This publication was withdrawn on 20 October 2022

We have withdrawn this document because these maps have been superseded.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 - Dee River Basin District

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

Under the Flood Risk Regulations Natural Resources Wales have worked in partnership with the Environment Agency to publish Flood Risk Maps. These will be reviewed 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 Natural Resources Wales and 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 (NKD). There are three maps showing what is at risk of flooding (Risk to People, Risk to Economic Activity and Rick 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 See Maps for the Dee 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)

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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. Air conomic 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: Configure Survey Meridian™2)

Roads

Motorways, primary and trunk routes are displated on the matches classified by the Highways Agency. These are reported in the tables as a single class. (Source: OS MasterMap® Integrated Transport Networt 7th ITN))

Non-Residential Properties

Property points have been classified according 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 / Welsh Government)

Risk to Natural and Historic Environment Map

This map show 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 / Natural Resources Wales)*

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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 / Natural Resources Wales)

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 / Natural Resources Wales)*

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 / Cadw)

Bathing Waters

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

Environmental Permitting Regulations (EPR) Installations EPP 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 Agence Pollution for entory)

Sites of Special Scientific Interest (SSSIs)

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

Parks and Gardens

The Register of Parks and Gardens of Special His onic 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 / Cadw)

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 / Cadw)*

Listed Suldings

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 / Cadw)

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))*

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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 constal waters.

River Basin Districts (RBDs)

Under the requirements of the Floods Directive, reporting is at the River Basin Distric 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 occess. A river basin is the area of land from which all surface run-off and spring water flov s through a sequence of streams, lakes and rivers into the sea at a single river mouth, estuary or delta. It complises 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

vittese nap Visit our web pages to check your flood risk and for information on how to prepare for flooding.



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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	\checkmark	\checkmark	\checkmark
2	Dee	✓	✓	
3	Humber	\checkmark	\checkmark	\checkmark
4	North West	\checkmark	\checkmark	\checkmark
5	Northumbria	\checkmark	\checkmark	
6	Severn	\checkmark	\checkmark	\checkmark
7	Solway Tweed	\checkmark	\checkmark	
8	South East	\checkmark	\checkmark	\checkmark
9	South West	\checkmark	\checkmark	
10	Thames	\checkmark	\checkmark	$\mathbf{\hat{O}}$
11	Western Wales	\checkmark	\checkmark	<u> </u>



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River Basin Districts and Management Catchment

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Special Areas of Conservation, Special Protection Areas and Ramsar

England:

