



# CITY OF PORTLAND ENVIRONMENTAL SERVICES



## Tryon Creek Wastewater Treatment Plant

195 SW Foothills Road, Bldg 310, Lake Oswego, Oregon 97034 ■ Dan Saltzman, Commissioner ■ Dean Marriott, Director

February 12, 2009

Mr. Lyle Christensen  
2020 SW Fourth Avenue, Suite 400  
Portland OR 97201-4987

Dear Mr. Christensen:

I am enclosing the January 2009, DMR for the City of Portland's Tryon Creek Wastewater Treatment Plant (TCWTP).

Effluent E. coli value on the January 5th sample exceeded 406 organisms per 100 ml due to higher than normal rainfall events. In both cases, the five re-sample geometric mean values came in less than 126 organisms per 100 ml and therefore do not trigger a violation (Schedule A, Note 1 in NPDES Permit #101614). The initial and re-sample values are as follows:

1/5/09      initial: 610      resamples: 1, 1, 1, 4, 2      Geometric mean: 1.5

All other measured parameters were within permit limitations during the month.

Please call me at 823-2318 if you have any questions.

Sincerely,

Greg A. Hettman  
Operations Manager,  
Tryon Creek WTP



# STATE OF OREGON DISCHARGE MONITORING REPORT

CITY OF PORTLAND TRYON CREEK POTW  
195 FOOTHILLS ROAD  
LAKE OSWEGO OR 97034-3163

PLANT TYPE  
TREATMENT SYSTEM  
COLLECTION SYSTEM

ACTIVATED SLUDGE  
CLASS IV  
CLASS IV

MAJOR BASIN  
RECEIVING STREAM  
COUNTY

WILLAMETTE  
WILLAMETTE  
CLACKAMAS

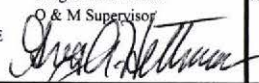
POPULATION EQUIVALENT  
PERMIT NUMBER  
FILE NUMBER  
EXPIRATION

48,902  
101614  
70735  
9/30/2009

| DATE   | FLOW   |       |        | PLANT INFLUENT |     |      | PLANT EFFLUENT |        |      |          |     |         |          |      |          |      |         |          |      |          |       |     |      |      |       |
|--------|--------|-------|--------|----------------|-----|------|----------------|--------|------|----------|-----|---------|----------|------|----------|------|---------|----------|------|----------|-------|-----|------|------|-------|
| Jan-09 | INF    | INF   | EFF    |                | BOD | TSS  |                | BOD    | BOD  | BOD      | BOD | BOD     | TSS      | TSS  | TSS      | TSS  | TSS     | EFF      | CL2  | E.COLI / | Total | TKN | NH3  | NO3+ |       |
|        | mgd    | PEAK  | mgd    | mgd            | pH  | mg/l | mg/l           | pH     | mg/l | Wkly Avg | Rem | Dis     | Wkly Avg | mg/l | Wkly Avg | Rem  | Dis     | Wkly Avg | TEMP | Res      | 100ml | P   | mg/l | N    | NO2-N |
|        |        |       |        |                |     |      |                |        |      | %        | lbs | Dis lbs | mg/l     | mg/l | %        | lbs  | Dis lbs | 0 °C     | mg/l |          |       |     |      |      |       |
| 1      | 27.53  | 33.30 | 27.51  | 6.6            | 60  | 88   | 6.7            | EST 13 |      |          |     |         | 6        |      | 93       | 1376 |         | 12       | 0.4  | 310      |       |     |      |      |       |
| 2      | 18.23  | 29.30 | 18.22  | 6.4            |     |      | 6.4            |        |      |          |     |         |          |      |          |      |         | 11       | 0.8  |          |       |     |      |      |       |
| 3      | 11.82  | 17.00 | 11.82  |                |     |      |                |        | 8    |          |     |         | 763      |      | 7        |      | 960     | 12       | 0.7  |          |       |     |      |      |       |
| 4      | 11.27  | 13.20 | 11.27  |                | 69  | 40   |                | 6      |      | 91       | 564 |         | 8        |      | 80       | 752  |         | 12       | 0.5  |          |       |     |      |      |       |
| 5      | 10.15  | 13.00 | 10.13  | 6.9            |     |      | 6.9            |        |      |          |     |         |          |      |          |      |         | 12       | 0.4  | 610      |       |     |      |      |       |
| 6      | 7.40   | 12.90 | 7.37   | 6.7            | 156 | 120  | 6.8            | 4      |      | 97       | 246 |         | 5        |      | 96       | 307  |         | 12       | 0.3  |          |       |     |      |      |       |
| 7      | 13.52  | 15.50 | 13.50  | 6.9            |     |      | 6.9            |        |      |          |     |         |          |      |          |      |         | 12       | 0.9  | 2        |       |     |      |      |       |
| 8      | 10.14  | 14.50 | 10.12  | 6.7            | 47  | 29   | 6.7            | 5      |      | 89       | 422 |         | 7        |      | 76       | 591  |         | 12       | 0.8  | 55       |       |     |      |      |       |
| 9      | 8.42   | 12.40 | 8.40   | 6.7            |     |      | 6.6            |        |      |          |     |         |          |      |          |      |         | 12       | 0.5  |          |       |     |      |      |       |
| 10     | 7.54   | 12.20 | 7.53   |                |     |      |                |        | 5    |          |     | 411     |          | 7    |          |      | 550     | 12       | 0.4  |          |       |     |      |      |       |
| 11     | 7.70   | 10.30 | 7.69   |                | 190 | 234  |                | 4      |      | 98       | 256 |         | 4        |      | 98       | 256  |         | 12       | 0.4  |          |       |     |      |      |       |
| 12     | 6.83   | 11.00 | 6.81   | 6.8            |     |      | 6.8            |        |      |          |     |         |          |      |          |      |         | 13       | 0.4  | 10       |       |     |      |      |       |
