

Sustainability at the heart of a living, working, active landscape valued by everyone.





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1. Key Points

Significant changes in monitoring and overall classification for rivers, lakes, transitional & coastal water bodies since the last publication

In 2018, new priority substances were introduced to the monitoring programme. For the first time the presence of ubiquitous, persistent, bioaccumulative, toxic (uPBT) substances, so-called 'forever' chemicals, have been assessed as part of chemical status. Due to their bioaccumulative and persistent nature, uPBT substances have been detected at all monitored stations and resulted in failures of all of those stations.

It is therefore reasonable to presume that uPBT substances would cause more failures if additional stations were monitored. For this reason, the uPBT failures have been extrapolated to all surface water bodies across Northern Ireland, meaning that none of our rivers, lakes, transitional & coastal water bodies will meet overall good status (when ecological and chemical status are combined). This report presents data in a more transparent and detailed way so it is clear where the pressures are.

Overall River Water Body Status

 In 2015, 147 (33 %) of the 450 river water bodies were classified as good or high overall status. In 2018, 141 (31 %) of river water bodies were classified as good or high overall status. In 2021, no river water bodies achieved good or high overall status.

Overall Lake Status

 In 2015 and 2018, 5 (24 %) of the 21 lake water bodies were classified as good overall status. In 2021, no lakes achieved good overall status.

Overall Transitional & Coastal Water Body Status

 In 2015, 8 (32 %) of the 25 transitional & coastal water bodies achieved good overall status and 1 (4 %) achieved high overall status. In 2018, 10 (40 %) water bodies achieved good overall status. In 2021, no water bodies achieved good overall status.

Overall Groundwater Body Status

In 2015, 49 (65 %) of the 75 groundwater bodies achieved good overall status.
 In 2021, 51 (68 %) achieved good overall status.

2. Introduction

Water is of fundamental importance for life and our natural environment. Our water bodies provide us with drinking water and are critical for businesses, generating and sustaining wealth through activities such as agriculture, fishing, industry, services, transport & tourism. Our economy, our health and our enjoyment of the environment depend on the way we maintain our rivers, lakes, transitional (estuarine) waters, coastal waters and groundwater.

The protection of our aquatic environment underpins our well-being and our livelihoods. Within Northern Ireland, the Water Framework Directive (WFD) is implemented through The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. The Water (Amendment) (Northern Ireland) (EU Exit) Regulations 2019 ensure that the Water Framework Directive (as transposed) and the supporting legislation continue to operate. The 2017 regulations are the main driver for assessing our water environment and pushing us towards achieving good status for our water environments.

River Basin Management Plan

The Water Framework Directive (WFD) is implemented through a River Basin Management Plan (RBMP). Northern Ireland has three river basin districts: North West, Neagh Bann and North East. See Figure 1 below.

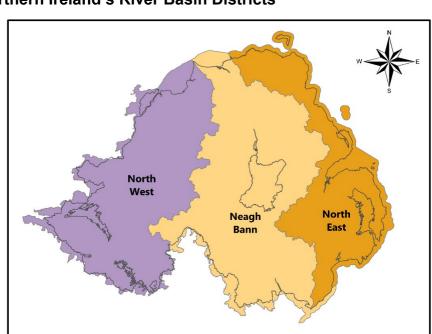


Figure 1 Northern Ireland's River Basin Districts

The first cycle RBMPs ran from 2009 to 2015. The second cycle Plans were published in 2015 and run until 2021. The third cycle draft River Basin Management Plan 2021 - 2027 was published on 9 April 2021 for a 6 month public consultation which closed on 10 October 2021. This report is to compliment the publication of the final RBMP due to be published by 9 April 2022.

Northern Ireland Statistics - Water Environment

Each year DAERA release official statistics through the Northern Ireland Environmental Statistics Report. This report is a compendium of 7 key environmental themes and provides updates on associated indicator measures and monitoring programmes linked to government strategies. Water is one of the 7 key themes and is included each year. However the WFD data included is not updated each year due to the timescales of the monitoring. This report is an update on the status of all water body types: rivers, lakes, transitional & coastal and groundwater prior to the production of the third cycle RBMP 2021 – 2027. The water body status for this report is predominantly based on monitoring data for the period between 2015 and 2020. There are a very few exceptions where some older biological data for lakes have been included where the Covid pandemic prevented surveys being completed in 2020.

Classification Units - Water Bodies

Water bodies are the basic management units for reporting and assessing compliance with the WFD environmental objectives. There are 571 water bodies in Northern Ireland of these 496 are surface water bodies: including 450 rivers, 21 lakes, and 25 transitional & coastal water bodies (Marine); the remaining 75 are groundwater bodies.

The WFD requires NIEA to classify water bodies' status and protect that status from deterioration and, where necessary and practicable, to restore water bodies to good status. When assessing water quality, we consider both ecological and chemical quality, as well as the pressures that can affect them. The ecological and chemical classification results for surface water bodies are combined to give an overall status in one of five classes: bad; poor; moderate; good; and high. Groundwater is assigned to either good or poor status for chemical quality and water quantity.

The status of a water body is determined by the lowest test element and follows the one-out all-out rule.

Significant changes to chemical status since the last cycle – new substances listed in 2018

In the draft plan consultation we highlighted that the 'chemical status assessment' will include an assessment of the new priority substances introduced in 2018. For the first time the presence of ubiquitous, persistent, bioaccumulative, toxic (uPBT) substances, so-called 'forever' chemicals, will be assessed as part of chemical status. Although a number of these uPBT substances are now banned or have restricted use, their widespread use in the past has resulted in their accumulation in the aquatic environment with subsequent breaching of assigned Environmental Quality Standard (EQS) values. It is widely recognised that given their persistence the levels present in the aquatic environment will likely remain in breach of EQS values for some years to come. This finding is in common with European countries and indeed with countries across the globe where usage was widespread. In order to allow for a meaningful comparison with chemical status in 2015, for which the uPBT substances were not monitored, it is important that chemical classification be presented both including and excluding the uPBT substances.

The uPBT substances are monitored by analysing concentrations in both the water column and in biota. However, biota samples are only collected at selected surface water monitoring stations and not across the entire network. Due to their bioaccumulative and persistent nature, uPBT substances have been detected at all monitored stations and resulted in failures of all of those stations. Hence it is reasonable to presume that uPBT substances would cause more failures if additional stations were monitored. For this reason, the uPBT failures have been extrapolated to all surface water bodies across Northern Ireland. Due to their persistent nature, there are no measures that could be implemented to reduce their concentrations in the environment, apart from discontinuing their use.

2021 chemical classification, includes the results from monitoring a number of newly designated priority substances for the first time and as a result there are more failures in chemical status. In addition, Cypermethrin, an insecticide used by a wide range of sectors, was previously part of ecological classification as a specific pollutant, but in 2018 it was identified as a priority substance and so in 2021 is assessed for the first time as part of chemical classification. Therefore in order to make chemical status

results from 2021 more comparable to 2015 and 2018, we are also presenting chemical status without cypermethrin.

