



**TED**

Tourism  
Enterprise Development  
Programme

# LEANER & GREENER

## Threats to Biodiversity in Northern Ireland

Exploring Biodiversity in NI, revealing current threats and what you may be able to do about this.



**TOURISM  
NORTHERN  
IRELAND**

[tourismni.com/leanergreener](http://tourismni.com/leanergreener)

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## PART 1: INTRODUCTION

Ireland's biodiversity is the magic that makes this beautiful island what it is, providing us with a wealth of resources for the tourism sector including wonderful scenic landscapes, rivers and lakes, forests and woodlands, habitats, plants and animals. Ireland offers a unique experience to tourists because of our biodiversity and the natural landscape.

Biodiversity is at the heart of our tourism industry here in Northern Ireland. In a Visitor Attitudes Survey in 2006, 80% of visitors rated Ireland's scenery as a primary reason for visiting Ireland, with 74% stating that they were attracted by the natural unspoilt environment. The People in the Outdoors Monitor for Northern Ireland has highlighted over £900 million was spent during visits to the outdoors in 2020/21.

### **So how is our biodiversity doing? Here are some alarming statistics:**

- Northern Ireland is ranked 12th worst out of 240 countries for biodiversity loss
- 12% of all wildlife is threatened with extinction
- Across the UK, 41% of species have decreased since 1970

The 2023 State of Nature Report shows pressures are coming from all angles. Changes in land use management, invasive alien species, pollution and climate change are among the big drivers highlighted. It is vital that we protect this resource at all costs and begin to turn the tide on this decline. In many cases, tourism businesses are the stewards of our wild places. You know these places intimately and if you are old enough, you may have even noticed the decline for yourself. We all play a role in its decline and every business can do their bit to help restore our precious biodiversity.

As well as being important to biodiversity, water also plays a major role in our tourism industry. Whether it's spending a day kayaking at Strangford Lough, fishing in Lough Neagh, surfing the West Strand at Portrush or going for a stroll along the banks of Lower Bann, water is a resource we often take for granted. Under the Water Framework Directive, Northern Ireland is required to get all its water bodies up to at least 'Good Status' by 2027. The clock is ticking and despite this looming deadline only 31% of rivers, 14% of lakes and 40% of Northern Ireland's transitional and coastal water bodies are achieving this minimum requirement.

## PART 2: INVASIVE ALIEN SPECIES ON YOUR PREMISES AND IN OUR WATERS

“  
World-wide, Invasive Alien Species are the second biggest driver of species extinctions overall.”

Bellard, C., Cassey, P. & Blackburn, T.M. (2016)

Not only do Invasive Alien Species (IAS) negatively impact our native wildlife but many IAS have also been shown to cause damage to infrastructure, can affect water quality and some can even pose a risk to human health. When you combine these factors, you will begin to realise that IAS, if left unchecked, are not only a threat to your tourism business but to the tourism industry at large in Northern Ireland. Recent estimates suggest that Invasive Alien Species now cost Northern Ireland approximately £46.5 million each year in damage and control.

**The number one thing you can do to help with invasive alien species is to prevent their introduction. Here are some key steps:**

- **Conduct an audit**

Walk around your premises and keep an eye out for any invasive species you might find.

- **Become familiar with the most common IAS in your area**

Prevalence of species can vary from county to county so for guidance on how to manage IAS and tips for identification you should check out Invasive Species Northern Ireland's [website](#). Three big ones to keep your eyes open for as you get started are Japanese Knotweed, Himalayan Balsam and Giant Hogweed. But be careful, Giant Hogweed can be dangerous to touch and can cause severe rashes. You can also check out the [EU list of Union Concern](#).

- **Share your records**

If you suspect that you have found an IAS, report it. This might be on your property but can also be offsite, for example if you do tours on your local river. Until we know the extent of the spread of a species, it is almost impossible to manage it effectively. In Northern Ireland there are two places you can report invasive species:

- 1) [Centre For Environmental Data and Recording \(CEDaR\)](#).
- 2) Use the iRecord app (available on Android and iOS)



- **Seek Guidance**

Get assistance on how best to treat an IAS you have discovered. It will vary from species to species. Never dig up a plant that you are unsure of, you might make the problem worse. It is illegal to plant or cause the spread of many invasive non-native plant species so be careful when disposing.