| 13     | 6.53   | 11.00 | 6.51   | 6.8            | 212 | 258  | 6.6            | 5      |      | 98       | 271 |         | 3        |      | 99       | 163  |         | 13       | 0.5  |          |       |     |      |      |       |
| 14     | 5.90   | 8.50  | 5.87   | 6.9            |     |      | 6.8            |        |      |          |     |         |          |      |          |      |         | 12       | 0.5  | 4        |       |     |      |      |       |
| 15     | 5.67   | 11.50 | 5.65   | 6.8            | 214 | 272  | 6.8            | 5      |      | 98       | 236 |         | 4        |      | 99       | 189  |         | 12       | 0.5  | 1        |       |     |      |      |       |
| 16     | 5.18   | 10.00 | 5.15   | 6.9            |     |      | 6.8            |        |      |          |     |         |          |      |          |      |         | 12       | 0.5  |          |       |     |      |      |       |
| 17     | 5.22   | 11.30 | 5.22   |                |     |      |                |        | 5    |          |     | 255     |          | 4    |          |      | 203     | 11       | 0.5  |          |       |     |      |      |       |
| 18     | 5.51   | 10.50 | 5.51   |                | 285 | 298  |                | 6      |      | 98       | 276 |         | 6        |      | 98       | 276  |         | 11       | 0.4  |          |       |     |      |      |       |
| 19     | 5.36   | 9.50  | 5.34   | 7.1            |     |      | 7.0            |        |      |          |     |         |          |      |          |      |         | 11       | 0.6  | 13       |       |     |      |      |       |
| 20     | 4.85   | 10.20 | 4.82   | 6.9            | 195 | 200  | 6.8            | 6      |      | 97       | 241 |         | 5        |      | 98       | 201  |         | 11       | 0.5  |          |       |     |      |      |       |
| 21     | 4.87   | 11.00 | 4.85   | 7.1            |     |      | 6.9            |        |      |          |     |         |          |      |          |      |         | 11       | 0.5  | 1        |       |     |      |      |       |
| 22     | 4.55   | 10.00 | 4.53   | 6.9            | 255 | 234  | 6.9            | 5      |      | 98       | 189 |         | 5        |      | 98       | 189  |         | 11       | 0.6  | <1       |       |     |      |      |       |
| 23     | 4.43   | 10.00 | 4.41   | 7.0            |     |      | 7.1            |        |      |          |     |         |          |      |          |      |         | 11       | 0.5  |          |       |     |      |      |       |
| 24     | 4.69   | 12.20 | 4.68   |                |     |      |                |        | 6    |          |     | 235     |          | 5    |          |      | 222     | 11       | 0.5  |          |       |     |      |      |       |
| 25     | 5.35   | 11.50 | 5.35   |                | 270 | 226  |                | 7      |      | 97       | 312 |         | 6        |      | 97       | 268  |         | 11       | 0.5  |          |       |     |      |      |       |
| 26     | 4.65   | 11.50 | 4.64   | 7.0            |     |      | 7.0            |        |      |          |     |         |          |      |          |      |         | 11       | 0.5  | <1       |       |     |      |      |       |
| 27     | 5.05   | 10.00 | 5.03   | 7.0            | 203 | 218  | 6.9            | 11     |      | 95       | 461 |         | 13       |      | 94       | 545  |         | 12       | 0.4  |          |       |     |      |      |       |
| 28     | 4.72   | 10.00 | 4.69   | 7.1            |     |      | 7.1            |        |      |          |     |         |          |      |          |      |         | 12       | 0.4  | <1       |       |     |      |      |       |
| 29     | 4.55   | 10.00 | 4.53   | 6.9            | 215 | 242  | 6.9            | 4      |      | 98       | 151 |         | 4        |      | 98       | 151  |         | 12       | 0.4  | <1       |       |     |      |      |       |
| 30     | 4.28   | 10.00 | 4.26   | 7.0            |     |      | 7.0            |        |      |          |     |         |          |      |          |      |         | 11       | 0.5  |          |       |     |      |      |       |
| 31     | 4.59   | 9.00  | 4.59   |                |     |      |                |        | 7    |          |     | 308     |          | 8    |          |      | 321     | 11       | 0.4  |          |       |     |      |      |       |
| Max    | 27.53  | 33.30 | 27.51  | 7.1            | 285 | 298  | 7.1            | 11     | 8    | 98       | 564 | 763     | 13       | 8    | 99       | 1376 | 960     | 13       | 0.9  | 610      |       |     |      |      |       |
| Min    | 4.28   |       | 4.26   | 6.4            | 47  | 29   | 6.4            | 4      |      | 89       | 151 |         | 3        |      | 76       | 151  |         | 11       | 0.3  | <1       |       |     |      |      |       |
| Avg    | 7.63   |       | 7.61   |                | 182 | 189  |                | 6      |      | 97       | 302 |         | 6        |      | 97       | 405  |         | 12       | 0.50 | 9        |       |     |      |      |       |
| Sum    | 236.49 |       | 236.00 |                |     |      |                |        |      |          |     |         |          |      |          |      |         |          |      |          |       |     |      |      |       |

