
This publication was withdrawn on 20 October 2022

We have withdrawn this document because these maps have been superseded.

Flood Risk Maps

Risk of Flooding from Rivers and Sea - Northumbria River Basin District

Why have we produced these maps – what can they be used for?

The Flood Risk Regulations require the Environment Agency to publish Flood Risk Maps by December 2013 and review them every six years. A series of Flood Risk Maps have been produced reflecting the different sources of flooding in each River Basin District. These will be used by the Environment Agency to inform the production of Flood Risk Management Plans.

What do the Risk Maps show?

The Risk of Flooding from Rivers and Sea Maps have been generated from the National Flood Risk Assessment (NaFRA) and our National Receptor Dataset (NRD). There are three maps showing what is at risk of flooding (Risk to People, Risk to Economic Activity and Risk to Natural and Historic Environment). We have also tabulated the receptors at risk for each Management Catchment and the total for the River Basin District.

This document contains the Risk of Flooding from Rivers and Sea Maps for the Northumbria River Basin District as shown in the figure below:



Risk to People Map

This map shows the number of inhabitants that could be affected by rivers and sea flooding and the potential impact on the services that they use.

People at Risk

The number of people at risk of flooding has been calculated using guidance from the Office for National Statistics General Lifestyle Survey, 2011. The circles on the map (representing the number of people affected by flooding) are located in the middle of the defined built-up area. Therefore they do not pinpoint exact areas at risk of flooding but instead offer a representation of the overall risk of flooding in that built-up area. (Source: OS MasterMap® Address Layer 2 and OS MasterMap® Topography Layer)

Services

These include schools, hospitals, nursing/care/retirement homes, police stations, fire and ambulance stations, prisons, sewerage treatment works and electricity installations. Only those in areas at risk of flooding are shown on the map.

(Source: OS MasterMap® Address Layer 2 and OS MasterMap® Topography Layer)

Built up areas

These represent urban areas and settlements as defined by the Office for National Statistics (ONS). All built-up areas are shown on the map for context - reporting is only provided for the number of people in these built-up areas at risk of flooding, rather than the area of land itself.

(Source: Office for National Statistics 2011 Built-Up Areas)

Risk to Economic Activity Map

This map shows the type of economic activity in the area potentially affected by flooding. All economic activity is shown on the map - viewed together with the flooding information, it shows what is at risk.

Airports

All principal airports serving the United Kingdom, Europe and beyond are displayed on the map.

(Source: Ordnance Survey Strategi®)

Railways

Main railway lines are displayed on the map. (Source: Ordnance Survey Meridian™2)

Roads

Motorways, primary and trunk routes are displayed on the map, as classified by the Highways Agency. These are reported in the tables as a single class.

(Source: OS MasterMap® Integrated Transport Network™ (ITN))

Non-Residential Properties

Property points have been classified according to their function and all residential properties excluded.

(Source: OS MasterMap® Address Layer 2 and OS MasterMap® Topography Layer)

Agricultural Land Classification

The Agricultural Land Classification (ALC) of England and Wales is a method for assessing the quality of farmland. Agricultural land is classified into five grades. Grade one is best quality and grade five is poorest quality. The map shows the best and most versatile land - Grades 1, 2 and 3.

(Source: Natural England)

Risk to Natural and Historic Environment Map

This map shows protected areas that may be affected in the event of flooding, and other sites where the risk of pollution may be increased in the event of flooding. To keep the map as clear as possible, only internationally designated environmental sites have been displayed on the map. Other designations have been included in the tables.

Special Areas of Conservation (SACs)

Land designated under Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora. All SACs are shown on the map regardless of risk.

(Source: Natural England)

Special Protection Areas (SPAs)

Land classified under directive 79/409 on the Conservation of Wild Birds. All SPAs are shown on the map regardless of risk. (Source: *Natural England*)

Ramsar Sites

Land listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. All Ramsar Sites are shown on the map regardless of risk. (Source: *Natural England*)

World Heritage Sites

World Heritage Sites are defined in World Heritage Convention as 'places of outstanding universal value from the point of view of art, history, science or natural beauty'. A Heritage World Convention was drawn up and adopted by UNESCO in 1972 to identify cultural and natural properties throughout the world whose protection would be of concern to the international community. All World Heritage Sites are shown on the map regardless of risk. (Source: *English Heritage*)

