

# LISDOONVARNA BIODIVERSITY PLAN

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**2019**





Biodiversity is the totality of all inherited variation in the life form of Earth, of which we are one species. We study and save it to our great benefit. We ignore and degrade it to our great peril. - E. O. Wilson

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## Lisdoonvarna at a Glance

### Overview of Lisdoonvarna

The Victorian town of Lisdoonvarna is located in the Burren and Cliffs of Moher UNESCO Global Geopark; an area that encompasses the limestone region in north and northeast Clare as well as the sandstone and shale region that extends from the end of the Cliffs of Moher at Hags Head to Kilfenora and Corrofin.

Lisdoonvarna is located at the edge of the Burren and only 15 minutes drive from the Cliffs of Moher and one hour from Shannon Airport.

The town has a population of ca. 800 people, for whom there is a wide array of amenities and infrastructure in place. We feel very privileged to have primary and secondary schools, shops and churches, and accommodation from hostels to hotels at our disposal.

### History of Lisdoonvarna

Water plays a pivotal role in the history of Lisdoonvarna. Several rivers run through the town which are mostly set in deep and beautiful ravines.

As early as 1740, the different sources of iron, magnesia and sulphur were discovered, and with them the benefits for the people. As there had not been earlier settlements, it took a while before the Spa wells were commercially used and a village around them built to accommodate the rising number of tourists to Ireland's only spa town.

The spa officially opened in 1845 although the healing waters were dispensed well before that. The extension of the West Clare Railway to Ennistymon in 1887 brought many more holiday-makers to Lisdoonvarna who mingled and "took the water". From these activities, the matchmaking festival developed which even to this day has been an important contributing factor to the economic welfare of the town.

## What are Lisdoonvarna's Unique Aspects?

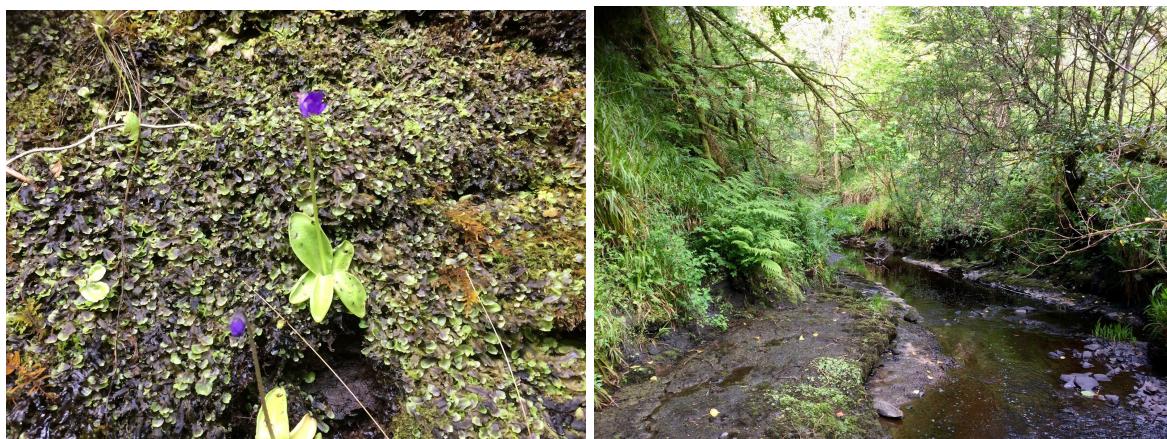
### Geology and flora

Lisdoonvarna is built on Clare Shale which was formed in oxygen-poor sea water about 300 million years ago. The Clare Shale contains the mineral pyrite (also known as 'Fool's Gold') which breaks down when exposed to water and air and contributes the sulphur and iron which give the Spa Wells water its characteristic smell and taste.

When the Clare Shale was formed the area that is now Lisdoonvarna was a sea close to the equator, this sea was eventually filled in by rivers carrying a lot of mud silt and sand which formed a large delta similar to the modern Mississippi delta. Those deposits are now exposed in the nearby Cliffs of Moher.

The Clare Shale cliff face of the Aille River downstream from the spa wells is allegedly home to a unique flora. It is said to be not only unique to Ireland, but unique on the planet. This needs to be examined by experts, and it is one of the projects in this biodiversity plan.

These beautiful river areas are not easily accessible and accessing them would require dry spells with low water levels in the river, and local knowledge.