|                       |                                |                        |                           |                                                                                     |
|-----------------------|--------------------------------|------------------------|---------------------------|-------------------------------------------------------------------------------------|
| PLANT EFFLUENT PERMIT | May 1 -> October 31            | November 1 -> April 30 | January 1 -> December 31  | REMARKS                                                                             |
| MONTHLY STANDARDS     | BOD 20 mg/l / 1400 lbs BOD     | 30 mg/l / 3100 lbs     | CL2 max 0.7 mg/l          | Nutrients are sampled May 1 -> October 31                                           |
|                       | TSS 20 mg/l / 1400 lbs TSS     | 30 mg/l / 3100 lbs     | daily pH range 6.0 -> 9.0 | Digested and TWAS sludges are hauled to Columbia Blvd Treatment Plant.              |
|                       | E. COLI 126 cts/100 ml E. COLI | 126 cts/100 ml         |                           | Effluent BOD for January 1st is a maximum because the seed could not be calculated. |

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME Greg A. Hettman  
CLASS Oregon T/IV #4600  
TITLE O & M Supervisor  
SIGNATURE 

\* The Ecoli sample for January 5 exceeded the 406 organisms per 100 ml limitation. Five consecutive re-samples were taken on January 6th and 7th. The results were 1, 1, 1, 4, 2 with a geometric mean of 1.5 organisms per 100 ml.