Bathing Waters

Bathing waters are shown on the map where they may be adversely affected by heavy rainfall and are within 50m of surface water flood risk. (Source: *Environment Agency*)

Environmental Permitting Regulations (EPR) Installations

EPR installations range from refineries to breweries and from intensive pig farms to cement works. Each installation has a permit to limit emissions of pollutants to air, water or land. Only active EPR installations within 50m of surface water flood risk have been included on the map. (Source: *Environment Agency Pollution Inventory*)

Sites of Special Scientific Interest (SSSIs)

Land notified as an SSSI under the Wildlife and Countryside Act (1981), as amended. (Source: *Natural England*)

Parks and Gardens

The Register of Parks and Gardens of Special Historic Interest serves to ensure that the features and qualities which make these landscapes of national importance can be safeguarded. Inclusion of a historic park or garden on the Register in itself does not bring additional statutory controls, but the Register is recognised as a 'material consideration' in the planning process. (Source: *English Heritage*)

Scheduled Ancient Monuments

Scheduling is a shorthand term used to refer to the legal system for protecting and conserving nationally important archaeological sites in the United Kingdom. Sites identified for scheduling are designated by the Secretary of State as 'scheduled monuments'. Once a site is scheduled, consent must be obtained from the Secretary of State for any works which affect it. (Source: *English Heritage*)

Listed Buildings

A listed building is a building which has been placed on the Statutory List of Buildings of Special Architectural or Historic Interest. It is a widely used status, applied to around half a million buildings. There are three grades of listed building. (Source: *English Heritage*)

Licensed Abstractions

An abstraction licence allocates an exclusive right to take a certain quantity of water from a source of supply (inland water such as rivers or streams or an underground source). An abstraction licence does not guarantee the quality of the water or that the amount authorised for abstraction will always be available. (Source: *Environment Agency National Abstraction Licensing Database (NALD)*)

Explaining Flood Risk Classifications

The risk categories are consistent across all of the maps.

High risk means that each year, there is a chance of flooding of greater than 1 in 30 (3.3%).

Medium risk means that each year, there is a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%).

Low risk means that each year, there is a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%).

Very low risk means that each year, there is a chance of flooding of less than 1 in 1000 (0.1%)

Reporting Boundaries used on maps and for tabular statistics

The figures quoted for the River Basin District may not be the same as the total of all the Management Catchments. This is because River Basin Districts also include adjacent transitional and coastal waters.

River Basin Districts (RBDs)

Under the requirements of the Floods Directive, reporting is at the River Basin District level. There are 11 River Basin Districts that are partly or fully in England and Wales. These River Basin Districts are the same as those used by the Water Framework Directive for the river basin planning process. A river basin is the area of land from which all surface run-off and spring water flows through a sequence of streams, lakes and rivers into the sea at a single river mouth, estuary or delta. It comprises one or more individual catchments. A River Basin District is made up of one or several river basins, together with associated coastal waters.

Management Catchments

A catchment is an area with several, often interconnected, water bodies (rivers, lakes, groundwater and coastal waters). Many of the problems facing our water environments are best understood and tackled at a catchment level. There are 101 Management Catchments across the 11 River Basin Districts.

Further Information

Visit our [web pages](#) to check your flood risk and for information on how to prepare for flooding.

What other maps have been produced?

A series of Flood Risk Maps have been produced for different sources of flooding in each River Basin District. The Flood Risk Regulations require that we produce surface water flood risk maps for Flood Risk Areas. Not every River Basin District includes a Flood Risk Area.

	River Basin Districts	Rivers & sea	Reservoirs	Surface water
1	Anglian	✓	✓	✓
2	Dee	✓	✓	
3	Humber	✓	✓	✓
4	North West	✓	✓	✓
5	Northumbria	✓	✓	
6	Severn	✓	✓	✓
7	Solway Tweed	✓	✓	
8	South East	✓	✓	✓
9	South West	✓	✓	
10	Thames	✓	✓	✓
11	Western Wales	✓	✓	



Copyright Statements

© Environment Agency copyright and/or database right 2013. All rights reserved.

These maps are reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Environment Agency, 100026380, 2013.

Copyright resides with the data suppliers and the maps must not be reproduced without their permission:

River Basin Districts and Management Catchment

Some features of these maps are based on digital spatial data licensed from the Centre of Ecology and Hydrology, © CEH.

