

National Inspection Plan 2018-2021

Domestic Waste Water Treatment Systems

ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency (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: *We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

Knowledge: *We provide high quality, targeted and timely environmental data, information and assessment to inform decision making at all levels.*

Advocacy: *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

Our Responsibilities

Licensing

We regulate the following activities so that they do not endanger human health or harm the environment:

- waste facilities (*e.g. landfills, incinerators, waste transfer stations*);
- large scale industrial activities (*e.g. pharmaceutical, cement manufacturing, power plants*);
- intensive agriculture (*e.g. pigs, poultry*);
- the contained use and controlled release of Genetically Modified Organisms (*GMOs*);
- sources of ionising radiation (*e.g. x-ray and radiotherapy equipment, industrial sources*);
- large petrol storage facilities;
- waste water discharges;
- dumping at sea activities.

National Environmental Enforcement

- Conducting an annual programme of audits and inspections of EPA licensed facilities.
- Overseeing local authorities' environmental protection responsibilities.
- Supervising the supply of drinking water by public water suppliers.
- Working with local authorities and other agencies to tackle environmental crime by co-ordinating a national enforcement network, targeting offenders and overseeing remediation.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Prosecuting those who flout environmental law and damage the environment.

Water Management

- Monitoring and reporting on the quality of rivers, lakes, transitional and coastal waters of Ireland and groundwaters; measuring water levels and river flows.
- National coordination and oversight of the Water Framework Directive.
- Monitoring and reporting on Bathing Water Quality.

Monitoring, Analysing and Reporting on the Environment

- Monitoring air quality and implementing the EU Clean Air for Europe (CAFÉ) Directive.
- Independent reporting to inform decision making by national and local government (*e.g. periodic reporting on the State of Ireland's Environment and Indicator Reports*).

Regulating Ireland's Greenhouse Gas Emissions

- Preparing Ireland's greenhouse gas inventories and projections.
- Implementing the Emissions Trading Directive, for over 100 of the largest producers of carbon dioxide in Ireland.

Environmental Research and Development

- Funding environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability.

Strategic Environmental Assessment

- Assessing the impact of proposed plans and programmes on the Irish environment (*e.g. major development plans*).

Radiological Protection

- Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- Assisting in developing national plans for emergencies arising from nuclear accidents.
- Monitoring developments abroad relating to nuclear installations and radiological safety.
- Providing, or overseeing the provision of, specialist radiation protection services.

Guidance, Accessible Information and Education

- Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making (*e.g. My Local Environment, Radon Maps*).
- Advising Government on matters relating to radiological safety and emergency response.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

Awareness Raising and Behavioural Change

- Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

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 an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.



Protecting Our Water and Our Health

National Inspection Plan 2018 - 2021

Domestic Waste Water Treatment Systems

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NATIONAL INSPECTION PLAN 2018 - 2021
Domestic Waste Water Treatment Systems

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Contents

Summary of 2018 – 2021 Plan	1
Chapter 1 Introduction.....	2
1.1. Background	2
1.2. Roles and responsibilities	3
1.3. Review of National Inspection Plan 2015 - 2017	6
Chapter 2 Risk assessment	7
2.1 Background	7
2.2 River basin management plan 2018 - 2021.....	9
2.3 Updated risk-based methodology for 2018 – 2021 national inspection plan.....	11
Chapter 3 Inspections.....	22
3.1 Introduction	22
3.2 Inspection allocations.....	22
3.3 Inspection plan	23
3.4 Complaints	25
3.5 Inspection Process.....	26
Chapter 4 Engagement.....	27
4.1 Background	27
4.2 Engagement activities 2015 – 2017	27
4.3 Proposed engagement activities 2018 – 2021	29
4.4 Education and desludging initiative.....	32
Chapter 5 Implementation and review of the plan	33
5.1. Implementation.....	33
5.2. Reporting and review	35
Appendix A: Risk assessment methodology for 2018 – 2021.....	36
Appendix B: List of publications.....	44
Appendix C: Information for private well owners.....	46

Summary of 2018 – 2021 Plan

Plan Overview

- The aim of the plan is to protect human health and water quality from the risks posed by domestic waste water treatment systems.
- The plan is based on a two strand approach of engagement strategies linked with risk based inspections.
- The plan covers the period 1st January 2018 to the 31st December 2021.
- An updated risk based methodology has been developed by the EPA for the selection of sites for inspection.

Engagement

- The EPA will continue to oversee the implementation of engagement and awareness activities by the local authorities and other key stakeholders.

Inspections

- A minimum of a 1,000 inspections per year will be carried out by local authority inspectors during 2018, 2019, 2020 and 2021.
- Inspections are carried out by local authority inspectors appointed by the EPA.
- Inspections are allocated by taking account of the risk, significant pressure and prioritisation for action for each waterbody.

Consultation

- The EPA invited submissions from all interested parties on the proposals up to the 26th of January 2018.
- All 19 submissions received have been considered in the finalisation of this plan.

Chapter 1 Introduction

1.1. Background

This report outlines the proposed third national inspection plan for domestic waste water treatment systems (DWWTS) for the period 2018 to 2021. The *Water Services Act 2007, as amended by the Water Services (Amendment) Act 2012* requires the EPA to prepare a national inspection plan for DWWTS. The purpose of the plan is to protect human health and water quality from the risks posed by DWWTS (also known as septic tank systems).

The EPA prepared the first national inspection plan for DWWTS in 2013 covering the period 2013 to 2014. The plan required local authorities to undertake a minimum of 1,000 inspections each year across the country. The EPA developed a risk based methodology to assist the local authorities with the selection of locations for inspections. The methodology took into account the potential risks that DWWTS pose to both human health and water quality.

The second national inspection plan for DWWTS in 2015 outlined the inspection process covering the period 2015 to 2017. Some minor changes were made to the risk maps used for site selection as additional environmental data had become available. This also resulted in a slight change to the number of inspections in some counties.

This third plan has been prepared for the years 2018 to 2021. The risk-based methodology has been updated to take into account additional information gathered on water quality during the preparation of the River Basin Management Plan 2018 – 2021. Further information on the revised methodology is provided in section 2 of this report.

The minimum number of inspections across the country remains at a 1,000 inspections per annum. However, the minimum number of inspections required in each local authority area has changed in response to the revised methodology and further details are provided in section 3 of this report. The final number of inspections remains a matter for each local authority. Additional inspections should be carried out where evidence exists that DWWTS are causing an issue in a particular catchment.

Under the national inspection plan local authority inspectors are required to undertake a minimum number of inspections each year. Any shortfall in the number of inspections completed at the end of the 2015 to 2017 reporting period will be carried over and added to the number of inspections to be undertaken in 2018.

Since the national inspection plan was first developed in 2013 it has been based on a two-strand approach of engagement strategies linked with a risk based inspection process (Figures 1.1 and 1.2).

The purpose of strand 1, the engagement strategy, is to ensure all home owners with domestic waste water treatment systems: (1) know what to do to ensure that their system is correctly operated and maintained and (2) understand the risks posed to water quality and human health from poorly maintained systems.

Strand 2 of the process is where inspections are carried out by local authority inspectors to identify DWWTS that are not operating correctly or not being adequately maintained by home owners. Where problems are identified home owners are issued with an advisory notice from the local authority instructing them to carry out remedial works.

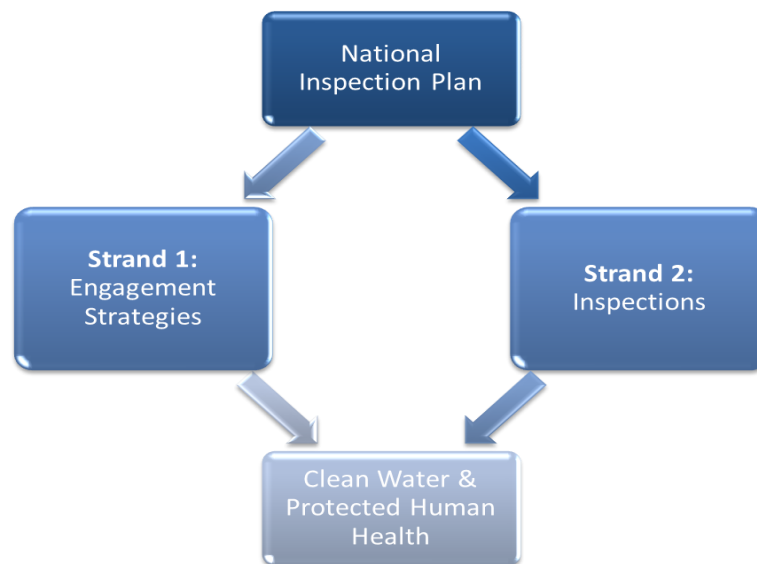


Figure 1.1: The building blocks of the plan

1.2. Roles and responsibilities

Home owners

Every home owner with a DWWTS is required by law [*Water Services Act 2007, as amended by the Water Services (Amendment) Act 2012*] to ensure that their treatment system is operated and maintained properly so that it does not pose a risk to human health or the environment. Home owners must comply with the advisory notice issued by a local authority if their system fails an inspection.

Owners of homes that are not connected to the public sewer are required to register their treatment system with '*Protect Our Water*' which is the registration service operated on

behalf of local authorities. Details on how to register are available on www.protectourwater.ie

The 2016 data from the Central Statistics Office (CSO) indicates 489,069 households are served by private DWWTS. Up to the 20/10/17 462,611 DWWTS have been registered across the country (approximately 95%).

Department of Housing, Planning and Local Government (DHPLG)

The Department of Housing, Planning and Local Government sets national water policy and strategy and prepares environmental legislation. The DHPLG website provides information on the available financial assistance for remediation, repair, upgrade works or replacement of a treatment system if a DWWTS fails an inspection and an advisory notice has been issued. Further details can be obtained at <http://www.housing.gov.ie/water/water-quality/domestic-waste-water-systemsseptic-tanks/domestic-waste-water-treatment-1>

Environmental Protection Agency (EPA)

The EPA is responsible for the development of the national inspection plan and co-ordination and reporting on the implementation of the plan by the local authorities. The EPA provides information for home owners with domestic waste water treatment systems on the EPA website at <https://www.epa.ie/water/wastewater/info/>

The EPA appoints the local authority inspectors and supervises the carrying out of inspections. The EPA monitors the engagement activities undertaken by local authorities and provides supports in terms of advice and guidance as well as providing workshops for local authority inspectors to share information. The EPA may also take enforcement action if it is of the opinion that a local authority has failed to perform all or any of its functions.

The EPA funds research projects to help improve the understanding of the impact of waste water on human health and the environment. In 2016 the EPA published *Research 161 – Assessment of disposal options for treated waste water from single houses in low permeability subsoils*; <http://www.epa.ie/pubs/reports/research/water/researchreport161.html>. Following the findings of this report it is proposed to revise the *Code of practice wastewater treatment and disposal systems serving single houses* (EPA, 2009). <http://www.epa.ie/pubs/advice/water/wastewater/code%20of%20practice%20for%20single%20houses/>.

Local Authorities

Local authorities are responsible for the implementation of the national inspection plan at a local level. This includes the delivery of the engagement strategy and carrying out risk-based inspections. Each local authority is responsible for applying the criteria outlined by the EPA to

select sites for inspection; carrying out the inspections; closing out advisory notices and undertaking follow up enforcement actions.



Figure 1.2: The aims and objectives of the plan

1.3. Review of National Inspection Plan 2015 - 2017

Reviews of the 2015 and 2016 national inspection plan implementation show approximately 50% of the sites failed inspection. This figure was similar to that seen for the previous reporting period of 2013 to 2014. Sites generally fail inspection due to operation and maintenance issues. The results of the inspections to date indicate that there has been no change in home owner behaviour in relation to the operation and maintenance of DWWTS. Further details can be obtained in the 2016 implementation report <http://www.epa.ie/water/wastewater/nip/nip2016implementation/>

Home owners need to be made aware through engagement that proper operation and maintenance of DWWTS can help to reduce the potential for contamination of their private drinking water supply and water bodies. As outlined in Section 4 of this report further focus on engagement is required under the 2018 to 2021 plan and suggestions received during the consultation period will be reviewed by the engagement working group.

Chapter 2 Risk assessment

2.1 Background

In 2013 the EPA developed a risk based methodology in conjunction with the Geological Survey of Ireland (GSI) and other external experts to assist local authorities in the selection of properties for inspection. The methodology took into account the potential risk posed by domestic waste water to both human health and the environment in a particular area.

Further details on how the risk based methodology was originally developed are outlined in the EPA publication “*A risk-based methodology to assist in the regulation of domestic waste water treatment systems*” (EPA, 2013).

<http://www.epa.ie/pubs/reports/water/wastewater/dwwtriskranking.html>

The EPA made minor adjustments to the methodology for the *National Inspection Plan 2015-2017* to take account of additional data which became available for bathing waters; high status rivers; high status lake catchment areas and shellfish designated areas

<http://www.epa.ie/pubs/reports/water/wastewater/nationalinspectionplan2015-2017.html>.

DWWTS when constructed and installed in accordance with best practice provide adequate treatment and disposal of waste water. The risks to public health and water quality are minimised by having the correct design, suitable ground conditions and proper operation and maintenance of the system.

The main risks associated with DWWTS are:

- waste water from private houses polluting watercourses and groundwater;
- waste water presenting a risk to human health through contamination of a drinking water source (including private wells) or ponding of sewage on the ground.

The risk assessment method uses the source -pathway-receptor (S-P-R) model. The S-P-R model is based on the concept that for a risk to exist there must be a source of potential pollution, a receptor that may be impacted by that pollution and a pathway by which the pollution can get from the source to the receptor.

Figures 2.1 and 2.2 show how a discharge from a DWWTS can find its way to a river or groundwater used for drinking water. In Figure 2.1 the discharge moves through thin subsoil and fractures in the rock to reach a drinking water well. The soil and bedrock cannot treat the pollution and therefore it can end up in the drinking water well.

