

**Appendix C**  
**Metro Headworks Bypass Summary**

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## 2016 Summary of Metro Headworks Bypass Events

| Year              | Total Rainfall (Inches) <sup>1</sup> | Number of Events <sup>2</sup> | Number During Disinfection Season | Number Due to Reduced Capacity | Event Duration (Hours) |      |       | Event Volume (MG) |        |        | Total Bypass Volume (MG) |
|-------------------|--------------------------------------|-------------------------------|-----------------------------------|--------------------------------|------------------------|------|-------|-------------------|--------|--------|--------------------------|
|                   |                                      |                               |                                   |                                | Ave                    | Min  | Max   | Ave               | Min    | Max    |                          |
| 2005              | 34.4                                 | 2                             | 0                                 | 1                              | 5.13                   | 1.87 | 8.4   | 21.48             | 2.22   | 40.74  | 42.96                    |
| 2006              | 42.7                                 | 2                             | 2                                 | 2                              | 4.18                   | 1.75 | 6.62  | 57.52             | 12.54  | 102.49 | 115.03                   |
| 2007              | 36.2                                 | 6                             | 1                                 | 5                              | 7.54                   | 0.07 | 23.98 | 4.06              | 0.19   | 17.73  | 24.37                    |
| 2008              | 35.5                                 | 2                             | 1                                 | 2                              | 1.48                   | 1.02 | 1.93  | 2.62              | 0.12   | 5.13   | 5.25                     |
| 2009              | 33.9                                 | 5                             | 2                                 | 0                              | 4.81                   | 1.05 | 11.38 | 10.64             | 0.16   | 36.04  | 53.19                    |
| 2010              | 38.6                                 | 4                             | 4                                 | 4                              | 5.58                   | 3.12 | 7.98  | 10.73             | 6.01   | 20.19  | 42.91                    |
| 2011              | 46.4                                 | 2                             | 2                                 | 1                              | 12.11                  | 1.52 | 22.7  | 2.69              | 0.14   | 5.24   | 5.38                     |
| 2012              | 31.7                                 | 0                             | 0                                 | 0                              | 0                      | 0    | 0     | 0                 | 0      | 0      | 0                        |
| 2013 <sup>3</sup> | 41.8                                 | 11                            | 10                                | 11                             | 2.56                   | 0.03 | 8.52  | 6.49              | <0.001 | 29.63  | 71.37                    |
| 2014 <sup>3</sup> | 39.8                                 | 15                            | 12                                | 15                             | 2.66                   | 0.07 | 21.0  | 2.20              | <0.001 | 25.65  | 33.04                    |
| 2015              | 40.3                                 | 1                             | 1                                 | 0                              | 1.6                    | 1.6  | 1.6   | 0.65              | 0.65   | 0.65   | 0.65                     |
| 2016 <sup>4</sup> | 39.64                                | 23                            | 14                                | 23                             | 2.85                   | 0.28 | 10.27 | 4.04              | 0.04   | 22.17  | 93.00                    |

<sup>1</sup>Rainfall data is from the Metro rain gauge.

<sup>2</sup>The March 21, 2012 permit renewal revised the definition of a bypass event from "A bypass event starts at the moment wastewater overflows the bypass tank and continues until 24 hours from that time" to "the moment wastewater overflows the bypass tank and continues until the overflow from the bypass tank stops".

<sup>3</sup>2013 and 2014 dates coincide with reduced capacity due to the Metro Grit Improvement Project. The project was substantially complete by the scheduled completion date of October 15, 2015.

<sup>4</sup>Plant capacity was reduced during 2016 due to the Secondary Bypass Tank construction project, which began in March 2016 and is scheduled for completion by April 1, 2017.