Agricultural Land Classification, Special Areas of Conservation, Special Protection Areas and Ramsar

© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2013

World Heritage Sites

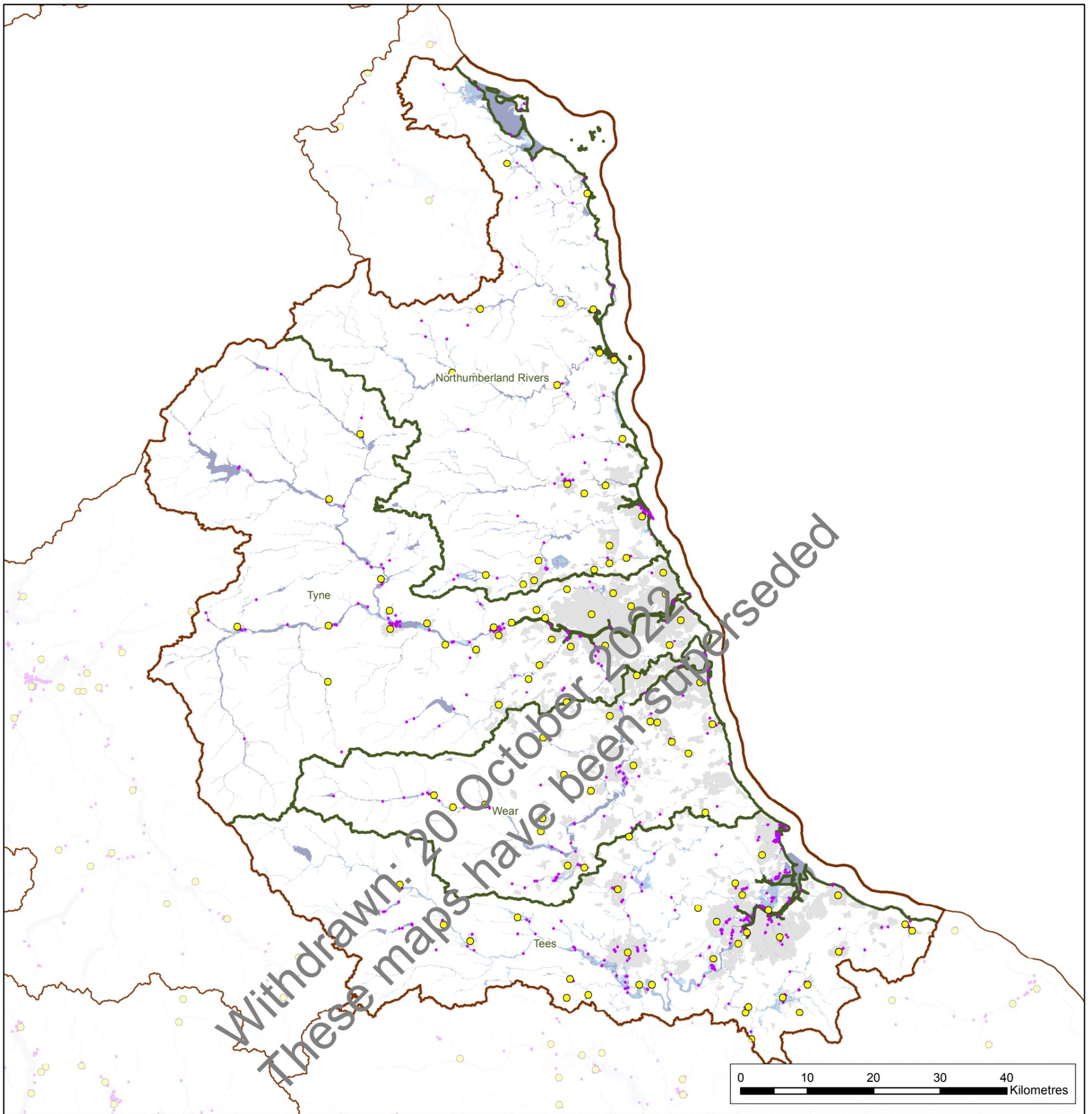
World Heritage Sites are provided solely to indicate the location of the designated area. Title, copyright and all other proprietary rights remain vested in English Heritage.

customer service line
03708 506 506

incident hotline
0800 80 70 60

floodline
0845 988 1188

www.environment-agency.gov.uk



Rivers and Sea Flood Risk Map

Northumbria River Basin District

Risk to People

Flood Risk Source

Rivers and Sea

-  High
-  Medium
-  Low
-  Very Low

People at Risk

-  0 - 1000
-  1001 - 5000
-  5001 +

Reporting Boundaries

-  River Basin District
-  River Basin Districts (Neighbouring)
-  Management Catchment

-  Services at Risk
-  Built-up Areas



© Environment Agency copyright and/or database right 2013. All rights reserved.