| PRIMARY TREATMENT   |     |       |                            |          |                  | MONTHLY REPORT SUMMARY            |                      |                    |                           |                      |  |
|---------------------|-----|-------|----------------------------|----------|------------------|-----------------------------------|----------------------|--------------------|---------------------------|----------------------|--|
| Influent            |     |       | Effluent                   |          |                  | Rem<br>%                          | Primary              |                    |                           |                      |  |
| mg/l      lbs/day   |     |       | mg/l      lbs/day          |          |                  |                                   | Feed Sludge          |                    |                           |                      |  |
| S S                 | 189 | 10375 | SS                         | 116      | 6173             |                                   | Flow gal/day         | Total Solids %     | Volatile Content %        |                      |  |
| BOD5                | 182 | 9780  | BOD5                       | 127      | 6521             | 31                                | 13451                | 6.49               | 79.4                      |                      |  |
| Detent Time hrs     |     |       | Population Equivalent      |          | Flow mgd         | Precip "                          | Detention Time days  |                    | Loading lbs VS / ft3 /day |                      |  |
| 3.6                 |     |       | 48902                      |          | 7.63             | 6.35                              | 27                   |                    |                           |                      |  |
| SECONDARY TREATMENT |     |       |                            |          |                  |                                   |                      |                    |                           |                      |  |
| Influent            |     |       | Effluent                   |          |                  | Rem<br>%                          |                      |                    |                           |                      |  |
| mg/l      lbs/day   |     |       | mg/l      lbs/day          |          |                  |                                   |                      |                    |                           |                      |  |
| S S                 | 189 | 10375 | SS                         | 6        | 405              |                                   |                      |                    |                           |                      |  |
| BOD5                | 182 | 9780  | BOD5                       | 6        | 302              | 97                                | Total Solids %       | Volatile Content % |                           | Vol Sol Reduct %     |  |
| F/M                 |     | SVI   |                            | SRT days | MLSS mg/l        | 97                                | 2.91                 | 65.9               |                           |                      |  |
| 0.00                |     | 163   |                            | 0.0      | 1599             |                                   | Total Solids (TWS) % | Capture %          |                           | Filtrate Solids mg/l |  |
| RAS Flow mgd        |     |       | CL2 Res mg/l               |          | CL2 Feed lbs/day | 5.70                              |                      |                    |                           |                      |  |
| 1.36                |     |       | 0.5                        |          | 116              |                                   |                      |                    |                           |                      |  |
| WAS Flow mgd        |     |       | Aerator Detention Time hrs |          | Aerator DO mg/l  | Sludge Hauled                     |                      |                    |                           |                      |  |
| .000                |     |       | 5.7                        |          | 0.0              | gal/day      lbs /day      lbs/mo |                      |                    |                           |                      |  |
|                     |     |       |                            |          |                  | Digst      4461      1081         |                      |                    |                           |                      |  |
|                     |     |       |                            |          |                  | TWS      11371      5406          |                      |                    |                           |                      |  |
|                     |     |       |                            |          |                  | Total      15832      6486        |                      |                    |                           |                      |  |

