

# Commercial, Industrial, and Institutional Water Conservation Analysis for the Central Florida Water Initiative

---

Miguel A. Morales and James P. Heaney  
Dept. of Environmental Engineering Sciences  
University of Florida  
Gainesville, FL  
Draft  
5/15/12  
Updated 2/18/16

## Table of Contents

|   |                                     |
|---|-------------------------------------|
| Introduction .....  | 1                                   |
| Methodology.....  | 2                                   |
| Physical Water Conservation Potential.....                                | 4                                   |
| Cost-Effective Water Conservation Potential (with “Best” options) .....   | 6                                   |
| Cost-Effective Water Conservation Potential (without “Best” options)..... | 29                                  |
| Appendix .....  | <b>Error! Bookmark not defined.</b> |
| 3.0 BMPs in the Commercial, Industrial, and Institutional Sectors .....   | <b>Error! Bookmark not defined.</b> |
| 3.1 Introduction .....  | <b>Error! Bookmark not defined.</b> |
| 3.2 Data Driven Approach.....   | <b>Error! Bookmark not defined.</b> |
| 3.3 Select Water End Uses .....   | <b>Error! Bookmark not defined.</b> |
| 3.3.1 Fixture Count.....  | <b>Error! Bookmark not defined.</b> |
| 3.3.2 Frequency of use.....   | <b>Error! Bookmark not defined.</b> |
| 3.3.3 Fixture water use efficiency .....                                  | <b>Error! Bookmark not defined.</b> |
| 3.4 CII BMP Evaluations .....   | <b>Error! Bookmark not defined.</b> |
| 3.5 Summary and Conclusions .....   | <b>Error! Bookmark not defined.</b> |
| References to CII report and Chapter 3 .....                              | 51                                  |

## List of Tables

|   |                                     |
|---|-------------------------------------|
| Table 1. CII BMP summary for physical water conservation potential for the CFWI solely considering “Best” options.....  | 5                                   |
| Table 2. CII BMP summary at \$1/kgal cost-effective threshold for the CFWI with “Best” options included. ....   | 7                                   |
| Table 3. CII BMP summary at \$2/kgal cost-effective threshold for the CFWI with “Best” options included. ....   | 8                                   |
| Table 4. CII BMP summary at \$3/kgal cost-effective threshold for the CFWI with “Best” options included. ....   | 9                                   |
| Table 5. CII BMP summary at \$4/kgal cost-effective threshold for the CFWI with “Best” options included. ....   | 10                                  |
| Table 6. CII BMP summary at \$5/kgal cost-effective threshold for the CFWI with “Best” options included. ....   | 11                                  |
| Table 7. CII water conservation BMP details for the CFWI with “Best” options included.....  | 12                                  |
| Table 8. CII BMP summary at \$1/kgal cost-effective threshold for the CFWI with “Best” options excluded. ....   | 30                                  |
| Table 9. CII BMP summary at \$2/kgal cost-effective threshold for the CFWI with “Best” options excluded. ....   | 31                                  |
| Table 10. CII BMP summary at \$3/kgal cost-effective threshold for the CFWI with “Best” options excluded.....   | 32                                  |
| Table 11. CII BMP summary at \$4/kgal cost-effective threshold for the CFWI with “Best” options excluded.....   | 33                                  |
| Table 12. CII BMP summary at \$5/kgal cost-effective threshold for the CFWI with “Best” options excluded.....   | 34                                  |
| Table 13. CII water conservation BMP details for the CFWI with “Best” options excluded. ....  | 35                                  |
| Table 3.1. Number of restroom fixture and functional population coefficients normalized using heated area for the top 10 commercial and 3 institutional sectors in Florida (Florida Building Commission 2007, Nicholas 2010, Tindale-Oliver 2007, Duncan 2007)..... | <b>Error! Bookmark not defined.</b> |

Table 3.2. Calibrated number of restroom fixture and functional population coefficients normalized using heated area for the top 10 commercial and 3 institutional sectors in Florida. .... **Error! Bookmark not defined.**

Table 3.3. Single-use and mixed-use frequency of fixture use coefficients per 24-hour period (adapted from Mayer et al. 1999, EPA 2011). .... **Error! Bookmark not defined.**

Table 3.4. Fixture water use efficiency coefficients per age group (adapted from NCDENR 2009)..... **Error! Bookmark not defined.**

Table 3.5. Best management practice fixture water use efficiency coefficients per retrofit efficiency group..... **Error! Bookmark not defined.**

Table 3.6. Best management practice fixture initial capital cost per retrofit efficiency group. .... **Error! Bookmark not defined.**

Table 3.7. Count of toilets, urinals, faucets, showerheads, and pre-rinse spray valves in Gainesville Regional Utilities and Hillsborough County Water Resources Services, their associated water use, and percentage of total water use for the top 10 commercial and 3 institutional sectors. .... **Error! Bookmark not defined.**

Table 3.8. Best management practices for select fixtures in the 28 commercial, 11 industrial, and 16 institutional sectors of water use. .... **Error! Bookmark not defined.**

## List of Figures

Figure 1. The Central Florida Coordination Area (CFCA) shown in pink. .... 1

Figure 2. Comparison of marginal cost curves for different model runs in the analysis of CII water conservation in CFWI..... 3

Figure 3. Physical conservation potential production function showing water saved as a function of total fixtures retrofitted and CII parcels audited..... 4

Figure 4. Marginal cost curve of water conservation BMPs in the CII sectors of the CFWI with “Best” options included..... 6

Figure 5. Marginal cost curve of water conservation BMPs in the CII sectors of the CFWI with “Best” options excluded. .... 29

## Introduction

The Central Florida Water Initiative (CFWI) contacted the University of Florida (UF) to conduct an analysis of the potential and the cost-effective options for water conservation in their commercial, industrial, and institutional (CII) water use sectors. The CFWI was organized in an effort to increase collaboration in the Central Florida Coordination Area (CFCA) between Florida's three largest water management districts: South Florida, Southwest Florida, and Saint Johns River Water Management Districts. The CFCA is comprised of all of Osceola, Orange, Polk, Seminole, and the southern portion of Lake County. The area of analysis for this report is the CFCA, and includes all parcels within the pink area shown in Figure 1.

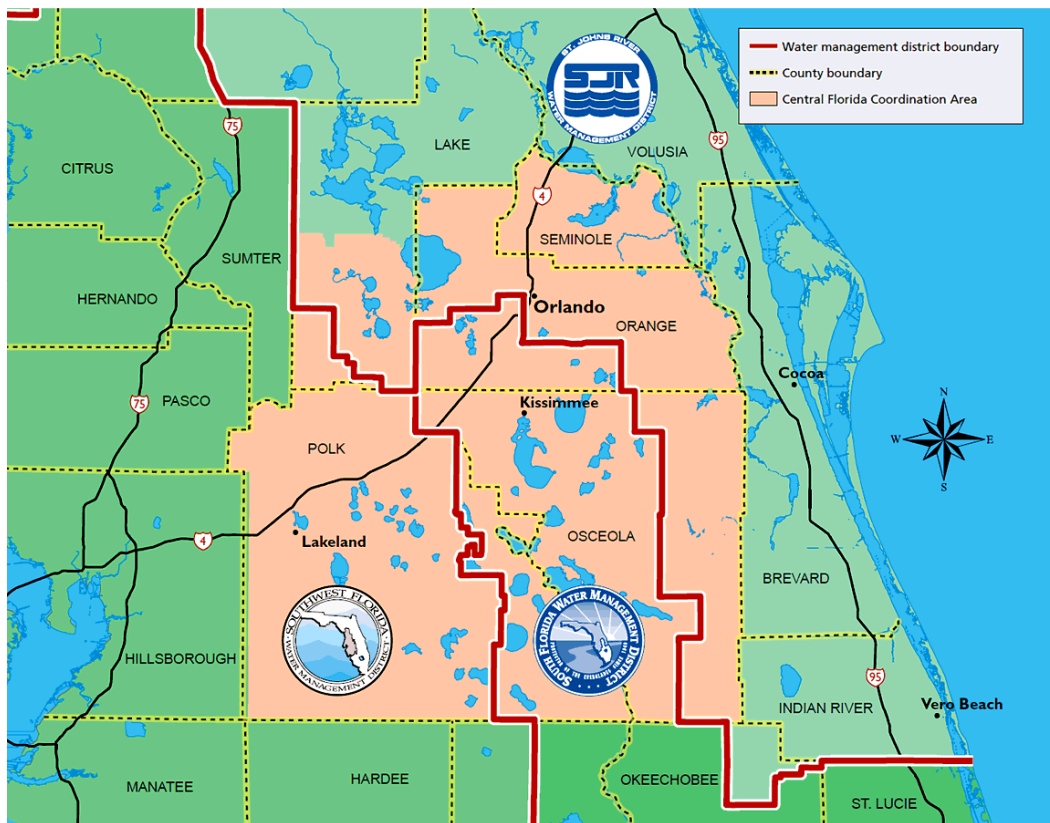


Figure 1. The Central Florida Coordination Area (CFCA) shown in pink.

## Methodology

The parcel-level methodology used for the CFWI CII water conservation analysis is described in detail in Heaney et al. (2012). All calculations, default values, assumptions, and references are provided there. The year of analysis was taken to be 2012. CFWI requested the inclusion of scenarios that excluded the “Best” retrofit options. The “Best” fixture retrofit options are: 0.8 gallons per flush (gpf) toilets, waterless urinals, 1.5 gallons per minute (gpm) showerheads, and 1 gpm restaurant pre-rinse spray valves.

Another point of emphasis by the CFWI was the need for a cost-effective water conservation potential. Since cost-effectiveness is dependent on a service area’s particular water supply, financial, and political circumstances, the water conservation best management practice analysis was run at a variety of dollars for kilo-gallons saved (\$/kgal) levels.

The next three sections outline the three model conditions analyzed. First, model runs were conducted to determine the physical water conservation potential, regardless of cost. Though this is often an unattainable amount of water conservation, given financial and penetration constraints, it does however provide an upper bound of possible water savings for water conservation in the CII sectors of the CFWI. The second model run does factor cost into account, providing a cost-effective water conservation potential, using all of the default values including the “Best” fixture retrofit options (Heaney et al. 2012). The final model run, per CFWI’s request, provides a cost-effective water conservation potential for CII while not considering any of the “Best” fixture retrofit options. The marginal cost curves of the various model runs are compared in Figure 2, showing that by omitting the “Best” options, the cost-effective conservation potential is greatly reduced.

The production function for the physical potential is shown in Figure 3. The physical potential only includes the “Best” options and does not factor in cost. From Table 1, it appears that the CII water conservation potential for the CFWI is about 18 MGD or a 24% savings on water. The physical potential would entail an unrealistic replacement of over 800,000 fixtures, but provides a good baseline by which to measure the effects of cost-effective water conservation.

The cost-effective marginal cost curve for the CFWI CII sectors including the “Best” options is presented in Figure 4, which shows a rapid marginal cost increase for BMP options larger than the \$3/kgal cost-effectiveness. CII BMP summaries with cost-effectiveness thresholds from \$1 to \$5/kgal are presented in Tables 2-6. The cost-effective water conservation potential is shown to be 11.1 MGD (15% CII water use savings) at a threshold of \$3/kgal, where 530,000 fixtures are retrofitted at a total cost (full materials and installation cost) of \$105M (Table 4). A detailed

summary of all the CII options, ranked by cost-effectiveness, for this model run is presented in Table 7.

The cost-effective marginal cost curve without considering the “Best” options for the CII sectors in CFWI is shown in Figure 5. It is clear that the cost-effective conservation potential is greatly reduced by not including the “Best” BMP options. The effect is more severe for lower threshold, e.g., at \$1/kgal cost-effective water conservation potential is reduced by 66%; at \$5/kgal it is reduced by 37%, as shown by Tables 8-12 which provide the CII BMP summaries. The detailed summary of all the CII options, ranked by cost-effectiveness, for this model run is presented in Table 13.

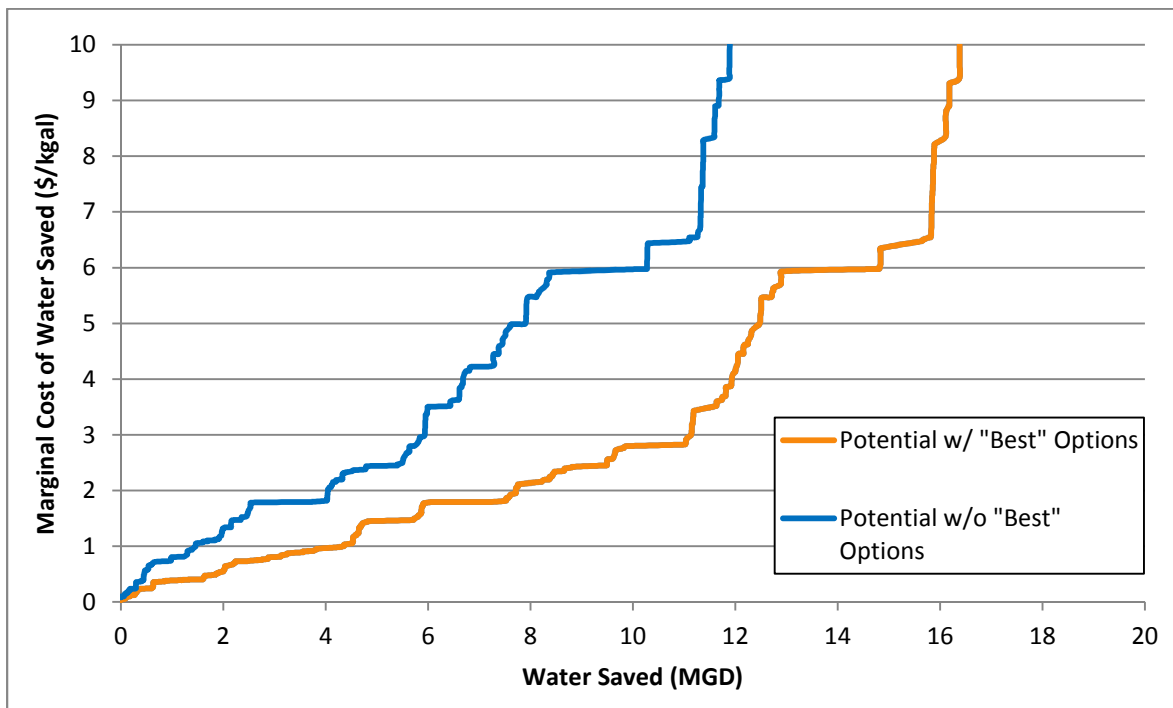


Figure 2. Comparison of marginal cost curves for different model runs in the analysis of CII water conservation in CFWI.

# Physical Water Conservation Potential

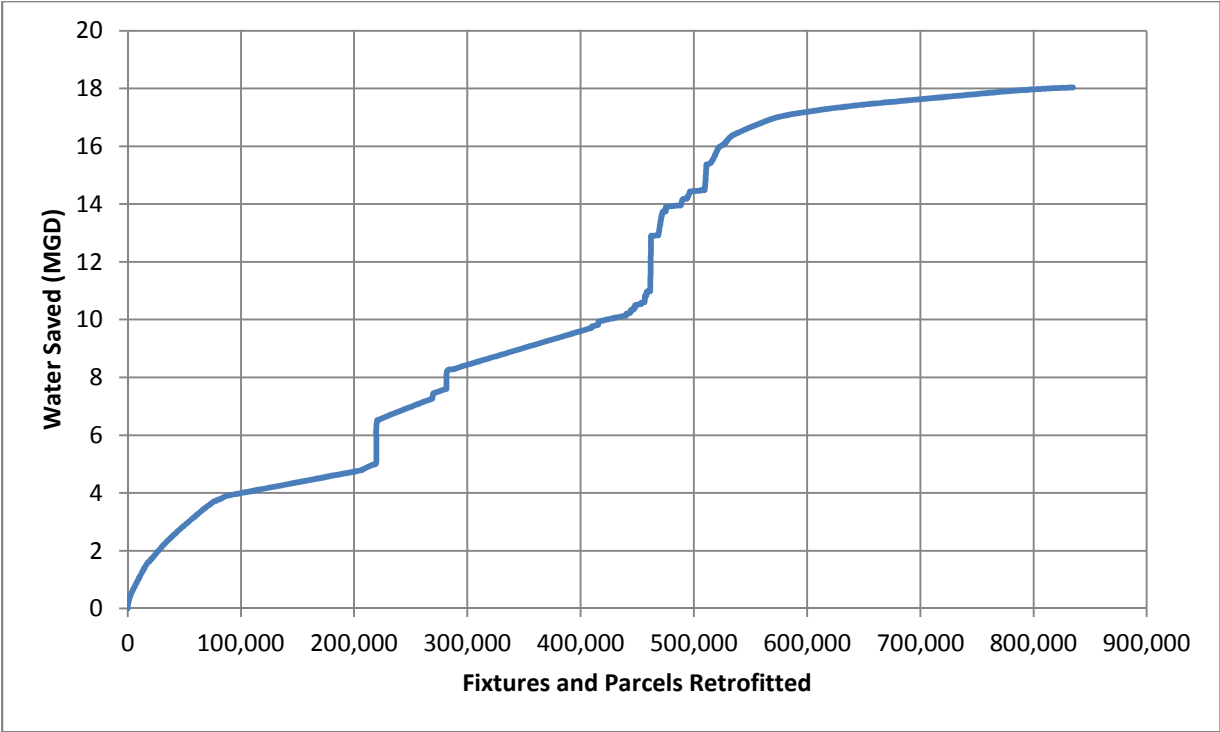


Figure 3. Physical conservation potential production function showing water saved as a function of total fixtures retrofitted and CII parcels audited.



Table 1. CII BMP summary for physical water conservation potential for the CFWI solely considering “Best” options.

|   | Commercial     | Industrial    | Institutional  | Total          |
|---|----------------|---------------|----------------|----------------|
| Estimated Water Use (MGD)                                 | 59             | 5             | 10             | 74             |
| Number of Parcels   | 20,205         | 6,363         | 3,469          | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )             | 294,518,963    | 174,078,316   | 83,732,522     | 552,329,801    |
| <b>Physical Water Conservation Potential (PWCP) (MGD)</b> | <b>14.7</b>    | <b>1.2</b>    | <b>2.2</b>     | <b>18.0</b>    |
| Single-Use Toilets PWCP (MGD)                             | 0.46           | 0.05          | 0.08           | 0.58           |
| Mixed-Use Toilets PWCP (MGD)                              | 3.71           | 0.28          | 0.34           | 4.33           |
| Urinals PWCP (MGD)  | 1.62           | 0.17          | 0.28           | 2.08           |
| Faucets PWCP (MGD)  | 1.62           | 0.14          | 0.19           | 1.95           |
| Showerheads PWCP (MGD)                                    | 0.89           | 0.00          | 0.07           | 0.96           |
| Pre-Rinse Spray Valves PWCP (MGD)                         | 0.06           | 0.00          | 0.00           | 0.06           |
| Site-Specific Water Audits PWCP (MGD)                     | 6.31           | 0.53          | 1.25           | 8.08           |
| <b>Cost to Achieve PWCP (Million \$)</b>                  | <b>\$179</b>   | <b>\$57</b>   | <b>\$48</b>    | <b>\$285</b>   |
| Single-Use Toilets PWCP, 25 year service life             | \$9.4          | \$1.7         | \$3.6          | \$15           |
| Mixed-Use Toilets PWCP, 25 year service life              | \$62.6         | \$5.4         | \$12.7         | \$81           |
| Urinals PWCP, 25 year service life                        | \$8.3          | \$1.3         | \$4.9          | \$15           |
| Faucets PWCP, 15 year service life                        | \$15.3         | \$2.0         | \$4.2          | \$21           |
| Showerheads PWCP, 8 year service life                     | \$3.8          | \$0.0         | \$0.2          | \$4            |
| Pre-Rinse Spray Valves PWCP, 5 year service life          | \$0.1          | \$0.0         | \$0.0          | \$0            |
| Site-Specific Water Audits PWCP, 5 year service life      | \$79.5         | \$47.0        | \$22.6         | \$149          |
| <b>Number of Units Retrofitted</b>                        | <b>629,911</b> | <b>63,165</b> | <b>140,862</b> | <b>833,938</b> |
| Single-Use Toilets PWCP (fixtures)                        | 31,338         | 5,511         | 12,039         | 48,888         |
| Mixed-Use Toilets PWCP (fixtures)                         | 208,823        | 18,115        | 42,253         | 269,191        |
| Urinals Toilets PWCP (fixtures)                           | 30,315         | 4,775         | 17,964         | 53,054         |
| Faucets Toilets PWCP (fixtures)                           | 218,620        | 28,401        | 59,509         | 306,530        |
| Showerheads PWCP (fixtures)                               | 119,543        | 0             | 5,628          | 125,171        |
| Pre-Rinse Spray Valves PWCP (fixtures)                    | 1,067          | 0             | 0              | 1,067          |
| Site-Specific Water Audits PWCP (parcels)                 | 20,205         | 6,363         | 3,469          | 30,037         |

## Cost-Effective Water Conservation Potential (with “Best” options)

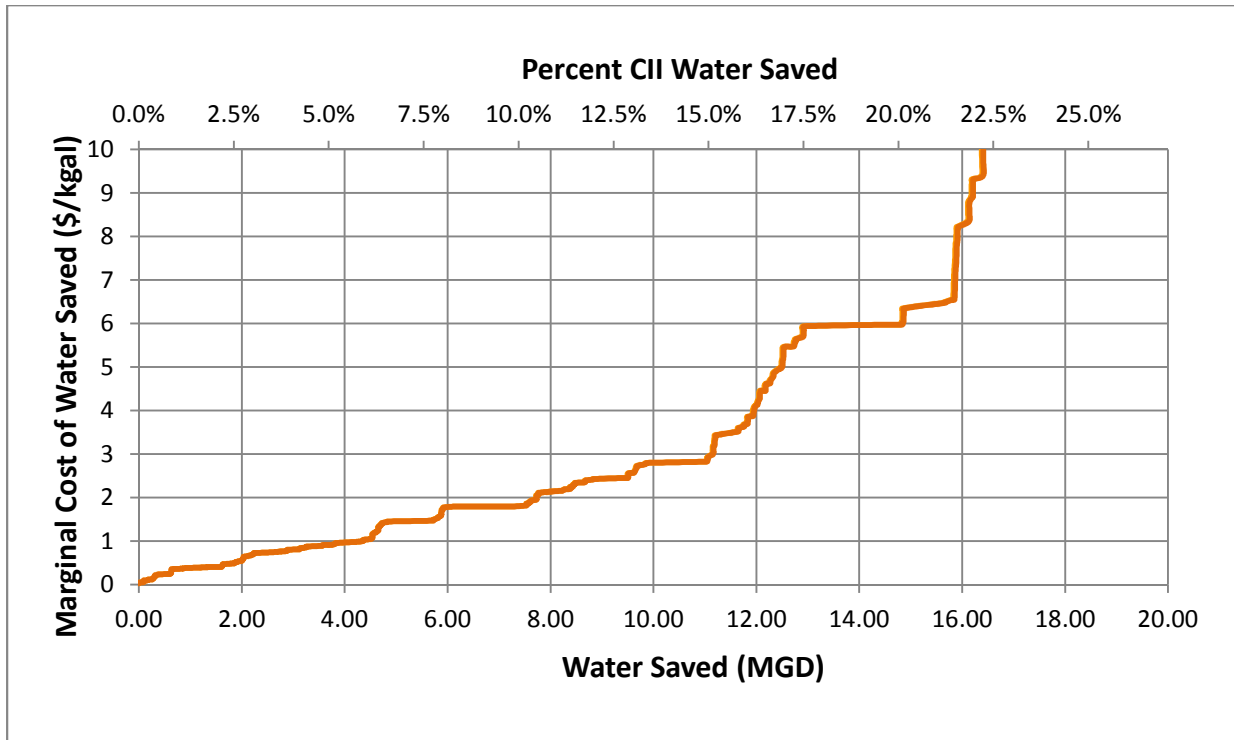


Figure 4. Marginal cost curve of water conservation BMPs in the CII sectors of the CFWI with “Best” options included.