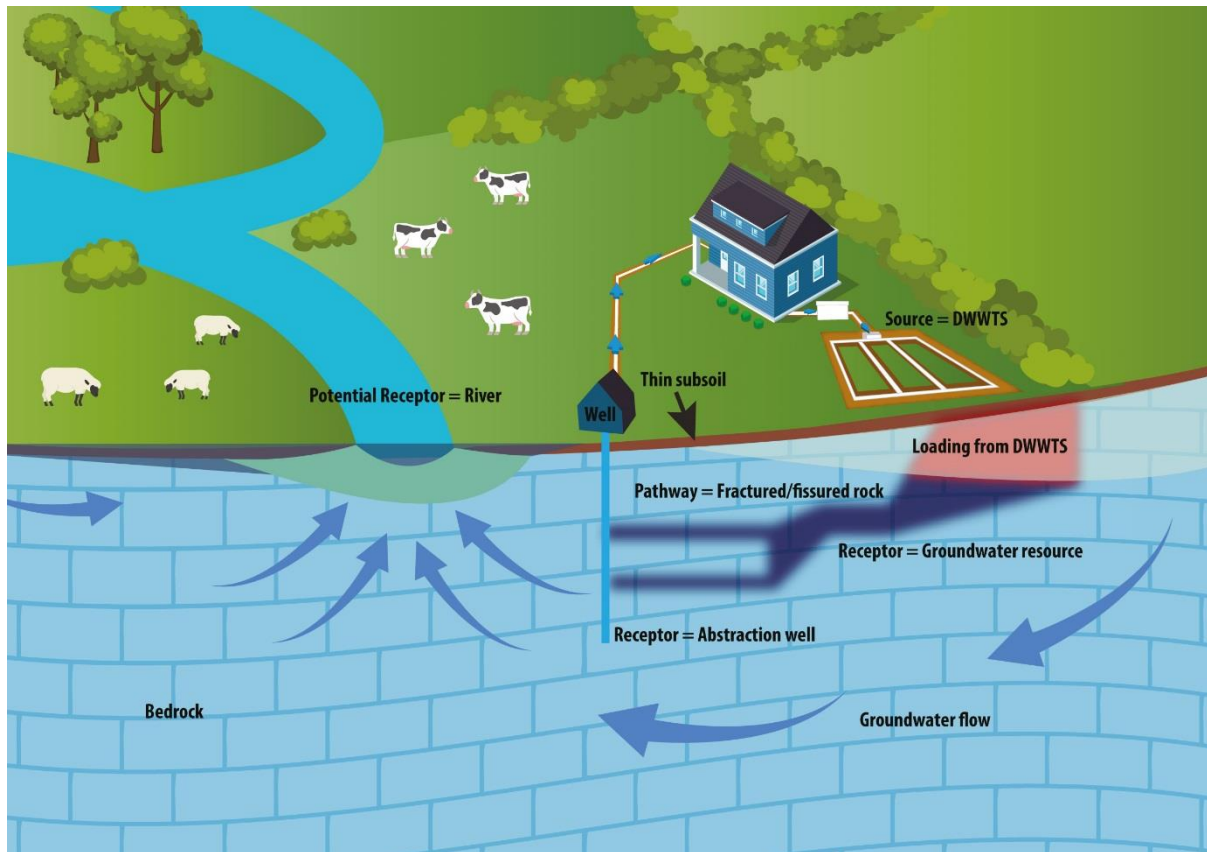


Figure 2.1: S-P-R model for domestic waste water treatment system with subsurface pathways

In Figure 2.2 the ground is not able to treat the wastewater as it cannot go down into the soil. This can result in ponding of the wastewater from the DWWTS at the surface which can be a potential threat to human health. There is also the potential in such a situation for the wastewater to move over the land and enter a drinking water well by flowing down the outside of the well casing if it has not been properly installed. This can cause contamination of the water supply.

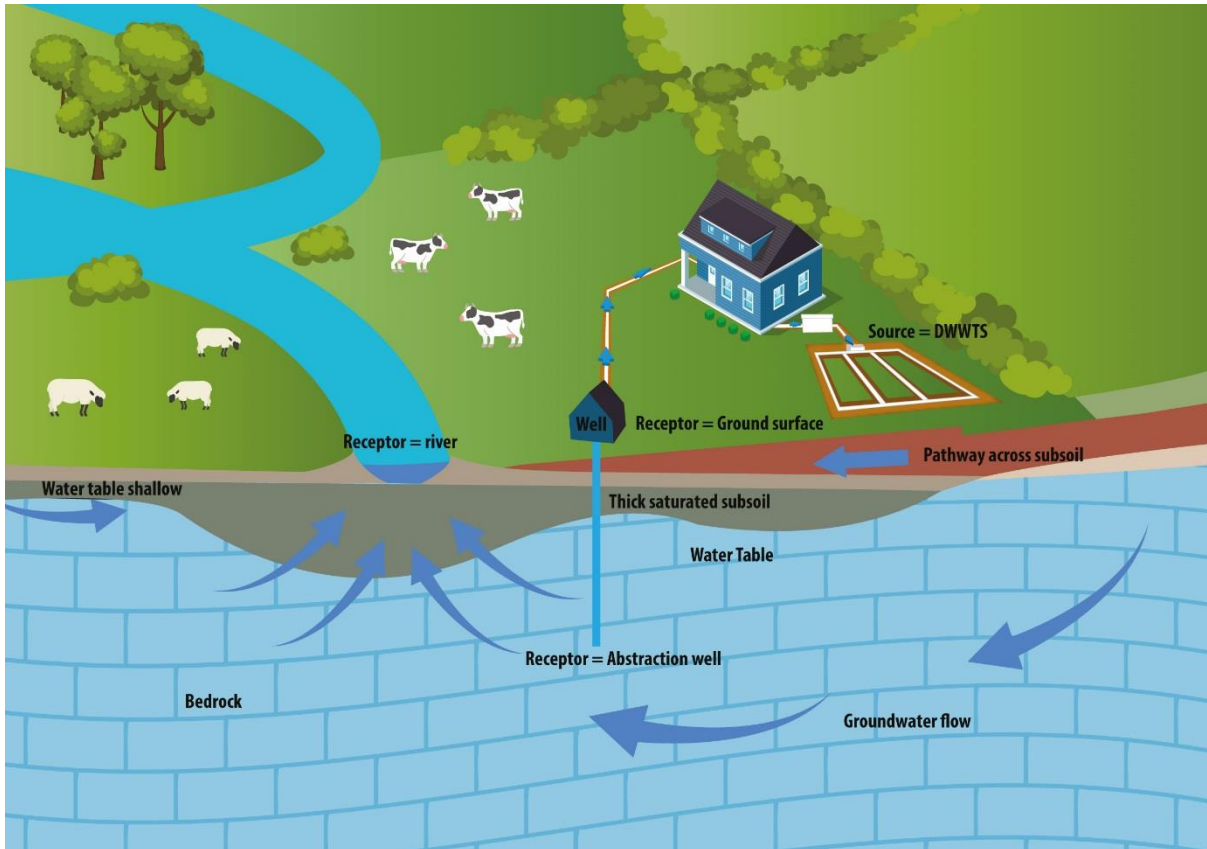


Figure 2.2: S-P-R model for domestic waste water treatment system with surface pathways

2.2 River basin management plan 2018 - 2021

The aim of the River Basin Management Plan is to develop a programme of measures to achieve the best environmental outcome by targeting the right improvement measure in the right location.

Since 2015 a large body of work has been undertaken by the EPA in conjunction with local authorities, Inland Fisheries Ireland (IFI), Irish Water and other stakeholders to assess the significant pressures on water bodies. Water bodies include rivers, lakes, groundwater, coastal and estuarine (transitional) waters. This work has been carried out as part of the development of the River Basin Management Plan 2018-2021 to meet the requirements of the Water Framework Directive (2000/60/EC). A copy of the River Basin Management Plan can be found the following link <http://www.housing.gov.ie/node/8762>

The River Basin Management Plan was published in April 2018.

The Water Framework Directive required that all water bodies achieve “high status” or “good status” by 2015 and that the status of any water body does not deteriorate. The EPA has detailed information on the status of water bodies across the country.

The EPA has carried out catchment characterisation to identify the water bodies that are *At Risk* of not meeting at least Good Status. These are rivers, lakes and groundwater bodies that are likely to fail to meet the standards required unless action is taken. The EPA used over 140

datasets in the assessment including water body status, water quality trends, information on pressures and local knowledge. Where a water body was deemed to be *At Risk* the catchment characterisation process used an evidence based approach to identify significant pressures following the source - pathway - receptor model.

As part of the characterisation assessment the EPA used several modelling tools to help inform the process. These included:

- The Source Load Apportionment Model (SLAM) to calculate the approximate loads to surface water from a range of sources including urban waste water treatment plants, industrial discharges, agriculture, septic tank systems, forestry and urban areas.
- Pollution Impact Potential maps (PIP) are critical source area maps for diffuse agriculture. PIP maps are a combination of susceptibility maps and farm nutrient loadings (phosphorus and nitrogen). These maps indicate areas that are likely to have a relatively higher impact on a water body. This then helps to target areas for further investigative assessment and action.
- The Sanicose model was developed specifically to inform the risk assessment of DWWTS on water bodies. It combines the susceptibility map with the estimated loads from DWWTS and ranks into three bands of high, medium and low.

Further details on the catchment characterisation process and the identified environmental pressures on the water environment is provided in Section 5 of the River Basin Management Plan 2018 – 2021 <http://www.housing.gov.ie/node/8762>

Through the catchment characterisation process the EPA identified *At Risk* water bodies. The EPA looked at the significant pressures within each water body and classified these into 14 categories. One of these categories was a significant pressure due to DWWTS.

The following information was used to assess if the DWWTS were a significant pressure for a water body:

- water quality monitoring;
- landscape drainage characteristics (based on soils, subsoils and bedrock maps) indicating percolation conditions;
- the locations of houses, particularly in areas with poor drainage characteristics (this was informed by the Sanicose model); and
- local authority information from inspections and Inland Fisheries Ireland information from stream walks.

The characterisation process carried out in advance of the publication of the plan highlighted that approximately one third of Ireland's water bodies are *At Risk* of not achieving their objectives under the Water Framework Directive and 11% of *At Risk* water bodies are being impacted by DWWTS. Ten per cent of these are where septic tanks are one of several

pressures putting the water body at risk while 1% are where septic tanks are the only pressure putting the water body at risk. This is relatively low in comparison to other sources such as agricultural activities (64%) and urban waste water discharges (22%).

The water quality objectives are unlikely to be met in the *At Risk* water bodies unless additional actions are taken to reduce the sources of pollution. The first step towards identifying and implementing 'the right measure in the right place' is to carry out an investigative assessment to refine the understanding of the significant pressure(s), so that the specific measure(s) required can be identified and implemented. As it will not be possible to carry out all the required actions during this short second cycle to 2021, a process was developed by the EPA to help prioritise where action should commence. Actions include mitigation and protection measures. These areas for action are available on www.lawco.ie.

2.3 Updated risk-based methodology for 2018 – 2021 national inspection plan

The EPA has updated the risk-based methodology to focus inspections using a combination of Water Framework Directive surface water and groundwater risk assessments.

This will allow inspections to be targeted in water bodies where there is the greatest potential for contributing to water quality improvements. There will be a further focus within these water bodies in the areas where there is the greatest potential for protection of human health by undertaking a higher number of inspections in areas with increased potential risk to groundwater supplies from DWWTS.

2.3.1 Surface water element

The EPA have set out 5 categories of river and lake waterbodies to prioritise the inspections. The categories cover the risk, significant pressure and prioritisation for each waterbody in the country by asking:

- is the waterbody *At Risk*?
- have DWWTS been flagged as a significant pressure for the waterbody?;
- has the waterbody been prioritised as part of an area for action in the River Basin Management Plan (RBMP)?

These five waterbody categories have been mapped for rivers by the EPA (Figure 2.3). Lakes across the country were also divided into the same five categories with a 200m buffer of land being included around each lake (Figure 2.4). The two layers were intersected and the surface water body category was assigned taking the highest priority for inspections (Figure 2.5).

2.3.2 Potential risk to groundwater supplies from DWWTS

DWWTS can be a risk to human health if they are not in the correct locations, are poorly operated or inadequately maintained. If a DWWTS is poorly sited, maintained or operated a private well is at a higher risk of being contaminated. Since the roll out of the national inspection plan in 2013 figures have shown that approximately half of the properties which had a DWWTS and were served by a private well failed the inspections.

The EPA has determined the potential risk to groundwater supplies from DWWTS by combining elements of two maps previously produced in 2013 for the *Risk based methodology to assist in the regulation of domestic waste water treatment systems* (EPA, 2013). This detail is described below.

The main risk from DWWTS to groundwater, and the private wells abstracting from groundwater, is due to insufficient treatment. Figure 2.1 illustrates a situation where there is not enough subsoil to treat the wastewater from a DWWTS before it reaches the groundwater. For the 2013 risk based methodology a map was produced identifying groundwater susceptibility to percolation of the wastewater into the groundwater of MRP (molybdate reactive/soluble phosphorus) and pathogens (Figure 2.6). For this new risk based assessment the areas of this map identified as very high susceptibility represent an increased potential risk to groundwater supplies due to the fact that there is not enough subsoil to treat the wastewater before it reaches the groundwater.

Another situation where there is a potential risk to groundwater supplies is where there is inadequate percolation of the wastewater into the soil resulting in ponding and horizontal flow to wells (Figure 2.2). For the 2013 risk based methodology a map was produced identifying the likelihood of inadequate percolation (Figure 2.7). For this new risk based assessment the areas of this map identified as high or very high susceptibility are taken to have an increased potential risk to groundwater supplies due to this potential for inadequate percolation.

These categories selected from the two susceptibility maps have been combined to identify the areas with an increased potential risk to groundwater from DWWTS (Figure 2.8). Private wells located within these areas are at a higher risk of being contaminated by DWWTS.

