

DRAINAGE AND WASTEWATER MANAGEMENT PLANS (DWMP)



LEVEL 2 STRATEGIC PLANNING AREA SUMMARY – RURAL TYNE

Contents

Overview..... 2

Drainage Areas within Rural Tyne L2 SPA 3

Key Stakeholders 5

Catchment Needs..... 7

 Storm Overflow Discharge Reduction Plan 7

 Storm Overflow Screening 7

 Wastewater Treatment Works Compliance 17

 Long-Term Delivery Strategy for Flooding and Pollution 18

 Water Industry National Environment Programme (WINEP)..... 19

Planning Objective Assessment..... 19

 Planning Objective Risk Scoring..... 19

 Climate Change Sensitivity 24

Option Development..... 26

 Our Plan for the Rural Tyne L2 SPA..... 26

 Planning Objective Risk Scoring..... 29

Concluding comments..... 34

Contacting us..... 34

AMP8 winep schemes in Rural Tyne L2 Drainage Areas 35

OVERVIEW

The Drainage and Wastewater Management Plan (DWMP) covers seven Strategic Planning Areas (SPA). The seven areas align broadly with the river basin catchments within the region and the main urban areas.

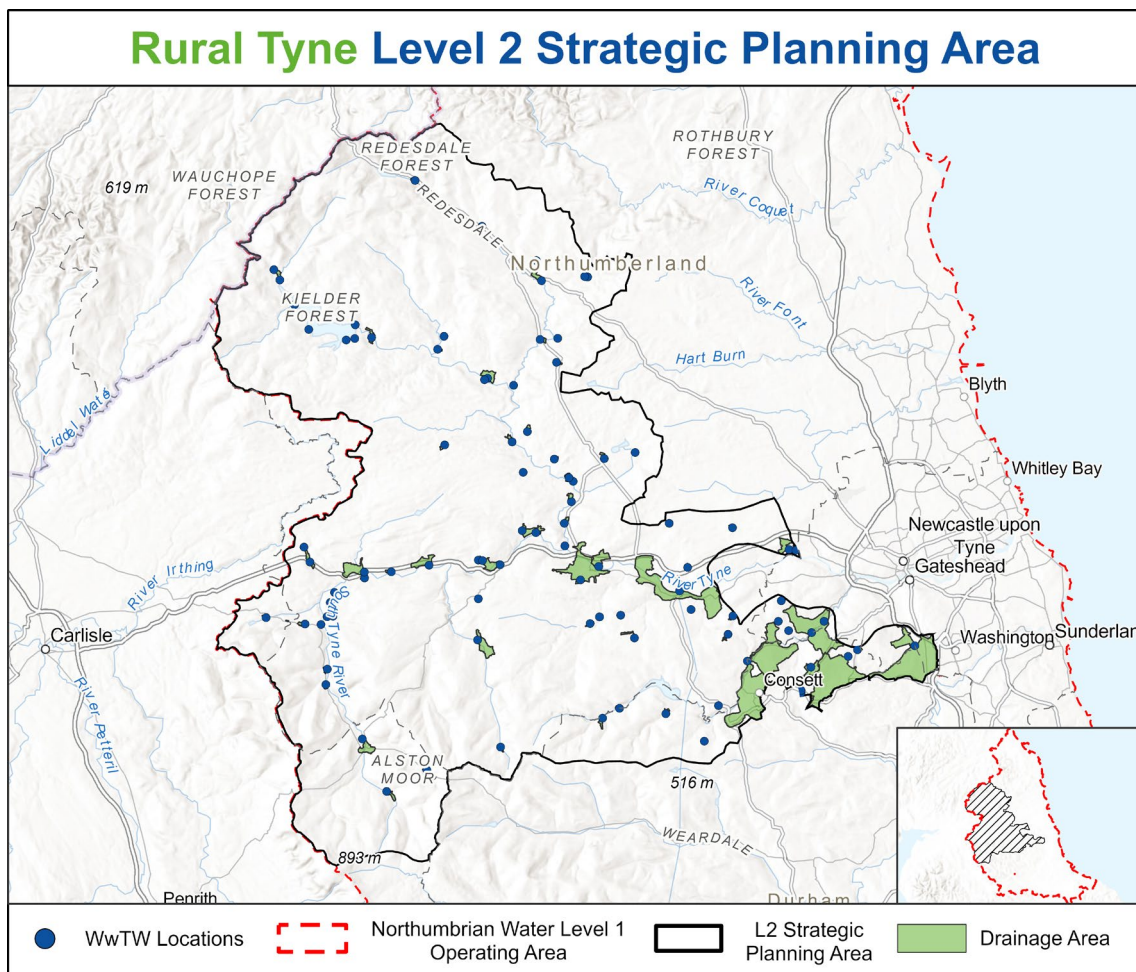
This document provides an overview of the DWMP for the **Rural Tyne Level 2 SPA**.

Within the Rural Tyne Level 2 SPA, there are:

- 80 Wastewater Treatment Works (WwTW)
- 80 Level 3 Tactical Planning Unit (TPU) areas
- 84 Wastewater Drainage Areas

The total estimated population of the Rural Tyne Level 2 SPA is 135,000.

RURAL TYNE LEVEL 2 STRATEGIC PLANNING AREA



DRAINAGE AREAS WITHIN RURAL TYNE L2 SPA

The following table outlines all of the drainage areas within the Rural Tyne Level 2 SPA. The table also outlines whether the drainage area triggered during the Risk Based Catchment Screening (RBCS) stage of the DWMP for detailed analysis as part of the Baseline Risk and Vulnerability Assessment (BRAVA) stage.

Drainage Area Reference	Drainage Area Name	WwTW Name	Triggered BRAVA?
01-D16	Elsdon	Elsdon WwTW	No
03-D01	Heddon on the Wall	Heddon On The Wall WwTW	Yes
03-D02	Harlow Hill	Harlow Hill WwTW	No
03-D03	Hexham	Hexham WwTW	Yes
03-D04	Anick & Oakwood	Hexham WwTW	Yes
03-D05	Corbridge	Broomhaugh WwTW	Yes
03-D06	Slaley	Slaley WwTW	No
03-D07	Hedley on the Hill	Hedley On The Hill WwTW	No
03-D08	Dye House	Juniper WwTW	No
03-D09	Newton	Newton WwTW	No
03-D10	Whittonstall	Whittonstall WwTW	No
03-D11	Broomley	Broomley WwTW	No
03-D12	Wooley Hospital	Wooley WwTW	No
03-D13	Ordley	Ordley Village WwTW	No
03-D14	Haltwhistle	Haltwhistle WwTW	Yes
03-D16	Hatton Lea Gate	Halton Lea Gate WwTW	No
03-D17	Melkridge	Melkridge WwTW	No
03-D18	Blenkinsopp	Greenhead WwTW	No
03-D19	Longbyre	Longbyre WwTW	No
03-D20	Slaggyford	Slaggyford WwTW	No
03-D21	Rowfoot	Featherstone WwTW	No
03-D22	Lambley	Lambley WwTW	No
03-D23	Coanwood	Coanwood WwTW	No
03-D24	Park Village	Park Village WwTW	No
03-D25	Knarsdale Town	Knarsdale WwTW	No
03-D26	Wood Houses	Wood Houses WwTW	No
03-D27	Plenmeller	Plenmeller WwTW	No
03-D28	Haydon Bridge	Haydon Bridge WwTW	Yes
03-D29	Allendale Town & Catton	Allendale WwTW	Yes
03-D30	Bardon Mill	Bardon Mill WwTW	No
03-D31	Allenheads	Allenheads WwTW	No
03-D32	Langley	Langley WwTW	No
03-D33	Chesterwood	Chesterwood WwTW	No