Table 2. CII BMP summary at \$1/kgal cost-effective threshold for the CFWI with “Best” options included.

|   | <b>Commercial</b> | <b>Industrial</b> | <b>Institutional</b> | <b>Total</b>   |
|---|-------------------|-------------------|----------------------|----------------|
| Estimated Water Use (MGD)   | 59                | 5                 | 10                   | 74             |
| Number of Parcels   | 20,205            | 6,363             | 3,469                | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963       | 174,078,316       | 83,732,522           | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 1) Water Conservation Potential (CEWCP) (MGD)</b> | <b>3.8</b>        | <b>0.2</b>        | <b>0.3</b>           | <b>4.4</b>     |
| Single-Use Toilets CEWCP (MGD)  | 0.09              | 0.00              | 0.02                 | 0.11           |
| Mixed-Use Toilets CEWCP (MGD)   | 1.48              | 0.04              | 0.07                 | 1.58           |
| Urinals CEWCP (MGD)   | 1.41              | 0.17              | 0.10                 | 1.68           |
| Faucets CEWCP (MGD)   | 0.82              | 0.01              | 0.05                 | 0.88           |
| Showerheads CEWCP (MGD)   | 0.00              | 0.00              | 0.04                 | 0.04           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.06              | 0.00              | 0.00                 | 0.06           |
| Site-Specific Water Audits CEWCP (MGD)  | 0.00              | 0.00              | 0.00                 | 0.00           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$19</b>       | <b>\$1</b>        | <b>\$2</b>           | <b>\$22</b>    |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$0.4             | \$0.0             | \$0.2                | \$1            |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$9.9             | \$0.2             | \$0.5                | \$11           |
| Urinals CEWCP, 25 year service life   | \$5.8             | \$1.2             | \$0.6                | \$8            |
| Faucets CEWCP, 15 year service life   | \$2.7             | \$0.0             | \$0.2                | \$3            |
| Showerheads CEWCP, 8 year service life  | \$0.0             | \$0.0             | \$0.1                | \$0            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1             | \$0.0             | \$0.0                | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$0.0             | \$0.0             | \$0.0                | \$0            |
| <b>Number of Units Retrofitted</b>  | <b>94,781</b>     | <b>5,803</b>      | <b>9,772</b>         | <b>110,356</b> |
| Single-Use Toilets CEWCP (fixtures)   | 1,481             | 114               | 548                  | 2,143          |
| Mixed-Use Toilets CEWCP (fixtures)  | 33,019            | 558               | 1,658                | 35,235         |
| Urinals Toilets CEWCP (fixtures)  | 21,041            | 4,534             | 2,150                | 27,725         |
| Faucets Toilets CEWCP (fixtures)  | 38,173            | 597               | 3,298                | 42,068         |
| Showerheads CEWCP (fixtures)  | 0                 | 0                 | 2,118                | 2,118          |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067             | 0                 | 0                    | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 0                 | 0                 | 0                    | 0              |

Table 3. CII BMP summary at \$2/kgal cost-effective threshold for the CFWI with “Best” options included.

|   | <b>Commercial</b> | <b>Industrial</b> | <b>Institutional</b> | <b>Total</b>   |
|---|-------------------|-------------------|----------------------|----------------|
| Estimated Water Use (MGD)   | 59                | 5                 | 10                   | 74             |
| Number of Parcels   | 20,205            | 6,363             | 3,469                | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963       | 174,078,316       | 83,732,522           | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 2) Water Conservation Potential (CEWCP) (MGD)</b> | <b>7.1</b>        | <b>0.3</b>        | <b>0.4</b>           | <b>7.7</b>     |
| Single-Use Toilets CEWCP (MGD)  | 0.33              | 0.01              | 0.02                 | 0.36           |
| Mixed-Use Toilets CEWCP (MGD)   | 1.77              | 0.09              | 0.11                 | 1.97           |
| Urinals CEWCP (MGD)   | 1.61              | 0.17              | 0.11                 | 1.89           |
| Faucets CEWCP (MGD)   | 0.95              | 0.02              | 0.05                 | 1.02           |
| Showerheads CEWCP (MGD)   | 0.89              | 0.00              | 0.07                 | 0.96           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.06              | 0.00              | 0.00                 | 0.06           |
| Site-Specific Water Audits CEWCP (MGD)  | 1.47              | 0.00              | 0.00                 | 1.47           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$39</b>       | <b>\$2</b>        | <b>\$2</b>           | <b>\$43</b>    |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$3.9             | \$0.0             | \$0.2                | \$4            |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$14.3            | \$1.1             | \$1.0                | \$16           |
| Urinals CEWCP, 25 year service life   | \$8.0             | \$1.3             | \$0.6                | \$10           |
| Faucets CEWCP, 15 year service life   | \$3.7             | \$0.1             | \$0.3                | \$4            |
| Showerheads CEWCP, 8 year service life  | \$3.8             | \$0.0             | \$0.2                | \$4            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1             | \$0.0             | \$0.0                | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$4.8             | \$0.0             | \$0.0                | \$5            |
| <b>Number of Units Retrofitted</b>  | <b>263,706</b>    | <b>9,453</b>      | <b>15,590</b>        | <b>288,749</b> |
| Single-Use Toilets CEWCP (fixtures)   | 12,955            | 160               | 674                  | 13,789         |
| Mixed-Use Toilets CEWCP (fixtures)  | 47,676            | 3,641             | 3,282                | 54,599         |
| Urinals Toilets CEWCP (fixtures)  | 29,213            | 4,557             | 2,328                | 36,098         |
| Faucets Toilets CEWCP (fixtures)  | 52,448            | 1,095             | 3,678                | 57,221         |
| Showerheads CEWCP (fixtures)  | 119,543           | 0                 | 5,628                | 125,171        |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067             | 0                 | 0                    | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 804               | 0                 | 0                    | 804            |

Table 4. CII BMP summary at \$3/kgal cost-effective threshold for the CFWI with “Best” options included.

|   | <b>Commercial</b> | <b>Industrial</b> | <b>Institutional</b> | <b>Total</b>   |
|---|-------------------|-------------------|----------------------|----------------|
| Estimated Water Use (MGD)   | 59                | 5                 | 10                   | 74             |
| Number of Parcels   | 20,205            | 6,363             | 3,469                | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963       | 174,078,316       | 83,732,522           | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 3) Water Conservation Potential (CEWCP) (MGD)</b> | <b>10.0</b>       | <b>0.6</b>        | <b>0.5</b>           | <b>11.1</b>    |
| Single-Use Toilets CEWCP (MGD)  | 0.35              | 0.01              | 0.03                 | 0.38           |
| Mixed-Use Toilets CEWCP (MGD)   | 3.60              | 0.28              | 0.14                 | 4.02           |
| Urinals CEWCP (MGD)   | 1.62              | 0.17              | 0.24                 | 2.04           |
| Faucets CEWCP (MGD)   | 1.16              | 0.14              | 0.07                 | 1.37           |
| Showerheads CEWCP (MGD)   | 0.89              | 0.00              | 0.07                 | 0.96           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.06              | 0.00              | 0.00                 | 0.06           |
| Site-Specific Water Audits CEWCP (MGD)  | 2.31              | 0.00              | 0.00                 | 2.31           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$90</b>       | <b>\$8</b>        | <b>\$7</b>           | <b>\$105</b>   |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$4.3             | \$0.1             | \$0.3                | \$5            |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$58.3            | \$5.1             | \$1.7                | \$65           |
| Urinals CEWCP, 25 year service life   | \$8.3             | \$1.3             | \$3.8                | \$13           |
| Faucets CEWCP, 15 year service life   | \$6.4             | \$1.9             | \$0.5                | \$9            |
| Showerheads CEWCP, 8 year service life  | \$3.8             | \$0.0             | \$0.2                | \$4            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1             | \$0.0             | \$0.0                | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$8.6             | \$0.0             | \$0.0                | \$9            |
| <b>Number of Units Retrofitted</b>  | <b>453,243</b>    | <b>48,735</b>     | <b>33,817</b>        | <b>535,795</b> |
| Single-Use Toilets CEWCP (fixtures)   | 14,401            | 218               | 1,087                | 15,706         |
| Mixed-Use Toilets CEWCP (fixtures)  | 194,429           | 17,010            | 5,711                | 217,150        |
| Urinals Toilets CEWCP (fixtures)  | 30,300            | 4,731             | 13,739               | 48,770         |
| Faucets Toilets CEWCP (fixtures)  | 91,463            | 26,776            | 7,652                | 125,891        |
| Showerheads CEWCP (fixtures)  | 119,543           | 0                 | 5,628                | 125,171        |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067             | 0                 | 0                    | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 2,040             | 0                 | 0                    | 2,040          |

Table 5. CII BMP summary at \$4/kgal cost-effective threshold for the CFWI with “Best” options included.

|   | <b>Commercial</b> | <b>Industrial</b> | <b>Institutional</b> | <b>Total</b>   |
|---|-------------------|-------------------|----------------------|----------------|
| Estimated Water Use (MGD)   | 59                | 5                 | 10                   | 74             |
| Number of Parcels   | 20,205            | 6,363             | 3,469                | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963       | 174,078,316       | 83,732,522           | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 4) Water Conservation Potential (CEWCP) (MGD)</b> | <b>10.6</b>       | <b>0.6</b>        | <b>0.8</b>           | <b>11.9</b>    |
| Single-Use Toilets CEWCP (MGD)  | 0.39              | 0.01              | 0.03                 | 0.44           |
| Mixed-Use Toilets CEWCP (MGD)   | 3.67              | 0.28              | 0.21                 | 4.16           |
| Urinals CEWCP (MGD)   | 1.62              | 0.17              | 0.28                 | 2.08           |
| Faucets CEWCP (MGD)   | 1.60              | 0.14              | 0.08                 | 1.81           |
| Showerheads CEWCP (MGD)   | 0.89              | 0.00              | 0.07                 | 0.96           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.06              | 0.00              | 0.00                 | 0.06           |
| Site-Specific Water Audits CEWCP (MGD)  | 2.33              | 0.00              | 0.10                 | 2.43           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$102</b>      | <b>\$9</b>        | <b>\$11</b>          | <b>\$122</b>   |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$5.7             | \$0.3             | \$0.6                | \$7            |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$60.6            | \$5.1             | \$4.2                | \$70           |
| Urinals CEWCP, 25 year service life   | \$8.3             | \$1.3             | \$4.9                | \$15           |
| Faucets CEWCP, 15 year service life   | \$14.8            | \$1.9             | \$0.6                | \$17           |
| Showerheads CEWCP, 8 year service life  | \$3.8             | \$0.0             | \$0.2                | \$4            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1             | \$0.0             | \$0.0                | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$8.7             | \$0.0             | \$0.6                | \$9            |
| <b>Number of Units Retrofitted</b>  | <b>585,051</b>    | <b>49,631</b>     | <b>48,700</b>        | <b>683,382</b> |
| Single-Use Toilets CEWCP (fixtures)   | 19,030            | 1,053             | 2,009                | 22,092         |
| Mixed-Use Toilets CEWCP (fixtures)  | 202,018           | 17,071            | 14,161               | 233,250        |
| Urinals Toilets CEWCP (fixtures)  | 30,315            | 4,731             | 17,842               | 52,888         |
| Faucets Toilets CEWCP (fixtures)  | 211,006           | 26,776            | 8,902                | 246,684        |
| Showerheads CEWCP (fixtures)  | 119,543           | 0                 | 5,628                | 125,171        |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067             | 0                 | 0                    | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 2,072             | 0                 | 158                  | 2,230          |

Table 6. CII BMP summary at \$5/kgal cost-effective threshold for the CFWI with “Best” options included.

|   | <b>Commercial</b> | <b>Industrial</b> | <b>Institutional</b> | <b>Total</b>   |
|---|-------------------|-------------------|----------------------|----------------|
| Estimated Water Use (MGD)   | 59                | 5                 | 10                   | 74             |
| Number of Parcels   | 20,205            | 6,363             | 3,469                | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963       | 174,078,316       | 83,732,522           | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 5) Water Conservation Potential (CEWCP) (MGD)</b> | <b>10.9</b>       | <b>0.6</b>        | <b>0.9</b>           | <b>12.5</b>    |
| Single-Use Toilets CEWCP (MGD)  | 0.43              | 0.05              | 0.04                 | 0.52           |
| Mixed-Use Toilets CEWCP (MGD)   | 3.68              | 0.28              | 0.23                 | 4.19           |
| Urinals CEWCP (MGD)   | 1.62              | 0.17              | 0.28                 | 2.08           |
| Faucets CEWCP (MGD)   | 1.62              | 0.14              | 0.14                 | 1.90           |
| Showerheads CEWCP (MGD)   | 0.89              | 0.00              | 0.07                 | 0.96           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.06              | 0.00              | 0.00                 | 0.06           |
| Site-Specific Water Audits CEWCP (MGD)  | 2.63              | 0.00              | 0.12                 | 2.75           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$108</b>      | <b>\$10</b>       | <b>\$14</b>          | <b>\$132</b>   |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$7.8             | \$1.6             | \$0.8                | \$10           |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$61.0            | \$5.2             | \$5.1                | \$71           |
| Urinals CEWCP, 25 year service life   | \$8.3             | \$1.3             | \$4.9                | \$15           |
| Faucets CEWCP, 15 year service life   | \$15.3            | \$1.9             | \$2.3                | \$20           |
| Showerheads CEWCP, 8 year service life  | \$3.8             | \$0.0             | \$0.2                | \$4            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1             | \$0.0             | \$0.0                | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$11.2            | \$0.0             | \$0.9                | \$12           |
| <b>Number of Units Retrofitted</b>  | <b>601,719</b>    | <b>54,171</b>     | <b>76,314</b>        | <b>732,204</b> |
| Single-Use Toilets CEWCP (fixtures)   | 25,998            | 5,238             | 2,515                | 33,751         |
| Mixed-Use Toilets CEWCP (fixtures)  | 203,228           | 17,426            | 16,882               | 237,536        |
| Urinals Toilets CEWCP (fixtures)  | 30,315            | 4,731             | 17,842               | 52,888         |
| Faucets Toilets CEWCP (fixtures)  | 218,590           | 26,776            | 33,211               | 278,577        |
| Showerheads CEWCP (fixtures)  | 119,543           | 0                 | 5,628                | 125,171        |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067             | 0                 | 0                    | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 2,978             | 0                 | 236                  | 3,214          |

Table 7. CII water conservation BMP details for the CFWI with “Best” options included.

| Rank | Sector     | FDOR | BMP Type           | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|------------|------|--------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 1    | Commercial | 29   | Urinals            | 1               | 1.5 gpf | 0 gpf   | 949                   | \$0.03                 | \$0.03                       |
| 2    | Commercial | 29   | Urinals            | 13              | 1 gpf   | 0 gpf   | 8,256                 | \$0.39                 | \$0.05                       |
| 3    | Commercial | 15   | Urinals            | 10              | 1.5 gpf | 0 gpf   | 6,150                 | \$0.30                 | \$0.05                       |
| 4    | Commercial | 15   | Urinals            | 131             | 1 gpf   | 0 gpf   | 71,750                | \$3.95                 | \$0.06                       |
| 5    | Commercial | 14   | Urinals            | 22              | 1.5 gpf | 0 gpf   | 7,236                 | \$0.66                 | \$0.09                       |
| 6    | Commercial | 15   | Mixed-Use Toilets  | 26              | 3.5 gpf | 0.8 gpf | 8,836                 | \$0.85                 | \$0.10                       |
| 7    | Commercial | 14   | Urinals            | 69              | 1 gpf   | 0 gpf   | 20,858                | \$2.08                 | \$0.10                       |
| 8    | Commercial | 15   | Faucets            | 409             | 1.5 gpm | 0.5 gpm | 52,152                | \$5.23                 | \$0.10                       |
| 9    | Commercial | 29   | Faucets            | 78              | 1.5 gpm | 0.5 gpm | 8,515                 | \$1.00                 | \$0.12                       |
| 10   | Commercial | 15   | Mixed-Use Toilets  | 288             | 1.6 gpf | 0.8 gpf | 78,231                | \$9.47                 | \$0.12                       |
| 11   | Commercial | 29   | Mixed-Use Toilets  | 17              | 3.5 gpf | 0.8 gpf | 4,338                 | \$0.56                 | \$0.13                       |
| 12   | Commercial | 29   | Mixed-Use Toilets  | 60              | 1.6 gpf | 0.8 gpf | 14,165                | \$1.97                 | \$0.14                       |
| 13   | Industrial | 42   | Urinals            | 6               | 1.5 gpf | 0 gpf   | 1,298                 | \$0.18                 | \$0.14                       |
| 14   | Industrial | 44   | Urinals            | 4               | 1.5 gpf | 0 gpf   | 803                   | \$0.12                 | \$0.15                       |
| 15   | Industrial | 42   | Urinals            | 22              | 1 gpf   | 0 gpf   | 4,093                 | \$0.66                 | \$0.16                       |
| 16   | Commercial | 15   | Single-Use Toilets | 11              | 3.5 gpf | 0.8 gpf | 2,165                 | \$0.36                 | \$0.17                       |
| 17   | Commercial | 14   | Mixed-Use Toilets  | 62              | 3.5 gpf | 0.8 gpf | 11,839                | \$2.04                 | \$0.17                       |
| 18   | Industrial | 44   | Urinals            | 22              | 1 gpf   | 0 gpf   | 3,830                 | \$0.66                 | \$0.17                       |
| 19   | Industrial | 45   | Urinals            | 42              | 1 gpf   | 0 gpf   | 7,144                 | \$1.27                 | \$0.18                       |
| 20   | Commercial | 29   | Single-Use Toilets | 2               | 3.5 gpf | 0.8 gpf | 310                   | \$0.07                 | \$0.21                       |
| 21   | Commercial | 14   | Faucets            | 319             | 1.5 gpm | 0.5 gpm | 19,113                | \$4.08                 | \$0.21                       |
| 22   | Commercial | 21   | Urinals            | 249             | 1.5 gpf | 0 gpf   | 33,321                | \$7.50                 | \$0.23                       |
| 23   | Commercial | 15   | Single-Use Toilets | 138             | 1.6 gpf | 0.8 gpf | 19,133                | \$4.54                 | \$0.24                       |
| 24   | Commercial | 21   | Faucets            | 1,977           | 1.5 gpm | 0.5 gpm | 105,383               | \$25.28                | \$0.24                       |
| 25   | Commercial | 21   | Urinals            | 912             | 1 gpf   | 0 gpf   | 112,662               | \$27.48                | \$0.24                       |
| 26   | Commercial | 29   | Single-Use Toilets | 17              | 1.6 gpf | 0.8 gpf | 2,202                 | \$0.56                 | \$0.25                       |
| 27   | Commercial | 14   | Mixed-Use Toilets  | 193             | 1.6 gpf | 0.8 gpf | 23,983                | \$6.35                 | \$0.26                       |
| 28   | Industrial | 43   | Urinals            | 2               | 1.5 gpf | 0 gpf   | 228                   | \$0.06                 | \$0.26                       |



| Rank | Sector        | FDOR | BMP Type           | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|--------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 29   | Industrial    | 43   | Urinals            | 8               | 1 gpf   | 0 gpf   | 883                   | \$0.24                 | \$0.27                       |
| 30   | Commercial    | 24   | Urinals            | 14              | 1 gpf   | 0 gpf   | 1,298                 | \$0.42                 | \$0.32                       |
| 31   | Commercial    | 13   | Urinals            | 29              | 1.5 gpf | 0 gpf   | 2,506                 | \$0.87                 | \$0.35                       |
| 32   | Industrial    | 42   | Mixed-Use Toilets  | 24              | 3.5 gpf | 0.8 gpf | 2,217                 | \$0.79                 | \$0.36                       |
| 33   | Commercial    | 21   | Mixed-Use Toilets  | 616             | 3.5 gpf | 0.8 gpf | 56,418                | \$20.25                | \$0.36                       |
| 34   | Commercial    | 11   | Urinals            | 547             | 1.5 gpf | 0 gpf   | 45,758                | \$16.48                | \$0.36                       |
| 35   | Commercial    | 22   | Faucets            | 2,676           | 1.5 gpm | 0.5 gpm | 93,147                | \$34.21                | \$0.37                       |
| 36   | Commercial    | 34   | Urinals            | 16              | 1.5 gpf | 0 gpf   | 1,305                 | \$0.48                 | \$0.37                       |
| 37   | Commercial    | 22   | Urinals            | 412             | 1.5 gpf | 0 gpf   | 33,529                | \$12.42                | \$0.37                       |
| 38   | Commercial    | 14   | Single-Use Toilets | 30              | 3.5 gpf | 0.8 gpf | 2,609                 | \$0.99                 | \$0.38                       |
| 39   | Commercial    | 16   | Urinals            | 954             | 1.5 gpf | 0 gpf   | 75,201                | \$28.75                | \$0.38                       |
| 40   | Commercial    | 11   | Urinals            | 3,016           | 1 gpf   | 0 gpf   | 232,705               | \$90.89                | \$0.39                       |
| 41   | Commercial    | 36   | Urinals            | 43              | 1.5 gpf | 0 gpf   | 3,313                 | \$1.30                 | \$0.39                       |
| 42   | Commercial    | 13   | Urinals            | 341             | 1 gpf   | 0 gpf   | 26,184                | \$10.28                | \$0.39                       |
| 43   | Commercial    | 36   | Urinals            | 163             | 1 gpf   | 0 gpf   | 12,347                | \$4.91                 | \$0.40                       |
| 44   | Commercial    | 22   | Urinals            | 1,394           | 1 gpf   | 0 gpf   | 105,512               | \$42.01                | \$0.40                       |
| 45   | Industrial    | 45   | Mixed-Use Toilets  | 6               | 3.5 gpf | 0.8 gpf | 493                   | \$0.20                 | \$0.40                       |
| 46   | Industrial    | 44   | Mixed-Use Toilets  | 26              | 3.5 gpf | 0.8 gpf | 2,130                 | \$0.85                 | \$0.40                       |
| 47   | Commercial    | 16   | Urinals            | 3,737           | 1 gpf   | 0 gpf   | 277,718               | \$112.62               | \$0.41                       |
| 48   | Commercial    | 26   | Urinals            | 20              | 1 gpf   | 0 gpf   | 1,457                 | \$0.60                 | \$0.41                       |
| 49   | Commercial    | 34   | Urinals            | 71              | 1 gpf   | 0 gpf   | 5,047                 | \$2.14                 | \$0.42                       |
| 50   | Industrial    | 42   | Mixed-Use Toilets  | 101             | 1.6 gpf | 0.8 gpf | 7,655                 | \$3.32                 | \$0.43                       |
| 51   | Institutional | 84   | Urinals            | 66              | 1.5 gpf | 0 gpf   | 4,453                 | \$1.99                 | \$0.45                       |
| 52   | Commercial    | 33   | Urinals            | 28              | 1.5 gpf | 0 gpf   | 1,862                 | \$0.84                 | \$0.45                       |
| 53   | Industrial    | 45   | Mixed-Use Toilets  | 125             | 1.6 gpf | 0.8 gpf | 9,054                 | \$4.11                 | \$0.45                       |
| 54   | Industrial    | 46   | Urinals            | 28              | 1.5 gpf | 0 gpf   | 1,817                 | \$0.84                 | \$0.46                       |
| 55   | Commercial    | 26   | Urinals            | 3               | 1.5 gpf | 0 gpf   | 192                   | \$0.09                 | \$0.47                       |
| 56   | Commercial    | 21   | Mixed-Use Toilets  | 2,090           | 1.6 gpf | 0.8 gpf | 142,584               | \$68.71                | \$0.48                       |
| 57   | Commercial    | 33   | Urinals            | 132             | 1 gpf   | 0 gpf   | 8,211                 | \$3.98                 | \$0.48                       |
| 58   | Institutional | 84   | Urinals            | 1,027           | 1 gpf   | 0 gpf   | 63,293                | \$30.95                | \$0.49                       |
| 59   | Industrial    | 42   | Single-Use Toilets | 7               | 3.5 gpf | 0.8 gpf | 466                   | \$0.23                 | \$0.49                       |

| Rank | Sector        | FDOR | BMP Type           | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|--------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 60   | Industrial    | 46   | Urinals            | 49              | 1 gpf   | 0 gpf   | 2,987                 | \$1.48                 | \$0.49                       |
| 61   | Commercial    | 38   | Urinals            | 140             | 1.5 gpf | 0 gpf   | 8,499                 | \$4.22                 | \$0.50                       |
| 62   | Industrial    | 44   | Mixed-Use Toilets  | 105             | 1.6 gpf | 0.8 gpf | 6,782                 | \$3.45                 | \$0.51                       |
| 63   | Commercial    | 21   | Single-Use Toilets | 175             | 3.5 gpf | 0.8 gpf | 11,242                | \$5.75                 | \$0.51                       |
| 64   | Industrial    | 42   | Faucets            | 185             | 1.5 gpm | 0.5 gpm | 4,616                 | \$2.37                 | \$0.51                       |
| 65   | Institutional | 78   | Urinals            | 1               | 1 gpf   | 0 gpf   | 58                    | \$0.03                 | \$0.52                       |
| 66   | Institutional | 85   | Showerheads        | 1,490           | 2.2 gpm | 1.5 gpm | 31,056                | \$16.33                | \$0.53                       |
| 67   | Commercial    | 14   | Single-Use Toilets | 89              | 1.6 gpf | 0.8 gpf | 5,562                 | \$2.93                 | \$0.53                       |
| 68   | Industrial    | 45   | Faucets            | 223             | 1.5 gpm | 0.5 gpm | 5,335                 | \$2.85                 | \$0.53                       |
| 69   | Commercial    | 38   | Urinals            | 413             | 1 gpf   | 0 gpf   | 23,237                | \$12.45                | \$0.54                       |
| 70   | Commercial    | 22   | Mixed-Use Toilets  | 824             | 3.5 gpf | 0.8 gpf | 49,654                | \$27.09                | \$0.55                       |
| 71   | Institutional | 84   | Mixed-Use Toilets  | 102             | 3.5 gpf | 0.8 gpf | 6,070                 | \$3.35                 | \$0.55                       |
| 72   | Commercial    | 24   | Faucets            | 39              | 1.5 gpm | 0.5 gpm | 883                   | \$0.50                 | \$0.56                       |
| 73   | Industrial    | 44   | Faucets            | 189             | 1.5 gpm | 0.5 gpm | 4,167                 | \$2.42                 | \$0.58                       |
| 74   | Commercial    | 36   | Faucets            | 476             | 1.5 gpm | 0.5 gpm | 10,467                | \$6.09                 | \$0.58                       |
| 75   | Commercial    | 32   | Urinals            | 32              | 1 gpf   | 0 gpf   | 1,655                 | \$0.96                 | \$0.58                       |
| 76   | Commercial    | 32   | Urinals            | 44              | 1.5 gpf | 0 gpf   | 2,273                 | \$1.33                 | \$0.58                       |
| 77   | Commercial    | 34   | Faucets            | 216             | 1.5 gpm | 0.5 gpm | 4,650                 | \$2.76                 | \$0.59                       |
| 78   | Commercial    | 13   | Mixed-Use Toilets  | 65              | 3.5 gpf | 0.8 gpf | 3,358                 | \$2.14                 | \$0.64                       |
| 79   | Industrial    | 43   | Mixed-Use Toilets  | 19              | 3.5 gpf | 0.8 gpf | 978                   | \$0.62                 | \$0.64                       |
| 80   | Institutional | 73   | Showerheads        | 615             | 2.2 gpm | 1.5 gpm | 10,466                | \$6.74                 | \$0.64                       |
| 81   | Commercial    | 35   | Urinals            | 729             | 1.5 gpf | 0 gpf   | 33,849                | \$21.97                | \$0.65                       |
| 82   | Commercial    | 16   | Mixed-Use Toilets  | 2,063           | 3.5 gpf | 0.8 gpf | 100,856               | \$67.82                | \$0.67                       |
| 83   | Commercial    | 33   | Faucets            | 477             | 1.5 gpm | 0.5 gpm | 9,059                 | \$6.10                 | \$0.67                       |
| 84   | Institutional | 78   | Showerheads        | 13              | 2.2 gpm | 1.5 gpm | 211                   | \$0.14                 | \$0.68                       |
| 85   | Commercial    | 21   | Single-Use Toilets | 641             | 1.6 gpf | 0.8 gpf | 30,043                | \$21.07                | \$0.70                       |