River Water Body Categories for NIP

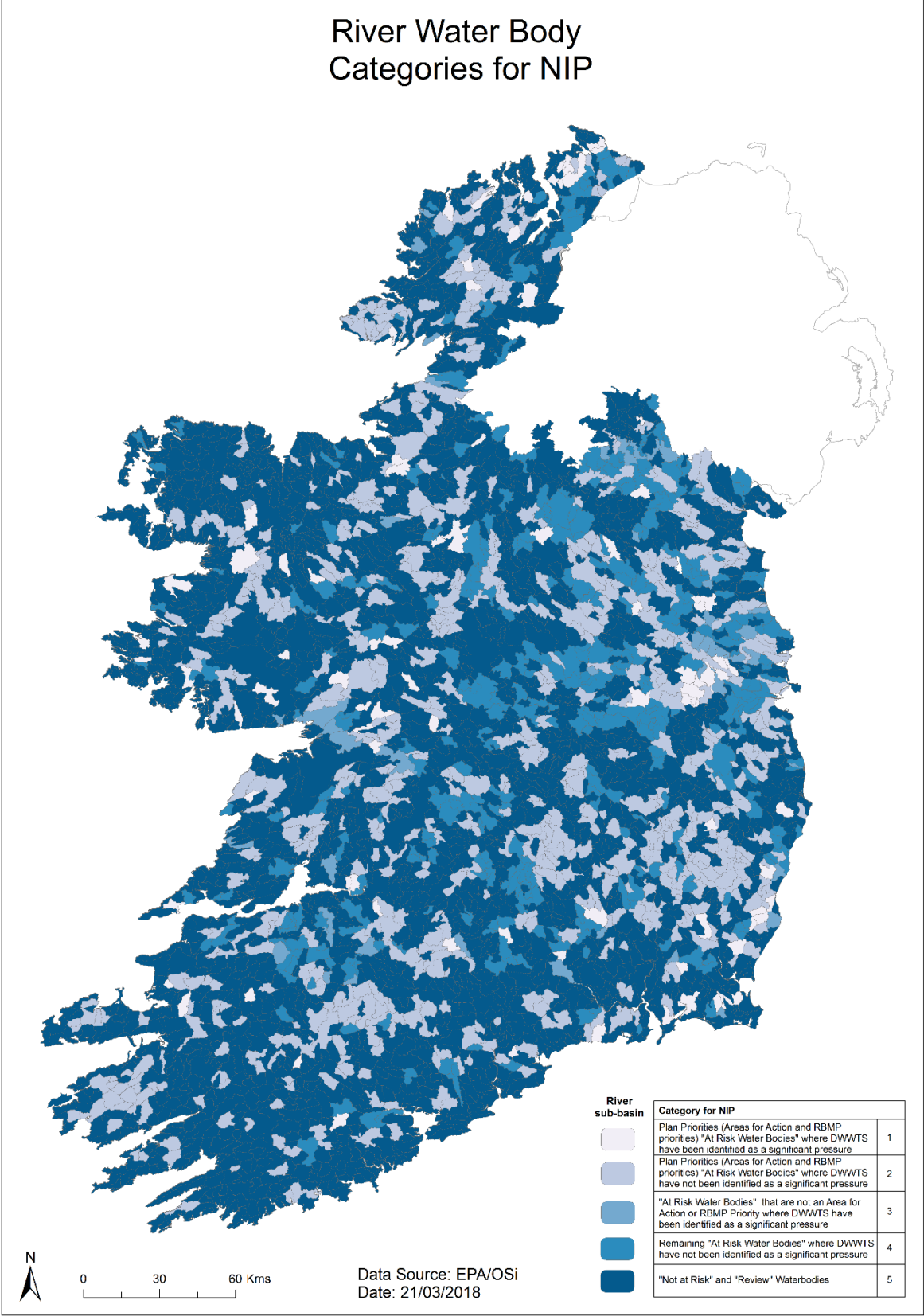


Figure 2.3: River water body categories

Lake Water Body Categories for NIP

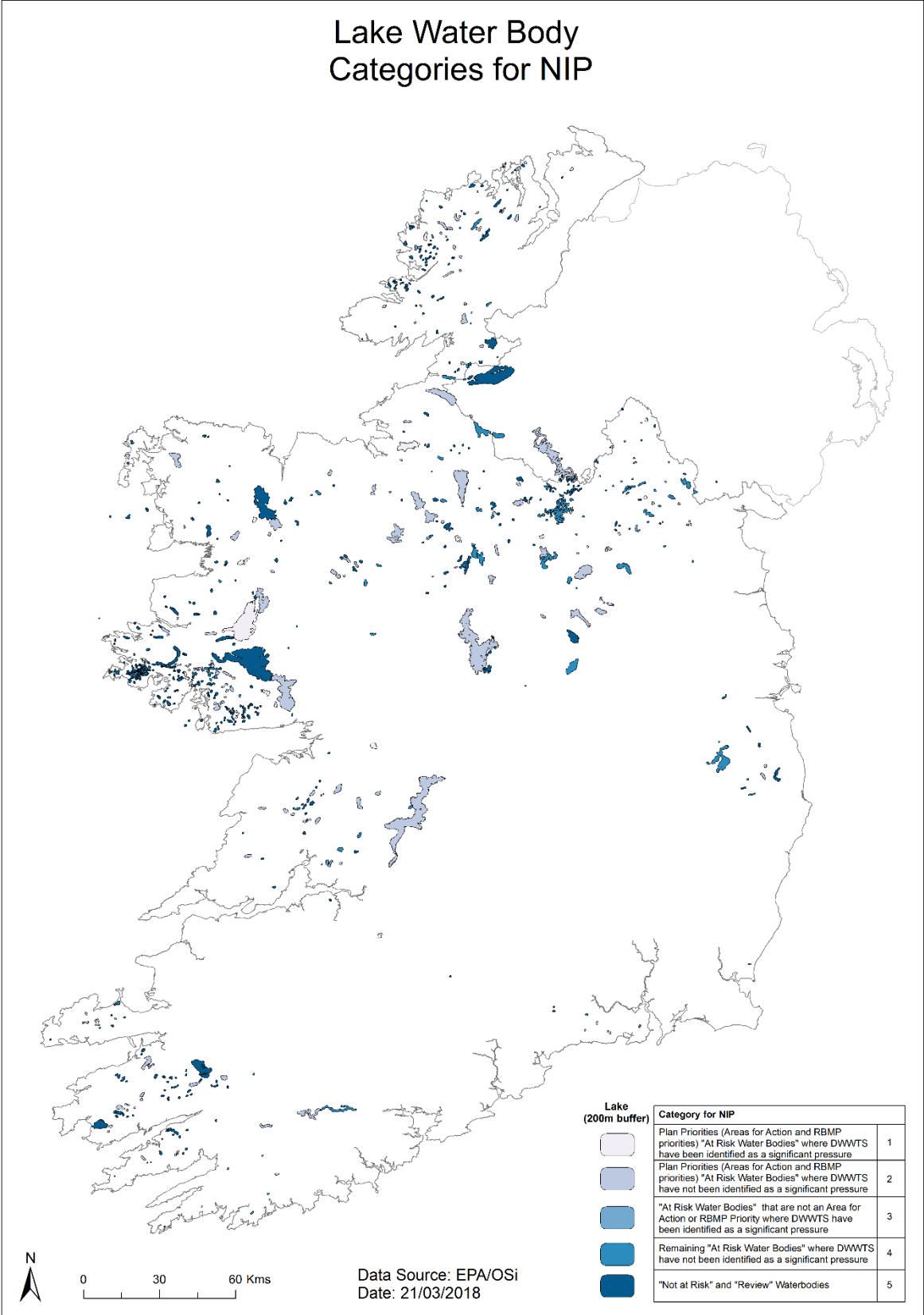


Figure 2.4: Lake water body categories

Surface Water Body Categories for NIP

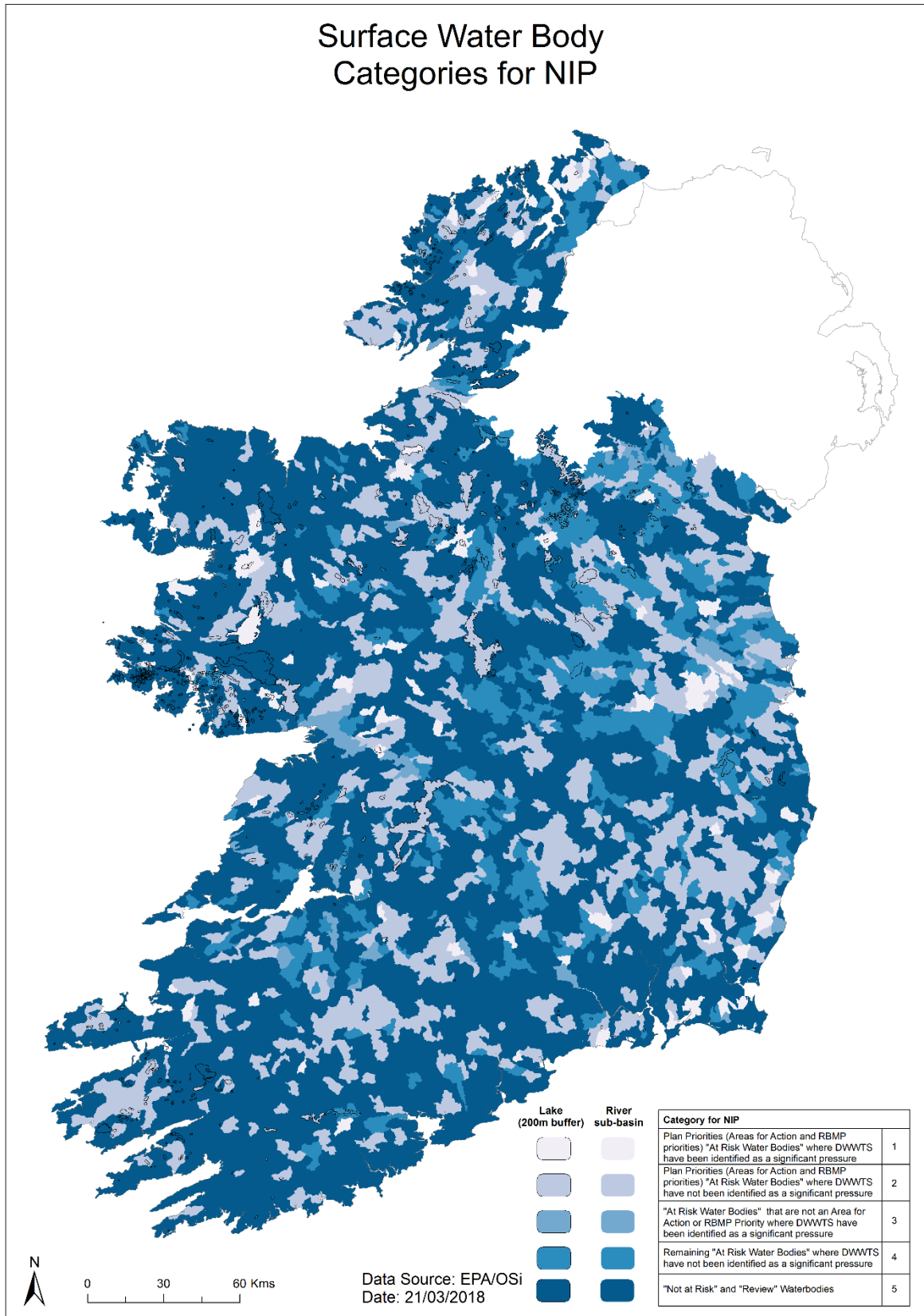


Figure 2.5: Surface water body categories

Groundwater susceptibility to percolation of MRP and pathogens from DWWTs

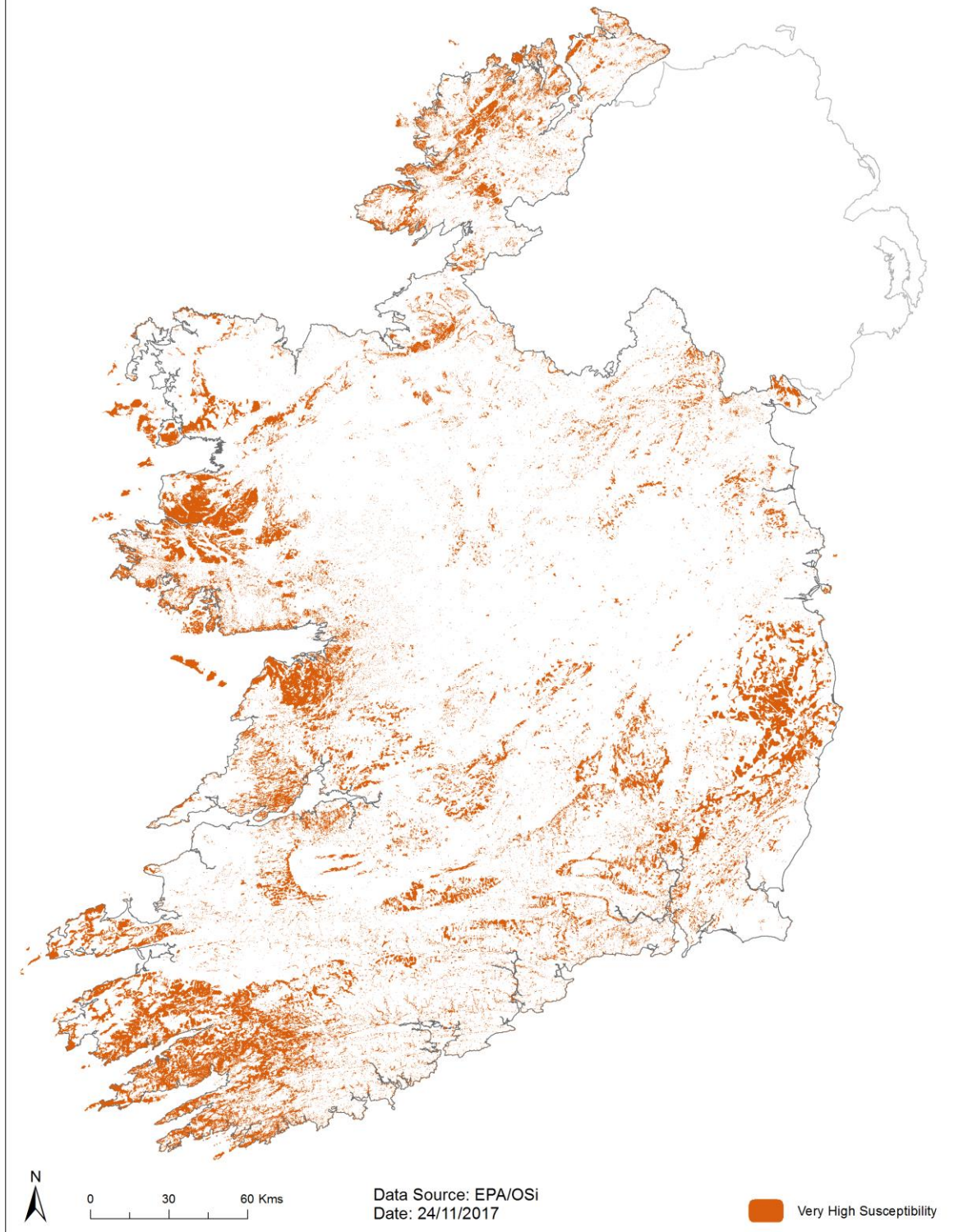


Figure 2.6: Groundwater susceptibility to percolation of MRP and pathogens

Likelihood of Inadequate Percolation

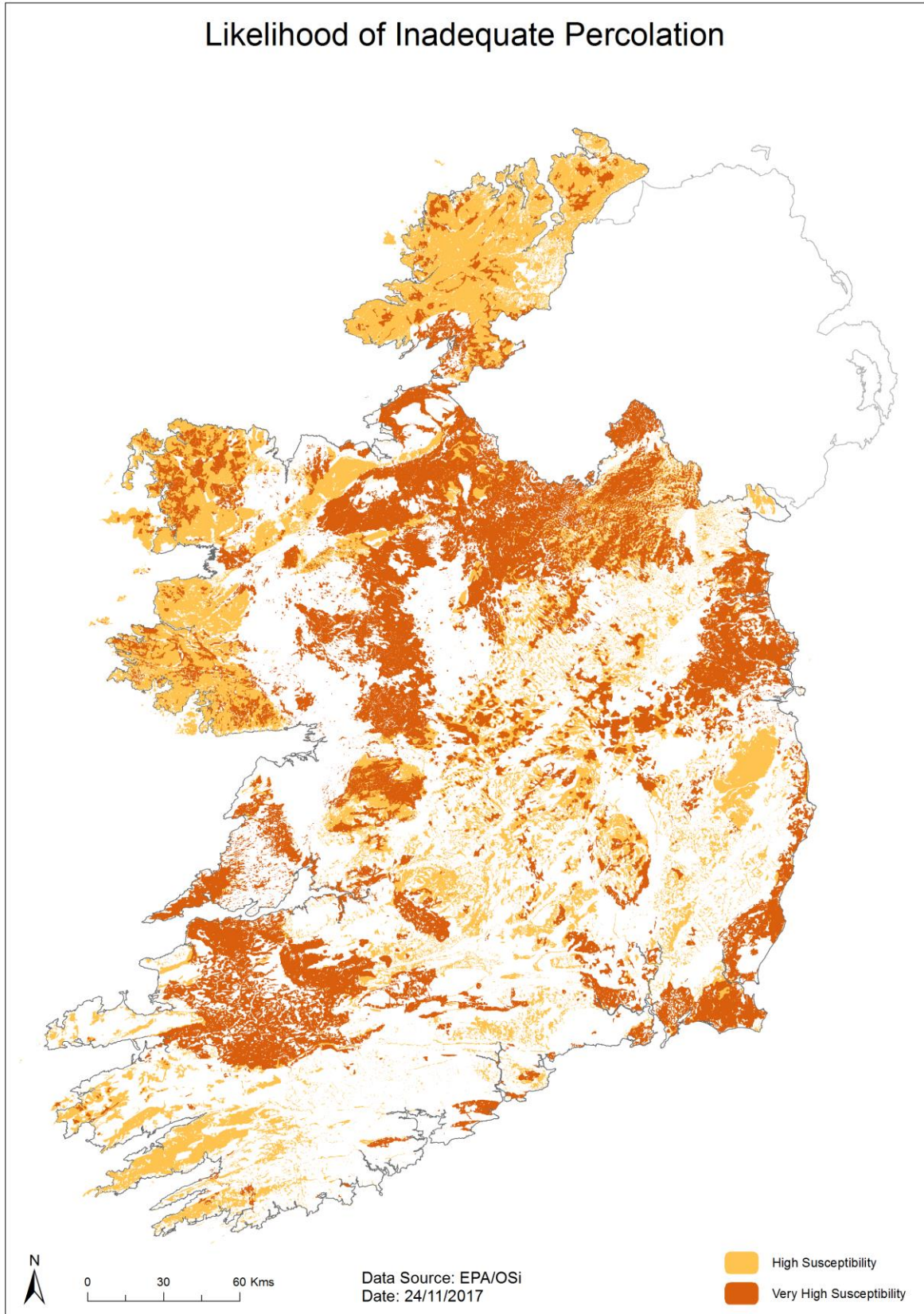


Figure 2.7: Likelihood of inadequate percolation

Potential Risk to Groundwater Supplies from DWWTs

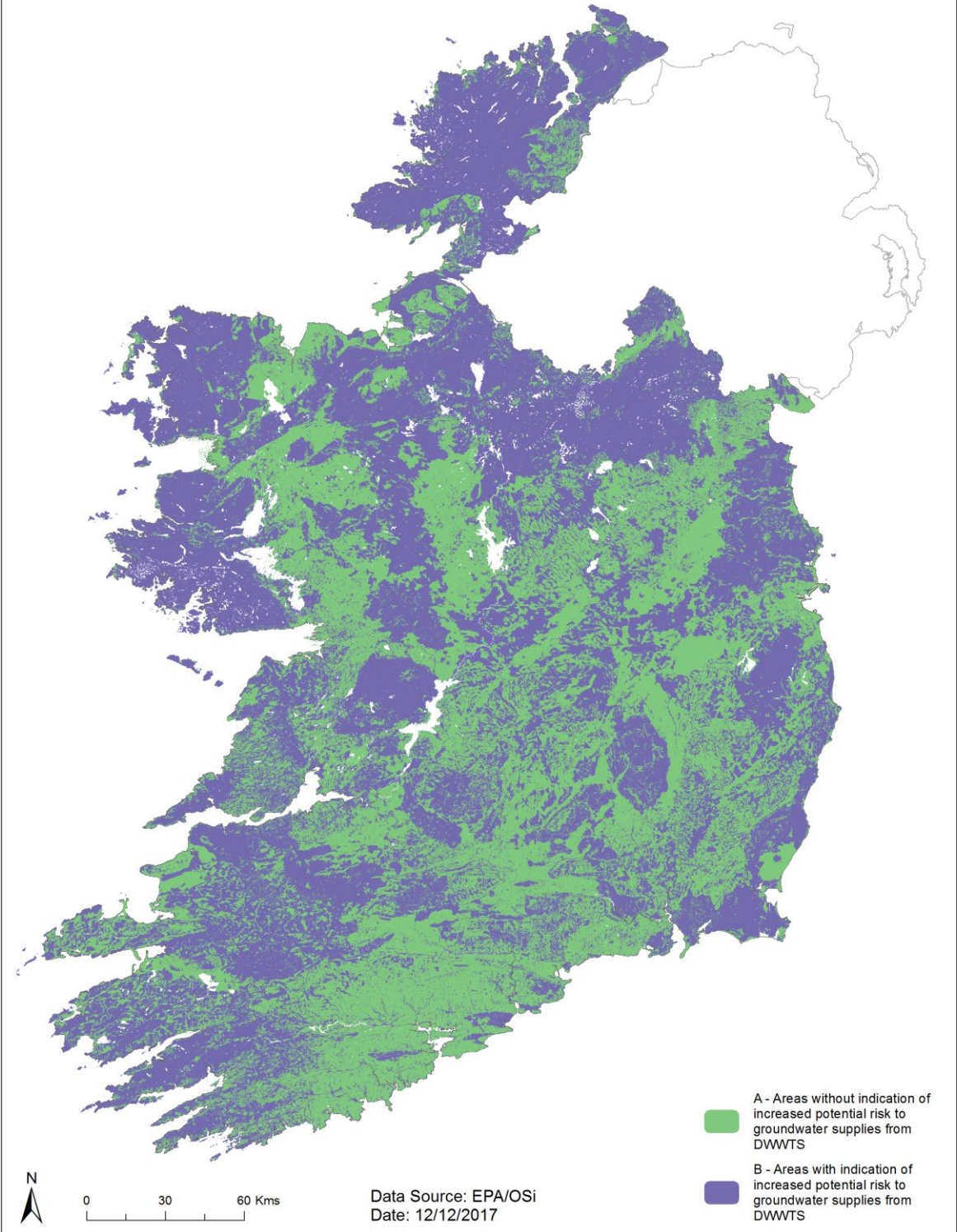


Figure 2.8: Potential risk to groundwater supplies from DWWTs

Details of the criteria which were used to subdivide the five categories into ten risk zones are provided in Table 2.1. The surface water body category (Figure 2.5) and the potential risk to groundwater supplies (Figure 2.8) were combined to create 10 risk zones (Figure 2.9).

The 10 risk zones and the weightings that were applied to calculate the number of inspections per risk zone are shown in Table 2.1. The weightings decrease from the highest to lowest priority in the water body categories (category 1 to 5). The weightings are doubled for the areas within any risk zone where there is increased potential risk to groundwater supplies from DWWTS (risk zones 1B to 5B in Table 2.1). The minimum 1,000 inspections per annum have been distributed across the 10 risk zones nationally based on the weightings.

Risk zone	At risk water body ¹	Area for action ²	DWWTS significant pressure	Increased groundwater risk potential	Weighting applied to risk zone	National number of inspection per risk zone
