## CaseRegression

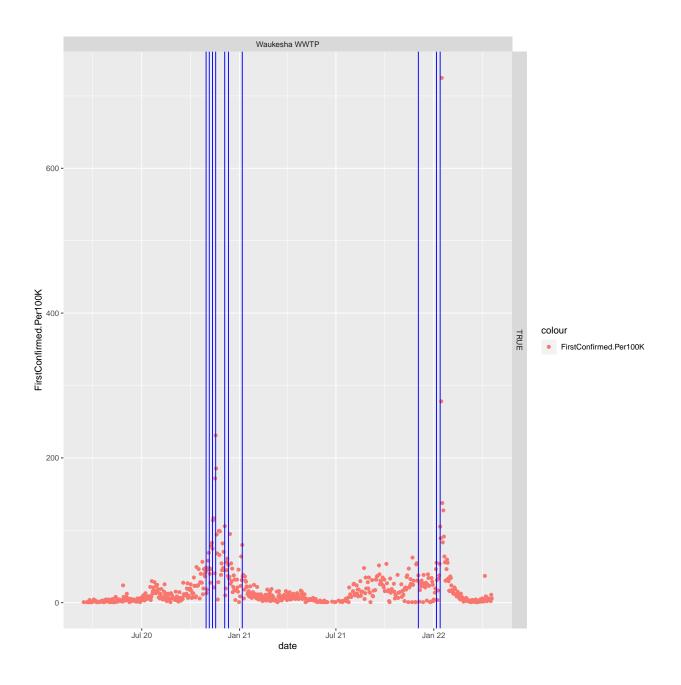
## Marlin

## 2022-07-27

```
## [1] "Waukesha WWTP"
                                "FirstConfirmed.Per100K"
  [1] "Ashland Sewage Utility"
  [2] "Beloit WWTF"
##
  [3] "Berlin WWTF"
   [4] "Black River Falls WWTF"
  [5] "Burlington WPCC"
##
  [6] "Clintonville Wastewater Utility"
  [7] "Columbus WWTF"
##
   [8] "Green Bay MSD"
##
  [9] "Heart of the Valley MSD"
## [10] "Hudson WWTF"
## [11] "Janesville WW Utility"
## [12] "Kenosha WWTF"
## [13] "La Crosse WWTP"
## [14] "Marinette Wastewater Utility"
## [15] "Marshfield WWTF"
## [16] "Milwaukee MSD Jones Island"
## [17] "Milwaukee MSD South Shore"
## [18] "Monroe WWTF"
## [19] "New Richmond WWTF"
## [20] "Oshkosh WWTP"
## [21] "Peshtigo WWTF"
## [22] "Platteville WWTF"
## [23] "Plymouth Utilities WWTF"
## [24] "Portage WWTF"
## [25] "Racine Wastewater Utility"
## [26] "River Falls Municipal Utility WWTF"
## [27] "Sheboygan WWTP"
## [28] "Sparta WWTF"
## [29] "Stevens Point WWTF"
## [30] "Superior WWTP"
## [31] "Waupaca WWTF"
## [32] "Whitewater WWTF"
## [33] "Wisconsin Rapids WWTF"
## [34] "Appleton WWTF"
## [35] "Baraboo WWTF"
## [36] "De Pere WWTF"
## [37] "Eau Claire WWTF"
## [38] "Fox River WPCC"
## [39] "Lodi WWTF"
```

## [40] "Madison"

- ## [41] "Merrill WWTP"
- ## [42] "South Milwaukee WWTF"
- ## [43] "Waukesha WWTP"
- ## [44] "Cedarburg WWTF"
- ## [45] "Chippewa Falls WWTF"
- ## [46] "Grafton Water & Wastewater Utility"
- ## [47] "Hartford WPCF"
- ## [48] "Lake Geneva WWTP"
- ## [49] "Manitowoc WWTF"
- ## [50] "Mauston WWTF"
- ## [51] "Menomonie WWTF"
- ## [52] "Oconomowoc WWTP"
- ## [53] "Port Washington WWTP"
- ## [54] "Rib Mountain MSD WWTF"
- ## [55] "Spooner WWTP"
- ## [56] "Sun Prairie WWTF"
- ## [57] "Washburn WWTP"
- ## [58] "Watertown WWTP"
- ## [59] "Wausau Water Works WWTF"
- ## [60] "Algoma WWTF"
- ## [61] "Hayward WPCF"
- ## [62] "Lac du Flambeau Tribal Water & Sewer"
- ## [63] "Rhinelander WWTP"
- ## [64] "Rib Lake WWTF"
- ## [65] "Spencer WWTP"
- ## [66] "Sturgeon Bay Utilities WWTF"
- ## [67] "Viroqua WWTF"
- ## [68] "Red Cliff WWTP"



```
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```

