



Supporting information for the interim water quality review as required as a condition of Ireland's derogation under the Nitrates Directive

ENVIRONMENTAL PROTECTION AGENCY

The EPA is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

The work of the EPA can be divided into three main areas:

Regulation: *Implementing regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

Knowledge: *Providing high quality, targeted and timely environmental data, information and assessment to inform decision making.*

Advocacy: *Working with others to advocate for a clean, productive and well protected environment and for sustainable environmental practices.*

Our responsibilities include:

Licensing

- Large-scale industrial, waste and petrol storage activities;
- Urban waste water discharges;
- The contained use and controlled release of Genetically Modified Organisms;
- Sources of ionising radiation;
- Greenhouse gas emissions from industry and aviation through the EU Emissions Trading Scheme.

National Environmental Enforcement

- Audit and inspection of EPA licensed facilities;
- Drive the implementation of best practice in regulated activities and facilities;
- Oversee local authority responsibilities for environmental protection;
- Regulate the quality of public drinking water and enforce urban waste water discharge authorisations;
- Assess and report on public and private drinking water quality;
- Coordinate a network of public service organisations to support action against environmental crime;
- Prosecute those who flout environmental law and damage the environment.

Waste Management and Chemicals in the Environment

- Implement and enforce waste regulations including national enforcement issues;
- Prepare and publish national waste statistics and the National Hazardous Waste Management Plan;
- Develop and implement the National Waste Prevention Programme;
- Implement and report on legislation on the control of chemicals in the environment.

Water Management

- Engage with national and regional governance and operational structures to implement the Water Framework Directive;
- Monitor, assess and report on the quality of rivers, lakes, transitional and coastal waters, bathing waters and groundwaters, and measurement of water levels and river flows.

Climate Science & Climate Change

- Publish Ireland's greenhouse gas emission inventories and projections;
- Provide the Secretariat to the Climate Change Advisory Council and support to the National Dialogue on Climate Action;
- Support National, EU and UN Climate Science and Policy development activities.

Environmental Monitoring & Assessment

- Design and implement national environmental monitoring systems: technology, data management, analysis and forecasting;
- Produce the State of Ireland's Environment and Indicator Reports;
- Monitor air quality and implement the EU Clean Air for Europe Directive, the Convention on Long Range Transboundary Air Pollution, and the National Emissions Ceiling Directive;
- Oversee the implementation of the Environmental Noise Directive;
- Assess the impact of proposed plans and programmes on the Irish environment.
- Environmental Research and Development
- Coordinate and fund national environmental research activity to identify pressures, inform policy and provide solutions;
- Collaborate with national and EU environmental research activity.

Radiological Protection

- Monitoring radiation levels and assess public exposure to ionising radiation and electromagnetic fields;
- Assist in developing national plans for emergencies arising from nuclear accidents;
- Monitor developments abroad relating to nuclear installations and radiological safety;
- Provide, or oversee the provision of, specialist radiation protection services.

Guidance, Awareness Raising, and Accessible Information

- Provide independent evidence-based reporting, advice and guidance to Government, industry and the public on environmental and radiological protection topics;
- Promote the link between health and wellbeing, the economy and a clean environment;
- Promote environmental awareness including supporting behaviours for resource efficiency and climate transition;
- Promote radon testing in homes and workplaces and encourage remediation where necessary.

Partnership and networking

- Work with international and national agencies, regional and local authorities, non-governmental organisations, representative bodies and government departments to deliver environmental and radiological protection, research coordination and science-based decision making.

Management and structure of the EPA

The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by advisory committees who meet regularly to discuss issues of concern and provide advice to the Board.



Supporting information for the interim water quality review as required as a condition of Ireland's derogation under the Nitrates Directive

Prepared by the EPA

ENVIRONMENTAL PROTECTION AGENCY

An Ghníomhaireacht um Chaomhnú Comhshaoil
PO Box 3000, Johnstown Castle, Co. Wexford, Ireland

Telephone: +353 53 916 0600 Fax: +353 53 916 0699

Email: info@epa.ie Website: www.epa.ie

Table of Contents

1	Introduction.....	3
1.1	The requirements of the interim water quality review.....	3
2	Data for the Interim Water Quality Review	4
2.1	Comparison of the Nitrates Directive monitoring dataset and the national Water Framework Directive monitoring dataset.....	4
3	Assessment of Average Nitrate Concentrations for the Interim Water Quality Review..	6
3.1	River Nitrogen Concentrations	6
3.2	Lake Nitrogen Concentrations.....	6
3.3	Transitional and Coastal Water Nitrogen Concentrations	6
3.4	Groundwater Nitrogen Concentrations	6
3.5	Assessment of Criteria A1 and A2	6
4	Assessment of Trophic Status for the Interim Water Quality Review	7
4.1	River Trophic Status Method.....	7
4.2	Lake Trophic Status Method.....	8
4.3	Transitional and Coastal Waters Trophic Status Method	9
4.4	Changes in Trophic Status	10
5	Conclusion	11
	Appendix 1. Copy of Article 12 of the Commission Implementing Decision	12
	Appendix 2. Salinity related pass/fail values for the assessment criteria for saline waters..	13

