

Guide to completing the Pre Connection Enquiry Application Form

This form is to be filled out by applicants enquiring about the feasibility of a water and/or wastewater connection to Irish Water infrastructure.

Section A | Applicant Details

Question 1: This question asks the applicant or company applying for a connection to identify themselves, their postal address, and their contact details.

Question 2: If the applicant wishes to receive the correspondence in relation to the application to alternative point of contact at an alternative address, then these details need to be included here.

Question 3: If the applicant has employed an Engineering Consultant to manage the application on their behalf the Consultants address and contact details may be recorded here.

Section B | Site Details

Question 4: This is the address of the site seeking the Water service connection and for which this application is being made.

Question 5: Please tell us the name of the Local Authority that is or will be dealing with your planning application.

Question 6: Please tell us if planning permission has been granted for this application and if so please provide the planning permission reference number.

Question 7: Please tell us the Irish National Grid co-ordinates of the proposed site. Irish grid positions on maps are expressed in two dimensions as Easting's (E) and Northings (N) relative to a false origin. You will find these coordinates on your Ordnance Survey map which is required to be submitted with the application.

Question 8: Please tell the previous use of the site that is proposed to be developed, for example if greenfield please advise "Agricultural".

Question 9: Please tell us the date the development site was last occupied. If the site was previously greenfield then this question is not relevant. Your answer will help us to determine the previous water usage of the development.

Question 10: Please provide details in relation the ground conditions on your site; if a site investigation report is available please include it with your application.

Question 11: Please provide details in relation to contaminated land on your site (if any); this will determine what pipe material will be appropriate in the vicinity of the contaminate ground.

Question 12: Please tell us if the development is in accordance with the local area/development plan. You should contact your Local Authority in this regard and confirm same by ticking the appropriate box.

Section C | Service Details

Question 13: Please advise what type of connection is required.

Question 14: Please advise us if a water connection already exists for this site.

Question 15: Please advise us if a wastewater connection already exists for this site.

Question 16: 'Water Point Reference Number (WPRN)' means a unique number assigned to every single Water Services Connection in the country. The WPRN number is prominently displayed on water bills received from Irish Water, a previous connection offer or previous enquiry in relation to the site and applies to existing customers or brownfield sites only. New customers are not required to answer this question.

Question 17: Please tell us if you are proposing to upgrade the water connection to facilitate an increase in water demand. Irish Water will determine what impact this will have on our infrastructure.

Question 18: Please tell us if you are proposing to upgrade the wastewater connection to facilitate discharging additional wastewater. Irish Water will determine what impact this will have on our infrastructure.

Question 19: Please calculate the water demand and include your calculations on the calculation sheet provided. Average domestic daily demand in a development can be established based on daily per-capita consumption, house occupancy, number of properties, etc. For design purposes the average daily domestic demand shall be based on a per-capita consumption of 150 l/person/day and an average occupancy ratio of 2.7 persons per dwelling. The average day/peak week demand should be taken a 1.25 times the average daily domestic demand. The peak demand for sizing of the pipe network will normally be 2.1 times the average day, peak week demand.

Question 20: Please calculate the wastewater discharge and include your calculations on the calculation sheet provided. Sewers carrying domestic wastewater from housing developments should be designed to carry a minimum wastewater volume of six times dry weather flows (6DWF). Dry weather flows (DWF) should be taken as 600 litres per dwelling (three persons per house and a per capita wastewater flow of 200 litres per head per day.) Sewers carrying industrial or commercial wastewater should be designed to carry as a minimum 6 times domestic dry weather flow along with the actual maximum trade wastewater flow (6DWF domestic wastewater plus maximum Trade Effluent flow). If the actual maximum trade wastewater flow is not known, domestic flow shall be calculated in accordance with IS EN 752-4 or, in the absence of appropriate detail, 0.6 litre/sec/ha (normal flow) of development land. Alternatively, trade wastewater flow based on a metered water supply from a premises similar to that of the proposed development, or at least 0.5 litre/sec/ha of development land for normal industry or 1.0 litre/sec/ha of development land for a wet industry (normal flows). Where the proportion of wet to dry industry is not known, an average of 0.75 litre/sec/ha of development land may be used.