```
## # A tibble: 34 x 10
                         popul~1 n1_sa~2 n2_sa~3 avera~4 geoMean sars_~5
##
      WWTP
             date
                                                                               n quint
##
                                            <dbl>
                                                                    <dbl> <int> <dbl>
      <chr> <date>
                           <dbl>
                                   <dbl>
                                                    <dbl>
                                                            <dbl>
                                   10000
                                                    0.498
                                                                    0.305
##
    1 Algom~ 2020-10-06
                            3171
                                            16500
                                                           1.28e4
                                                                              34 NA
    2 Algom~ 2020-10-13
                            3171
                                   52846
                                           55955
                                                    0.499
                                                           5.44e4
                                                                    0.932
                                                                              34 NA
##
    3 Algom~ 2020-10-20
                            3171
                                   40090
                                           16500
                                                    0.402
                                                           2.57e4
                                                                    0.513
                                                                              34
                                                                                  2.08
##
                                                    0.67
                                                                    1.57
                                                                              34
                                                                                  2.08
##
    4 Algom~ 2020-10-27
                            3171 183437 165726
                                                           1.74e5
    5 Algom~ 2020-11-03
                            3171 1574735 1896871
                                                    0.489
                                                           1.73e6
                                                                    2.43
                                                                              34
                                                                                  2.08
    6 Algom~ 2020-11-10
                                                    0.463
                                                                    1.56
                                                                                  2.08
##
                            3171
                                  267387
                                          232507
                                                           2.49e5
                                                                              34
##
    7 Algom~ 2020-11-17
                            3171
                                   75686
                                          125985
                                                    0.76
                                                           9.76e4
                                                                    1.37
                                                                              34
                                                                                  2.18
                                                    0.533
##
    8 Algom~ 2020-11-24
                            3171
                                  209814
                                          235780
                                                           2.22e5
                                                                    1.57
                                                                              34
                                                                                 1.73
                                                    0.515
                                                                    1.82
    9 Algom~ 2020-12-01
                            3171
                                  443628
                                          375413
                                                           4.08e5
                                                                              34
                                                                                 1.73
## 10 Algom~ 2020-12-08
                            3171
                                  264854 277608
                                                    0.471
                                                           2.71e5
                                                                    1.61
                                                                              34 1.73
  # ... with 24 more rows, and abbreviated variable names 1: population_served,
       2: n1_sars_cov2_conc, 3: n2_sars_cov2_conc, 4: average_flow_rate,
       5: sars_cov2_adj_load_log10
## # i Use 'print(n = ...)' to see more rows
## # A tibble: 34 x 9
##
      WWTP
                  date
                              popula~1 n1_sa~2 n2_sa~3 avera~4 geoMean sars_~5
##
      <chr>
                   <date>
                                 <dbl>
                                         <dbl>
                                                  <dbl>
                                                          <dbl>
                                                                  <dbl>
                                                                           <dbl> <int>
    1 Algoma WWTF 2020-10-06
                                  3171
                                         10000
                                                  16500
                                                          0.498
                                                                 1.28e4
                                                                           0.305
##
                                                                                    34
                                                                           0.932
##
                                  3171
                                         52846
                                                  55955
                                                          0.499
                                                                 5.44e4
                                                                                    34
    2 Algoma WWTF 2020-10-13
                                  3171
                                         40090
                                                  16500
                                                          0.402
                                                                 2.57e4
                                                                           0.513
                                                                                    34
    3 Algoma WWTF 2020-10-20
```

0.67

1.74e5

1.57

34

3171 183437 165726

4 Algoma WWTF 2020-10-27

```
## 5 Algoma WWTF 2020-11-03
## 6 Algoma WWTF 2020-11-10
                                3171 1574735 1896871
                                                      0.489 1.73e6
                                                                      2.43
                                                                               34
                                3171 267387 232507 0.463 2.49e5 1.56
                                                                               34
                                                                     1.37
## 7 Algoma WWTF 2020-11-17
                                3171
                                     75686 125985 0.76 9.76e4
                                                                               34
## 8 Algoma WWTF 2020-11-24
                                3171 209814 235780
                                                      0.533 2.22e5
                                                                      1.57
                                                                               34
## 9 Algoma WWTF 2020-12-01
                                3171 443628 375413
                                                      0.515 4.08e5
                                                                      1.82
                                                                               34
## 10 Algoma WWTF 2020-12-08
                                3171 264854 277608 0.471 2.71e5
                                                                     1.61
                                                                               34
## # ... with 24 more rows, and abbreviated variable names 1: population_served,
## # 2: n1_sars_cov2_conc, 3: n2_sars_cov2_conc, 4: average_flow_rate,
## # 5: sars_cov2_adj_load_log10
## # i Use 'print(n = ...)' to see more rows
```