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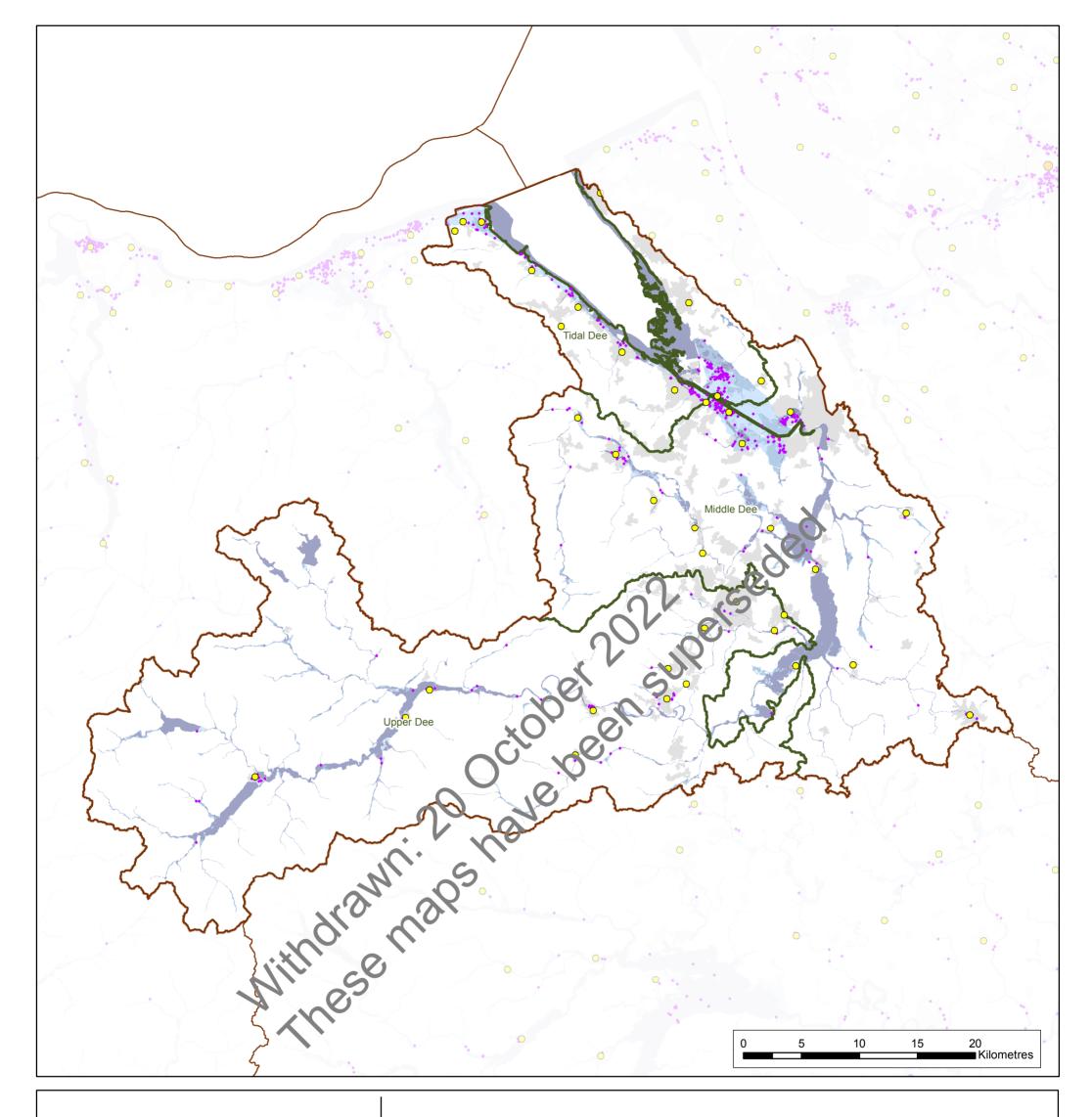
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World Heritage Sites

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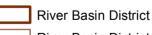