Drainage Area Reference	Drainage Area Name	WwTW Name	Triggered BRAVA?
03-D34	Heugh Cottages	Heugh House WwTW	No
03-D35	Bellingham	Bellingham WwTW	Yes
03-D36	Otterburn	Otterburn WwTW	No
03-D37	Kielder	Butteryhaugh WwTW	No
03-D38	West Woodburn	West Woodburn WwTW	Yes
03-D39	Ridsdale	Ridsdale WwTW	No
03-D40	Falstone	Falstone WwTW	No
03-D41	Byrness	Byrness WwTW	No
03-D42	Greenhaugh	Greenhaugh WwTW	No
03-D43	Redesmouth	Redesmouth WwTW	No
03-D44	East Woodburn	East Woodburn WwTW	No
03-D45	Lanehead	Lanehead WwTW	No
03-D46	Rochester	Rochester WwTW	No
03-D47	Wark	Wark On Tyne WwTW	Yes
03-D48	Newbrough & Fourstones	Fourstones WwTW	Yes
03-D49	Humshaugh	Humshaugh WwTW	Yes
03-D50	Barrasford	Barrasford WwTW	Yes
03-D51	Gunnerton	Gunnerton WwTW	Yes
03-D52	Wall	Wall WwTW	No
03-D53	Stonhaugh	Stonehaugh WwTW	No
03-D54	Simonburn	Simonburn WwTW	No
03-D55	Warden	Warden Village WwTW	No
03-D56	Birtley	Birtley North Tyne WwTW	Yes
03-D57	Colwell	Colwell WwTW	No
03-D58	Hallington	Hallington WwTW	No
03-D59	Halton Shields	Halton Shields WwTW	No
03-D60	Low Midgeholme	Low Midgenholme WwTW	No
03-D61	Haughton Castle	Haughton Castle WwTW	No
03-D62	Heddon Hall	Heddon Hall WwTW	No
03-D63	Alston	Alston WwTW	Yes
03-D64	Nenthead	Nenthead WwTW	No
03-D65	Garrigill	Garrigill WwTW	No
03-D66	The Croft	The Croft WwTW	No
03-D67	Tindale	Tindale WwTW	No
03-D69	Otterburn Camp	Otterburn Camp Doe Crag WwTW	No
04-D01	Ebchester	Consett WwTW	Yes
04-D02	Consett & Castleside	Consett WwTW	Yes
04-D03	Dipton	Dipton WwTW	No
04-D04	Causey	Causey Arch WwTW	No
04-D05	East Castle South	East Castle South WwTW	No

Drainage Area Reference	Drainage Area Name	WwTW Name	Triggered BRAVA?
04-D06	East Castle North	East Castle North WwTW	No
04-D08	Annfield Plain & Stanley	East Tanfield WwTW	Yes
04-D10	Chopwell, Blackhall Mill	Consett WwTW	Yes
04-D11	Birtley	Birtley WwTW	Yes
04-D12	Kibblesworth	Birtley WwTW	Yes
04-D13	Blanchland	Blanchland WwTW	No
04-D14	Hunstanworth	Hunstanworth WwTW	No
04-D15	Edmundbyers	Edmundbyers WwTW	No
04-D16	Rowlands Gill	Lockhaugh WwTW	Yes
04-D17	Coalburns	Coalburns WwTW	No
04-D18	Derwent View	Derwent View WwTW	No

KEY STAKEHOLDERS

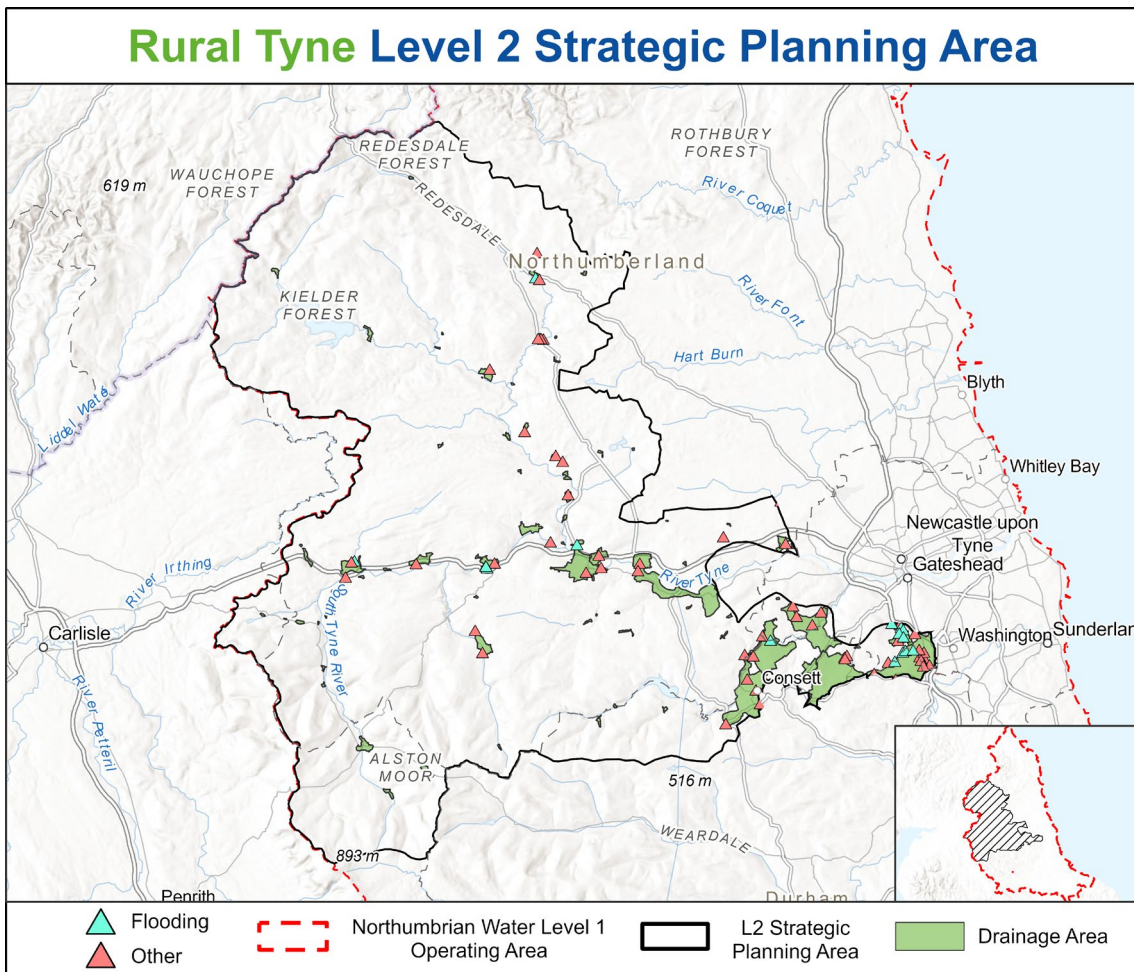
It is widely recognised and acknowledged that drainage systems are complex and have numerous interactions, both known and unknown. It was therefore important that the DWMP was not created solely by Northumbrian Water. While NWL have been tasked with the delivery of the DWMP, it was critical that the public and relevant stakeholders actively participated and offered support in its creation. We have worked with a range of relevant stakeholders in the production of the DWMP, including the Environment Agency (EA), Lead Local Flood Authorities, Local Planning Authorities, housing developers and environmental partners.

Through different partnerships and strategies, we play an active role within the region, working collaboratively with stakeholders on several projects. The DWMP builds on the strong foundation of the Northumbria Integrated Drainage Partnership (NIDP), which consists of 14 Lead Local Flood Authorities, the EA and Northumbrian Water. One of the aims of the NIDP is to identify opportunities to deliver surface water management schemes within catchments to reduce the risk and impact of flooding. Catchments are taken from the investigation stages where opportunity areas are identified, through to the outline business case stage to determine funding sources, and ultimately through to scheme delivery. The award-winning partnership approach, which is based around collaboration to identify priority investment areas where benefits can be delivered for multiple stakeholders, provides an excellent platform for the DWMP.

To ensure that existing and future opportunities for working collaboratively with stakeholders were included in the production of the DWMP, engagement sessions were held in March 2023. During these sessions, all the geographical areas covered by the DWMP were reviewed to identify, record and map ongoing and future opportunities.

Key Stakeholders
Environment Agency Local Authorities National Farmers Union Rivers Trusts Natural England Developers National Parks

Collaborative Working Opportunities



Significant Collaborative Working Opportunities

Drainage Area Reference	Organisation	Opportunity Type
04-D01	Northumbria Integrated Drainage Partnership (NIDP)	Potential to bring forward the Northumbria Integrated Drainage Partnership study.

Drainage Area Reference	Organisation	Opportunity Type
04-D11	Gateshead Metropolitan Borough Council	Lead Local Flood Authority is looking to review the River Don culvert.
04-D16	Northumbria Integrated Drainage Partnership (NIDP)	Northumbria Integrated Drainage Partnership Study

CATCHMENT NEEDS

Through the Baseline Risk and Vulnerability Assessment (BRAVA) and Problem Characterisation stages of the DWMP, the requirements for investment within catchments were identified.

The following summaries provide the detail of the 'Catchment Needs' that have been identified within the Rural Tyne Level 2 SPA.

Storm Overflow Discharge Reduction Plan

The following table summarises the number of storm overflows within the Rural Tyne Level 2 SPA and how many have been included in the DWMP for improvement in line with the Storm Overflow Discharge Reduction Plan (SODRP).

Storm Overflow Categorisation	Count	Storm Overflows Requiring Improvement
Inland – High Priority	31	25
Inland – Not High Priority	157	91
Bathing Water	0	0
Coastal / Estuarine (not linked to Bathing Water)	0	0
Total	188	116

Storm Overflow Screening

Under the SODRP, all storm overflows are required to include 6mm screening provision on any discharges that are made.

The following table summarises the number of storm overflows within the Rural Tyne Level 2 SPA that have been included in the DWMP for the provision of 6mm screening.

