

The Bridges of Ballyshannon Town

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Abstract

Ballyshannon in County Donegal is reported to be Ireland's oldest town. Situated at a strategic crossing of the River Erne, the town's development was substantially shaped by its bridges. The original stone-built fourteen-arched "Ballyshannon Bridge" from before the 17th Century functioned as a critical transport link between the provinces of Ulster and Connacht and influenced river flow, fisheries and people's movements. Ballyshannon now has three unique bridges—the Allingham, Millennium and Cathleen's Falls Bridges. The 17th-century Ballyshannon Bridge was replaced by the Allingham Bridge (1946/47); the Millennium Footbridge (1999) was constructed to the west of the Allingham Bridge; and the Cathleen's Falls Bridge (2006), which also carries the Aodh Rua Footbridge, was constructed to the east to facilitate the Ballyshannon-Bundoran bypass. The three bridges of Ballyshannon are all single-arch bridges with differing structural forms. These bridges have significant historical importance and environmental links. The town also has several disused railway bridges that date back to the 1860s. Ballyshannon Museum has many important artefacts telling the history of the town, with a steady stream of tourists enjoying the heritage of the town.

Keywords

Ballyshannon, Oldest Town, Bridge, Water, Erne River, Fish, Edith Clarke and VALERIE

1. Introduction

The Erne River that runs through Ballyshannon in Co. Donegal is currently crossed by three bridges. The original bridge, Ballyshannon Bridge, was built circa

1680 and was a stone-built fourteen-arched bridge with an approximate length of 60 m (**Figure 1**). Substantial parts of the original bridge remain buried. **Figure 1** shows Ballyshannon South and North looking from east to west towards the Erne Estuary flowing into Donegal Bay. The original Ballyshannon Bridge was replaced by the Allingham Bridge in 1946/47 [1]. The Millennium Bridge was constructed to the west of the Allingham Bridge in 1999, whilst the Cathleen's Falls Bridge was built to the east of the Allingham Bridge and was completed in 2006. Ballyshannon is reported as the oldest town in Ireland and is described as having deep cultural heritage with considerable environmental history [2].



Figure 1. Painting of Ballyshannon attributed to artist Thomas Roberts (1748-1777) [1].

The history and environmental impacts associated with Ballyshannon's principal bridges (the Allingham Bridge, the Millennium Bridge and the Cathleen's Falls Bridge) are examined in this paper, with the environmental impacts focusing on water pollution, fish and traffic. Whilst there are other complex environmental issues associated with the Erne River augmentation between 1946 and 1955, this paper does not seek to examine these impacts, which will be carried out in further research. This paper also provides examples of 19th-century disused railway bridges and considers the extent to which the Ballyshannon "Three Bridges Project" or "Three Bridges Loop" responds to environmental challenges. All these bridge structures have contributed to environmental change over time. Current regeneration efforts aim to enhance ecological resilience through measures supporting environmental regeneration, focusing on reversing urban decay. This includes environmental regeneration designed with sustainability and public awareness in mind while also catering for the many tourists that visit the town annually [3].

2. Methods

This paper is based on archival records, planning documents, heritage sources and site observations. The best evidence available was obtained from the Ballyshannon

Museum in Ballyshannon.

3. Ballyshannon's Bridges

3.1. Allingham Bridge

The Allingham Bridge, constructed in 1946/47, is a single-arch concrete structure located in the heart of Ballyshannon, spanning circa 21.6 m, linking Ballyshannon South and North. This bridge was named after locally born poet William Allingham and the link to Allingham is part of the yearly tourism attraction, including the Allingham Arts Festival. The Allingham Bridge relationship with the wider hydroelectric scheme aligns with the transition from a natural Erne River channel (**Figure 1**) to a regulated river channel (**Figure 2** and **Figure 3**). The change in the Erne River channel shape centred on energy generation, producing renewable power sufficient over 26,000 homes, such energy generation design dates to electrical pioneers such as Edith Clarke [2] [4]. The Erne Hydroelectric Scheme (1946 to 1955) simultaneously altered Ballyshannon's physical historical footprint through the demolition of the original fourteen-arch bridge [5]. **Figure 4** and **Figure 5** from 1946 show the construction and completion, respectively, of the temporary truss bridge to allow traffic movement whilst the Allingham Bridge



Figure 2. The Millennium Footbridge from downstream (02/03/26) [6].



