Appendix 1F: Castletroy FAQ Page

Frequently Asked Questions (FAQs)

What is involved as part of this project?

The works to be constructed include:

- Construction of a new 3,750 m^3 stormwater storage tank;
- Installation of new primary treatment filters and lifting pump;
- Construction of a new primary sludge holding tank;
- Upgrade of the existing secondary treatment tanks to provide additional capacity; and
- Upgrade of the plant's sludge treatment facilities.

Why is this project needed?

The plant currently holds a design capacity of 45,000 population equivalent (PE). This is adequate to cater for existing wastewater loads, but the demands of population growth and industrial development will cause Castletroy to become overloaded in the coming years. The upgrade project will prevent the plant becoming overloaded by increasing its capacity to treat wastewater for the calculated 10-year growth projections of 77,500 population equivalent.

There is currently no provision for stormwater storage at Castletroy and excess flow from storm and heavy rainfall events is currently being discharged as untreated effluent to the Lower River Shannon. This project will include the construction of a 3,750m^3 (minimum volume) stormwater storage tank which will store stormwater until the main plant can accept and treat the excess flow.

The Lower River Shannon is an area of environmental conservation under the Habitats Directive 92/43/EEC (Commission of the European Communities, 2007) and must be protected from any potentially harmful wastewater emissions.

What are the benefits of this project?

The project will:

- Modernise and improve the performance of the existing wastewater treatment plant;
- Better health and integrity of the environment;
- Protection of the water quality in Lower River Shannon and conservation habitats;
- Provision of sufficient capacity to facilitate future population and industrial growth; and To provide a wastewater treatment facility that will comply with all relevant legislative requirements into the future.
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What is the status of planning permission?

The application for planning permission, which will include all relevant environmental and consultation documents, will be submitted in November 2022.

How can I view the application documents?

The application and associated documents will be made available to view/download at www.water.ie/castletroy

How can I make a query submission?

Stakeholders and interested parties will have an opportunity on the information event to raise queries, and the project team can also be contacted for the duration of the 6 weeks via the project email address ; castletroywwtp@water.ie

When will works commence and what is the timescale for the works?

Subject to the outcome of the planning application, works are expected to start in 2024 and continue into 2026.

What is wastewater?

We all create wastewater in our everyday lives. At home, we access water with ease; we turn the tap, we flush the toilet and we hit the button on the washing machine. Industry, hospitals, schools and offices also create wastewater.

Wastewater can contain a wide range of contaminants, some of which can be broken down in the environment easily while others not so easily and must therefore be treated to ensure that it is not a threat to public health or the environment when discharged to the receiving environment. Wastewater is collected and transported via underground sewers / pipelines to be treated at a wastewater treatment plant (WwTP).

Why do we need to treat wastewater?

Untreated wastewater poses a threat to public health and the environment. Treatment is therefore carried out in order to produce an environmentally safe liquid that is suitable for disposal to our aquatic environment, such as rivers, lakes and seas.

Proper wastewater treatment systems are essential for sustaining modern living and contributing to development as householders, businesses, industries, schools and hospitals all rely on a robust wastewater treatment system to maintain their daily activities.

How is wastewater treated?

The sewerage system transports wastewater via underground sewers / pipelines to a wastewater treatment plant where it is treated to strict standards under EPA licence and in compliance with EU and national water quality legislation, to a standard that is safe to be discharged to the environment.

At the treatment plant, contaminants are removed including fats, oils and greases along with biological matter such as bacteria and faecal matter.

For more information on the wastewater treatment, check out our section From Drain to Sea.

How is wastewater transported to the treatment plant?

Wastewater will be transported from homes and businesses to the wastewater treatment plant (WwTP) through an underground drainage network. The Castletroy Wastewater Treatment Works project therefore includes a new drainage network to carry the wastewater to the WwTP for treatment.

What happens when there is a storm water overflow now?

The sewer system in Limerick was built in the 1900s and, as was typical at the time, it carries both wastewater from homes and businesses and water that is drained off roads and pavements. When more rain and wastewater than the plant can process arrives, the excess is discharged directly to the Lower River Shannon as untreated effluent.

What is the purpose of a stormwater holding tank?