To allow a comparison between the chemical status in 2015 and 2021 we have broken the chemical status into three subgroups:

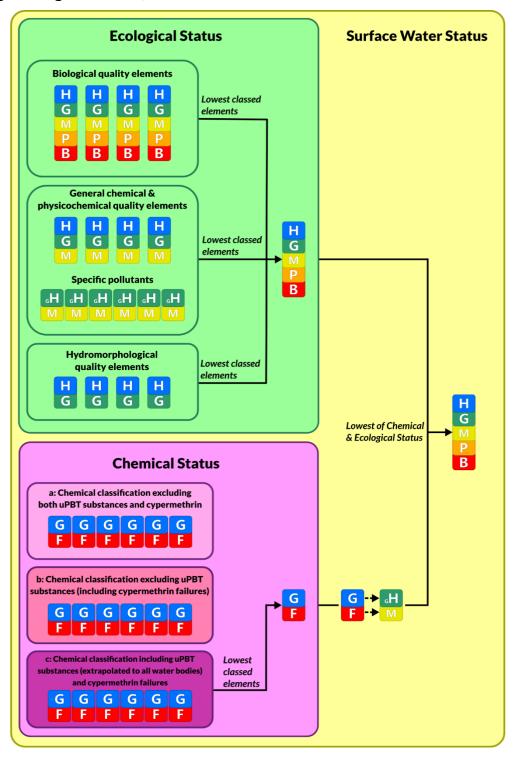
- a. chemical classification excluding both uPBT substances and cypermethrin this subgroup can be compared with the chemical classification results from 2015
- b. chemical classification excluding uPBT substances (including cypermethrin failures)
- c. chemical classification including uPBT substances (extrapolated to all water bodies) and cypermethrin failures

In addition to Overall Surface Water Status, we also present ecological and chemical status separately to give more detailed information on the water body status.

In order to compare 2021 chemical status with 2015 chemical status, we have presented chemical status excluding both uPBT substances and cypermethrin for 2015, 2018 and 2021. We have also presented the 2021 chemical status in the 3 subgroups highlighted above to provide comparison and transparency on the 2021 data and the new chemical substances which are now monitored.

Figure 2 below illustrates the 3 chemical subgroups which are shown separately throughout this report. The 'Overall Surface Water Status' from 2021 will now incorporate the chemical classification including uPBT substances (extrapolated to all water bodies) and cypermethrin failures which means that none of the water bodies will meet good or high 'Overall Surface Water Status'.

Figure 2 Representation of how the different quality elements are combined to classify ecological status, chemical status and surface water status



Overall Surface Water Status combines ecological status and chemical status subgroup (c), which is chemical classification including uPBT substances (extrapolated to all water bodies) and cypermethrin failures.

3. Northern Ireland's River Classification Status

The data in Figures 3a, 3b, 3c and 3d and Tables 3a, 3b, 3c and 3d refer to the ecological and chemical status and overall status of Northern Ireland's 450 river water bodies within the North East, Neagh Bann and North West River Basin Districts (RBDs).

River ecological status

The data in Figure 3a and Table 3a refers to the ecological status. In 2015, 147 (33 %) river water bodies were classified as good or high status. In 2018,141 (31 %) achieved good or high ecological status. In 2021,143 rivers (32 %) achieved good or high ecological status.

The North East RBD has 89 river water bodies, 19 (21 %) achieved good ecological status in 2015. In 2018, 17 (19 %) achieved good status. In 2021, 20 (22 %) achieved good ecological status.

The Neagh Bann RBD has 199 river water bodies, 54 (27 %) achieved good or high ecological status in 2015. In 2018, 56 (28 %) achieved good or high ecological status. In 2021, 56 (28 %) achieved good or high status.

The North West RBD has 162 river water bodies, 74 (46 %) achieved good or high ecological status in 2015. In 2018, 68 (42 %) achieved good or high ecological status. In 2021, 67 (41 %) achieved good or high ecological status.

Figure 3a River ecological status 2015, 2018 & 2021

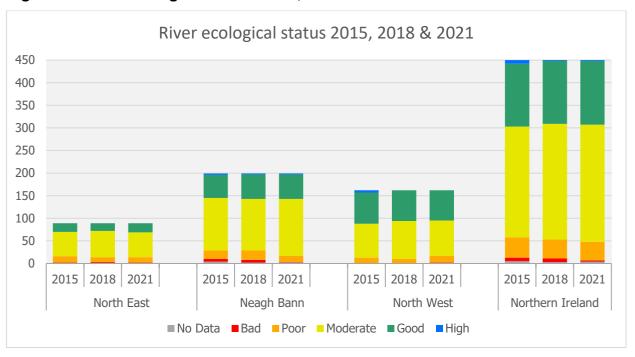


Table 3a River ecological status 2015, 2018 & 2021

	River ecolo	gical stat	tus 2015, 2018	8 & 2021						
	2015		2018	2018						
	No.	%	No.	%	No.	%				
North East										
High	0	0	0	0	0	0				
Good	19	21	17	19	20	22				
Moderate	54	61	58	65	55	62				
Poor	14	16	11	12	12	13				
Bad	2	2	2	2	1	1				
No Data	0	0	1	1	1	1				
	Neagh Bann									
High	3	2	2	1	2	1				
Good	51	26	54	27	54	27				
Moderate	116	58	114	<i>57</i>	126	63				
Poor	19	10	21	11	14	7				
Bad	6	3	6	3	1	1				
No Data	4	2	2	1	2	1				
		Nort	h West							
High	5	3	0	0	0	0				
Good	69	43	68	42	67	41				
Moderate	75	46	84	52	78	48				
Poor	12	7	10	6	15	9				
Bad	0	0	0	0	1	1				
No Data	1	1	0	0	1	1				
		Northe	rn Ireland							
High	8	2	2	0	2	0				
Good	139	31	139	31	141	31				
Moderate	245	54	256	57	259	<i>58</i>				
Poor	45	10	42	9	41	9				
Bad	8	2	8	2	3	1				
No Data	5	1	3	1	4	1				

River chemical status subgroup (a) which is the chemical status excluding both uPBT substances and cypermethrin

The data in Figure 3b and Table 3b refers to the chemical status subgroup (a) which is the chemical status excluding both uPBT substances and cypermethrin. In 2015, 233 (52 %) river water bodies were classified as good chemical status, however in this cycle there was no chemical data for 206 (46 %) river water bodies. In 2018, 410

(91 %) achieved good chemical status. In 2021, 418 (93 %) achieved good chemical status.

The North East RBD has 89 river water bodies. In 2015, 45 (51 %) achieved good chemical status while 41 (46 %) had no data. In 2018, 84 (94 %) of river water bodies achieved good chemical status. In 2021, 85 (96 %) achieved good chemical status.

The Neagh Bann RBD has 199 river water bodies. In 2015, 92 (46 %) achieved chemical good status while 99 (50 %) had no data. In 2018, 178 (89 %) achieved good chemical status. In 2021, 180 (90 %) rivers achieved good chemical status.

The North West RBD has 162 water bodies. In 2015, 96 (59 %) achieved good chemical status while 66 (41 %) had no data. In 2018, 148 (91 %) achieved good chemical status. In 2021, 153 (94 %) rivers achieved good chemical status.