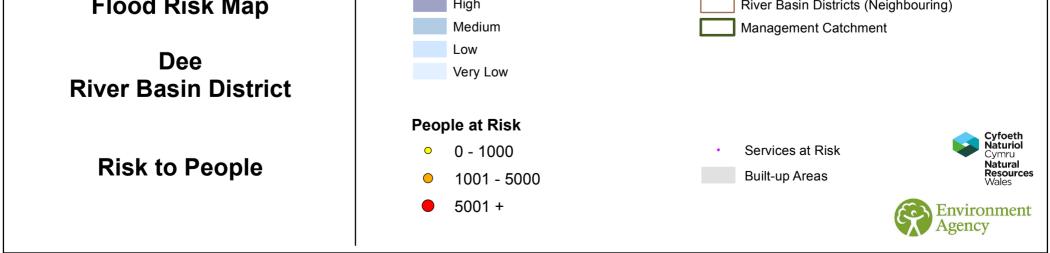
Rivers and Sea

Flood Risk Source

Rivers and Sea

Reporting Boundaries





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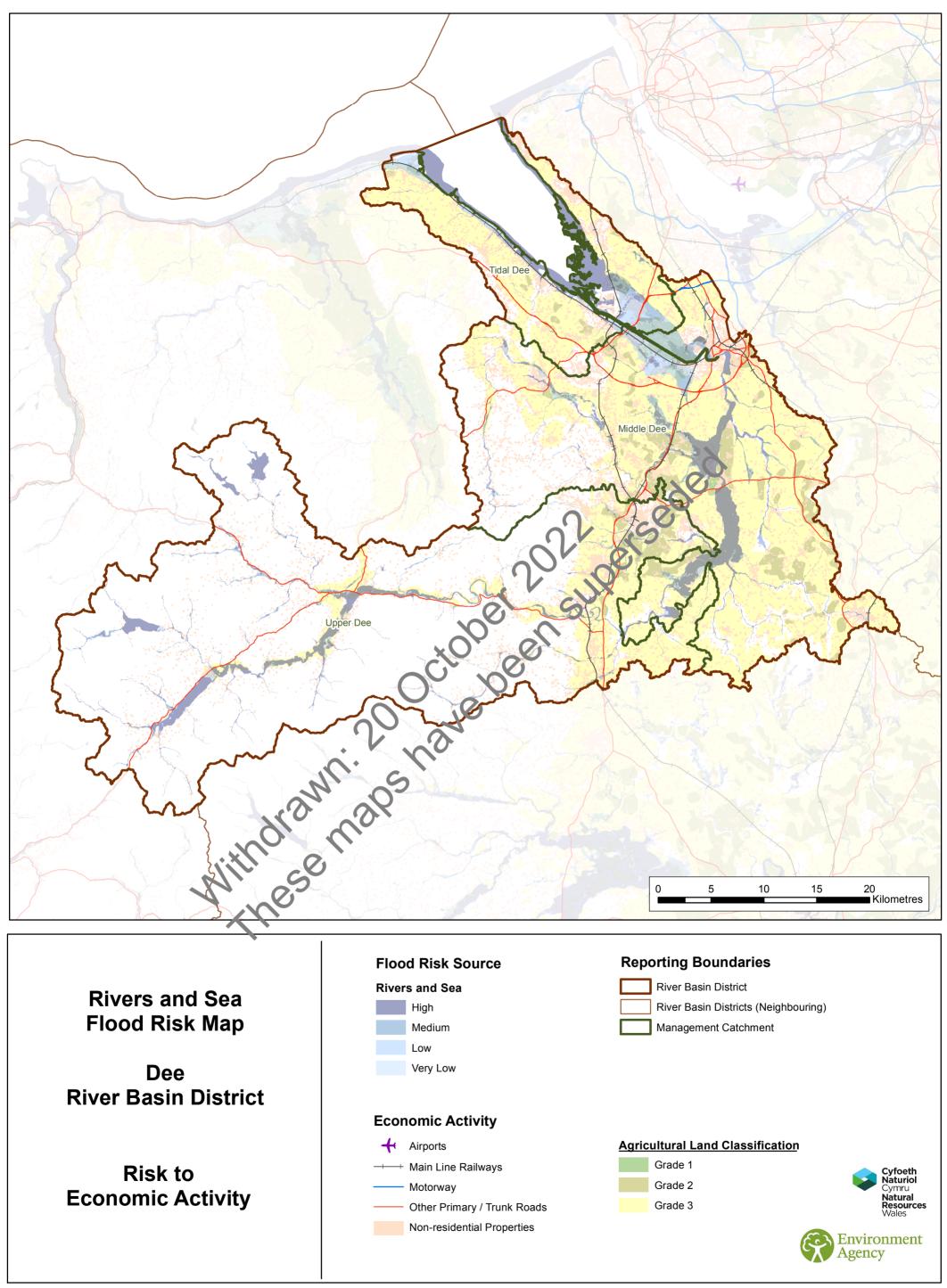
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			People		
Defined Area	Number of people in defined area	Number of people in defined area at high risk	Number of people in defined area at medium risk	Number of people in defined area at low risk	Number of people in defined area at very low risk
River Basin District	-				
Dee	457,655	3,290	2,491	20,466	167
Management Catchment	-				
Middle Dee	232,328	1,694	1,074	10,862	49
Tidal Dee	106,878	776	573	6,730	2
Upper Dee	118,438	818	844	2,872	115

			Services		
	Number of sites	Number of sites	Number of sites	Number of sites	Number of site
Defined Area	in defined area	in defined area	in defined area	in defined area	in defined area
		at high risk	at medium risk	at low risk	at very low ris
River Basin District					
Dee	938	31	14	64	
Management Catchment	r				
Middle Dee	475	18	5	23	
Tidal Dee	169	3	5	27	
Upper Dee	292	10		12	
		, per	een s	JPET	