- **Check, Clean, Dry**

If you run tours or your business moves about a lot, you could potentially be at risk of accidentally spreading an IAS. The Check, Clean, Dry biosecurity protocol is designed to help you prevent this. Spreading awareness about this simple protocol among your staff and even clients can help end the spread of IAS. If you repeatedly use or rent out equipment, consider introducing Check, Clean, Dry as a Standard Operating Procedure. Think about items like boats, fishing nets, waders, jackets, boots etc. If it touches the water, it should be included. This also applies to on-land operations as seeds attached to your clothes and equipment can spread to new areas.



- **Know what you are planting**

If you are looking to plant on your property, know what you are buying. It is always best to choose native species first which can be locally sourced. Choosing native species has many benefits. Native species will be more genetically suited and adapted to Ireland's climate making them more resilient. They will also be more supportive of our native wildlife. For guidance on some of the best native species you can plant to support our pollinators check out the National Biodiversity Data Centres [Top 10 pollinator Friendly Plants for Different Situations](#).

## PART 3: WATER QUALITY AND TOURISM

Water plays a massive role in the tourism industry. From kayaking to surfing, swimming to boat tours, it is essential that we protect this precious resource. As part of the water Framework Directive, Northern Ireland has committed to get all of its water bodies up to at least “Good Status” by the year 2027. Everyone can play a role in making this target a reality. Here are some tips to get you started.

### Store chemicals properly

If we don't keep track of our chemicals, they can make their way into water bodies. Many chemicals we use daily like bleaches, detergents and solvents can have detrimental effects if they reach an aquatic environment. Excess usage can also put pressure on our treatment plants as these chemicals must be removed from effluent before it can be safely discharged back to water bodies. Things go wrong when these chemicals are left out and about with no accountability. Have a designated area where chemicals are stored. Ensure that their containers are tightly sealed and that they are kept in their original containers so that dosing can be done appropriately and expiry dates can be identified.

### Ensure proper disposal of hazardous materials

Everything has a shelf life, there are no exceptions. Material goods like batteries, oils, pesticides, paints and chemicals won't last forever. When they expire, it can be very tempting to dispose of them with your general refuse. Resist the urge to do this. Many of these products contain hazardous materials that can be harmful to both human health and the environment. By disposing of these chemicals with general refuse you risk these products making their way to our beautiful waterways and not only damaging aquatic life but also to our water supplies. For guidance on how to manage hazardous waste contact your local council and check out [this link here](#)

### Check that oil tanks are banded

If you use heating oil on your property, it would be wise to give your tanks a quick inspection once a year. Oil can cause mayhem in an aquatic environment and can lead to fish kill incidents. Prevention is better than cure as oil spills can cost thousands in remediation and can even result in the loss of access to groundwater supply. Check to see if your tank is banded. A band is a small wall around the tank that in the event of an oil spill will help contain the oil. Is there a roof over your tank? Leaving your tank open to the sky can result in your band ending up full of water, rendering it useless. Check joints for leaks and inspect the tank for cracks and signs of weathering.

## Check grease traps are serviced

Be aware that there are legal requirements in place to prevent fat, oil and grease entering drains and sewers. Failing to adhere to these can leave you ending up in hot water. Strainers in sinks can help capture larger scraps going down drains. For fats, oils and greases ensure your grease trap is serviced and regularity maintained. Your provider should provide guidance on how often you should clear the trap depending on your usage. Grease can result in blockage which can lead to bad smells as well as out of sewer flooding. For more guidance check out this [article](#).

## Reduce your pesticide usage

While they may make your life easier, there is always a catch with pesticide usage. There is mounting evidence that many of the pesticides that we take for granted can have adverse effects for both biodiversity, like our pollinators, as well as human health, with many now being shown to be potentially carcinogenic. A single drop of MCPA, a pesticide used for control of rushes, can breach the drinking water limit in a small stream for up to 30 kilometres! Businesses should look to reduce dependency on pesticide usage and look to the growing field of alternatives that are coming out.

## Be mindful of what goes down the drain...

While it might seem like you are washing away your problems, in reality you are diverting your problems elsewhere. Storm drains in Ireland do not receive any form of treatment. This means that anything entering these drains will arrive at a water body as it is. These might be popular tourism destinations that your business depends on like Lough Neagh or the River Bann. They also might just be the very place that the water you pour from your tap to drink is extracted from.

## Riparian strips

Allow vegetation to grow along the banks of any stream that passes through your premises. This strip of natural vegetation provides many benefits. As water runs off the land this strip will capture pollutants helping to protect the receiving water body. It will also slow down run off helping to reduce the risk of flooding downstream. Lastly, it creates a corridor for wildlife to seek shelter, forage and travel safely. This tip also applies to lakes.

