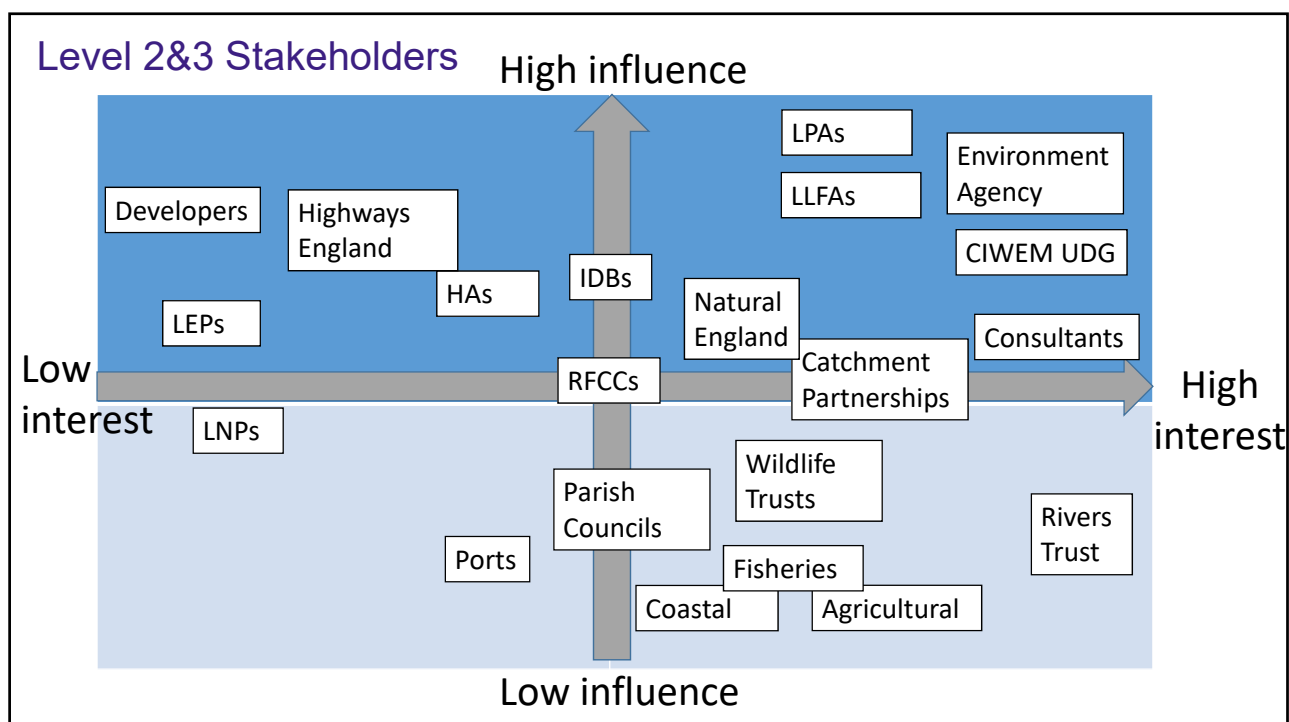


DWMP programme

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- Challenging timescale for production of DWMPs by December 2022
 - Especially where modelling needed
- Ofwat has **accelerated** the programme (in their recent Assessment of Plans) by stating that DWMP will be reported and consulted by summer 2022
- It is recognised (hopefully) that not all partnership schemes will be included in the first iteration – but the start of the DWMP journey

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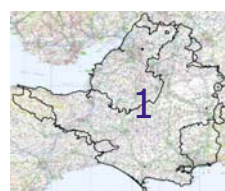
Communicating our plans further

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- Wessex Water has already presented DWMP framework to key stakeholders, including:

- Wessex Regional Floods & Coastal Committee
- EA Partnership Strategic Overview leaders
- All 4 Catchment Partnerships
- 9 of 10 Lead Local Flood Authorities
- Local Environment Agency staff

