

FIB Characterization: Enniscrone

September 19, 2018

Intro

- This report characterizes the observed FIB values for the entire record of sampled data.

Data Setup

- Intestinal Enterococci (cfu/100ml)
 - Values below detection limit of 2 set to 1
- E-Coli (cfu/100ml)
 - Values below detection limit of 10 set to 1
- All values which were below the detection limit were treated as NAs, regardless if an actual value was given, to keep the record consistent.

Summary of Observed FIB

Distribution

```
##      date          EC          IE          EC_log
## Min.   :2012-05-22  Min.   :  1.0  Min.   :  1.00  Min.   :0.000
## 1st Qu.:2013-07-05  1st Qu.:  1.0  1st Qu.:  1.00  1st Qu.:0.000
## Median :2014-08-11  Median : 30.0  Median :  2.00  Median :3.401
## Mean   :2015-02-10  Mean   :101.5  Mean   :11.39  Mean   :2.565
## 3rd Qu.:2016-08-22  3rd Qu.: 61.5  3rd Qu.:  9.50  3rd Qu.:4.119
## Max.   :2018-08-27  Max.   :4106.0  Max.   :200.00  Max.   :8.320
##      IE_log      sample
## Min.   :0.0000  Min.   :  1.0
## 1st Qu.:0.0000  1st Qu.:21.5
## Median :0.6931  Median :42.0
## Mean   :1.2274  Mean   :42.0
## 3rd Qu.:2.2499  3rd Qu.:62.5
## Max.   :5.2983  Max.   :83.0
```

Percentage Failure

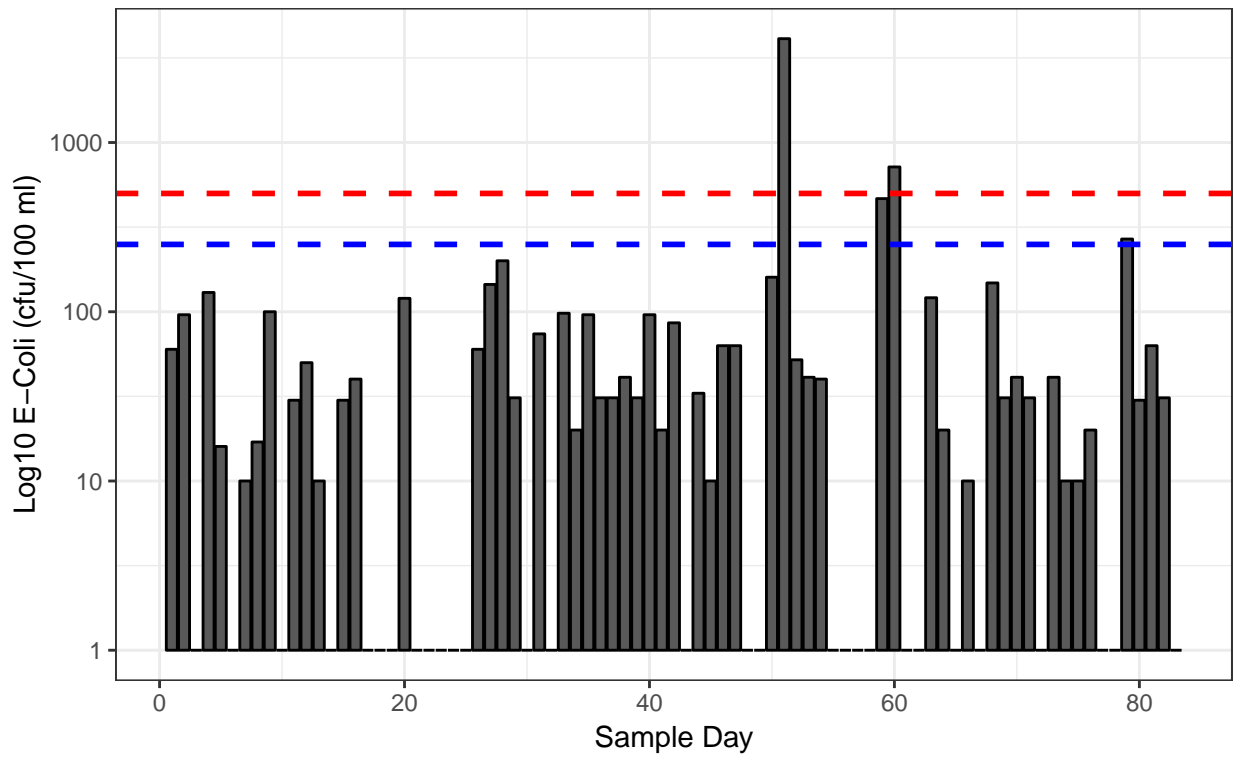
```
##      EC_excel  EC_good  IE_excel  IE_good
## 1 0.04819277 0.02409639 0.01204819 0
```