| Rank | Sector        | FDOR | BMP Type               | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 86   | Commercial    | 13   | Faucets                | 1,049           | 1.5 gpm | 0.5 gpm | 19,024                | \$13.41                | \$0.70                       |
| 87   | Commercial    | 36   | Single-Use Toilets     | 24              | 3.5 gpf | 0.8 gpf | 1,100                 | \$0.79                 | \$0.72                       |
| 88   | Commercial    | 24   | Mixed-Use Toilets      | 32              | 1.6 gpf | 0.8 gpf | 1,441                 | \$1.05                 | \$0.73                       |
| 89   | Commercial    | 16   | Faucets                | 13,416          | 1.5 gpm | 0.5 gpm | 233,981               | \$171.53               | \$0.73                       |
| 90   | Commercial    | 21   | Pre-Rinse Spray Valves | 1,067           | 1.6 gpm | 1 gpm   | 55,313                | \$40.93                | \$0.74                       |
| 91   | Commercial    | 35   | Urinals                | 662             | 1 gpf   | 0 gpf   | 26,879                | \$19.95                | \$0.74                       |
| 92   | Commercial    | 22   | Mixed-Use Toilets      | 2,659           | 1.6 gpf | 0.8 gpf | 116,656               | \$87.42                | \$0.75                       |
| 93   | Industrial    | 42   | Single-Use Toilets     | 25              | 1.6 gpf | 0.8 gpf | 1,092                 | \$0.82                 | \$0.75                       |
| 94   | Commercial    | 22   | Single-Use Toilets     | 263             | 3.5 gpf | 0.8 gpf | 11,467                | \$8.65                 | \$0.75                       |
| 95   | Institutional | 84   | Mixed-Use Toilets      | 1,555           | 1.6 gpf | 0.8 gpf | 67,698                | \$51.12                | \$0.76                       |
| 96   | Institutional | 84   | Single-Use Toilets     | 35              | 3.5 gpf | 0.8 gpf | 1,517                 | \$1.15                 | \$0.76                       |
| 97   | Industrial    | 44   | Single-Use Toilets     | 6               | 3.5 gpf | 0.8 gpf | 260                   | \$0.20                 | \$0.76                       |
| 98   | Commercial    | 33   | Mixed-Use Toilets      | 98              | 3.5 gpf | 0.8 gpf | 4,212                 | \$3.22                 | \$0.76                       |
| 99   | Commercial    | 11   | Mixed-Use Toilets      | 2,622           | 3.5 gpf | 0.8 gpf | 112,049               | \$86.20                | \$0.77                       |
| 100  | Industrial    | 41   | Urinals                | 135             | 1.5 gpf | 0 gpf   | 5,238                 | \$4.07                 | \$0.78                       |
| 101  | Institutional | 75   | Urinals                | 54              | 1.5 gpf | 0 gpf   | 2,038                 | \$1.63                 | \$0.80                       |
| 102  | Commercial    | 11   | Faucets                | 15,258          | 1.5 gpm | 0.5 gpm | 240,497               | \$195.08               | \$0.81                       |
| 103  | Commercial    | 32   | Faucets                | 165             | 1.5 gpm | 0.5 gpm | 2,596                 | \$2.11                 | \$0.81                       |
| 104  | Institutional | 75   | Urinals                | 192             | 1 gpf   | 0 gpf   | 6,974                 | \$5.79                 | \$0.83                       |
| 105  | Industrial    | 44   | Single-Use Toilets     | 26              | 1.6 gpf | 0.8 gpf | 1,021                 | \$0.85                 | \$0.84                       |
| 106  | Commercial    | 18   | Urinals                | 963             | 1.5 gpf | 0 gpf   | 34,552                | \$29.02                | \$0.84                       |
| 107  | Industrial    | 41   | Urinals                | 789             | 1 gpf   | 0 gpf   | 28,209                | \$23.78                | \$0.84                       |
| 108  | Industrial    | 46   | Mixed-Use Toilets      | 71              | 3.5 gpf | 0.8 gpf | 2,756                 | \$2.33                 | \$0.85                       |
| 109  | Commercial    | 13   | Mixed-Use Toilets      | 724             | 1.6 gpf | 0.8 gpf | 27,966                | \$23.80                | \$0.85                       |
| 110  | Industrial    | 48   | Urinals                | 579             | 1.5 gpf | 0 gpf   | 20,448                | \$17.45                | \$0.85                       |
| 111  | Industrial    | 45   | Single-Use Toilets     | 50              | 1.6 gpf | 0.8 gpf | 1,905                 | \$1.64                 | \$0.86                       |

| Rank | Sector        | FDOR | BMP Type           | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|--------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 112  | Commercial    | 38   | Mixed-Use Toilets  | 313             | 3.5 gpf | 0.8 gpf  | 11,821                | \$10.29                | \$0.87                       |
| 113  | Industrial    | 43   | Mixed-Use Toilets  | 81              | 1.6 gpf | 0.8 gpf  | 3,045                 | \$2.66                 | \$0.87                       |
| 114  | Commercial    | 16   | Mixed-Use Toilets  | 8,175           | 1.6 gpf | 0.8 gpf  | 301,068               | \$268.77               | \$0.89                       |
| 115  | Commercial    | 36   | Single-Use Toilets | 91              | 1.6 gpf | 0.8 gpf  | 3,293                 | \$2.99                 | \$0.91                       |
| 116  | Commercial    | 18   | Urinals            | 2,901           | 1 gpf   | 0 gpf    | 96,044                | \$87.43                | \$0.91                       |
| 117  | Institutional | 78   | Mixed-Use Toilets  | 1               | 3.5 gpf | 1.28 gpf | 22                    | \$0.02                 | \$0.91                       |
| 118  | Industrial    | 48   | Urinals            | 2,848           | 1 gpf   | 0 gpf    | 93,835                | \$85.83                | \$0.91                       |
| 119  | Commercial    | 12   | Urinals            | 345             | 1.5 gpf | 0 gpf    | 11,319                | \$10.40                | \$0.92                       |
| 120  | Institutional | 84   | Faucets            | 3,298           | 1.5 gpm | 0.5 gpm  | 45,003                | \$42.17                | \$0.94                       |
| 121  | Institutional | 72   | Urinals            | 242             | 1.5 gpf | 0 gpf    | 7,639                 | \$7.29                 | \$0.95                       |
| 122  | Commercial    | 23   | Urinals            | 74              | 1.5 gpf | 0 gpf    | 2,335                 | \$2.23                 | \$0.96                       |
| 123  | Commercial    | 11   | Mixed-Use Toilets  | 11,639          | 1.6 gpf | 0.8 gpf  | 390,494               | \$382.65               | \$0.98                       |
| 124  | Commercial    | 23   | Urinals            | 393             | 1 gpf   | 0 gpf    | 12,055                | \$11.84                | \$0.98                       |
| 125  | Commercial    | 33   | Mixed-Use Toilets  | 453             | 1.6 gpf | 0.8 gpf  | 15,127                | \$14.89                | \$0.98                       |
| 126  | Commercial    | 12   | Urinals            | 1,154           | 1 gpf   | 0 gpf    | 35,301                | \$34.78                | \$0.99                       |
| 127  | Commercial    | 38   | Faucets            | 1,618           | 1.5 gpm | 0.5 gpm  | 20,872                | \$20.69                | \$0.99                       |
| 128  | Institutional | 72   | Urinals            | 568             | 1 gpf   | 0 gpf    | 17,266                | \$17.12                | \$0.99                       |
| 129  | Commercial    | 17   | Urinals            | 864             | 1.5 gpf | 0 gpf    | 26,130                | \$26.04                | \$1.00                       |
| 130  | Institutional | 84   | Single-Use Toilets | 513             | 1.6 gpf | 0.8 gpf  | 16,878                | \$16.87                | \$1.00                       |
| 131  | Commercial    | 34   | Single-Use Toilets | 13              | 3.5 gpf | 0.8 gpf  | 425                   | \$0.43                 | \$1.00                       |
| 132  | Commercial    | 36   | Mixed-Use Toilets  | 149             | 3.5 gpf | 0.8 gpf  | 4,837                 | \$4.90                 | \$1.01                       |
| 133  | Commercial    | 33   | Single-Use Toilets | 19              | 3.5 gpf | 0.8 gpf  | 608                   | \$0.62                 | \$1.03                       |
| 134  | Industrial    | 43   | Faucets            | 124             | 1.5 gpm | 0.5 gpm  | 1,536                 | \$1.59                 | \$1.03                       |
| 135  | Commercial    | 17   | Urinals            | 4,472           | 1 gpf   | 0 gpf    | 128,954               | \$134.77               | \$1.05                       |
| 136  | Commercial    | 35   | Single-Use Toilets | 364             | 3.5 gpf | 0.8 gpf  | 11,428                | \$11.97                | \$1.05                       |
| 137  | Commercial    | 26   | Mixed-Use Toilets  | 86              | 3.5 gpf | 0.8 gpf  | 2,668                 | \$2.83                 | \$1.06                       |
| 138  | Commercial    | 22   | Single-Use Toilets | 916             | 1.6 gpf | 0.8 gpf  | 28,136                | \$30.12                | \$1.07                       |

| Rank | Sector        | FDOR | BMP Type           | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|--------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 139  | Industrial    | 49   | Urinals            | 5               | 1.5 gpf | 0 gpf   | 131                   | \$0.15                 | \$1.15                       |
| 140  | Commercial    | 32   | Single-Use Toilets | 25              | 3.5 gpf | 0.8 gpf | 707                   | \$0.82                 | \$1.16                       |
| 141  | Commercial    | 35   | Faucets            | 3,653           | 1.5 gpm | 0.5 gpm | 39,168                | \$46.71                | \$1.19                       |
| 142  | Commercial    | 34   | Single-Use Toilets | 49              | 1.6 gpf | 0.8 gpf | 1,346                 | \$1.61                 | \$1.20                       |
| 143  | Commercial    | 34   | Mixed-Use Toilets  | 74              | 3.5 gpf | 0.8 gpf | 2,031                 | \$2.43                 | \$1.20                       |
| 144  | Commercial    | 38   | Mixed-Use Toilets  | 918             | 1.6 gpf | 0.8 gpf | 25,187                | \$30.18                | \$1.20                       |
| 145  | Institutional | 72   | Mixed-Use Toilets  | 405             | 3.5 gpf | 0.8 gpf | 10,941                | \$13.32                | \$1.22                       |
| 146  | Institutional | 79   | Urinals            | 7               | 1.5 gpf | 0 gpf   | 172                   | \$0.21                 | \$1.22                       |
| 147  | Industrial    | 46   | Mixed-Use Toilets  | 136             | 1.6 gpf | 0.8 gpf | 3,653                 | \$4.47                 | \$1.22                       |
| 148  | Commercial    | 36   | Mixed-Use Toilets  | 501             | 1.6 gpf | 0.8 gpf | 13,392                | \$16.47                | \$1.23                       |
| 149  | Commercial    | 26   | Faucets            | 342             | 1.5 gpm | 0.5 gpm | 3,542                 | \$4.37                 | \$1.23                       |
| 150  | Institutional | 75   | Showerheads        | 1,513           | 2.2 gpm | 1.5 gpm | 13,351                | \$16.58                | \$1.24                       |
| 151  | Industrial    | 43   | Single-Use Toilets | 3               | 3.5 gpf | 0.8 gpf | 78                    | \$0.10                 | \$1.27                       |
| 152  | Commercial    | 13   | Single-Use Toilets | 33              | 3.5 gpf | 0.8 gpf | 839                   | \$1.08                 | \$1.29                       |
| 153  | Industrial    | 49   | Urinals            | 18              | 1 gpf   | 0 gpf   | 415                   | \$0.54                 | \$1.31                       |
| 154  | Institutional | 81   | Urinals            | 157             | 1 gpf   | 0 gpf   | 3,605                 | \$4.73                 | \$1.31                       |
| 155  | Institutional | 79   | Urinals            | 14              | 1 gpf   | 0 gpf   | 320                   | \$0.42                 | \$1.32                       |
| 156  | Commercial    | 24   | Single-Use Toilets | 14              | 1.6 gpf | 0.8 gpf | 346                   | \$0.46                 | \$1.33                       |
| 157  | Commercial    | 16   | Single-Use Toilets | 1,009           | 3.5 gpf | 0.8 gpf | 24,823                | \$33.17                | \$1.34                       |
| 158  | Institutional | 78   | Mixed-Use Toilets  | 10              | 1.6 gpf | 0.8 gpf | 244                   | \$0.33                 | \$1.35                       |
| 159  | Commercial    | 20   | Urinals            | 4               | 1.5 gpf | 0 gpf   | 88                    | \$0.12                 | \$1.36                       |
| 160  | Commercial    | 11   | Single-Use Toilets | 631             | 3.5 gpf | 0.8 gpf | 15,060                | \$20.75                | \$1.38                       |
| 161  | Institutional | 74   | Showerheads        | 1,997           | 2.2 gpm | 1.5 gpm | 15,863                | \$21.88                | \$1.38                       |
| 162  | Commercial    | 26   | Mixed-Use Toilets  | 323             | 1.6 gpf | 0.8 gpf | 7,573                 | \$10.62                | \$1.40                       |
| 163  | Commercial    | 33   | Single-Use Toilets | 94              | 1.6 gpf | 0.8 gpf | 2,190                 | \$3.09                 | \$1.41                       |
| 164  | Commercial    | 30   | Urinals            | 1               | 1 gpf   | 0 gpf   | 21                    | \$0.03                 | \$1.41                       |

| Rank | Sector        | FDOR | BMP Type    | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|-------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
|      |               |      | Mixed-Use   |                 |         |         |                       |                        |                              |
| 165  | Commercial    | 18   | Toilets     | 1,986           | 3.5 gpf | 0.8 gpf | 45,738                | \$65.29                | \$1.43                       |
| 166  | Commercial    | 19   | Urinals     | 2,254           | 1 gpf   | 0 gpf   | 47,313                | \$67.93                | \$1.44                       |
| 167  | Commercial    | 19   | Urinals     | 439             | 1.5 gpf | 0 gpf   | 9,135                 | \$13.23                | \$1.45                       |
|      |               |      |             |                 |         | 0.5     |                       |                        |                              |
| 168  | Industrial    | 46   | Faucets     | 374             | 1.5 gpm | gpm     | 3,298                 | \$4.78                 | \$1.45                       |
|      |               |      |             |                 |         | 1.5     |                       |                        |                              |
| 169  | Commercial    | 39   | Showerheads | 119,543         | 2.2 gpm | gpm     | 890,848               | \$1,310.06             | \$1.47                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 170  | Commercial    | 32   | Toilets     | 20              | 1.6 gpf | 0.8 gpf | 441                   | \$0.66                 | \$1.49                       |
|      |               |      | Mixed-Use   |                 |         |         |                       |                        |                              |
| 171  | Commercial    | 34   | Toilets     | 301             | 1.6 gpf | 0.8 gpf | 6,626                 | \$9.90                 | \$1.49                       |
|      |               |      |             |                 |         | 0.5     |                       |                        |                              |
| 172  | Commercial    | 18   | Faucets     | 10,280          | 1.5 gpm | gpm     | 85,788                | \$131.43               | \$1.53                       |
|      |               |      | Mixed-Use   |                 |         |         |                       |                        |                              |
| 173  | Institutional | 75   | Toilets     | 134             | 3.5 gpf | 0.8 gpf | 2,871                 | \$4.41                 | \$1.53                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 174  | Industrial    | 43   | Toilets     | 11              | 1.6 gpf | 0.8 gpf | 235                   | \$0.36                 | \$1.54                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 175  | Commercial    | 26   | Toilets     | 3               | 3.5 gpf | 0.8 gpf | 64                    | \$0.10                 | \$1.55                       |
|      |               |      | Mixed-Use   |                 |         |         |                       |                        |                              |
| 176  | Commercial    | 35   | Toilets     | 2,218           | 3.5 gpf | 0.8 gpf | 46,243                | \$72.92                | \$1.58                       |
|      |               |      |             |                 |         | 0.5     |                       |                        |                              |
| 177  | Institutional | 81   | Faucets     | 298             | 1.5 gpm | gpm     | 2,403                 | \$3.81                 | \$1.59                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 178  | Commercial    | 35   | Toilets     | 347             | 1.6 gpf | 0.8 gpf | 7,168                 | \$11.41                | \$1.59                       |
|      |               |      | Mixed-Use   |                 |         |         |                       |                        |                              |
| 179  | Commercial    | 32   | Toilets     | 139             | 3.5 gpf | 0.8 gpf | 2,830                 | \$4.57                 | \$1.62                       |
|      |               |      |             |                 |         | 0.5     |                       |                        |                              |
| 180  | Institutional | 78   | Faucets     | 13              | 1.5 gpm | gpm     | 103                   | \$0.17                 | \$1.62                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 181  | Institutional | 72   | Toilets     | 126             | 3.5 gpf | 0.8 gpf | 2,561                 | \$4.14                 | \$1.62                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 182  | Industrial    | 46   | Toilets     | 32              | 3.5 gpf | 0.8 gpf | 633                   | \$1.05                 | \$1.66                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 183  | Commercial    | 13   | Toilets     | 364             | 1.6 gpf | 0.8 gpf | 6,982                 | \$11.97                | \$1.71                       |
|      |               |      | Mixed-Use   |                 |         |         |                       |                        |                              |
| 184  | Institutional | 72   | Toilets     | 1,075           | 1.6 gpf | 0.8 gpf | 20,507                | \$35.34                | \$1.72                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 185  | Commercial    | 38   | Toilets     | 156             | 3.5 gpf | 0.8 gpf | 2,924                 | \$5.13                 | \$1.75                       |
|      |               |      | Mixed-Use   |                 |         |         |                       |                        |                              |
| 186  | Industrial    | 41   | Toilets     | 657             | 3.5 gpf | 0.8 gpf | 12,184                | \$21.60                | \$1.77                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 187  | Commercial    | 16   | Toilets     | 4,015           | 1.6 gpf | 0.8 gpf | 74,058                | \$132.00               | \$1.78                       |
|      |               |      | Single-Use  |                 |         |         |                       |                        |                              |
| 188  | Commercial    | 11   | Toilets     | 3,380           | 1.6 gpf | 0.8 gpf | 62,055                | \$111.12               | \$1.79                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 189  | Commercial    | 35   | Site-Specific Water Audit | 87              |         |         | 1,188,633             | \$2,133.74             | \$1.80                       |
| 190  | Commercial    | 21   | Site-Specific Water Audit | 717             |         |         | 281,869               | \$512.43               | \$1.82                       |
| 191  | Commercial    | 20   | Urinals                   | 189             | 1 gpf   | 0 gpf   | 3,088                 | \$5.70                 | \$1.84                       |
| 192  | Commercial    | 26   | Single-Use Toilets        | 22              | 1.6 gpf | 0.8 gpf | 389                   | \$0.72                 | \$1.86                       |
| 193  | Industrial    | 48   | Mixed-Use Toilets         | 2,290           | 3.5 gpf | 0.8 gpf | 40,381                | \$75.29                | \$1.86                       |
| 194  | Commercial    | 27   | Urinals                   | 162             | 1.5 gpf | 0 gpf   | 2,593                 | \$4.88                 | \$1.88                       |
| 195  | Commercial    | 12   | Mixed-Use Toilets         | 1,737           | 3.5 gpf | 0.8 gpf | 30,092                | \$57.11                | \$1.90                       |
| 196  | Commercial    | 27   | Urinals                   | 651             | 1 gpf   | 0 gpf   | 10,185                | \$19.62                | \$1.93                       |
| 197  | Commercial    | 18   | Mixed-Use Toilets         | 6,111           | 1.6 gpf | 0.8 gpf | 103,018               | \$200.91               | \$1.95                       |
| 198  | Institutional | 79   | Faucets                   | 69              | 1.5 gpm | 0.5 gpm | 450                   | \$0.88                 | \$1.96                       |
| 199  | Commercial    | 32   | Mixed-Use Toilets         | 114             | 1.6 gpf | 0.8 gpf | 1,909                 | \$3.75                 | \$1.96                       |
| 200  | Industrial    | 91   | Urinals                   | 50              | 1.5 gpf | 0 gpf   | 751                   | \$1.51                 | \$2.01                       |
| 201  | Commercial    | 23   | Mixed-Use Toilets         | 220             | 3.5 gpf | 0.8 gpf | 3,530                 | \$7.23                 | \$2.05                       |
| 202  | Institutional | 75   | Mixed-Use Toilets         | 567             | 1.6 gpf | 0.8 gpf | 9,093                 | \$18.64                | \$2.05                       |
| 203  | Institutional | 72   | Faucets                   | 2,743           | 1.5 gpm | 0.5 gpm | 17,069                | \$35.07                | \$2.05                       |
| 204  | Commercial    | 23   | Faucets                   | 1,723           | 1.5 gpm | 0.5 gpm | 10,645                | \$22.03                | \$2.07                       |
| 205  | Commercial    | 20   | Mixed-Use Toilets         | 8               | 3.5 gpf | 0.8 gpf | 127                   | \$0.26                 | \$2.08                       |
| 206  | Industrial    | 91   | Urinals                   | 124             | 1 gpf   | 0 gpf   | 1,785                 | \$3.74                 | \$2.09                       |
| 207  | Institutional | 78   | Single-Use Toilets        | 1               | 1.6 gpf | 0.8 gpf | 16                    | \$0.03                 | \$2.11                       |
| 208  | Commercial    | 39   | Mixed-Use Toilets         | 26,914          | 3.5 gpf | 0.8 gpf | 410,877               | \$884.84               | \$2.15                       |
| 209  | Commercial    | 12   | Faucets                   | 8,710           | 1.5 gpm | 0.5 gpm | 51,649                | \$111.36               | \$2.16                       |
| 210  | Commercial    | 17   | Mixed-Use Toilets         | 2,738           | 3.5 gpf | 0.8 gpf | 41,084                | \$90.02                | \$2.19                       |
| 211  | Commercial    | 17   | Faucets                   | 18,950          | 1.5 gpm | 0.5 gpm | 110,220               | \$242.28               | \$2.20                       |
| 212  | Commercial    | 25   | Urinals                   | 153             | 1.5 gpf | 0 gpf   | 2,053                 | \$4.61                 | \$2.25                       |
| 213  | Industrial    | 41   | Mixed-Use Toilets         | 3,058           | 1.6 gpf | 0.8 gpf | 44,670                | \$100.54               | \$2.25                       |
| 214  | Institutional | 83   | Urinals                   | 1,203           | 1.5 gpf | 0 gpf   | 15,947                | \$36.25                | \$2.27                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 215  | Institutional | 79   | Single-Use Toilets        | 4               | 3.5 gpf | 0.8 gpf | 57                    | \$0.13                 | \$2.30                       |
| 216  | Commercial    | 35   | Mixed-Use Toilets         | 2,052           | 1.6 gpf | 0.8 gpf | 29,188                | \$67.46                | \$2.31                       |
| 217  | Institutional | 72   | Single-Use Toilets        | 327             | 1.6 gpf | 0.8 gpf | 4,604                 | \$10.75                | \$2.33                       |
| 218  | Institutional | 77   | Urinals                   | 95              | 1.5 gpf | 0 gpf   | 1,224                 | \$2.86                 | \$2.34                       |
| 219  | Commercial    | 22   | Site-Specific Water Audit | 771             |         |         | 181,381               | \$426.11               | \$2.35                       |
| 220  | Commercial    | 25   | Urinals                   | 934             | 1 gpf   | 0 gpf   | 11,924                | \$28.15                | \$2.36                       |
| 221  | Commercial    | 20   | Faucets                   | 399             | 1.5 gpm | 0.5 gpm | 2,132                 | \$5.10                 | \$2.39                       |
| 222  | Industrial    | 46   | Single-Use Toilets        | 58              | 1.6 gpf | 0.8 gpf | 796                   | \$1.91                 | \$2.39                       |
| 223  | Industrial    | 48   | Mixed-Use Toilets         | 10,311          | 1.6 gpf | 0.8 gpf | 140,494               | \$338.99               | \$2.41                       |
| 224  | Institutional | 75   | Faucets                   | 1,231           | 1.5 gpm | 0.5 gpm | 6,514                 | \$15.74                | \$2.42                       |
| 225  | Commercial    | 38   | Single-Use Toilets        | 457             | 1.6 gpf | 0.8 gpf | 6,197                 | \$15.02                | \$2.42                       |
| 226  | Commercial    | 25   | Site-Specific Water Audit | 454             |         |         | 609,453               | \$1,493.20             | \$2.45                       |
| 227  | Institutional | 83   | Urinals                   | 5,137           | 1 gpf   | 0 gpf   | 63,157                | \$154.81               | \$2.45                       |
| 228  | Institutional | 77   | Urinals                   | 415             | 1 gpf   | 0 gpf   | 4,934                 | \$12.51                | \$2.53                       |
| 229  | Commercial    | 23   | Mixed-Use Toilets         | 1,254           | 1.6 gpf | 0.8 gpf | 16,097                | \$41.23                | \$2.56                       |
| 230  | Commercial    | 12   | Mixed-Use Toilets         | 7,293           | 1.6 gpf | 0.8 gpf | 93,309                | \$239.77               | \$2.57                       |
| 231  | Industrial    | 41   | Faucets                   | 5,719           | 1.5 gpm | 0.5 gpm | 27,849                | \$73.12                | \$2.63                       |
| 232  | Institutional | 85   | Urinals                   | 1,309           | 1.5 gpf | 0 gpf   | 14,840                | \$39.45                | \$2.66                       |
| 233  | Institutional | 90   | Urinals                   | 806             | 1.5 gpf | 0 gpf   | 9,033                 | \$24.29                | \$2.69                       |
| 234  | Institutional | 90   | Urinals                   | 1,100           | 1 gpf   | 0 gpf   | 12,156                | \$33.15                | \$2.73                       |
| 235  | Commercial    | 17   | Mixed-Use Toilets         | 13,348          | 1.6 gpf | 0.8 gpf | 158,773               | \$438.84               | \$2.76                       |
| 236  | Institutional | 81   | Single-Use Toilets        | 81              | 1.6 gpf | 0.8 gpf | 961                   | \$2.66                 | \$2.77                       |
| 237  | Institutional | 83   | Mixed-Use Toilets         | 1,862           | 3.5 gpf | 0.8 gpf | 21,909                | \$61.22                | \$2.79                       |
| 238  | Industrial    | 48   | Faucets                   | 19,962          | 1.5 gpm | 0.5 gpm | 91,173                | \$255.22               | \$2.80                       |
| 239  | Commercial    | 39   | Mixed-Use Toilets         | 92,629          | 1.6 gpf | 0.8 gpf | 1,077,969             | \$3,045.34             | \$2.83                       |
| 240  | Commercial    | 18   | Single-Use Toilets        | 989             | 3.5 gpf | 0.8 gpf | 11,418                | \$32.52                | \$2.85                       |



| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 241  | Institutional | 85   | Urinals                   | 887             | 1 gpf   | 0 gpf   | 9,194                 | \$26.73                | \$2.91                       |
| 242  | Commercial    | 20   | Mixed-Use Toilets         | 297             | 1.6 gpf | 0.8 gpf | 3,356                 | \$9.76                 | \$2.91                       |
| 243  | Institutional | 71   | Urinals                   | 459             | 1.5 gpf | 0 gpf   | 4,720                 | \$13.83                | \$2.93                       |
| 244  | Commercial    | 20   | Site-Specific Water Audit | 11              |         |         | 45,195                | \$134.06               | \$2.97                       |
| 245  | Commercial    | 19   | Faucets                   | 9,233           | 1.5 gpm | 0.5 gpm | 39,475                | \$118.05               | \$2.99                       |
| 246  | Commercial    | 19   | Mixed-Use Toilets         | 1,268           | 3.5 gpf | 0.8 gpf | 13,749                | \$41.69                | \$3.03                       |
| 247  | Institutional | 79   | Mixed-Use Toilets         | 34              | 3.5 gpf | 0.8 gpf | 365                   | \$1.12                 | \$3.07                       |
| 248  | Institutional | 75   | Single-Use Toilets        | 61              | 3.5 gpf | 0.8 gpf | 654                   | \$2.01                 | \$3.07                       |
| 249  | Industrial    | 41   | Single-Use Toilets        | 163             | 3.5 gpf | 0.8 gpf | 1,740                 | \$5.36                 | \$3.08                       |
| 250  | Institutional | 73   | Urinals                   | 79              | 1.5 gpf | 0 gpf   | 749                   | \$2.38                 | \$3.18                       |
| 251  | Institutional | 71   | Urinals                   | 1,822           | 1 gpf   | 0 gpf   | 17,173                | \$54.91                | \$3.20                       |
| 252  | Industrial    | 48   | Single-Use Toilets        | 672             | 3.5 gpf | 0.8 gpf | 6,723                 | \$22.09                | \$3.29                       |
| 253  | Commercial    | 30   | Site-Specific Water Audit | 27              |         |         | 9,715                 | \$32.80                | \$3.38                       |
| 254  | Institutional | 74   | Urinals                   | 303             | 1.5 gpf | 0 gpf   | 2,665                 | \$9.13                 | \$3.43                       |
| 255  | Institutional | 73   | Urinals                   | 790             | 1 gpf   | 0 gpf   | 6,938                 | \$23.81                | \$3.43                       |
| 256  | Commercial    | 39   | Faucets                   | 119,543         | 1.5 gpm | 0.5 gpm | 434,630               | \$1,528.40             | \$3.52                       |
| 257  | Commercial    | 12   | Single-Use Toilets        | 397             | 3.5 gpf | 0.8 gpf | 3,711                 | \$13.05                | \$3.52                       |
| 258  | Institutional | 77   | Faucets                   | 1,250           | 1.5 gpm | 0.5 gpm | 4,508                 | \$15.98                | \$3.55                       |
| 259  | Commercial    | 37   | Urinals                   | 4               | 1.5 gpf | 0 gpf   | 34                    | \$0.12                 | \$3.56                       |
| 260  | Commercial    | 37   | Urinals                   | 10              | 1 gpf   | 0 gpf   | 84                    | \$0.30                 | \$3.58                       |
| 261  | Industrial    | 49   | Mixed-Use Toilets         | 61              | 3.5 gpf | 0.8 gpf | 557                   | \$2.01                 | \$3.60                       |
| 262  | Institutional | 75   | Site-Specific Water Audit | 158             |         |         | 97,895                | \$354.84               | \$3.62                       |
| 263  | Commercial    | 24   | Site-Specific Water Audit | 4               |         |         | 11,454                | \$41.65                | \$3.64                       |
| 264  | Commercial    | 31   | Urinals                   | 1               | 1.5 gpf | 0 gpf   | 8                     | \$0.03                 | \$3.68                       |
| 265  | Commercial    | 19   | Mixed-Use Toilets         | 6,321           | 1.6 gpf | 0.8 gpf | 56,324                | \$207.81               | \$3.69                       |
| 266  | Institutional | 74   | Urinals                   | 1,109           | 1 gpf   | 0 gpf   | 9,044                 | \$33.42                | \$3.70                       |
| 267  | Commercial    | 23   | Single-Use Toilets        | 85              | 3.5 gpf | 0.8 gpf | 753                   | \$2.79                 | \$3.71                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 268  | Institutional | 83   | Single-Use Toilets        | 628             | 3.5 gpf | 0.8 gpf | 5,446                 | \$20.65                | \$3.79                       |
| 269  | Commercial    | 31   | Site-Specific Water Audit | 1               |         |         | 74                    | \$0.28                 | \$3.80                       |
| 270  | Commercial    | 20   | Single-Use Toilets        | 96              | 1.6 gpf | 0.8 gpf | 824                   | \$3.16                 | \$3.83                       |
| 271  | Institutional | 79   | Single-Use Toilets        | 10              | 1.6 gpf | 0.8 gpf | 85                    | \$0.33                 | \$3.86                       |
| 272  | Institutional | 83   | Mixed-Use Toilets         | 7,958           | 1.6 gpf | 0.8 gpf | 67,666                | \$261.63               | \$3.87                       |
| 273  | Commercial    | 17   | Single-Use Toilets        | 1,031           | 3.5 gpf | 0.8 gpf | 8,763                 | \$33.90                | \$3.87                       |
| 274  | Commercial    | 18   | Single-Use Toilets        | 3,020           | 1.6 gpf | 0.8 gpf | 25,612                | \$99.29                | \$3.88                       |
| 275  | Institutional | 81   | Mixed-Use Toilets         | 458             | 1.6 gpf | 0.8 gpf | 3,845                 | \$15.06                | \$3.92                       |
| 276  | Institutional | 75   | Single-Use Toilets        | 223             | 1.6 gpf | 0.8 gpf | 1,860                 | \$7.33                 | \$3.94                       |
| 277  | Industrial    | 41   | Single-Use Toilets        | 917             | 1.6 gpf | 0.8 gpf | 7,522                 | \$30.15                | \$4.01                       |
| 278  | Institutional | 79   | Mixed-Use Toilets         | 80              | 1.6 gpf | 0.8 gpf | 653                   | \$2.63                 | \$4.03                       |
| 279  | Institutional | 85   | Mixed-Use Toilets         | 2,641           | 3.5 gpf | 0.8 gpf | 21,222                | \$86.83                | \$4.09                       |
| 280  | Commercial    | 29   | Site-Specific Water Audit | 37              |         |         | 46,259                | \$191.26               | \$4.13                       |
| 281  | Commercial    | 20   | Single-Use Toilets        | 4               | 3.5 gpf | 0.8 gpf | 32                    | \$0.13                 | \$4.16                       |
| 282  | Commercial    | 26   | Site-Specific Water Audit | 189             |         |         | 18,841                | \$79.51                | \$4.22                       |
| 283  | Industrial    | 48   | Single-Use Toilets        | 3,262           | 1.6 gpf | 0.8 gpf | 25,023                | \$107.24               | \$4.29                       |
| 284  | Institutional | 90   | Faucets                   | 4,849           | 1.5 gpm | 0.5 gpm | 13,938                | \$62.00                | \$4.45                       |
| 285  | Commercial    | 23   | Site-Specific Water Audit | 492             |         |         | 95,340                | \$424.27               | \$4.45                       |
| 286  | Industrial    | 49   | Mixed-Use Toilets         | 154             | 1.6 gpf | 0.8 gpf | 1,130                 | \$5.06                 | \$4.48                       |
| 287  | Industrial    | 91   | Mixed-Use Toilets         | 201             | 3.5 gpf | 0.8 gpf | 1,457                 | \$6.61                 | \$4.53                       |
| 288  | Industrial    | 49   | Single-Use Toilets        | 6               | 3.5 gpf | 0.8 gpf | 43                    | \$0.20                 | \$4.54                       |
| 289  | Commercial    | 37   | Faucets                   | 28              | 1.5 gpm | 0.5 gpm | 78                    | \$0.36                 | \$4.56                       |
| 290  | Commercial    | 25   | Mixed-Use Toilets         | 411             | 3.5 gpf | 0.8 gpf | 2,957                 | \$13.51                | \$4.57                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 291  | Institutional | 77   | Single-Use Toilets        | 57              | 3.5 gpf | 0.8 gpf | 408                   | \$1.87                 | \$4.59                       |
| 292  | Commercial    | 25   | Faucets                   | 3,417           | 1.5 gpm | 0.5 gpm | 9,516                 | \$43.69                | \$4.59                       |
| 293  | Commercial    | 12   | Single-Use Toilets        | 1,319           | 1.6 gpf | 0.8 gpf | 9,414                 | \$43.36                | \$4.61                       |
| 294  | Institutional | 90   | Single-Use Toilets        | 449             | 3.5 gpf | 0.8 gpf | 3,197                 | \$14.76                | \$4.62                       |
| 295  | Commercial    | 38   | Site-Specific Water Audit | 123             |         |         | 64,321                | \$297.41               | \$4.62                       |
| 296  | Commercial    | 23   | Single-Use Toilets        | 456             | 1.6 gpf | 0.8 gpf | 3,215                 | \$14.99                | \$4.66                       |
| 297  | Commercial    | 27   | Mixed-Use Toilets         | 799             | 3.5 gpf | 0.8 gpf | 5,590                 | \$26.27                | \$4.70                       |
| 298  | Institutional | 83   | Faucets                   | 19,460          | 1.5 gpm | 0.5 gpm | 52,062                | \$248.80               | \$4.78                       |
| 299  | Commercial    | 27   | Faucets                   | 4,137           | 1.5 gpm | 0.5 gpm | 10,882                | \$52.89                | \$4.86                       |
| 300  | Commercial    | 14   | Site-Specific Water Audit | 65              |         |         | 79,688                | \$393.23               | \$4.93                       |
| 301  | Commercial    | 17   | Single-Use Toilets        | 5,189           | 1.6 gpf | 0.8 gpf | 34,388                | \$170.60               | \$4.96                       |
| 302  | Commercial    | 31   | Faucets                   | 2               | 1.5 gpm | 0.5 gpm | 5                     | \$0.03                 | \$4.96                       |
| 303  | Institutional | 97   | Site-Specific Water Audit | 19              |         |         | 2,326                 | \$11.55                | \$4.97                       |
| 304  | Institutional | 82   | Site-Specific Water Audit | 59              |         |         | 22,439                | \$111.47               | \$4.97                       |
| 305  | Industrial    | 49   | Site-Specific Water Audit | 147             |         |         | 26,917                | \$135.15               | \$5.02                       |
| 306  | Industrial    | 49   | Faucets                   | 265             | 1.5 gpm | 0.5 gpm | 662                   | \$3.39                 | \$5.12                       |
| 307  | Institutional | 83   | Single-Use Toilets        | 2,672           | 1.6 gpf | 0.8 gpf | 16,842                | \$87.85                | \$5.22                       |
| 308  | Institutional | 73   | Mixed-Use Toilets         | 164             | 3.5 gpf | 0.8 gpf | 999                   | \$5.39                 | \$5.40                       |
| 309  | Commercial    | 37   | Single-Use Toilets        | 2               | 3.5 gpf | 0.8 gpf | 12                    | \$0.07                 | \$5.42                       |
| 310  | Institutional | 81   | Site-Specific Water Audit | 5               |         |         | 25,081                | \$137.09               | \$5.47                       |
| 311  | Institutional | 74   | Site-Specific Water Audit | 124             |         |         | 167,705               | \$917.14               | \$5.47                       |
| 312  | Commercial    | 33   | Site-Specific Water Audit | 182             |         |         | 22,278                | \$122.95               | \$5.52                       |
| 313  | Institutional | 79   | Site-Specific Water Audit | 26              |         |         | 5,082                 | \$28.29                | \$5.57                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 314  | Institutional | 71   | Faucets                   | 7,607           | 1.5 gpm | 0.5 gpm | 17,427                | \$97.26                | \$5.58                       |
| 315  | Institutional | 74   | Mixed-Use Toilets         | 628             | 3.5 gpf | 0.8 gpf | 3,693                 | \$20.65                | \$5.59                       |
| 316  | Commercial    | 19   | Single-Use Toilets        | 517             | 3.5 gpf | 0.8 gpf | 3,016                 | \$17.00                | \$5.64                       |
| 317  | Institutional | 90   | Site-Specific Water Audit | 338             |         |         | 133,388               | \$759.32               | \$5.69                       |
| 318  | Commercial    | 25   | Mixed-Use Toilets         | 2,357           | 1.6 gpf | 0.8 gpf | 13,489                | \$77.49                | \$5.74                       |
| 319  | Commercial    | 30   | Single-Use Toilets        | 1               | 1.6 gpf | 0.8 gpf | 6                     | \$0.03                 | \$5.79                       |
| 320  | Industrial    | 47   | Site-Specific Water Audit | 22              |         |         | 5,548                 | \$32.40                | \$5.84                       |
| 321  | Institutional | 90   | Single-Use Toilets        | 585             | 1.6 gpf | 0.8 gpf | 3,242                 | \$19.23                | \$5.93                       |
| 322  | Commercial    | 39   | Site-Specific Water Audit | 790             |         |         | 1,656,784             | \$9,894.00             | \$5.97                       |
| 323  | Institutional | 84   | Site-Specific Water Audit | 24              |         |         | 244,137               | \$1,458.42             | \$5.97                       |
| 324  | Institutional | 85   | Mixed-Use Toilets         | 1,798           | 1.6 gpf | 0.8 gpf | 9,821                 | \$59.11                | \$6.02                       |
| 325  | Institutional | 77   | Mixed-Use Toilets         | 368             | 3.5 gpf | 0.8 gpf | 2,009                 | \$12.10                | \$6.02                       |
| 326  | Commercial    | 27   | Mixed-Use Toilets         | 3,160           | 1.6 gpf | 0.8 gpf | 17,189                | \$103.89               | \$6.04                       |
| 327  | Institutional | 71   | Single-Use Toilets        | 297             | 3.5 gpf | 0.8 gpf | 1,593                 | \$9.76                 | \$6.13                       |
| 328  | Industrial    | 91   | Mixed-Use Toilets         | 538             | 1.6 gpf | 0.8 gpf | 2,835                 | \$17.69                | \$6.24                       |
| 329  | Industrial    | 49   | Single-Use Toilets        | 21              | 1.6 gpf | 0.8 gpf | 111                   | \$0.69                 | \$6.24                       |
| 330  | Institutional | 78   | Site-Specific Water Audit | 8               |         |         | 847                   | \$5.32                 | \$6.28                       |
| 331  | Institutional | 77   | Single-Use Toilets        | 254             | 1.6 gpf | 0.8 gpf | 1,316                 | \$8.35                 | \$6.35                       |
| 332  | Commercial    | 17   | Site-Specific Water Audit | 3,782           |         |         | 802,800               | \$5,198.97             | \$6.48                       |
| 333  | Institutional | 90   | Mixed-Use Toilets         | 2,761           | 3.5 gpf | 0.8 gpf | 13,976                | \$90.77                | \$6.50                       |
| 334  | Institutional | 85   | Site-Specific Water Audit | 31              |         |         | 119,869               | \$784.00               | \$6.54                       |
| 335  | Institutional | 77   | Site-Specific Water Audit | 248             |         |         | 43,258                | \$283.52               | \$6.55                       |
| 336  | Commercial    | 19   | Single-Use Toilets        | 2,648           | 1.6 gpf | 0.8 gpf | 12,617                | \$87.06                | \$6.90                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 337  | Industrial    | 91   | Faucets                   | 1,115           | 1.5 gpm | 0.5 gpm | 2,044                 | \$14.26                | \$6.97                       |
| 338  | Institutional | 73   | Mixed-Use Toilets         | 1,631           | 1.6 gpf | 0.8 gpf | 7,447                 | \$53.62                | \$7.20                       |
| 339  | Industrial    | 91   | Single-Use Toilets        | 56              | 3.5 gpf | 0.8 gpf | 255                   | \$1.84                 | \$7.22                       |
| 340  | Commercial    | 27   | Single-Use Toilets        | 190             | 3.5 gpf | 0.8 gpf | 863                   | \$6.25                 | \$7.24                       |
| 341  | Institutional | 85   | Faucets                   | 8,848           | 1.5 gpm | 0.5 gpm | 15,152                | \$113.13               | \$7.47                       |
| 342  | Institutional | 71   | Mixed-Use Toilets         | 2,186           | 3.5 gpf | 0.8 gpf | 9,181                 | \$71.87                | \$7.83                       |
| 343  | Institutional | 74   | Mixed-Use Toilets         | 2,362           | 1.6 gpf | 0.8 gpf | 9,865                 | \$77.65                | \$7.87                       |
| 344  | Institutional | 77   | Mixed-Use Toilets         | 1,580           | 1.6 gpf | 0.8 gpf | 6,446                 | \$51.95                | \$8.06                       |
| 345  | Commercial    | 37   | Mixed-Use Toilets         | 12              | 3.5 gpf | 0.8 gpf | 48                    | \$0.39                 | \$8.14                       |
| 346  | Institutional | 85   | Single-Use Toilets        | 1,315           | 3.5 gpf | 0.8 gpf | 5,290                 | \$43.23                | \$8.17                       |
| 347  | Institutional | 71   | Single-Use Toilets        | 1,145           | 1.6 gpf | 0.8 gpf | 4,579                 | \$37.64                | \$8.22                       |
| 348  | Commercial    | 27   | Site-Specific Water Audit | 1,626           |         |         | 204,803               | \$1,707.95             | \$8.34                       |
| 349  | Institutional | 90   | Mixed-Use Toilets         | 3,424           | 1.6 gpf | 0.8 gpf | 13,231                | \$112.57               | \$8.51                       |
| 350  | Commercial    | 25   | Single-Use Toilets        | 178             | 3.5 gpf | 0.8 gpf | 686                   | \$5.85                 | \$8.53                       |
| 351  | Commercial    | 37   | Single-Use Toilets        | 6               | 1.6 gpf | 0.8 gpf | 22                    | \$0.20                 | \$8.78                       |
| 352  | Institutional | 72   | Site-Specific Water Audit | 186             |         |         | 62,110                | \$553.16               | \$8.91                       |
| 353  | Institutional | 73   | Faucets                   | 3,557           | 1.5 gpm | 0.5 gpm | 5,106                 | \$45.48                | \$8.91                       |
| 354  | Commercial    | 27   | Single-Use Toilets        | 766             | 1.6 gpf | 0.8 gpf | 2,716                 | \$25.18                | \$9.27                       |
| 355  | Commercial    | 31   | Mixed-Use Toilets         | 3               | 3.5 gpf | 0.8 gpf | 11                    | \$0.10                 | \$9.31                       |
| 356  | Commercial    | 19   | Site-Specific Water Audit | 1,729           |         |         | 191,062               | \$1,794.15             | \$9.39                       |
| 357  | Institutional | 74   | Faucets                   | 5,866           | 1.5 gpm | 0.5 gpm | 7,739                 | \$75.00                | \$9.69                       |
| 358  | Industrial    | 91   | Single-Use Toilets        | 146             | 1.6 gpf | 0.8 gpf | 476                   | \$4.80                 | \$10.08                      |
| 359  | Institutional | 71   | Mixed-Use Toilets         | 8,432           | 1.6 gpf | 0.8 gpf | 26,033                | \$277.22               | \$10.65                      |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 360  | Commercial    | 25   | Single-Use Toilets        | 1,031           | 1.6 gpf | 0.8 gpf | 3,180                 | \$33.90                | \$10.66                      |
| 361  | Institutional | 73   | Single-Use Toilets        | 83              | 3.5 gpf | 0.8 gpf | 250                   | \$2.73                 | \$10.93                      |
| 362  | Commercial    | 32   | Site-Specific Water Audit | 15              |         |         | 8,229                 | \$90.20                | \$10.96                      |
| 363  | Commercial    | 30   | Mixed-Use Toilets         | 25              | 1.6 gpf | 0.8 gpf | 74                    | \$0.82                 | \$11.06                      |
| 364  | Institutional | 74   | Single-Use Toilets        | 312             | 3.5 gpf | 0.8 gpf | 919                   | \$10.26                | \$11.16                      |
| 365  | Commercial    | 37   | Mixed-Use Toilets         | 33              | 1.6 gpf | 0.8 gpf | 96                    | \$1.08                 | \$11.36                      |
| 366  | Institutional | 85   | Single-Use Toilets        | 898             | 1.6 gpf | 0.8 gpf | 2,452                 | \$29.52                | \$12.04                      |
| 367  | Commercial    | 30   | Faucets                   | 30              | 1.5 gpm | 0.5 gpm | 32                    | \$0.38                 | \$12.05                      |
| 368  | Commercial    | 31   | Single-Use Toilets        | 1               | 3.5 gpf | 0.8 gpf | 3                     | \$0.03                 | \$12.41                      |
| 369  | Institutional | 73   | Single-Use Toilets        | 810             | 1.6 gpf | 0.8 gpf | 1,850                 | \$26.63                | \$14.39                      |
| 370  | Institutional | 76   | Site-Specific Water Audit | 53              |         |         | 2,634                 | \$41.13                | \$15.61                      |
| 371  | Institutional | 74   | Single-Use Toilets        | 1,152           | 1.6 gpf | 0.8 gpf | 2,412                 | \$37.87                | \$15.70                      |
| 372  | Commercial    | 36   | Site-Specific Water Audit | 35              |         |         | 3,408                 | \$54.63                | \$16.03                      |
| 373  | Commercial    | 16   | Site-Specific Water Audit | 784             |         |         | 327,034               | \$5,255.53             | \$16.07                      |
| 374  | Institutional | 83   | Site-Specific Water Audit | 297             |         |         | 222,734               | \$4,145.88             | \$18.61                      |
| 375  | Commercial    | 18   | Site-Specific Water Audit | 325             |         |         | 214,521               | \$4,046.53             | \$18.86                      |
| 376  | Institutional | 73   | Site-Specific Water Audit | 53              |         |         | 12,390                | \$264.20               | \$21.32                      |
| 377  | Commercial    | 15   | Site-Specific Water Audit | 26              |         |         | 51,193                | \$1,171.40             | \$22.88                      |
| 378  | Commercial    | 13   | Site-Specific Water Audit | 58              |         |         | 53,139                | \$1,256.78             | \$23.65                      |
| 379  | Commercial    | 30   | Mixed-Use Toilets         | 5               | 3.5 gpf | 0.8 gpf | 6                     | \$0.16                 | \$25.81                      |
| 380  | Commercial    | 12   | Site-Specific Water Audit | 3,281           |         |         | 40,309                | \$1,160.10             | \$28.78                      |
| 381  | Institutional | 71   | Site-Specific Water Audit | 1,840           |         |         | 84,271                | \$2,532.48             | \$30.05                      |
| 382  | Industrial    | 42   | Site-Specific Water Audit | 50              |         |         | 15,225                | \$522.08               | \$34.29                      |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 383  | Commercial    | 37   | Site-Specific Water Audit | 5               |         |         | 100                   | \$4.28                 | \$42.84                      |
| 384  | Industrial    | 92   | Site-Specific Water Audit | 27              |         |         | 5,296                 | \$232.11               | \$43.83                      |
| 385  | Industrial    | 41   | Site-Specific Water Audit | 1,347           |         |         | 91,075                | \$4,300.04             | \$47.21                      |
| 386  | Industrial    | 92   | Urinals                   | 5               | 1.5 gpf | 0 gpf   | 3                     | \$0.15                 | \$47.64                      |
| 387  | Industrial    | 48   | Site-Specific Water Audit | 4,283           |         |         | 358,962               | \$18,612.43            | \$51.85                      |
| 388  | Commercial    | 34   | Site-Specific Water Audit | 76              |         |         | 4,540                 | \$253.34               | \$55.80                      |
| 389  | Industrial    | 92   | Urinals                   | 30              | 1 gpf   | 0 gpf   | 16                    | \$0.90                 | \$56.63                      |
| 390  | Commercial    | 11   | Site-Specific Water Audit | 4,513           |         |         | 94,785                | \$5,401.90             | \$56.99                      |
| 391  | Industrial    | 91   | Site-Specific Water Audit | 313             |         |         | 4,137                 | \$298.52               | \$72.16                      |
| 392  | Industrial    | 45   | Site-Specific Water Audit | 32              |         |         | 7,987                 | \$603.37               | \$75.54                      |
| 393  | Industrial    | 44   | Site-Specific Water Audit | 57              |         |         | 5,540                 | \$471.22               | \$85.05                      |
| 394  | Industrial    | 43   | Site-Specific Water Audit | 48              |         |         | 1,967                 | \$173.73               | \$88.31                      |
| 395  | Industrial    | 46   | Site-Specific Water Audit | 37              |         |         | 4,074                 | \$373.01               | \$91.57                      |
| 396  | Industrial    | 92   | Mixed-Use Toilets         | 18              | 3.5 gpf | 0.8 gpf | 5                     | \$0.59                 | \$116.85                     |
| 397  | Industrial    | 92   | Mixed-Use Toilets         | 81              | 1.6 gpf | 0.8 gpf | 19                    | \$2.66                 | \$142.66                     |
| 398  | Industrial    | 47   | Urinals                   | 6               | 1 gpf   | 0 gpf   | 1                     | \$0.18                 | \$149.67                     |
| 399  | Industrial    | 47   | Urinals                   | 3               | 1.5 gpf | 0 gpf   | 1                     | \$0.09                 | \$160.13                     |
| 400  | Industrial    | 92   | Faucets                   | 174             | 1.5 gpm | 0.5 gpm | 13                    | \$2.22                 | \$167.34                     |
| 401  | Industrial    | 92   | Single-Use Toilets        | 7               | 3.5 gpf | 0.8 gpf | 1                     | \$0.23                 | \$215.35                     |
| 402  | Industrial    | 92   | Single-Use Toilets        | 33              | 1.6 gpf | 0.8 gpf | 4                     | \$1.08                 | \$254.85                     |
| 403  | Institutional | 76   | Urinals                   | 1               | 1.5 gpf | 0 gpf   | 0                     | \$0.03                 | \$271.99                     |
| 404  | Industrial    | 47   | Mixed-Use Toilets         | 13              | 3.5 gpf | 0.8 gpf | 1                     | \$0.43                 | \$308.71                     |
| 405  | Institutional | 76   | Urinals                   | 6               | 1 gpf   | 0 gpf   | 1                     | \$0.18                 | \$320.09                     |
| 406  | Industrial    | 47   | Mixed-Use Toilets         | 39              | 1.6 gpf | 0.8 gpf | 3                     | \$1.28                 | \$422.82                     |
| 407  | Industrial    | 47   | Faucets                   | 71              | 1.5 gpm | 0.5 gpm | 2                     | \$0.91                 | \$492.73                     |
| 408  | Institutional | 82   | Urinals                   | 35              | 1.5 gpf | 0 gpf   | 2                     | \$1.05                 | \$513.22                     |