### Community-owned assets

Several aspects make Lisdoonvarna unique. For one, it is Ireland's only Spa town.

The second unique aspect of the town is that a lot of the grounds in town are owned by the community, and also an impressive number of assets which are under the governance of the community.

In 1895, the Stacpoole Estate which covered a large part of today's Lisdoonvarna, went into bankruptcy. A local Improvements Committee was set up, which represented the town's business and resident's interests. They added a pump house, new baths and ran the facilities very efficiently.

In 1976, a new limited company was set up – "Lisdoonvarna Failte", which up to today has successfully overseen the regeneration of the Pavillion (Town Hall), sports facilities and the building & operation of a new town crèche.

The list of assets comprises:

- Spa wells, no longer in operation, & 50 acres site to rear
  - Pump House – one room building to front of site - 90 sq. metres
  - Bath House – two-storey building which accommodates 6 sulphur baths, changing and therapy rooms on each floor. – 231 sq. metres
  - Dance hall
- Maiville House – formerly the Spa Doctor's house overlooking the site – 200 sq. metres including outbuildings
- The Pavilion Theatre – a large open space with stage available for dances, conferences and meetings and incorporates a café space to the front of the theatre building. – 207 sq. metres
- Soccer pitches including astro turf which are being used by clubs across the North Clare area
- Crèche
- Playground
- Park and 1km walk to the rear of the Pavilion and soccer pitches

Other community infrastructure:

- GAA pitch and clubhouse
- Four catholic church grounds, six or seven cemeteries, and three primary schools with gardens within the parish of Lisdoonvarna
- A secondary school with small sensory garden on tarmac.

Lisdoonvarna Failte CLG is responsible for the day to day management of the community owned assets. Most projects in this plan impact on and require collaboration around the communities assets.

## Community Actions to Date

There have been a wide range of activities to enhance the quality of life and the biodiversity of Lisdoonvarna.

These comprise of the following highlights with regard to the environment:

- The creation of the park which used to be a dumping ground, mainly for building companies
- Course on “Sustainable community development” with action plan
- The planting of an orchard at the perimeter of the park
- Biodiversity photography competition and mini audit in May 2017
- Community workshops including bee keeping, bat walk, plant identification, moth identification, bug hotels, herb walks
- Setting up and maintaining a Facebook page and related group on Biodiversity
- River water quality assessment and workshop with LAWCO Local Authorities Water & Community officer
- Information evening with IPCC Irish Peatland Conservation Council on biodiversity
- Five North Clare schools and Lisdoonvarna Failte are participating in a Clare County Council Greener Clare initiative focusing on the aquatic and biodiversity resources of the Aille and Caher river Catchments
- Mary Immaculate Secondary School created a garden in the school courtyard
- St Endas National school maintains a school garden including vegetables and compost



## Biodiversity Projects Planned

We live in an area of great beauty and wonder. Lisdoonvarna is situated between the Cliffs of Moher and the Burren – both world-famous places that have drawn visitors from afar for centuries. Lisdoonvarna has its own merits for locals and tourists alike.

There is great potential in developing the attractive but largely unknown sides of our town. The projects listed below reflect this.

Another aspect of the biodiversity plan is aimed at making everybody aware of certain issues that have not been widely discussed and recognised as being a threat to biodiversity and a healthy environment.

Action no.	Project name	Details	Time frame
1	Improve river water quality	Aille catchment is currently identified as an area of action with LAWCO	5 years
2	Development of two river walks <i>Requires feasibility study and funding</i>	Create walks along Aille and Gowlaun rivers	5 years
3	Biodiversity audit	Requires funding for professional auditor	3 years
4	Raise awareness of biodiversity loss		3 years
5	Natural flood management in the park	Requires feasibility study and funding - possibility for a pond, reed bed etc	2 years
6	Explore the need for habitat enhancements	Get Birdwatch Clare advice on bird boxes etc	1 year
7	Pollinator friendly planting	Along main street and public areas	3 years

