

**From:** Shane Regan <Shane.Regan@chg.gov.ie>

**Sent:** Friday 12 June 2020 10:46

**To:** Ciara O'Mahony <Ciara.O'Mahony@chg.gov.ie>

**Cc:** Gerry Clabby <Gerry.Clabby@chg.gov.ie>; Maurice Eakin <Maurice.Eakin@chg.gov.ie>

**Subject:** Re: water flow data in Kilkenny

Hi Ciara,

I had a look at the data. There is no flow rating for the station, but there is for a station (15002) c. 2 km downstream. There is a linear relationship between water level at this station and 15104 so I take the flow as being representative of what is happening at 15104. As 15002 is downstream, the flow rate will be marginally higher. As a guess I would say 15104 is maybe 98% of the flow at 15002.

The Q95 water level is 45.183 (i.e. water level in the river is above this level 95% of the time, based on the water level record collected [2006-present]). When this level is reached the flow at 15002 is c. 0.087 m<sup>3</sup>/s (or 87 l/s), so it is probably c. 85.2 l/s at 15104.

If water is extracted at a rate of 15 l/s from the river, to keep above the Q95 at 15104, the water level should not drop below something like 45.20. The records for 2020 show this level has not yet been exceeded, so abstraction probably is not having an impact yet. But on the 1st June this year, the water level is at 45.253, so it is getting close. A few more week of drought conditions and the water level will drop below the Q95. Looking at the 2018 record, this happened during that summer.

So, my advice is:

1. Determine what the water level threshold for a 15 l/s abstraction is at station 15104 (if it is allowed to continue). This can be done with the flow and water level records attached. It's something I can do but it would take a little bit of time. I would say it should be done as part of an AA if that is recommended.
2. Determine if 15 l/s is an accurate abstraction rate or if this should be investigated. You can see that the flow drops quite quickly once it gets to a low level (like 2018). The forecast is wet for the next week so I expect water levels to rise, but the rest of the summer may be very dry.

Also, the EPA are conducting research on eflows. A report on this is attached.

Hope this helps , let me know if it makes sense!

Shane

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**From:** Ciara O'Mahony  
**Sent:** Tuesday 9 June 2020 15:53  
**To:** Shane Regan  
**Subject:** water flow data in Kilkenny

Shane,

Thanks for taking call earlier.

The station I am interested in is “Sycamores” station no. 15104 on waterlevel.ie

<https://waterlevel.ie/0000015104/>

I would be interested to know if there is any flow data recorded at that location.

The location of the water abstraction point mentioned is approx 1km upstream of that location.

Best wishes,  
Ciara O Mahony