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Environment Agency, 100026380, 2013.

Copyright resides with the data suppliers (see coversheet for details) and the map must not be reproduced without their permission. Some information is a snapshot of information that is being maintained or continually updated by the originating organisation.

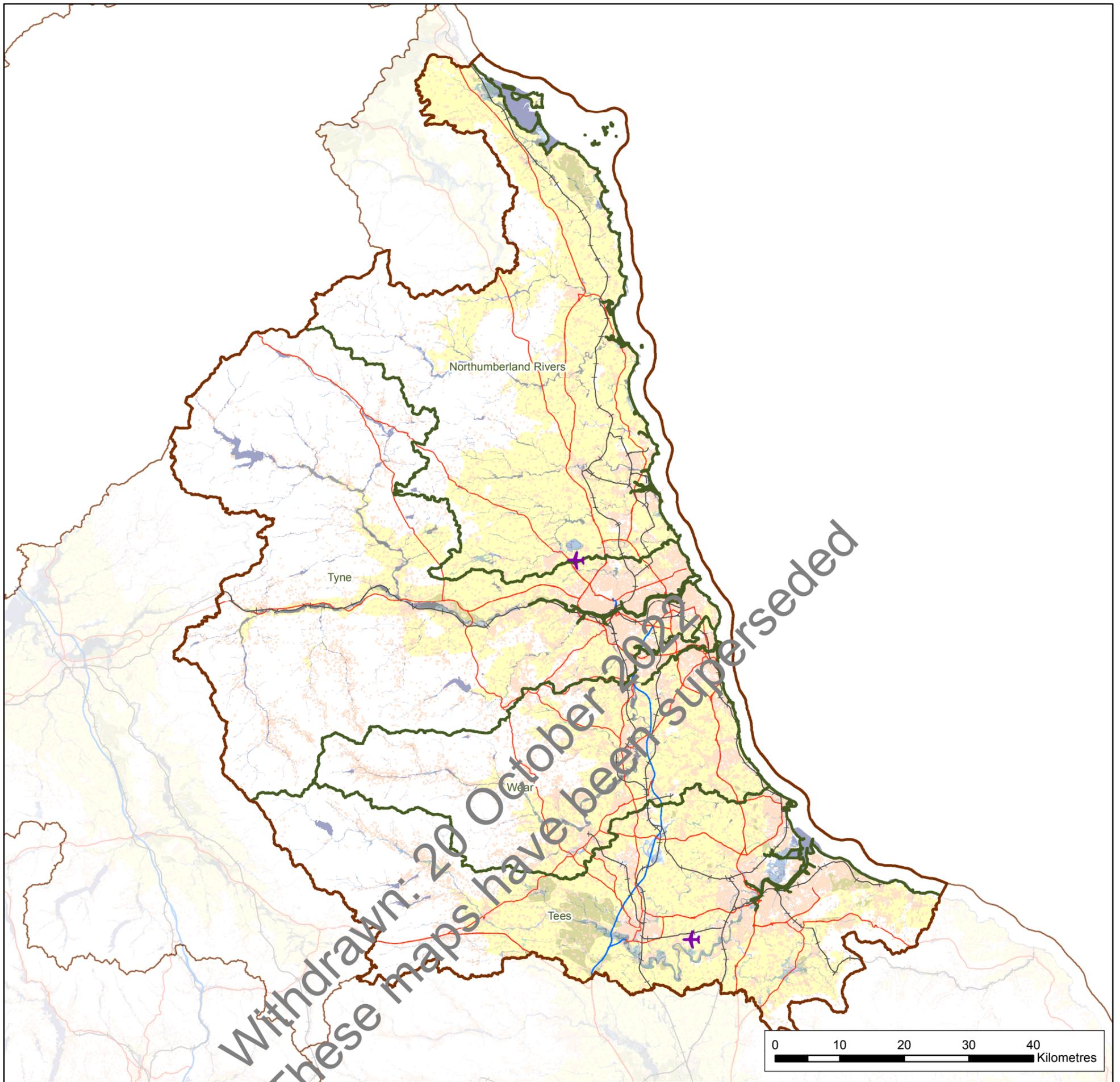
Contact Us: National Customer Contact Centre, PO Box 54, Rotherham, S60 1BY. Telephone: 03708 506 506 (Mon to Fri, 8am to 6pm). Email address: enquiries@environment-agency.gov.uk