## Protecting riverbanks and lake shores.

If your business involves getting on the water (like kayaking, SUP boarding etc.) try to use slip ways for launching and exiting the rivers or lakes. Large numbers of people can lead to the damage and erosion of riverbanks which can introduce silt and sediment to the waterbody. This can adversely affect water quality, choking up the riverbed and affecting spawning grounds of nearby fish like Brown Trout and Atlantic Salmon.

## PART 4: WATER CONSERVATION FOR TOURISM BUSINESSES

Water is a precious resource that we often take for granted. With the amount of rain we get in this country it's no wonder we take it for granted but have you ever stopped to think about where your water comes from?

Before you get started saving water, it is a good idea to figure out just how much water your business uses. This way you can track your progress as you begin to make changes. Water usage can vary at different times of the year so keep this in mind. Your metre will normally be fitted in an underground chamber between your property and the road. For guidance and how to locate your water metre look here read [this article by Northern Ireland Water](#).

When you look at your metre you will see numbers in black (these are cubic metres) and numbers in red (these are litres of water, 1 cubic metre is equal to 1000 litres). On a typical business day, take a reading of the metre and note the time of day. The following day, take a reading at the exact same time. The difference between these two numbers is the amount of water you use per day. If you want to get a reading of a working week, take a longer reading and divide the number you get by the number of days to get an average water usage per day.

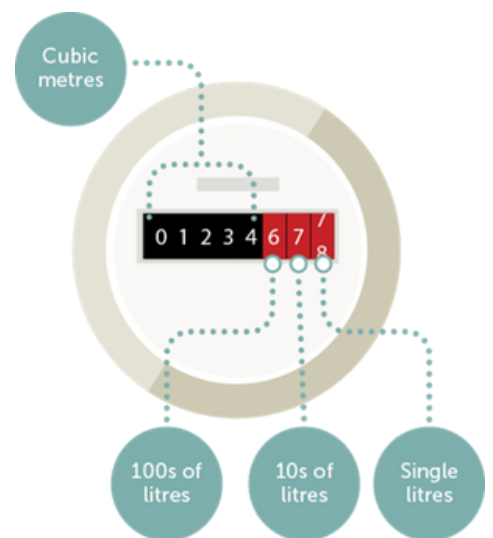
Now that you have a baseline to work with and you can begin to reduce water consumption.

Three aspects to consider when trying to reduce water usage:

1. Leaks
2. Behaviour
3. Innovations

### 1. Leaks

The number one step you can take to start conserving water is to stop all leaks. You can have the best habits and state of the art innovations in water conservation installed but as long as you have leaks, you will be fighting a losing battle.



The best way to detect a leak in your business is to carry out this simple test using your water metre (most effective out of business hours):

1. Make sure all appliances are switched off
2. Turn off your inside stop valve
3. Take a note of your metre reading
4. Wait for an hour
5. Take a second metre reading
6. If the two readings differ contact a plumber or Northern Ireland Water

Do you know what area of your business is the largest user of water?

If you have a large property, sub-metering different sections of your business can help you identify this so you can make the most gains quickly. Sub-metering can also help you pinpoint leaks much quicker and can be helpful if you share your premises with other businesses.

If you do not have a water metre or if your business operates 24/7, here are some of the most important places to check for leaks:

- **An audit of your sinks:** Check the canteen, toilets, changing rooms etc. Are any of them dripping? Just one leaking tap can waste over 1,500 litres of water per year!
- **Next check toilet bowls:** Can you see or hear water flowing into the bowl? This could be a sign that your cistern is leaking.
- **Water tanks:** Can you hear flowing water at times when no-one is using water? Check joints around the tank, are there any drops of water or pools below the tank?

## 2. Behaviours

We often take water for granted. After all it can sometimes feel that not a day goes by in this country that it does not rain even a small bit.

In 2022 alone, Northern Ireland Water treated and supplied approximately 910,098 litres of water every single day to households and businesses. There is substantial expense that comes with this as water has to be treated to an acceptable standard for us to use. It would be a shame for it to go to waste.

You might be shocked to hear that the average person in Northern Ireland uses about 145 litres of water every single day. Finding out just how much water you use day to day can be eye opening. To figure out your usage you can use this [calculator here](#) made by Northern Ireland Water.