1 Introduction

The Environmental Protection Agency (EPA) has carried out an interim water quality review in 2023¹ as a condition set out by the European Commission in its Derogation Decision².

Article 12 of the Derogation Decision prescribes the criteria and the data to be used in the interim water quality review (Appendix 1). The aim of the review is to identify waterbodies that are polluted, at risk of pollution, or showing worsening trends as a result of agricultural activities. The Commission requires that Ireland implements additional measures in the areas draining to the waterbodies that meet the criteria, by 1 January 2024. The additional measures are to include a reduction in rate of application of manure from a maximum of 250 kg N/ha/y to 220 kg N/ha/y on derogation farms in the contributing areas. The outcomes of the review are in Annex 1 of the Annual Nitrogen and Phosphorus Report (<https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/water-quality-monitoring-report-on-nitrogen-and-phosphorous-concentrations-in-irish-waters-2022.php>)

1.1 The requirements of the interim water quality review

There are four water quality assessment criteria set out by the Commission in Article 12:

(A1) an average nitrate concentration > 50mg/l NO₃ for the three-year period from 1 January 2020 to 31 December 2022.

(A2) a higher average nitrate concentration in 2022 compared to the average nitrate concentration in 2021.

(B1) “Eutrophic” status.

(B2) “Could become eutrophic” status with a stable or worsening trend, i.e. comparing the 2022 data with data from 2021.

This technical report provides supporting information for the interim water quality review. Section 2 details the dataset used in the assessment. Section 3 and 4 detail the data processing and assessment for the A and B criteria, respectively.

¹ Article 38 in the amended GAP Regulations requires the Agency to complete the interim assessment. [S.I. No. 393/2022 - European Union \(Good Agricultural Practice for Protection of Waters\) \(Amendment\) Regulations 2022 \(irishstatutebook.ie\)](https://www.irishstatutebook.ie/eli/2022/si/393/2022-01-01)

² Commission implementing decision (EU) 2022/696
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022D0696>

2 Data for the Interim Water Quality Review

Article 12 specifies that the data to be used in the assessment are to be taken from the monitoring network set up under the Nitrates Directive 91/676/EEC to monitor the impacts of agriculture on water quality. The Nitrates Directive monitoring dataset is a subset of the national Water Framework Directive monitoring dataset. The approach to carrying out the assessment, including the methodology for assessing trends, is required to be the same as the methodology used in the Article 10 water quality assessment which is submitted to the Commission every four years as part of the review of the Nitrates Action Programme.

2.1 Comparison of the Nitrates Directive monitoring dataset and the national Water Framework Directive monitoring dataset.

The EPA undertakes a national water quality monitoring programme to assess the condition of waters as prescribed under the Water Framework Directive, and to track changes in the quality of rivers, lakes, groundwater, transitional and coastal waters in response to the programme of measures outlined in the river basin management plan. The monitoring programme consists of surveillance and operational monitoring. Surveillance monitoring targets a proportion of representative water bodies and gives a comprehensive overall annual picture of the state of Irish waters over the long term. The operational monitoring network targets the impact of potential pressures and measures on water quality and is more extensive, but samples may be taken less frequently and for a smaller number of specifically relevant substances. Figure 1 shows the coverage of the surveillance and operational monitoring stations for surface water.