<b>8</b>	Raise awareness about, survey and eradicate Japanese Knotweed & other invasive species like gunnera		5 years
<b>9</b>	Maintain orchard at Rooska entrance to park		ongoing
<b>10</b>	Raise awareness about recycling and burning of plastic	Distributing leaflets to all households	1 year
<b>11</b>	Rewilding public and private areas		2 years
<b>12</b>	Raise awareness of the damaging effects of using herbicides and other toxins		1 year
<b>13</b>	Community vegetable garden	Create a vegetable garden for the benefit of pollinators and the public	3 years
<b>14</b>	Nature's Garden / maze for pollinators. Plant, inform, educate	Plant a garden for nature and use this to educate the public on the importance of biodiversity	3 years
<b>15</b>	Trout fishing holes along the river walks	Investigate feasibility and biodiversity impact of such fishing holes	3 years
<b>16</b>	Identify walking & cycling routes and proposed additional connections		3 years
<b>17</b>	Identify local bogs with a view to protecting their role as biodiversity hosts and carbon sinks		3 years

## Projects and actions in greater detail

### Action 1      Improve river water quality

During a workshop in 2017 the river water at the spa wells was identified as being of poor quality. The Aille river runs in to the right of the Spa Wells complex where the Kilmoon stream joins it. This is where they meet:



The River Basin Management Plan for Ireland 2018 – 2021 sets out measures and priorities aimed at ensuring its implementation over the next four years will achieve the objectives of the EU Water Framework Directive. The Aille catchment is currently identified as an area of action in the River Basin Management Plan for Ireland 2018 – 2021.

*More info:*

<http://watersandcommunities.ie/areas-action-river-basin-management-plan-ireland-2018-2021/>

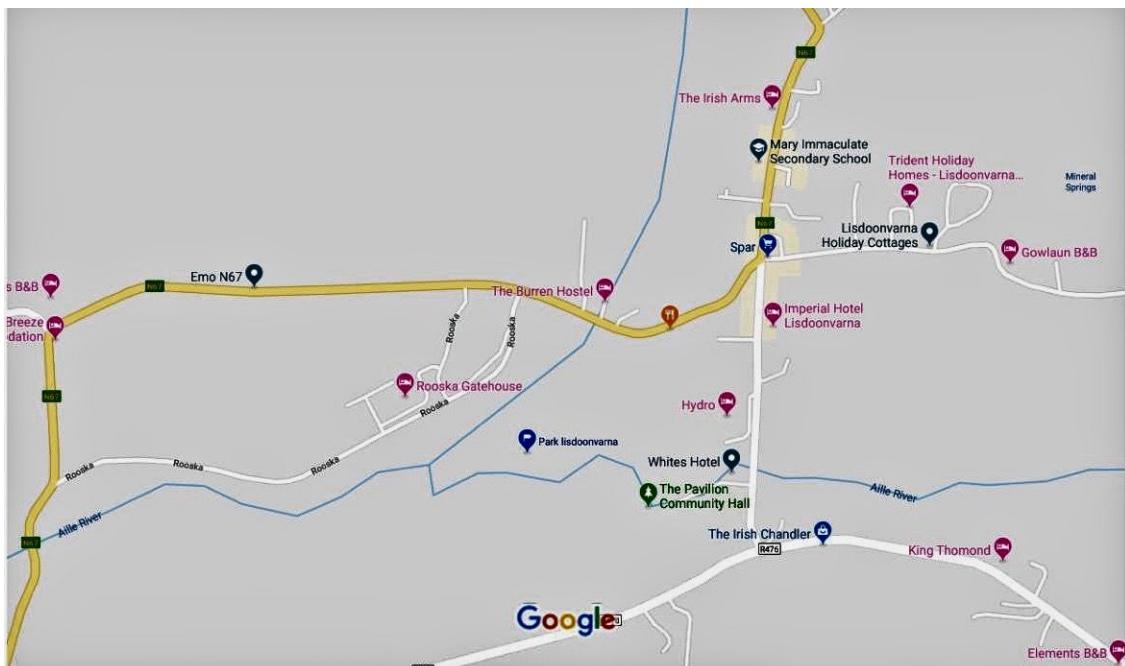
To support these objectives the catchment characterisation work undertaken by the Environmental Protection Agency (EPA) has informed criteria for prioritisation for this cycle of river basin management planning, these are:

- Ensure full compliance with relevant existing EU legislation.
- Prevent deterioration of ecological status.
- Meet the specific water-related objectives required for our protected areas.
- Specifically protect and restore our high-status objective water bodies.
- Prioritise catchment areas for action that facilitates (i) the targeting of water bodies where evidence suggests they could achieve status improvements during this cycle and (ii) the progression of pilots in sub-catchments with more complex issues that require multi-disciplinary and cross-agency approaches
- Work to improve our knowledge and understanding of hydromorphology and barriers as pressures impacting on water quality, including the identification of the scale of these issues; build the expertise necessary to address these issues.