Figure 3b River chemical status subgroup (a) excluding both uPBT substances and cypermethrin 2015, 2018 & 2021

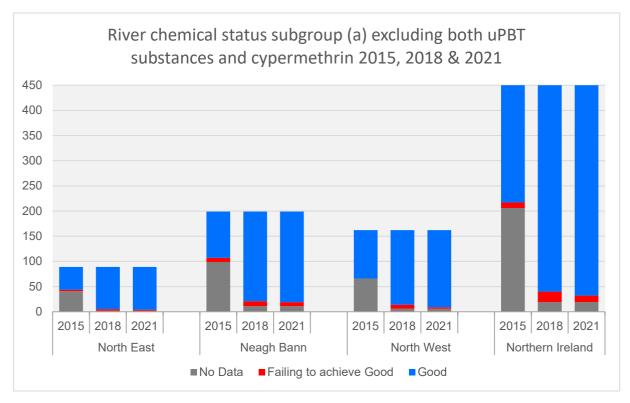


Table 3b River chemical status subgroup (a) excluding both uPBT substances and cypermethrin 2015, 2018 & 2021

River chemical status subgroup (a) excluding both uPBT substances and cypermethrin 2015, 2018 & 2021								
	2015		2018		2021			
	No.	%	No.	%	No.	%		
		North E	ast					
Good	45	51	84	94	85	96		
Failing to achieve Good	3	3	3	3	2	2		
No Data	41	46	2	2	2	2		
Neagh Bann								
Good	92	46	178	89	180	90		
Failing to achieve Good	8	4	10	5	8	4		
No Data	99	50	11	6	11	6		
		North W	est					
Good	96	59	148	91	153	94		
Failing to achieve Good	0	0	8	5	3	2		
No Data	66	41	6	4	6	4		
	Noi	rthern I	reland					
Good	233	52	410	91	418	93		
Failing to achieve Good	11	2	21	5	13	3		
No Data	206	46	19	4	19	4		

River chemical status 2021 displaying all 3 chemical subgroups

Figure 3c and Table 3c below show: (a) chemical status for 2021 excluding both uPBT substances and cypermethrin (b) chemical status for 2021 excluding uPBT substances (including cypermethrin failures) and (c) the chemical status including uPBT substances (extrapolated to all water bodies) and cypermethrin failures.

When excluding both uPBT substances and cypermethrin, 418 (93 %) river water bodies achieved good chemical status, 13 (3 %) failed to meet good chemical status. There was no data available for 19 (4 %) river water bodies. When excluding uPBT substances (including cypermethrin failures), 385 (86 %) achieved good chemical status and 46 (10 %) failed to achieve good chemical status. There was no data available for 19 (4 %) river water bodies. All 450 (100 %) rivers failed to achieve good chemical status when uPBT substances (extrapolated to all water bodies) and cypermethrin failures are included.

In the North East RBD, 85 (96 %) river water bodies achieved good chemical status and 2 (2 %) failed to meet good chemical status when excluding both uPBT

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substances and cypermethrin. There was no data available for 2 (2 %) river water bodies. 78 (88 %) river water bodies achieved good chemical status and 9 (10 %) failed to achieve good when excluding uPBT substances (including cypermethrin failures). There was no data available for 2 (2 %) river water bodies. When the chemical status includes uPBT substances (extrapolated to all water bodies) and cypermethrin failures, all 89 (100 %) fail to achieve good chemical status.

In the Neagh Bann RBD, 180 (90 %) river water bodies achieved good chemical status and 8 (4 %) failed to meet good chemical status when excluding both uPBT substances and cypermethrin. There was no data available for 11 (6 %) river water bodies. 169 (85 %) river water bodies achieved good chemical status and 19 (10 %) failed to achieve good chemical status when excluding uPBT substances (including cypermethrin failures). There was no data available for 11 (6 %) river water bodies. When the chemical status includes uPBT substances (extrapolated to all water bodies) and cypermethrin failures all 199 (100 %) river water bodies fail to achieve good chemical status.

In the North West RBD, 153 (94 %) river water bodies achieved good chemical status and 3 (2 %) failed to meet good chemical when excluding both uPBT substances and cypermethrin. There was no data available for 6 (4 %) river water bodies. 138 (85 %) river water bodies achieved good and 18 (11 %) failed to achieve good chemical status when excluding uPBT substances (including cypermethrin failures). There was no data available for 6 (4 %) river water bodies. When the chemical status includes uPBT substances (extrapolated to all water bodies) and cypermethrin failures all 162 (100 %) river water bodies failed to achieve good chemical status.

Figure 3c River chemical status 2021 displaying all 3 chemical subgroups

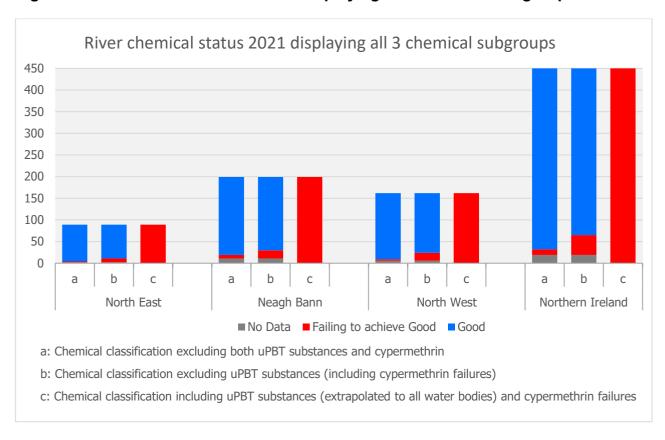


Table 3c River chemical status 2021 displaying all 3 chemical subgroups

River chemical status 2021 displaying all 3 chemical subgroups								
	a) excluding both uPBT substances and cypermethrin		b) excluding uPBT substances (including cypermethrin failures)		c) including uPBT substances (extrapolated to all water bodies) and cypermethrin failures			
	No.	%	No.	%	No.	%		
North East								
Good	85	96	78	88	0	0		
Failing to achieve Good	2	2	9	10	89	100		
No Data	2	2	2	2	0	0		
	N	eagh Ba	ınn					
Good	180	90	169	85	0	0		
Failing to achieve Good	8	4	19	10	199	100		
No Data	11	6	11	6	0	0		
	N	orth W	est					
Good	153	94	138	<i>85</i>	0	0		
Failing to achieve Good	3	2	18	11	162	100		
No Data	6	4	6	4	0	0		
	Nort	thern Ir	eland					
Good	418	93	385	86	0	0		
Failing to achieve Good	13	3	46	10	450	100		
No Data	19	4	19	4	0	0		

Overall river water body status

The overall river water body status is compared for the 2015, 2018 and 2021 is shown in Figure 3d and Table 3d below. In 2015, 147 (33 %) of river water bodies were classified as good or high overall status. In 2018, 141 (31 %) of river water bodies were classified as good or high overall status. In 2021, no river water bodies achieved good or high overall status.

The North East RBD has 89 river water bodies, 18 (20 %) achieved good overall status in 2015. In 2018, 17 (19 %) achieved good overall status. In 2021, no river water bodies achieved good overall status.

The Neagh Bann RBD has 199 river water bodies, 54 (28 %) achieved good or high overall status in 2015. In 2018, 56 (28 %) achieved good or high overall status. In 2021, no river water bodies achieved good or high overall status.