Storm Overflow Categorisation	Count	Storm Overflows Requiring Screening
Inland – High Priority	31	12
Inland – Not High Priority	157	89
Bathing Water	0	0
Coastal / Estuarine (not linked to Bathing Water)	0	0
Total	188	101

The full list of storm overflows within the Northumberland Level 2 SPA is included in the following table.

Storm Overflow Site Name	Drainage Area Code	Drainage Area Name	Storm Overflow Spill Frequency Reduction Scheme - Delivery Period
ELSDON SEWAGE TREATMENT WORKS	01-D16	Elsdon	No Improvement Required
HEDDON ON THE WALL STW	03-D01	Heddon on the Wall	2035 - 2040
HEDDON BANKS FARM CSO	03-D01	Heddon on the Wall	2035 - 2040
ACOMB CSO	03-D03	Hexham	2030 - 2035
WOODLANDS PUMPING STATION	03-D03	Hexham	2040 - 2045
HEXHAM STW	03-D03	Hexham	2040 - 2045
ACOMB PUMPING STATION	03-D03	Hexham	2040 - 2045
PETH HEAD PS	03-D03	Hexham	2040 - 2045
THE LARCHES P.S.	03-D03	Hexham	2040 - 2045
HEXHAM CSO LEAZES TERRACE	03-D03	Hexham	2040 - 2045
EILANS GATE CSO	03-D03	Hexham	No Improvement Required
TANNERS ROAD CSO TD028	03-D03	Hexham	No Improvement Required
TYNE GREEN CSO TD030	03-D03	Hexham	No Improvement Required
PRIESTLAND CLOSE CSO	03-D03	Hexham	No Improvement Required
OUTLET ROAD NO 2 CSO	03-D03	Hexham	No Improvement Required
BEECH HILL CSO	03-D03	Hexham	No Improvement Required
OUTLET LANE CSO NO.2	03-D03	Hexham	No Improvement Required
ANICK CSO TD006	03-D04	Anick & Oakwood	2040 - 2045
HEXHAM (ANICK GRANGE) P.S.	03-D04	Anick & Oakwood	2040 - 2045
WELL BANK CSO TD008	03-D05	Corbridge	2035 - 2040
BRIDGE END COTTAGES CSO	03-D05	Corbridge	2035 - 2040
MERRYSHIELDS CSO	03-D05	Corbridge	2035 - 2040
BROOMHAUGH SEWAGE TREATMENT WORKS	03-D05	Corbridge	2035 - 2040
RIDLEY MILL ROAD CSO	03-D05	Corbridge	2035 - 2040
ST HELENS LANE CSO	03-D05	Corbridge	2035 - 2040

Storm Overflow Site Name	Drainage Area Code	Drainage Area Name	Storm Overflow Spill Frequency Reduction Scheme - Delivery Period
RIDING MILL VILLAGE SPS	03-D05	Corbridge	2035 - 2040
ROSE COTTAGE PUMPING STATION	03-D05	Corbridge	2035 - 2040
RAILWAY STATION STOCKSFIELD CSO	03-D05	Corbridge	2035 - 2040
STATION ROAD CSO	03-D05	Corbridge	No Improvement Required
PRINCES/WOODBINE(ST HELENS ST.)CSO	03-D05	Corbridge	No Improvement Required
SPRINGFIELD COTTAGES CSO	03-D05	Corbridge	No Improvement Required
CSO OUTSIDE MILKWELL COTTAGES	03-D05	Corbridge	No Improvement Required
SLALEY STW CSO INLET	03-D06	Slaley	2045 - 2050
SLALEY STW Primary treated storm	03-D06	Slaley	2045 - 2050
WHITTONSTALL CSO	03-D10	Whittonstall	No Improvement Required
OLD TYNE BRIDGE CSO	03-D14	Haltwhistle	2030 - 2035
HALTWHISTLE STW CSO INLET	03-D14	Haltwhistle	2040 - 2045
HALTWHISTLE STW Storm Tank	03-D14	Haltwhistle	2040 - 2045
STONEY RIGG	03-D14	Haltwhistle	No Improvement Required
MAIN STREET CSO	03-D14	Haltwhistle	No Improvement Required
LANYTYS LONNEN CSO	03-D14	Haltwhistle	No Improvement Required
HALTON LEA GATE CSO	03-D16	Hatton Lea Gate	2045 - 2050
MELKRIDGE STW	03-D17	Melkridge	2045 - 2050
MOOR VIEW CSO	03-D17	Melkridge	No Improvement Required
GREENHEAD PS	03-D18	Blenkinsopp	2045 - 2050
LONGBYRE STW	03-D19	Longbyre	No Improvement Required
SLAGGYFORD SPS	03-D20	Slaggyford	2045 - 2050
MEADOW VIEW CSO	03-D24	Park Village	No Improvement Required
THE OLD VICARAGE CSO	03-D28	Haydon Bridge	2030 - 2035
TEMPLE HOUSE PS	03-D28	Haydon Bridge	2040 - 2045

Storm Overflow Site Name	Drainage Area Code	Drainage Area Name	Storm Overflow Spill Frequency Reduction Scheme - Delivery Period
HAYDON BRIDGE STW	03-D28	Haydon Bridge	2040 - 2045
CHURCH DENE CSO	03-D29	Allendale Town & Catton	2040 - 2045
MILL COTTAGE CSO	03-D29	Allendale Town & Catton	2040 - 2045
PHILIPBURN DENE PS	03-D29	Allendale Town & Catton	2040 - 2045
ALLENDALE STW	03-D29	Allendale Town & Catton	2040 - 2045
CATTON LEA CSO	03-D29	Allendale Town & Catton	2040 - 2045
THE PETH CSO	03-D29	Allendale Town & Catton	No Improvement Required
TOW HOUSE PUMPING STATION	03-D30	Bardon Mill	2040 - 2045
REDBURN SEWAGE PUMPING STATION	03-D30	Bardon Mill	2040 - 2045
BARDON MILL (STATION HOUSE) P.S.	03-D30	Bardon Mill	2040 - 2045
THE LARCHES PUMPING STATION	03-D30	Bardon Mill	No Improvement Required
BELLINGHAM STW	03-D35	Bellingham	2045 - 2050
BELLINGHAM STW	03-D35	Bellingham	2045 - 2050
OTTERBURN STW	03-D36	Otterburn	2045 - 2050
BUTTERYHAUGH PS	03-D37	Kielder	2045 - 2050
WEST WOODBURN PUMPING STATION	03-D38	West Woodburn	No Improvement Required
FALSTONE & STANNERSBURN SEWAGE TREA	03-D40	Falstone	2045 - 2050
LANEHEAD STW	03-D45	Lanehead	No Improvement Required
WARK STW	03-D47	Wark	2045 - 2050
NEWBROUGH PUMPING STATION	03-D48	Newbrough & Fourstones	2045 - 2050
FOURSTONES STW STORM TANK	03-D48	Newbrough & Fourstones	2045 - 2050
ST AIDENS PARK CSO	03-D48	Newbrough & Fourstones	2045 - 2050
HUMSHAUGH STW	03-D49	Humshaugh	2045 - 2050
GUNNERTON STW	03-D51	Gunnerton	2045 - 2050
WALL SEWAGE TREATMENT WORKS	03-D52	Wall	2045 - 2050

Storm Overflow Site Name	Drainage Area Code	Drainage Area Name	Storm Overflow Spill Frequency Reduction Scheme - Delivery Period
WALL SEWAGE TREATMENT WORKS	03-D52	Wall	No Improvement Required
WARDEN VILLAGE STW	03-D55	Warden	No Improvement Required
COLWELL STW	03-D57	Colwell	2045 - 2050
THE CARAVAN PARK CSO	03-D63	Alston	2030 - 2035
ALSTON EJECTOR STATION CSO	03-D63	Alston	2045 - 2050
THE FIRS CSO ED003	03-D63	Alston	2045 - 2050
FRONT STREET (TOWN HALL) CSO	03-D63	Alston	2045 - 2050
KINGS ARMS LANE CSO	03-D63	Alston	No Improvement Required
HOLMSFOOT CSO	03-D64	Nenthead	No Improvement Required
NENTHEAD STW	03-D64	Nenthead	No Improvement Required
CSO AT HILLIERSON TERRACE	03-D64	Nenthead	No Improvement Required
GARRIGILL MANHOLE 9901 SSO	03-D65	Garrigill	No Improvement Required
TINDALE STW	03-D67	Tindale	2045 - 2050
EBCHESTER SPS	04-D01	Ebchester	2025 - 2030
HAMSTERLEY MILL PUMPING STATION	04-D01	Ebchester	2025 - 2030
HAMSTERLEY COLLIERY PS	04-D01	Ebchester	2025 - 2030
CHARE BANK CSO	04-D01	Ebchester	2025 - 2030
CHOPWELL ROAD CSO	04-D01	Ebchester	2035 - 2040
VINDOMORA VILLAS CSO	04-D01	Ebchester	2035 - 2040
DERWENTSIDE HOUSE CSO	04-D01	Ebchester	No Improvement Required
DENECREST CSO	04-D01	Ebchester	No Improvement Required
WEST LANE SCHOOL CSO	04-D01	Ebchester	No Improvement Required
A692 CSO	04-D02	Consett & Castleside	2040 - 2045
CONSETT ACADEMY SOUTH CSO DER090	04-D02	Consett & Castleside	2040 - 2045
BERRY EDGE ROAD CSO DER096	04-D02	Consett & Castleside	2040 - 2045