| Rank | Sector        | FDOR | BMP Type           | Number of Units | From    | To      | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|--------------------|-----------------|---------|---------|-----------------------|------------------------|------------------------------|
| 409  | Industrial    | 47   | Single-Use Toilets | 3               | 3.5 gpf | 0.8 gpf | 0                     | \$0.10                 | \$517.02                     |
| 410  | Institutional | 82   | Urinals            | 80              | 1 gpf   | 0 gpf   | 5                     | \$2.41                 | \$533.86                     |
| 411  | Industrial    | 47   | Single-Use Toilets | 7               | 1.6 gpf | 0.8 gpf | 0                     | \$0.23                 | \$714.34                     |
| 412  | Institutional | 76   | Faucets            | 88              | 1.5 gpm | 0.5 gpm | 1                     | \$1.13                 | \$768.83                     |
| 413  | Institutional | 76   | Mixed-Use Toilets  | 37              | 3.5 gpf | 0.8 gpf | 1                     | \$1.22                 | \$831.56                     |
| 414  | Institutional | 76   | Single-Use Toilets | 1               | 3.5 gpf | 0.8 gpf | 0                     | \$0.03                 | \$903.72                     |
| 415  | Institutional | 82   | Faucets            | 332             | 1.5 gpm | 0.5 gpm | 5                     | \$4.24                 | \$922.70                     |
| 416  | Institutional | 82   | Single-Use Toilets | 22              | 3.5 gpf | 0.8 gpf | 1                     | \$0.72                 | \$1,049.72                   |
| 417  | Institutional | 76   | Single-Use Toilets | 5               | 1.6 gpf | 0.8 gpf | 0                     | \$0.16                 | \$1,091.22                   |
| 418  | Institutional | 76   | Mixed-Use Toilets  | 99              | 1.6 gpf | 0.8 gpf | 3                     | \$3.25                 | \$1,140.18                   |
| 419  | Institutional | 82   | Single-Use Toilets | 46              | 1.6 gpf | 0.8 gpf | 1                     | \$1.51                 | \$1,255.78                   |
| 420  | Institutional | 82   | Mixed-Use Toilets  | 135             | 3.5 gpf | 0.8 gpf | 3                     | \$4.44                 | \$1,349.56                   |
| 421  | Institutional | 82   | Mixed-Use Toilets  | 293             | 1.6 gpf | 0.8 gpf | 5                     | \$9.63                 | \$1,775.47                   |
| 422  | Institutional | 97   | Urinals            | 42              | 1 gpf   | 0 gpf   | 1                     | \$1.27                 | \$1,956.08                   |
| 423  | Institutional | 97   | Urinals            | 4               | 1.5 gpf | 0 gpf   | 0                     | \$0.12                 | \$1,959.97                   |
| 424  | Institutional | 97   | Faucets            | 115             | 1.5 gpm | 0.5 gpm | 0                     | \$1.47                 | \$2,998.85                   |
| 425  | Institutional | 97   | Single-Use Toilets | 3               | 3.5 gpf | 0.8 gpf | 0                     | \$0.10                 | \$4,484.69                   |
| 426  | Institutional | 97   | Mixed-Use Toilets  | 14              | 3.5 gpf | 0.8 gpf | 0                     | \$0.46                 | \$5,232.14                   |
| 427  | Institutional | 97   | Single-Use Toilets | 29              | 1.6 gpf | 0.8 gpf | 0                     | \$0.95                 | \$5,525.29                   |
| 428  | Institutional | 97   | Mixed-Use Toilets  | 157             | 1.6 gpf | 0.8 gpf | 1                     | \$5.16                 | \$6,796.70                   |



## Cost-Effective Water Conservation Potential (without “Best” options)

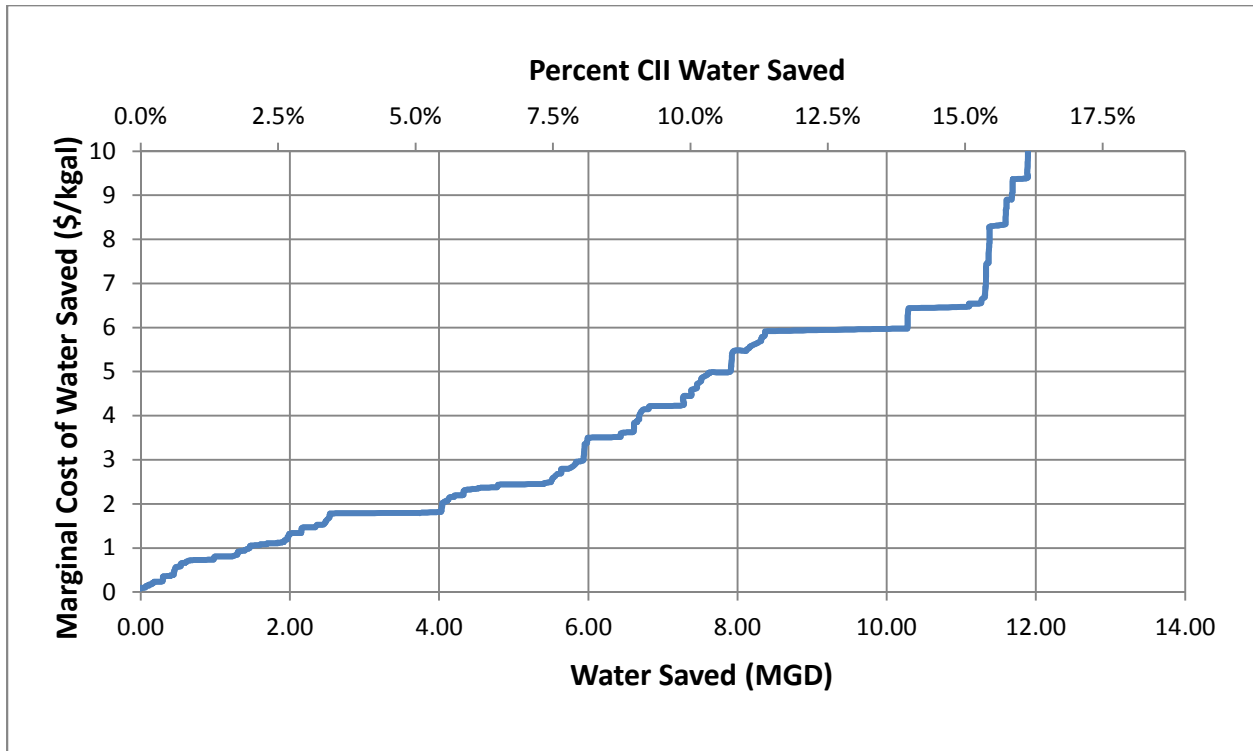


Figure 5. Marginal cost curve of water conservation BMPs in the CII sectors of the CFWI with “Best” options excluded.

Table 8. CII BMP summary at \$1/kgal cost-effective threshold for the CFWI with “Best” options excluded.

|   | Commercial    | Industrial   | Institutional | Total         |
|---|---------------|--------------|---------------|---------------|
| Estimated Water Use (MGD)   | 59            | 5            | 10            | 74            |
| Number of Parcels   | 20,205        | 6,363        | 3,469         | 30,037        |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963   | 174,078,316  | 83,732,522    | 552,329,801   |
| <b>Cost-Effective (\$/kgal &lt; 1) Water Conservation Potential (CEWCP) (MGD)</b> | <b>1.4</b>    | <b>0.0</b>   | <b>0.0</b>    | <b>1.5</b>    |
| Single-Use Toilets CEWCP (MGD)  | 0.03          | 0.00         | 0.00          | 0.03          |
| Mixed-Use Toilets CEWCP (MGD)   | 0.30          | 0.01         | 0.00          | 0.32          |
| Urinals CEWCP (MGD)   | 0.22          | 0.01         | 0.00          | 0.23          |
| Faucets CEWCP (MGD)   | 0.82          | 0.01         | 0.05          | 0.88          |
| Showerheads CEWCP (MGD)   | 0.00          | 0.00         | 0.00          | 0.00          |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.00          | 0.00         | 0.00          | 0.00          |
| Site-Specific Water Audits CEWCP (MGD)  | 0.00          | 0.00         | 0.00          | 0.00          |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$6</b>    | <b>\$0</b>   | <b>\$0</b>    | <b>\$6</b>    |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$0.1         | \$0.0        | \$0.0         | \$0           |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$1.7         | \$0.1        | \$0.0         | \$2           |
| Urinals CEWCP, 25 year service life   | \$1.3         | \$0.0        | \$0.0         | \$1           |
| Faucets CEWCP, 15 year service life   | \$2.7         | \$0.0        | \$0.2         | \$3           |
| Showerheads CEWCP, 8 year service life  | \$0.0         | \$0.0        | \$0.0         | \$0           |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.0         | \$0.0        | \$0.0         | \$0           |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$0.0         | \$0.0        | \$0.0         | \$0           |
| <b>Number of Units Retrofitted</b>  | <b>51,638</b> | <b>1,193</b> | <b>3,436</b>  | <b>56,267</b> |
| Single-Use Toilets CEWCP (fixtures)   | 749           | 13           | 35            | 797           |
| Mixed-Use Toilets CEWCP (fixtures)  | 9,337         | 477          | 103           | 9,917         |
| Urinals Toilets CEWCP (fixtures)  | 3,379         | 106          | 0             | 3,485         |
| Faucets Toilets CEWCP (fixtures)  | 38,173        | 597          | 3,298         | 42,068        |
| Showerheads CEWCP (fixtures)  | 0             | 0            | 0             | 0             |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 0             | 0            | 0             | 0             |
| Site-Specific Water Audits CEWCP (parcels)  | 0             | 0            | 0             | 0             |

Table 9. CII BMP summary at \$2/kgal cost-effective threshold for the CFWI with “Best” options excluded.

|   | <b>Commercial</b> | <b>Industrial</b> | <b>Institutional</b> | <b>Total</b>   |
|---|-------------------|-------------------|----------------------|----------------|
| Estimated Water Use (MGD)   | 59                | 5                 | 10                   | 74             |
| Number of Parcels   | 20,205            | 6,363             | 3,469                | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963       | 174,078,316       | 83,732,522           | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 2) Water Conservation Potential (CEWCP) (MGD)</b> | <b>3.8</b>        | <b>0.1</b>        | <b>0.1</b>           | <b>4.0</b>     |
| Single-Use Toilets CEWCP (MGD)  | 0.08              | 0.00              | 0.01                 | 0.10           |
| Mixed-Use Toilets CEWCP (MGD)   | 0.72              | 0.02              | 0.04                 | 0.78           |
| Urinals CEWCP (MGD)   | 0.59              | 0.01              | 0.03                 | 0.64           |
| Faucets CEWCP (MGD)   | 0.95              | 0.02              | 0.05                 | 1.02           |
| Showerheads CEWCP (MGD)   | 0.00              | 0.00              | 0.01                 | 0.01           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.03              | 0.00              | 0.00                 | 0.03           |
| Site-Specific Water Audits CEWCP (MGD)  | 1.47              | 0.00              | 0.00                 | 1.47           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$22</b>       | <b>\$0</b>        | <b>\$1</b>           | <b>\$23</b>    |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$0.8             | \$0.0             | \$0.1                | \$1            |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$7.0             | \$0.2             | \$0.4                | \$8            |
| Urinals CEWCP, 25 year service life   | \$5.1             | \$0.1             | \$0.4                | \$6            |
| Faucets CEWCP, 15 year service life   | \$3.7             | \$0.1             | \$0.3                | \$4            |
| Showerheads CEWCP, 8 year service life  | \$0.0             | \$0.0             | \$0.0                | \$0            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1             | \$0.0             | \$0.0                | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$4.8             | \$0.0             | \$0.0                | \$5            |
| <b>Number of Units Retrofitted</b>  | <b>111,807</b>    | <b>2,913</b>      | <b>9,133</b>         | <b>123,853</b> |
| Single-Use Toilets CEWCP (fixtures)   | 4,713             | 149               | 674                  | 5,536          |
| Mixed-Use Toilets CEWCP (fixtures)  | 39,090            | 1,351             | 2,197                | 42,638         |
| Urinals Toilets CEWCP (fixtures)  | 13,685            | 318               | 1,094                | 15,097         |
| Faucets Toilets CEWCP (fixtures)  | 52,448            | 1,095             | 3,678                | 57,221         |
| Showerheads CEWCP (fixtures)  | 0                 | 0                 | 1,490                | 1,490          |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067             | 0                 | 0                    | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 804               | 0                 | 0                    | 804            |

Table 10. CII BMP summary at \$3/kgal cost-effective threshold for the CFWI with “Best” options excluded.

|   | <b>Commercial</b> | <b>Industrial</b> | <b>Institutional</b> | <b>Total</b>   |
|---|-------------------|-------------------|----------------------|----------------|
| Estimated Water Use (MGD)   | 59                | 5                 | 10                   | 74             |
| Number of Parcels   | 20,205            | 6,363             | 3,469                | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963       | 174,078,316       | 83,732,522           | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 3) Water Conservation Potential (CEWCP) (MGD)</b> | <b>5.5</b>        | <b>0.3</b>        | <b>0.2</b>           | <b>5.9</b>     |
| Single-Use Toilets CEWCP (MGD)  | 0.14              | 0.00              | 0.01                 | 0.16           |
| Mixed-Use Toilets CEWCP (MGD)   | 1.03              | 0.05              | 0.06                 | 1.14           |
| Urinals CEWCP (MGD)   | 0.78              | 0.09              | 0.05                 | 0.92           |
| Faucets CEWCP (MGD)   | 1.16              | 0.14              | 0.07                 | 1.37           |
| Showerheads CEWCP (MGD)   | 0.00              | 0.00              | 0.01                 | 0.01           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.03              | 0.00              | 0.00                 | 0.03           |
| Site-Specific Water Audits CEWCP (MGD)  | 2.31              | 0.00              | 0.00                 | 2.31           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$41</b>       | <b>\$4</b>        | <b>\$2</b>           | <b>\$48</b>    |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$2.3             | \$0.0             | \$0.1                | \$2            |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$14.0            | \$0.7             | \$0.9                | \$16           |
| Urinals CEWCP, 25 year service life   | \$9.6             | \$1.7             | \$0.8                | \$12           |
| Faucets CEWCP, 15 year service life   | \$6.4             | \$1.9             | \$0.5                | \$9            |
| Showerheads CEWCP, 8 year service life  | \$0.0             | \$0.0             | \$0.1                | \$0            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1             | \$0.0             | \$0.0                | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$8.6             | \$0.0             | \$0.0                | \$9            |
| <b>Number of Units Retrofitted</b>  | <b>210,594</b>    | <b>35,116</b>     | <b>17,742</b>        | <b>263,452</b> |
| Single-Use Toilets CEWCP (fixtures)   | 12,955            | 160               | 678                  | 13,793         |
| Mixed-Use Toilets CEWCP (fixtures)  | 77,556            | 3,641             | 5,144                | 86,341         |
| Urinals Toilets CEWCP (fixtures)  | 25,513            | 4,539             | 2,150                | 32,202         |
| Faucets Toilets CEWCP (fixtures)  | 91,463            | 26,776            | 7,652                | 125,891        |
| Showerheads CEWCP (fixtures)  | 0                 | 0                 | 2,118                | 2,118          |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067             | 0                 | 0                    | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 2,040             | 0                 | 0                    | 2,040          |

Table 11. CII BMP summary at \$4/kgal cost-effective threshold for the CFWI with “Best” options excluded.

|   | Commercial     | Industrial    | Institutional | Total          |
|---|----------------|---------------|---------------|----------------|
| Estimated Water Use (MGD)   | 59             | 5             | 10            | 74             |
| Number of Parcels   | 20,205         | 6,363         | 3,469         | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963    | 174,078,316   | 83,732,522    | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 4) Water Conservation Potential (CEWCP) (MGD)</b> | <b>6.0</b>     | <b>0.4</b>    | <b>0.3</b>    | <b>6.7</b>     |
| Single-Use Toilets CEWCP (MGD)  | 0.16           | 0.01          | 0.01          | 0.17           |
| Mixed-Use Toilets CEWCP (MGD)   | 1.09           | 0.12          | 0.06          | 1.28           |
| Urinals CEWCP (MGD)   | 0.81           | 0.09          | 0.05          | 0.95           |
| Faucets CEWCP (MGD)   | 1.60           | 0.14          | 0.08          | 1.81           |
| Showerheads CEWCP (MGD)   | 0.00           | 0.00          | 0.01          | 0.01           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.03           | 0.00          | 0.00          | 0.03           |
| Site-Specific Water Audits CEWCP (MGD)  | 2.33           | 0.00          | 0.10          | 2.43           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   | <b>\$53</b>    | <b>\$7</b>    | <b>\$3</b>    | <b>\$63</b>    |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$2.7          | \$0.2         | \$0.2         | \$3            |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$16.1         | \$3.1         | \$1.0         | \$20           |
| Urinals CEWCP, 25 year service life   | \$10.6         | \$1.7         | \$0.9         | \$13           |
| Faucets CEWCP, 15 year service life   | \$14.8         | \$1.9         | \$0.6         | \$17           |
| Showerheads CEWCP, 8 year service life  | \$0.0          | \$0.0         | \$0.1         | \$0            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1          | \$0.0         | \$0.0         | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$8.7          | \$0.0         | \$0.6         | \$9            |
| <b>Number of Units Retrofitted</b>  | <b>346,577</b> | <b>49,457</b> | <b>20,318</b> | <b>416,352</b> |
| Single-Use Toilets CEWCP (fixtures)   | 14,798         | 1,053         | 1,067         | 16,918         |
| Mixed-Use Toilets CEWCP (fixtures)  | 89,423         | 17,071        | 5,745         | 112,239        |
| Urinals Toilets CEWCP (fixtures)  | 28,211         | 4,557         | 2,328         | 35,096         |
| Faucets Toilets CEWCP (fixtures)  | 211,006        | 26,776        | 8,902         | 246,684        |
| Showerheads CEWCP (fixtures)  | 0              | 0             | 2,118         | 2,118          |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067          | 0             | 0             | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 2,072          | 0             | 158           | 2,230          |

Table 12. CII BMP summary at \$5/kgal cost-effective threshold for the CFWI with “Best” options excluded.

|   | <b>Commercial</b> | <b>Industrial</b> | <b>Institutional</b> | <b>Total</b>   |
|---|-------------------|-------------------|----------------------|----------------|
| Estimated Water Use (MGD)   | 59                | 5                 | 10                   | 74             |
| Number of Parcels   | 20,205            | 6,363             | 3,469                | 30,037         |
| Total Heated Building Area (ft <sup>2</sup> )                                     | 294,518,963       | 174,078,316       | 83,732,522           | 552,329,801    |
| <b>Cost-Effective (\$/kgal &lt; 5) Water Conservation Potential (CEWCP) (MGD)</b> |                   |                   |                      |                |
|   | <b>7.1</b>        | <b>0.4</b>        | <b>0.4</b>           | <b>7.9</b>     |
| Single-Use Toilets CEWCP (MGD)  | 0.16              | 0.01              | 0.02                 | 0.19           |
| Mixed-Use Toilets CEWCP (MGD)   | 1.59              | 0.12              | 0.08                 | 1.79           |
| Urinals CEWCP (MGD)   | 0.81              | 0.09              | 0.05                 | 0.95           |
| Faucets CEWCP (MGD)   | 1.62              | 0.14              | 0.14                 | 1.90           |
| Showerheads CEWCP (MGD)   | 0.25              | 0.00              | 0.02                 | 0.27           |
| Pre-Rinse Spray Valves CEWCP (MGD)  | 0.03              | 0.00              | 0.00                 | 0.03           |
| Site-Specific Water Audits CEWCP (MGD)  | 2.63              | 0.00              | 0.12                 | 2.75           |
| <b>Cost to Achieve CEWCP (Million \$)</b>   |                   |                   |                      |                |
|   | <b>\$79</b>       | <b>\$7</b>        | <b>\$6</b>           | <b>\$92</b>    |
| Single-Use Toilets CEWCP, 25 year service life                                    | \$2.9             | \$0.2             | \$0.4                | \$3            |
| Mixed-Use Toilets CEWCP, 25 year service life                                     | \$35.3            | \$3.1             | \$1.5                | \$40           |
| Urinals CEWCP, 25 year service life   | \$10.6            | \$1.7             | \$0.9                | \$13           |
| Faucets CEWCP, 15 year service life   | \$15.3            | \$1.9             | \$2.3                | \$20           |
| Showerheads CEWCP, 8 year service life  | \$3.7             | \$0.0             | \$0.2                | \$4            |
| Pre-Rinse Spray Valves CEWCP, 5 year service life                                 | \$0.1             | \$0.0             | \$0.0                | \$0            |
| Site-Specific Water Audits CEWCP, 5 year service life                             | \$11.2            | \$0.0             | \$0.9                | \$12           |
| <b>Number of Units Retrofitted</b>  |                   |                   |                      |                |
|   | <b>582,577</b>    | <b>49,664</b>     | <b>52,071</b>        | <b>684,312</b> |
| Single-Use Toilets CEWCP (fixtures)   | 15,918            | 1,059             | 2,282                | 19,259         |
| Mixed-Use Toilets CEWCP (fixtures)  | 196,108           | 17,272            | 8,386                | 221,766        |
| Urinals Toilets CEWCP (fixtures)  | 28,373            | 4,557             | 2,328                | 35,258         |
| Faucets Toilets CEWCP (fixtures)  | 218,590           | 26,776            | 33,211               | 278,577        |
| Showerheads CEWCP (fixtures)  | 119,543           | 0                 | 5,628                | 125,171        |
| Pre-Rinse Spray Valves CEWCP (fixtures)   | 1,067             | 0                 | 0                    | 1,067          |
| Site-Specific Water Audits CEWCP (parcels)  | 2,978             | 0                 | 236                  | 3,214          |