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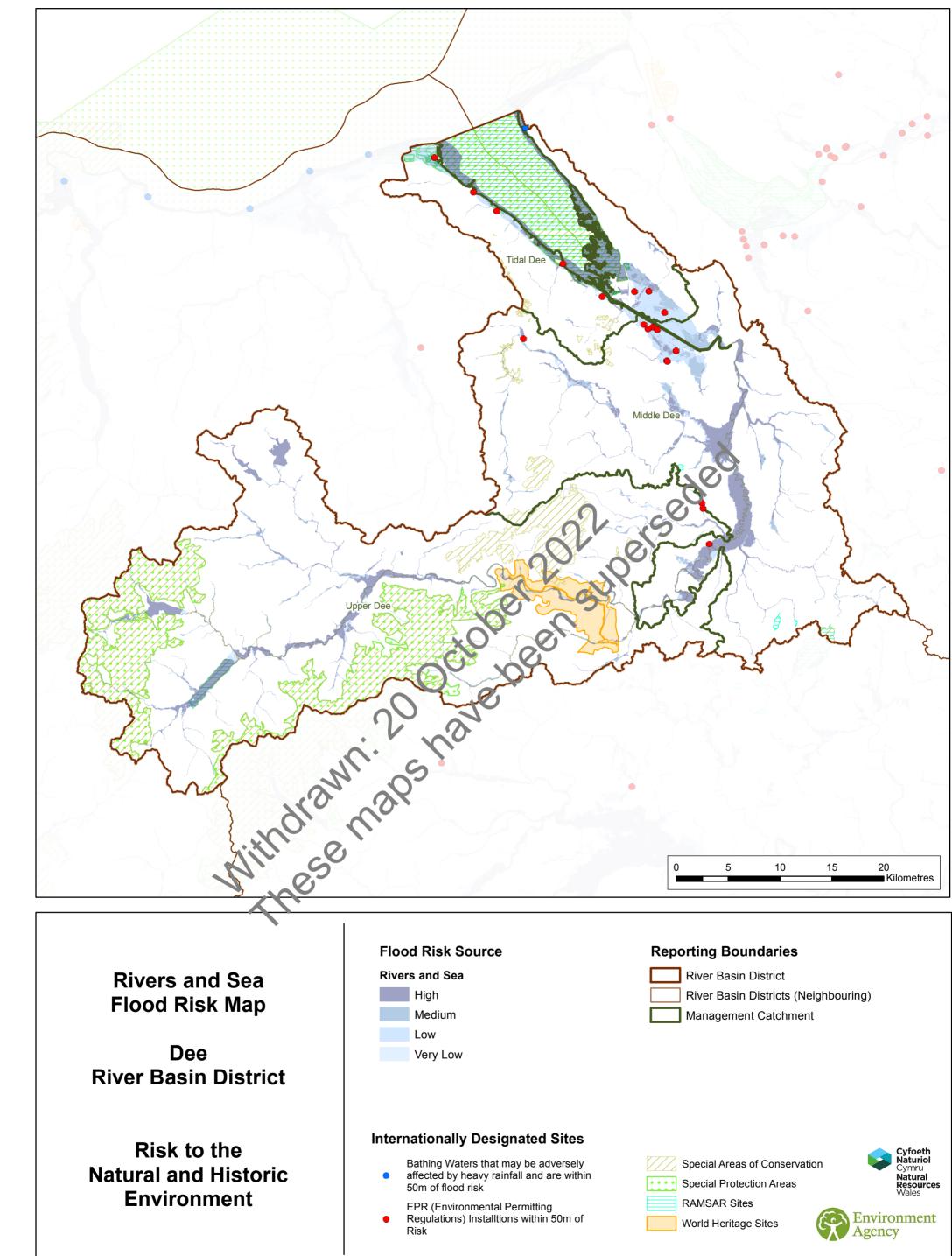
		Non Res	idential Pr	operties	
Defined Area	Number of properties in defined area	Number of properties in defined area at high risk	Number of properties in defined area at medium risk	Number of properties in defined area at low risk	Number of properties in defined area at very low risk
River Basin District					
Dee	67,207	1,099	1,261	4,507	34
Management Catchment					
Middle Dee	33,601	463	608	1,753	1
Tidal Dee	12,698	233	340	2,030	1
Upper Dee	20,895	398	313	720	32