WRFCC



Catchment Partnerships

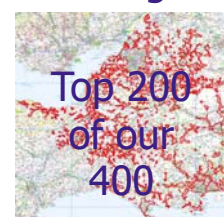


- As local strategies are written and published, we expect to disseminate at more local meetings (eg parish councils)
- Significant consultation anticipated to agree the overarching DWMP report and level 2 partnership engagement

LLFA



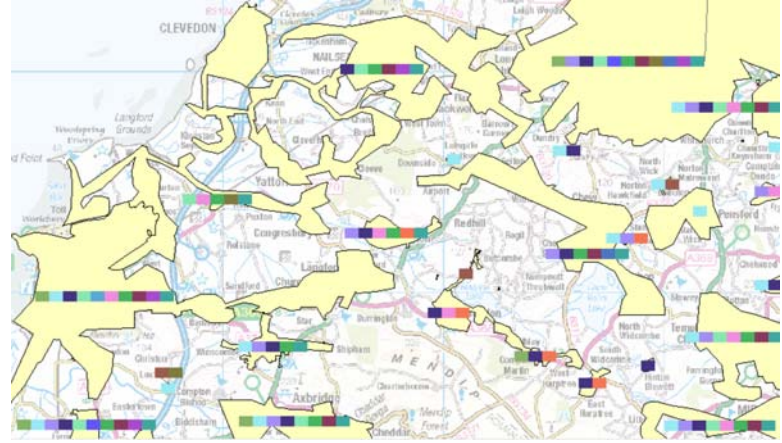
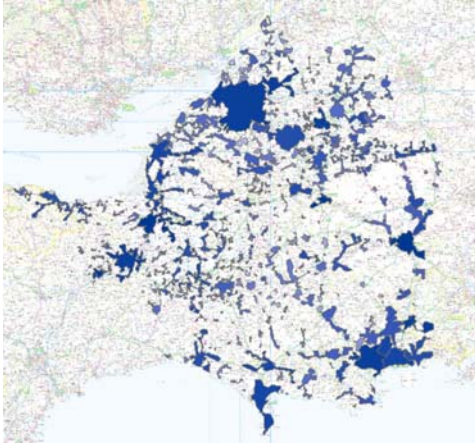
Strategies



Consistent comms needed

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- DWMPIG to encourage WaSCs to be consistent
 - RBCS / BRAVA / Resilience outputs

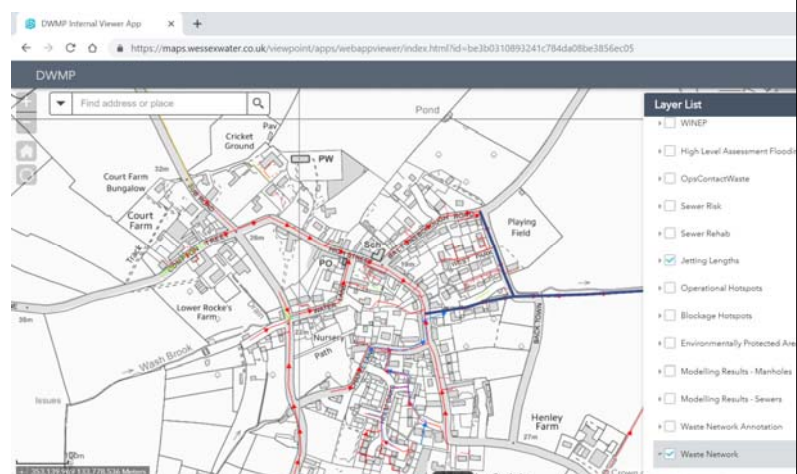


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More detailed RMA version of portal

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- To communicate even more effectively, Wessex Water are developing a Risk Management Authority version of the portal:
- More transparent sharing of known issues, including more sensitive data:
 - sewer records
 - flooding risks / reports
- Layer control
- Log-in access



DWMP Communication – Q&A

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Thank you for listening

After conference email:

DWMP@wessexwater.co.uk