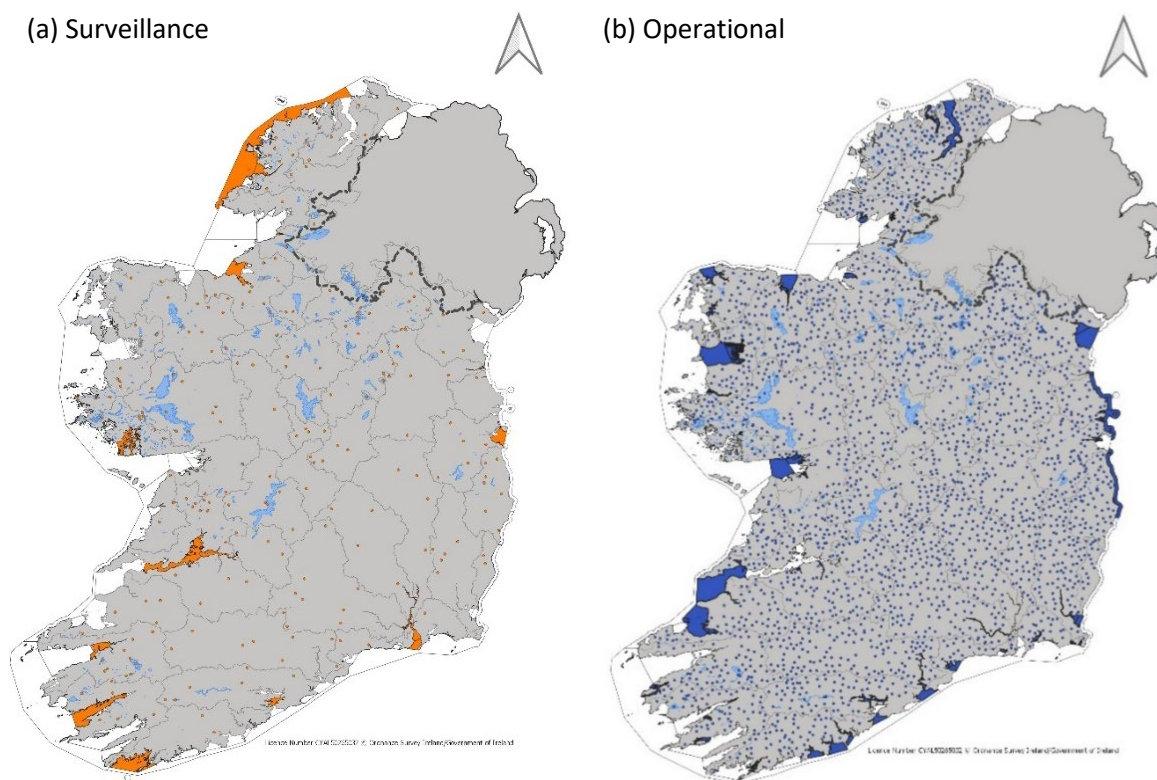


Figure 1. Locations of (a) the surface water surveillance monitoring stations and (b) the surface water operational monitoring stations.

The Nitrates Directive monitoring network is substantially the surveillance monitoring network (Figure 1a), excluding a number of stations that are dominated by impacts from urban wastewater. Monitoring

data are reported at a monitoring station level for rivers and groundwater, and monitoring data are aggregated to water body level for lakes, transitional and coastal waters. Trophic status is not applicable to groundwaters. This dataset is used for the 4-yearly Article 10 reporting and it has been specified by the Commission that it must be used for the interim review. Waterbody data relating to the Interim Water Quality Review is available for download from the EPA geoportal.

3 Assessment of Average Nitrate Concentrations for the Interim Water Quality Review

The following section details the data processing and assessment of the waters that have an average nitrate concentration > 50 mg/l NO₃ over 3 years and that have a station with a higher average nitrate concentration in 2022 compared to the average nitrate concentration in 2021 i.e. criteria A1 and A2. The annual average result is reported in mg/l NO₃.

For criteria A1 and A2, nitrogen parameters are monitored at set frequencies depending on the stations, ranging from 3 to 12 times per year. All of the analyses are undertaken at the EPA laboratories which are ISO17025 accredited.

3.1 River Nitrogen Concentrations

The annual average nitrate concentrations were calculated for all river chemistry monitoring stations that have three or more data points in the year.

3.2 Lake Nitrogen Concentrations

For each lake waterbody, the annual average nitrate concentration was calculated as the aggregated average of all monitoring station results for that lake in the calendar year.

3.3 Transitional and Coastal Water Nitrogen Concentrations

Dissolved inorganic nitrogen (DIN) is measured in Transitional and Coastal Waters rather than nitrate. DIN is the sum of nitrite, nitrate and ammonium.

For each transitional and coastal waterbody, all samples from monitoring stations within the waterbody are aggregated. The 2022 concentration was calculated as the median value for all winter (Nov to Feb) DIN concentrations for the 2020-2022 period. Similarly, the 2021 concentration was calculated as the median value for all winter (Nov to Feb) DIN concentrations for the 2019-2021 period. Saline waters are sampled seasonally, and the winter concentrations are required to be used as this is when biological activity and uptake of nutrients is lowest.