Figure 3. Cathleen's Falls Bridge taken from the Allingham Bridge (13/04/2008 am) [7].



Figure 4. Temporary bridge under construction (06/01/1946) [8].

was being constructed. **Figure 6** shows the commencement of the construction of the Allingham Bridge and **Figure 7** shows an aerial view of Ballyshannon (circa 1949) taken from east to west, where six arches from the fourteen-stone arch bridge can be seen to the south of the Allingham Bridge. **Figure 8** shows the Allingham Bridge from upstream on the Ballyshannon North side of the Erne River. **Figure 9** shows the Allingham Bridge from downstream on the Ballyshannon South side.



Figure 5. Temporary bridge constructed (19/01/1946) [9].



Figure 6. Allingham Bridge construction commencing (04/09/1946) [10].



Figure 7. Aerial view of Ballyshannon (02/11/1949) [11].



Figure 8. Allingham Bridge from upstream (27/07/2025) [12].

The hydroelectric scheme necessitated a narrowed and lowered Erne River channel to cater for the flow through the Kaplan turbines, while taking the incoming tide into account. The augmentation of the Erne River resulted in the removal of the well-known Assaroe Falls, whose turbulent flow was often described as thunder-like. The noise of the Assaroe Falls was described as the “voice of Ballyshannon”. The distinct “jumpy water” noise was generated through a combination of turbulence, air entrapment and hydraulic jump [5]. The substantial Erne River alterations caused ecological implications for salmon populations. Historically, the town held a world-renowned reputation for salmon fishing. This



Figure 9. Allingham Bridge from downstream (06/03/2026) [13].

is evident though reports dating from 1823-1829, showing annual catches ranging from 41- 76 tonnes. Up until the early 1900s, the town maintained a status as one of the finest summer salmon fisheries in Ireland and Great Britain [5]. The impacts post-demolition of Assaroe Falls resulted in a decline in tourism and local income. Conversely, the hydroelectric scheme employs local people and the dam with gated crest overflow spillway is an iconic structure. The fish-related impacts remain today, as salmon stocks remain comparatively low with restrictions on fishing in Erne River at Ballyshannon [14].

In response to this ecological loss, the Electricity Supply Board (ESB) actively manages the river's fluvial, riparian and bankside habitats, establishing a salmon conservation hatchery, designed to assist returning adult salmon in bypassing the dam in a unique fish pass. Juvenile eels are also captured and transported upstream of the dam [15]. The cultural benefits and ecological disruptions demonstrate how the Allingham Bridge has shaped the river environment, now defined by both historical significance and engineered regulation.

3.2. The Millennium Footbridge

The Millennium Footbridge, sometimes referred to as the Assaore Footbridge, is a metal single-arch bridge spanning circa 23.0 m (Figure 2), located west of the Allingham Bridge and was constructed in 1999 to mark the Millennium. The pre-cast metal bridge arch and deck construction had minimal negative impacts on the water during construction. The Millennium Footbridge has benefits for public health through increased walking locations. Although the construction of the bridge temporarily disturbed the riverbank(s) in the abutment construction, these

impacts were minimal due to the modern environmental mitigation measures, including the use of silt busters [3].

3.3. Cathleen's Falls Bridge

The award-winning Cathleen's Falls bridge, a reinforced concrete single-arch structure with metal deck, spans an impressive 114.0 m (**Figure 3** and **Figure 10**), with the sloping Aodh Rua Footbridge (**Figure 10**) with midpoint at the same level as the top of the reinforced concrete bridge arch. The Cathleen's Falls Bridge was constructed on the Ballyshannon-Bundoran bypass; the purpose of the bypass was to alleviate traffic congestion in both towns by diverting heavy N15 traffic. Completed in 2006, the Cathleen's Falls bridge generated a range of positive environmental impacts, remembering that impacts can be positive, neutral or negative. Prior to construction of the Cathleen's Falls Bridge, the Allingham Bridge accommodated all traffic through Ballyshannon. The bypass gives choice to commuters and diverts vehicles away from the Allingham Bridge, thus reducing structural fatigue through reduced cyclic loading on the Allingham Bridge concrete arch, thereby contributing to its preservation. In 2006, the Cathleen's Falls Bridge was the overall winner in the "infrastructural category award" in the Irish Concrete Society Annual Awards [16]. **Figure 3** shows the mist clearing from the Cathleen's Falls Bridge in the distance; it could be surmised that the picture will result in the reader looking closer to see the Cathleen's Falls Bridge due to the spatial orientation as the river divides the Platt. With the mist clearing behind the bridge and sunrise combined, the elegant structural form of the arch is like a gateway to somewhere unknown. All the bridges in Ballyshannon have an element of mystery through local folklore combined with individual nuances, and some



Figure 10. Cathleen's Falls Bridge from downstream (13/04/2008 pm) [17].

traditions that are locked away for eternity.