Question 21: Please tell us the maximum and average concentrations of each of the wastewater characteristics listed in organic load table and also if any other significant concentrations are expected in the effluent. Please fill in the table provided.

Question 22: In exceptional circumstances, such as brownfield sites, where the only practical outlet for storm/surface water is to a combined sewer, Irish Water will consider permitting a restricted attenuated flow to the combined sewer. Storm/surface water will only be accepted from brownfield sites that already have a storm/surface water connection to a combined sewer and the applicant must demonstrate how the storm/surface water flow from the proposed site is minimized using Sustainable Urban Drainage System (SUDS). This type of connection will only be considered on a case by case basis. Please advise if the proposed development intend discharging surface water to the combined wastewater collection system.

Question 23: Please tell us the ground level at the location where connection to the public water main will be made. This is required to determine if there is sufficient pressure in the existing water infrastructure to serve your proposed development. Levels should be quoted in metres relative to Malin Head Ordnance Datum.

Question 24: In order for us to determine if your development can be served by Irish Water infrastructure, we need to know the lowest floor level. This is required to determine if the development can be connected to the public sewer via gravity discharge. This is also required to determine if the development can be connected to the public sewer via gravity discharge. Levels should be quoted in metres relative to Malin Head Ordnance Datum.

Question 25: If storage is required, water storage capacity of 24 hour water demand must usually be provided at the proposed site. In some cases 24 hour storage capacity may not be required e.g. 24 hour storage for a domestic house would be provided in an attic storage tank. Please calculate the 24 hour water demand and include your calculations on the calculation sheet provided. Please also confirm that on site storage is being provided by ticking the appropriate box.

Question 26: The water supply system shall be designed and constructed to reliably convey the water flows that are required of the development including fire flow requirements by the Fire Authority. The Fire Authority will provide the requirement for fire flow rates that the water supply system will have to carry. Please include your calculations on the calculation sheet provided and confirmation of the Fire Authority requirements.

Question 27: Please identify proposed additional water supply sources i.e. do you intend to connect to the public water mains or the public mains and supplement from other sources. If supplementing Public Water supply with a supply from another source, please provide details as to how the potable water supply is to be protected from cross contamination.

Section D | Development details

Question 28: Please tell us the number of different property types by filling in the table provided.

Question 29: Please tell us the approximate commencement date of your development.

Question 30: Please tell us the approximate date the proposed connection to the water infrastructure will be required.

Question 31: Please tell us the approximate date the proposed connection to the wastewater infrastructure will be required.

Question 32: Please tell us if the development is multi-phased.

Pre-connection enquiry form

Large industrial & commercial, mixed use developments, housing developments, non domestic developments

This form is to be filled out by applicants enquiring about the feasibility of a water and/or wastewater connection to Irish Water infrastructure. Please complete this form in BLOCK letters using a black ink ballpoint pen.

Section A Applicant details

1 Applicant details:

Contact name: [Mr Enda Conaty](#)

Company name (if relevant): [University College Dublin Estate Services](#)

Postal address: [Belfield House , Belfield, Dublin D04V1W8](#)

Telephone: [01 7161111](#) Email: enda.conaty@ucd.ie

2 Correspondence address (if different from applicants above):

Contact name: [As item 1 above](#)

Company name (if relevant): _____

Postal address: _____

Telephone: _____ Email: _____

3 Engineering Consultant

Contact name: [Brian Mahony](#)

Company name (if relevant): [Barrett Mahony Consulting Engineers](#)

Postal address: [Sandwith House , 52-54 Lower Sandwith St , Dublin 2](#)