3.4 Groundwater Nitrogen Concentrations

The annual average nitrate concentration for each groundwater monitoring station was calculated. Typically, 3 samples are taken per site per year, and at least 2 samples were required for a station average value to be assigned. For each groundwater body, the value for this assessment was assigned as the highest annual average result for a station in that waterbody.

3.5 Assessment of Criteria A1 and A2

A waterbody met criterion A1 when the mean of the annual average concentrations for 2020 to 2022 at a monitoring station or waterbody was greater than 50 mg/l NO₃.

A waterbody met criterion A2 when the average nitrate concentration at a monitoring station or waterbody for 2022 was at least 1 mg NO₃ greater than the average nitrate concentration in 2021, as the Commission use a change of 1 mg/l NO₃ as their definition of a trend in the Nitrates Directive monitoring and reporting guidance.

4 Assessment of Trophic Status for the Interim Water Quality Review

Eutrophication is the enrichment of water by nutrients, especially compounds of nitrogen and/or phosphorus, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned (cf. Art. 2(11) of the UWWT Directive 91/271/EEC).

The classification of the trophic status of surface waters is based on an assessment of the nutrient levels in the water body and biological indicators such as plants and invertebrates. The three trophic status categories for rivers, lakes, transitional and coastal water are outlined in European guidance³:

- *Eutrophic*: the natural trophic status of a waterbody (including the biology) is out of balance because of anthropogenic pressures.
- *Could become Eutrophic*: one or more of the relevant elements have evidence of eutrophication.
- *Non-Eutrophic*: no evidence of impact.

The Nitrate Directive reporting guidelines recommend that the eutrophication assessment should reflect the assessment under the Water Framework Directive, using the relevant indicators. The assessment of all the components of trophic status that are outlined in this section have been standardised at European-level through the intercalibration process for the Water Framework Directive or have standards set in legislation. These methods were developed to capture the cause-and-effect relationship between nutrients and biological responses causing eutrophication.

For all surface waters, trophic status assessments require three years of data. Hence the 2022 trophic status for criterion B1 is generated using monitoring data from 2020 – 2022⁴. For criterion B2, the comparison is made with the 2021 trophic status which is based on data collected from 2019 – 2021.

4.1 River Trophic Status Method

The trophic status of Irish rivers is based on biological quality elements that are sensitive to nutrient enrichment and nutrient standards. The inputs into the status calculation are the invertebrates as assessed using the EPA's standard Q-value methodology and orthophosphate concentrations (Table 1).

The mean orthophosphate concentration for each station was calculated as a three-year average for 2020-2022. The minimum data requirements to assign a value was set as 3 values per year and at least two years data available in the 2020-2022 period.

Table 1 details how the ecological status and orthophosphate concentrations input into the trophic status assignment. Where a site was classified as moderate ecological status for invertebrates, orthophosphate data was used to refine the assignment of trophic status. In this assessment, there was one station where the ecological assessment indicated a suspected toxicity due to pressures other than enrichment and the low levels of orthophosphate at this station was used to assign a non-eutrophic status (as per Table 1). In a small number of stations where chemistry data was available,

³ Guideline document no. 23: Guideline document on eutrophication assessment in the context of European water policies: https://ec.europa.eu/environment/water/water-framework/facts_figures/guidance_docs_en.htm

⁴ The trophic status reported for 2022 incorporated sampling data from 2019 in a small number of sites however these 2019 values have not been used to evaluate the criteria in the interim water quality review.

and an ecological status was not available, then the station was assigned *Could become eutrophic* if orthophosphate ≥ 0.035 mg/l and *Non eutrophic* if orthophosphate < 0.035 mg/l P.

Table 1: Classification parts for River Trophic Status and classification for Nitrates Reporting.

WFD Ecological status	Q-values	Phosphorus concentration (mg/l P)	Trophic Status
High	5, 4-5	Not used	Non-eutrophic
Good	4	Not used	Non-eutrophic
Moderate	3-4	<0.035 0.035 – 0.05 >0.05 Chemistry not available	Non-eutrophic Could become eutrophic Eutrophic Could become eutrophic
Poor	3, 2-3	Not used	Eutrophic
Bad	2, 1-2, 1	Not used	Eutrophic
Moderate, Poor or Bad with suspected toxicity		<0.035 0.035 – 0.05 >0.05	Non-eutrophic Could become eutrophic Eutrophic
Q-value not available		<0.035 ≥ 0.035	Non-eutrophic Could become eutrophic