Storm Overflow Site Name	Drainage Area Code	Drainage Area Name	Storm Overflow Spill Frequency Reduction Scheme - Delivery Period
CUTLERS HALL ROAD (NO. 29) STORM	04-D02	Consett & Castleside	2040 - 2045
SNOWS GREEN ROAD CSO (DER010)	04-D02	Consett & Castleside	2040 - 2045
SHOTLEY BRIDGE CSO DER0004	04-D02	Consett & Castleside	2040 - 2045
GREEN BRIDGE CSO (DER 137)	04-D02	Consett & Castleside	2040 - 2045
CONSETT CSO DERWENTDALE INDUSTRIAL ESTATE DER 168 (OOS) - NWL name	04-D02	Consett & Castleside	2040 - 2045
ST MARYS PRIMARY SCHOOL CSO	04-D02	Consett & Castleside	2040 - 2045
CHURCH ROAD CSO	04-D02	Consett & Castleside	2040 - 2045
CONSETT STW	04-D02	Consett & Castleside	2040 - 2045
CASTLESIDE CSO	04-D02	Consett & Castleside	No Improvement Required
MOORSIDE CSO DER002	04-D02	Consett & Castleside	No Improvement Required
QUEENSWAY CSO	04-D02	Consett & Castleside	No Improvement Required
OPP OLD CASTLESIDE STW CSO	04-D02	Consett & Castleside	No Improvement Required
CONSETT LOW WOOD NORTH - NWL name	04-D02	Consett & Castleside	No Improvement Required
Dunelm Road CSO DER 147 - NWL name	04-D02	Consett & Castleside	No Improvement Required
CONSETT IRON WORKS HOWDON WOOD CSO	04-D02	Consett & Castleside	No Improvement Required
CONSETT OAP HALL CSO	04-D02	Consett & Castleside	No Improvement Required
DURHAM ROAD REF NO 36	04-D02	Consett & Castleside	No Improvement Required
85 SNOWS GREEN ROAD CAULDWELL CSO	04-D02	Consett & Castleside	No Improvement Required
SHOTLEY BRIDGE HOSPITAL CSO	04-D02	Consett & Castleside	No Improvement Required
20 DERWENT DALE CUTLERS RD CSO	04-D02	Consett & Castleside	No Improvement Required
REAR 39 CUTLERS HALL ROAD	04-D02	Consett & Castleside	No Improvement Required
DIPTON STW CSO Inlet	04-D03	Dipton	2045 - 2050
DIPTON STW STORM TANK	04-D03	Dipton	No Improvement Required
CAUSEY STW	04-D04	Causey	2045 - 2050

Storm Overflow Site Name	Drainage Area Code	Drainage Area Name	Storm Overflow Spill Frequency Reduction Scheme - Delivery Period
MITCHEL TERRACE CSO	04-D08	Annfield Plain & Stanley	2030 - 2035
ST ANDREWS ROAD CSO	04-D08	Annfield Plain & Stanley	2030 - 2035
LINTZ TERRACE CSO	04-D08	Annfield Plain & Stanley	2045 - 2050
SOUTH LEIGH CSO HOUGHWELL HOUSE	04-D08	Annfield Plain & Stanley	2045 - 2050
WHITE-LE-HEAD ALLOTMENTS SSO	04-D08	Annfield Plain & Stanley	2045 - 2050
PALM TERRACE CSO	04-D08	Annfield Plain & Stanley	2045 - 2050
RAILWAY GARDENS CSO DER047	04-D08	Annfield Plain & Stanley	2045 - 2050
DUKE STREET CSO	04-D08	Annfield Plain & Stanley	2045 - 2050
DUNN STREET	04-D08	Annfield Plain & Stanley	2045 - 2050
TANFIELD TRUNK SEWER CSO	04-D08	Annfield Plain & Stanley	2045 - 2050
OAKS FIELD CSO	04-D08	Annfield Plain & Stanley	2045 - 2050
EAST TANFIELD STW CSO INLET	04-D08	Annfield Plain & Stanley	2045 - 2050
EAST TANFIELD STW Storm Tank	04-D08	Annfield Plain & Stanley	2045 - 2050
WESLEY TERRACE CSO	04-D08	Annfield Plain & Stanley	No Improvement Required
ANNFIELD PLAIN & STANLEY CSO 8	04-D08	Annfield Plain & Stanley	No Improvement Required
TANFIELD COMPREHENSIVE SCHOOL CSO	04-D08	Annfield Plain & Stanley	No Improvement Required
STATION VILLAS CSO	04-D08	Annfield Plain & Stanley	No Improvement Required
ARGYLE COURT CSO	04-D08	Annfield Plain & Stanley	No Improvement Required
ARMONSDALE RD CONNOLLY TERRACE CSO	04-D10	Chopwell, Blackhall Mill	2030 - 2035
BLACKHALL MILL PUMPING STATION	04-D10	Chopwell, Blackhall Mill	2035 - 2040
PENNINE VIEW CSO	04-D10	Chopwell, Blackhall Mill	2040 - 2045
CHOPWELL PARK FOOTPATH CSO	04-D10	Chopwell, Blackhall Mill	No Improvement Required
TAY STREET CSO	04-D10	Chopwell, Blackhall Mill	No Improvement Required
SOUTH TERRACE CSO (G003)	04-D10	Chopwell, Blackhall Mill	No Improvement Required
ELWIN PLACE CSO	04-D11	Birtley	2025 - 2030

Storm Overflow Site Name	Drainage Area Code	Drainage Area Name	Storm Overflow Spill Frequency Reduction Scheme - Delivery Period
SOUTHFIELDS CSO	04-D11	Birtley	2025 - 2030
LANSBURY DRIVE CSO	04-D11	Birtley	2035 - 2040
STONY ROW CSO	04-D11	Birtley	2040 - 2045
OUSTON VILLA FARM CSO	04-D11	Birtley	2040 - 2045
PELTON CSO	04-D11	Birtley	2040 - 2045
STATION LANE CSO	04-D11	Birtley	No Improvement Required
THE BROOMS NORTH CSO	04-D11	Birtley	No Improvement Required
WESTLINE INDUSTRIAL ESTATE CSO	04-D11	Birtley	No Improvement Required
DURHAM ROAD CSO	04-D11	Birtley	No Improvement Required
BEAMISH CSO	04-D11	Birtley	No Improvement Required
THE OVAL CSO	04-D11	Birtley	No Improvement Required
WHELDON TERRACE CSO	04-D11	Birtley	No Improvement Required
SWINBURN PLACE CSO	04-D11	Birtley	No Improvement Required
Manhole off Durham Road (Next to Sorrento Pizza shop) - NWL name	04-D11	Birtley	No Improvement Required
KINGSMERE PS	04-D11	Birtley	No Improvement Required
BIRTLEY STW CSO INLET	04-D12	Kibblesworth	2035 - 2040
LAMESLEY SSO	04-D12	Kibblesworth	2035 - 2040
BIRTLEY STW Storm Tank	04-D12	Kibblesworth	2035 - 2040
LADY PARK PUMPING STATION LAMESLEY	04-D12	Kibblesworth	No Improvement Required
BLANCHLAND STW CSO INLET	04-D13	Blanchland	2035 - 2040
BLANCHLAND STW Storm Tank	04-D13	Blanchland	2035 - 2040
HIGH SPEN PUMPING STATION	04-D16	Rowlands Gill	2025 - 2030
BUSTY BANK CSO	04-D16	Rowlands Gill	2025 - 2030
WHISKEY JACKS PUMPING STATION	04-D16	Rowlands Gill	2025 - 2030
STATION ROAD CSO G020	04-D16	Rowlands Gill	2025 - 2030

Storm Overflow Site Name	Drainage Area Code	Drainage Area Name	Storm Overflow Spill Frequency Reduction Scheme - Delivery Period
BURNOPFIELD CSO	04-D16	Rowlands Gill	2025 - 2030
LOCKHAUGH STW	04-D16	Rowlands Gill	2025 - 2030
SMAILES LANE CSO G15	04-D16	Rowlands Gill	2035 - 2040
DIPWOOD ROAD CSO GO16	04-D16	Rowlands Gill	2035 - 2040
RGIL LOCKHAUGH RD & SHRBURN PRK CSO	04-D16	Rowlands Gill	2035 - 2040
ASH TREE LANE CSO	04-D16	Rowlands Gill	2035 - 2040
HIGH FRIAR SIDE CSO	04-D16	Rowlands Gill	2035 - 2040
DERWENT CARAVAN PARK PUMPING STN	04-D16	Rowlands Gill	2035 - 2040
LOCKHAUGH STW	04-D16	Rowlands Gill	No Improvement Required
HIGH SPEN CSO ROWLANDS GILL 6	04-D16	Rowlands Gill	No Improvement Required
HIGH SPEN CSO STROTHERS ROAD	04-D16	Rowlands Gill	No Improvement Required
BUSTY BANK CSO	04-D16	Rowlands Gill	No Improvement Required
BUSTY BANK STORM SEWAGE OVERFLOW	04-D16	Rowlands Gill	No Improvement Required
BRIARDENE LOCKHAUGH ROAD CSO	04-D16	Rowlands Gill	No Improvement Required

Wastewater Treatment Works Compliance

Analyses have been completed to determine the interventions that are likely to be required to ensure all wastewater treatment works (WwTW) are operating in compliance with the permits for dry weather flow (DWF) treatment and treated effluent discharge quality.