|          |                          |       |      |      |          |        |             |            |        |
|----------|--------------------------|-------|------|------|----------|--------|-------------|------------|--------|
| Page 1   |                          |       |      |      |          |        |             |            |        |
| Date     | Plant Effluent Nutrients |       |      |      | Flow     |        | Weather     |            |        |
| Jan-09   | Total P                  | NH3-N | NO3+ | TKN  | Portland | Lake   | Temperature |            | Precip |
|          | mg/l                     | mg/l  | mg/l | mg/l | mgd      | Oswego | Max<br>o F  | Min<br>o F | "      |
| 01/01/09 |                          |       |      |      | 9.90     | 17.63  | 51          | 33         | 3.20   |
| 01/02/09 |                          |       |      |      | 5.60     | 12.63  | 45          | 34         | 0.20   |
| 01/03/09 |                          |       |      |      | 3.74     | 8.08   | 44          | 29         | 0.00   |
| 01/04/09 |                          |       |      |      | 3.80     | 7.47   | 48          | 32         | 0.60   |
| 01/05/09 |                          |       |      |      | 3.43     | 6.72   | 53          | 46         | 0.25   |
| 01/06/09 |                          |       |      |      | 3.20     | 4.19   | 55          | 50         | 0.35   |
| 01/07/09 |                          |       |      |      | 4.08     | 9.44   | 55          | 46         | 0.65   |
| 01/08/09 |                          |       |      |      | 2.83     | 7.31   | 53          | 38         | 0.00   |
| 01/09/09 |                          |       |      |      | 2.86     | 5.56   | 37          | 31         | 0.00   |
| 01/10/09 |                          |       |      |      | 2.57     | 4.97   | 49          | 43         | 0.20   |
| 01/11/09 |                          |       |      |      | 2.68     | 5.01   | 52          | 46         | 0.15   |
| 01/12/09 |                          |       |      |      | 2.39     | 4.43   | 52          | 40         | 0.05   |
| 01/13/09 |                          |       |      |      | 2.30     | 4.24   | 52          | 39         | 0.00   |
| 01/14/09 |                          |       |      |      | 2.02     | 3.88   | 37          | 32         | 0.00   |
| 01/15/09 |                          |       |      |      | 1.92     | 3.75   | 48          | 34         | 0.00   |
| 01/16/09 |                          |       |      |      | 1.72     | 3.46   | 48          | 34         | 0.00   |
| 01/17/09 |                          |       |      |      | 1.79     | 3.43   | 44          | 37         | 0.00   |
| 01/18/09 |                          |       |      |      | 1.85     | 3.66   |             |            | 0.00   |
| 01/19/09 |                          |       |      |      | 1.83     | 3.54   | 45          | 36         | 0.00   |
| 01/20/09 |                          |       |      |      | 1.65     | 3.20   | 45          | 33         | 0.00   |
| 01/21/09 |                          |       |      |      | 1.66     | 3.21   | 44          | 32         | 0.00   |
| 01/22/09 |                          |       |      |      | 1.58     | 2.97   | 48          | 35         | 0.00   |
| 01/23/09 |                          |       |      |      | 1.50     | 2.93   | 44          | 36         | 0.00   |
| 01/24/09 |                          |       |      |      | 1.60     | 3.09   | 46          | 32         | 0.25   |
| 01/25/09 |                          |       |      |      | 1.88     | 3.47   | 39          | 27         | 0.10   |
| 01/26/09 |                          |       |      |      | 1.59     | 3.06   | 40          | 30         | 0.05   |
| 01/27/09 |                          |       |      |      | 1.77     | 3.28   | 44          | 33         | 0.20   |
| 01/28/09 |                          |       |      |      | 1.65     | 3.08   | 52          | 32         | 0.00   |
| 01/29/09 |                          |       |      |      | 1.55     | 3.01   | 45          | 32         | 0.10   |
| 01/30/09 |                          |       |      |      | 1.43     | 2.85   | 40          | 31         | 0.00   |
| 01/31/09 |                          |       |      |      | 1.57     | 3.03   | 50          | 31         | 0.00   |
| Max      | 0.00                     | 0.00  | 0.00 | 0.00 | 9.90     | 17.63  | 55          | 50         | 3.20   |
| Min      | 0.00                     | 0.00  | 0.00 | 0.00 | 1.43     | 2.85   | 37          | 27         | 0.00   |
| Avg      |                          |       |      |      | 2.58     | 5.05   | 47          | 35         | 0.20   |
| Sum      |                          |       |      |      | 80.0     | 156.5  |             |            | 6.35   |