The North West RBD has 162 river water bodies, 74 (46 %) achieved good or high overall status in 2015. In 2018, 68 (42 %) achieved good or high overall status. In 2021, no river water bodies achieved good or high overall status.

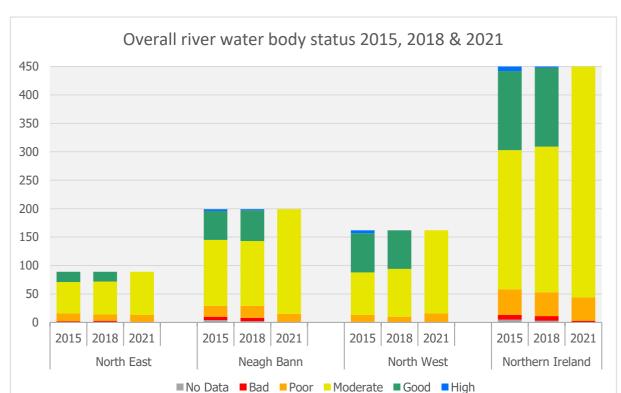


Figure 3d Overall river water body status 2015, 2018 & 2021

Table 3d Overall river water body status 2015, 2018 & 2021

C	Overall river w	ater body	/ status 2015,	2018 & 2	2021	
	2015	;	2018	}	2021	
	No.	%	No.	%	No.	%
		Nor	th East			
High	0	0	0	0	0	0
Good	18	20	17	19	0	0
Moderate	55	62	58	65	76	85
Poor	14	16	11	12	12	13
Bad	2	2	2	2	1	1
No Data	0	0	1	1	0	0
		Neag	gh Bann			
High	3	2	2	1	0	0
Good	51	26	54	27	0	0
Moderate	116	58	114	<i>57</i>	184	92
Poor	19	10	21	11	14	7
Bad	6	3	6	3	1	1
No Data	4	2	2	1	0	0
		Nort	th West			
High	5	3	0	0	0	0
Good	69	43	68	42	0	0
Moderate	75	46	84	52	146	90
Poor	12	7	10	6	15	9
Bad	0	0	0	0	1	1
No Data	1	1	0	0	0	0
		Northe	rn Ireland			
High	8	2	2	0	0	0
Good	139	31	139	31	0	0
Moderate	245	54	256	<i>57</i>	406	90
Poor	45	10	42	9	41	9
Bad	8	2	8	2	3	1
No Data	5	1	3	1	0	0

4. Northern Ireland's Lake Classification Status

The data in Figures 4a, 4b, 4c and 4d and Tables 4a, 4b, 4c and 4d refer to the ecological and chemical status and overall status of the 21 lake water bodies (that is lakes with an area greater than 50 hectares) within the North East, Neagh Bann and North West River Basin Districts (RBD). The 2020 lake status has been published and can be viewed on this link – <u>lake status 2020</u>¹.

Lake ecological status

The data in Figure 4a and Table 4a refer to the ecological status for lake water bodies in 2015, 2018 and 2021. In 2015 and 2018, 5 (24 %) of the 21 lake water bodies in Northern Ireland were classified as good or high for ecological status and 16 (76 %) lake water bodies were classified as 'moderate or worse'. In 2021, 3 (14 %) lakes were classified as good ecological status with 18 lakes (86 %) classified as 'moderate or worse'.

The North East RBD has 3 lake water bodies, 1 (33 %) achieved good ecological status and the remaining 2 (67 %) moderate status in 2015, 2018 and 2021.

The Neagh Bann RBD has 10 lake water bodies, 2 (20 %) achieved good ecological status in 2015 and 2018. In 2021, 1 (10 %) water body achieved good ecological status.

The North West RBD has 8 lake water bodies, 2 (25 %) achieved good ecological status in 2015 and 2018. In 2021, 1 (13 %) lake achieved good ecological status.

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¹ http://www.daera-ni.gov.uk/publications/northern-ireland-water-framework-directive-statistics-lake-quality-update-2020

Figure 4a Lake ecological status for 2015, 2018 & 2021

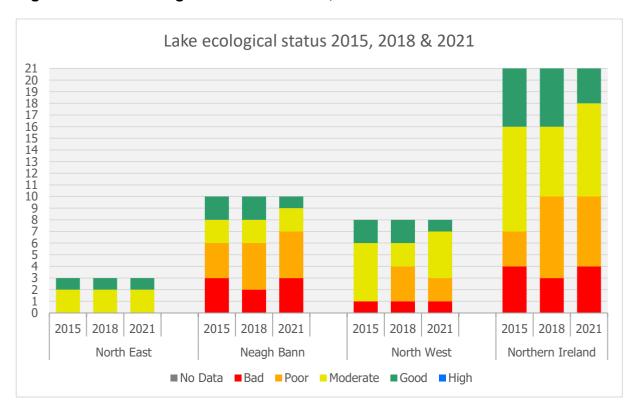


Table 4a Lake ecological status 2015, 2018 & 2021

	Lake ecolog	ical statu	ıs 2015, 2018	8 & 2021					
	2015	5	2018	3	2021				
	No.	%	No.	%	No.	%			
	North East								
High	0	0	0	0	0	0			
Good / GEP	1	33	1	33	1	33			
Moderate / MEP	2	67	2	67	2	67			
Poor / PEP	0	0	0	0	0	0			
Bad	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			
		Neagh	n Bann						
High	0	0	0	0	0	0			
Good / GEP	2	20	2	20	1	10			
Moderate / MEP	2	20	2	20	2	20			
Poor / PEP	3	30	4	40	4	40			
Bad	3	30	2	20	3	30			
No Data	0	0	0	0	0	0			
		North	West						
High	0	0	0	0	0	0			
Good / GEP	2	25	2	25	1	13			
Moderate / MEP	5	63	2	25	4	<i>50</i>			
Poor / PEP	0	0	3	38	2	<i>25</i>			
Bad	1	13	1	13	1	13			
No Data	0	0	0	0	0	0			
		Norther	n Ireland						
High	0	0	0	0	0	0			
Good / GEP	5	24	5	24	3	14			
Moderate / MEP	9	43	6	29	8	38			
Poor / PEP	3	14	7	33	6	29			
Bad	4	19	3	14	4	19			
No Data	0	0	0	0	0	0			

Note: Totals may not sum to 100 % due to rounding. GEP/ MEP/ PEP – Good/ Moderate/ Poor Ecological Potential.

Chemical status subgroup (a) excluding both uPBT substances and cypermethrin

The data shown in Figure 4b and Table 4b refers to the lake chemical status subgroup (a) chemical status excluding both uPBT substances and cypermethrin. The 2021 status update includes uPBT substances and cypermethrin for the first time and hence this data is also presented without the new substances to allow comparison with 2015 and 2018.

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In 2015, 2018 and 2021, all 21 (100 %) lake water bodies were classified as good chemical status when excluding both uPBT substances and cypermethrin in all 3 river basin districts.