Bar-Charts

E-Coli

- These plots show the record of the observed E-Coli values.
- Bathing Water Quality Limits
 - blue = upper limit for “Excellent” water quality (250 cfu/100ml)
 - red = upper limit for “Good” water quality (500 cfu/100ml)

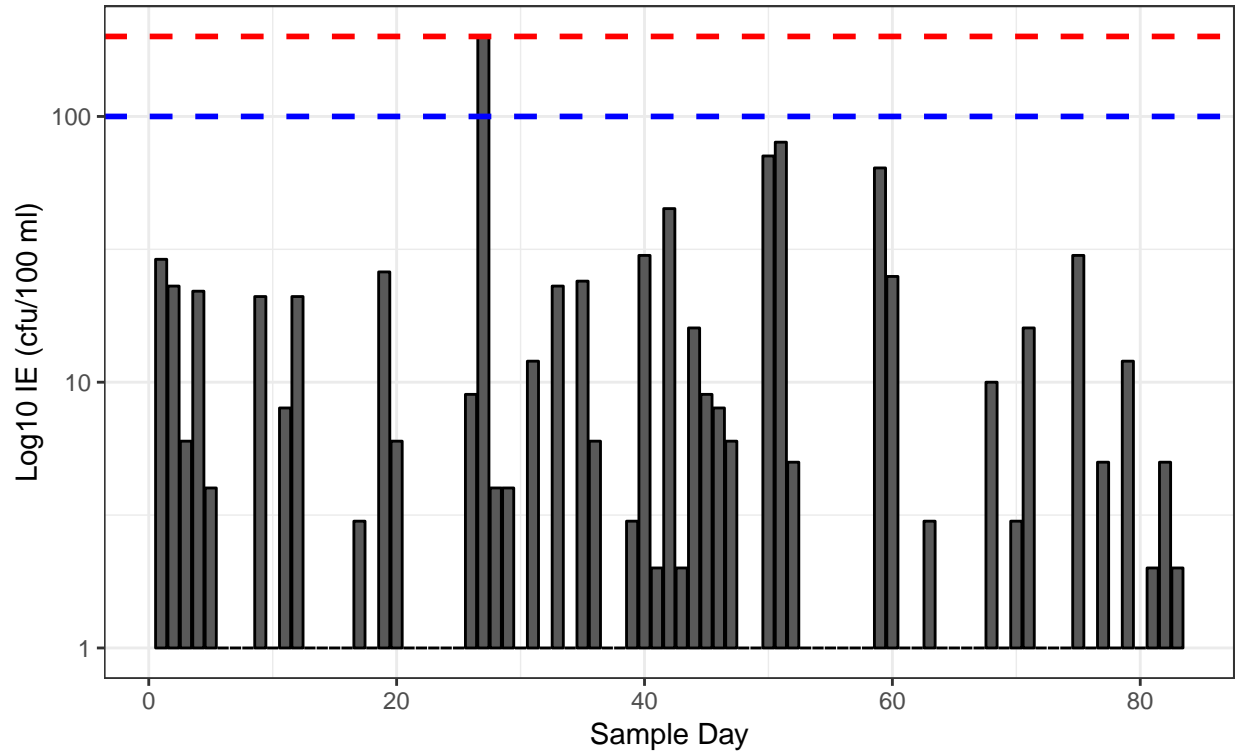
Observed E-Coli @ enniscrone
1997 – 2017



IE

- These plots show the record of the observed IE values.
- Bathing Water Quality Limits
 - blue = upper limit for “Excellent” water quality (100 cfu/100ml)
 - red = upper limit for “Good” water quality (200 cfu/100ml)

Observed IE @ Enniscrone
2012 – 2017



FIB Relationship

- Same water quality limits as previous
- R-Squared is for the logged correlation

Observed Intestinal Enterococci & E-Coli @ enniscrone
2012 - 2017