Table 13. CII water conservation BMP details for the CFWI with “Best” options excluded.

| Rank | Sector     | FDOR | BMP Type           | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|------------|------|--------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 1    | Commercial | 29   | Urinals            | 1               | 1.5 gpf | 0.5 gpf  | 503                   | \$0.04                 | \$0.08                       |
| 2    | Commercial | 15   | Mixed-Use Toilets  | 26              | 3.5 gpf | 1.28 gpf | 5,163                 | \$0.51                 | \$0.10                       |
| 3    | Commercial | 15   | Faucets            | 409             | 1.5 gpm | 0.5 gpm  | 52,152                | \$5.23                 | \$0.10                       |
| 4    | Commercial | 29   | Faucets            | 78              | 1.5 gpm | 0.5 gpm  | 8,515                 | \$1.00                 | \$0.12                       |
| 5    | Commercial | 15   | Urinals            | 10              | 1.5 gpf | 0.5 gpf  | 3,337                 | \$0.41                 | \$0.12                       |
| 6    | Commercial | 29   | Urinals            | 13              | 1 gpf   | 0.5 gpf  | 4,128                 | \$0.53                 | \$0.13                       |
| 7    | Commercial | 29   | Mixed-Use Toilets  | 17              | 3.5 gpf | 1.28 gpf | 2,342                 | \$0.34                 | \$0.14                       |
| 8    | Commercial | 15   | Urinals            | 131             | 1 gpf   | 0.5 gpf  | 35,875                | \$5.38                 | \$0.15                       |
| 9    | Commercial | 15   | Single-Use Toilets | 11              | 3.5 gpf | 1.28 gpf | 1,265                 | \$0.22                 | \$0.17                       |
| 10   | Commercial | 14   | Mixed-Use Toilets  | 62              | 3.5 gpf | 1.28 gpf | 7,077                 | \$1.22                 | \$0.17                       |
| 11   | Commercial | 15   | Mixed-Use Toilets  | 288             | 1.6 gpf | 1.28 gpf | 31,292                | \$5.68                 | \$0.18                       |
| 12   | Commercial | 29   | Mixed-Use Toilets  | 60              | 1.6 gpf | 1.28 gpf | 5,666                 | \$1.18                 | \$0.21                       |
| 13   | Commercial | 14   | Faucets            | 319             | 1.5 gpm | 0.5 gpm  | 19,113                | \$4.08                 | \$0.21                       |
| 14   | Commercial | 14   | Urinals            | 22              | 1.5 gpf | 0.5 gpf  | 3,958                 | \$0.90                 | \$0.23                       |
| 15   | Commercial | 29   | Single-Use Toilets | 2               | 3.5 gpf | 1.28 gpf | 167                   | \$0.04                 | \$0.24                       |
| 16   | Commercial | 21   | Faucets            | 1,977           | 1.5 gpm | 0.5 gpm  | 105,383               | \$25.28                | \$0.24                       |
| 17   | Commercial | 14   | Urinals            | 69              | 1 gpf   | 0.5 gpf  | 10,429                | \$2.84                 | \$0.27                       |
| 18   | Industrial | 42   | Urinals            | 6               | 1.5 gpf | 0.5 gpf  | 709                   | \$0.25                 | \$0.35                       |
| 19   | Commercial | 15   | Single-Use Toilets | 138             | 1.6 gpf | 1.28 gpf | 7,653                 | \$2.72                 | \$0.36                       |
| 20   | Industrial | 42   | Mixed-Use Toilets  | 24              | 3.5 gpf | 1.28 gpf | 1,320                 | \$0.47                 | \$0.36                       |
| 21   | Commercial | 22   | Faucets            | 2,676           | 1.5 gpm | 0.5 gpm  | 93,147                | \$34.21                | \$0.37                       |
| 22   | Commercial | 14   | Single-Use Toilets | 30              | 3.5 gpf | 1.28 gpf | 1,559                 | \$0.59                 | \$0.38                       |
| 23   | Commercial | 29   | Single-Use Toilets | 17              | 1.6 gpf | 1.28 gpf | 881                   | \$0.34                 | \$0.38                       |
| 24   | Commercial | 21   | Mixed-Use Toilets  | 616             | 3.5 gpf | 1.28 gpf | 31,554                | \$12.15                | \$0.39                       |
| 25   | Industrial | 44   | Urinals            | 4               | 1.5 gpf | 0.5 gpf  | 424                   | \$0.16                 | \$0.39                       |
| 26   | Commercial | 14   | Mixed-Use Toilets  | 193             | 1.6 gpf | 1.28 gpf | 9,593                 | \$3.81                 | \$0.40                       |
| 27   | Industrial | 42   | Urinals            | 22              | 1 gpf   | 0.5 gpf  | 2,047                 | \$0.90                 | \$0.44                       |
| 28   | Industrial | 44   | Mixed-Use Toilets  | 26              | 3.5 gpf | 1.28 gpf | 1,135                 | \$0.51                 | \$0.45                       |

| Rank | Sector        | FDOR | BMP Type   | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 29   | Industrial    | 45   | Toilets    | 6               | 3.5 gpf | 1.28 gpf | 254                   | \$0.12                 | \$0.47                       |
| 30   | Industrial    | 44   | Urinals    | 22              | 1 gpf   | 0.5 gpf  | 1,915                 | \$0.90                 | \$0.47                       |
| 31   | Industrial    | 45   | Urinals    | 42              | 1 gpf   | 0.5 gpf  | 3,572                 | \$1.73                 | \$0.48                       |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 32   | Industrial    | 42   | Toilets    | 7               | 3.5 gpf | 1.28 gpf | 278                   | \$0.14                 | \$0.50                       |
| 33   | Industrial    | 42   | Faucets    | 185             | 1.5 gpm | 0.5 gpm  | 4,616                 | \$2.37                 | \$0.51                       |
| 34   | Industrial    | 45   | Faucets    | 223             | 1.5 gpm | 0.5 gpm  | 5,335                 | \$2.85                 | \$0.53                       |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 35   | Commercial    | 21   | Toilets    | 175             | 3.5 gpf | 1.28 gpf | 6,288                 | \$3.45                 | \$0.55                       |
| 36   | Commercial    | 24   | Faucets    | 39              | 1.5 gpm | 0.5 gpm  | 883                   | \$0.50                 | \$0.56                       |
| 37   | Commercial    | 21   | Urinals    | 249             | 1.5 gpf | 0.5 gpf  | 17,839                | \$10.23                | \$0.57                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 38   | Commercial    | 22   | Toilets    | 824             | 3.5 gpf | 1.28 gpf | 28,175                | \$16.25                | \$0.58                       |
| 39   | Industrial    | 44   | Faucets    | 189             | 1.5 gpm | 0.5 gpm  | 4,167                 | \$2.42                 | \$0.58                       |
| 40   | Commercial    | 36   | Faucets    | 476             | 1.5 gpm | 0.5 gpm  | 10,467                | \$6.09                 | \$0.58                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 41   | Institutional | 84   | Toilets    | 102             | 3.5 gpf | 1.28 gpf | 3,431                 | \$2.01                 | \$0.59                       |
| 42   | Commercial    | 34   | Faucets    | 216             | 1.5 gpm | 0.5 gpm  | 4,650                 | \$2.76                 | \$0.59                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 43   | Industrial    | 42   | Toilets    | 101             | 1.6 gpf | 1.28 gpf | 3,062                 | \$1.99                 | \$0.65                       |
| 44   | Commercial    | 21   | Urinals    | 912             | 1 gpf   | 0.5 gpf  | 56,331                | \$37.48                | \$0.67                       |
| 45   | Industrial    | 43   | Urinals    | 2               | 1.5 gpf | 0.5 gpf  | 122                   | \$0.08                 | \$0.67                       |
| 46   | Commercial    | 33   | Faucets    | 477             | 1.5 gpm | 0.5 gpm  | 9,059                 | \$6.10                 | \$0.67                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 47   | Industrial    | 43   | Toilets    | 19              | 3.5 gpf | 1.28 gpf | 555                   | \$0.37                 | \$0.67                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 48   | Industrial    | 45   | Toilets    | 125             | 1.6 gpf | 1.28 gpf | 3,621                 | \$2.47                 | \$0.68                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 49   | Commercial    | 13   | Toilets    | 65              | 3.5 gpf | 1.28 gpf | 1,863                 | \$1.28                 | \$0.69                       |
| 50   | Commercial    | 13   | Faucets    | 1,049           | 1.5 gpm | 0.5 gpm  | 19,024                | \$13.41                | \$0.70                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 51   | Commercial    | 21   | Toilets    | 2,090           | 1.6 gpf | 1.28 gpf | 57,034                | \$41.23                | \$0.72                       |
| 52   | Commercial    | 16   | Faucets    | 13,416          | 1.5 gpm | 0.5 gpm  | 233,981               | \$171.53               | \$0.73                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 53   | Commercial    | 16   | Toilets    | 2,063           | 3.5 gpf | 1.28 gpf | 55,069                | \$40.69                | \$0.74                       |
| 54   | Industrial    | 43   | Urinals    | 8               | 1 gpf   | 0.5 gpf  | 442                   | \$0.33                 | \$0.74                       |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 55   | Industrial    | 44   | Toilets    | 105             | 1.6 gpf | 1.28 gpf | 2,713                 | \$2.07                 | \$0.76                       |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 56   | Commercial    | 36   | Toilets    | 24              | 3.5 gpf | 1.28 gpf | 605                   | \$0.47                 | \$0.78                       |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 57   | Commercial    | 14   | Toilets    | 89              | 1.6 gpf | 1.28 gpf | 2,225                 | \$1.76                 | \$0.79                       |



| Rank | Sector        | FDOR | BMP Type               | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 58   | Commercial    | 22   | Single-Use Toilets     | 263             | 3.5 gpf | 1.28 gpf | 6,507                 | \$5.19                 | \$0.80                       |
| 59   | Institutional | 84   | Single-Use Toilets     | 35              | 3.5 gpf | 1.28 gpf | 858                   | \$0.69                 | \$0.80                       |
| 60   | Commercial    | 11   | Faucets                | 15,258          | 1.5 gpm | 0.5 gpm  | 240,497               | \$195.08               | \$0.81                       |
| 61   | Commercial    | 32   | Faucets                | 165             | 1.5 gpm | 0.5 gpm  | 2,596                 | \$2.11                 | \$0.81                       |
| 62   | Commercial    | 11   | Mixed-Use Toilets      | 2,622           | 3.5 gpf | 1.28 gpf | 60,978                | \$51.72                | \$0.85                       |
| 63   | Commercial    | 33   | Mixed-Use Toilets      | 98              | 3.5 gpf | 1.28 gpf | 2,270                 | \$1.93                 | \$0.85                       |
| 64   | Industrial    | 44   | Single-Use Toilets     | 6               | 3.5 gpf | 1.28 gpf | 138                   | \$0.12                 | \$0.86                       |
| 65   | Industrial    | 46   | Mixed-Use Toilets      | 71              | 3.5 gpf | 1.28 gpf | 1,594                 | \$1.40                 | \$0.88                       |
| 66   | Commercial    | 24   | Urinals                | 14              | 1 gpf   | 0.5 gpf  | 649                   | \$0.58                 | \$0.89                       |
| 67   | Commercial    | 13   | Urinals                | 29              | 1.5 gpf | 0.5 gpf  | 1,338                 | \$1.19                 | \$0.89                       |
| 68   | Institutional | 78   | Mixed-Use Toilets      | 1               | 3.5 gpf | 1.28 gpf | 22                    | \$0.02                 | \$0.91                       |
| 69   | Commercial    | 38   | Mixed-Use Toilets      | 313             | 3.5 gpf | 1.28 gpf | 6,749                 | \$6.17                 | \$0.91                       |
| 70   | Commercial    | 11   | Urinals                | 547             | 1.5 gpf | 0.5 gpf  | 24,308                | \$22.48                | \$0.92                       |
| 71   | Institutional | 84   | Faucets                | 3,298           | 1.5 gpm | 0.5 gpm  | 45,003                | \$42.17                | \$0.94                       |
| 72   | Commercial    | 22   | Urinals                | 412             | 1.5 gpf | 0.5 gpf  | 18,028                | \$16.93                | \$0.94                       |
| 73   | Commercial    | 34   | Urinals                | 16              | 1.5 gpf | 0.5 gpf  | 691                   | \$0.66                 | \$0.95                       |
| 74   | Commercial    | 16   | Urinals                | 954             | 1.5 gpf | 0.5 gpf  | 39,985                | \$39.21                | \$0.98                       |
| 75   | Commercial    | 38   | Faucets                | 1,618           | 1.5 gpm | 0.5 gpm  | 20,872                | \$20.69                | \$0.99                       |
| 76   | Commercial    | 36   | Urinals                | 43              | 1.5 gpf | 0.5 gpf  | 1,765                 | \$1.77                 | \$1.00                       |
| 77   | Industrial    | 43   | Faucets                | 124             | 1.5 gpm | 0.5 gpm  | 1,536                 | \$1.59                 | \$1.03                       |
| 78   | Commercial    | 21   | Single-Use Toilets     | 641             | 1.6 gpf | 1.28 gpf | 12,017                | \$12.64                | \$1.05                       |
| 79   | Commercial    | 11   | Urinals                | 3,016           | 1 gpf   | 0.5 gpf  | 116,353               | \$123.95               | \$1.07                       |
| 80   | Commercial    | 13   | Urinals                | 341             | 1 gpf   | 0.5 gpf  | 13,092                | \$14.01                | \$1.07                       |
| 81   | Commercial    | 36   | Urinals                | 163             | 1 gpf   | 0.5 gpf  | 6,174                 | \$6.70                 | \$1.09                       |
| 82   | Commercial    | 22   | Urinals                | 1,394           | 1 gpf   | 0.5 gpf  | 52,756                | \$57.29                | \$1.09                       |
| 83   | Commercial    | 21   | Pre-Rinse Spray Valves | 1,067           | 1.6 gpm | 1.25 gpm | 32,266                | \$35.08                | \$1.09                       |
| 84   | Commercial    | 24   | Mixed-Use Toilets      | 32              | 1.6 gpf | 1.28 gpf | 576                   | \$0.63                 | \$1.10                       |
| 85   | Commercial    | 36   | Mixed-Use Toilets      | 149             | 3.5 gpf | 1.28 gpf | 2,659                 | \$2.94                 | \$1.11                       |
| 86   | Commercial    | 16   | Urinals                | 3,737           | 1 gpf   | 0.5 gpf  | 138,859               | \$153.58               | \$1.11                       |
| 87   | Commercial    | 34   | Single-Use Toilets     | 13              | 3.5 gpf | 1.28 gpf | 229                   | \$0.26                 | \$1.12                       |

| Rank | Sector        | FDOR | BMP Type           | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|--------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 88   | Commercial    | 35   | Single-Use Toilets | 364             | 3.5 gpf | 1.28 gpf | 6,396                 | \$7.18                 | \$1.12                       |
| 89   | Commercial    | 22   | Mixed-Use Toilets  | 2,659           | 1.6 gpf | 1.28 gpf | 46,662                | \$52.45                | \$1.12                       |
| 90   | Commercial    | 26   | Urinals            | 20              | 1 gpf   | 0.5 gpf  | 729                   | \$0.82                 | \$1.13                       |
| 91   | Industrial    | 42   | Single-Use Toilets | 25              | 1.6 gpf | 1.28 gpf | 437                   | \$0.49                 | \$1.13                       |
| 92   | Institutional | 84   | Mixed-Use Toilets  | 1,555           | 1.6 gpf | 1.28 gpf | 27,079                | \$30.67                | \$1.13                       |
| 93   | Institutional | 84   | Urinals            | 66              | 1.5 gpf | 0.5 gpf  | 2,392                 | \$2.71                 | \$1.13                       |
| 94   | Commercial    | 33   | Single-Use Toilets | 19              | 3.5 gpf | 1.28 gpf | 327                   | \$0.37                 | \$1.14                       |
| 95   | Commercial    | 34   | Urinals            | 71              | 1 gpf   | 0.5 gpf  | 2,524                 | \$2.92                 | \$1.16                       |
| 96   | Commercial    | 26   | Mixed-Use Toilets  | 86              | 3.5 gpf | 1.28 gpf | 1,459                 | \$1.70                 | \$1.16                       |
| 97   | Commercial    | 33   | Urinals            | 28              | 1.5 gpf | 0.5 gpf  | 987                   | \$1.15                 | \$1.17                       |
| 98   | Industrial    | 46   | Urinals            | 28              | 1.5 gpf | 0.5 gpf  | 983                   | \$1.15                 | \$1.17                       |
| 99   | Commercial    | 35   | Faucets            | 3,653           | 1.5 gpm | 0.5 gpm  | 39,168                | \$46.71                | \$1.19                       |
| 100  | Commercial    | 26   | Urinals            | 3               | 1.5 gpf | 0.5 gpf  | 102                   | \$0.12                 | \$1.21                       |
| 101  | Commercial    | 26   | Faucets            | 342             | 1.5 gpm | 0.5 gpm  | 3,542                 | \$4.37                 | \$1.23                       |
| 102  | Industrial    | 44   | Single-Use Toilets | 26              | 1.6 gpf | 1.28 gpf | 409                   | \$0.51                 | \$1.26                       |
| 103  | Commercial    | 38   | Urinals            | 140             | 1.5 gpf | 0.5 gpf  | 4,578                 | \$5.75                 | \$1.26                       |
| 104  | Commercial    | 13   | Mixed-Use Toilets  | 724             | 1.6 gpf | 1.28 gpf | 11,187                | \$14.28                | \$1.28                       |
| 105  | Industrial    | 45   | Single-Use Toilets | 50              | 1.6 gpf | 1.28 gpf | 762                   | \$0.99                 | \$1.29                       |
| 106  | Industrial    | 43   | Mixed-Use Toilets  | 81              | 1.6 gpf | 1.28 gpf | 1,218                 | \$1.60                 | \$1.31                       |
| 107  | Institutional | 72   | Mixed-Use Toilets  | 405             | 3.5 gpf | 1.28 gpf | 6,077                 | \$7.99                 | \$1.31                       |
| 108  | Commercial    | 33   | Urinals            | 132             | 1 gpf   | 0.5 gpf  | 4,105                 | \$5.42                 | \$1.32                       |
| 109  | Institutional | 84   | Urinals            | 1,027           | 1 gpf   | 0.5 gpf  | 31,647                | \$42.21                | \$1.33                       |
| 110  | Commercial    | 34   | Mixed-Use Toilets  | 74              | 3.5 gpf | 1.28 gpf | 1,093                 | \$1.46                 | \$1.34                       |
| 111  | Industrial    | 43   | Single-Use Toilets | 3               | 3.5 gpf | 1.28 gpf | 44                    | \$0.06                 | \$1.34                       |
| 112  | Commercial    | 16   | Mixed-Use Toilets  | 8,175           | 1.6 gpf | 1.28 gpf | 120,427               | \$161.26               | \$1.34                       |
| 113  | Industrial    | 46   | Urinals            | 49              | 1 gpf   | 0.5 gpf  | 1,493                 | \$2.01                 | \$1.35                       |
| 114  | Commercial    | 36   | Single-Use Toilets | 91              | 1.6 gpf | 1.28 gpf | 1,317                 | \$1.80                 | \$1.36                       |
| 115  | Commercial    | 32   | Single-Use Toilets | 25              | 3.5 gpf | 1.28 gpf | 360                   | \$0.49                 | \$1.37                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 116  | Commercial    | 13   | Single-Use Toilets        | 33              | 3.5 gpf | 1.28 gpf | 466                   | \$0.65                 | \$1.40                       |
| 117  | Institutional | 78   | Urinals                   | 1               | 1 gpf   | 0.5 gpf  | 29                    | \$0.04                 | \$1.41                       |
| 118  | Industrial    | 46   | Faucets                   | 374             | 1.5 gpm | 0.5 gpm  | 3,298                 | \$4.78                 | \$1.45                       |
| 119  | Commercial    | 38   | Urinals                   | 413             | 1 gpf   | 0.5 gpf  | 11,619                | \$16.97                | \$1.46                       |
| 120  | Commercial    | 16   | Single-Use Toilets        | 1,009           | 3.5 gpf | 1.28 gpf | 13,554                | \$19.90                | \$1.47                       |
| 121  | Commercial    | 11   | Mixed-Use Toilets         | 11,639          | 1.6 gpf | 1.28 gpf | 156,198               | \$229.59               | \$1.47                       |
| 122  | Commercial    | 33   | Mixed-Use Toilets         | 453             | 1.6 gpf | 1.28 gpf | 6,051                 | \$8.94                 | \$1.48                       |
| 123  | Institutional | 84   | Single-Use Toilets        | 513             | 1.6 gpf | 1.28 gpf | 6,751                 | \$10.12                | \$1.50                       |
| 124  | Commercial    | 11   | Single-Use Toilets        | 631             | 3.5 gpf | 1.28 gpf | 8,196                 | \$12.45                | \$1.52                       |
| 125  | Commercial    | 32   | Urinals                   | 44              | 1.5 gpf | 0.5 gpf  | 1,187                 | \$1.81                 | \$1.52                       |
| 126  | Commercial    | 18   | Faucets                   | 10,280          | 1.5 gpm | 0.5 gpm  | 85,788                | \$131.43               | \$1.53                       |
| 127  | Commercial    | 18   | Mixed-Use Toilets         | 1,986           | 3.5 gpf | 1.28 gpf | 25,006                | \$39.18                | \$1.57                       |
| 128  | Institutional | 81   | Faucets                   | 298             | 1.5 gpm | 0.5 gpm  | 2,403                 | \$3.81                 | \$1.59                       |
| 129  | Commercial    | 32   | Urinals                   | 32              | 1 gpf   | 0.5 gpf  | 828                   | \$1.32                 | \$1.59                       |
| 130  | Commercial    | 22   | Single-Use Toilets        | 916             | 1.6 gpf | 1.28 gpf | 11,255                | \$18.07                | \$1.61                       |
| 131  | Institutional | 78   | Faucets                   | 13              | 1.5 gpm | 0.5 gpm  | 103                   | \$0.17                 | \$1.62                       |
| 132  | Commercial    | 35   | Urinals                   | 729             | 1.5 gpf | 0.5 gpf  | 18,125                | \$29.96                | \$1.65                       |
| 133  | Commercial    | 35   | Mixed-Use Toilets         | 2,218           | 3.5 gpf | 1.28 gpf | 25,883                | \$43.75                | \$1.69                       |
| 134  | Commercial    | 26   | Single-Use Toilets        | 3               | 3.5 gpf | 1.28 gpf | 35                    | \$0.06                 | \$1.70                       |
| 135  | Industrial    | 46   | Single-Use Toilets        | 32              | 3.5 gpf | 1.28 gpf | 366                   | \$0.63                 | \$1.72                       |
| 136  | Institutional | 75   | Mixed-Use Toilets         | 134             | 3.5 gpf | 1.28 gpf | 1,518                 | \$2.64                 | \$1.74                       |
| 137  | Institutional | 72   | Single-Use Toilets        | 126             | 3.5 gpf | 1.28 gpf | 1,422                 | \$2.49                 | \$1.75                       |
| 138  | Institutional | 85   | Showerheads               | 1,490           | 2.2 gpm | 2 gpm    | 8,873                 | \$15.82                | \$1.78                       |
| 139  | Commercial    | 35   | Site-Specific Water Audit | 87              |         |          | 1,188,633             | \$2,133.74             | \$1.80                       |
| 140  | Commercial    | 34   | Single-Use Toilets        | 49              | 1.6 gpf | 1.28 gpf | 538                   | \$0.97                 | \$1.80                       |
| 141  | Commercial    | 38   | Mixed-Use Toilets         | 918             | 1.6 gpf | 1.28 gpf | 10,075                | \$18.11                | \$1.80                       |
| 142  | Commercial    | 21   | Site-Specific Water Audit | 717             |         |          | 281,869               | \$512.43               | \$1.82                       |