Figure 4b Lake chemical status subgroup (a) excluding both uPBT substances and cypermethrin 2015, 2018 & 2021

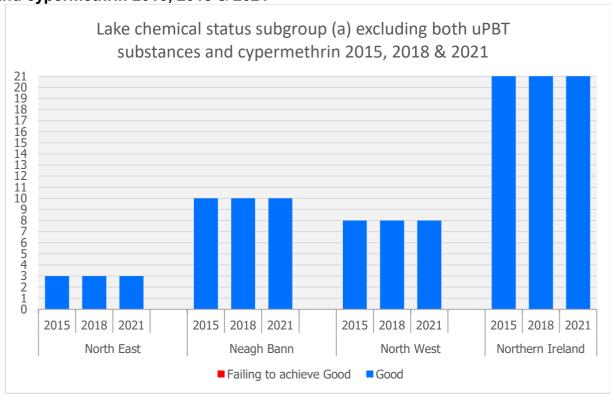


Table 4b Lake chemical status subgroup (a) excluding both uPBT substances and cypermethrin 2015, 2018 & 2021

Lake chemical status subgroup (a) excluding both uPBT substances and cypermethrin 2015, 2018 & 2021									
	2015		2018		2021				
	No.	%	No.	%	No.	%			
North East									
Good	3	100	3	100	3	100			
Failing to achieve Good	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			
Neagh Bann									
Good	10	100	10	100	10	100			
Failing to achieve Good	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			
	I	North W	est						
Good	8	100	8	100	8	100			
Failing to achieve Good	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			
	Northern Ireland								
Good	21	100	21	100	21	100			
Failing to achieve Good	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			

Lake chemical status 2021 showing all 3 subgroups

Figure 4c and Table 4c below show chemical status for 2021 for all 3 subgroups: (a) chemical status excluding both uPBT substances and cypermethrin (b) chemical status excluding uPBT substances (including cypermethrin failures) and (c) the chemical status including uPBT substances (extrapolated to all water bodies) and cypermethrin failures.

All 21 (100 %) lakes achieved good chemical status when excluding both uPBT substances and cypermethrin. 11 (52 %) achieved good chemical status and 10 (48 %) failed to achieve good chemical status when excluding uPBT substances (including cypermethrin failures). All 21 (100 %) lakes failed to achieve good chemical status when uPBT substances (extrapolated to all water bodies) and cypermethrin failures are included.

In the North East RBD, 3 (100 %) lakes achieved good chemical status when excluding both uPBT substances and cypermethrin. 1 (33 %) lake water body achieved good chemical status and 2 (67 %) failed to achieve good chemical status when excluding

uPBT substances (including cypermethrin failures). When the chemical status includes uPBT substances (extrapolated to all water bodies) and cypermethrin failures, all 3 (100 %) lakes fail to achieve good chemical status.

In the Neagh Bann RBD, 10 (100 %) lakes achieved good chemical status when excluding both uPBT substances and cypermethrin. 3 (30 %) lake water bodies achieved good chemical status and 7 (70 %) failed to achieve good chemical status when excluding uPBT substances (including cypermethrin failures). When the chemical status includes uPBT substances (extrapolated to all water bodies) and cypermethrin failures all 10 (100 %) lakes failed to achieve good chemical status.

In the North West RBD, 8 (100 %) lakes achieved good chemical status when excluding both uPBT substances and cypermethrin. 7 (88 %) lake water bodies achieved good and 1 (13 %) failed to achieve good chemical status when excluding uPBT substances (including cypermethrin failures). When the chemical status includes uPBT substances (extrapolated to all water bodies) and cypermethrin failures, all 8 (100 %) fail to achieve good chemical status.

Figure 4c Lake chemical status for 2021 displaying all 3 chemical subgroups

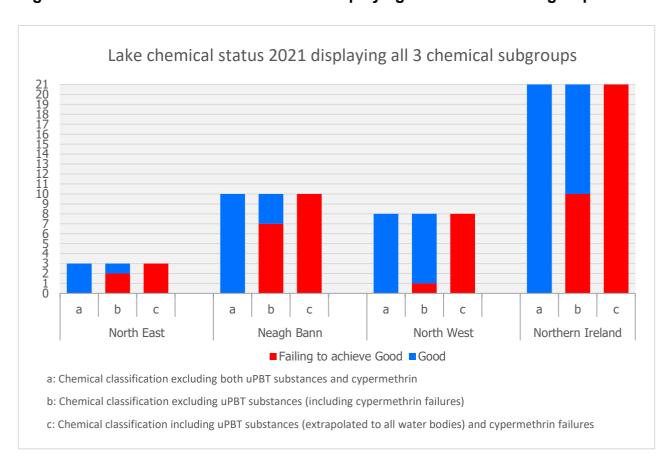


Table 4c Lake chemical status for 2021 displaying all 3 chemical subgroups

Lake chemical status 2021 displaying all 3 chemical subgroups								
	a) excludi uPBT subs and cyper	stances	b) excluding uPBT substances (including cypermethrin failures)		c) including uPB substances (extrapolated to all water bodies and cypermethri failures			
	No.	%	No.	%	No.	%		
North East								
Good	3	100	1	33	0	0		
Failing to achieve Good	0	0	2	67	3	100		
No Data	0	0	0	0	0	0		
	N	eagh Bai	าท					
Good	10	100	3	30	0	0		
Failing to achieve Good	0	0	7	70	10	100		
No Data	0	0	0	0	0	0		
	N	orth We	st					
Good	8	100	7	88	0	0		
Failing to achieve Good	0	0	1	13	8	100		
No Data	0	0	0	0	0	0		
	Nor	thern Ire	land					
Good	21	100	11	52	0	0		
Failing to achieve Good	0	0	10	48	21	100		
No Data	0	0	0	0	0	0		

Overall lake status

The overall lake status is compared for the 2015, 2018 and 2021 is shown in Figure 4d and Table 4d below. In 2015 and 2018, 5 (24 %) of lake water bodies were classified as good overall status. In 2021, no lakes achieved good overall status.

The North East RBD has 3 water bodies, 1 (33 %) achieved good overall status in 2015 and 2018. In 2021, no lakes achieved good overall status.

The Neagh Bann RBD has 10 water bodies, 2 (20 %) of these achieved good overall status in 2015 and 2018. In 2021, no lakes achieved good overall status.

The North West RBD has 8 water bodies, 2 (25 %) of which achieved good overall status in 2015 and 2018. In 2021, no lakes achieved good overall status.