1A	✓	✓	✓		100	59
1B	✓	✓	✓	✓	200	243
2A	✓	✓			25	142
2B	✓	✓		✓	50	360
3A	✓		✓		20	8
3B	✓		✓	✓	40	22
4A	✓				10	30
4B	✓			✓	20	77
5A					1	16
5b				✓	2	43
Total no. of inspections						1,000

Table 2.1: National minimum number of inspections per risk zone

The figures for the number of inspections within each risk zone for each local authority are presented in section 4 this report. It should be noted that the calculation of the minimum number of inspections per risk zone takes into account the percentage of area covered by each risk zone. Further details on the revised risk methodology and the calculation of the minimum number of inspections per county per risk zone are contained in Appendix A.

¹ At risk water body – these are water bodies which are at risk of not meeting the requirements of the Water Framework Directive to meet at least good status.

² Area for action – the areas for action in the NIP include the areas for action prioritised for further work in the 2nd cycle but also include the River Basin Management Plan priorities not prioritised for further work. Actions include mitigation and protection measures which are to be identified and implemented.

National Inspection Plan 10 Risk Zones

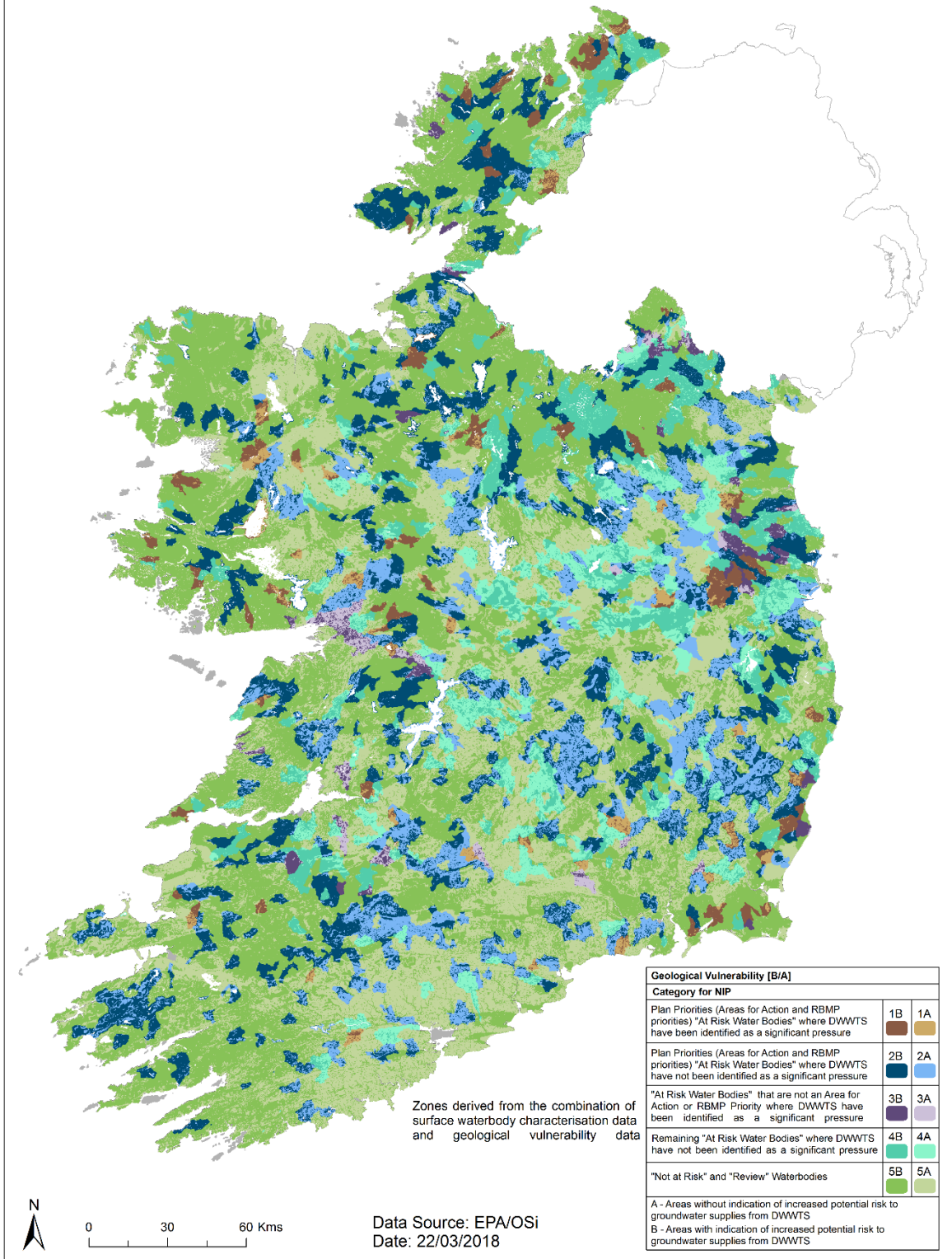


Figure 2.9: National inspection plan 10 risk zones map

The highest density of inspections (as shown in Table 2.2) will be undertaken in Category 1 waterbodies. These are the at risk water bodies in areas where action is required under the River Basin Management Plan and DWWTS are listed as a significant pressure. A lower density of inspections is required in Category 2 water bodies as DWWTS have not been identified as a significant pressure in these areas.

