



# 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

May, 12. 2009

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

Dear Mr. Christensen:

I have enclosed the April 2009, DMR for the City of Portland's Tryon Creek Wastewater Treatment Plant (TCWTP).

All measured parameters were within permit limitations during the month.

Please call me at (503) 823-2494 if you should have any questions.

Sincerely,

Daniel D. Clark

Wastewater Treatment Manager



## STATE OF OREGON DISCHARGE MONITORING REPORT

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

PLANT TYPE ACTIVATED SLUDGE  
TREATMENT SYSTEM CLASS IV  
COLLECTION SYSTEM CLASS IV

MAJOR BASIN  
RECEIVING STREAM  
COUNTY

WILLAMETTE  
WILLAMETTE  
CLACKAMAS

POPULATION EQUIVALENT  
PERMIT NUMBER  
FILE NUMBER  
EXPIRATION

53,771  
101614  
70735  
9/30/2009

| DATE   | FLOW   |          |        | PLANT INFLUENT |      |      | PLANT EFFLUENT |      |          |     |     |          |      |          |     |     |          |      |      |          |       |      |      |       |
|--------|--------|----------|--------|----------------|------|------|----------------|------|----------|-----|-----|----------|------|----------|-----|-----|----------|------|------|----------|-------|------|------|-------|
| Apr-09 | INF    | INF PEAK | EFF    | pH             | BOD  | TSS  | pH             | BOD  | BOD      | BOD | BOD | BOD      | TSS  | TSS      | TSS | TSS | TSS      | EFF  | CL2  | E.COLI / | Total | TKN  | NH3  | NO3+  |
|        | mgd    | mgd      | mgd    |                | mg/l | mg/l |                | 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  |      |          | %   | lbs | Dis lbs  | 0 °C | mg/l |          |       |      | mg/l | mg/l  |
| 1      | 6.27   | 11.00    | 6.25   | 6.8            |      |      | 6.9            |      |          |     |     |          |      |          |     |     |          | 12   | 0.3  | 2        |       |      |      |       |
| 2      | 6.47   | 8.20     | 6.45   | 6.8            | 149  | 150  | 7.0            | 7    |          | 95  | 376 |          | 6    |          | 96  | 323 |          | 12   | 0.3  | 11       |       |      |      |       |
| 3      | 5.13   | 9.00     | 5.11   | 6.8            |      |      | 7.0            |      |          |     |     |          |      |          |     |     |          | 12   | 0.4  |          |       |      |      |       |
| 4      | 5.44   | 8.00     | 5.44   |                |      |      |                | 7    |          |     |     | 339      | 7    |          |     |     | 364      | 13   | 0.4  |          |       |      |      |       |
| 5      | 5.79   | 9.50     | 5.79   |                | 361  | 644  |                | 8    |          | 98  | 386 |          | 8    |          | 99  | 386 |          | 13   | 0.4  |          |       |      |      |       |
| 6      | 5.09   | 10.00    | 5.07   | 6.9            |      |      | 6.8            |      |          |     |     |          |      |          |     |     |          | 13   | 0.4  | <1       |       |      |      |       |
| 7      | 4.99   | 10.50    | 4.96   | 6.9            | 203  | 212  | 7.0            | 4    |          | 98  | 166 |          | 6    |          | 97  | 248 |          | 13   | 0.4  |          |       |      |      |       |
| 8      | 4.87   | 6.50     | 4.84   | 6.9            |      |      | 6.9            |      |          |     |     |          |      |          |     |     |          | 13   | 0.5  | <1       |       |      |      |       |
| 9      | 5.03   | 10.00    | 5.01   | 7.0            | 236  | 242  | 6.9            | 8    |          | 97  | 334 |          | 5    |          | 98  | 209 |          | 13   | 0.6  | <1       |       |      |      |       |
| 10     | 4.79   | 9.70     | 4.78   | 6.9            |      |      | 6.9            |      |          |     |     |          |      |          |     |     |          | 13   | 0.4  |          |       |      |      |       |
| 11     | 4.98   | 10.70    | 4.98   |                |      |      |                | 7    |          |     |     | 295      | 6    |          |     |     | 281      | 14   | 0.4  |          |       |      |      |       |
| 12     | 5.94   | 11.00    | 5.94   |                | 259  | 260  |                | 7    |          | 97  | 347 |          | 8    |          | 97  | 396 |          | 13   | 0.4  |          |       |      |      |       |
| 13     | 5.66   | 11.00    | 5.65   | 6.9            |      |      | 6.9            |      |          |     |     |          |      |          |     |     |          | 13   | 0.4  | 3        |       |      |      |       |
| 14     | 5.16   | 9.20     | 5.14   | 6.8            | 223  | 219  | 6.9            | 5    |          | 98  | 214 |          | 4    |          | 98  | 171 |          | 13   | 0.5  |          |       |      |      |       |
| 15     | 4.86   | 9.00     | 4.83   | 6.9            |      |      | 6.9            |      |          |     |     |          |      |          |     |     |          | 13   | 0.4  | 6        |       |      |      |       |
| 16     | 5.12   | 12.00    | 5.09   | 6.9            | 272  | 234  | 6.9            | 7    |          | 97  | 297 |          | 5    |          | 98  | 212 |          | 14   | 0.6  | 5        |       |      |      |       |
| 17     | 4.85   | 12.00    | 4.83   | 7.0            |      |      | 6.9            |      |          |     |     |          |      |          |     |     |          | 13   | 0.5  |          |       |      |      |       |
