

## Outflow Wastewater Characteristics Monitoring Data Update

The following is an update of wastewater characteristics, incorporating monitoring data from January 2019 to May 2021.

Table below is an update from that shown in Part B of the AEE (Section 4.2.2.2 - Outflow Wastewater Characteristics). The graphs are also an update, which show the July 2012 to December 2018 data in grey and the January 2019 to May 2021 in blue.

Some natural variability, as expected, is observed in the organic waste stream although the recent monitoring data is generally consistent with that of the earlier data presented.

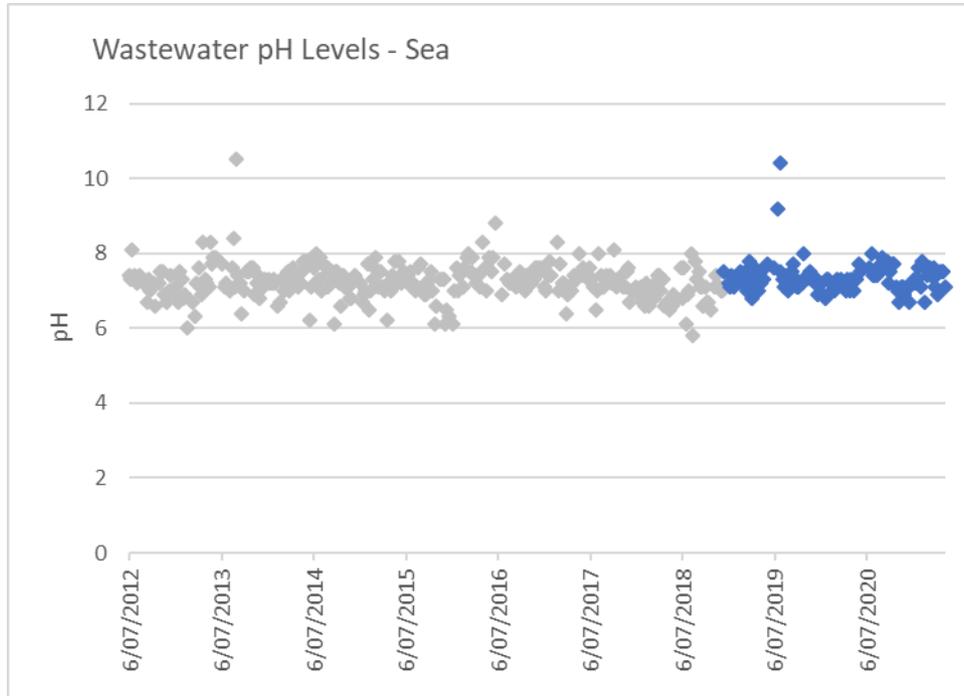
### Outflow Wastewater Characteristics

The characteristics regularly monitored are:

- pH
- 5-day Biochemical Oxygen Demand (BOD)
- Total Suspended Solids (TSS)
- Ammoniacal Nitrogen (NH<sub>4</sub>-N)
- Dissolved Reactive Phosphorus (DRP)
- Oils and Greases (OG)
- Total Kjeldahl Nitrogen (TKN)
- Total Phosphorus (TP)
- Faecal Coliforms
- Enterococci

