# Appendix 5-3 –
# Conservation Savings Detailed Calculations

## INDOOR KITS

Highlighted cells are main numbers used in Table 5-8 in Volume I.

| 1) 2007 | Total | Potential | GPD/ | | Annual | Annual | Annual | Total |
|---|---|---|---|---|---|---|---|---|
| Single Family: | GPD[1] | Units[1] | Unit | | Units | GPD | MGD | MGD |
| Showerheads | 171,559 | 58,632 | 2.93 | [2] | 1,875 | 5,490 | 0.005 | 0.005 |
| Bathroom Aerators | 316,656 | 65,970 | 4.80 | [3] | 1,875 | 9,000 | 0.009 | 0.009 |
| | | | | | 1,875 | 14,490 | 0.014 | 0.014 |
| Multi Family: | | | | | | | | |
| Showerheads | 147,581 | 39,355 | 3.75 | [4] | 1,875 | 7,030 | 0.007 | 0.007 |
| Bathroom Aerators | 190,429 | 37,339 | 5.10 | [5] | 1,875 | 9,560 | 0.010 | 0.010 |
| Kitchen Aerators | 30,313 | 6,414 | 4.73 | [6] | 1,875 | 2,530 [7] | 0.003 | 0.003 |
| | | | | | 1,875 | 19,120 | 0.019 | 0.019 |
| 2007 Total | | | | | 3,750 [8] | 33,610 | 0.034 | 0.034 |

| 2) 2008-2012 | Total | Potential | GPD/ | | Annual | Annual | Annual | Total |
|---|---|---|---|---|---|---|---|---|
| Single Family: | GPD[1] | Units[1] | Unit | | Units | GPD | MGD | MGD |
| Showerheads | 171,559 | 58,632 | 2.93 | [2] | 4,125 | 12,070 | 0.012 | 0.060 |
| Bathroom Aerators | 316,656 | 65,970 | 4.80 | [3] | 4,125 | 19,800 | 0.020 | 0.099 |
| | | | | | 4,125 | 31,870 | 0.032 | 0.159 |
| Multi Family: | | | | | | | | |
| Showerheads | 147,581 | 39,355 | 3.75 | [4] | 4,125 | 15,469 | 0.015 | 0.077 |
| Bathroom Aerators | 190,429 | 37,339 | 5.10 | [5] | 4,125 | 21,038 | 0.021 | 0.105 |
| Kitchen Aerators | 30,313 | 6,414 | 4.73 | [6] | 4,125 | 5,557 [7] | 0.006 | 0.028 |
| | | | | | 4,125 [8] | 42,064 | 0.042 | 0.210 |
| 2008-2012 Total | | | | | 8,250 | 73,933 | 0.074 | 0.370 |
| 3) Total Program | | | | | 45,000 | 403,277 | | 0.403 |

[1] Based on HDR measure analysis.
[2] Assumes 2 showerheads per home.
[3] Assumes 2.5 bathroom aerators per home.
[4] Assumes 1.5 showerheads per home.
[5] Assumes 1.5 bathroom aerator per home.
[6] Assumes 1 kitchen aerator per home.
[7] Assumes 28.5% of participants achieve savings for this measure (i.e., 6,414 potential units /22,500 participants).
[8] Assumes 50:50 SF/MF split.

## OUTDOOR KITS

| | Total | Potential | GPD/ | | Annual | Annual | Annual | Total |
|---|---|---|---|---|---|---|---|---|
| 1) 2007, 2010-2012 | GPD[1] | Units[1] | Unit | | Units | GPD | MGD | MGD |
| Single Family | 157,500 | 24,739 | 6.37 | [2] | 3,600 [3] | 22,919 | 0.023 | 0.092 |
| Multi Family | 9,966 | 778 | 12.81 | [2] | 150 [4] | 1,921 | 0.002 | 0.008 |
| | | | | | 3,750 | 24,841 | 0.025 | 0.099 |
| 2) 2008-2009 | | | | | | | | |
| Single Family | 157,500 | 24,739 | 6.37 | [2] | 7,250 [3] | 46,157 | 0.046 | 0.092 |
| Multi Family | 9,966 | 778 | 12.81 | [2] | 250 [4] | 3,202 | 0.003 | 0.006 |
| | | | | | 7,500 | 49,359 | 0.049 | 0.099 |
| 3) Total Program | | | | | 30,000 | 198,082 | | 0.198 |

[1] Based on HDR measure analysis.
[2] Assumes one kit per residence.
[3] Assumes potential is greater than HDR estimates (29,500 vs. 24,739).
[4] Assumes potential is greater than HDR estimates (1,100 vs. 778).

## TOILET LEAKS

| | Total GPD[1] | Potential Units[1] | GPD/ Unit | Annual Units | Annual GPD | Annual MGD | Total MGD |
|---|---|---|---|---|---|---|---|
| 1) Single Family | | | | | | | |
| 2007 | 289,481 | 145,189 | 1.99 | 132,500 | 264,181 | 0.264 | 0.264 |
| 2008-2012 | | | | 2,540 | 5,064 | 0.005 | 0.025 |
| | | | | 145,200 | | | 0.290 |
| 2) Multi Family | | | | | | | |
| 2008 | 145,343 | 81,590 | 1.78 | 69,100 | 123,094 | 0.123 | 0.123 |
| 2009-2012 | | | | 3,120 | 5,558 | 0.006 | 0.022 |
| | | | | 81,580 | | | 0.145 |
| 3) ICI | | | | | | | |
| 2009 | 12,928 | 5,418 | 2.39 | 5,100 | 12,169 | 0.012 | 0.012 |
| 2010-2012 | | | | 100 | 239 | 0.0002 | 0.0007 |
| Total | | | | 5,500 | | | 0.013 |
| 4) Total Program | | | | | | | 0.448 |

[1] Based on HDR measure analysis.