Tables showing what is at risk of flooding from rivers and sea in the Northumbria River Basin District:

People					
Defined Area	Number of people in defined area	Number of people in defined area at high risk	Number of people in defined area at medium risk	Number of people in defined area at low risk	Number of people in defined area at very low risk
River Basin District					
Northumbria	2,786,719	6,303	12,911	24,048	49
Management Catchment					
Northumberland Rivers	277,396	2,792	2,681	4,778	5
Tees	811,549	1,706	7,454	11,221	40
Tyne	1,039,367	1,090	1,582	3,680	2
Wear	657,972	712	1,173	4,331	2

Services					
Defined Area	Number of sites in defined area	Number of sites in defined area at high risk	Number of sites in defined area at medium risk	Number of sites in defined area at low risk	Number of sites in defined area at very low risk
River Basin District					
Northumbria	4,687	80	75	95	0
Management Catchment					
Northumberland Rivers	827	26	12	14	0
Tees	1,373	16	47	46	0
Tyne	1,464	24	20	18	0
Wear	1,010	11	6	14	0

Withdrawn: 20 October 2022
 These maps have been superseded



Rivers and Sea Flood Risk Map

Northumbria River Basin District

Risk to Economic Activity

Flood Risk Source

Rivers and Sea

-  High
-  Medium
-  Low
-  Very Low

Economic Activity

-  Airports
-  Main Line Railways
-  Motorway
-  Other Primary / Trunk Roads
-  Non-residential Properties

Reporting Boundaries

-  River Basin District
-  River Basin Districts (Neighbouring)
-  Management Catchment

Agricultural Land Classification

-  Grade 1
-  Grade 2
-  Grade 3



© Environment Agency copyright and/or database right 2013. All rights reserved.

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Environment Agency, 100026380, 2013.

Copyright resides with the data suppliers (see coversheet for details) and the map must not be reproduced without their permission. Some information is a snapshot of information that is being maintained or continually updated by the originating organisation.

Contact Us: National Customer Contact Centre, PO Box 54, Rotherham, S60 1BY. Telephone: 03708 506 506 (Mon to Fri, 8am to 6pm). Email address: enquiries@environment-agency.gov.uk

Tables showing what is at risk of flooding from rivers and sea in the Northumbria River Basin District:

Non Residential Properties					
Defined Area	Number of properties in defined area	Number of properties in defined area at high risk	Number of properties in defined area at medium risk	Number of properties in defined area at low risk	Number of properties in defined area at very low risk
River Basin District					
Northumbria	223,770	2,198	3,667	4,323	13
Management Catchment					
Northumberland Rivers	32,260	630	529	613	4
Tees	75,048	204	2,151	1,771	6
Tyne	67,755	722	582	1,269	3
Wear	48,476	541	391	649	0