It should be noted that the RBMP priorities in the NIP include areas for action prioritised for further work in the 2nd cycle and At Risk waterbodies in the areas for action are included in Category 1 and 2. Where High Status Waters and deteriorated waterbodies have been identified as being At Risk and water bodies in Protected Areas, (for example Bathing Water, Shellfish Waters and Freshwater Pearl Mussel Waters) have been identified as not meeting their protected area objectives, these are also covered under the RBMP priorities in Category 1 and 2.

It should be noted that while DWWTS have been identified as a significant pressure in Category 3 these areas are not targeted as areas for action under the River Basin Management Plan. This results in Category 3 being a lower priority in terms of the river basin management plan than Category 2 and on this basis a lower density of inspections has been assigned.

Waterbody category	Category Description	Risk Zone	National number of inspections per waterbody category	Number of inspections per 1,000 km ² of each water body category
Category 1	Plan Priorities (Areas for Action and RBMP priorities) "At Risk Water Bodies" where DWWTS have been identified as a significant pressure	1A & 1B	302	150.8
Category 2	Plan Priorities (Areas for Action and RBMP priorities) "At Risk Water Bodies" where DWWTS have not been identified as a significant pressure	2A & 2B	502	35.1
Category 3	"At Risk Water Bodies " that are not an Area for Action or RBMP Priority where DWWTS have been identified as a significant pressure	3A & 3B	30	27.8
Category 4	Remaining "At Risk Water Bodies" where DWWTS have not been identified as a significant pressure	4A & 4B	107	14.2
Category 5	"Not at Risk" and "Review" Waterbodies	5A & 5B	59	1.4

Table 2.2 Density of inspections per water body category

Chapter 3 Inspections

3.1 Introduction

An inspection under the national inspection plan checks that a DWWTS is fit for purpose and that it does not pose a risk to human health or the environment. A home owner is issued with an advisory notice if their DWWTS fails an inspection. The advisory notice specifies the reasons for the failure and what measures need to be taken to fix the problem. The inspections are carried out by local authority inspectors appointed by the EPA. All inspectors are required to have completed the training in relation to the inspection of DWWTS prior to appointment.

The objective of the inspection strategy is to reduce the risk posed to human health and improve water quality by directly engaging with home owners to determine if their DWWTS is being correctly operated and maintained. The purpose of the inspection programme is not to inspect every system in the country. The aim is that the existence of the programme will increase awareness among home owners in a particular area because of inspections taking place in their community. At the same time the inspection programme will also target the *At Risk* water bodies where there are known water quality issues associated with DWWTS which may be improved because of home owners undertaking remedial works.

3.2 Inspection allocations

It is proposed that the minimum number of inspections will remain unchanged at 1,000 per annum for the period 2018 to 2021. This is in line with the risk posed by DWWTS on a national scale compared to the number of water and waste water related inspections carried out in other sectors regulated by local authorities. The most recent RMCEI (Recommended Minimum Criteria for Environmental Inspections) figures for 2016 indicate 25,868 water and waste water (routine and non routine) related inspections were planned for 2016. Based on a minimum of 1,000 inspections per annum the DWWTS national inspection figure represents 3.9% of planned inspections.

The number of inspections outlined is the minimum number required. It is recommended that additional inspections are carried out by individual local authorities if there is evidence at a local level that DWWTS are causing an issue in a particular catchment. Investigative assessments will also be taking place as part of the RBMP. These investigative assessments are separate to the NIP for DWWTS. A breakdown of the national allocation of inspections per local authority area is provided in Table 3.1.

The minimum 1,000 inspections per annum have been distributed across the 10 risk zones (1A to 5A and 1B to 5B) based on the proportion of area nationally within each of the zones and the weighting applied to each zone. The figures for the minimum number of inspections

required under each of the risk zones per local authority area is presented in Table A.5, Appendix A together with an explanation as to how the numbers were calculated.

3.3 Inspection plan

Each local authority is required to develop a local site selection plan, which documents the application of the site selection methodology and outlines the justification for the selection of priority areas and individual sites. The local authority should retain the associated documents to facilitate future auditing by the EPA. Figure 3.1 provides an outline of the site selection process.

If possible, priority should be given to the selection of unregistered properties for inspection in the first instance. However it is noted that the registration rate nationally is 95% and therefore it may not always be possible to target unregistered properties.

Since the publication of the *National Inspection Plan 2015-2017* (EPA 2015) guidance has been prepared by the local authority site selection and inspection working group. This included a local site selection plan template and guidance documents for “gathering evidence”; “kit for inspections” and “practical tips for carrying out an inspection”. The site selection plan template will be updated in light of the revised methodology and circulated to all inspections via the NIECE septic tank inspectors network.

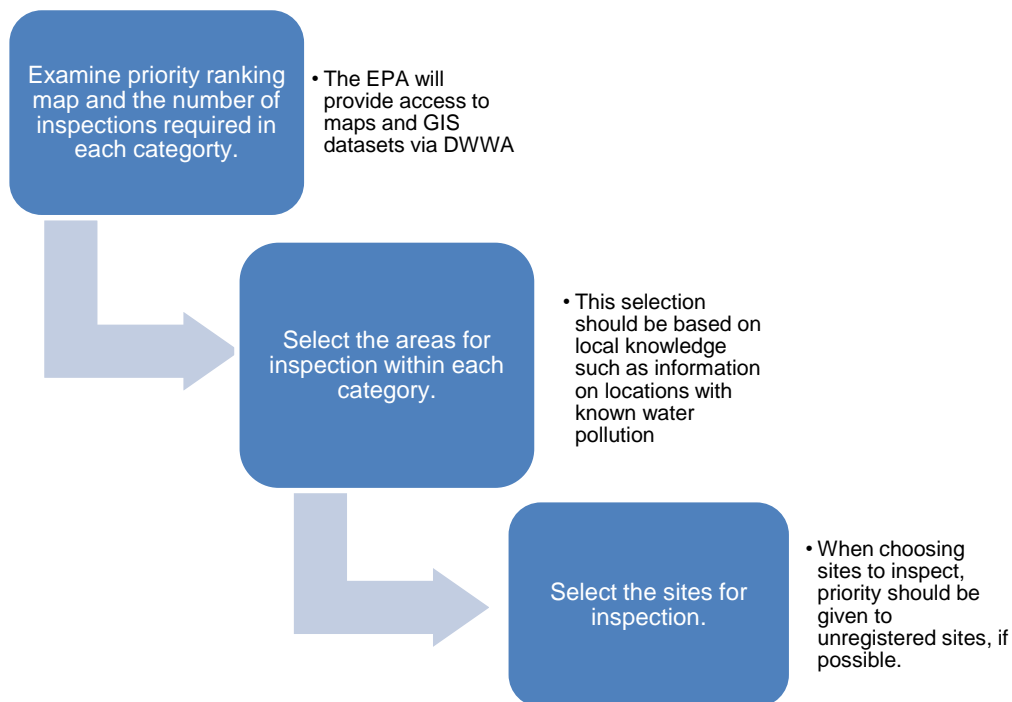


Figure 3.1: Site selection process

Local Authority Area	Minimum Number of Inspections 2018- 2021	2018	2019	2020	2021
Carlow County Council	60	15	15	15	15
Cavan County Council	128	32	32	32	32
Clare County Council	156	39	39	39	39
Cork County Council	240	60	60	60	60
Donegal County Council	472	118	118	118	118
Dun Laoghaire / Rathdown County Council	4	1	1	1	1
Fingal County Council	24	6	6	6	6
Galway County Council	404	101	101	101	101
Kerry County Council	208	52	52	52	52
Kildare County Council	136	34	34	34	34
Kilkenny County Council	108	27	27	27	27
Laois County Council	96	24	24	24	24
Leitrim County Council	92	23	23	23	23
Limerick City and County Council	132	33	33	33	33
Longford County Council	36	9	9	9	9
Louth County Council	32	8	8	8	8
Mayo County Council	280	70	70	70	70
Meath County Council	252	63	63	63	63
Monaghan County Council	104	26	26	26	26
Offaly County Council	68	17	17	17	17
Roscommon County Council	140	35	35	35	35
Sligo County Council	112	28	28	28	28
South Dublin County Council	8	2	2	2	2
Tipperary County Council	164	41	41	41	41
Waterford City and County Council	80	20	20	20	20
Westmeath County Council	80	20	20	20	20
Wexford County Council	260	65	65	65	65
Wicklow County Council	124	31	31	31	31
TOTAL	4,000	1,000	1,000	1,000	1,000

Table 3.1: Minimum number of domestic waste water treatment system inspections per local authority area 2018 to 2021

3.4 Complaints

Local authorities must maintain a register of all complaints and other inspections, such as water pollution incident investigations, that relate to DWWTs.

The Water Pollution Act and regulations are used by local authorities where necessary for complaint investigations. The powers to control pollution are very similar in the Water Pollution Act and the Water Services Act 2007 as amended by the Water Services (Amendment) Act 2012 and associated regulations. The general provision in the Water Pollution Act states *'that a person shall not cause or permit any polluting matter to enter waters'* and as such requires evidence of a discharge to waters. The Water Services Act 2007 as amended by the Water Services (Amendment) Act 2012 and the 2012 (Domestic Waste Water Treatment Systems) Regulations (S. I. No. 223 of 2012) refer to unauthorised discharge, leakage, ponding, entry of surface waters, operation and maintenance issues as well as de-sludging. Where the risk is to human health and the environment irrespective of the regulations used, tight timeframes for remediation should be applied.

Reporting Complaints

The Environmental Protection Agency (EPA) operates an [iPhone](#) and [Android App](#), called *See it? Say it!*, to help people to report environmental pollution in their towns and villages.

Using the App you can now take a photograph of a pollution incident, add a summary description of what you want to convey and your contact details and this will automatically be sent to the relevant local authority for follow up (and the app will add GPS location coordinates).



Alternatively you can ring the National Environmental Complaints Line (NECL) 1850 365 121 or contact the relevant Local Authority directly. More information is available on the EPA website at the following link:

<http://www.epa.ie/enforcement/report/>



See Something?
Say Something!
Mobile App

Make An Environmental Complaint
Directly From Your Smart-Phone

OBSERVE RECORD REPORT

Or you can report it by calling
The National Environmental
Complaints Line (NECL)

Callsave
1850 365 121
— 365 Days - 24 Hours —

NIECE
Network for Ireland's
Environmental Compliance
& Enforcement

Further details on making an environmental complaint can be found on the EPA website at the following link <http://www.epa.ie/enforcement/report/>

3.5 Inspection Process

A pre-inspection letter is sent to a home owner 10 days in advance of an inspection taking place. A local authority inspector will check that the treatment system is fit for purpose and is not giving rise to a risk to public health or the environment.

The home owner will be notified of the findings within 21 days of the inspection. If the system is deemed to pose a risk to public health or the environment the local authority will issue an advisory notice directing the owner to remedy the matters specified in the notice by a specified date.

Additional information on what is involved in an inspection is available on the EPA website at <http://www.epa.ie/water/wastewater/info>

Information is also available on the “What to expect from a septic tank inspection” leaflet which is available for download at the following link <http://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/Environment/Water/FileDownload%2C33590%2Cen.pdf>

There is also a video available outlining what to expect from an inspection at the following link <http://www.epa.ie/water/wastewater/guidance/whattoexpectfromaninspection/>

Useful links for private well owners are provided in Appendix C.

Chapter 4 Engagement

4.1 Background

An essential part of the implementation of the national inspection plan is to engage and communicate with the public. Each home owner needs to be aware of how to operate and maintain their DWWTS and the potential health implications if the system is not being correctly operated or maintained. Home owners need to be provided with information on the measures that they can take to protect their health and that of their family, neighbours and the environment.

Local authorities are responsible for on-going engagement with the public and communication at a local level. It is the EPA's responsibility to oversee the implementation of the engagement campaign by the local authorities. The EPA publish details of the engagement activities undertaken by local authorities in the annual implementation report. The findings of the fifth implementation report for the 2016 National Inspection Plan can be found here <http://www.epa.ie/water/wastewater/nip/nip2016implementation/>

Since inspections commenced in July 2013, close to half of all inspection failures have been related to the operation, maintenance and desludging of DWWTS (53% of failures in 2016). In most cases, these issues can be rectified easily once home owners are made aware of the problems and provided with information on how to fix the problem.

Private wells may be at risk of contamination if the DWWTS are not sited, installed or operated correctly. In 2016, it was found that 51% of DWWTS, with private wells on site, failed inspection.