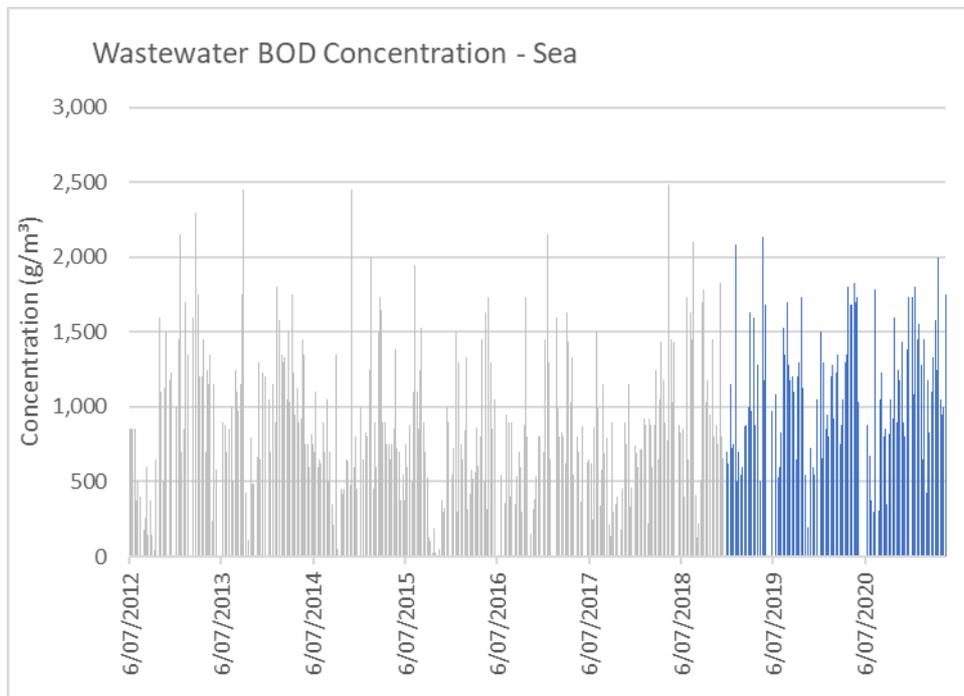
| Characteristics monitored in wastewater from July 2012 to May 2021 |                            |                      |                      |                      |
|--|----------------------------|----------------------|----------------------|----------------------|
| Characteristics  | 2012/13 to 2020/21 Seasons |                      |                      |                      |
|  | Min                        | Max                  | Mean                 | Median               |
| pH   | 5.80                       | 10.5                 | 7.26                 | 7.3                  |
| BOD (g/m <sup>3</sup> )  | 12.50                      | 2,480                | 935                  | 872                  |
| Suspended Solids (g/m <sup>3</sup> )                               | 13.00                      | 15,700               | 1,151                | 828                  |
| Ammoniacal Nitrogen (g/m <sup>3</sup> )                            | 0.20                       | 438                  | 24.6                 | 21                   |
| Dissolved Reactive Phosphorus (g/m <sup>3</sup> )                  | 0.15                       | 36.1                 | 10.6                 | 10.1                 |
| Total Grease (g/m <sup>3</sup> )                                   | 9.50                       | 10,200               | 662                  | 429                  |
| Total Kjeldahl Nitrogen (g/m <sup>3</sup> )                        | 1.50                       | 276                  | 73.8                 | 72                   |
| Total Phosphorus (g/m <sup>3</sup> )                               | 0.78                       | 81.8                 | 15.0                 | 14                   |
|  |                            |                      |                      |                      |
| Faecal Coliforms (cfu/100ml)                                       | 4,000                      | 74x10 <sup>6</sup>   | 4.7 x10 <sup>6</sup> | 1.3 x10 <sup>6</sup> |
| Enterococci (cfu/100ml)  | 8,000                      | 105 x10 <sup>6</sup> | 6.0 x10 <sup>6</sup> | 1.8 x10 <sup>6</sup> |

## pH



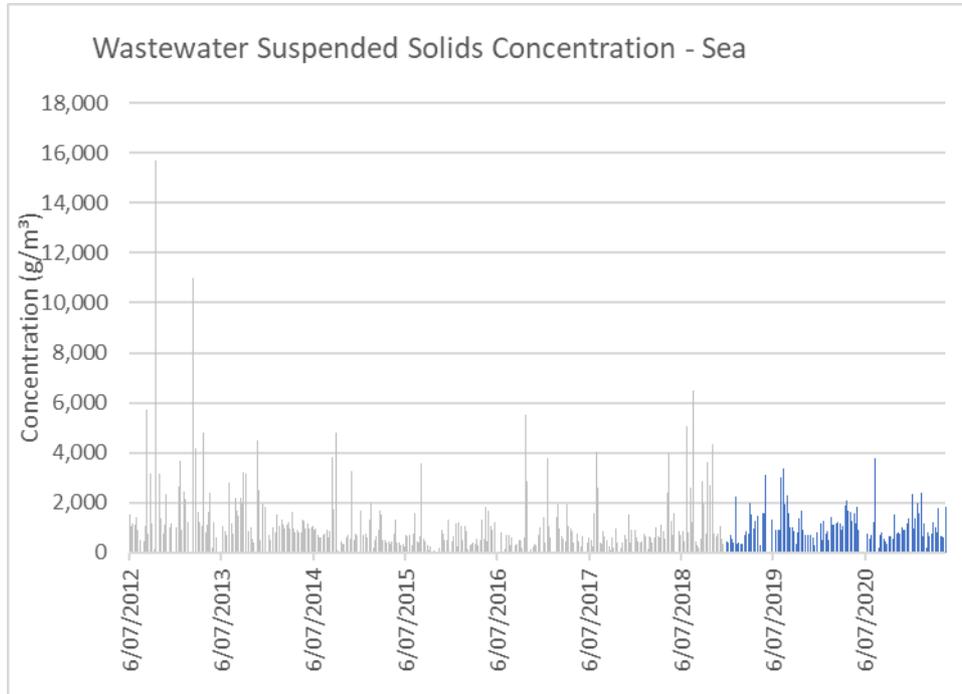
Wastewater sea discharge pH levels (July 2012 – May 2021).