## Here are some habits you can introduce to begin lowering your businesses water usage:

- **Use jugs of water :** Look to invest in a water filter. Tap water can also do the trick too in most cases. This will substantially reduce the amount of bottled water you will need, reducing plastic and water waste. A single 1 litre plastic bottle requires 7 Litres of water to be produced! In many cases consumers only take a few sips leaving the rest to go to waste. On hot summer days resist the urge to let the tap run to get a cool glass of water, by placing jugs of water in the fridge you can minimise this waste.
- **Shower vs bath:** If you are in hospitality, encourage your patrons to choose a shower over a bath. A typical shower uses far less water than a bath. Having a towel reuse policy can also significantly reduce the number of washing loads every day. If patrons require new towels, place the used ones on the bathroom floor. If they are happy to reuse the towels they can place them on the rack. This can be communicated to patrons using signage in their bathroom.
- **Reuse water:** Look for ways to reuse water. Get creative. Some simple examples of this might include using a bowl when rinsing vegetables or using a bottom's up watering technique for watering plants. This is where plant pots are temporarily placed in a shallow dish of water and water is allowed to soak into the pots from the drainage holes. This ensures that plants receive sufficient water and minimises wastage from evaporation on hot days.
- **Turning off taps:** Where possible, turn taps off during activities. This could be while you are preparing vegetables in the kitchen, doing the washing up or even brushing your teeth.
- **Machines on full loads:** Only running your washing machines and dishwashers when you have a full load will save you money on electricity bills as well as significantly reducing water consumption.

### 3. Water Efficiency Innovations

There are many water conservation devices available on the market. Some of them are quick and easy to install while others require a bit more of an investment up front. The end result is that you will save on your water bills in the long run as you begin to lower your consumption. Consider options like:

- Waterless urinals
- Motion sensors/push button urinals
- Dual flush toilets
- Displacement bags for cisterns
- Low-flow shower heads
- Low-flow aerators on taps
- Self-closing or sensor operated taps
- Trigger-operated hoses in kitchens
- Sensor or push button taps

Adding some of these devices to your property will be sure to cut your water bills. Aerators are cheap and can reduce water use by up to 70% per tap. A normal shower uses about 12 L per minute whereas low flow shower heads use between 6-8 L per minute.

#### Around the premises:

- Opt for a watering can over a hose
- Use a bucket and sponge
- Use soil protection like mulches around plants to reduce the need for frequent watering
- Use trigger hoses for precision and avoiding losses
- Rainwater harvesting
- Grey water recycling

Rainwater harvesting can be a simple way to reduce your water consumption from the mains. This is water that is collected from the roof of your building. This can be as simple as a water harvesting butt or as complex as a plumbed in system with underground tank and treatment system. The water from a simple system can be used for washing down yards, watering plants or cleaning equipment and windows.

## PART 5: SUSTAINABLE DRAINAGE SYSTEMS

A Sustainable Drainage System (SuDS) is a system designed to mimic the natural drainage of the land. A well designed SuDS can:

- Reduce the risk of flooding by slowing down surface run-off
- Reduce the risk of sewer flooding during heavy rain
- Providing valuable habitats for wildlife in urban areas
- Act as green spaces for people in urban areas

SuDS can be implemented in various ways through use of designs such as:

- Permeable paving
- Swales
- Green roofs
- Rainwater harvesting
- Detention basins
- Ponds
- Wetlands

## PART 6: CONCLUSION

Implementing the steps outlined in this toolkit will get you well on your way to lowering the impact your business has on our precious water resource. Thirsty to learn more about water conservation and how your business can reduce your water footprint? As part of our Learner & Greener program, Tourism Northern Ireland have developed a workbook with lots of useful tools and templates to help get you started. [Click the link here to get started.](#)

Finally, if you would like to do more to help support our declining biodiversity. Here are some ideas. Consider organising a corporate volunteering event for your team with [Live Here Love Here](#) or [Ulster Wildlife](#).

Maybe you would like to [register your business](#) with the All-Ireland Pollinator Plan and show your commitment by taking some simple action to help reverse the decline of our pollinating insects.

## PART 7: CASE STUDIES

### Case Study 1

A few years ago Belmore Court & Motel in Enniskillen were looking to lower their environmental impact. They wanted to reduce water consumption, energy use and detergent pollution. The idea that emerged was to introduce a Towel Reuse Program. The goal was to encourage guests to reuse their towels for more than one day, in order to reduce the need for daily laundering. This was done using informative cards placed in each bathroom, explaining the environmental benefits of reusing towels and how guests can participate.

The results of this simple action was that they had almost a 20% reduction in laundry loads in the first 12 months, detergent use fell by nearly 23% and approximately 100,000 litres of water were saved. To top all of this, the energy saved in heating the water and running the dryers at the external laundry was equivalent to powering four average-sized homes for an entire year!