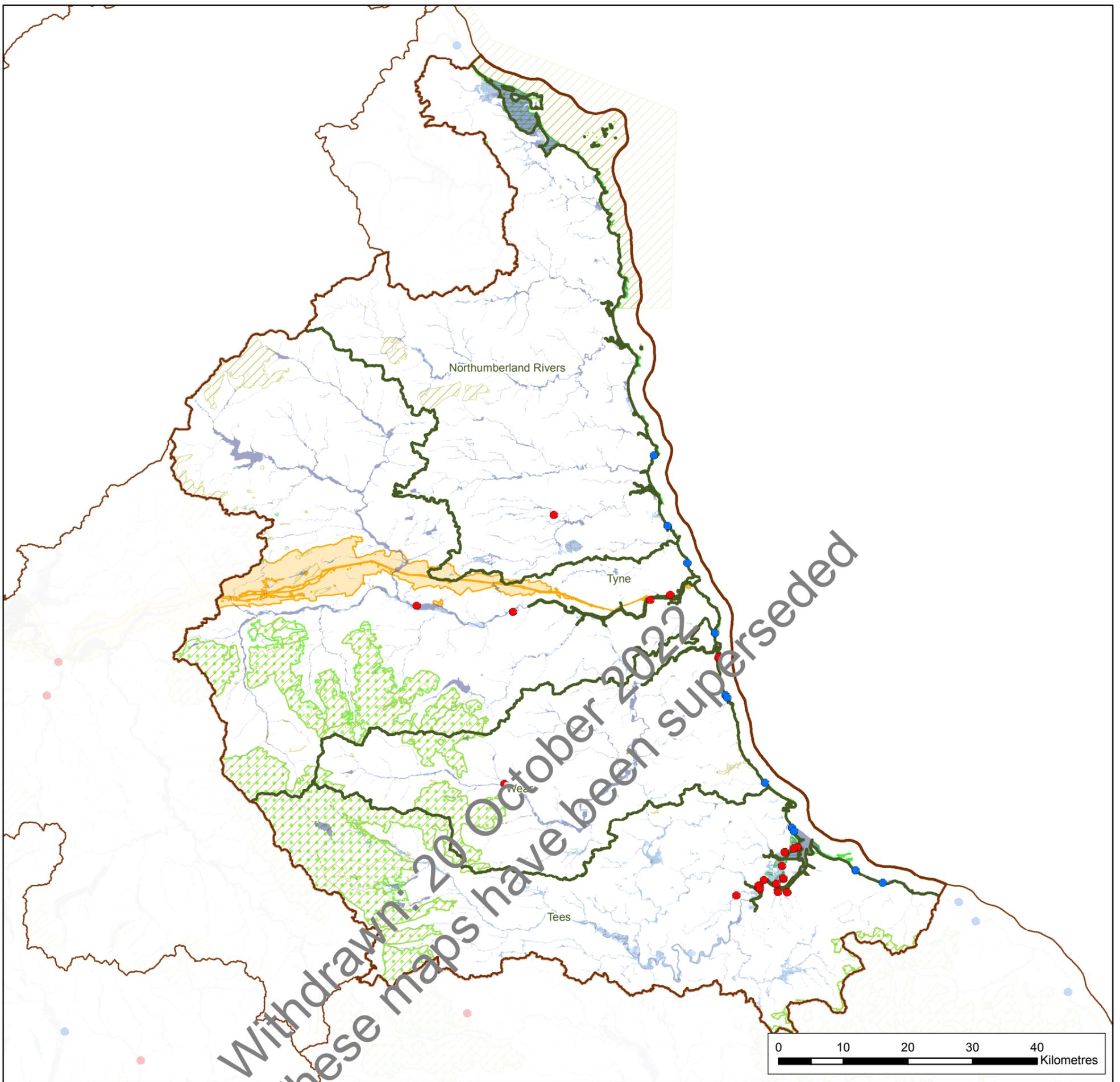
Airports					
Defined Area	Number of airports in defined area	Number of airports in defined area at high risk	Number of airports in defined area at medium risk	Number of airports in defined area at low risk	Number of airports in defined area at very low risk
River Basin District					
Northumbria	2	0	0	0	0
Management Catchment					
Northumberland Rivers	1	0	0	0	0
Tees	1	0	0	0	0
Tyne	0	0	0	0	0
Wear	0	0	0	0	0

Roads					
Defined Area	Length of roads (km) in defined area	Length of roads (km) in defined area at high risk	Length of roads (km) in defined area at medium risk	Length of roads (km) in defined area at low risk	Length of roads (km) in defined area at very low risk
River Basin District					
Northumbria	1,551	13	17	30	0
Management Catchment					
Northumberland Rivers	933	4	2	3	0
Tees	2,347	1	10	14	0
Tyne	2,137	4	3	9	0
Wear	2,264	2	2	3	0

Railways					
Defined Area	Length of railways (km) in defined area	Length of railways (km) in defined area at high risk	Length of railways (km) in defined area at medium risk	Length of railways (km) in defined area at low risk	Length of railways (km) in defined area at very low risk
River Basin District					
Northumbria	540	12	15	21	0
Management Catchment					
Northumberland Rivers	58	1	6	3	0
Tees	106	1	6	6	0
Tyne	114	1	1	11	0
Wear	30	1	2	1	0