To address these issues there has been a focus on engagement strategies which aim to advise, educate and assist home owners to take the necessary steps to properly operate and maintain their DWWTS.

4.2 Engagement activities 2015 – 2017

In July 2015, the DWWTS engagement working group was established to prepare a programme of citizen engagement activities to be carried out at a national and local authority level in a consistent manner across all local authority areas. To date the group have published the following leaflets to provide information to the public:

- “Have you completed a septic tank system check” (2015)
<https://www.catchments.ie/download/septic-tank-system-check/>;
- “Wastewater systems for building a house” (2016)
<https://www.epa.ie/pubs/advice/water/wastewater/wastewatersystemsforbuildingahouse.html>; 20,000 leaflets print run in 2017

- “Septic tanks and wastewater systems when buying or selling a house” (2016) <https://www.epa.ie/pubs/advice/water/wastewater/septic-tank-wastewater-systems-when-buying-or-selling-a-house.html> ; 20,000 print run in 2017; and
- “Spreading sludge from your own septic tank” (2017) <http://www.epa.ie/pubs/advice/water/wastewater/how-to-safely-spread-sludge-from-your-septic-tank.html>

Local authorities should provide links to the above leaflets on their website and distribute them as part of awareness raising activities. Local authorities should also maintain a list of permitted contactors in their area on their website and provide a list of permitted contractors to home owners as part of the inspection.

The EPA research programme 2014-2020 included the Relay Risk Project: *Examining the communication of environmental risk through a case study of domestic wastewater treatment systems in the republic of Ireland* (2013-W-DS-12) (EPA, 2016). This project examined ways to deliver risk based messages effectively to improve knowledge and promote a change in behaviour. The research also investigated the best way to measure the effectiveness of the engagement strategies. The guidelines developed as part of this research programme were published in 2016: <https://www.epa.ie/pubs/reports/research/spr/EPA%20-%20Guidelines%20Report%20167%20FINAL%20AMENDED.pdf>

The research recommended the following key messages in relation to public engagement:

- “Regular maintenance of your septic tank system protects you and your family’s health”;
- “More and more people are now maintaining their septic tank system – by doing so you too can help protect drinking water in your community”;
- “Everyone has a role to play in protecting drinking water sources. Do your bit by regularly maintaining your septic tank system”.

A summary of the main activities of the DWWTS engagement working group to date is provided in Table 4.1.

Date	Details of Activity
2015	Septic tanks classroom plan for secondary school courses – science and technology in action
2015	Publication of leaflet “Have you completed a septic tank system check” https://www.catchments.ie/download/septic-tank-system-check/
September 2015	EPA Webinar to local authority staff to highlight the risks posed by septic tanks to private wells and to provide practical advice that inspectors could give to home owners during septic tank inspections
October 2015	Inspectors network workshop on engagement strategies and the reporting on the on-line Domestic Waste Water Application (DWWA)
November	EPA training for elected members on “Septic tanks, groundwater and water

2015	pollution” organised by Association of Irish Local Government (AILG)
July 2016	Publication of leaflet “Wastewater systems for building a house” https://www.epa.ie/pubs/advice/water/wastewater/wastewatersystemsforbuildingahouse.html ; and “Septic tanks and wastewater systems when buying or selling a house” https://www.epa.ie/pubs/advice/water/wastewater/septic-tank-wastewater-systems-when-buying-or-selling-a-house.html ;
July 2016	EPA survey of all local authorities to obtain information on how they engage with the public to disseminate information and to identify the most effective engagement activities
September 2016	Survey on septic tanks on www.catchments.ie results used in development of the national engagement strategy focusing on possible health and environmental risk from malfunctioning systems
October 2016	Septic tanks and treatment systems workshop organised by Association of Irish Local Government (AILG)
November 2016	Inspectors network workshop to discuss site inspections and engagement
September 2017	“Spreading sludge from your own septic tank” (2017) http://www.epa.ie/pubs/advice/water/wastewater/howtosafelyspreadsludgefromyourseptic-tank.html

Table 4.1: Summary of engagement working group activities 2015 to 2017

4.3 Proposed engagement activities 2018 – 2021

In 2017 the engagement working group developed an engagement strategy. The purpose of the strategy is to develop engagement activities to influence DWWTS owners to properly operate and manage their DWWTS. The strategy is to follow a phased approach.

- Step 1: coordinate and plan
- Step 2: develop the engagement strategy
- Step 3: implement the engagement strategy
- Step 4: ongoing evaluation and monitoring progress

It is proposed that the engagement strategy will be implemented during the 2018 to 2021 national inspection plan. The main tasks identified by the engagement group for each element of the strategy are presented in Table 4.2.

<p>Step 1 Co-ordinate and plan</p> <ul style="list-style-type: none"> • Evaluate the risk situation & set goals; • Establish stakeholder collaboration and coordination; • Stakeholder meetings, contacts, survey, collaboration with NFGWS & LAWCO; • Assess available expertise and resources. 	<p>Step 3: Implement the engagement strategy</p> <ul style="list-style-type: none"> • Dissemination of resources to local authorities and stakeholder groups; • Local authorities and stakeholder groups to develop roadmap for delivery.
<p>Step 2 Develop the engagement strategy</p> <ul style="list-style-type: none"> • Identify audience; • Conduct exploratory research; • Develop and test key messages; • Partner with credible organisations. 	<p>Step 4 Ongoing evaluation and monitoring progress</p> <ul style="list-style-type: none"> • Statutory performance indicators

Table 4.2: Summary of engagement strategy

The EPA will continue to oversee the implementation of the engagement campaign by the local authorities through the collection of data for the annual national inspection plan implementation report and RMCEI returns for the 2018 to 2021 reporting period.

The engagement activities reported by the local authorities in 2016 included:

- leaflet drops;
- information stands;
- material on website;
- school packs;
- community groups;
- media including social media, newspaper, radio;
- undertaking pre-inspection meetings with home owners; and
- contacting waste collection permit holders regarding desludging.

Metrics that could be tracked to allow the effectiveness of the engagement strategy to be assessed include the following:

- ongoing review of the DWWTS registration data and quantitative data from inspections including number of failed inspections and reasons for failure;
- monitoring of local authority and EPA website hits and emails from home owners seeking information;
- monitoring of media outputs including articles and features on TV;

- monitoring of campaign outputs;
- questions and answers during inspections to assess level of knowledge / source of knowledge;
- undertake survey to assess changes in attitude / behaviour;
- water quality improvement measures;
- track Local Authority effort through RMCEI and Statutory Performance Indicators;
- track quantities of domestic waste water sludge quantities collected nationally.

As part of the consultation process the public were invited to provide suggestions on ways to engage with home owners to increase awareness around issues relating to the operation and maintenance of DWWTS.

In response to the submissions received during the consultation period it is proposed that the following will be reviewed by the engagement working group to establish a programme for roll out during the lifetime of the 2018 to 2021 NIP.

- National media campaign.
- Development of implementation plan on citizen engagement activities.
- Targeted awareness campaign with groups such as NFGWS or LAWCO via local information evenings.
- The EPA will continue to assist with the provision of information leaflets on DWWTS and private wells to local authorities. These leaflets have been developed by the engagement working group. Local authority inspectors will be required to continue to engage with householders during the inspection process and distribute the information leaflets on both DWWTS and private wells. A link to the leaflet “Have you checked your well water supply?” is provided here <http://www.epa.ie/pubs/advice/drinkingwater/SS%20Wells%20Web.pdf>.
- Further work to take place on the feasibility of the expansion of bundled service contracts for desludging.
- The agreement of metrics to ensure that progress with engagement can be measured during the implementation of the 2018 – 2021 NIP.

4.4 Education and desludging initiative

A pilot scheme known as the Group Water Scheme Led Community DWWTS Education and Desludging Initiative was undertaken by the National Federation of Group Water Schemes (NFGWS). It commenced in 2016 and is due to conclude in 2018. The purpose of the study was to test the capacity of group water schemes to co-ordinate and incentivise septic tank desludging for bundles of householders.

NFGWS Group Water Scheme Led Community DWWTS Education and Desludging Initiative

The main findings of the EPA funded research of relevance to the NIP indicate:

- Local authorities should provide a portal on their websites to the relevant information including a list of registered contractors.
- Farming communities need to be better informed with regard to the proper disposal of sludge on lands.
- Contractors and farmers should be monitored by the relevant statutory agencies to ensure that sludge is being properly disposed of.
- The cost of sludge collection and disposal varies significantly from county to county based on the rate per tonne at various WWTPs and the distance to the nearest facility.
- Reduced desludging costs will incentivise people to sign up to proper management of their DWWTS. Significant savings (up to 50%) on the cost of desludging were achieved using the community led bundled approach.
- The bundled approach could also be applied to achieve cost savings for the proprietary systems that require an annual service contract.
- The study concluded that with financial and other incentives a group water scheme led community approach to desludging is a viable solution. The findings of research will be published in 2018. Further information will be provided on the NFGWS website at <http://www.nfgws.ie/Home>

Chapter 5 Implementation and review of the plan

5.1. Implementation

Local authorities

The implementation of this plan will be carried out by the local authorities. Each local authority is responsible for ensuring that inspections and engagement strategies for their functional areas are carried out. Local authorities also need to decide whether additional inspections i.e. above the minimum limit set in this plan are required to protect the local environment and public health.

Local authorities need to take appropriate steps to close out advisory notices to make sure that remedial works are completed. Where remedial actions are not undertaken, initially the local authorities should work with home owners to ensure that the necessary works are completed. Failing this, the ultimate sanction is legal action under the *Water Services Act 2007 as amended by the Water Services (Amendment) Act 2012*.

As outlined in the 2016 *National Inspection Plan Domestic Waste Water Treatment Systems: Fifth Implementation Report* a significant number of advisory notices (451) remained open beyond the remedial and extension date. The report can be found at <http://www.epa.ie/pubs/reports/water/wastewater/nip2016.html>

The onus is on local authorities to allocate appropriate resources to ensure that advisory notices are closed out as quickly as possible.

The enforcement policy working group have developed a process flow chart and template letters to assist inspectors with the actions required to follow up after an inspection to ensure the application of a consistent approach nationally. A copy of the guidance for enforcement process and communications is available to all inspectors on the NIECE septic tank inspectors network page.

The enforcement policy working group will be tasked with the establishment of a specific metric in relation to the closing of advisory notices.

EPA supervision

The EPA will continue its advisory, implementation and enforcement role and will continue to prepare guidance, where necessary.

The online domestic waste water application (DWWA) will continue to be used by individual local authorities to track the progress of their own inspection schedules against what is required under the national inspection plan for the 2018 – 2021 period.

Engagement via the NIECE (Network for Ireland’s Environmental Compliance and Enforcement) septic tank inspectors network is planned. A webinar was held by the EPA in January 2018 to present the revised risk assessment methodology for the national inspection plan for domestic waste water treatment systems 2018 – 2021 and the updates to the online domestic waste water application (DWWA).

The implementation of the NIP, including site selection, is subject to regulatory oversight by the EPA. Local Authorities should document their application of the site selection methodology including the justification for the selection of individual sites (see Section 3.3).

At a national level, the EPA produces an annual implementation report which details the number of inspections that have been carried out by each local authority and the progress made against the requirements of the national inspection plan. The collected data will be used to identify future priority issues for enforcement and provide data for the further refinement of the site selection methodology in association with the preparation of the next River Basin Management Plan (2022 – 2025).

Home owners

The responsibility for the operation and maintenance of DWWTS lies with the owner of the premises connected to the treatment system. As specified in the legislation the owner is required to ensure that the treatment system does not present a risk to human health or the environment and that the system is registered. Guidance for home owners on the remediation and replacement of a DWWTS is available at the following link <http://www.epa.ie/water/wastewater/guidance/remed/>

The implementation of the plan requires home owners to take responsibility for the protection of their health, and that of their neighbours, as well as the protection of water quality by changing behaviour to ensure their DWWTS are being correctly operated and maintained. The purpose of the inspection system is to reinforce this message while targeting inspections in the areas of highest risk.

The EPA is currently funding a research project *De-sludging rates and mechanisms for domestic wastewater treatment system sludges in Ireland*. The findings of the research are due to be published in 2018 following from which further guidance in relation to desludging may be developed to assist home owners.

Input from other stakeholders

The objectives of the plan cannot be successfully delivered without the contributions of other organisations also. The EPA will continue to work with other stakeholders to raise issues arising from the implementation of the plan. For example, issues regarding legislation and grants are the responsibility of the Department of Housing, Planning and Local Government. The EPA has forwarded a list of the submissions received during the public consultation in relation to the grant system to the DHPLG.

Irish Water developed a national strategy for waste water sludge as outlined in its National Waste Water Management Plan (Irish Water, 2016). In relation to domestic waste water sludge the plan outlined that *“Irish Water will continue to accept DWWTS sludge at wastewater treatment plants where the acceptance of sludge is not having a negative impact on the operation of the plant and will review the capacity available for accepting DWWTS sludge if there is a significant increase in the demand for acceptance facilities”*. The next review of the plan is due to take place in 2021. The Agency is committed to continued liaison with both the Department of Housing, Planning and Local Government and Irish Water on this issue.

5.2. Reporting and review

This third cycle of the national inspection plan covers the period 2018 - 2021. The risk based methodology has been refined through the development of 10 risk zones based on the information currently available from the characterisation process associated with the development of the River Basin Management Plan 2018 – 2021.

The revised methodology is being introduced to ensure inspections are targeted to areas where the optimal outcomes for water quality can be achieved, as per the objectives of the River Basin Management Plan, with the associated benefit to human health.

It is proposed that the risk based methodology for the selection of sites for inspection purposes will remain in place for the duration of the River Basin Management Plan 2018 – 2021 with the next review of the national inspection plan for domestic waste water treatment systems to take place in 2021.

Appendix A: Risk assessment methodology for 2018 – 2021

Step 1 – Using the geographic information system (GIS) the EPA Catchments Unit calculated the area in m² under each of the 10 risk zones for each local authority area. This data is presented in Table A.1. The area under each risk zone for all local authority areas was then summed to calculate the % of national area per risk zone and the % of national area per risk water body category (Table A.2). The total national area being assessed is 66,169 km².