4.2 Lake Trophic Status Method

The trophic status of lakes is based on the assessment of nutrient standards and biological quality elements that are known to be sensitive to nutrient enrichment i.e. total phosphorus, macrophytes, phyto-benthos and phytoplankton. Each of the monitored elements in a lake were assigned a class based on the data for 2020-2022 (Table 2):

- For Total Phosphorus (TP), the three-year average per lake was calculated using data from 2020-2022 inclusive.
- Phytoplankton were assessed using the Irish Phytoplankton Index using data from 2020-2022 inclusive.
- The Phyto-benthos Index (Trophic Diatom Index) used phyto-benthos data collected between 2020-2022 inclusive.
- The Macrophyte Index (Free Macrophyte Index) was determined from sampling carried out between 2020-2022 inclusive. Macrophytes are sampled once every three years.

Table 2: Classification of monitored elements of Lake Trophic Status for Nitrates Reporting Article 12 reporting (nEQR= normalised Ecological Quality Ratio).

Lake Trophic Status Component Class	Total Phosphorus (mg/l P)	Phytoplankton (nEQR)	Macrophyte (nEQR)	Phyto-benthos (nEQR)
High	≤ 0.01	≥ 0.8	≥ 0.8	≥ 0.8
Good	> 0.01 and ≤ 0.025	≥ 0.6 and < 0.8	≥ 0.6 and < 0.8	≥ 0.6 and < 0.8
Moderate	> 0.025 and ≤ 0.05	≥ 0.4 and < 0.6	≥ 0.4 and < 0.6	≥ 0.4 and < 0.6
Poor	> 0.05 and ≤ 0.075	≥ 0.2 and < 0.4	≥ 0.2 and < 0.4	≥ 0.2 and < 0.4
Bad	> 0.075	< 0.2	< 0.2	< 0.2

Table 3 outlines how the trophic status was then assigned based on the lowest class achieved of any of the four individual elements monitored for each lake (referred to as one-out-all-out). For example, if total phosphorus is classified as moderate and all other components are good, then the class is moderate.

Table 3: Assignment of Lake Trophic Status based on the class of the nutrient sensitive elements.

Lake Trophic Status	Lowest class achieved of the four nutrient sensitive elements
Non-eutrophic	High
Non-eutrophic	Good
Could become eutrophic	Moderate
Eutrophic	Poor
Eutrophic	Bad

4.3 Transitional and Coastal Waters Trophic Status Method

The trophic assessment method for transitional and coastal waters is based on the following three key criteria:

1. Enrichment by nutrients: dissolved inorganic nitrogen (DIN) and molybdate reactive phosphorus (MRP),
2. Direct effect of eutrophication i.e. accelerated growth of algae (as chlorophyll and macroalgae accumulations), and
3. Indirect effects of eutrophication i.e. undesirable disturbance to the balance of organisms or quality of the water concerned (oxygen conditions).

The physico-chemical parameter values for this assessment such as nutrients, oxygen and chlorophyll are sampled in each water body four times per year - once in winter and three times in summer. Other biological elements, e.g., macroalgal growth, are monitored during the summer at the period of peak growth.

The criteria are assessed on a sliding scale based on the median salinity of the waterbody. For example, for DIN, the criteria threshold for pass/fail at salinity of 0 psu (practical salinity unit) is 2.6 mg/l and 0.25 mg/l at a salinity of 34.5 psu (see Annex 1).

The outcome of the combined assessment criteria for each water body is categorised into the three trophic status of classes (see Table 4):

Table 4: Examples of classification from different combinations.

Trophic Status	Enrichment by nutrients		Direct effect of eutrophication	Indirect effects of eutrophication
	Nitrogen Concentration (mg/l N)	Phosphorus Concentration (mg/l P)	Plant Growth (chlorophyll and macroalgae)	Oxygen
Eutrophic	Fail	Fail	Fail	Fail
Eutrophic	Fail	Fail	Fail	Pass
Eutrophic	Fail	Pass	Pass	Fail
Eutrophic	Pass	Fail	Fail	Fail
Eutrophic	Pass	Fail	Fail	Pass
Could become Eutrophic*	Pass	Pass	Pass	Fail
Could become Eutrophic*	Fail	Pass	Pass	Pass
Could become Eutrophic*	Pass	Fail	Pass	Pass
Non eutrophic	Pass	Pass	Pass	Pass

* no direct effect of eutrophication response evident

4.4 Changes in Trophic Status

The aim of the interim review is to identify, using the monitoring data, where water quality is polluted, at risk of pollution, or showing stable or worsening trends, with respect to both nutrient conditions and trophic status. The trend assessment must compare the changes in water quality between 2022 and 2021, in line with the trend assessment methodology prescribed by the Commission for the 4-yearly Article 10 water quality reporting. The trophic status for the most recent 3-year period (2020-2022) was compared to the previous period (2019-2021).

