

HOW MUCH MONEY CAN YOU *SAVE* BY PURCHASING A NEW, EFFICIENT TOILET



Orange Water and Sewer Authority

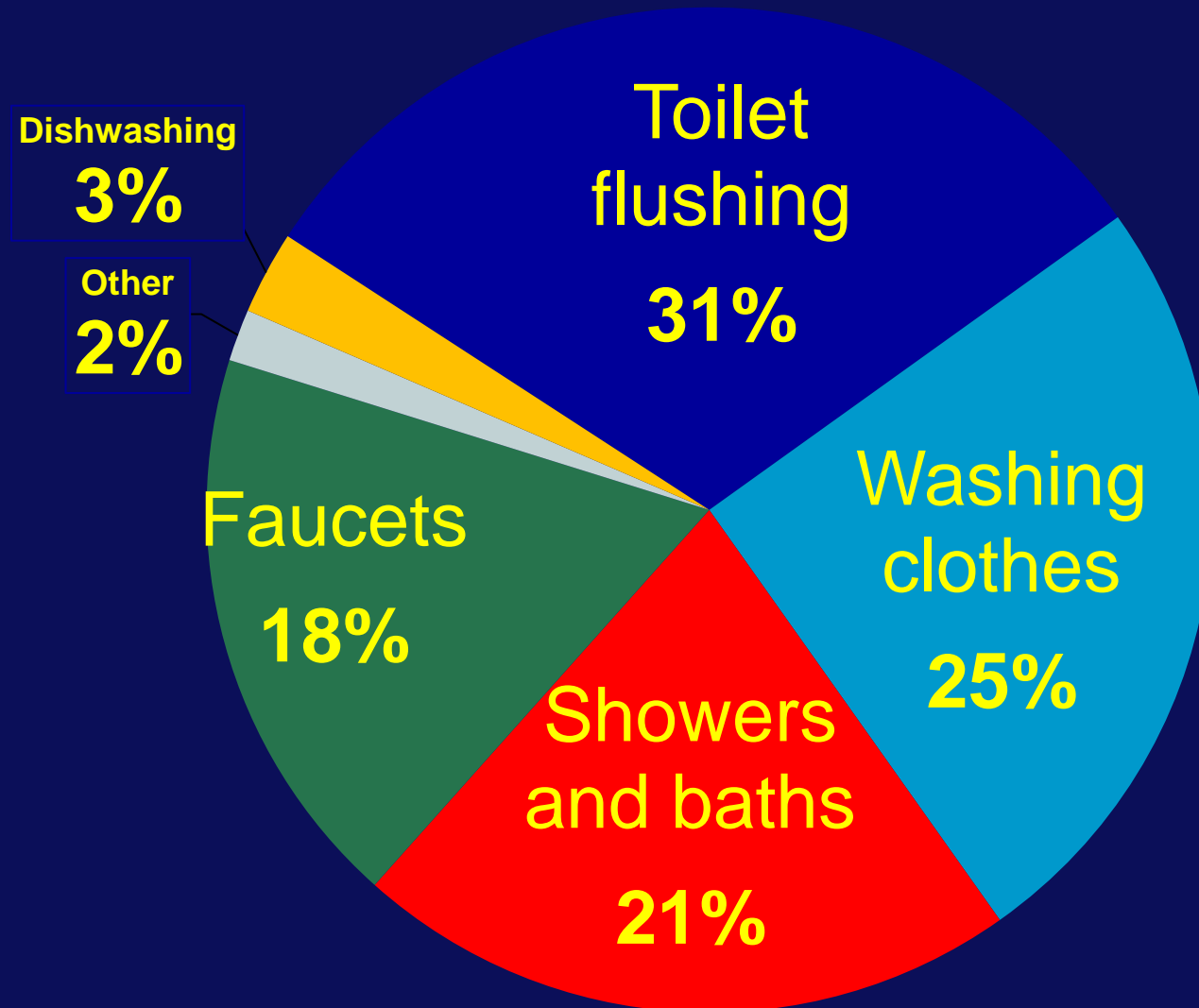
400 Jones Ferry Road, Carrboro www.owasa.org; webmaster@owasa.org

*A public, non-profit agency providing water, sewer and reclaimed
water services to the Carrboro-Chapel Hill community*

WHY IS CONSERVATION IMPORTANT?

- Water is essential to our quality of life:
 - public health and sanitation,
 - fire protection including sprinkler systems,
 - environmental protection,
 - the local economy/employment, and
 - community services (public, private and non-profit).
- All water and wastewater is pumped. Most of the energy is from non-renewable sources that produce CO₂.
- Conservation reduces the need for multi-million dollar expansion of our water system capacities.

INTENTIONAL WATER USE inside a residence



What is the **MARGINAL** cost of 1,000 gallons of OWASA water for a typical residential customer?

- Block 2 water rate (3,000 to 5,000 gallons/mo.)
= \$6.39 per 1,000 gallons
- Sewer rate: \$6.48 per 1,000 gallons*
- Total: **\$12.87** per 1,000 gallons
(1.29 cents per gallon)

* Up to 15,000 gallons/month for an individually-metered residence
(rates as of October 1, 2011)

OWASA's increasing block water rates per 1,000 gallons for individually- metered residential customers

(October, 2011)

- 1,000 – 2,000 gal./mo. **\$2.63**
- 3,000 – 5,000 gal./mo. **6.39**
- 6,000 – 10,000 gal./mo. **7.83**
- 11,000 – 15,000 gal./mo. **10.94**
- 16,000 or more gal./mo. **19.79**



HOW MUCH WATER DO YOUR TOILETS USE?

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Year toilet was installed	Water use per flush
before 1980	5 gallons or more
1980 to 1994	3.5 to about 4 gallons
since 1994	1.6 gallons (limit under Federal law)
“High efficiency” toilets now available	1.28 gallons

WATER AND DOLLAR SAVINGS: HIGH EFFICIENCY TOILETS

A FAMILY OF **FOUR**
REPLACING **TWO** OLD TOILETS
THAT USE **5** GALLONS PER FLUSH.

**ANNUAL WATER USE
WITH OLD TOILETS
that use 5 gallons per flush**

36,500 gallons

(4 people X 365 days X 5 flushes
per day per person X 5 gallons per flush)

Cost per 1,000 gallons: \$12.87

if block 2 rate of \$6.39 per 1,000 gallons for water,
plus \$6.48 per 1,000 gallons for sewer service

Annual cost: \$470

(36,500 gallons x \$12.87/1,000 gallons)

ANNUAL WATER USE AND COST WITH HIGH EFFICIENCY TOILETS (HETs)

which use **1.28** gallons per flush:

High Efficiency Toilets:

Total gallons flushed: 9,344

(4 people X 365 days X 5 flushes/day/person
X 1.28 gallons per flush)

Annual cost: \$120

(9,344 gallons X \$12.87 per 1,000 gallons)

ANNUAL WATER SAVINGS

with High Efficiency Toilets

27,156 gallons (74%)

ANNUAL DOLLAR SAVINGS with High Efficiency Toilets:

\$350

(\$470 – \$120 = \$350)

- First -year savings
- Greater savings likely in later years

ANNUAL RETURN ON INVESTMENT family of 4

**With two new toilets,
assuming a cost of \$300 each, installed:**

$$\frac{\$350 \text{ annual savings}}{\$600 \text{ invested}} = 58\%$$

PAYBACK PERIOD:

1 year, 9 months

QUESTIONS ? COMMENTS ?

For more information, please visit the
Conservation section of our website at:

<http://www.owasa.org/conservationandeducation/tips.aspx>

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