Figure 4d Overall Lake Status 2015, 2018 & 2021

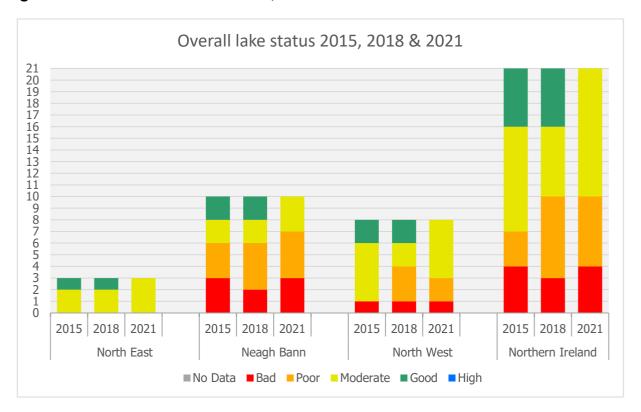


Table 4d Overall lake status 2015, 2018 & 2021

Overall lake status 2015, 2018 & 2021									
	2015	;	2018	3	2021				
	No.	%	No.	%	No.	%			
	North East								
High	0	0	0	0	0	0			
Good	1	33	1	33	0	0			
Moderate	2	67	2	67	3	100			
Poor	0	0	0	0	0	0			
Bad	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			
		Neag	gh Bann						
High	0	0	0	0	0	0			
Good	2	20	2	20	0	0			
Moderate	2	20	2	20	3	30			
Poor	3	30	4	40	4	40			
Bad	3	30	2	20	3	30			
No Data	0	0	0	0	0	0			
		Nor	th West						
High	0	0	0	0	0	0			
Good	2	25	2	25	0	0			
Moderate	5	63	2	25	5	63			
Poor	0	0	3	38	2	25			
Bad	1	13	1	13	1	13			
No Data	0	0	0	0	0	0			
		Northe	rn Ireland						
High	0	0	0	0	0	0			
Good	5	24	5	24	0	0			
Moderate	9	43	6	29	11	52			
Poor	3	14	7	33	6	29			
Bad	4	19	3	14	4	19			
No Data	0	0	0	0	0	0			

5. Northern Ireland's Transitional & Coastal Water body Classification Status

The data in Figures 5a, 5b, 5c, and 5d and Tables 5a, 5b, 5c, and 5d refer to the ecological and chemical status and overall status of the 25 transitional & coastal water bodies within the North East, Neagh Bann and North West River Basin Districts (RBDs).

Transitional & coastal water body ecological status

The data in Figure 5a and Table 5a refers to the ecological status of Northern Ireland's 25 transitional & coastal water bodies. In 2015, 1 (4 %) water body achieved high ecological status and 8 (32 %) achieved good ecological status. In 2018, 10 (40 %) achieved good ecological status.

The North East RBD has 17 transitional & coastal water bodies, 6 (35 %) water bodies achieved good ecological status and 1 (6 %) achieved high ecological status in 2015. In 2018, 7 (41 %) achieved good ecological status. In 2021, 8 (47 %) achieved good ecological status.

The Neagh Bann RBD has 5 transitional & coastal water bodies. In 2015, 1 (20 %) achieved good ecological status. In 2018, 2 (40 %) achieved good ecological status. In 2021, 2 (40 %) achieved good ecological status.

The North West RBD has 3 transitional & coastal water bodies. In 2015, 1 (33 %) achieved good ecological status. In 2018, 1 (33 %) achieved good ecological status. In 2021, no water bodies achieved good ecological status.

Figure 5a Transitional & coastal water body ecological status 2015, 2018 & 2021

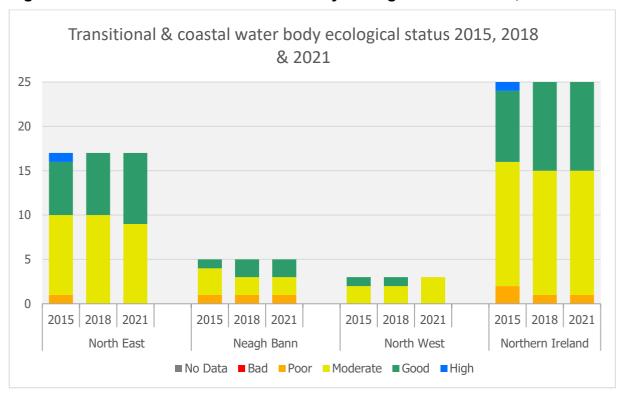


Table 5a Transitional & coastal water body ecological status 2015, 2018 & 2021

Transitional	& coastal wat	ter body	ecological sta	itus 2015	, 2018 & 202 1	L			
	2015	5	2018	3	2021				
	No.	%	No.	%	No.	%			
North East									
High	1	6	0	0	0	0			
Good / GEP	6	35	7	41	8	47			
Moderate / MEP	9	53	10	59	9	53			
Poor / PEP	1	6	0	0	0	0			
Bad	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			
		Neag	h Bann						
High	0	0	0	0	0	0			
Good / GEP	1	20	2	40	2	40			
Moderate / MEP	3	60	2	40	2	40			
Poor / PEP	1	20	1	20	1	20			
Bad	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			
		North	າ West						
High	0	0	0	0	0	0			
Good / GEP	1	33	1	33	0	0			
Moderate / MEP	2	67	2	67	3	100			
Poor / PEP	0	0	0	0	0	0			
Bad	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			
		Norther	n Ireland						
High	1	4	0	0	0	0			
Good / GEP	8	32	10	40	10	40			
Moderate / MEP	14	56	14	56	14	56			
Poor / PEP	2	8	1	4	1	4			
Bad	0	0	0	0	0	0			
No Data	0	0	0	0	0	0			

Transitional & coastal water body chemical status subgroup (a) excluding uPBT substances and cypermethrin

The data shown in Figure 5b and Table 5b show the chemical status excluding uPBT substances and cypermethrin in the 25 transitional & coastal water bodies. In 2015, 5 (20 %) water bodies achieved good chemical status, 11 (44 %) failed to achieve good chemical status. There was no data for 9 (36 %) water bodies. In 2018, 11 (44 %)

Transitional & Coastal Water body Classification Status

achieved good status, 5 (20 %) failed to achieve good chemical status. There was no data for 9 (36 %) water bodies. In 2021, 22 (88 %) achieved good chemical status and 3 (12 %) failed to achieve good chemical status.

The North East RBD has 17 water bodies, 4 (24 %) water bodies achieved good chemical status, 7 (41 %) failed to meet good chemical status and there was no data for 6 (35 %) water bodies in 2015. In 2018, 7 (41 %) water bodies achieved good chemical status, 4 (24 %) failed to meet good chemical status and there was no data for 6 (35 %) water bodies. In 2021, 15 (88 %) water bodies achieved good chemical status, with 2 (12 %) failing to meet good chemical status.

The Neagh Bann RBD has 5 water bodies. In 2015, no water bodies achieved good chemical status, 3 (60 %) failed to meet good chemical status and there was no data for 2 (40 %) water bodies. In 2018, 2 (40 %) water bodies achieved good chemical status, 1 (20 %) failed to meet good chemical status and there was no data for 2 (40 %) water bodies. In 2021, all 5 (100 %) water bodies achieved good chemical status.

The North West RBD has 3 water bodies. In 2015, 1 (33 %) water body achieved good chemical status, 1 (33 %) failed to meet good chemical status and there was no data for 1 (33 %) water body. In 2018, 2 (67 %) water bodies achieved good chemical status, no water bodies failed to meet good chemical status and there was no data for 1 (33 %) water bodies. In 2021, 2 (67 %) water bodies achieved good chemical status, 1 (33 %) failed to meet good chemical status.