Changes in trophic status for this assessment was assigned to three categories: *increase*, *stable*, and *decrease* (Table 5).

Table 5: Classification of change for Article 12 of the Derogation Decision.

Trophic Change	Measure of Change
Increase	Non-Eutrophic to Eutrophic Could become eutrophic to Eutrophic Non-Eutrophic to Could become Eutrophic
Stable	No change in class
Decrease	Eutrophic to Could become eutrophic Could become Eutrophic to Non-Eutrophic Eutrophic to Non-Eutrophic

5 Conclusion

The EPA has carried out the interim water quality review as specified by the Commission's Implementing Decision (<https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/water-quality-monitoring-report-on-nitrogen-and-phosphorous-concentrations-in-irish-waters-2022.php>) . This technical document provides the details of the data management and processes to produce the assessment. The associated data is available for download from the EPA geoportal.

Appendix 1. Copy of Article 12 of the Commission Implementing Decision

Article 12

Two-year review

1. The competent authorities shall submit, by 30 June 2023, with the report described in Article 13, corresponding to the year 2022, an annex containing the results of monitoring as regards the nitrates concentrations of groundwater and surface waters and the trophic status of surface water bodies, based on the monitoring network and requirements of the Nitrates Directive 91/676/EEC and including at least maps showing those areas draining into waters where monitoring data reveal:

- (a) average values of nitrate concentrations above 50 mg/l or increasing trends of nitrates concentration compared to 2021;
- (b) 'Eutrophic' status or 'could become eutrophic' status with a stable or worsening trend compared to 2021.

Waters identified by either point (a) or (b) of the first subparagraph shall be considered as polluted, at risk of pollution or showing worsening trends. The data for the estimation of the average values shall cover the period from 1 January 2020 to 31 December 2022. For the assessment of trends, the data from 2021 and 2022 shall be compared.

2. For the elaboration of the annex referred to in paragraph 1 of this Article, the data used shall be taken from the monitoring network set up under Directive 91/676/EEC.

3. As from 1 January 2024, in areas draining into polluted or at-risk-of-pollution waters or presenting worsening trends, additional measures shall be applied under the Nitrates Action Programme. For farms that have been granted an authorisation pursuant to this Decision and located in such areas, the amount of manure that may be applied to the land shall not exceed 220 kg nitrogen/ha per year.

4. The competent authorities shall inform the Commission, by 30 September 2023, of the outcomes of this two-year review, and in particular on the areas and farms with an authorisation where the maximum amount of manure to be applied is 220 kg nitrogen/ha per year and of the additional measures to be applied within the Nitrates Action Programme.

Appendix 2. Salinity related pass/fail values for the assessment criteria for saline waters.

Trophic Status Assessment Criteria (TSAS): Relationship with salinity gradient						
Median Salinity (psu)	Nutrient enrichment		Accelerated growth of phytoplankton and macroalgae		“Undesirable disturbance”	
	Median Dissolved Inorganic Nitrogen (DIN) (mg/l N)	Median Orthophosphate (MRP) (mg/l P)	Median Chlorophyll (µg/l)	95 %ile Chlorophyll (µg/l)	5 %ile Dissolved Oxygen (% Saturation)	95 %ile Dissolved Oxygen (% Saturation)
0	2.6	0.06	15	30	70	130
1	2.529	0.06	15	30	70	130
2	2.459	0.06	15	30	70	130
3	2.388	0.06	15	30	70	130
4	2.318	0.06	15	30	70	130
5	2.247	0.06	15	30	70	130
6	2.176	0.06	15	30	70	130
7	2.106	0.06	15	30	70	130
8	2.035	0.06	15	30	70	130
9	1.965	0.06	15	30	70	130
10	1.894	0.06	15	30	70	130
11	1.824	0.06	15	30	70	130
12	1.753	0.06	15	30	70	130
13	1.682	0.06	15	30	70	130
14	1.612	0.06	15	30	70	130
15	1.541	0.06	15	30	70	130
16	1.471	0.06	15	30	70	130
17	1.4	0.06	15	30	70	130
18	1.336	0.059	14.7	29.4	71	129
19	1.272	0.058	14.4	28.9	71	129
20	1.208	0.057	14.2	28.3	72	128
21	1.144	0.056	13.9	27.8	72	128
22	1.081	0.054	13.6	27.2	73	127
23	1.017	0.053	13.3	26.7	73	127
24	0.953	0.052	13.1	26.1	74	126
25	0.889	0.051	12.8	25.6	74	126
26	0.825	0.05	12.5	25	75	125
27	0.761	0.049	12.2	24.4	76	124
28	0.697	0.048	11.9	23.9	76	124
29	0.633	0.047	11.7	23.3	77	123
30	0.569	0.046	11.4	22.8	77	123
31	0.506	0.044	11.1	22.2	78	122
32	0.442	0.043	10.8	21.7	78	122
33	0.378	0.042	10.6	21.1	79	121
34	0.314	0.041	10.3	20.6	79	121
35	0.25	0.04	10	20	80	120

