

## Restaurant Water Usage Estimator

**Input variable:** Number of patrons served on busiest day: 850

**Program Output Calculations:** Percentage of water usage per device

|                        | Full % | Quick % | Number of busy days per year: | 104 (weekends) |
|------------------------|--------|---------|-------------------------------|----------------|
| Restrooms <sup>1</sup> | 50     | 80      | Number of other days per year | 261            |
| Dishwasher             | 8      | 0       | Total days per year           | 365            |
| Wash Sink              | 5      | 2       |                               |                |
| Ice Makers             | 20     | 6       |                               |                |
| Steamers               | 2      | 2       |                               |                |
| Beverages              | 15     | 10      |                               |                |
|                        | 100    | 100     |                               |                |

|                              |      |      |  |    |
|------------------------------|------|------|--|----|
| <sup>2</sup> Gals/patron/day | 8    | 9    | <sup>3</sup> Non-busy day usage, % (est.): | 50 |
| GPD on busy days             | 7650 | 6800 |  |    |
| GPD on other days            | 3825 | 3400 |  |    |

Water Usage, gallons:

|               | Full Serve  |               |                | Quick Serve |               |                |
|---------------|-------------|---------------|----------------|-------------|---------------|----------------|
|               | Day (Max)   | Month         | Year           | Day (Max)   | Month         | Year           |
| Restrooms     | 3825        | 74747         | 896963         | 5440        | 106307        | 1275680        |
| Dishwasher    | 612         | 11960         | 143514         | 0           | 0             | 0              |
| Wash Sink     | 383         | 7475          | 89696          | 136         | 2658          | 31892          |
| Ice Makers    | 1530        | 29899         | 358785         | 408         | 7973          | 95676          |
| Steamers      | 153         | 2990          | 35879          | 136         | 2658          | 31892          |
| Beverages     | 1148        | 22424         | 269089         | 680         | 13288         | 15946          |
| <b>Totals</b> | <b>7651</b> | <b>149495</b> | <b>1793926</b> | <b>6800</b> | <b>132884</b> | <b>1594600</b> |

Notes:

- 1) Restroom usage estimates based on NCDENR (North Carolina Department of Environment and Natural Resources) Oct 1999
- 2) Gallons per patron per day based on FEMP (Federal Energy Management Program) data which is based on data from the AWWA 1996
- 3) Non-busy day usage is best guess estimate