When more rain and wastewater than the plant can process arrives, the excess is directed to a storm water holding tank. When the rain has passed and incoming flow subsides, the stormwater in the tank is returned to the plant for full treatment.

In the event of unusually heavy and sustained rainfall, the amount of water entering the sewer network may exceed the capacity of both the plant and the holding tank. In that case, to prevent the sewer network from backing up and causing flooding of roads and properties, the storm water is released from the holding tank to the environment. The storm water tank overflow contains wastewater that is highly diluted with rainwater and has been screened and settled to remove debris – a form of primary treatment.

The current upgrade of Castletroy means that the capacity will be increased, and these incidents will be fewer in number although in extreme weather conditions they could still occur.

What happens if there is an incident or overflow?

Irish Water notifies Local Authorities and the EPA of any incidents or overflows that occur at the plant that could impact the receiving waters.

What is an EIAR?

An Environmental Impact Assessment Report (EIAR) is an analysis of the likely effects (good and bad), that a proposed development may have on the environment. This includes any likely effects on people, flora, fauna, soil, water, air, landscape and cultural heritage.

What is an EIA?

An Environmental Impact Assessment (EIA) is the process of identifying, predicting, evaluating and mitigating the possible effects on the environment of a project before a decision is made whether or not to proceed with that project. The steps in the EIA process are set out in national and EU legislation. Most large-scale infrastructure projects are subject to EIA as part of their planning consent process.

When a project proposer submits its application for consent to An Bord Pleanála it must include an Environmental Impact Assessment Report (EIAR) describing the project and its anticipated effects on the environment. A period of public consultation then follows, during which the public and any interested body may make comments and observations to An Bord Pleanála on the project and its environmental effects. An Bord Pleanála must then undertake an environmental impact assessment of the project before making its determination on the application.

What is an NIS and Appropriate Assessment (AA)?

The Birds and Habitats Directives of the European Union (EU) set out various procedures and obligations including the establishment of Special Protection Areas (SPA) and Special Area of Conservation (SAC) for the protection of specific habitats and species. Collectively, the SPAs and SACs established throughout the EU comprise a network known as Natura 2000.

The Habitats Directive imposes a duty on Member States to consider the possible nature conservation implications of any project on the Natura 2000 site network before any decision is made to allow that project to proceed. This assessment procedure is known as Appropriate Assessment and is quite similar to the EIA procedure. It is normally undertaken at planning consent stage by An Bord Pleanála.

Like the EIA procedure, a document is prepared by the project proposer and submitted with its application for project consent. This document is known as a Natura Impact Statement (NIS). While there is significant overlap between the EIA and AA processes, it should be noted that the NIS and AA only consider and assess impacts on the Natura 2000 network and that AA is a separate legal consent process distinct from EIA.

Can residents expect much disruption, traffic diversions, delays etc.?

During the works a traffic management plan, agreed with Limerick City and County Council will be in place. To minimise traffic disruption, construction vehicle movements will only take place outside of peak morning and evening traffic times.

How will construction impact the area?

All potential impacts resulting from construction works were subject to Environmental Impact Assessment by An Bord Pleanála. All mitigation measures contained in the assessment will be strictly complied with.

What will be the construction site hours?

To minimise disruption heavy construction equipment/machinery will only be operated during the following hours:

- Monday to Friday 7.00am to 7.00pm
- Saturday 7.00am to 2.00pm
- No operation on Sundays or Bank Holidays
- Note that these limits exclude the tunnelling machine and directly associated activities which are low noise emitting activities

Will the construction works generate dust?

In order to minimise the generation of dust the Project Team will undertake the following:

- Spraying of exposed earthworks activities and site haul roads during dry weather
- Provision of wheel washes at site exit points
- Control of vehicle speeds, speed restrictions and vehicle access
- Sweeping of hard surface roads
- Provision of a 2.4 hoarding around the site

Will the project and operation of the Wastewater Treatment Plant generate noise?

In order to minimise the generation of noise the Project team will ensure the following measures are in place:

- The provision of hoarding around the construction works
- Continuous noise monitoring will be undertaken to ensure it does not exceed limits
- Continuous vibration monitoring will be undertaken to ensure it does not exceed limits.