Macroalgal assessment according to WFD- EQR High >0.8, Good 0.6-0.8, Moderate 0.4-0.6, Poor 0.2-0.4, Bad < 0.2

AN GHNÍOMHAIREACTH UM CHAOMHNÚ COMHSHAOIL

Tá an GCC freagrach as an gcomhshaol a chosaint agus a fheabhsú, mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ar thionchar díobhálach na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a rinnt ina trí phríomhréimse:

Rialáil: Rialáil agus córais chomhlíonta comhshaoil éifeachtacha a chur i bhfeidhm, chun dea-thorthaí comhshaoil a bhaint amach agus díriú orthu siúd nach mbíonn ag cloí leo.

Eolas: Sonraí, eolas agus measúnú ardchaighdeán, spriocdhírthe agus tráthúil a chur ar fáil i leith an chomhshaoil chun bonn eolais a chur faoin gcinnteoireacht.

Abhcóideacht: Ag obair le daoine eile ar son timpeallachta glaine, táirgiúla agus dea-chosanta agus ar son cleachtas inbhuanaithe i dtaobh an chomhshaoil.

I measc ár gcuid freagrachtaí tá:

Ceadúnú

- Gníomhaíochtaí tionscail, dramhaíola agus stórála peitрил ar scála mór;
- Sceitheadh fuíolluisce uirbhig;
- Úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe;
- Foinsí radaíochta ianúcháin;
- Astaíochtaí gás ceaptha teasa ó thionscal agus ón eitlíocht trí Scéim an AE um Thrádáil Astaíochtaí.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Iníúchadh agus cigireacht ar shaoráidí a bhfuil ceadúnas acu ón GCC;
- Cur i bhfeidhm an dea-chleachtais a stiúradh i ngníomhaíochtaí agus i saoráidí rialáilte;
- Maoirseacht a dhéanamh ar fhreagrachtaí an údaráis áitiúil as cosaint an chomhshaoil;
- Caighdeán an uisce óil phoiblí a rialáil agus údaruithe um sceitheadh fuíolluisce uirbhig a fhorfheidhmiú
- Caighdeán an uisce óil phoiblí agus phríobháidigh a mheasúnú agus tuairiscíú air;
- Comhordú a dhéanamh ar líonra d'eagraíochtaí seirbhíse poiblí chun tacú le gníomhú i gcoinne coireachta comhshaoil;
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

Bainistíocht Dramhaíola agus Ceimiceáin sa Chomhshaol

- Rialacháin dramhaíola a chur i bhfeidhm agus a fhorfheidhmiú lena n-áirítear saincheistanna forfheidhmithe náisiúnta;
- Staitisticí dramhaíola náisiúnta a ullmhú agus a fhoilsiú chomh maith leis an bPlean Náisiúnta um Bainistíocht Dramhaíola Guaisí;
- An Clár Náisiúnta um Chosc Dramhaíola a

fhorbairt agus a chur i bhfeidhm;

- Reachtaíocht ar rialú ceimiceán sa timpeallacht a chur i bhfeidhm agus tuairiscíú ar an reachtaíocht sin.

Bainistíocht Uisce

- Plé le struchtúir náisiúnta agus réigiúnacha rialachais agus oibriúcháin chun an Chreat-treoir Uisce a chur i bhfeidhm;
- Monatóireacht, measúnú agus tuairiscíú a dhéanamh ar chaighdeán aibhneacha, lochanna, uiscí idirchreasa agus cósta, uiscí snámha agus screamhuisce chomh maith le tomhas ar leibhéil uisce agus sreabhadh abhann.

Eolaíocht Aeráide & Athrú Aeráide

- Fardail agus réamh-mheastacháin a fhoilsiú um astaíochtaí gás ceaptha teasa na hÉireann;
- Rúnaíocht a chur ar fáil don Chomhairle Chomhairleach ar Athrú Aeráide agus tacaíocht a thabhairt don Idirphlé Náisiúnta ar Ghníomhú ar son na hAeráide;
- Tacú le gníomhaíochtaí forbartha Náisiúnta, AE agus NA um Eolaíocht agus Beartas Aeráide.