## Action 2 Create walks along Aille and Gowlaun rivers

The river Aille rises on the slopes of Slieve Elva in the Burren and flows through Lisdoonvarna and the village of Doolin before emptying into the Atlantic Ocean close to the Cliffs of Moher. In Lisdoonvarna, the Aille is joined by the river Gowlaun and Kilmoon stream. Flowing through Lisdoonvarna, it gives rise to sulphur, iron, and magnesium wells there.

Where the Aille and Gowlaun rivers meet in Lisdoonvarna is where the sulphur springs were discovered in the early 1700s. This is on the grounds of the Spa Wells complex.



As the river leaves Lisdoonvarna it is met by the Kilmoon stream. This area is deep and has descending steps where the ‘Twin Wells’ are located. Discovered in the mid-1700s, these wells are a source of iron and magnesia and unusually the two separate wells spring from the same rock. This is situated in the town park behind the Pavilion theatre.

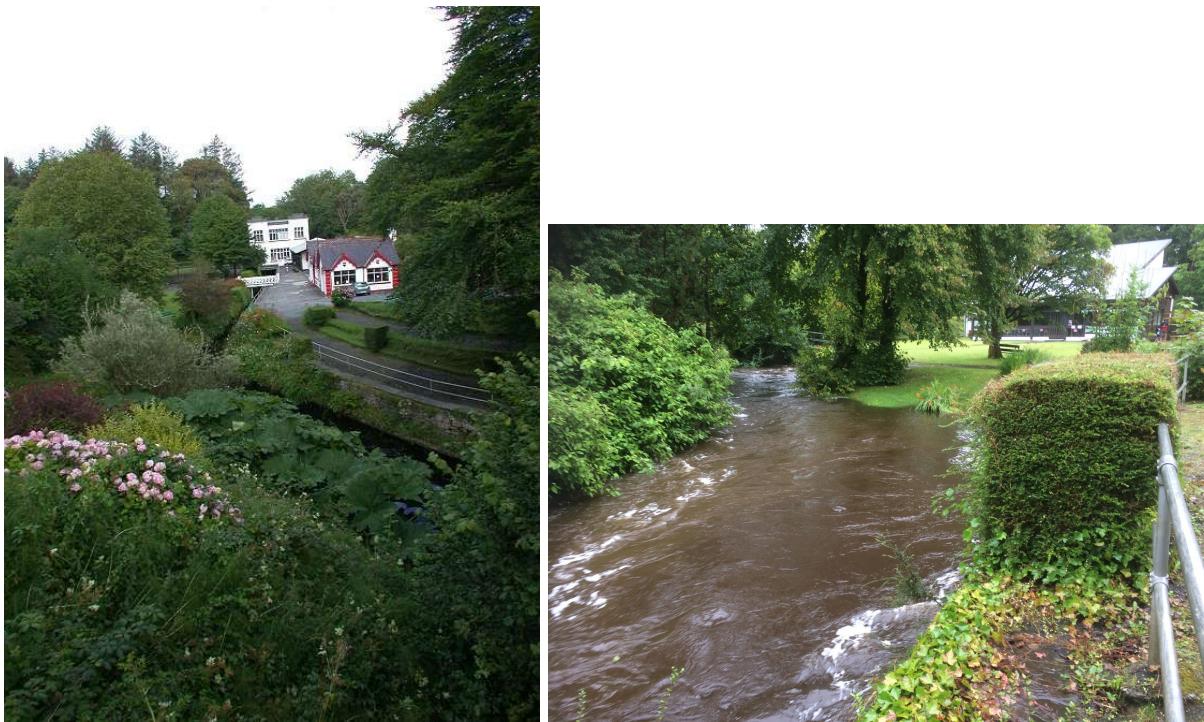
The river continues to flow west and on the outskirts of Lisdoonvarna can be found an amazing structure known as the Spectacle Bridge. This is one of the most unusual bridges in Ireland. Clare County Surveyor John Hill designed the bridge around 1850. It is located across a deep gorge on the Lisdoonvarna to Ennistymon Road.