Archaeological investigations conducted in the preliminary stages of the Ballyshannon-Bundoran bypass led to the discovery of the medieval church and graveyard of Ballyhanna. The excavation uncovered remains of over 1000 individuals [18], providing a valuable, previously undocumented, aspect of the region's historical environment. Furthermore, the addition of the bridge's lower deck, named the Aodh Rua Footbridge after Red Hugh O'Donnell a 16th-century chieftain. The Aodh Rua Footbridge is dedicated to pedestrians and cyclists, whilst encouraging more sustainable forms of mobility. By facilitating active transport, the bridge promotes modes of movement which exert less environmental pressure on the surrounding riverbanks, fostering a more sustainable interaction between the local community and river environment. However, the bridge has hydroelectric power station is constructed. The elegant Cathleen's Falls Bridge structure transformed a stretch of river previously defined by its natural features. Fundamentally, the Cathleen's Falls Bridge influences the River Erne, not only through its physical footprint, but also through the values it reinforces, balancing transport efficiency, cultural preservation and safer, low-impact movement whilst simultaneously reshaping the character of the River Erne landscape [19].

3.4. Railway Bridges

Historically, Ballyshannon functioned as a significant transport hub, served by two distinct railway companies, the County Donegal Railway (CDR) and the Great Northern Railway (GNR). Physical evidence of this infrastructure remains embedded within the local landscape through a series of disused railway bridges, notably along the Ballyshannon-Bundoran bypass and on the Rosstown road from Ballyshannon [20]. The surviving bridges represent a vital aspect of this historical infrastructure. These bridges now function as a reminder of a once booming industrial transport hub. These retained structures influence the character of the local landscape due to Ballyshannon's location in the northwest of Europe, meaning that various species of flora and fauna appear there and are at the outer limits of their habitat ranges [14].

A number of these bridges are situated within the Dunmuckrum Turloughs Special Area of Conservation, within a sensitive environment characterised by periodic flooding, resulting in the formation of wetland habitats. These conditions support aquatic and marsh vegetation such as duckweed and watercress. Ecological corridors for small mammals, birds and invertebrates, this demonstrates how disused infrastructure can support secondary natural ecosystems [3]. Furthermore, research on stone bridges highlights their capacity to contribute positively to biodiversity. Such structures provide vital habitats for plant species as they are often a great source of exposed rock over a wider area and, therefore, play a crucial role in supporting lichens, mosses and specialised vegetation. These conditions allow rare species to establish and thrive in an otherwise unsuitable environment. Stone bridges also support a range of fauna, including certain bird species, such

as dippers, whilst bats can utilise crevices within the structures to roost [21]. The Abbey Lane Bridge, believed to be one of Ireland's oldest bridges, dates from the time of the Cistercian monks (circa. 1178-1607). The Abbey Lane Bridge also contributes to the local ecological process by providing habitats and supporting biodiversity [5]. **Figure 11** and **Figure 12** show the remains of stone arch railway bridges adjacent to the Rosstown Road out of Ballyshannon on the abandoned CDR. The bridge in **Figure 11** has been cleverly and lovingly integrated into the landscape of the garden of a private dwelling, whilst the bridge in **Figure 12** carries a local road and acts as a shelter for animals.



Figure 11. Abandoned CDR Bridge in Private Garden (08/06/2026) [22].

Figure 13 and **Figure 14** show the remains of stone arch railway bridges adjacent to the Ballyshannon-Bundoran bypass, which is the N15 road. The bridge in **Figure 13** is on the Carrickboy Road south of Ballyshannon. The bridge in **Figure 14** is adjacent to the bypass and a road bridge that crosses the bypass. The abandoned railway bridges shown in **Figures 11-14** are the most visible and easily accessible in the proximity of Ballyshannon; there are other remarkable examples in the vicinity.



Figure 12. Abandoned CDR Bridge on Public Road (08/06/2026) [23].



Figure 13. Abandoned GNR Bridge on the Carrickboy Road (08/06/2026) [24].