			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					
Dee	0	0	0	0	0
Management Catchment					
Middle Dee	0	0	0	0	0
Tidal Dee	0	0	0	0	0
Upper Dee	0	0	0	0	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
River Basin District					
Dee	127	5	3	20	(
Management Catchment	2	0			
Middle Dee	54	0	0	5	(
Tidal Dee	.2	5	3	13	U
Upper Det	21	0	0	2	(
20 super					

			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					
Dee	374	6	5	14	0
Management Catchment					
Middle Dee	200	2	1	2	0
Tidal Dee	58	1	2	8	0
Upper Dee	116	3	3	3	0

	Δ	gricultural	Land (Gra	des 1, 2 &	3)	
Defined Area	Area of agricultural land (hectares) in defined area	Area of agricultural land (hectares) in defined area at high risk	al land ea sk	agricultural land (hectares) defined area at low risk	al land ea sk	
River Basin District	-	-	•		~~~	I
Dee	86,426	5,784	1,858	2,821	20	
Management Catchment					2	
Middle Dee	54,180	3,976	1,149	1,531	6	
Tidal Dee	14,081	219	428	J03	1	
Upper Dee	18,156	1,5.2	291	387	12	1
	N	ine		×		



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	ad	-	Naters tha ected by h	at may be neavy raint	fall
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					
Dee	1	1	0	0	0
Management Catchment					
Middle Dee	0	0	0	0	0
Tidal Dee	1	1	0	0	0
Upper Dee	0	0	0	0	0

	Enviror	nmental Po Ii	ermitting Installation	•	is (EPR)
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					
Dee	56	2	2	15	0
Management Catchment					
Middle Dee	27	0	0	9	0
Tidal Dee	14	1	1	6	0
Upper Dee	15	1	1	0	0

	Sp	ecial Areas	of Conse	rvation (SA	AC)
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					
Dee	40,562	5,193	103	149	0
Management Catchment	-	-			-
Middle Dee	1,491	305	6	14	0
Tidal Dee	2,556	2,081	3	61	0
Upper Dee	25,687	837	85	73	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 Ram. ar (hectares) in defined area at ver lov rink
River Basin District					
Dee	14,039	4,462	94	279	0
Management Catchment				6	
Middle Dee	227	0	C	٩	0
Tidal Dee	2,612	2,147	85	26	0
Upper Dee	481	55	0	7	0

	.						
Sites of Special Scientific Interest (SSSI)							
Defined Area	Area of SSSI (hectares) in defined area	Area of SSSI (heclares) 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							
Dee	45,157	6,013	203	405	0		
Management Catchment							
Middle Dee	2,618	979	9	20	0		
Tidal Dee	2,993	2,159	88	271	0		
Upper Dee	28,706	896	98	111	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	River Basin District							
Dee	34,117	4,067	165	301	0			
Management Cotchment								
Middle Dee	0	0	0	0	0			
Tidal Dee	2,603	2,144	85	269	0			
Hpppr Dee	20,795	63	71	29	0			

joe je v	Perfined Area	Area of WHS (hectares) in defined area	Area of WHS (hectares) Area of WHS (hectares) and effined area at high risk Area Area Area Area Area Area Area Area	Area of WHS (hectares) and the second metain defined area and at medium risk states and the second metain at medium risk states and the second metain at met	Area of WHS (hectares) % () () () () () () () () () () () () ()	Area of WHS (hectares) in defined area at very low risk
~	River Basin District					
	Dee	4,266	188	10	84	12
	Management Catchment					
	Middle Dee	0	0	0	0	0
	Tidal Dee	0	0	0	0	0
	Upper Dee	4,266	188	10	84	12

		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							
Dee	3,048	156	51	50	0		
Management Catchment							
Middle Dee	1,237	117	19	26	0		
Tidal Dee	651	6	10	5	0		
Upper Dee	1,161	33	21	18	0		

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 Âncient 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						
Dee	531	11	5	6	0	
Management Catchment						
Middle Dee	165	7	2	4	0	
Tidal Dee	33	1	1	1	0	
Upper Dee	334	2	2	1	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						
Dee	4,390	151	65	215	1	
Management Catchment						
Middle Dee	2,310	48	23	43	0	
Tidal Dee	621	10	9	32	0	
Upper Dee	1,453	88	33	140	1	