The following table summarises the number of WwTWs within the Rural Tyne Level 2 SPA that have been included in the DWMP for DWF permit compliance and treated effluent discharge quality permit compliance (phosphorous (P), biological oxygen demand (BOD) and ammonia (Amm) indicators).

WwTW Name	Intervention(s) Required
Allendale WwTW	Allendale WwTW has been identified as requiring a dry weather flow compliance upgrade between 2030 and 2035. An investigation for discharge quality compliance has been identified for Phosphorous between 2030 and 2035.
Birtley WwTW	Birtley WwTW has been identified as requiring an investigation for discharge quality compliance has been identified for Phosphorous and Ammonia between 2025 and 2030.
Consett WwTW	Consett WwTW has been identified as requiring an investigation for discharge quality compliance has been identified for Phosphorous between 2030 and 2035 and Ammonia between 2030 and 2035.
Dipton WwTW	Dipton WwTW has been identified as requiring an investigation for discharge quality compliance has been identified for Phosphorous between 2025 and 2030 and Biological Oxygen Demand between 2030 and 2035.
East Tanfield WwTW	East Tanfield WwTW has been identified as requiring an investigation for discharge quality compliance has been identified for Phosphorous between 2025 and 2030 and Ammonia between 2025 and 2030.
Garrigill WwTW	Garrigill WwTW has been identified as requiring an investigation for discharge quality compliance has been identified for Phosphorous between 2030 and 2035.
Halton Lea Gate WwTW	Halton Lea Gate WwTW has been identified as requiring an investigation for discharge quality compliance has been identified for Phosphorous between 2030 and 2035.
Haltwhistle WwTW	Haltwhistle WwTW has been identified as requiring an investigation for discharge quality compliance has been identified for Phosphorous between 2040 and 2045.
Lockhaugh WwTW	Lockhaugh WwTW has been identified as requiring an investigation for discharge quality compliance has been identified for Phosphorous between 2025 and 2030.
Nenthead WwTW	Nenthead WwTW is being investigated/upgraded currently for dry weather flow compliance.
Slaley WwTW	Slaley WwTW is being investigated/upgraded currently for dry weather flow compliance.

Long-Term Delivery Strategy for Flooding and Pollution

The National Infrastructure Commission's report 'Reducing the risk of surface water flooding'¹ highlighted the importance of a national approach to tackle flooding, and the costs and challenges of eliminating sewer flooding. Given this, and the greater insight we have gained from developing the DWMP, the ambition for flooding and pollution risk has been adjusted to what is considered a stretching but achievable level that would be economically beneficial to deliver.

Our Long-Term Delivery Strategy identifies a target of reducing sewer flooding by 60% from our 2025 position. To achieve this, we will plan to reduce hydraulic flood risk regionally in the period between 2030 and 2050 by a total of:

- 17,999 internal flood risk properties
- 216,074 external flood risk properties

This approach deals with the impact of climate change, growth and urban creep.

The following table summarises the level of risk within the Rural Tyne L2 SPA against the flooding and pollution planning objectives.

Planning Objective	Measure	Count				
		2020	2025	2030	2045	2060
PO1 – Internal Flood Risk	Count of properties at risk of flooding internally during a 1 in 20 year return period rainfall event	1,467	1,470	1,486	2,079	2,203
PO2 – External Flood Risk	Count of properties at risk of flooding externally during a 1 in 20 year return period rainfall event	15,028	15,070	15,170	18,523	19,279
PO3 – 1 in 50 Year Population at Risk	Population at risk of flooding during a 1 in 50 year return period rainfall event	25,484	25,670	25,880	32,451	33,942
PO6 – Pollution	Count of manholes near watercourses at risk of flooding during a 1 in 5 year return period rainfall event	311	309	310	377	392

¹ <https://nic.org.uk/studies-reports/reducing-the-risks-of-surface-water-flooding/surface-water-flooding-final-report/>

Water Industry National Environment Programme (WINEP)

The Water Industry National Environment Programme (WINEP) is the programme of actions water companies need to take to meet statutory environmental obligations, non-statutory environmental requirements or delivery against a water company's statutory functions.

Statutory obligations (S) arise from legislative requirements and the need to comply with obligations imposed directly by statute or by permits, licences and authorisations granted by the Secretary of State, the Environment Agency or other body of competent jurisdiction. Other statutory obligations include ministerial directions and meeting specific planning requirements. While it is important to understand the costs and benefits of actions needed, water companies must complete WINEP actions to fulfil statutory obligations.

Further information can be found at [Water industry national environment programme \(WINEP\) methodology - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/water-industry-national-environment-programme-winep-methodology).

PLANNING OBJECTIVE ASSESSMENT

Planning Objective Risk Scoring

The DWMP planning objectives have been assessed in line with the common scoring approach followed by all water companies.

Risk scores have been calculated at drainage area level, following the approach outlined below. Further detail on how the scores have been calculated for each of the planning objectives is within the Problem Characterisation methodology.

Risk Score	Description
0	Low Risk – Levels of planning objective risk within the drainage area are in the bottom quartile and/or there are no assets identified as higher priority requiring interventions throughout the planning periods.
1	Medium Risk – Levels of planning objective risk within the drainage area are in the middle two quartiles and/or there are assets identified as lower priority requiring interventions throughout the planning periods.
2	High Risk – Levels of planning objective risk within the drainage area are in the top quartile and/or there are assets identified as higher priority requiring interventions throughout the planning periods.

Drainage Area		PO1 – Internal Flood Risk			PO2 – External Flood Risk			PO3 – 1 in 50 Year Population at Risk			PO4 – Bathing Water			PO5 – River Water			PO6 - Pollution			PO8 – WwTW DWF Compliance		
		2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060
01-D16	Elsdon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D01	Heddon on the Wall	2	2	2	2	2	2	2	2	2	0	0	0	1	1	1	0	0	0	0	0	0
03-D02	Harlow Hill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D03	Hexham	2	2	2	1	1	1	1	2	2	0	0	0	2	2	2	1	1	1	0	0	0
03-D04	Anick & Oakwood	2	2	2	2	2	2	2	2	2	0	0	0	1	1	1	0	0	0	0	0	0
03-D05	Corbridge	1	2	2	1	2	2	1	2	2	0	0	0	2	2	2	1	2	2	0	0	0
03-D06	Slaley	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	2	2
03-D07	Hedley on the Hill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D08	Dye House	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D09	Newton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D10	Whittonstall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D11	Broomley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D12	Wooley Hospital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D13	Ordley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D14	Haltwhistle	2	2	2	1	1	1	2	2	2	0	0	0	2	2	2	1	1	1	0	0	0
03-D16	Hatton Lea Gate	1	1	1	1	1	1	2	2	2	0	0	0	0	0	0	2	2	2	0	0	0
03-D17	Melkridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D18	Blenkinsopp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D19	Longbyre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D20	Slaggyford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D21	Rowfoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D22	Lambley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D23	Coanwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D24	Park Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Drainage Area		PO1 – Internal Flood Risk			PO2 – External Flood Risk			PO3 – 1 in 50 Year Population at Risk			PO4 – Bathing Water			PO5 – River Water			PO6 - Pollution			PO8 – WwTW DWF Compliance		
		2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060
03-D25	Knarsdale Town	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D26	Wood Houses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D27	Plenmeller	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D28	Haydon Bridge	2	2	2	2	2	2	2	2	2	0	0	0	2	2	2	2	2	2	0	0	0
03-D29	Allendale Town & Catton	1	1	2	1	2	2	2	2	2	0	0	0	2	2	2	2	2	2	0	2	2
03-D30	Bardon Mill	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
03-D31	Allenheads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D32	Langley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D33	Chesterwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D34	Heugh Cottages	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D35	Bellingham	2	2	2	2	2	2	2	2	2	0	0	0	1	1	1	2	2	2	0	0	0
03-D36	Otterburn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D37	Kielder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D38	West Woodburn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
03-D39	Ridsdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D40	Falstone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D41	Byrness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D42	Greenhaugh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D43	Redesmouth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D44	East Woodburn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D45	Lanehead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D46	Rochester	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D47	Wark	0	1	1	1	2	2	1	2	2	0	0	0	0	0	0	2	2	2	0	0	0
03-D48	Newbrough & Fourstones	2	2	2	2	2	2	2	2	2	0	0	0	1	1	1	1	1	1	0	0	0