The banks of the Aille are magnificent. They are home to many species including a rare carnivorous plant, the Large-flowered Butterwort (*Pinguicula grandiflora*) which is considered the plant equivalent of flypaper. Commonly referred to as “pings” from their scientific name *Pinguicula*, this name means “little greasy one” in Latin. It is derived from their broad green leaves that are covered with tiny glandular hairs that secrete sticky mucilage, greasy to the touch. These drops of mucilage cause the leaves to shimmer in light – attracting peckish insects.



People once walked from the Spa Wells to the Spectacle Bridge along the banks of the Aille river. Locals have wanted to explore reopening the river walks for the benefit of locals and visitors alike to enjoy the natural beauty in the area.

There is also a great deal of soil erosion along the banks of the Aille. Especially in the grounds of the Spa Wells where non native species were planted and the soil is not supported as it would be with native deep rooted river bank plants. Between the lack of a root system to hold the bank together and the increased rainfall the banks will continue to slide into the river. Here you can see Gunnera (Giant Rhubarb) and the rising levels of water following heavy rainfall in the summer of 2017.



This will require a feasibility study and detailed plans to ensure the protection and enhancement of biodiversity in the area.

Actions 1 and 2 are related but they require different partners. Action 1 requires a collaboration between the people of Lisdoonvarna and the Community Waters Office and Clare County Council. It also requires strong support from Lisdoonvarna Fáilte and land owners along the banks of the rivers.

Also related is action 15 Trout fishing holes along the river walks. This would be proposed when the feasibility study is underway.

### **Action 3      Biodiversity audit and action plan**

The development of a detailed Biodiversity action plan will be required to ensure the very serious issues of biodiversity loss, invasive species and regeneration of the natural environment of Lisdoonvarna are addressed adequately. The existing biodiversity needs to be mapped with steps to protect it listed and costed.

While preparing that plan the ecologist can help the community explore ideas for a pollinator plan, invasive species task force, etc.

The following actions will be incorporated into Action 3:

### **Action 4      Raise awareness of biodiversity loss**

- Action 6 Explore the need for habitat enhancements
- Action 7 Pollinator friendly planting
- Action 11 Rewilding public and private areas
- Action 12 Raise awareness of the damaging effects of using herbicides and other toxins
- Action 14 Nature's Garden / maze for pollinators. Plant, inform, educate
- Action 17 Identify local bogs with a view to protecting their role as biodiversity hosts and carbon sinks

There is a great awareness of the All Ireland Pollinator Plan within the community. In May 2019 the local secondary school won a Young Environmentalist award for their project Communicating Climate Change in North Clare. They created a video which included the parish priest introducing all of his work on the Pollinator Plan. You can watch the video here:

<https://www.youtube.com/watch?v=vVrOKX2dfPs&feature=youtu.be>

### Action 9     Maintain the community orchard at Rooska entrance to park

An orchard was planted in the town park close to the Rooska entrance on a piece of waste land. 20 native apple trees were planted to the left of the gate upon entering the park. Berries and nuts were planted inside the perimeter walls to the right of the Rooska gate, on the site of the old Protestant church.







### **Action 10    Raise awareness about recycling and burning of plastic**

Improvements have been occurring in recent years around waste reduction, recycling and food waste in Lisdoonvarna. The local primary school received a “Big Pig” digestor to create compost from food waste. The Pavilion Theatre has taken steps to ensure efficient waste separation. The Burren Food Fayre hosted in Lisdoonvarna had reducing waste as a theme in 2019. Lisdoonvarna biodiversity group will work with Lisdoonvarna Tidy Towns to raise awareness about the pollution the burning of plastic creates.

### **Action 13    Community vegetable garden**

Residents of the King Thomond direct provision centre for asylum seekers have started a vegetable garden with a view to expanding it into the wider community in the coming years. Lisdoonvarna biodiversity group will work with them to achieve this goal.

### **Action 5 Natural flood management in the park**

This is an action that will be the responsibility of Lisdoonvarna Failte when they are developing the park.

### **Action 8 Raise awareness about, survey and eradicate Japanese Knotweed & other invasive species like gunnera**

While action 8 will be incorporated into the more detailed biodiversity plan, steps can and are being taken now to raise awareness about Japanese Knotweed and other invasive species. Lisdoonvarna biodiversity group will continue this work.

### **Action 16 Identify walking & cycling routes and proposed additional connections**