## TOILET REBATES

| | Total GPD[1] | Potential Units[1] | GPD/HH or Bus. |
|---|---|---|---|
| Single Family | 235,208 | 14,519 | 16.20 |
| Multi Family | 118,317 | 8,159 | 14.50 |
| ICI | 17,496 | 108 | 162.00 |

| 1) 2008 | Rebates[2] | Toilets/Unit | Units | GPD | MGD | Total MGD |
|---|---|---|---|---|---|---|
| Single Family | 450 | 2.3 | 196 | 3,170 | 0.003 | 0.003 |
| Multifamily | 225 | 1.8 | 125 | 1,810 | 0.002 | 0.002 |
| ICI | 75 | 4.0 | 19 | 3,040 | 0.003 | 0.003 |
| | 750 | | 339 | 8,020 | 0.008 | 0.008 |
| 2) 2009-2011 | | | | | | |
| Single Family | 966 | 2.3 | 420 | 6,800 | 0.007 | 0.020 |
| Multifamily | 483 | 1.8 | 268 | 3,890 | 0.004 | 0.012 |
| ICI | 161 | 4.0 | 40 | 6,520 | 0.007 | 0.020 |
| | 1,610 | | 729 | 17,210 | 0.017 | 0.052 |
| 3) 2012 | | | | | | |
| Single Family | 972 | 2.3 | 423 | 6,850 | 0.007 | 0.007 |
| Multifamily | 486 | 1.8 | 270 | 3,920 | 0.004 | 0.004 |
| ICI | 162 | 4.0 | 41 | 6,560 | 0.007 | 0.007 |
| | 1,620 | | 733 | 17,330 | 0.017 | 0.017 |
| 4) Total Program | 7,200 | | 3,258 | 76,980 | | 0.077 |

[1] Based on HDR measure analysis.
[2] Based on a 60:30:10 split for SF/MF/ICI

## WASHER REBATES

| | Total GPD[1] | Potential Units[1] | GPD/HH or Bus. |
|---|---|---|---|
| Single Family | 368,139 | 25,215 | 14.60 |
| Multi Family (Units) [2] | 111,592 | 8,584 | 13.00 |
| ICI (Laundromats) | 6,720 | 60 [3] | 112.00 |

| | Rebates[4] | GPD | MGD | Total MGD |
|---|---|---|---|---|
| 1) 2008 | | | | |
| Single Family | 590 | 8,620 | 0.009 | 0.009 |
| Multi Family | 148 | 1,919 | 0.002 | 0.002 |
| ICI (Laundromats) | 12 | 1,344 | 0.001 | 0.001 |
| | 750 | 11,883 | 0.012 | 0.012 |
| 2) 2009-2011 | | | | |
| Single Family | 1,278 | 18,665 | 0.019 | 0.056 |
| Multifamily | 320 | 4,155 | 0.004 | 0.012 |
| ICI | 12 | 1,344 | 0.001 | 0.004 |
| | 1,610 | 24,163 | 0.024 | 0.072 |
| 3) 2012 | | | | |
| Single Family | 1,286 | 18,781 | 0.019 | 0.019 |
| Multifamily | 322 | 4,181 | 0.004 | 0.004 |
| ICI | 12 | 1,344 | 0.001 | 0.001 |
| | 1,620 | 24,306 | 0.024 | 0.024 |
| 4) Total Program | 7,200 | 108,679 | | 0.109 |

[1] Based on HDR measure analysis.
[2] Based on total of washers in units and common areas.
[3] Based on HDR's figures of 5 laundromats @ 12 washers each.
[4] Based 1 laundromat per year and a 80:20 split of balance for SF/MF.

## ICI AUDITS

| | Total GPD[1] | Potential Units[1] | GPD/ Unit |
|---|---|---|---|
| Average Savings | 92,651 | 259 | 357.73 |

| | Audits | GPD | MGD | Total MGD |
|---|---|---|---|---|
| 2008 | 5 | 1,789 | 0.002 | 0.002 |
| 2009-2011 | 28 | 10,016 | 0.010 | 0.030 |
| 2012 | 31 | 11,090 | 0.011 | 0.011 |
| Total | 120 | 42,927 | | 0.043 |

[1] Based on HDR measure analysis.

## SCHOOL AUDITS

| | Total GPD[1] | Potential Units[1] | GPD/ Unit |
|---|---|---|---|
| Average Savings | 3,323 | 11 | 302.09 |

| | Audits[2] | GPD | MGD | Total MGD |
|---|---|---|---|---|
| 2008 | 5 | 1,510 | 0.002 | 0.002 |
| 2009-2011 | 15 | 4,531 | 0.005 | 0.014 |
| 2012 | 10 | 3,021 | 0.003 | 0.003 |
| Total | 60 | 18,125 | | 0.018 |

[1] Based on HDR measure analysis.
[2] Assumes more units than HDR estimated.