Agricultural Land (Grades 1, 2 & 3)					
Defined Area	Area of agricultural land (hectares) in defined area	Area of agricultural land (hectares) in defined area at high risk	Area of agricultural land (hectares) in defined area at medium risk	Area of agricultural land (hectares) in defined area at low risk	Area of agricultural land (hectares) in defined area at very low risk
River Basin District					
Northumbria	359,390	10,584	7,303	5,537	16
Management Catchment					
Northumberland Rivers	130,542	3,402	2,032	1,382	5
Tees	109,400	1,066	3,884	1,854	8
Tyne	59,942	3,365	1,114	1,306	2
Wear	58,781	2,119	669	788	1

Withdrawn: 20 October 2022
 These maps have been superseded



Rivers and Sea Flood Risk Map

Northumbria River Basin District

Risk to the Natural and Historic Environment

Flood Risk Source

Rivers and Sea

- High
- Medium
- Low
- Very Low

Internationally Designated Sites

- Bathing Waters that may be adversely affected by heavy rainfall and are within 50m of flood risk
- EPR (Environmental Permitting Regulations) Installations within 50m of Risk

Reporting Boundaries

- River Basin District
- River Basin Districts (Neighbouring)
- Management Catchment

- Special Areas of Conservation
- Special Protection Areas
- RAMSAR Sites
- World Heritage Sites



© Environment Agency copyright and/or database right 2013. All rights reserved.

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Environment Agency, 100026380, 2013.

Copyright resides with the data suppliers (see coversheet for details) and the map must not be reproduced without their permission. Some information is a snapshot of information that is being maintained or continually updated by the originating organisation.

Contact Us: National Customer Contact Centre, PO Box 54, Rotherham, S60 1BY. Telephone: 03708 506 506 (Mon to Fri, 8am to 6pm). Email address: enquiries@environment-agency.gov.uk

Tables showing what is at risk of flooding from rivers and sea in the Northumbria River Basin District:

Bathing Waters that may be adversely affected by heavy rainfall					
Defined Area	Number of bathing water sites in defined area	Number of bathing water sites in defined area within 50m of high risk	Number of bathing water sites in defined area within 50m of medium risk	Number of bathing water sites in defined area within 50m of low risk	Number of bathing water sites in defined area within 50m of very low risk
River Basin District					
Northumbria	15	11	0	0	0
Management Catchment					
Northumberland Rivers	1	1	0	0	0
Tees	0	0	0	0	0
Tyne	0	0	0	0	0
Wear	0	0	0	0	0

Environmental Permitting Regulations (EPR) Installations					
Defined Area	Number of EPR Installations in defined area	Number of EPR Installations in defined area within 50m of high risk	Number of EPR Installations in defined area within 50m of medium risk	Number of EPR Installations in defined area within 50m of low risk	Number of EPR Installations in defined area within 50m of very low risk
River Basin District					
Northumbria	183	5	15	4	0
Management Catchment					
Northumberland Rivers	12	0	1	1	0
Tees	125	2	1	1	0
Tyne	31	1	1	1	0
Wear	15	2	1	1	0

Special Areas of Conservation (SAC)					
Defined Area	Area of SAC (hectares) in defined area	Area of SAC (hectares) in defined area at high risk	Area of SAC (hectares) in defined area at medium risk	Area of SAC (hectares) in defined area at low risk	Area of SAC (hectares) in defined area at very low risk
River Basin District					
Northumbria	118,981	5,007	682	260	1
Management Catchment					
Northumberland Rivers	4,198	417	136	96	0
Tees	39,202	384	338	99	1
Tyne	41,971	221	165	41	1
Wear	11,772	59	41	12	0

Special Protection Areas (SPA)					
Defined Area	Area of SPA (hectares) in defined area	Area of SPA (hectares) in defined area at high risk	Area of SPA (hectares) in defined area at medium risk	Area of SPA (hectares) in defined area at low risk	Area of SPA (hectares) in defined area at very low risk
River Basin District					
Northumbria	9,052	5,484	771	210	1
Management Catchment					
Northumberland Rivers	770	329	51	28	0
Tees	40,645	608	535	124	1
Tyne	38,498	118	140	31	0
Wear	11,443	66	31	7	0