| 18     | 5.03   | 10.50    | 5.03   |                |      |      |                | 6    |          |     |     | 286      | 6    |          |     |     | 260      | 14   | 0.4  |          |       |      |      |       |
| 19     | 5.20   | 9.50     | 5.20   |                | 290  | 292  |                | 6    |          | 98  | 260 |          | 6    |          | 98  | 260 |          | 14   | 0.4  |          |       |      |      |       |
| 20     | 4.74   | 9.00     | 4.72   | 7.0            |      |      | 7.1            |      |          |     |     |          |      |          |     |     |          | 14   | 0.3  | 10       |       |      |      |       |
| 21     | 4.63   | 8.00     | 4.60   | 6.9            | 234  | 236  | 6.8            | 5    |          | 98  | 192 |          | 4    |          | 98  | 154 |          | 15   | 0.5  |          |       |      |      |       |
| 22     | 4.57   | 8.00     | 4.54   | 6.9            |      |      | 7.1            |      |          |     |     |          |      |          |     |     |          | 15   | 0.4  | 3        |       |      |      |       |
| 23     | 4.45   | 9.00     | 4.43   | 6.9            | 252  | 264  | 7.1            | 6    |          | 98  | 222 |          | 3    |          | 99  | 111 |          | 15   | 0.4  | <1       |       |      |      |       |
| 24     | 4.09   | 8.70     | 4.07   | 6.9            |      |      | 7.0            |      |          |     |     |          |      |          |     |     |          | 14   | 0.5  |          |       |      |      |       |
| 25     | 4.37   | 10.50    | 4.36   |                |      |      |                | 6    |          |     |     | 225      | 4    |          |     |     | 175      | 14   | 0.5  |          |       |      |      |       |
| 26     | 4.82   | 10.80    | 4.82   |                | 316  | 272  |                | 8    |          | 97  | 322 |          | 6    |          | 98  | 241 |          | 14   | 0.5  |          |       |      |      |       |
| 27     | 5.48   | 11.00    | 5.46   | 7.0            |      |      | 6.9            |      |          |     |     |          |      |          |     |     |          | 14   | 0.4  | <1       |       |      |      |       |
| 28     | 6.02   | 9.00     | 5.99   | 6.8            | 150  | 232  | 7.0            | 7    |          | 95  | 350 |          | 5    |          | 98  | 250 |          | 14   | 0.4  |          |       |      |      |       |
| 29     | 5.20   | 9.30     | 5.17   | 6.9            |      |      | 6.9            |      |          |     |     |          |      |          |     |     |          | 14   | 0.7  | <1       |       |      |      |       |
| 30     | 5.02   | 9.40     | 5.00   | 6.9            | 257  | 216  | 6.9            | 4    |          | 98  | 167 |          | 4    |          | 98  | 167 |          | 14   | 0.5  | 10       |       |      |      |       |
|        |        |          |        |                |      |      |                | 6    |          |     |     | 279      | 5    |          |     |     | 219      |      |      |          |       |      |      |       |
| Max    | 6.47   | 12.00    | 6.45   | 7.0            | 361  | 644  | 7.1            | 8    | 7        | 98  | 386 | 339      | 8    | 7        | 99  | 396 | 364      | 15   | 0.7  | 11       |       |      |      |       |
| Min    | 4.09   |          | 4.07   | 6.8            | 149  | 150  | 6.8            | 4    |          | 95  | 166 |          | 3    |          | 96  | 111 |          | 12   | 0.3  | <1       |       |      |      |       |
| Avg    | 5.13   |          | 5.12   |                | 246  | 267  |                | 6    |          | 97  | 279 |          | 5    |          | 98  | 241 |          | 13   | 0.44 | 4        |       |      |      |       |
| Sum    | 154.03 |          | 153.55 |                |      |      |                |      |          |     |     |          |      |          |     |     |          |      |      |          |       |      |      |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                |  |                        |  |                                                                                                 |  |                                                                        |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------|--|------------------------|--|-------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------|--|
| 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         |  |                                                                                                 |  |                                                                        |  |
| 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 Daniel Clark                                                                               |  |                                                                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                |  |                        |  | CLASS Oregon T/IV #4260                                                                         |  |                                                                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                |  |                        |  | TITLE Wastewater Treatment Manager                                                              |  |                                                                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                |  |                        |  | SIGNATURE  |  |                                                                        |  |