| Page 8   | NPDES Peak Mass Limits |                    |                 |               |                |                  |            |            |                  |            |            |
|----------|------------------------|--------------------|-----------------|---------------|----------------|------------------|------------|------------|------------------|------------|------------|
| Date     | Total                  |                    |                 | Instantaneous |                | DML=9382 lbs     |            |            | DML=4153 lbs     |            |            |
| Jan-09   | Portland<br>mgd        | Lake Oswego<br>mgd | Combined<br>mgd | Peak<br>mgd   | Minimum<br>mgd | "O" Limit<br>mgd | BOD<br>lbs | TSS<br>lbs | "P" Limit<br>mgd | BOD<br>lbs | TSS<br>lbs |
| 01/01/09 | 9.9                    | 17.6               | 27.5            | 33.3          |                | 33.3             |            | 1376       |                  |            |            |
| 01/02/09 | 5.6                    | 12.6               | 18.2            | 29.3          |                | 29.3             |            |            |                  |            |            |
| 01/03/09 | 3.7                    | 8.1                | 11.8            | 17.0          |                | 17.0             |            |            |                  |            |            |
| 01/04/09 | 3.8                    | 7.5                | 11.3            | 13.2          |                |                  |            |            | 13.2             | 564        | 752        |
| 01/05/09 | 3.4                    | 6.7                | 10.1            | 13.0          |                |                  |            |            | 13.0             |            |            |
| 01/06/09 | 3.2                    | 4.2                | 7.4             | 12.9          |                |                  |            |            | 12.9             | 246        | 307        |
| 01/07/09 | 4.1                    | 9.4                | 13.5            | 15.5          |                |                  |            |            | 15.5             |            |            |
| 01/08/09 | 2.8                    | 7.3                | 10.1            | 14.5          |                |                  |            |            | 14.5             | 422        | 591        |
| 01/09/09 | 2.9                    | 5.6                | 8.4             | 12.4          |                |                  |            |            | 12.4             |            |            |
| 01/10/09 | 2.6                    | 5.0                | 7.5             | 12.2          |                |                  |            |            | 12.2             |            |            |
| 01/11/09 | 2.7                    | 5.0                | 7.7             | 10.3          |                |                  |            |            | 10.3             | 256        | 256        |
| 01/12/09 | 2.4                    | 4.4                | 6.8             | 11.0          |                |                  |            |            | 11.0             |            |            |
| 01/13/09 | 2.3                    | 4.2                | 6.5             | 11.0          |                |                  |            |            | 11.0             | 271        | 163        |
| 01/14/09 | 2.0                    | 3.9                | 5.9             | 8.5           |                |                  |            |            | 8.5              |            |            |
| 01/15/09 | 1.9                    | 3.8                | 5.7             | 11.5          |                |                  |            |            | 11.5             | 236        | 189        |
| 01/16/09 | 1.7                    | 3.5                | 5.2             | 10.0          |                |                  |            |            | 10.0             |            |            |
| 01/17/09 | 1.8                    | 3.4                | 5.2             | 11.3          |                |                  |            |            | 11.3             |            |            |
| 01/18/09 | 1.9                    | 3.7                | 5.5             | 10.5          |                |                  |            |            | 10.5             | 276        | 276        |
| 01/19/09 | 1.8                    | 3.5                | 5.4             | 9.5           |                |                  |            |            | 9.5              |            |            |
| 01/20/09 | 1.7                    | 3.2                | 4.8             | 10.2          |                |                  |            |            | 10.2             | 241        | 201        |
| 01/21/09 | 1.7                    | 3.2                | 4.9             | 11.0          |                |                  |            |            | 11.0             |            |            |
| 01/22/09 | 1.6                    | 3.0                | 4.5             | 10.0          |                |                  |            |            | 10.0             | 189        | 189        |
| 01/23/09 | 1.5                    | 2.9                | 4.4             | 10.0          |                |                  |            |            | 10.0             |            |            |
| 01/24/09 | 1.6                    | 3.1                | 4.7             | 12.2          |                |                  |            |            | 12.2             |            |            |
| 01/25/09 | 1.9                    | 3.5                | 5.4             | 11.5          |                |                  |            |            | 11.5             | 312        | 268        |
| 01/26/09 | 1.6                    | 3.1                | 4.7             | 11.5          |                |                  |            |            | 11.5             |            |            |
| 01/27/09 | 1.8                    | 3.3                | 5.1             | 10.0          |                |                  |            |            | 10.0             | 461        | 545        |
| 01/28/09 | 1.6                    | 3.1                | 4.7             | 10.0          |                |                  |            |            | 10.0             |            |            |
| 01/29/09 | 1.5                    | 3.0                | 4.6             | 10.0          |                |                  |            |            | 10.0             | 151        | 151        |
| 01/30/09 | 1.4                    | 2.8                | 4.3             | 10.0          |                |                  |            |            | 10.0             |            |            |
| 01/31/09 | 1.6                    | 3.0                | 4.6             | 9.0           |                |                  |            |            | 9.0              |            |            |
| Max      | 9.9                    | 17.6               | 27.5            | 33.3          |                | 33               | N/A        | 1376       | 15.5             | 564        | 752        |
| Min      | 1.4                    | 2.8                | 4.3             |               |                |                  |            |            |                  |            |            |
| Avg      | 2.6                    | 5.0                | 7.6             |               |                |                  |            |            |                  |            |            |
| Sum      | 80                     | 157                | 236             |               |                | N/A              | N/A        | N/A        |                  |            |            |