## Biological Oxygen Demand



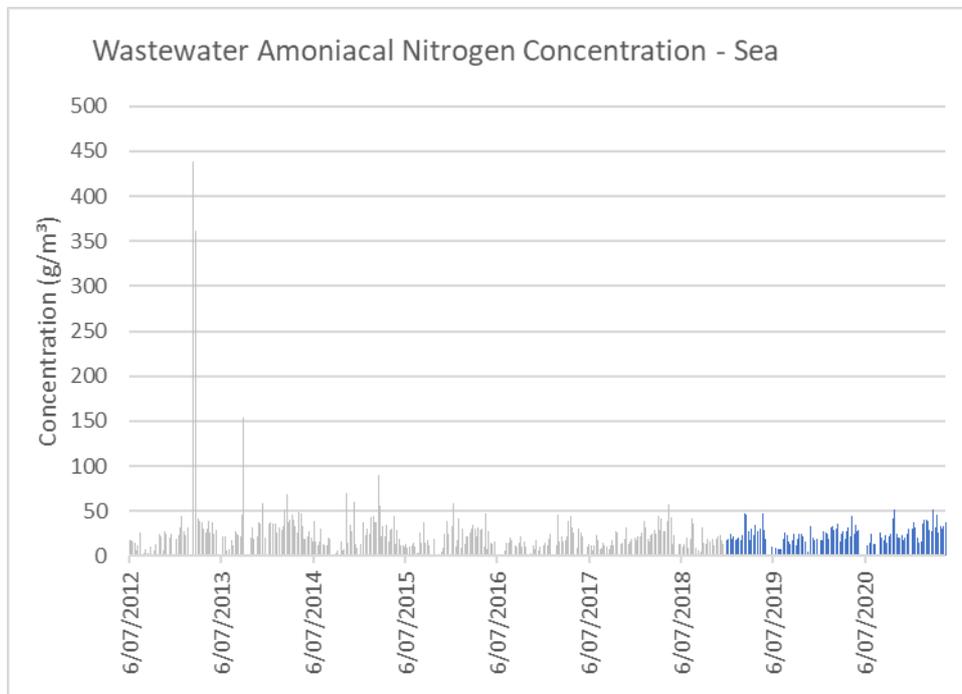
Wastewater sea discharge BOD Concentration (July 2012 – May 2021).

## Suspended Solids



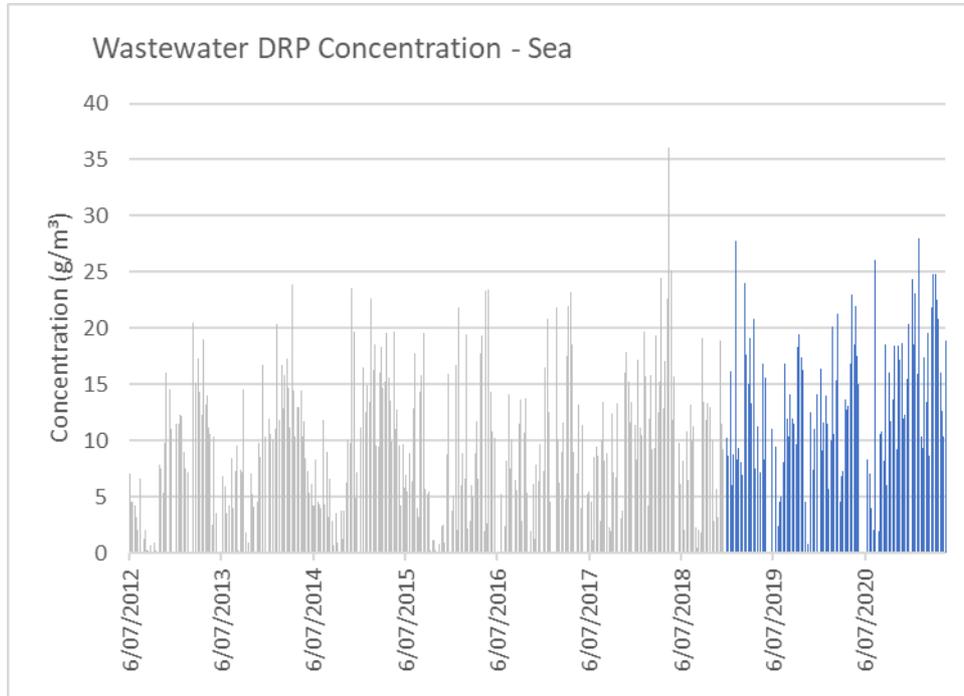
Wastewater sea discharge Suspended Solids Concentration (July 2012 – May 2021).