Drainage Area		PO1 – Internal Flood Risk			PO2 – External Flood Risk			PO3 – 1 in 50 Year Population at Risk			PO4 – Bathing Water			PO5 – River Water			PO6 - Pollution			PO8 – WwTW DWF Compliance		
		2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060
03-D49	Humshaugh	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	2	2	2	0	0	0
03-D50	Barrasford	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
03-D51	Gunnerton	1	1	1	1	2	2	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0
03-D52	Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D53	Stonhaugh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D54	Simonburn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D55	Warden	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D56	Birtley	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
03-D57	Colwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D58	Hallington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D59	Halton Shields	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D60	Low Midgeholme	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D61	Houghton Castle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D62	Heddon Hall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D63	Alston	2	2	2	2	2	2	2	2	2	0	0	0	2	2	2	2	2	2	0	0	0
03-D64	Nenthead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
03-D65	Garrigill	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	2	2	2	0	0	0
03-D66	The Croft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D67	Tindale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D69	Otterburn Camp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D01	Ebchester	2	2	2	2	2	2	1	2	2	0	0	0	2	2	2	1	1	1	0	0	0
04-D02	Consett & Castleside	1	1	1	1	1	1	1	1	1	0	0	0	2	2	2	1	1	1	0	0	0
04-D03	Dipton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D04	Causey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D05	East Castle South	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

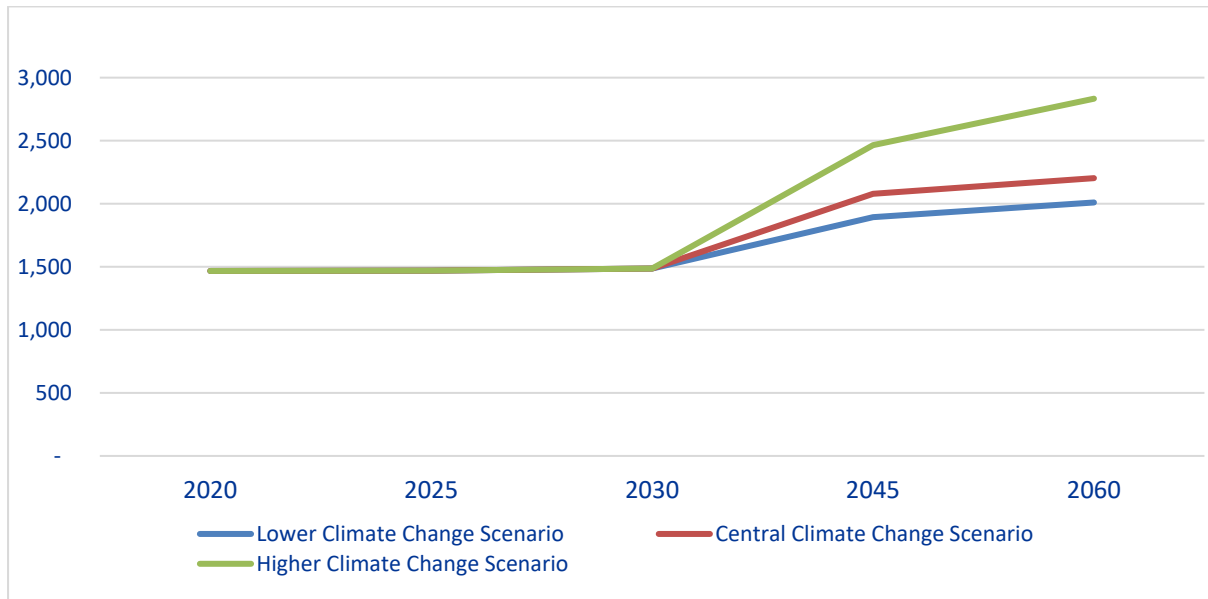
Drainage Area		PO1 – Internal Flood Risk			PO2 – External Flood Risk			PO3 – 1 in 50 Year Population at Risk			PO4 – Bathing Water			PO5 – River Water			PO6 - Pollution			PO8 – WwTW DWF Compliance		
		2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060
04-D06	East Castle North	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D08	Annfield Plain & Stanley	1	2	2	1	1	1	1	1	1	0	0	0	2	2	2	0	1	1	0	0	0
04-D10	Chopwell, Blackhall Mill	1	1	1	1	1	1	1	1	1	0	0	0	2	2	2	0	0	0	0	0	0
04-D11	Birtley	1	2	2	1	1	1	1	1	1	0	0	0	2	2	2	0	0	0	0	0	0
04-D12	Kibblesworth	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0
04-D13	Blanchland	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
04-D14	Hunstanworth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D15	Edmundbyers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D16	Rowlands Gill	1	1	1	1	1	1	1	1	1	0	0	0	2	2	2	1	1	1	0	0	0
04-D17	Coalburns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D18	Derwent View	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Climate Change Sensitivity

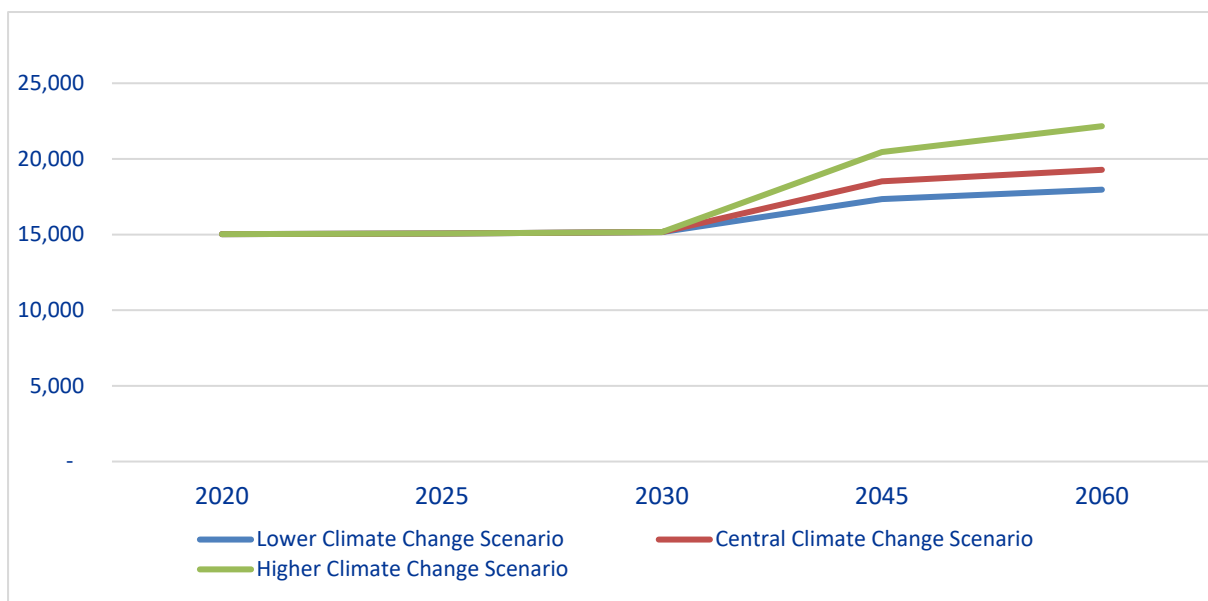
As outlined in the BRAVA methodology, two additional climate scenarios were analysed to evaluate the impact on the planning objectives of Lower Emissions and Higher Emissions climate scenarios.

The following graphics outline the impact on the planning objective risk numbers for the flooding and pollution planning objectives within the Rural Tyne Level 2 SPA in the different climate scenarios that have been modelled.