Figure 5b Transitional & coastal water body chemical status subgroup (a) excluding both uPBT substances and cypermethrin 2015, 2018 & 2021

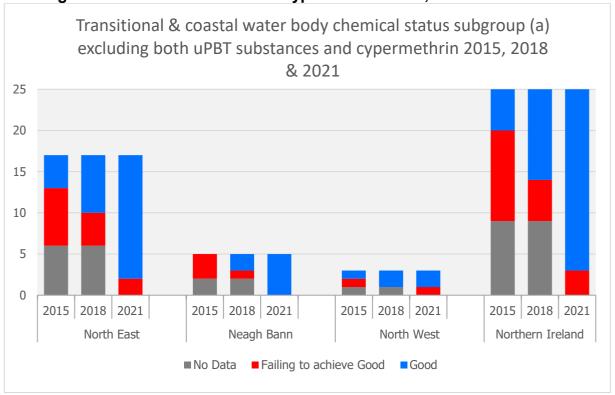


Table 5b Transitional & coastal water body chemical status excluding both uPBT substances and cypermethrin 2015, 2018 & 2021

Transitional & coastal water body chemical status excluding both uPBT substances and cypermethrin 2015, 2018 & 2021									
		2015			2021				
	No.	%	No.	%	No.	%			
North East									
Good	4	24	7	41	15	88			
Failing to achieve Good	7	41	4	24	2	12			
No Data	6	35	6	<i>35</i>	0	0			
Neagh Bann									
Good	0	0	2	40	5	100			
Failing to achieve Good	3	60	1	20	0	0			
No Data	2	40	2	40	0	0			
	I	North W	/est						
Good	1	33	2	67	2	67			
Failing to achieve Good	1	33	0	0	1	33			
No Data	1	33	1	33	0	0			
Northern Ireland									
Good	5	20	11	44	22	88			
Failing to achieve Good	11	44	5	20	3	12			
No Data	9	36	9	36	0	0			

Chemical status for transitional & coastal water bodies 2021 showing all 3 subgroups

Figure 5c and Table 5c below show all 3 subgroups: (a) chemical status for 2021 excluding both uPBT substances and cypermethrin (b) chemical status for 2021 excluding uPBT substances (including cypermethrin failures) and (c) the chemical status including uPBT substances (extrapolated to all water bodies) and cypermethrin failures.

22 (88 %) transitional & coastal water bodies achieved good chemical status and 3 (12 %) failed to achieve good chemical status when excluding both uPBT substances and cypermethrin. 8 (32 %) achieved good chemical status and 17 (68 %) failed to achieve good chemical status when excluding uPBT substances (including cypermethrin failures). All 25 (100 %) transitional & coastal water bodies failed to achieve good status when uPBT substances (extrapolated to all water bodies) and cypermethrin failures are included.

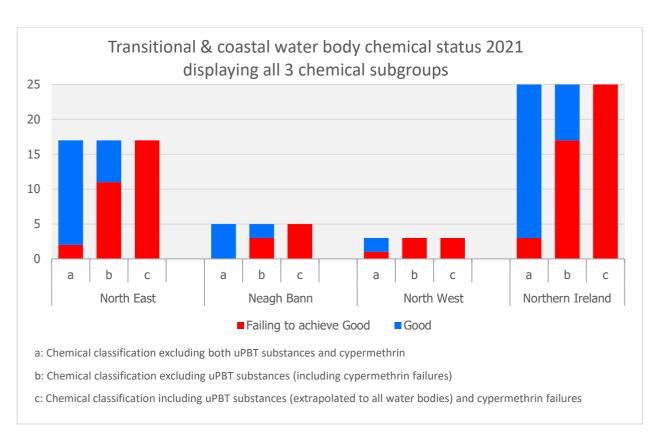


Figure 5c Transitional & coastal chemical status 2021 displaying all 3 subgroups

Table 5c Transitional & coastal water body chemical status 2021 displaying all 3 subgroups

Transitional & coastal water body chemical status 2021 displaying all 3 subgroups									
	uPBT substances and cypermethrin		b) excluding uPBT substances (including cypermethrin failures)		c) including uPBT substances (extrapolated to all water bodies) and cypermethrin failures				
	No.	%	No.	%	No.	%			
North East									
Good	15	88	6	35	0	0			
Failing to achieve Good	2	12	11	65	17	100			
No Data	0	0	0	0	0	0			
	r	Neagh B	ann						
Good	5	100	2	40	0	0			
Failing to achieve Good	0	0	3	60	5	100			
No Data	0	0	0	0	0	0			
	ı	North W	/est						
Good	2	67	0	0	0	0			
Failing to achieve Good	1	33	3	100	3	100			
No Data	0	0	0	0	0	0			
	Noi	rthern I	reland						
Good	22	88	8	32	0	0			
Failing to achieve Good	3	12	17	68	25	100			
No Data	0	0	0	0	0	0			

Transitional & coastal water body overall status

The data in Figure 5d and Table 5d refers to the overall status of Northern Ireland's 25 transitional & coastal water bodies. In 2015, 8 (32 %) transitional & coastal water bodies achieved good overall status and 1 (4 %) achieved high overall status. In 2018, 10 (40 %) water bodies achieved good overall status. In 2021, no water bodies achieved good overall status.

The North East RBD has 17 transitional & coastal water bodies, 6 (35 %) water bodies achieved good overall status and 1 (6 %) achieved high overall status in 2015. In 2018, 7 (41 %) water bodies achieved good overall status. In 2021, no water bodies achieved good overall status.

The Neagh Bann RBD has 5 transitional & coastal water bodies, 1 (20 %) water body achieved good overall status in 2015. In 2018, 2 (40 %) achieved good overall status. In 2021, no water bodies achieved good overall status.

The North West RBD has 3 transitional and coastal water bodies, 1 (33 %) water body achieved good overall status in 2015. In 2018, 1 (33 %) water body achieved good overall status. In 2021, no water bodies achieved good overall status overall status. In 2021, no water bodies achieved good overall status.

Overall transitional & coastal water body status 2015, 2018 & 2021 25 20 15 10 5 2015 | 2018 | 2021 2015 | 2018 | 2021 2015 | 2018 | 2021 2015 | 2018 | 2021 North East Neagh Bann North West Northern Ireland ■ No Data ■ Bad ■ Poor ■ Moderate ■ Good ■ High

Figure 5d Overall transitional and coastal water body status 2015, 2018 & 2021

Table 5d Overall transitional & coastal water body status 2015, 2018 & 2021

Overall	transitional &	coastal w	ater body stat	us 2015, 2	018 & 2021		
	2015		2018		2021		
	No.	%	No.	%	No.	%	
North East							
High	1	6	0	0	0	0	
Good	6	35	7	41	0	0	
Moderate	9	53	10	59	17	100	
Poor	1	6	0	0	0	0	
Bad	0	0	0	0	0	0	
No Data	0	0	0	0	0	0	
Neagh Bann							
High	0	0	0	0	0	0	
Good	1	20	2	40	0	0	
Moderate	3	60	2	40	4	80	
Poor	1	20	1	20	1	20	
Bad	0	0	0	0	0	0	
No Data	0	0	0	0	0	0	
		Nort	h West				
High	0	0	0	0	0	0	
Good	1	33	1	33	0	0	
Moderate	2	67	2	67	3	100	
Poor	0	0	0	0	0	0	
Bad	0	0	0	0	0	0	
No Data	0	0	0	0	0	0	
Northern Ireland							
High	1	4	0	0	0	0	
Good	8	32	10	40	0	0	
Moderate	14	56	14	56	24	96	
Poor	2	8	1	4	1	4	
Bad	0	0	0	0	0	0	
No Data	0	0	0	0	0	0	

6. Northern Ireland's Groundwater Classification Status

The data in Figures 6a, 6b and 6c and Tables 6a, 6b and 6c refer to the 75 groundwater bodies within Northern Ireland within the North East, Neagh Bann and North West RBDs. Due to a long lag time, groundwater body classifications are not carried out mid-cycle. Hence 2015 is compared with 2021. The 2020 groundwater body status has been published and can be viewed on this link – Groundwater status 2020².