## Ammoniacal Nitrogen



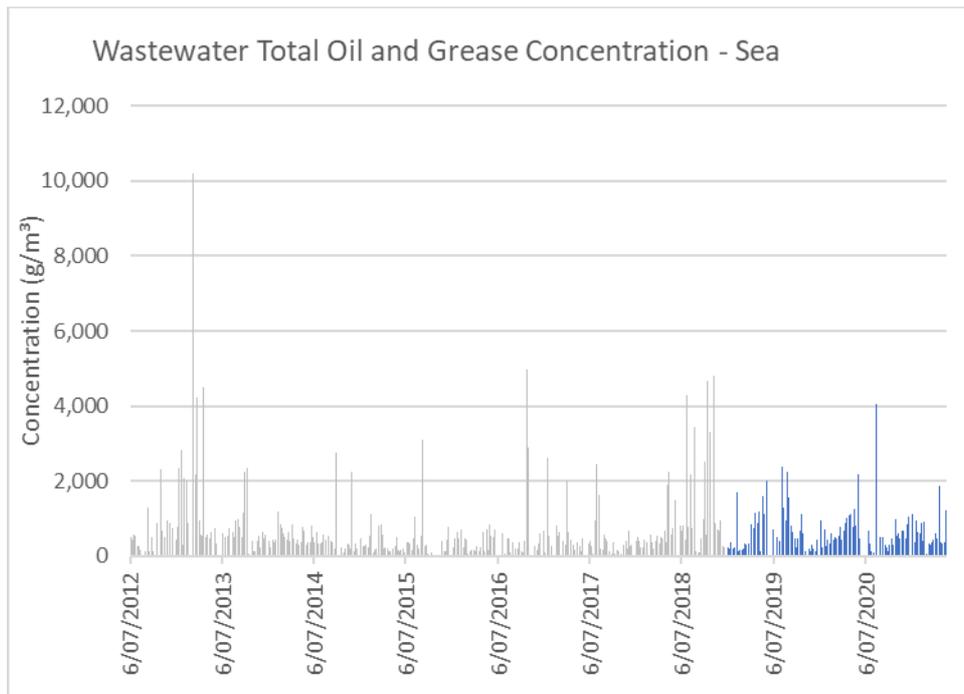
Wastewater sea discharge Ammoniacal Nitrogen Concentration (July 2012 – May 2021).