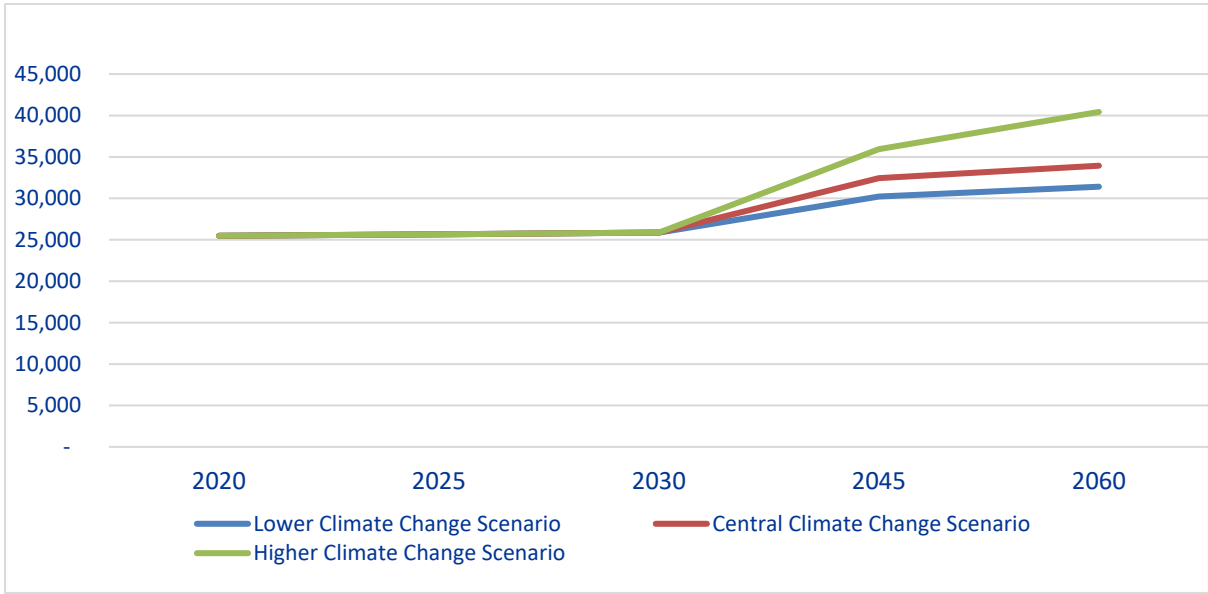
PO1 – Internal Flood Risk – Rural Tyne L2 SPA



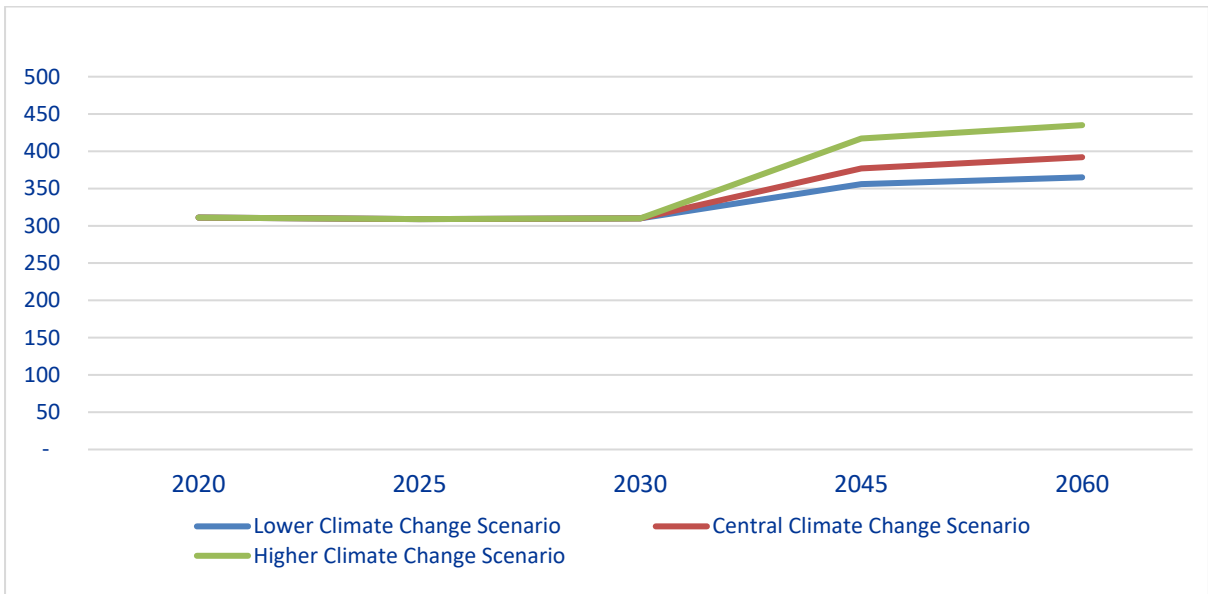
PO2 – External Flood Risk – Rural Tyne L2 SPA



PO3 – 1 in 50 Year Population at Risk – Rural Tyne L2 SPA



PO6 – Pollution – Rural Tyne L2 SPA



Our business plan is based on adaptive planning principles. We begin to use this more and more to think about an uncertain future. This long-term strategy is being developed alongside the long-term planning frameworks – in particular, the well-established Water Resources Management Plan process and the new Drainage and Wastewater Management Plan process.

OPTION DEVELOPMENT

Our Plan for the Rural Tyne L2 SPA

What Are We Doing?

The DWMP has been prepared taking the Best Value options within catchments and also including sustainable options that were not identified as Best Value but did reduce the volume of below-ground storage required within a catchment.

A summary of the interventions that have been included within the DWMP within the Rural Tyne L2 SPA are included within the following tables.

Storm Overflow Discharge Reduction Plan

Intervention Type	2025 to 2030	2030 to 2035	2035 to 2040	2040 to 2045	2045 to 2050
Storm Overflows addressed by Spill Frequency Reduction Schemes	12	7	26	34	37
Storm Overflows requiring Screening Provision Schemes	5	1	19	41	35

Wastewater Treatment Works Compliance

Intervention Type	2025 to 2030	2030 to 2035	2035 to 2040	2040 to 2045	2045 to 2050	2050 to 2055	2055 to 2060
WwTW DWF Compliance – Investigations / Schemes	-	1	-	-	-	-	-
WwTW Quality Compliance – Investigations	4 (P) - (BOD) 2 (Amm)	4 (P) 1 (BOD) 1 (Amm)	- (P) - (BOD) - (Amm)	1 (P) - (BOD) - (Amm)	- (P) - (BOD) - (Amm)	- (P) - (BOD) - (Amm)	- (P) - (BOD) - (Amm)
WwTW Quality Compliance - Schemes	2 (P) - (BOD) 2 (Amm)	3 (P) 1 (BOD) - (Amm)	3 (P) - (BOD) 1 (Amm)	- (P) - (BOD) - (Amm)	1 (P) - (BOD) - (Amm)	- (P) - (BOD) - (Amm)	- (P) - (BOD) - (Amm)

Long-Term Delivery Strategy – Flooding and Pollution

The Government's 25 Year Environment Plan (25YEP) requires us to invest to:

- Reduce nitrogen and phosphorus pollution, through catchment and nature-based solutions where possible.
- Improve drainage and environmental water quality, and reduce surface water flooding risk, through our Drainage and Wastewater Management Plan (DWMP).

Our long term delivery strategy sets out our ambition to continue to reduce sewer flooding over the next 25 years. Our plan sets out how we will match the 25YEP by reducing internal and external sewer flooding by 60% by 2050.

Water Industry National Environment Programme (WINEP)

We have included proposals in our Business Plan for a number of schemes to be delivered between 2025 and 2030 to meet our statutory and non-statutory obligations and functions. The schemes that are proposed will deliver improvements against the drivers that are included in the following table.

WINEP Driver Code	Description
EnvAct_IMP1	Actions to Reduce phosphorus loading from treated wastewater by 80% by 2037 against a 2020 baseline
EnvAct_IMP3	Improvements to reduce storm overflows that spill to designated bathing waters to protect public health.
EnvAct_IMP4	Improvements to reduce storm overflows spills so that they do not discharge above an average of 10 rainfall events per year by 2050.
25YEP_IMP	Locally significant environmental measures not eligible under any other driver, but with clear evidence of customer support.
HD_IMP_NN	Actions to reduce total phosphorus and/or total nitrogen levels to the Technically Achievable Limit (TAL) from discharges which drain to catchments where Nutrient Neutrality is advised.
HD_IMP	Action to contribute to restoration of a European site or Ramsar site to move towards meeting the conservation objectives.
U_IMP1	Actions to improve discharges from agglomerations that, through population growth, have crossed the population thresholds in the UWWTR and therefore must achieve more stringent UWWTR requirements. This includes newly qualifying discharges (from agglomerations >10,000pe) within existing sensitive areas. This includes discharges of >2,000 pe to fresh waters and estuaries and discharges >10,000 pe to coastal waters, as well as discharges >10,000 pe and 100,000 pe to Sensitive Areas.

The full list of schemes that are proposed within the Rural Tyne L2 area can be found at the end of this document.

How Much Does Our Plan Cost?

The following table summarises the costs that are included within the DWMP for the delivery of the identified interventions. The costs shown in the table are £million.