Groundwater quantitative status

The data in Figure 6a and Table 6a compares the 2015 and 2021 quantitative status for groundwater for 75 water bodies of which 67 (89 %) were good quantitative status in 2015. In 2021, 71 (95 %) achieved good quantitative status.

The North East RBD has 14 groundwater bodies, 12 (86 %) achieved good quantitative status in 2015. In 2021, 12 (86 %) achieved good quantitative status.

The Neagh Bann RBD has 16 groundwater bodies, 13 (81 %) achieved good quantitative status in 2015. In 2021, 16 (100 %) achieved good quantitative status.

The North West RBD has 45 groundwater bodies, 42 (93 %) achieved good quantitative status in 2015. In 2021, 43 (96 %) achieved good quantitative status.

² http://www.daera-ni.gov.uk/publications/northern-ireland-water-framework-directive-statistics-groundwater-status-update-2020

Figure 6a Groundwater quantitative status 2015 & 2021

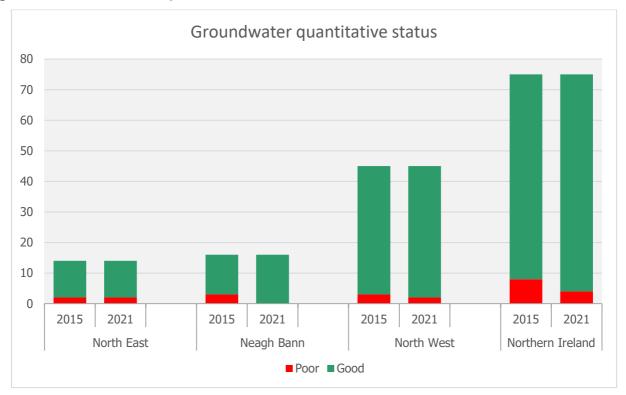


Table 6a Groundwater quantitative status for 2015 & 2021

Groundwater quantitative status for 2015 & 2021							
	2015		2021				
	No. %		No.	%			
North East							
Good	12	86	12	86			
Poor	2	14	2	14			
	Neagh Bann						
Good	13	81	16	100			
Poor	3	19	0	0			
	North West						
Good	42	93	43	96			
Poor	3	7	2	4			
Northern Ireland							
Good	67	89	71	95			
Poor	8	11	4	5			

Groundwater chemical status

The data in Figure 6b and Table 6b compares the 2015 and 2021 chemical status for groundwater for 75 water bodies of which 51 (68 %) achieved good chemical status in 2015. In 2021, 53 (71 %) achieved good chemical status.

The North East RBD has 14 groundwater bodies, 6 (43 %) achieved good chemical status in 2015. In 2021, 5 (36 %) achieved good chemical status.

The Neagh Bann RBD, has 16 groundwater bodies, 7 (44 %) achieved good chemical status in 2015. In 2021, 10 (63 %) achieved good chemical status.

The North West RBD, has 45 groundwater bodies, 38 (84 %) achieved good chemical status in 2015. In 2021, 38 (84 %) achieved good chemical status.

Figure 6b Groundwater chemical status 2015 & 2021

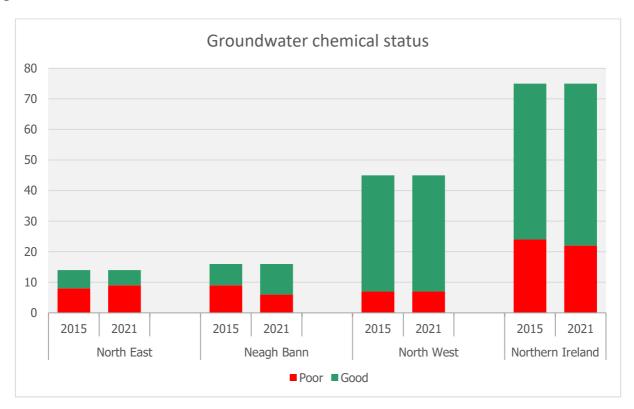


Table 6b Groundwater chemical status 2015 & 2021

Groundwater chemical status 2015 & 2021						
	2015		2021			
	No. %		No.	%		
North East						
Good	6	43	5	36		
Poor	8	<i>57</i>	9	64		
Neagh Bann						
Good	7	44	10	63		
Poor	9	56	6	38		
North West						
Good	38	84	38	84		
Poor	7	16	7	16		
Northern Ireland						
Good	51	68	53	71		
Poor	24	32	22 <i>29</i>			

Groundwater overall status

The data in Figure 6c and Table 6c compares the 2015 and 2021 overall status for groundwater for 75 water bodies of which 49 (65 %) achieved good overall status in 2015. In 2021, 51 (68 %) achieved good overall status.

The North East RBD has 14 groundwater bodies, 6 (43 %) achieved good overall status in 2015. In 2021, 5 (36 %) achieved good overall status.

The Neagh Bann RBD has 16 groundwater bodies, 6 (38 %) achieved good overall status in 2015. In 2021, 10 (63 %) achieved good overall status.

The North West RBD has 45 groundwater bodies, 37 (82 %) achieved good overall status in 2015. In 2021, 36 (80 %) achieved good overall status.

Figure 6c Groundwater overall status

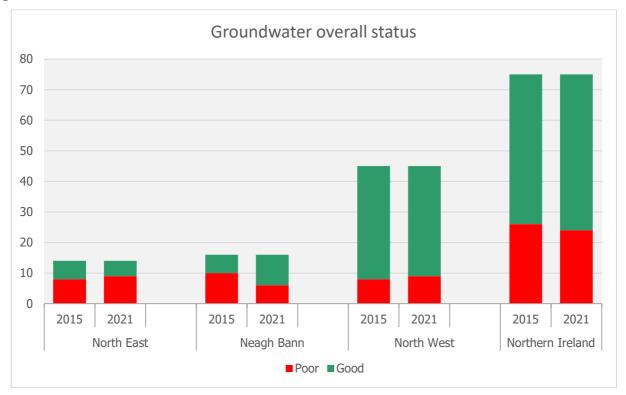


Table 6c Groundwater Overall Status

Groundwater Overall Status								
	2015		2021					
	No.	%	No.	%				
North East								
Good	6	43	5	36				
Poor	8	57	9	64				
	Neagh Bann							
Good	6	38	10	63				
Poor	10	63	6	38				
	North West							
Good	37	82	36	80				
Poor	8	18	9	20				
Northern Ireland								
Good	49	65	51	68				
Poor	26	35	24	32				



For further information:

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