Step 2 – The area in each of the 10 risk zones for each local authority area was then expressed as a percentage (Table A.2) of the total national area being assessed (i.e. area in risk zones from within an individual local authority area in m² divided by the total national area being assessed 66,169 km²).

Example from Waterford City & County Council to demonstrate the process. To calculate the % of national area in risk zone 1a the measured area of 35,095,363.01 m² (Table A.1) was divided by 66,169 km² which is the total for the national area. This gives a result of 0.05%.

For each of the cells in the excel spreadsheet the % of national area per risk zones was then calculated. This gives a breakdown under each of the 10 no. risk zones for each local authority area as shown on Table A.2.

The % of national area per RWB category was then calculated for each of the categories 1 to 5 as shown in Table A.2 to provide the overall summary figure for each category.

Step 3 – A system of weightings was developed by the EPA to distribute the minimum 1,000 inspections which are required on a national basis to target inspections across each of the risk zones. The weightings are assigned as per Table A.3 below.

The weightings 100, 25, 20, 10 and 1 were assigned to each of the water body categories 1 to 5 respectively. With the higher weights assigned to categories which represent a higher risk to water quality and human health.

To take into account the human health and groundwater elements the weightings initially calculated for the surface water bodies were then doubled within the areas where there was a human health risk potential. This resulted in the creation of additional risk zones 1B, 2B, 3B, 4B and 5B with weightings of 200, 50, 40, 20 and 2 respectively.

In a total 10 no. risk zones (1A, 2A, 3A, 4A, 5A, 1B, 2B, 3B, 4B and 5B) were created with 10 different weightings as shown on Table A.3.

Step 4 – The calculation of the individual weightings involved multiplying the % of national area per risk zone for a particular risk zone within a local authority area by the weighting for

that risk zone to calculate the respective weighting in terms of the total overall national weighting.

Example - Tipperary County Council under risk zone 2B the % of national area per risk zone was 0.43%. The weighting factor for risk zone 2B is 50. To calculate the respective weight for this risk zone for this local authority area the % of national area per risk zone (0.43% i.e. 0.0043) is multiplied by the weighting factor (50) to yield an adjusted weighting factor of 0.22. All of the calculated weights are presented in Table A.4.

Step 5 – The final step in the process was the distribution of the minimum number of 1,000 inspections nationally across all local authority areas. The number of inspections to be undertaken under each of the risk zones are shown on Table A.5.

The required minimum 1,000 inspections per annum have been distributed nationally based on the weightings calculated in Table A.4.

Example - Tipperary County Council for risk zone 2B (Table A.4) a weighting of 0.22 was calculated for the risk zone which is then divided by the total national weighting of 16.77 and multiplied by 1,000 to determine the number of inspections within this risk zone. The results for Tipperary County Council for risk zone 2B was a minimum of 13 no. inspections per annum.

It should be noted that the process involved the rounding of inspection numbers to the nearest whole number. The proposed minimum inspection numbers within each risk zones across all local authority areas have been calculated and rounded and are presented in Table A.5.

A schematic of the GIS development is provided in Figure A.1 which outlines how the individual data layers were combined to develop the national Inspection Plan 10 Risk Zones Map.

Risk Zones												
	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B	Total Area County (m2)	Total Area County (km2)
Carlow County	3113125	1910670	247674526	159267154			66713132	45830032	181796049	163008442	869313130	869
Cavan County	4285327	67590415	37199552	207104768	169216	10814098	48333839	432882130	102580398	929564790	1840524533	1841
Clare County	14319976	41881470	255833966	359056519	39349286	26287184	83475548	106857326	817808600	1340177037	3085046912	3085
Cork City & County	31450877	8549951	806512073	575300106	1540553	15540001	239343014	62829414	3174938264	2242126579	7158130831	7158
Donegal County	33278461	286057677	78519230	988717479	9302711	52496550	87697886	468576031	377566205	2259165943	4641378173	4641
Dun Laoghaire-Rathdown			14564956	24636343			1678	306	12988204	5688403	57879891	58
Fingal	66	140551	7488640	77991770	6827416	31572760	21681079	62553775	12069591	43612554	263938202	264
Galway City			104301	206537	4840572	3395448	1304077	1143242	4230842	5282120	20507140	21
Galway County	96155543	202281761	374512898	699018014	179269760	81374448	151348945	168534679	1041803978	2669586680	5663886708	5664
Kerry County	19682549	32616596	298526372	693952017			11740174	52617187	1266821743	2179353048	4555309687	4555
Kildare County	43318720	72105749	325438288	144220638	8060321	6181645	136940617	128969351	496376100	260580823	1622192253	1622
Kilkenny County	42121183	5626905	287504480	271606514	8970430	1742280	99845511	76581427	547113054	682646425	2023758209	2024
Laos County			312233726	277465756			62180894	47901568	543426384	434610570	1677818898	1678
Leitrim County	1459922	22234160	69113914	281677403	32239	3522243	10898591	169935573	118409589	822092467	1499376102	1499
Limerick City & County	10393034	4762773	204206392	299268462	56424415	67197104	171416601	242214496	574205553	940826439	2570915269	2571
Longford County	1687690	4552100	65444489	86018362			41341460	81617964	282109938	466381150	1029153152	1029
Louth County			109029601	115084782			17937085	51250164	234418861	211096689	738817182	739
Mayo County	91855718	138519980	328938799	463880332			101807668	124266554	1373396914	2625895342	5248561306	5249
Meath County	42967193	126746512	431805134	259697247	36544257	138418025	308290968	285962184	356730790	255211620	2242373929	2242
Monaghan County	2109481	27811639	75501330	183589651	33526956	68601286	80973391	322012199	134147121	314193700	1242466752	1242
Offaly County	1773436	1842378	156418499	121561657			228296087	295381758	551581551	580023780	1936879145	1937
Roscommon County	22112686	33163672	375081795	280490860	169310	796355	158255165	175865561	781675540	583698699	2411309642	2411
Sligo County	5409763	52234061	114738542	249930432	1112618	25384725	12297772	48469083	418336951	824724160	1752638107	1753
South Dublin			12246118	11698223			44678363	27225824	21886801	45086137	162821467	163
Tipperary	44781202	11629853	360974837	286103114	58184252	11989508	540999661	242463566	1574495900	1038066276	4169688171	4170
Waterford City & County	35095363	4988164	265932617	142494149			62149468	23576969	780092622	466416965	1780746317	1781
Westmeath County	4043721	1947222	210342300	129775014	9978095	2448211	335325623	237939062	508212892	277627818	1717639958	1718
Wexford County	82507475	181747787	280321007	237619796	12351402	60684944	85978500	101108270	513483754	717035305	2272838239	2273
Wicklow County	20463647	17959000	205414556	356804421	4271171	471037	86394713	174099817	418269802	629377348	1913525511	1914
Sub Total Per Risk Zone (m2)	654386156	1348901045	6311622939	7984237520	470924980	608917852	3297647510	4258665512	17220973990	24013157311	66169434816	
Sub Total Per Risk Zone (km2)	654	1349	6312	7984	471	609	3298	4259	17221	24013		66169

Table A.1: Calculated area under each risk zone

NIP Risk Category	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B	Total
% OF NATIONAL AREA per Risk Zone	0.99%	2.04%	9.54%	12.07%	0.71%	0.92%	4.98%	6.44%	26.03%	36.29%	100.00%
% OF NATIONAL AREA per RWB Category	3.0%		21.6%		1.6%		11.4%		62.3%		100.00%
Carlow County	0.00%	0.00%	0.37%	0.24%	0.00%	0.00%	0.10%	0.07%	0.27%	0.25%	1.31%
Cavan County	0.01%	0.10%	0.06%	0.31%	0.00%	0.02%	0.07%	0.65%	0.16%	1.40%	2.78%
Clare County	0.02%	0.06%	0.39%	0.54%	0.06%	0.04%	0.13%	0.16%	1.24%	2.03%	4.66%
Cork City & County	0.05%	0.01%	1.22%	0.87%	0.00%	0.02%	0.36%	0.09%	4.80%	3.39%	10.82%
Donegal County	0.05%	0.43%	0.12%	1.49%	0.01%	0.08%	0.13%	0.71%	0.57%	3.41%	7.01%
Dun Laoghaire-Rathdown	0.00%	0.00%	0.02%	0.04%	0.00%	0.00%	0.00%	0.00%	0.02%	0.01%	0.09%
Fingal	0.00%	0.00%	0.01%	0.12%	0.01%	0.05%	0.03%	0.09%	0.02%	0.07%	0.40%
Galway City	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.00%	0.01%	0.01%	0.03%
Galway County	0.15%	0.31%	0.57%	1.06%	0.27%	0.12%	0.23%	0.25%	1.57%	4.03%	8.56%
Kerry County	0.03%	0.05%	0.45%	1.05%	0.00%	0.00%	0.02%	0.08%	1.91%	3.29%	6.88%
Kildare County	0.07%	0.11%	0.49%	0.22%	0.01%	0.01%	0.21%	0.19%	0.75%	0.39%	2.45%
Kilkenny County	0.06%	0.01%	0.43%	0.41%	0.01%	0.00%	0.15%	0.12%	0.83%	1.03%	3.06%
Laois County	0.00%	0.00%	0.47%	0.42%	0.00%	0.00%	0.09%	0.07%	0.82%	0.66%	2.54%
Leitrim County	0.00%	0.03%	0.10%	0.43%	0.00%	0.01%	0.02%	0.26%	0.18%	1.24%	2.27%
Limerick City & County	0.02%	0.01%	0.31%	0.45%	0.09%	0.10%	0.26%	0.37%	0.87%	1.42%	3.89%
Longford County	0.00%	0.01%	0.10%	0.13%	0.00%	0.00%	0.06%	0.12%	0.43%	0.70%	1.56%
Louth County	0.00%	0.00%	0.16%	0.17%	0.00%	0.00%	0.03%	0.08%	0.35%	0.32%	1.12%
Mayo County	0.14%	0.21%	0.50%	0.70%	0.00%	0.00%	0.15%	0.19%	2.08%	3.97%	7.93%
Meath County	0.06%	0.19%	0.65%	0.39%	0.06%	0.21%	0.47%	0.43%	0.54%	0.39%	3.39%
Monaghan County	0.00%	0.04%	0.11%	0.28%	0.05%	0.10%	0.12%	0.49%	0.20%	0.47%	1.88%
Offaly County	0.00%	0.00%	0.24%	0.18%	0.00%	0.00%	0.35%	0.45%	0.83%	0.88%	2.93%
Roscommon County	0.03%	0.05%	0.57%	0.42%	0.00%	0.00%	0.24%	0.27%	1.18%	0.88%	3.64%
Sligo County	0.01%	0.08%	0.17%	0.38%	0.00%	0.04%	0.02%	0.07%	0.63%	1.25%	2.65%
South Dublin	0.00%	0.00%	0.02%	0.02%	0.00%	0.00%	0.07%	0.04%	0.03%	0.07%	0.25%
Tipperary	0.07%	0.02%	0.55%	0.43%	0.09%	0.02%	0.82%	0.37%	2.38%	1.57%	6.30%
Waterford City & County	0.05%	0.01%	0.40%	0.22%	0.00%	0.00%	0.09%	0.04%	1.18%	0.70%	2.69%
Westmeath County	0.01%	0.00%	0.32%	0.20%	0.02%	0.00%	0.51%	0.36%	0.77%	0.42%	2.60%
Wexford County	0.12%	0.27%	0.42%	0.36%	0.02%	0.09%	0.13%	0.15%	0.78%	1.08%	3.43%
Wicklow County	0.03%	0.03%	0.31%	0.54%	0.01%	0.00%	0.13%	0.26%	0.63%	0.95%	2.89%

Table A.2: Calculated % of national area per risk zone

Waterbody Category for NIP	Category Description	Areas without indication of increased potential risk to groundwater supplies from DWwTS (A)				Areas with indication of increased potential risk to groundwater supplies from DWwTS (B)				National number of inspections per RWB Category	Inspections per 1 km ² of each Category	Inspections per 1,000 km ² of each Category
		Risk Zone	Weighting applied to Risk Zone	Percentage of Area covered by each Risk Zone (%)	National number of inspections per Risk Zone	Risk Zone	Weighting applied to Risk Zone	Percentage of Area covered by each Risk Zone (%)	National number of inspections per Risk Zone			
Category 1	Plan Priorities (Areas for Action and RBMP priorities) "At Risk Water Bodies" where DWwTS have been identified as a significant pressure	1A	100	1.0%	59.0	1B	200	2.0%	243.0	302.0	0.151	150.8
Category 2	Plan Priorities (Areas for Action and RBMP priorities) "At Risk Water Bodies" where DWwTS have not been identified as a significant pressure	2A	25	9.6%	142.0	2B	50	12.1%	360.0	502.0	0.035	35.1
Category 3	"At Risk Water Bodies" that are not an Area for Action or RBMP Priority where DWwTS have been identified as a significant pressure	3A	20	0.7%	8.0	3B	40	0.9%	22.0	30.0	0.028	27.8
Category 4	Remaining "At Risk Water Bodies" where DWwTS have not been identified as a significant pressure	4A	10	5.0%	30.0	4B	20	6.4%	77.0	107.0	0.014	14.2
Category 5	"Not at Risk" and "Review" Waterbodies	5A	1	26.0%	16.0	5B	2	36.3%	43.0	59.0	0.001	1.4