Intervention Type	2025 to 2030	2030 to 2035	2035 to 2040	2040 to 2045	2045 to 2050	2050 to 2055	2055 to 2060
Storm Overflow Spill Frequency Reduction Schemes	34.68	45.33	30.64	103.73	35.86	-	-

Screening Provision Schemes	3.70	0.07	4.80	8.52	8.42	-	-
-----------------------------	------	------	------	------	------	---	---

Long-Term Delivery Strategy for Flooding

It is anticipated that we will achieve our flood risk reduction targets in a number of ways. For example,

- Working in partnership with others in the Northumbria Integrated Drainage Partnership
- Working with customers and communities for the widescale disconnection of roof drainage from the combined sewer network
- Implementing source control via sustainable drainage measures (SuDS) including wetland creation
- Implementing SMART networks throughout the region
- Disconnecting highway runoff from the combined sewer network
- Working with others to implement permeable pathing and roadways schemes.

We have estimated that the cost of achieving our ambitious targets will be £1 billion between 2030 and 2050. We will seek customer support for investment to achieve these targets.

The following table summarises the level of risk within the Wear L2 SPA for the flooding planning objectives following the implementation of the Long-Term Delivery Strategy for flooding.

Planning Objective	Measure	Count				
		2020	2025	2030	2045	2060
PO1 – Internal Flood Risk	Count of properties at risk of flooding internally during a 1 in 20 year return period rainfall event	1,467	1,470	1,486	734	439
PO2 – External Flood Risk	Count of properties at risk of flooding externally during a 1 in 20 year return period rainfall event	15,028	15,070	15,170	4,455	1,956

Planning Objective Risk Scoring

The planning objective risk scores have been evaluated with the proposed DWMP interventions delivered.

Drainage Area		PO1 – Internal Flood Risk			PO2 – External Flood Risk			PO3 – 1 in 50 Year Population at Risk			PO4 – Bathing Water			PO5 – River Water			PO6 - Pollution			PO8 – WwTW DWF Compliance		
		2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060
01-D16	Elsdon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D01	Heddon on the Wall	2	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0
03-D02	Harlow Hill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D03	Hexham	2	0	0	1	0	0	1	0	1	0	0	0	2	0	0	1	1	1	0	0	0
03-D04	Anick & Oakwood	2	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0
03-D05	Corbridge	1	0	0	1	0	0	1	1	1	0	0	0	2	0	0	1	2	2	0	0	0
03-D06	Slaley	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
03-D07	Hedley on the Hill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D08	Dye House	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D09	Newton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D10	Whittonstall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D11	Broomley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D12	Wooley Hospital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D13	Ordley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D14	Haltwhistle	2	0	1	1	0	0	2	0	0	0	0	0	2	0	0	1	1	1	0	0	0
03-D16	Hatton Lea Gate	1	0	0	1	0	0	2	2	2	0	0	0	0	0	0	2	2	2	0	0	0
03-D17	Melkridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D18	Blenkinsopp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D19	Longbyre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D20	Slaggyford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D21	Rowfoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D22	Lambley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D23	Coanwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D24	Park Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Drainage Area		PO1 – Internal Flood Risk			PO2 – External Flood Risk			PO3 – 1 in 50 Year Population at Risk			PO4 – Bathing Water			PO5 – River Water			PO6 - Pollution			PO8 – WwTW DWF Compliance		
		2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060
03-D25	Knarsdale Town	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D26	Wood Houses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D27	Plenmeller	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D28	Haydon Bridge	2	0	1	2	0	0	2	1	1	0	0	0	2	0	0	2	2	2	0	0	0
03-D29	Allendale Town & Catton	1	0	1	1	0	0	2	1	1	0	0	0	2	0	0	2	2	2	0	0	0
03-D30	Bardon Mill	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
03-D31	Allenheads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D32	Langley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D33	Chesterwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D34	Heugh Cottages	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D35	Bellingham	2	0	0	2	0	0	2	1	1	0	0	0	1	1	0	2	2	2	0	0	0
03-D36	Otterburn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D37	Kielder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D38	West Woodburn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
03-D39	Ridsdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D40	Falstone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D41	Byrness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D42	Greenhaugh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D43	Redesmouth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D44	East Woodburn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D45	Lanehead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D46	Rochester	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D47	Wark	0	0	0	1	1	1	1	1	2	0	0	0	0	0	0	2	2	2	0	0	0
03-D48	Newbrough & Fourstones	2	0	0	2	0	0	2	1	1	0	0	0	1	1	0	1	1	1	0	0	0

Drainage Area		PO1 – Internal Flood Risk			PO2 – External Flood Risk			PO3 – 1 in 50 Year Population at Risk			PO4 – Bathing Water			PO5 – River Water			PO6 - Pollution			PO8 – WwTW DWF Compliance		
		2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060
03-D49	Humshaugh	2	0	0	2	0	0	2	1	1	0	0	0	0	0	0	2	2	2	0	0	0
03-D50	Barrasford	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
03-D51	Gunnerton	1	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
03-D52	Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D53	Stonhaugh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D54	Simonburn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D55	Warden	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D56	Birtley	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
03-D57	Colwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D58	Hallington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D59	Halton Shields	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D60	Low Midgeholme	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D61	Houghton Castle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D62	Heddon Hall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D63	Alston	2	0	2	2	0	0	2	0	0	0	0	0	2	1	0	2	2	2	0	0	0
03-D64	Nenthead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D65	Garrigill	2	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	2	2	0	0	0
03-D66	The Croft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D67	Tindale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-D69	Otterburn Camp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D01	Ebchester	2	0	1	2	0	0	1	0	0	0	0	0	2	0	0	1	1	1	0	0	0
04-D02	Consett & Castleside	1	0	0	1	0	0	1	1	1	0	0	0	2	0	0	1	1	1	0	0	0
04-D03	Dipton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D04	Causey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D05	East Castle South	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Drainage Area		PO1 – Internal Flood Risk			PO2 – External Flood Risk			PO3 – 1 in 50 Year Population at Risk			PO4 – Bathing Water			PO5 – River Water			PO6 - Pollution			PO8 – WwTW DWF Compliance		
		2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060	2020	2045	2060
04-D06	East Castle North	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D08	Annfield Plain & Stanley	1	0	0	1	0	0	1	0	1	0	0	0	2	1	0	0	1	1	0	0	0
04-D10	Chopwell, Blackhall Mill	1	0	0	1	0	0	1	1	1	0	0	0	2	0	0	0	0	0	0	0	0
04-D11	Birtley	1	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
04-D12	Kibblesworth	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0
04-D13	Blanchland	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04-D14	Hunstanworth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D15	Edmundbyers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D16	Rowlands Gill	1	0	0	1	0	0	1	1	1	0	0	0	2	0	0	1	1	1	0	0	0
04-D17	Coalburns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-D18	Derwent View	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CONCLUDING COMMENTS

Our DWMP forms part of our long-term delivery strategy. As we go about this, we will need to review our progress and adapt our future plans to take into account changing circumstances. These include how customer views about priorities and affordability evolve; new technologies that emerge; how supply chain capacity develops; changes in weather patterns; and customer behaviour changes.

Setting a long-term delivery strategy allows us to seek early certainty on the investment we do not expect to change, while acknowledging these factors could mean choosing different pathways in future. We will consider those choices as and when we update our DWMP and at subsequent price reviews, which take place every five years. At each point we update our DWMP, we will look further into the future to maintain a 40-year outlook on these issues.

Our PR24 business plan, covering 2025-30, will include projects to drive better, more efficient, and nature-based solutions to tackling drainage and storm overflows in the future.

CONTACTING US

To view our DWMP, please go to our website at: www.nwl.co.uk/dwmp.

To contact us:

Go to the Contact Us page at: [Contact us \(nwl.co.uk\)](http://www.nwl.co.uk/contact-us)

Or you can call our Head Office switchboard on 0345 604 7468.

Our phone lines are open from 8:00am to 5:00pm, Monday to Friday.

Feel free to write to us at:

Northumbrian Water Limited

Northumbria House

Abbey Road

Pity Me

Durham

DH1 5FJ

AMP8 WINEP SCHEMES IN RURAL TYNE L2 DRAINAGE AREAS

Action Name	Primary Driver Code	Benefitting WFD Waterbody	Drainage Area Reference	Drainage Area Name
Lockhaugh STW Phosphorus	EnvAct_IMP1	GB103023074790 (Derwent from Burnhope Burn to River Tyne Water Body)	04-D01	Ebchester
Lockhaugh STW Phosphorus	EnvAct_IMP1	GB103023074790 (Derwent from Burnhope Burn to River Tyne Water Body)	04-D02	Consett & Castleside
Lockhaugh STW Phosphorus	EnvAct_IMP1	GB103023074790 (Derwent from Burnhope Burn to River Tyne Water Body)	04-D10	Chopwell, Blackhall Mill
Lockhaugh STW Phosphorus	EnvAct_IMP1	GB103023074790 (Derwent from Burnhope Burn to River Tyne Water Body)	04-D16	Rowlands Gill