| PRIMARY TREATMENT   |     |       |                            |     |      | MONTHLY REPORT SUMMARY |                      |                           |                                   |                      |  |
|---------------------|-----|-------|----------------------------|-----|------|------------------------|----------------------|---------------------------|-----------------------------------|----------------------|--|
| Influent            |     |       | Effluent                   |     |      | Rem<br>%               | Primary              |                           |                                   |                      |  |
| mg/l      lbs/day   |     |       | mg/l      lbs/day          |     |      |                        | Feed Sludge          |                           |                                   |                      |  |
| S S                 | 267 | 11818 | SS                         | 89  | 3953 |                        | Flow gal/day         | Total Solids %            | Volatile Content %                |                      |  |
| BOD5                | 246 | 10754 | BOD5                       | 138 | 6062 | 44                     | 12721                | 10.57                     | 85.6                              |                      |  |
| Detent Time hrs     |     |       | Population Equivalent      |     |      | Flow mgd               | Precip "             | Detention Time days       |                                   |                      |  |
| 3.3                 |     |       | 53771                      |     |      |                        |                      | Loading lbs VS / ft3 /day |                                   |                      |  |
|                     |     |       |                            |     |      | 28                     |                      |                           |                                   |                      |  |
| SECONDARY TREATMENT |     |       |                            |     |      |                        |                      |                           |                                   |                      |  |
| Influent            |     |       | Effluent                   |     |      | Rem<br>%               |                      |                           |                                   |                      |  |
| mg/l      lbs/day   |     |       | mg/l      lbs/day          |     |      |                        | Total Solids %       |                           |                                   |                      |  |
| S S                 | 267 | 11818 | SS                         | 5   | 241  |                        | Volatile Content %   |                           |                                   |                      |  |
| BOD5                | 246 | 10754 | BOD5                       | 6   | 279  | 98                     | 2.30                 | 63.9                      |                                   | Vol Sol Reduct %     |  |
| F/M                 |     | SVI   |                            |     |      | 97                     |                      |                           |                                   |                      |  |
| 0.00                |     |       | 0.0                        |     |      | MLSS mg/l              | Total Solids (TWS) % |                           |                                   |                      |  |
| 154                 |     |       | 1466                       |     |      | 5.69                   |                      |                           |                                   | Filtrate Solids mg/l |  |
| RAS Flow mgd        |     |       | CL2 Res mg/l               |     |      | CL2 Feed lbs/day       |                      |                           | Capture %                         |                      |  |
| 0.70                |     |       | 0.4                        |     |      | 69                     |                      |                           |                                   |                      |  |
| WAS Flow mgd        |     |       | Aerator Detention Time hrs |     |      | Aerator DO mg/l        |                      |                           | Sludge Hauled                     |                      |  |
| .000                |     |       | 7.2                        |     |      | 0.0                    |                      |                           | gal/day      lbs /day      lbs/mo |                      |  |
|                     |     |       |                            |     |      |                        |                      |                           | Digst      4903      941          |                      |  |
|                     |     |       |                            |     |      |                        |                      |                           | TWS      11070      5249          |                      |  |
|                     |     |       |                            |     |      |                        |                      |                           | Total      15973      6189        |                      |  |