# City of Portland

## Tryon Creek Treatment Plant

Tryon Creek Wastewater Treatment Plant, 195 SW. Foothills Rd., Lake Oswego, OR 97034  
(503) 823-2320, FAX (503) 823-2322

DATE: 2/10/2009  
TO: Pat McDougal, City of Lake Oswego  
FAX (503) 635-0269  
FROM: City of Portland  
SUBJECT: Rainfall and Flow Data

| DATE      | Flow     |             | Temperature |         | Rain |
|-----------|----------|-------------|-------------|---------|------|
|           | Portland | Lake Oswego | Maximum     | Minimum |      |
| 1/1/2009  | 9.90     | 17.63       | 51          | 33      | 3.20 |
| 1/2/2009  | 5.60     | 12.63       | 45          | 34      | 0.20 |
| 1/3/2009  | 3.74     | 8.08        | 44          | 29      | 0.00 |
| 1/4/2009  | 3.80     | 7.47        | 48          | 32      | 0.60 |
| 1/5/2009  | 3.43     | 6.72        | 53          | 46      | 0.25 |
| 1/6/2009  | 3.20     | 4.19        | 55          | 50      | 0.35 |
| 1/7/2009  | 4.08     | 9.44        | 55          | 46      | 0.65 |
| 1/8/2009  | 2.83     | 7.31        | 53          | 38      | 0.00 |
| 1/9/2009  | 2.86     | 5.56        | 37          | 31      | 0.00 |
| 1/10/2009 | 2.57     | 4.97        | 49          | 43      | 0.20 |
| 1/11/2009 | 2.68     | 5.01        | 52          | 46      | 0.15 |
| 1/12/2009 | 2.39     | 4.43        | 52          | 40      | 0.05 |
| 1/13/2009 | 2.30     | 4.24        | 52          | 39      | 0.00 |
| 1/14/2009 | 2.02     | 3.88        | 37          | 32      | 0.00 |
| 1/15/2009 | 1.92     | 3.75        | 48          | 34      | 0.00 |
| 1/16/2009 | 1.72     | 3.46        | 48          | 34      | 0.00 |
| 1/17/2009 | 1.79     | 3.43        | 44          | 37      | 0.00 |
| 1/18/2009 | 1.85     | 3.66        |             |         | 0.00 |
| 1/19/2009 | 1.83     | 3.54        | 45          | 36      | 0.00 |
| 1/20/2009 | 1.65     | 3.20        | 45          | 33      | 0.00 |
| 1/21/2009 | 1.66     | 3.21        | 44          | 32      | 0.00 |
| 1/22/2009 | 1.58     | 2.97        | 48          | 35      | 0.00 |
| 1/23/2009 | 1.50     | 2.93        | 44          | 36      | 0.00 |
| 1/24/2009 | 1.60     | 3.09        | 46          | 32      | 0.25 |
| 1/25/2009 | 1.88     | 3.47        | 39          | 27      | 0.10 |
| 1/26/2009 | 1.59     | 3.06        | 40          | 30      | 0.05 |
| 1/27/2009 | 1.77     | 3.28        | 44          | 33      | 0.20 |
| 1/28/2009 | 1.65     | 3.08        | 52          | 32      | 0.00 |
| 1/29/2009 | 1.55     | 3.01        | 45          | 32      | 0.10 |
| 1/30/2009 | 1.43     | 2.85        | 40          | 31      | 0.00 |
| 1/31/2009 | 1.57     | 3.03        | 50          | 31      | 0.00 |
| Max       | 9.90     | 17.63       | 55          | 50      | 3.20 |
| Min       | 1.43     | 2.85        | 37          | 27      | 0.00 |
| Avg       | 2.58     | 5.05        | 47          | 35      | 0.20 |
| SUM       | 79.95    | 156.54      |             |         | 6.35 |