Telephone: [016773200](#) _____ Email: brian.mahony@bmce.ie _____

Section B Site details

4 Site address: _____ [Belfield Campus, Belfield, Dublin D04V1W8](#)

5 Name of Local Authority: ___ [Dunlaoghaire Rathdown County Council](#)

6 Has full planning permission been granted?

Yes

No

If 'Yes' please indicate the Planning reference number: [Planning application being prepared](#)

7 Irish National Grid co-ordinates:

Eastings [718658](#) _____ Northings [729536](#)

8 Previous use of site (if applicable): Surface Car park / playing fields

9 Date previous development was last occupied (if applicable): No previous development

10 Are there poor ground condition issues? Yes No

If Yes please include site investigation report and a detailed site specific report on the approach being taken to deal with ground conditions specifically with regard to pipe support and trenching.

11 Are there potential contaminated land issues? Yes No

If Yes please include a detailed site specific report on the approach being taken to deal with contaminated land and the measures to mitigate impact on the infrastructure.

12 Is the development in accordance with the local area/development plan? Yes No

Section C Service details

13 Request for connection Water Wastewater Both

14 Is this application for an additional water connection to the one already installed? Yes No

15 Is this application for an additional wastewater connection to the one already installed? Yes No

16 Please provide WPRN No. (if there is an existing connection): Still being billed by DLRCC – No WPRN No yet

17 Do you require an upgrade/increase in size to an existing water connection? Yes No

18 Do you require an upgrade/increase in size to an existing wastewater connection? Yes No

19 Please indicate water demand (include calculations on attached calculation sheet)

Pre-development peak water demand	$6 \times 1.68 = 10.08$	l/s
Pre-development average water demand	1.68	l/s
Post-development peak water demand	$6 \times 4.03 = 24.18$	l/s

<i>Post-development average water demand</i>	4.03	
<i>Normal demand</i>	5.04 existing / 12.09 post development	<i>l/s</i>

Pre-development refers to brownfield sites only. Demand rates (Peak & Average) are site specific. Average demand is the total daily volume divided by a 24 hour time period and expressed in litres per second l/s. However, this might not be the normal flow that would arise. Normal demand is the total daily demand during business hours (over say an 8-hour period with very little demand during the other 16 hours).

20 Wastewater Hydraulic Load (include calculations on attached calculation sheet)

Pre-development peak discharge	10.08	l/s
Pre-development average discharge	1.68	l/s
Post-development peak discharge	24.18	l/s
Post-development average discharge	4.03	l/s

Pre -development refers to brownfield sites only. Demand rates (Peak & Average) are site specific. Average demand is the total daily volume divided by a 24 hour time period and expressed in litres per second l/s.

21 Organic Load:

Characteristic	Max concentration	Average concentration
Biochemical Oxygen Demand (BOD), mg/l	*	*
Suspended Solids (SS), mg/l	*	*
Total Nitrogen (N), mg/l	*	*
Total Phosphorus (P), mg/l	*	*
Other, mg/l	*	*

* As per Standard Range for Raw Domestic Wastewater – see table in calculations

22 Storm/surface water will only be accepted from brownfield sites that already have a storm/surface water connection to a combined sewer. In the case of such brownfield sites please indicate if it is proposed that the development intends discharging surface water to the combined wastewater collection system?

Yes No

If yes, give reason for discharge and comment on adequacy of SUDS/attenuation measures proposed

23 What is the reduced level at the property boundary at connection point above Malin Head ordnance datum?

_____ (m)

24 What is the lowest finished floor level on site above Malin Head ordnance datum? circa 30mOD

25 Is on site water storage being provided? Yes No

Please include calculations on attached calculation sheet. Please note on site water storage may not be required. See guidance notes.

26 Are there fire flow requirements? Yes No

Additional Fire Flow requirements over and above those identified in Q19

/s

Please include calculations on attached calculation sheet and confirmation of requirements from the Fire Authority.