|          |                          |       |      |      |          |        |             |     |        |
|----------|--------------------------|-------|------|------|----------|--------|-------------|-----|--------|
| Page 1   |                          |       |      |      |          |        |             |     |        |
| Date     | Plant Effluent Nutrients |       |      |      | Flow     |        | Weather     |     |        |
| Apr-09   | Total P                  | NH3-N | NO3+ | TKN  | Portland | Lake   | Temperature |     | Precip |
|          | mg/l                     | mg/l  | mg/l | mg/l | mgd      | Oswego | Max         | Min | "      |
|          |                          |       |      |      |          |        | o F         | o F |        |
| 04/01/09 |                          |       |      |      | 2.33     | 3.94   | 54          | 39  | 0.35   |
| 04/02/09 |                          |       |      |      | 2.39     | 4.09   | 60          | 40  | 0.20   |
| 04/03/09 |                          |       |      |      | 1.41     | 3.72   | 59          | 30  | 0.00   |
| 04/04/09 |                          |       |      |      | 1.83     | 3.60   | 68          | 40  | 0.00   |
| 04/05/09 |                          |       |      |      | 1.98     | 3.80   | 73          | 41  | 0.00   |
| 04/06/09 |                          |       |      |      | 1.72     | 3.37   | 79          | 43  | 0.00   |
| 04/07/09 |                          |       |      |      | 1.69     | 3.30   | 76          | 50  | 0.00   |
| 04/08/09 |                          |       |      |      | 1.64     | 3.23   | 60          | 46  | 0.05   |
| 04/09/09 |                          |       |      |      | 1.70     | 3.32   | 69          | 45  | 0.25   |
| 04/10/09 |                          |       |      |      | 1.58     | 3.21   | 68          | 43  | 0.00   |
| 04/11/09 |                          |       |      |      | 1.67     | 3.31   | 67          | 51  | 0.10   |
| 04/12/09 |                          |       |      |      | 2.15     | 3.79   | 62          | 41  | 0.50   |
| 04/13/09 |                          |       |      |      | 1.97     | 3.69   | 57          | 36  | 0.25   |
| 04/14/09 |                          |       |      |      | 1.77     | 3.40   | 58          | 34  | 0.10   |
| 04/15/09 |                          |       |      |      | 1.66     | 3.20   | 64          | 37  | 0.00   |
| 04/16/09 |                          |       |      |      | 1.78     | 3.34   | 71          | 48  | 0.25   |
| 04/17/09 |                          |       |      |      | 1.67     | 3.18   | 71          | 37  | 0.20   |
| 04/18/09 |                          |       |      |      | 1.73     | 3.31   | 73          | 40  | 0.00   |
| 04/19/09 |                          |       |      |      | 1.82     | 3.38   | 81          | 46  | 0.00   |
| 04/20/09 |                          |       |      |      | 1.60     | 3.14   | 84          | 46  | 0.00   |
| 04/21/09 |                          |       |      |      | 1.55     | 3.08   | 83          | 47  | 0.00   |
| 04/22/09 |                          |       |      |      | 1.52     | 3.04   | 68          | 36  | 0.00   |
| 04/23/09 |                          |       |      |      | 1.49     | 2.96   | 64          | 35  | 0.00   |
| 04/24/09 |                          |       |      |      | 1.37     | 2.71   | 68          | 38  | 0.00   |
| 04/25/09 |                          |       |      |      | 1.47     | 2.90   | 56          | 42  | 0.15   |
| 04/26/09 |                          |       |      |      | 1.66     | 3.16   | 64          | 39  | 0.00   |
| 04/27/09 |                          |       |      |      | 1.89     | 3.59   | 64          | 45  | 0.85   |
| 04/28/09 |                          |       |      |      | 2.01     | 4.00   | 60          | 45  | 0.32   |
| 04/29/09 |                          |       |      |      | 1.73     | 3.46   | 62          | 40  | 0.00   |
| 04/30/09 |                          |       |      |      | 1.65     | 3.37   | 72          | 44  | 0.00   |
| Max      | 0.00                     | 0.00  | 0.00 | 0.00 | 2.39     | 4.09   | 84          | 51  | 0.85   |
| Min      | 0.00                     | 0.00  | 0.00 | 0.00 | 1.37     | 2.71   | 54          | 30  | 0.00   |
| Avg      |                          |       |      |      | 1.75     | 3.39   | 67          | 41  | 0.12   |
| Sum      |                          |       |      |      | 52.4     | 101.6  |             |     | 3.57   |