Monatóireacht & Measúnú ar an gComhshaol

- Córais náisiúnta um monatóireacht an chomhshaoil a cheapadh agus a chur i bhfeidhm: teicneolaíocht, bainistíocht sonraí, anailís agus réamhaisnéisiú;
- Tuairiscí ar Staid Timpeallacht na hÉireann agus ar Tháscairí a chur ar fáil;
- Monatóireacht a dhéanamh ar chaighdeán an aeir agus Treoir an AE i leith Aeir Ghlain don Eoraip a chur i bhfeidhm chomh maith leis an gCoinbhinsiún ar Aerthruaillíú Fadraoin Trasteorann, agus an Treoir i leith na Teorann Náisiúnta Astaíochtaí;
- Maoirseacht a dhéanamh ar chur i bhfeidhm na Treorach i leith Torainn Timpeallachta;
- Measúnú a dhéanamh ar thionchar pleananna agus clár beartaithe ar chomhshaol na hÉireann.
- Taighde agus Forbairt Comhshaoil
- Comhordú a dhéanamh ar ghníomhaíochtaí taighde comhshaoil agus iad a mhaoiniú chun brú a aithint, bonn eolais a chur faoin mbeartas agus réitigh a chur ar fáil;
- Comhoibriú le gníomhaíocht náisiúnta agus AE um thaighde comhshaoil.

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta agus nochtadh an phobail do radaíocht ianúcháin agus do réimsí leictreamaighnéadacha a mheas;
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as tairmí núicléacha;
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta;
- Sainseirbhísí um chosaint ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Ardú Feasachta agus Faisnéis Inrochtana

- Tuairiscíú, comhairle agus treoir neamhspleách, fianaise-bhunaithe a chur ar fáil don Rialtas, don tionscal agus don phobal ar ábhair maidir le cosaint comhshaoil agus raideolaíoch;
- An nasc idir sláinte agus folláine, an geilleagar agus timpeallacht ghlan a chur chun cinn;
- Feasacht comhshaoil a chur chun cinn lena n-áirítear tacú le hiompraíocht um éifeachtúlacht acmhainní agus aistriú aeráide;
- Tástáil radóin a chur chun cinn i dtithe agus in ionaid oibre agus feabhsúchán a mholadh áit is gá.

Comhpháirtíocht agus líonrú

- Oibriú le gníomhaireachtaí idirnáisiúnta agus náisiúnta, údarais réigiúnacha agus áitiúla, eagraíochtaí neamhrialtais, comhlachtaí ionadaíochta agus ranna rialtais chun cosaint comhshaoil agus raideolaíoch a chur ar fáil, chomh maith le taighde, comhordú agus cinnteoireacht bunaithe ar an eolaíocht.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an GCC á bhainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóir. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inbhuanaitheacht i leith Cúrsaí Comhshaoil
- An Oifig Forfheidhmithe i leith Cúrsaí Comhshaoil
- An Oifig um Fhianaise agus Measúnú
- An Oifig um Chosaint ar Radaíocht agus Monatóireacht Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tugann coistí comhairleacha cabhair don Gníomhaireacht agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.



Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Headquarters

**PO Box 3000,
Johnstown Castle Estate
County Wexford, Ireland**

**T: +353 53 916 0600
F: +353 53 916 0699
E: info@epa.ie
W: www.epa.ie
LoCall: 1890 33 55 99**

Regional Inspectorate

McCumiskey House,
Richview, Clonskeagh Road,
Dublin 14, Ireland

**T: +353 1 268 0100
F: +353 1 268 0199**

Regional Inspectorate

Inniscarra, County Cork,
Ireland

**T: +353 21 487 5540
F: +353 21 487 5545**

Regional Inspectorate

Seville Lodge, Callan Road,
Kilkenny, Ireland

**T +353 56 779 6700
F +353 56 779 6798**

Regional Inspectorate

John Moore Road, Castlebar
County Mayo, Ireland

**T +353 94 904 8400
F +353 94 902 1934**

Regional Inspectorate

The Glen, Monaghan, Ireland

**T +353 47 77600
F +353 47 84987**

Regional Offices

The Civic Centre
Church St., Athlone
Co. Westmeath, Ireland
T +353 906 475722

Room 3, Raheen Conference Centre,
Pearse House, Pearse Road
Raheen Business Park, Limerick,
Ireland
T +353 61 224764