Figure 14. Abandoned GNR Bridge beside the N15 Road (08/06/2026) [25].

4. Environmental Regeneration

Environmental regeneration in terms of reversing “urban decay” is planned for Ballyshannon. The requirement for environmental regeneration along the River Erne reflects the long-term accumulation of engineering interventions which have reshaped natural river processes and now present opportunities for targeted environmental improvement. The preliminary environmental impact assessment (EIA) screening identifies the current project as part of a wider town centre regeneration strategy recognising the importance of improving environmental quality within the town’s built environment [26].

The Ballyshannon Three Bridges Project

The proposed development of a Three Bridges Loop, along the northern and southern embankments of the River Erne in Ballyshannon, is intended to enhance the environmental quality, accessibility and recreational value of the corridor. Thus, reconfiguring the river edge into an ecologically sensitive landscaped system. The regeneration strategy identifies the River Erne as one of the most distinctive features associated with Ballyshannon and emphasises that its boundaries should be enhanced and utilised as a core environmental asset. The proposed works include an urban park, new pathways and elevated walkways, seating, lighting, play equipment, planting, landscaping and sustainable urban drainage systems design (SUDS). The associated preliminary EIA screening explains that the project is not likely to result in the production of any significant wastes, emissions or pollutants when suitable mitigation measures are employed. The regeneration strategy and action plan of the project introduces interventions such as new

riverbank landscaping which will cater for indigenous species. Planting will give the riverbank a more natural look and feel which will collectively soften the engineered edges and restore ecological character [26]. **Figure 15** provides a plan of the proposed Three Bridge Loop, coloured in yellow, with A, B and D representing The Allingham Bridge, the Millennium Footbridge and the Cathleen's Falls Bridge respectively and Position C located above the Diamond in The Gables area of Ballyshannon.



Figure 15. Plan of the proposed Three Bridges Loop [27].

The scheme also removes unnecessary visual clutter such as signage, thus improving the natural landscape by reducing artificial disturbance along the riverine zone. This includes environmentally sensitive public amenities such as permeable surface boardwalks and a continuous 3.0 m-wide path designed to accommodate both pedestrians and cyclists. A nature-based SUDS to attenuate stormwater and improve water quality. The Three Bridges Loop supports the regeneration plan's overarching objective to protect and enhance the River Erne and its surrounding environment. The Three Bridges Loop will also allow public access, biodiversity and environmental education opportunities along both embankments, as well as the famous Ballyshannon Museum walking tours. The Three Bridges Loop is environmentally necessary as it transforms a constrained river corridor into a multi-functioning green infrastructure asset, an asset which strengthens ecological resilience, improves hydrological performance and embeds the River Erne as a vital element of Ballyshannon's long-term sustainable regeneration [28]. When interviewed in relation to their thoughts on the regeneration, a Co. Donegal native said, *"I know that the regeneration will happen in the fullness of time"* [29]. It is recommended that Visual Assessment and Local Evaluation of River Infrastructure Engineering (VALERIE) be utilised as part of the final design relating to the Three Bridges Loop. VALERIE will ensure that all specific evaluations are carried out methodically, therefore avoiding costly U-turns in the decision-making process during the final execution of the plan. VALERIE will also be utilised in future

research to examine complex environmental issues associated with the Erne River augmentation between 1946 and 1955, therefore establishing valuable lessons learned to assist in future decision-making.

5. Conclusion

The three bridges of Ballyshannon Town that cross the River Erne have created a unique advantage for Ireland's oldest town. The three bridges, which all have single-arch construction, are fundamentally unique structures. The Three Bridges Loop, combining these unique structures in a 2.2 km river walk that also explores the magnificent town centre, will enhance the environmental, social and economic aspects of Ballyshannon and beyond. VALERIE should be utilised to examine complex environmental issues associated with the Three Bridges Loop final design. Ballyshannon Museum will be able to increase its walking tours. It is important to note that Ballyshannon was a town of two railways, and it is recommended that Ballyshannon Museum be expanded to keep the memories of the railways for locals and tourists alike.

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Author Contributions

Rodney McDermott provided all modern photographs, the abstract, introduction, and methods. Katie McMullin and Robbie Watt provided research and text for Section 3. Shane Toolan provided historical photographs from the archives. Alex McDermott and John Lynch provided research and text for Section 4. Gillian McDermott and Michael G. Doherty provided editing and the conclusion.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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