[illegible]





[illegible]



| Page 8   | NPDES Peak Mass Limits |                    |                 |               |                |                  |            |            |                  |            |            |
|----------|------------------------|--------------------|-----------------|---------------|----------------|------------------|------------|------------|------------------|------------|------------|
| Date     | Total                  |                    |                 | Instantaneous |                | DML=9382 lbs     |            |            | DML=4153 lbs     |            |            |
| Apr-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 |
| 04/01/09 | 2.3                    | 3.9                | 6.3             | 11.0          |                |                  |            |            | 11.0             |            |            |
| 04/02/09 | 2.4                    | 4.1                | 6.5             | 8.2           |                |                  |            |            | 8.2              | 376        | 323        |
| 04/03/09 | 1.4                    | 3.7                | 5.1             | 9.0           |                |                  |            |            | 9.0              |            |            |
| 04/04/09 | 1.8                    | 3.6                | 5.4             | 8.0           |                |                  |            |            | 8.0              |            |            |
| 04/05/09 | 2.0                    | 3.8                | 5.8             | 9.5           |                |                  |            |            | 9.5              | 386        | 386        |
| 04/06/09 | 1.7                    | 3.4                | 5.1             | 10.0          |                |                  |            |            | 10.0             |            |            |
| 04/07/09 | 1.7                    | 3.3                | 5.0             | 10.5          |                |                  |            |            | 10.5             | 166        | 248        |
| 04/08/09 | 1.6                    | 3.2                | 4.9             | 6.5           |                |                  |            |            | 6.5              |            |            |
| 04/09/09 | 1.7                    | 3.3                | 5.0             | 10.0          |                |                  |            |            | 10.0             | 334        | 209        |
| 04/10/09 | 1.6                    | 3.2                | 4.8             | 9.7           |                |                  |            |            | 9.7              |            |            |
| 04/11/09 | 1.7                    | 3.3                | 5.0             | 10.7          |                |                  |            |            | 10.7             |            |            |
| 04/12/09 | 2.2                    | 3.8                | 5.9             | 11.0          |                |                  |            |            | 11.0             | 347        | 396        |
| 04/13/09 | 2.0                    | 3.7                | 5.7             | 11.0          |                |                  |            |            | 11.0             |            |            |
| 04/14/09 | 1.8                    | 3.4                | 5.2             | 9.2           |                |                  |            |            | 9.2              | 214        | 171        |
| 04/15/09 | 1.7                    | 3.2                | 4.9             | 9.0           |                |                  |            |            | 9.0              |            |            |
| 04/16/09 | 1.8                    | 3.3                | 5.1             | 12.0          |                |                  |            |            | 12.0             | 297        | 212        |
| 04/17/09 | 1.7                    | 3.2                | 4.9             | 12.0          |                |                  |            |            | 12.0             |            |            |
| 04/18/09 | 1.7                    | 3.3                | 5.0             | 10.5          |                |                  |            |            | 10.5             |            |            |
| 04/19/09 | 1.8                    | 3.4                | 5.2             | 9.5           |                |                  |            |            | 9.5              | 260        | 260        |
| 04/20/09 | 1.6                    | 3.1                | 4.7             | 9.0           |                |                  |            |            | 9.0              |            |            |
| 04/21/09 | 1.5                    | 3.1                | 4.6             | 8.0           |                |                  |            |            | 8.0              | 192        | 154        |