| Rank | Sector        | FDOR | BMP Type           | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|--------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 143  | Industrial    | 46   | Mixed-Use Toilets  | 136             | 1.6 gpf | 1.28 gpf | 1,461                 | \$2.68                 | \$1.84                       |
| 144  | Commercial    | 38   | Single-Use Toilets | 156             | 3.5 gpf | 1.28 gpf | 1,670                 | \$3.08                 | \$1.84                       |
| 145  | Commercial    | 36   | Mixed-Use Toilets  | 501             | 1.6 gpf | 1.28 gpf | 5,357                 | \$9.88                 | \$1.84                       |
| 146  | Commercial    | 32   | Mixed-Use Toilets  | 139             | 3.5 gpf | 1.28 gpf | 1,440                 | \$2.74                 | \$1.90                       |
| 147  | Industrial    | 41   | Mixed-Use Toilets  | 657             | 3.5 gpf | 1.28 gpf | 6,702                 | \$12.96                | \$1.93                       |
| 148  | Institutional | 79   | Faucets            | 69              | 1.5 gpm | 0.5 gpm  | 450                   | \$0.88                 | \$1.96                       |
| 149  | Industrial    | 41   | Urinals            | 135             | 1.5 gpf | 0.5 gpf  | 2,791                 | \$5.55                 | \$1.99                       |
| 150  | Commercial    | 24   | Single-Use Toilets | 14              | 1.6 gpf | 1.28 gpf | 138                   | \$0.28                 | \$1.99                       |
| 151  | Institutional | 78   | Mixed-Use Toilets  | 10              | 1.6 gpf | 1.28 gpf | 98                    | \$0.20                 | \$2.02                       |
| 152  | Commercial    | 35   | Urinals            | 662             | 1 gpf   | 0.5 gpf  | 13,439                | \$27.21                | \$2.02                       |
| 153  | Institutional | 72   | Faucets            | 2,743           | 1.5 gpm | 0.5 gpm  | 17,069                | \$35.07                | \$2.05                       |
| 154  | Industrial    | 48   | Mixed-Use Toilets  | 2,290           | 3.5 gpf | 1.28 gpf | 21,953                | \$45.17                | \$2.06                       |
| 155  | Institutional | 75   | Urinals            | 54              | 1.5 gpf | 0.5 gpf  | 1,074                 | \$2.22                 | \$2.07                       |
| 156  | Commercial    | 23   | Faucets            | 1,723           | 1.5 gpm | 0.5 gpm  | 10,645                | \$22.03                | \$2.07                       |
| 157  | Commercial    | 12   | Mixed-Use Toilets  | 1,737           | 3.5 gpf | 1.28 gpf | 16,305                | \$34.26                | \$2.10                       |
| 158  | Commercial    | 20   | Mixed-Use Toilets  | 8               | 3.5 gpf | 1.28 gpf | 75                    | \$0.16                 | \$2.10                       |
| 159  | Commercial    | 26   | Mixed-Use Toilets  | 323             | 1.6 gpf | 1.28 gpf | 3,029                 | \$6.37                 | \$2.10                       |
| 160  | Commercial    | 33   | Single-Use Toilets | 94              | 1.6 gpf | 1.28 gpf | 876                   | \$1.85                 | \$2.12                       |
| 161  | Commercial    | 18   | Urinals            | 963             | 1.5 gpf | 0.5 gpf  | 18,378                | \$39.58                | \$2.15                       |
| 162  | Commercial    | 12   | Faucets            | 8,710           | 1.5 gpm | 0.5 gpm  | 51,649                | \$111.36               | \$2.16                       |
| 163  | Institutional | 73   | Showerheads        | 615             | 2.2 gpm | 2 gpm    | 2,990                 | \$6.53                 | \$2.18                       |
| 164  | Industrial    | 48   | Urinals            | 579             | 1.5 gpf | 0.5 gpf  | 10,859                | \$23.79                | \$2.19                       |
| 165  | Commercial    | 17   | Faucets            | 18,950          | 1.5 gpm | 0.5 gpm  | 110,220               | \$242.28               | \$2.20                       |
| 166  | Commercial    | 32   | Single-Use Toilets | 20              | 1.6 gpf | 1.28 gpf | 177                   | \$0.39                 | \$2.23                       |
| 167  | Commercial    | 34   | Mixed-Use Toilets  | 301             | 1.6 gpf | 1.28 gpf | 2,651                 | \$5.94                 | \$2.24                       |
| 168  | Institutional | 75   | Urinals            | 192             | 1 gpf   | 0.5 gpf  | 3,487                 | \$7.89                 | \$2.26                       |
| 169  | Institutional | 78   | Showerheads        | 13              | 2.2 gpm | 2 gpm    | 60                    | \$0.14                 | \$2.29                       |
| 170  | Industrial    | 41   | Urinals            | 789             | 1 gpf   | 0.5 gpf  | 14,105                | \$32.42                | \$2.30                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 171  | Industrial    | 43   | Single-Use Toilets        | 11              | 1.6 gpf | 1.28 gpf | 94                    | \$0.22                 | \$2.30                       |
| 172  | Commercial    | 23   | Mixed-Use Toilets         | 220             | 3.5 gpf | 1.28 gpf | 1,875                 | \$4.34                 | \$2.31                       |
| 173  | Commercial    | 22   | Site-Specific Water Audit | 771             |         |          | 181,381               | \$426.11               | \$2.35                       |
| 174  | Commercial    | 12   | Urinals                   | 345             | 1.5 gpf | 0.5 gpf  | 6,006                 | \$14.18                | \$2.36                       |
| 175  | Commercial    | 17   | Mixed-Use Toilets         | 2,738           | 3.5 gpf | 1.28 gpf | 22,830                | \$54.01                | \$2.37                       |
| 176  | Commercial    | 39   | Mixed-Use Toilets         | 26,914          | 3.5 gpf | 1.28 gpf | 223,169               | \$530.91               | \$2.38                       |
| 177  | Commercial    | 35   | Single-Use Toilets        | 347             | 1.6 gpf | 1.28 gpf | 2,867                 | \$6.84                 | \$2.39                       |
| 178  | Commercial    | 20   | Faucets                   | 399             | 1.5 gpm | 0.5 gpm  | 2,132                 | \$5.10                 | \$2.39                       |
| 179  | Institutional | 75   | Faucets                   | 1,231           | 1.5 gpm | 0.5 gpm  | 6,514                 | \$15.74                | \$2.42                       |
| 180  | Institutional | 72   | Urinals                   | 242             | 1.5 gpf | 0.5 gpf  | 4,081                 | \$9.95                 | \$2.44                       |
| 181  | Commercial    | 25   | Site-Specific Water Audit | 454             |         |          | 609,453               | \$1,493.20             | \$2.45                       |
| 182  | Commercial    | 23   | Urinals                   | 74              | 1.5 gpf | 0.5 gpf  | 1,232                 | \$3.04                 | \$2.47                       |
| 183  | Commercial    | 18   | Urinals                   | 2,901           | 1 gpf   | 0.5 gpf  | 48,022                | \$119.22               | \$2.48                       |
| 184  | Industrial    | 48   | Urinals                   | 2,848           | 1 gpf   | 0.5 gpf  | 46,917                | \$117.04               | \$2.49                       |
| 185  | Institutional | 79   | Single-Use Toilets        | 4               | 3.5 gpf | 1.28 gpf | 31                    | \$0.08                 | \$2.51                       |
| 186  | Commercial    | 17   | Urinals                   | 864             | 1.5 gpf | 0.5 gpf  | 13,963                | \$35.51                | \$2.54                       |
| 187  | Commercial    | 13   | Single-Use Toilets        | 364             | 1.6 gpf | 1.28 gpf | 2,793                 | \$7.18                 | \$2.57                       |
| 188  | Institutional | 72   | Mixed-Use Toilets         | 1,075           | 1.6 gpf | 1.28 gpf | 8,203                 | \$21.21                | \$2.59                       |
| 189  | Industrial    | 41   | Faucets                   | 5,719           | 1.5 gpm | 0.5 gpm  | 27,849                | \$73.12                | \$2.63                       |
| 190  | Commercial    | 16   | Single-Use Toilets        | 4,015           | 1.6 gpf | 1.28 gpf | 29,623                | \$79.20                | \$2.67                       |
| 191  | Commercial    | 23   | Urinals                   | 393             | 1 gpf   | 0.5 gpf  | 6,027                 | \$16.15                | \$2.68                       |
| 192  | Commercial    | 11   | Single-Use Toilets        | 3,380           | 1.6 gpf | 1.28 gpf | 24,822                | \$66.67                | \$2.69                       |
| 193  | Commercial    | 12   | Urinals                   | 1,154           | 1 gpf   | 0.5 gpf  | 17,651                | \$47.42                | \$2.69                       |
| 194  | Institutional | 72   | Urinals                   | 568             | 1 gpf   | 0.5 gpf  | 8,633                 | \$23.34                | \$2.70                       |
| 195  | Commercial    | 26   | Single-Use Toilets        | 22              | 1.6 gpf | 1.28 gpf | 155                   | \$0.43                 | \$2.79                       |
| 196  | Industrial    | 48   | Faucets                   | 19,962          | 1.5 gpm | 0.5 gpm  | 91,173                | \$255.22               | \$2.80                       |
| 197  | Commercial    | 17   | Urinals                   | 4,472           | 1 gpf   | 0.5 gpf  | 64,477                | \$183.78               | \$2.85                       |
| 198  | Commercial    | 18   | Mixed-Use Toilets         | 6,111           | 1.6 gpf | 1.28 gpf | 41,207                | \$120.55               | \$2.93                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 199  | Commercial    | 32   | Mixed-Use Toilets         | 114             | 1.6 gpf | 1.28 gpf | 764                   | \$2.25                 | \$2.95                       |
| 200  | Industrial    | 49   | Urinals                   | 5               | 1.5 gpf | 0.5 gpf  | 70                    | \$0.21                 | \$2.95                       |
| 201  | Institutional | 83   | Mixed-Use Toilets         | 1,862           | 3.5 gpf | 1.28 gpf | 12,413                | \$36.73                | \$2.96                       |
| 202  | Commercial    | 20   | Site-Specific Water Audit | 11              |         |          | 45,195                | \$134.06               | \$2.97                       |
| 203  | Commercial    | 19   | Faucets                   | 9,233           | 1.5 gpm | 0.5 gpm  | 39,475                | \$118.05               | \$2.99                       |
| 204  | Institutional | 75   | Mixed-Use Toilets         | 567             | 1.6 gpf | 1.28 gpf | 3,637                 | \$11.18                | \$3.07                       |
| 205  | Commercial    | 18   | Single-Use Toilets        | 989             | 3.5 gpf | 1.28 gpf | 6,243                 | \$19.51                | \$3.13                       |
| 206  | Institutional | 79   | Urinals                   | 7               | 1.5 gpf | 0.5 gpf  | 92                    | \$0.29                 | \$3.13                       |
| 207  | Institutional | 78   | Single-Use Toilets        | 1               | 1.6 gpf | 1.28 gpf | 6                     | \$0.02                 | \$3.16                       |
| 208  | Commercial    | 19   | Mixed-Use Toilets         | 1,268           | 3.5 gpf | 1.28 gpf | 7,508                 | \$25.01                | \$3.33                       |
| 209  | Institutional | 79   | Mixed-Use Toilets         | 34              | 3.5 gpf | 1.28 gpf | 200                   | \$0.67                 | \$3.35                       |
| 210  | Industrial    | 41   | Single-Use Toilets        | 163             | 3.5 gpf | 1.28 gpf | 957                   | \$3.22                 | \$3.36                       |
| 211  | Industrial    | 41   | Mixed-Use Toilets         | 3,058           | 1.6 gpf | 1.28 gpf | 17,868                | \$60.32                | \$3.38                       |
| 212  | Commercial    | 30   | Site-Specific Water Audit | 27              |         |          | 9,715                 | \$32.80                | \$3.38                       |
| 213  | Commercial    | 20   | Urinals                   | 4               | 1.5 gpf | 0.5 gpf  | 48                    | \$0.16                 | \$3.41                       |
| 214  | Commercial    | 35   | Mixed-Use Toilets         | 2,052           | 1.6 gpf | 1.28 gpf | 11,675                | \$40.48                | \$3.47                       |
| 215  | Institutional | 75   | Single-Use Toilets        | 61              | 3.5 gpf | 1.28 gpf | 346                   | \$1.20                 | \$3.48                       |
| 216  | Institutional | 72   | Single-Use Toilets        | 327             | 1.6 gpf | 1.28 gpf | 1,842                 | \$6.45                 | \$3.50                       |
| 217  | Commercial    | 39   | Faucets                   | 119,543         | 1.5 gpm | 0.5 gpm  | 434,630               | \$1,528.40             | \$3.52                       |
| 218  | Institutional | 77   | Faucets                   | 1,250           | 1.5 gpm | 0.5 gpm  | 4,508                 | \$15.98                | \$3.55                       |
| 219  | Industrial    | 49   | Urinals                   | 18              | 1 gpf   | 0.5 gpf  | 207                   | \$0.74                 | \$3.57                       |
| 220  | Institutional | 81   | Urinals                   | 157             | 1 gpf   | 0.5 gpf  | 1,802                 | \$6.45                 | \$3.58                       |
| 221  | Industrial    | 46   | Single-Use Toilets        | 58              | 1.6 gpf | 1.28 gpf | 319                   | \$1.14                 | \$3.59                       |
| 222  | Institutional | 79   | Urinals                   | 14              | 1 gpf   | 0.5 gpf  | 160                   | \$0.58                 | \$3.60                       |
| 223  | Industrial    | 48   | Mixed-Use Toilets         | 10,311          | 1.6 gpf | 1.28 gpf | 56,198                | \$203.40               | \$3.62                       |
| 224  | Institutional | 75   | Site-Specific Water Audit | 158             |         |          | 97,895                | \$354.84               | \$3.62                       |
| 225  | Industrial    | 48   | Single-Use Toilets        | 672             | 3.5 gpf | 1.28 gpf | 3,655                 | \$13.26                | \$3.63                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 226  | Commercial    | 24   | Site-Specific Water Audit | 4               |         |          | 11,454                | \$41.65                | \$3.64                       |
| 227  | Commercial    | 38   | Single-Use Toilets        | 457             | 1.6 gpf | 1.28 gpf | 2,479                 | \$9.01                 | \$3.64                       |
| 228  | Commercial    | 19   | Urinals                   | 439             | 1.5 gpf | 0.5 gpf  | 4,857                 | \$18.04                | \$3.71                       |
| 229  | Commercial    | 31   | Site-Specific Water Audit | 1               |         |          | 74                    | \$0.28                 | \$3.80                       |
| 230  | Commercial    | 23   | Mixed-Use Toilets         | 1,254           | 1.6 gpf | 1.28 gpf | 6,439                 | \$24.74                | \$3.84                       |
| 231  | Commercial    | 12   | Mixed-Use Toilets         | 7,293           | 1.6 gpf | 1.28 gpf | 37,323                | \$143.86               | \$3.85                       |
| 232  | Commercial    | 30   | Urinals                   | 1               | 1 gpf   | 0.5 gpf  | 11                    | \$0.04                 | \$3.86                       |
| 233  | Commercial    | 12   | Single-Use Toilets        | 397             | 3.5 gpf | 1.28 gpf | 2,011                 | \$7.83                 | \$3.89                       |
| 234  | Commercial    | 19   | Urinals                   | 2,254           | 1 gpf   | 0.5 gpf  | 23,657                | \$92.63                | \$3.92                       |
| 235  | Industrial    | 49   | Mixed-Use Toilets         | 61              | 3.5 gpf | 1.28 gpf | 307                   | \$1.20                 | \$3.92                       |
| 236  | Institutional | 83   | Single-Use Toilets        | 628             | 3.5 gpf | 1.28 gpf | 3,086                 | \$12.39                | \$4.01                       |
| 237  | Commercial    | 29   | Site-Specific Water Audit | 37              |         |          | 46,259                | \$191.26               | \$4.13                       |
| 238  | Commercial    | 17   | Mixed-Use Toilets         | 13,348          | 1.6 gpf | 1.28 gpf | 63,509                | \$263.30               | \$4.15                       |
| 239  | Institutional | 85   | Mixed-Use Toilets         | 2,641           | 3.5 gpf | 1.28 gpf | 12,552                | \$52.10                | \$4.15                       |
| 240  | Institutional | 81   | Single-Use Toilets        | 81              | 1.6 gpf | 1.28 gpf | 384                   | \$1.60                 | \$4.16                       |
| 241  | Commercial    | 17   | Single-Use Toilets        | 1,031           | 3.5 gpf | 1.28 gpf | 4,870                 | \$20.34                | \$4.18                       |
| 242  | Commercial    | 23   | Single-Use Toilets        | 85              | 3.5 gpf | 1.28 gpf | 400                   | \$1.68                 | \$4.19                       |
| 243  | Commercial    | 20   | Single-Use Toilets        | 4               | 3.5 gpf | 1.28 gpf | 19                    | \$0.08                 | \$4.20                       |
| 244  | Institutional | 75   | Showerheads               | 1,513           | 2.2 gpm | 2 gpm    | 3,815                 | \$16.06                | \$4.21                       |
| 245  | Commercial    | 26   | Site-Specific Water Audit | 189             |         |          | 18,841                | \$79.51                | \$4.22                       |
| 246  | Commercial    | 39   | Mixed-Use Toilets         | 92,629          | 1.6 gpf | 1.28 gpf | 431,187               | \$1,827.20             | \$4.24                       |
| 247  | Commercial    | 20   | Mixed-Use Toilets         | 297             | 1.6 gpf | 1.28 gpf | 1,342                 | \$5.86                 | \$4.36                       |
| 248  | Institutional | 90   | Faucets                   | 4,849           | 1.5 gpm | 0.5 gpm  | 13,938                | \$62.00                | \$4.45                       |
| 249  | Commercial    | 23   | Site-Specific Water Audit | 492             |         |          | 95,340                | \$424.27               | \$4.45                       |
| 250  | Commercial    | 37   | Faucets                   | 28              | 1.5 gpm | 0.5 gpm  | 78                    | \$0.36                 | \$4.56                       |
| 251  | Commercial    | 25   | Faucets                   | 3,417           | 1.5 gpm | 0.5 gpm  | 9,516                 | \$43.69                | \$4.59                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 252  | Commercial    | 38   | Site-Specific Water Audit | 123             |         |          | 64,321                | \$297.41               | \$4.62                       |
| 253  | Institutional | 74   | Showerheads               | 1,997           | 2.2 gpm | 2 gpm    | 4,532                 | \$21.20                | \$4.68                       |
| 254  | Institutional | 90   | Single-Use Toilets        | 449             | 3.5 gpf | 1.28 gpf | 1,878                 | \$8.86                 | \$4.72                       |
| 255  | Institutional | 83   | Faucets                   | 19,460          | 1.5 gpm | 0.5 gpm  | 52,062                | \$248.80               | \$4.78                       |
| 256  | Commercial    | 27   | Urinals                   | 162             | 1.5 gpf | 0.5 gpf  | 1,382                 | \$6.66                 | \$4.82                       |
| 257  | Industrial    | 91   | Mixed-Use Toilets         | 201             | 3.5 gpf | 1.28 gpf | 821                   | \$3.96                 | \$4.83                       |
| 258  | Commercial    | 27   | Faucets                   | 4,137           | 1.5 gpm | 0.5 gpm  | 10,882                | \$52.89                | \$4.86                       |
| 259  | Commercial    | 14   | Site-Specific Water Audit | 65              |         |          | 79,688                | \$393.23               | \$4.93                       |
| 260  | Industrial    | 49   | Single-Use Toilets        | 6               | 3.5 gpf | 1.28 gpf | 24                    | \$0.12                 | \$4.95                       |
| 261  | Commercial    | 25   | Mixed-Use Toilets         | 411             | 3.5 gpf | 1.28 gpf | 1,636                 | \$8.11                 | \$4.96                       |
| 262  | Commercial    | 31   | Faucets                   | 2               | 1.5 gpm | 0.5 gpm  | 5                     | \$0.03                 | \$4.96                       |
| 263  | Institutional | 97   | Site-Specific Water Audit | 19              |         |          | 2,326                 | \$11.55                | \$4.97                       |
| 264  | Institutional | 82   | Site-Specific Water Audit | 59              |         |          | 22,439                | \$111.47               | \$4.97                       |
| 265  | Institutional | 77   | Single-Use Toilets        | 57              | 3.5 gpf | 1.28 gpf | 226                   | \$1.12                 | \$4.98                       |
| 266  | Commercial    | 39   | Showerheads               | 119,543         | 2.2 gpm | 2 gpm    | 254,528               | \$1,269.12             | \$4.99                       |
| 267  | Industrial    | 49   | Site-Specific Water Audit | 147             |         |          | 26,917                | \$135.15               | \$5.02                       |
| 268  | Commercial    | 20   | Urinals                   | 189             | 1 gpf   | 0.5 gpf  | 1,544                 | \$7.77                 | \$5.03                       |
| 269  | Industrial    | 91   | Urinals                   | 50              | 1.5 gpf | 0.5 gpf  | 403                   | \$2.05                 | \$5.10                       |
| 270  | Industrial    | 49   | Faucets                   | 265             | 1.5 gpm | 0.5 gpm  | 662                   | \$3.39                 | \$5.12                       |
| 271  | Commercial    | 27   | Mixed-Use Toilets         | 799             | 3.5 gpf | 1.28 gpf | 3,079                 | \$15.76                | \$5.12                       |
| 272  | Commercial    | 27   | Urinals                   | 651             | 1 gpf   | 0.5 gpf  | 5,093                 | \$26.75                | \$5.25                       |
| 273  | Institutional | 81   | Site-Specific Water Audit | 5               |         |          | 25,081                | \$137.09               | \$5.47                       |
| 274  | Institutional | 74   | Site-Specific Water Audit | 124             |         |          | 167,705               | \$917.14               | \$5.47                       |
| 275  | Commercial    | 37   | Single-Use Toilets        | 2               | 3.5 gpf | 1.28 gpf | 7                     | \$0.04                 | \$5.49                       |
| 276  | Commercial    | 33   | Site-Specific Water Audit | 182             |         |          | 22,278                | \$122.95               | \$5.52                       |
| 277  | Commercial    | 19   | Mixed-Use Toilets         | 6,321           | 1.6 gpf | 1.28 gpf | 22,530                | \$124.69               | \$5.53                       |
| 278  | Institutional | 79   | Site-Specific Water Audit | 26              |         |          | 5,082                 | \$28.29                | \$5.57                       |



| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 279  | Institutional | 71   | Faucets                   | 7,607           | 1.5 gpm | 0.5 gpm  | 17,427                | \$97.26                | \$5.58                       |
| 280  | Institutional | 90   | Site-Specific Water Audit | 338             |         |          | 133,388               | \$759.32               | \$5.69                       |
| 281  | Industrial    | 91   | Urinals                   | 124             | 1 gpf   | 0.5 gpf  | 893                   | \$5.10                 | \$5.71                       |
| 282  | Commercial    | 25   | Urinals                   | 153             | 1.5 gpf | 0.5 gpf  | 1,096                 | \$6.29                 | \$5.74                       |
| 283  | Commercial    | 20   | Single-Use Toilets        | 96              | 1.6 gpf | 1.28 gpf | 329                   | \$1.89                 | \$5.75                       |
| 284  | Institutional | 83   | Urinals                   | 1,203           | 1.5 gpf | 0.5 gpf  | 8,570                 | \$49.44                | \$5.77                       |
| 285  | Institutional | 79   | Single-Use Toilets        | 10              | 1.6 gpf | 1.28 gpf | 34                    | \$0.20                 | \$5.78                       |
| 286  | Institutional | 83   | Mixed-Use Toilets         | 7,958           | 1.6 gpf | 1.28 gpf | 27,067                | \$156.98               | \$5.80                       |
| 287  | Commercial    | 18   | Single-Use Toilets        | 3,020           | 1.6 gpf | 1.28 gpf | 10,245                | \$59.57                | \$5.81                       |
| 288  | Industrial    | 47   | Site-Specific Water Audit | 22              |         |          | 5,548                 | \$32.40                | \$5.84                       |
| 289  | Institutional | 74   | Mixed-Use Toilets         | 628             | 3.5 gpf | 1.28 gpf | 2,113                 | \$12.39                | \$5.86                       |
| 290  | Institutional | 73   | Mixed-Use Toilets         | 164             | 3.5 gpf | 1.28 gpf | 551                   | \$3.24                 | \$5.87                       |
| 291  | Institutional | 81   | Mixed-Use Toilets         | 458             | 1.6 gpf | 1.28 gpf | 1,538                 | \$9.03                 | \$5.87                       |
| 292  | Institutional | 75   | Single-Use Toilets        | 223             | 1.6 gpf | 1.28 gpf | 744                   | \$4.40                 | \$5.91                       |
| 293  | Commercial    | 39   | Site-Specific Water Audit | 790             |         |          | 1,656,784             | \$9,894.00             | \$5.97                       |
| 294  | Institutional | 84   | Site-Specific Water Audit | 24              |         |          | 244,137               | \$1,458.42             | \$5.97                       |
| 295  | Institutional | 77   | Urinals                   | 95              | 1.5 gpf | 0.5 gpf  | 653                   | \$3.90                 | \$5.98                       |
| 296  | Industrial    | 41   | Single-Use Toilets        | 917             | 1.6 gpf | 1.28 gpf | 3,009                 | \$18.09                | \$6.01                       |
| 297  | Institutional | 79   | Mixed-Use Toilets         | 80              | 1.6 gpf | 1.28 gpf | 261                   | \$1.58                 | \$6.04                       |
| 298  | Commercial    | 19   | Single-Use Toilets        | 517             | 3.5 gpf | 1.28 gpf | 1,647                 | \$10.20                | \$6.19                       |
| 299  | Institutional | 78   | Site-Specific Water Audit | 8               |         |          | 847                   | \$5.32                 | \$6.28                       |
| 300  | Industrial    | 48   | Single-Use Toilets        | 3,262           | 1.6 gpf | 1.28 gpf | 10,009                | \$64.35                | \$6.43                       |
| 301  | Commercial    | 25   | Urinals                   | 934             | 1 gpf   | 0.5 gpf  | 5,962                 | \$38.38                | \$6.44                       |
| 302  | Commercial    | 17   | Site-Specific Water Audit | 3,782           |         |          | 802,800               | \$5,198.97             | \$6.48                       |
| 303  | Institutional | 77   | Mixed-Use Toilets         | 368             | 3.5 gpf | 1.28 gpf | 1,110                 | \$7.26                 | \$6.54                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 304  | Institutional | 85   | Site-Specific Water Audit | 31              |         |          | 119,869               | \$784.00               | \$6.54                       |
| 305  | Institutional | 77   | Site-Specific Water Audit | 248             |         |          | 43,258                | \$283.52               | \$6.55                       |
| 306  | Institutional | 71   | Single-Use Toilets        | 297             | 3.5 gpf | 1.28 gpf | 892                   | \$5.86                 | \$6.57                       |
| 307  | Institutional | 90   | Mixed-Use Toilets         | 2,761           | 3.5 gpf | 1.28 gpf | 8,209                 | \$54.46                | \$6.63                       |
| 308  | Institutional | 85   | Urinals                   | 1,309           | 1.5 gpf | 0.5 gpf  | 8,086                 | \$53.79                | \$6.65                       |
| 309  | Institutional | 83   | Urinals                   | 5,137           | 1 gpf   | 0.5 gpf  | 31,579                | \$211.11               | \$6.69                       |
| 310  | Industrial    | 49   | Mixed-Use Toilets         | 154             | 1.6 gpf | 1.28 gpf | 452                   | \$3.04                 | \$6.72                       |
| 311  | Institutional | 90   | Urinals                   | 806             | 1.5 gpf | 0.5 gpf  | 4,911                 | \$33.12                | \$6.75                       |
| 312  | Commercial    | 12   | Single-Use Toilets        | 1,319           | 1.6 gpf | 1.28 gpf | 3,765                 | \$26.02                | \$6.91                       |
| 313  | Institutional | 77   | Urinals                   | 415             | 1 gpf   | 0.5 gpf  | 2,467                 | \$17.05                | \$6.91                       |
| 314  | Industrial    | 91   | Faucets                   | 1,115           | 1.5 gpm | 0.5 gpm  | 2,044                 | \$14.26                | \$6.97                       |
| 315  | Commercial    | 23   | Single-Use Toilets        | 456             | 1.6 gpf | 1.28 gpf | 1,286                 | \$9.00                 | \$7.00                       |
| 316  | Institutional | 90   | Urinals                   | 1,100           | 1 gpf   | 0.5 gpf  | 6,078                 | \$45.21                | \$7.44                       |
| 317  | Commercial    | 17   | Single-Use Toilets        | 5,189           | 1.6 gpf | 1.28 gpf | 13,755                | \$102.36               | \$7.44                       |
| 318  | Institutional | 71   | Urinals                   | 459             | 1.5 gpf | 0.5 gpf  | 2,527                 | \$18.86                | \$7.46                       |
| 319  | Institutional | 85   | Faucets                   | 8,848           | 1.5 gpm | 0.5 gpm  | 15,152                | \$113.13               | \$7.47                       |
| 320  | Industrial    | 91   | Single-Use Toilets        | 56              | 3.5 gpf | 1.28 gpf | 144                   | \$1.10                 | \$7.69                       |
| 321  | Institutional | 83   | Single-Use Toilets        | 2,672           | 1.6 gpf | 1.28 gpf | 6,737                 | \$52.71                | \$7.82                       |
| 322  | Commercial    | 27   | Single-Use Toilets        | 190             | 3.5 gpf | 1.28 gpf | 475                   | \$3.75                 | \$7.89                       |
| 323  | Institutional | 85   | Urinals                   | 887             | 1 gpf   | 0.5 gpf  | 4,597                 | \$36.45                | \$7.93                       |
| 324  | Institutional | 73   | Urinals                   | 79              | 1.5 gpf | 0.5 gpf  | 400                   | \$3.25                 | \$8.12                       |
| 325  | Commercial    | 37   | Mixed-Use Toilets         | 12              | 3.5 gpf | 1.28 gpf | 29                    | \$0.24                 | \$8.23                       |
| 326  | Institutional | 85   | Single-Use Toilets        | 1,315           | 3.5 gpf | 1.28 gpf | 3,129                 | \$25.94                | \$8.29                       |
| 327  | Commercial    | 27   | Site-Specific Water Audit | 1,626           |         |          | 204,803               | \$1,707.95             | \$8.34                       |
| 328  | Institutional | 71   | Mixed-Use Toilets         | 2,186           | 3.5 gpf | 1.28 gpf | 5,139                 | \$43.12                | \$8.39                       |
| 329  | Commercial    | 25   | Mixed-Use Toilets         | 2,357           | 1.6 gpf | 1.28 gpf | 5,396                 | \$46.49                | \$8.62                       |
| 330  | Institutional | 74   | Urinals                   | 303             | 1.5 gpf | 0.5 gpf  | 1,437                 | \$12.45                | \$8.67                       |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 331  | Commercial    | 30   | Single-Use Toilets        | 1               | 1.6 gpf | 1.28 gpf | 2                     | \$0.02                 | \$8.68                       |
| 332  | Institutional | 71   | Urinals                   | 1,822           | 1 gpf   | 0.5 gpf  | 8,587                 | \$74.88                | \$8.72                       |
| 333  | Commercial    | 37   | Urinals                   | 4               | 1.5 gpf | 0.5 gpf  | 18                    | \$0.16                 | \$8.89                       |
| 334  | Institutional | 90   | Single-Use Toilets        | 585             | 1.6 gpf | 1.28 gpf | 1,297                 | \$11.54                | \$8.90                       |
| 335  | Institutional | 72   | Site-Specific Water Audit | 186             |         |          | 62,110                | \$553.16               | \$8.91                       |
| 336  | Institutional | 73   | Faucets                   | 3,557           | 1.5 gpm | 0.5 gpm  | 5,106                 | \$45.48                | \$8.91                       |
| 337  | Institutional | 85   | Mixed-Use Toilets         | 1,798           | 1.6 gpf | 1.28 gpf | 3,928                 | \$35.47                | \$9.03                       |
| 338  | Commercial    | 27   | Mixed-Use Toilets         | 3,160           | 1.6 gpf | 1.28 gpf | 6,875                 | \$62.33                | \$9.07                       |
| 339  | Commercial    | 25   | Single-Use Toilets        | 178             | 3.5 gpf | 1.28 gpf | 379                   | \$3.51                 | \$9.25                       |
| 340  | Institutional | 73   | Urinals                   | 790             | 1 gpf   | 0.5 gpf  | 3,469                 | \$32.47                | \$9.36                       |
| 341  | Industrial    | 91   | Mixed-Use Toilets         | 538             | 1.6 gpf | 1.28 gpf | 1,134                 | \$10.61                | \$9.36                       |
| 342  | Industrial    | 49   | Single-Use Toilets        | 21              | 1.6 gpf | 1.28 gpf | 44                    | \$0.41                 | \$9.37                       |
| 343  | Commercial    | 19   | Site-Specific Water Audit | 1,729           |         |          | 191,062               | \$1,794.15             | \$9.39                       |
| 344  | Commercial    | 31   | Urinals                   | 1               | 1.5 gpf | 0.5 gpf  | 4                     | \$0.04                 | \$9.50                       |
| 345  | Institutional | 77   | Single-Use Toilets        | 254             | 1.6 gpf | 1.28 gpf | 526                   | \$5.01                 | \$9.52                       |
| 346  | Institutional | 74   | Faucets                   | 5,866           | 1.5 gpm | 0.5 gpm  | 7,739                 | \$75.00                | \$9.69                       |
| 347  | Commercial    | 37   | Urinals                   | 10              | 1 gpf   | 0.5 gpf  | 42                    | \$0.41                 | \$9.76                       |
| 348  | Institutional | 74   | Urinals                   | 1,109           | 1 gpf   | 0.5 gpf  | 4,522                 | \$45.58                | \$10.08                      |
| 349  | Commercial    | 19   | Single-Use Toilets        | 2,648           | 1.6 gpf | 1.28 gpf | 5,047                 | \$52.23                | \$10.35                      |
| 350  | Commercial    | 31   | Mixed-Use Toilets         | 3               | 3.5 gpf | 1.28 gpf | 6                     | \$0.06                 | \$10.48                      |
| 351  | Institutional | 73   | Mixed-Use Toilets         | 1,631           | 1.6 gpf | 1.28 gpf | 2,979                 | \$32.17                | \$10.80                      |
| 352  | Commercial    | 32   | Site-Specific Water Audit | 15              |         |          | 8,229                 | \$90.20                | \$10.96                      |
| 353  | Institutional | 74   | Single-Use Toilets        | 312             | 3.5 gpf | 1.28 gpf | 526                   | \$6.15                 | \$11.70                      |
| 354  | Institutional | 74   | Mixed-Use Toilets         | 2,362           | 1.6 gpf | 1.28 gpf | 3,946                 | \$46.59                | \$11.81                      |
| 355  | Institutional | 73   | Single-Use Toilets        | 83              | 3.5 gpf | 1.28 gpf | 138                   | \$1.64                 | \$11.88                      |
| 356  | Commercial    | 30   | Faucets                   | 30              | 1.5 gpm | 0.5 gpm  | 32                    | \$0.38                 | \$12.05                      |
| 357  | Institutional | 77   | Mixed-Use Toilets         | 1,580           | 1.6 gpf | 1.28 gpf | 2,579                 | \$31.17                | \$12.09                      |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 358  | Institutional | 71   | Single-Use Toilets        | 1,145           | 1.6 gpf | 1.28 gpf | 1,832                 | \$22.59                | \$12.33                      |
| 359  | Institutional | 90   | Mixed-Use Toilets         | 3,424           | 1.6 gpf | 1.28 gpf | 5,292                 | \$67.54                | \$12.76                      |
| 360  | Commercial    | 37   | Single-Use Toilets        | 6               | 1.6 gpf | 1.28 gpf | 9                     | \$0.12                 | \$13.17                      |
| 361  | Commercial    | 27   | Single-Use Toilets        | 766             | 1.6 gpf | 1.28 gpf | 1,086                 | \$15.11                | \$13.91                      |
| 362  | Commercial    | 31   | Single-Use Toilets        | 1               | 3.5 gpf | 1.28 gpf | 1                     | \$0.02                 | \$13.97                      |
| 363  | Industrial    | 91   | Single-Use Toilets        | 146             | 1.6 gpf | 1.28 gpf | 190                   | \$2.88                 | \$15.12                      |
| 364  | Institutional | 76   | Site-Specific Water Audit | 53              |         |          | 2,634                 | \$41.13                | \$15.61                      |
| 365  | Institutional | 71   | Mixed-Use Toilets         | 8,432           | 1.6 gpf | 1.28 gpf | 10,413                | \$166.33               | \$15.97                      |
| 366  | Commercial    | 25   | Single-Use Toilets        | 1,031           | 1.6 gpf | 1.28 gpf | 1,272                 | \$20.34                | \$15.99                      |
| 367  | Commercial    | 36   | Site-Specific Water Audit | 35              |         |          | 3,408                 | \$54.63                | \$16.03                      |
| 368  | Commercial    | 16   | Site-Specific Water Audit | 784             |         |          | 327,034               | \$5,255.53             | \$16.07                      |
| 369  | Commercial    | 30   | Mixed-Use Toilets         | 25              | 1.6 gpf | 1.28 gpf | 30                    | \$0.49                 | \$16.59                      |
| 370  | Commercial    | 37   | Mixed-Use Toilets         | 33              | 1.6 gpf | 1.28 gpf | 38                    | \$0.65                 | \$17.03                      |
| 371  | Institutional | 85   | Single-Use Toilets        | 898             | 1.6 gpf | 1.28 gpf | 981                   | \$17.71                | \$18.06                      |
| 372  | Institutional | 83   | Site-Specific Water Audit | 297             |         |          | 222,734               | \$4,145.88             | \$18.61                      |
| 373  | Commercial    | 18   | Site-Specific Water Audit | 325             |         |          | 214,521               | \$4,046.53             | \$18.86                      |
| 374  | Institutional | 73   | Site-Specific Water Audit | 53              |         |          | 12,390                | \$264.20               | \$21.32                      |
| 375  | Institutional | 73   | Single-Use Toilets        | 810             | 1.6 gpf | 1.28 gpf | 740                   | \$15.98                | \$21.59                      |
| 376  | Commercial    | 15   | Site-Specific Water Audit | 26              |         |          | 51,193                | \$1,171.40             | \$22.88                      |
| 377  | Institutional | 74   | Single-Use Toilets        | 1,152           | 1.6 gpf | 1.28 gpf | 965                   | \$22.72                | \$23.56                      |
| 378  | Commercial    | 13   | Site-Specific Water Audit | 58              |         |          | 53,139                | \$1,256.78             | \$23.65                      |
| 379  | Commercial    | 30   | Mixed-Use Toilets         | 5               | 3.5 gpf | 1.28 gpf | 3                     | \$0.10                 | \$28.34                      |
| 380  | Commercial    | 12   | Site-Specific Water Audit | 3,281           |         |          | 40,309                | \$1,160.10             | \$28.78                      |

| Rank | Sector        | FDOR | BMP Type                  | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|---------------------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
| 381  | Institutional | 71   | Site-Specific Water Audit | 1,840           |         |          | 84,271                | \$2,532.48             | \$30.05                      |
| 382  | Industrial    | 42   | Site-Specific Water Audit | 50              |         |          | 15,225                | \$522.08               | \$34.29                      |
| 383  | Commercial    | 37   | Site-Specific Water Audit | 5               |         |          | 100                   | \$4.28                 | \$42.84                      |
| 384  | Industrial    | 92   | Site-Specific Water Audit | 27              |         |          | 5,296                 | \$232.11               | \$43.83                      |
| 385  | Industrial    | 41   | Site-Specific Water Audit | 1,347           |         |          | 91,075                | \$4,300.04             | \$47.21                      |
| 386  | Industrial    | 48   | Site-Specific Water Audit | 4,283           |         |          | 358,962               | \$18,612.43            | \$51.85                      |
| 387  | Commercial    | 34   | Site-Specific Water Audit | 76              |         |          | 4,540                 | \$253.34               | \$55.80                      |
| 388  | Commercial    | 11   | Site-Specific Water Audit | 4,513           |         |          | 94,785                | \$5,401.90             | \$56.99                      |
| 389  | Industrial    | 91   | Site-Specific Water Audit | 313             |         |          | 4,137                 | \$298.52               | \$72.16                      |
| 390  | Industrial    | 45   | Site-Specific Water Audit | 32              |         |          | 7,987                 | \$603.37               | \$75.54                      |
| 391  | Industrial    | 44   | Site-Specific Water Audit | 57              |         |          | 5,540                 | \$471.22               | \$85.05                      |
| 392  | Industrial    | 43   | Site-Specific Water Audit | 48              |         |          | 1,967                 | \$173.73               | \$88.31                      |
| 393  | Industrial    | 46   | Site-Specific Water Audit | 37              |         |          | 4,074                 | \$373.01               | \$91.57                      |
| 394  | Industrial    | 92   | Urinals                   | 5               | 1.5 gpf | 0.5 gpf  | 2                     | \$0.21                 | \$121.29                     |
| 395  | Industrial    | 92   | Mixed-Use Toilets         | 18              | 3.5 gpf | 1.28 gpf | 3                     | \$0.36                 | \$125.16                     |
| 396  | Industrial    | 92   | Urinals                   | 30              | 1 gpf   | 0.5 gpf  | 8                     | \$1.23                 | \$154.45                     |
| 397  | Industrial    | 92   | Faucets                   | 174             | 1.5 gpm | 0.5 gpm  | 13                    | \$2.22                 | \$167.34                     |
| 398  | Industrial    | 92   | Mixed-Use Toilets         | 81              | 1.6 gpf | 1.28 gpf | 7                     | \$1.60                 | \$213.99                     |
| 399  | Industrial    | 92   | Single-Use Toilets        | 7               | 3.5 gpf | 1.28 gpf | 1                     | \$0.14                 | \$230.66                     |
| 400  | Industrial    | 47   | Mixed-Use Toilets         | 13              | 3.5 gpf | 1.28 gpf | 1                     | \$0.26                 | \$330.66                     |
| 401  | Industrial    | 92   | Single-Use Toilets        | 33              | 1.6 gpf | 1.28 gpf | 2                     | \$0.65                 | \$382.27                     |
| 402  | Industrial    | 47   | Urinals                   | 3               | 1.5 gpf | 0.5 gpf  | 0                     | \$0.12                 | \$407.68                     |
| 403  | Industrial    | 47   | Urinals                   | 6               | 1 gpf   | 0.5 gpf  | 1                     | \$0.25                 | \$408.19                     |
| 404  | Industrial    | 47   | Faucets                   | 71              | 1.5 gpm | 0.5 gpm  | 2                     | \$0.91                 | \$492.73                     |
| 405  | Industrial    | 47   | Single-Use Toilets        | 3               | 3.5 gpf | 1.28 gpf | 0                     | \$0.06                 | \$553.78                     |

| Rank | Sector        | FDOR | BMP Type   | Number of Units | From    | To       | Water Saved (gal/day) | Retrofit Cost (\$/day) | Cost-Effectiveness (\$/kgal) |
|------|---------------|------|------------|-----------------|---------|----------|-----------------------|------------------------|------------------------------|
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 406  | Industrial    | 47   | Toilets    | 39              | 1.6 gpf | 1.28 gpf | 1                     | \$0.77                 | \$634.23                     |
| 407  | Institutional | 76   | Urinals    | 1               | 1.5 gpf | 0.5 gpf  | 0                     | \$0.04                 | \$698.71                     |
| 408  | Institutional | 76   | Faucets    | 88              | 1.5 gpm | 0.5 gpm  | 1                     | \$1.13                 | \$768.83                     |
| 409  | Institutional | 76   | Urinals    | 6               | 1 gpf   | 0.5 gpf  | 0                     | \$0.25                 | \$872.98                     |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 410  | Institutional | 76   | Toilets    | 37              | 3.5 gpf | 1.28 gpf | 1                     | \$0.73                 | \$919.31                     |
| 411  | Institutional | 82   | Faucets    | 332             | 1.5 gpm | 0.5 gpm  | 5                     | \$4.24                 | \$922.70                     |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 412  | Institutional | 76   | Toilets    | 1               | 3.5 gpf | 1.28 gpf | 0                     | \$0.02                 | \$999.08                     |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 413  | Industrial    | 47   | Toilets    | 7               | 1.6 gpf | 1.28 gpf | 0                     | \$0.14                 | \$1,071.50                   |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 414  | Institutional | 82   | Toilets    | 22              | 3.5 gpf | 1.28 gpf | 0                     | \$0.43                 | \$1,133.85                   |
| 415  | Institutional | 82   | Urinals    | 35              | 1.5 gpf | 0.5 gpf  | 1                     | \$1.44                 | \$1,309.85                   |
| 416  | Institutional | 82   | Urinals    | 80              | 1 gpf   | 0.5 gpf  | 2                     | \$3.29                 | \$1,455.97                   |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 417  | Institutional | 82   | Toilets    | 135             | 3.5 gpf | 1.28 gpf | 2                     | \$2.66                 | \$1,457.72                   |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 418  | Institutional | 76   | Toilets    | 5               | 1.6 gpf | 1.28 gpf | 0                     | \$0.10                 | \$1,636.83                   |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 419  | Institutional | 76   | Toilets    | 99              | 1.6 gpf | 1.28 gpf | 1                     | \$1.95                 | \$1,710.27                   |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 420  | Institutional | 82   | Toilets    | 46              | 1.6 gpf | 1.28 gpf | 0                     | \$0.91                 | \$1,883.66                   |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 421  | Institutional | 82   | Toilets    | 293             | 1.6 gpf | 1.28 gpf | 2                     | \$5.78                 | \$2,663.21                   |
| 422  | Institutional | 97   | Faucets    | 115             | 1.5 gpm | 0.5 gpm  | 0                     | \$1.47                 | \$2,998.85                   |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 423  | Institutional | 97   | Toilets    | 3               | 3.5 gpf | 1.28 gpf | 0                     | \$0.06                 | \$4,535.94                   |
| 424  | Institutional | 97   | Urinals    | 4               | 1.5 gpf | 0.5 gpf  | 0                     | \$0.16                 | \$4,899.94                   |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 425  | Institutional | 97   | Toilets    | 14              | 3.5 gpf | 1.28 gpf | 0                     | \$0.28                 | \$5,291.93                   |
| 426  | Institutional | 97   | Urinals    | 42              | 1 gpf   | 0.5 gpf  | 0                     | \$1.73                 | \$5,334.76                   |
|      |               |      | Single-Use |                 |         |          |                       |                        |                              |
| 427  | Institutional | 97   | Toilets    | 29              | 1.6 gpf | 1.28 gpf | 0                     | \$0.57                 | \$8,287.94                   |
|      |               |      | Mixed-Use  |                 |         |          |                       |                        |                              |
| 428  | Institutional | 97   | Toilets    | 157             | 1.6 gpf | 1.28 gpf | 0                     | \$3.10                 | \$10,195.06                  |

## References

- Alliance for Water Efficiency (AWE). 2010. *Faucet Fixtures Introduction: Residential and Non-Residential Faucet Fixtures*.  
[http://www.allianceforwaterefficiency.org/Faucet\\_Fixtures\\_Introduction.aspx](http://www.allianceforwaterefficiency.org/Faucet_Fixtures_Introduction.aspx) (Accessed February 23, 2011).
- Duncan Associates. (2007). "Impact Fee Update." Indian River County.  
<[http://www.irccdd.com/Planning\\_Division/impactfeestudy.pdf](http://www.irccdd.com/Planning_Division/impactfeestudy.pdf)>.
- Dziegielewski, B., Kiefer, J., Opitz, E., Porter, G., Lantz, G., DeOreo, W., Mayer, P., and Nelson, J. (2000). *Commercial and Institutional End Uses of Water*, AWWARF, Denver.
- East Bay Municipal Utility District (EBMUD). 2008. *Watersmart Guidebook: A Water-Use Efficiency Plan Review for New Businesses*. Oakland, CA.
- Environmental Protection Agency (EPA) WaterSense. (2011). "Pre-Rinse Spray Valves Field Study Report."
- Florida Building Commission, and International Code Council. (2007). *Florida building code 2007*, International Code Council, Falls Church, Va.
- Friedman, K., Heaney, J., Morales, M., and J. Palenchar. (2011). "Water Demand Management Optimization Methodology." *Journal American Water Works Association*, Vol. 103, No. 9.
- Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Wolff, G.; Cushing, K.K.; & Mann, A., 2003. *Waste Not, Want Not: The Potential for Urban Water Conservation in California*. Pacific Inst., Oakland, Calif.
- Heaney, J., Friedman, K., Morales, M., Switt, R., and J. Martin. 2012. *Best Management Practices in EZ Guide*. <http://www.conservefloridawater.org/cfwcpubs.asp>
- International Code Council. (2011). "International Codes-Adoption by State (Updated 07-15-2011)." <<http://www.iccsafe.org/gr/Documents/stateadoptions.pdf>>.
- Mayer, P., DeOreo, W., Opitz, E., Kiefer, J., Davis, W., Dziegielewski, B., and Nelson, J. 1999. *Residential End Uses of Water*. American Water Works Association.
- Morales, M., and Heaney, J. (2010). "Predominant Commercial Sectors in Florida and their Water Use Patterns." *Florida Water Resources Journal*, 62(8), 29-34.
- Morales, M., Heaney, J., Friedman, K., and J. Martin. (2011). "Estimating Commercial, Industrial, and Institutional Water Use Based on Heated Building Area." *Journal American Water Works Association*, Vol. 103, No. 6, 84-96.
- Nelson, A. C., and Nicholas, J. C. (1992). "Estimating Functional Population for Facility Planning." *Journal of Urban Planning and Development*, 118(2), 45-58.
- Nicholas, J. (2010). "2009 Update of Impact Fees." Palm Beach County.  
<[http://www.pbcgov.org/pzb/impactfees/2009/draft\\_2\\_summary.pdf](http://www.pbcgov.org/pzb/impactfees/2009/draft_2_summary.pdf)>.
- North Carolina Department of Environment and Natural Resources. (2009). "Water Efficiency Manual for Commercial, Industrial and Institutional Facilities."

- Palenchar, J. (2009). "Trends in Irrigation Use of Potable Water by the Single Family Residential Sector in Alachua County Florida." M.E. Thesis, Department of Environmental Engineering Sciences, University of Florida, Gainesville.
- Santa Clara Valley Water District. 2008. Commercial, Industrial, and Institutional Water Use and Conservation Baseline Study. San Jose, CA.
- Schuer, C., Keoleian, G., and R. Reppe. 2003. Life Cycle Energy and Environmental Performance of a New University Building: Modeling Challenges and Design Implications. *Energy and Buildings*, 35(10), 1049-1064.
- Seneviratne, M. 2007. *A Practical Approach to Water Conservation for Commercial and Industrial Facilities*. Butterworth-Heinemann.
- Southwest Florida Water Management District (SWFWMD). 1997. ICI Conservation in the Tri-County Area of the SWFWMD.
- Tindale-Oliver & Associates, Inc. (2007). "Lake County Impact Fee Study."  
<[http://www.lakecountyfl.gov/pdfs/IFC\\_agendas\\_minutes/031507/Lake\\_County\\_Impact\\_Fee\\_Study\\_Draft\\_Report\\_030107.pdf](http://www.lakecountyfl.gov/pdfs/IFC_agendas_minutes/031507/Lake_County_Impact_Fee_Study_Draft_Report_030107.pdf)>