### Case Study 2

In recent years it was noticed that thousands of starlings had disappeared from the area surrounding Albert bridge in Belfast. The murmurations that were once a big attraction to the area were no more and the number of starlings being seen around the bridge had dropped to less than 50 birds. Due to their decline in recent decades, Starlings are designated as a red listed species. They are also on the Northern Ireland Priority Species list. The cause for this concerning decline in Belfast was traced to upgrades carried out in 2019 to the lighting on Albert Bridge by the Department for Infrastructure. Light pollution has been shown to have a direct physiological impact on birds. Night time lighting causes extra stress and prevents them from sleeping. As a result they were avoiding the area when looking for roosting sites.

In August of 2023, blackout screens were fitted to lanterns on the bridge and lighting on the underside of the bridge was reduced. Red filters were also fitted to the lights on the side of the bridge.

**Call to action:** Think about the lighting around your business. Are there areas that are lit up overnight that see minimal footfall during these hours? Could sensorised lighting work in these places? Could you lower the light intensity without causing risk to staff or patrons who use that area? Could black out screens or red light filters be installed to lower stress to wildlife that share your premises. For guidance see this [Dark Skys article](#) on assessing lighting.



### Case Study 3

In 2022 the Northern Ireland Environment Agency launched a new campaign against water pollution in partnership with the Six Mile Water Trust. The Yellow Fish Campaign aims to both raise awareness of water pollution and positively engage local communities and businesses.

The campaign involves stakeholders marking footpaths and kerbs near surface water drains with a Yellow Fish symbol, to communicate the message 'only rain down the drain'. The visual prompt is to remind people that what is put down those drains flows directly to the nearest waterway, and can result in environmental damage if run off is contaminated with pollutants.

Marking of storm drains was led by the Six Mile Water Trust, with other volunteers including County Antrim Countryside Custodians, Ballynure Angling Club, Ballyclare Primary School, School and Antrim and Newtownabbey Borough Council. The NIEA campaign was coordinated with the help of Antrim and Newtownabbey Borough Council, NI Water, DfI Roads and DfI Rivers.

**Call to action:** Could your business get involved in the Yellow Fish Campaign? Could your business introduce it to your local area and spread the importance of protecting water quality? For more guidance check out this [guide](#).

## PART 8: RESOURCES

### Tourism Northern Ireland

- Leaner Greener Water Conservation Workbook: <https://www.tourismni.com/business-guidance/business-support/saving-energy-and-reducing-waste/leaner-greener-guide-to-water-conservation/useful-templates-from-the-leaner-greener-water-workbook/>

### Department For Agriculture, Environment and Rural Affairs

- Yellow Fish Campaign Press Release: <https://www.daera-ni.gov.uk/news/environment-minister-announces-yellow-fish-campaign>
- Yellow Fish Northern Ireland Guide: <https://www.daera-ni.gov.uk/sites/default/files/publications/daera/21.22.246%20The%20NIEA%20Yellow%20Fish%20Campaign%20final%20%281%29.PDF>

### Live Here Love Here:

- Corporate volunteering opportunities: <https://liveherelovehere.etinu.net/liveherelovehere/documents/008846.pdf>

### Ulster Wildlife:

- Corporate volunteering opportunities: <https://www.ulsterwildlife.org/volunteering-opportunities/corporate-volunteering>

### National Biodiversity Data Centre: The All-Ireland Pollinator Plan

- Information on supporting pollinators: <https://pollinators.biodiversityireland.ie/>
- Guide to Pollinator Friendly Planting <https://pollinators.ie/wp-content/uploads/2023/04/Top-Ten-pollinator-plants-Guide-WEB.pdf>

### Northern Ireland Water

- How to read your water metre: <https://www.niwater.com/read-your-meter/>
- Calculate your personal water usage: <https://www.niwater.com/why-save-water/>
- Fats Oils and Greases: <https://www.niwater.com/fats-oil-and-grease-fog/>.
- Where to record Invasive Alien Species <https://www2.habitas.org.uk/records/ISI>

### **Invasive species Northern Ireland**

- Keep up to date on invasive species in Northern Ireland  
<https://invasivespeciesni.co.uk/>
- EU List of Union Concern: <https://invasivespeciesni.co.uk/wp-content/uploads/2022/11/EU-list-of-Union-Concern-1.pdf>

### **Northern Ireland Direct**

- Disposing of hazardous waste: <https://www.nidirect.gov.uk/articles/disposal-hazardous-waste-and-electrical-items>

### **Dark Sky**

- Assessing outdoor lighting: <https://darksky.org/get-involved/home-lighting-assessment/>