27 Please identify if you propose to supplement your potable water supply from other sources? Yes No

If yes please indicate how you propose to supplement your potable water supply from other sources:

Section D Development details

28 Please indicate property types:

Total Number of Properties for this application	Number
Property Type - Domestic	
Property Type - Non Domestic	
office	
residential care home	
Hotel	
Factory	
School	
Institution	
Retail unit	
Commercial unit	
Industrial unit	
Other (please specify) Student Accomodation	2900 beds

29 Approximate start date of proposed development: Jan 2017

30 Approximate date water connection is required: June 2018

31 Approximate date wastewater connection is required: No New Wastewater connection required

32 Is the development multi-phased? Yes No

Phasing sequence to be confirmed

If Yes please provide a master-plan with your application identifying the phases and current phase number.

If Yes please provide details of the variations in the water demand volumes due to the phasing requirements.

Section E Documentation to be submitted

A site location map to a scale of 1:1000, which identifies clearly the land or structure to which the application relates. The map shall include:

- a) The scale shall be clearly indicated on the map.
- b) The boundaries shall be delineated in red.
- c) Adjacent street names.
- d) The site co-ordinates shall be marked on the site location map.

Please provide the following additional information:

- a) Calculations
- b) Any other information that might help Irish Water assess this pre connection enquiry application.

Section F Declaration

The details I/we have given with this application are accurate.

I/We have enclosed all the necessary supporting documentation.

Your details

Signature: _____

Brian Mahony BE CEng MIRE, MInstE, FGNSEI

Date: 12/04/2016

Your full name

(In Block Capitals): **BRIAN MAHONY, BARRETT MAHONY CONSULTING ENGINEERS**

Irish Water will carry out a formal assessment based on the information provided in this form. Any future connection offer made by Irish Water will be based on the information provided.

Please submit a scanned copy (in pdf format) of the completed form and supporting information to your Regional New Connections Team for assessment.

Calculations

Water Demand

- SITE SURVEY OF EXISTING RESIDENTIAL WATER DEMAND ON CAMPUS = 120 l/student/day.
 - DAY STUDENT WATER DEMAND = 40 to 60 l/student/day SAT 50 l AVERAGE.
 - NO ADDITIONAL STUDENTS ATTENDING COLLEGE I.E JUST EXISTING STUDENTS CHANGING FROM DAY STUDENTS TO RESIDENTIAL STUDENTS.
- $\circ\circ$ EXISTING DEMAND = $\frac{2900 \times 50}{24 \times 602} = 1.68 \text{ l/s}$, PEAK = $6 \times 1.68 = 10.07$
- POST DEVELOPMENT DEMAND = $\frac{2900 \times 120}{24 \times 602} = 4.03 \text{ l/s}$, PEAK = $6 \times 4.03 = 24.17$
- Normal DEMAND.

Foul Wastewater Discharge

— CALCULATIONS AS ABOVE —

TABLE 4.1. RANGE OF RAW DOMESTIC WASTEWATER INFLUENT CHARACTERISTICS (I.S. EN 12566-3:2005).

Parameter	Typical concentration (mg/l unless otherwise stated)
Chemical oxygen demand (COD) (as O ₂)	300-1000
Biochemical oxygen demand (BOD ₅) (as O ₂)	150-500
Suspended solids	200-700
Ammonia (as NH ₄ -N)	22-80
Total phosphorus (as P)	5-20
Total coliforms (MPN/100 ml) ¹	10 ⁶ -10 ⁸

¹Not from I.S. EN 12566-3:2005. (MPN, most probable number.)

On Site Storage (Water and Wastewater)

- ON SITE WATER STORAGE AVAILABLE FROM BELFIELD WATER TOWER & 24 HOUR STORAGE LOCAL TO EACH RESIDENTIAL BLOCK
- NO ON SITE WASTE WATER STORAGE.

Fire Flow requirements

- NO FIRE FLOW REQUIREMENT KNOWN AT PRESENT.