Table A.3: Proposed risk zones with inspection weightings

Risk Category	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B
Weights	100	200	25	50	20	40	10	20	1	2
Carlow County	0.00	0.01	0.09	0.12	0.00	0.00	0.01	0.01	0.00	0.00
Cavan County	0.01	0.20	0.01	0.16	0.00	0.01	0.01	0.13	0.00	0.03
Clare County	0.02	0.13	0.10	0.27	0.01	0.02	0.01	0.03	0.01	0.04
Cork City & County	0.05	0.03	0.30	0.43	0.00	0.01	0.04	0.02	0.05	0.07
Donegal County	0.05	0.86	0.03	0.75	0.00	0.03	0.01	0.14	0.01	0.07
Dun Laoghaire-Rathdown	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Fingal	0.00	0.00	0.00	0.06	0.00	0.02	0.00	0.02	0.00	0.00
Galway City	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Galway County	0.15	0.61	0.14	0.53	0.05	0.05	0.02	0.05	0.02	0.08
Kerry County	0.03	0.10	0.11	0.52	0.00	0.00	0.00	0.02	0.02	0.07
Kildare County	0.07	0.22	0.12	0.11	0.00	0.00	0.02	0.04	0.01	0.01
Kilkenny County	0.06	0.02	0.11	0.21	0.00	0.00	0.02	0.02	0.01	0.02
Laois County	0.00	0.00	0.12	0.21	0.00	0.00	0.01	0.01	0.01	0.01
Leitrim County	0.00	0.07	0.03	0.21	0.00	0.00	0.00	0.05	0.00	0.02
Limerick City & County	0.02	0.01	0.08	0.23	0.02	0.04	0.03	0.07	0.01	0.03
Longford County	0.00	0.01	0.02	0.06	0.00	0.00	0.01	0.02	0.00	0.01
Louth County	0.00	0.00	0.04	0.09	0.00	0.00	0.00	0.02	0.00	0.01
Mayo County	0.14	0.42	0.12	0.35	0.00	0.00	0.02	0.04	0.02	0.08
Meath County	0.06	0.38	0.16	0.20	0.01	0.08	0.05	0.09	0.01	0.01
Monaghan County	0.00	0.08	0.03	0.14	0.01	0.04	0.01	0.10	0.00	0.01
Offaly County	0.00	0.01	0.06	0.09	0.00	0.00	0.03	0.09	0.01	0.02
Roscommon County	0.03	0.10	0.14	0.21	0.00	0.00	0.02	0.05	0.01	0.02
Sligo County	0.01	0.16	0.04	0.19	0.00	0.02	0.00	0.01	0.01	0.02
South Dublin	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00
Tipperary	0.07	0.04	0.14	0.22	0.02	0.01	0.08	0.07	0.02	0.03
Waterford City & County	0.05	0.02	0.10	0.11	0.00	0.00	0.01	0.01	0.01	0.01
Westmeath County	0.01	0.01	0.08	0.10	0.00	0.00	0.05	0.07	0.01	0.01
Wexford County	0.12	0.55	0.11	0.18	0.00	0.04	0.01	0.03	0.01	0.02
Wicklow County	0.03	0.05	0.08	0.27	0.00	0.00	0.01	0.05	0.01	0.02
Total National Weights										16.77

Table A.4: Calculated weights of all risk zones broken down into local authority area

Risk Category	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B	LA Area Total
Number of Inspections											
National number of inspections per Risk Zone	59	243	142	360	8	22	30	77	16	43	1000
National number of inspections per RWB Category		302.0		502.0		30.0		107.0		59.0	1000
Carlow County	0	0	6	7	0	0	1	1	0	0	15
Cavan County	0	12	1	9	0	0	0	8	0	2	32
Clare County	1	8	6	16	1	1	1	2	1	2	39
Cork City & County	3	2	18	26	0	1	2	1	3	4	60
Donegal County	3	52	2	45	0	2	1	9	0	4	118
Dun Laoghaire-Rathdown	0	0	0	1	0	0	0	0	0	0	1
Fingal	0	0	0	4	0	1	0	1	0	0	6
Galway City	0	0	0	0	0	0	0	0	0	0	0
Galway County	9	36	8	32	3	3	1	3	1	5	101
Kerry County	2	6	7	31	0	0	0	1	1	4	52
Kildare County	4	13	7	6	0	0	1	2	1	0	34
Kilkenny County	4	1	6	12	0	0	1	1	1	1	27
Laois County	0	0	7	13	0	0	1	1	1	1	24
Leitrim County	0	4	2	13	0	0	0	3	0	1	23
Limerick City & County	1	1	5	13	1	3	2	4	1	2	33
Longford County	0	1	1	4	0	0	0	2	0	1	9
Louth County	0	0	2	5	0	0	0	1	0	0	8
Mayo County	8	25	7	21	0	0	1	2	1	5	70
Meath County	4	23	10	12	1	5	3	5	0	0	63
Monaghan County	0	5	2	8	1	2	1	6	0	1	26
Offaly County	0	0	4	5	0	0	2	5	0	1	17
Roscommon County	2	6	8	13	0	0	1	3	1	1	35
Sligo County	1	9	3	11	0	1	0	1	0	2	28
South Dublin	0	0	0	1	0	0	0	1	0	0	2
Tipperary	4	2	8	13	1	1	5	4	1	2	41
Waterford City & County	3	1	6	6	0	0	1	1	1	1	20
Westmeath County	0	0	5	6	0	0	3	4	1	1	20
Wexford County	8	33	6	11	0	2	1	2	1	1	65
Wicklow County	2	3	5	16	0	0	1	3	0	1	31

Table A.5: Minimum national allocation of risk based domestic waste water systems per local authority area

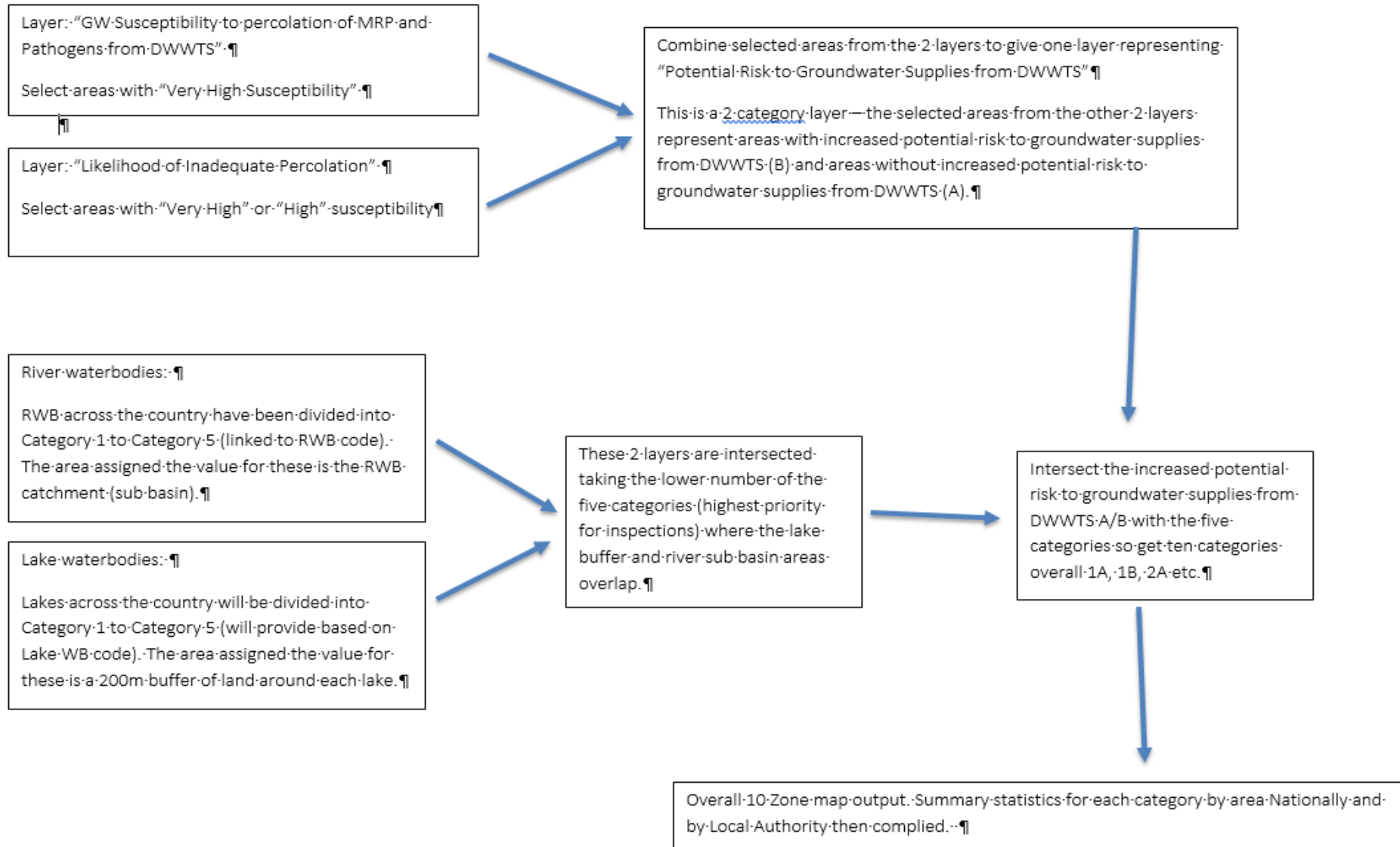


Figure A.1: Schematic of GIS development

Appendix B: List of publications

- Water Services (Amendment) Act 2012
<http://www.irishstatutebook.ie/eli/2012/act/2/enacted/en/print>
- National Inspection Plan 2015-2017
<http://www.epa.ie/pubs/reports/water/wastewater/nationalinspectionplan2015-2017.html>
- “Have you completed a septic tank system check” (2015)
<https://www.catchments.ie/download/septic-tank-system-check/>;
- Building a house
<https://www.epa.ie/pubs/advice/water/wastewater/wastewatersystemsforbuildingahouse.html>
- “Septic tanks and wastewater systems when buying or selling a house” (2016)
<https://www.epa.ie/pubs/advice/water/wastewater/septictankswastewatersystemswenbuyingorsellingahouse.html>;
- “Spreading sludge from your own septic tank” (2017)
<http://www.epa.ie/pubs/advice/water/wastewater/howtosafelyspreadsludgefromyourseptic-tank.html>
- Research 161 – Assessment of disposal options for treated waste water from single houses in low permeability subsoils.
<http://www.epa.ie/pubs/reports/research/water/researchreport161.html>
- Code of Practice Wastewater Treatment and Disposal Systems Serving Single houses
<http://www.epa.ie/pubs/advice/water/wastewater/code%20of%20practice%20for%20single%20houses/>
- National Inspection Plan Domestic Waste Water Treatment System: Fifth Implementation Report 2016 <http://www.epa.ie/pubs/reports/water/wastewater/nip2016.html>
- *A risk-based methodology to assist in the regulation of domestic waste water treatment systems*” (EPA, 2013).
<http://www.epa.ie/pubs/reports/water/wastewater/dwwriskranking.html>
- Draft River Basin Management Plan <http://www.housing.gov.ie/node/8762>

- Water Services Acts 2007 and 2012 (Domestic Waste Water Treatment Systems) Regulations 2012 (S. I. No. 223 of 2012)
<http://www.irishstatutebook.ie/eli/2012/si/223/made/en/print>
- Relay Risk Project: *Examining the communication of environmental risk through a case study of domestic wastewater treatment systems in the republic of Ireland* (2013-W-DS-12) (EPA, 2016) <https://www.epa.ie/pubs/reports/research/spr/EPA%20-%20Guidelines%20Report%20167%20FINAL%20AMENDED.pdf>
- National Waste Water Management Plan (Irish Water, 2016)
<https://www.water.ie/projects-plans/our-plans/wastewater-sludge-management/Final-NWSMP.pdf>

Appendix C: Information for private well owners

Information in relation to testing and treatment options for your private well is available at the following link <http://www.epa.ie/water/dw/hhinfo/testtreat/>.

The EPA will continue to provide all local authority inspectors with copies of the leaflet “Have you checked your well water supply?” a link to the leaflet is provided here <http://www.epa.ie/pubs/advice/drinkingwater/SS%20Wells%20Web.pdf>.

Grants are available from the Department of Housing, Planning and Local Government under the Rural Water Programme for the provision or improvements to an individual water supply in a house. Further details can be found at <http://www.housing.gov.ie/water/water-services/rural-water-programme/private-wells>.

The ‘Protect Your Well’ application has been developed by the EPA to assist private well owners. It provides a step by step guide on how to inspect your well for contamination or the risk of contamination. It can be accessed via the following link <http://erc.epa.ie/water/wells/#.WoK3HE1LGUm>

AN GHNÍOMHAIREACTH UM CHAOMHNÚ COMHSHAOIL

Tá an Gníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaoil a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaoil a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: Déanaimid córais éifeachtacha rialaithe agus comhlionta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.

Eolas: Soláthraimid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírthe agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.

Tacaíocht: Bimid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaoil atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaoil inbhuanaithe.

Ár bhFreagrachtaí

Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaoil:

- saoráidí dramhaíola (*m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistriúcháin dramhaíola*);
- gníomhaíochtaí tionsclaíocha ar scála mór (*m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta*);
- an diantalmhaíocht (*m.sh. muca, éanlaith*);
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe (*OGM*);
- foinsí radaíochta ianúcháin (*m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha*);
- áiseanna móra stórála peitрил;
- scardadh dramhuisece;
- gníomhaíochtaí dumpála ar farraige.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdarás áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhírú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a ídionn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaoil.

Bainistíocht Uisce

- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uisce idirchriosacha agus cósta na hÉireann, agus screamhuisecí; leibhéal uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

Monatóireacht, Anailís agus Tuairisciú ar an gComhshaoil

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil (*m.sh. tuairisciú tréimhsiúil ar staid Chomhshaoil na hÉireann agus Tuarascálacha ar Tháscairí*).

Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis ceaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhar breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainathint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

Measúnacht Straitéiseach Timpeallachta

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaoil in Éirinn (*m.sh. mórphleananna forbartha*).

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- 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 cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaoil ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaoil (*m.sh. Timpeall an Tí, léarscáileanna radóin*).
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosaint agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an ghníomhaíocht á bainistiú ag Bord Iáinimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltáí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair inní agus le comhairle a chur ar an mBord.



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