Ramsar					
Defined Area	Area of Ramsar (hectares) in defined area	Area of Ramsar (hectares) in defined area at high risk	Area of Ramsar (hectares) in defined area at medium risk	Area of Ramsar (hectares) in defined area at low risk	Area of Ramsar (hectares) in defined area at very low risk
River Basin District					
Northumbria	6,095	4,955	247	6	0
Management Catchment					
Northumberland Rivers	730	226	5	28	0
Tees	573	219	182	21	0
Tyne	143	19	0	0	0
Wear	39	28	0	0	0

World Heritage Sites (WHS)					
Defined Area	Area of WHS (hectares) in defined area	Area of WHS (hectares) in defined area at high risk	Area of WHS (hectares) in defined area at medium risk	Area of WHS (hectares) in defined area at low risk	Area of WHS (hectares) in defined area at very low risk
River Basin District					
Northumbria	23,108	394	164	115	0
Management Catchment					
Northumberland Rivers	961	0	20	2	0
Tees	0	0	0	0	0
Tyne	22,138	393	144	113	0
Wear	9	0	0	0	0

Sites of Special Scientific Interest (SSSI)					
Defined Area	Area of SSSI (hectares) in defined area	Area of SSSI (hectares) in defined area at high risk	Area of SSSI (hectares) in defined area at medium risk	Area of SSSI (hectares) in defined area at low risk	Area of SSSI (hectares) in defined area at very low risk
River Basin District					
Northumbria	124,662	8,049	1,418	579	2
Management Catchment					
Northumberland Rivers	9,668	1,207	465	250	0
Tees	42,659	635	613	170	1
Tyne	53,365	367	253	89	1
Wear	12,739	127	63	34	0

Parks and Gardens					
Defined Area	Area of parks and gardens (hectares) in defined area	Area of parks and gardens (hectares) in defined area at high risk	Area of parks and gardens (hectares) in defined area at medium risk	Area of parks and gardens (hectares) in defined area at low risk	Area of parks and gardens (hectares) in defined area at very low risk
River Basin District					
Northumbria	6,226	403	104	139	0
Management Catchment					
Northumberland Rivers	3,032	177	43	52	0
Tees	1,077	20	33	28	0
Tyne	691	60	6	13	0
Wear	1,423	144	22	45	0

Tables showing what is at risk of flooding from rivers and sea in the Northumbria River Basin District:

Scheduled Ancient Monuments					
Defined Area	Area of Scheduled Ancient Monuments (hectares) in defined area	Area of Scheduled Ancient Monuments (hectares) in defined area at high risk	Area of Scheduled Ancient Monuments (hectares) in defined area at medium risk	Area of Scheduled Ancient Monuments (hectares) in defined area at low risk	Area of Scheduled Ancient Monuments (hectares) in defined area at very low risk
River Basin District					
Northumbria	4,165	62	36	33	0
Management Catchment					
Northumberland Rivers	780	17	3	4	0
Tees	1,078	3	23	12	0
Tyne	1,882	25	7	14	0
Wear	416	8	3	2	0

Listed Buildings					
Defined Area	Number of listed buildings in defined area	Number of listed buildings in defined area at high risk	Number of listed buildings in defined area at medium risk	Number of listed buildings in defined area at low risk	Number of listed buildings in defined area at very low risk
River Basin District					
Northumbria	12,137	416	390	338	2
Management Catchment					
Northumberland Rivers	2,935	128	48	68	0
Tees	3,664	69	269	130	1
Tyne	3,569	122	45	103	0
Wear	1,931	70	27	36	1

Licenced Abstractions					
Defined Area	Number of licenced abstraction sites in defined area	Number of licenced abstraction sites in defined area at high risk	Number of licenced abstraction sites in defined area at medium risk	Number of licenced abstraction sites in defined area at low risk	Number of licenced abstraction sites in defined area at very low risk
River Basin District					
Northumbria	386	101	37	7	0
Management Catchment					
Northumberland Rivers	81	19	3	1	0
Tees	143	31	30	1	0
Tyne	102	28	0	3	0
Wear	56	19	4	2	0

Withdrawn: 20 October 2022
 These maps have been superseded