### Dissolved Reactive Phosphorous



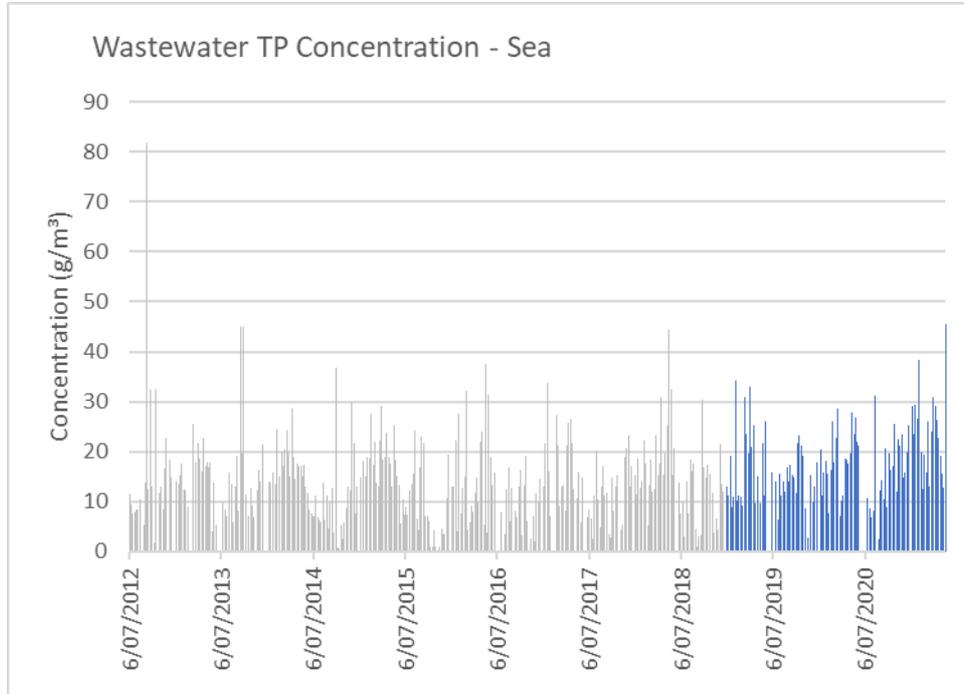
Wastewater sea discharge Dissolved Reactive Phosphorous Concentration (July 2012 – May 2021).

### Total Oil and Grease



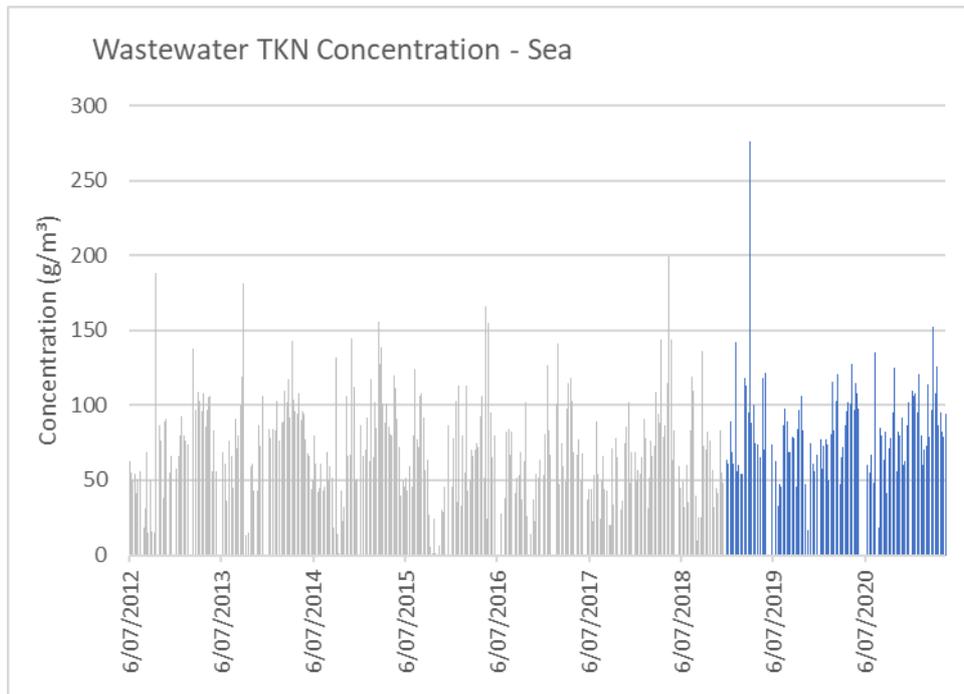
Wastewater sea discharge Total Oil and Grease Concentration (July 2012 – May 2021).