| 04/22/09 | 1.5                    | 3.0                | 4.6             | 8.0           |                |                  |            |            | 8.0              |            |            |
| 04/23/09 | 1.5                    | 3.0                | 4.5             | 9.0           |                |                  |            |            | 9.0              | 222        | 111        |
| 04/24/09 | 1.4                    | 2.7                | 4.1             | 8.7           |                |                  |            |            | 8.7              |            |            |
| 04/25/09 | 1.5                    | 2.9                | 4.4             | 10.5          |                |                  |            |            | 10.5             |            |            |
| 04/26/09 | 1.7                    | 3.2                | 4.8             | 10.8          |                |                  |            |            | 10.8             | 322        | 241        |
| 04/27/09 | 1.9                    | 3.6                | 5.5             | 11.0          |                |                  |            |            | 11.0             |            |            |
| 04/28/09 | 2.0                    | 4.0                | 6.0             | 9.0           |                |                  |            |            | 9.0              | 350        | 250        |
| 04/29/09 | 1.7                    | 3.5                | 5.2             | 9.3           |                |                  |            |            | 9.3              |            |            |
| 04/30/09 | 1.7                    | 3.4                | 5.0             | 9.4           |                |                  |            |            | 9.4              | 167        | 167        |
| Max      | 2.4                    | 4.1                | 6.5             | 12.0          |                | N/A              | N/A        | N/A        | 12.0             | 386        | 396        |
| Min      | 1.4                    | 2.7                | 4.1             |               |                |                  |            |            |                  |            |            |
| Avg      | 1.7                    | 3.4                | 5.1             |               |                |                  |            |            |                  |            |            |
| Sum      | 52                     | 102                | 154             |               |                | 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: 5/11/2009  
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 |      |
| 4/1/2009  | 2.33     | 3.94        | 54          | 39      | 0.35 |
| 4/2/2009  | 2.39     | 4.09        | 60          | 40      | 0.20 |
| 4/3/2009  | 1.41     | 3.72        | 59          | 30      | 0.00 |
| 4/4/2009  | 1.83     | 3.60        | 68          | 40      | 0.00 |
| 4/5/2009  | 1.98     | 3.80        | 73          | 41      | 0.00 |
| 4/6/2009  | 1.72     | 3.37        | 79          | 43      | 0.00 |
| 4/7/2009  | 1.69     | 3.30        | 76          | 50      | 0.00 |
| 4/8/2009  | 1.64     | 3.23        | 60          | 46      | 0.05 |
| 4/9/2009  | 1.70     | 3.32        | 69          | 45      | 0.25 |
| 4/10/2009 | 1.58     | 3.21        | 68          | 43      | 0.00 |
| 4/11/2009 | 1.67     | 3.31        | 67          | 51      | 0.10 |
| 4/12/2009 | 2.15     | 3.79        | 62          | 41      | 0.50 |
| 4/13/2009 | 1.97     | 3.69        | 57          | 36      | 0.25 |
| 4/14/2009 | 1.77     | 3.40        | 58          | 34      | 0.10 |
| 4/15/2009 | 1.66     | 3.20        | 64          | 37      | 0.00 |
| 4/16/2009 | 1.78     | 3.34        | 71          | 48      | 0.25 |
| 4/17/2009 | 1.67     | 3.18        | 71          | 37      | 0.20 |
| 4/18/2009 | 1.73     | 3.31        | 73          | 40      | 0.00 |
| 4/19/2009 | 1.82     | 3.38        | 81          | 46      | 0.00 |
| 4/20/2009 | 1.60     | 3.14        | 84          | 46      | 0.00 |
| 4/21/2009 | 1.55     | 3.08        | 83          | 47      | 0.00 |
| 4/22/2009 | 1.52     | 3.04        | 68          | 36      | 0.00 |
| 4/23/2009 | 1.49     | 2.96        | 64          | 35      | 0.00 |
| 4/24/2009 | 1.37     | 2.71        | 68          | 38      | 0.00 |
| 4/25/2009 | 1.47     | 2.90        | 56          | 42      | 0.15 |
| 4/26/2009 | 1.66     | 3.16        | 64          | 39      | 0.00 |
| 4/27/2009 | 1.89     | 3.59        | 64          | 45      | 0.85 |
| 4/28/2009 | 2.01     | 4.00        | 60          | 45      | 0.32 |
| 4/29/2009 | 1.73     | 3.46        | 62          | 40      | 0.00 |
| 4/30/2009 | 1.65     | 3.37        | 72          | 44      | 0.00 |
|           |          |             |             |         |      |
| Max       | 2.39     | 4.09        | 84          | 51      | 0.85 |
| Min       | 1.37     | 2.71        | 54          | 30      | 0.00 |
| Avg       | 1.75     | 3.39        | 67          | 41      | 0.12 |
| SUM       | 52.43    | 101.60      |             |         | 3.57 |