### Total Phosphorous



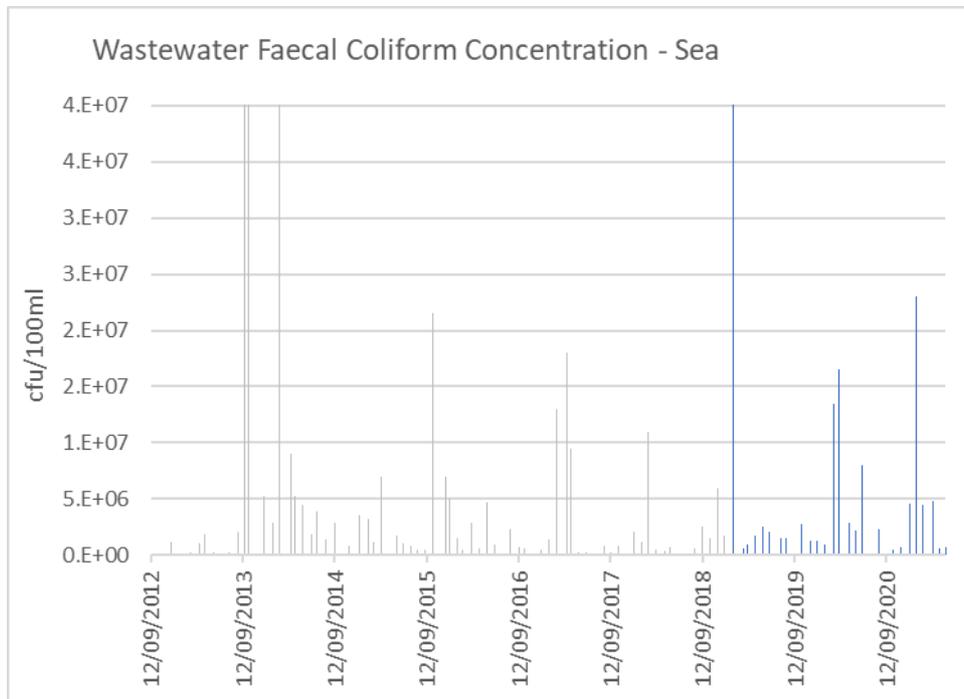
Wastewater sea discharge Phosphorous Concentration (July 2012 – May 2021).

### Total Kjeldahl Nitrogen



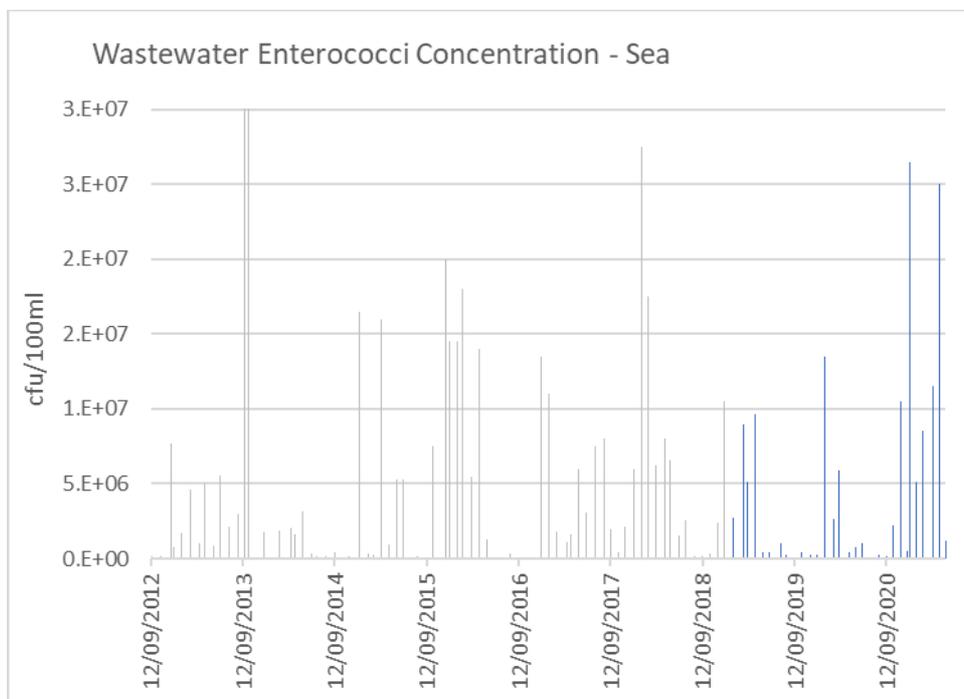
Wastewater sea discharge Total Kjeldahl Nitrogen Concentration (July 2012 – May 2021).

## Faecal Coliforms



Wastewater sea discharge Faecal Coliforms Concentration (July 2012 – May 2021).

## Enterococci



Wastewater sea discharge Enterococci (July 2012 – May 2021).