

Opportunities & Challenges

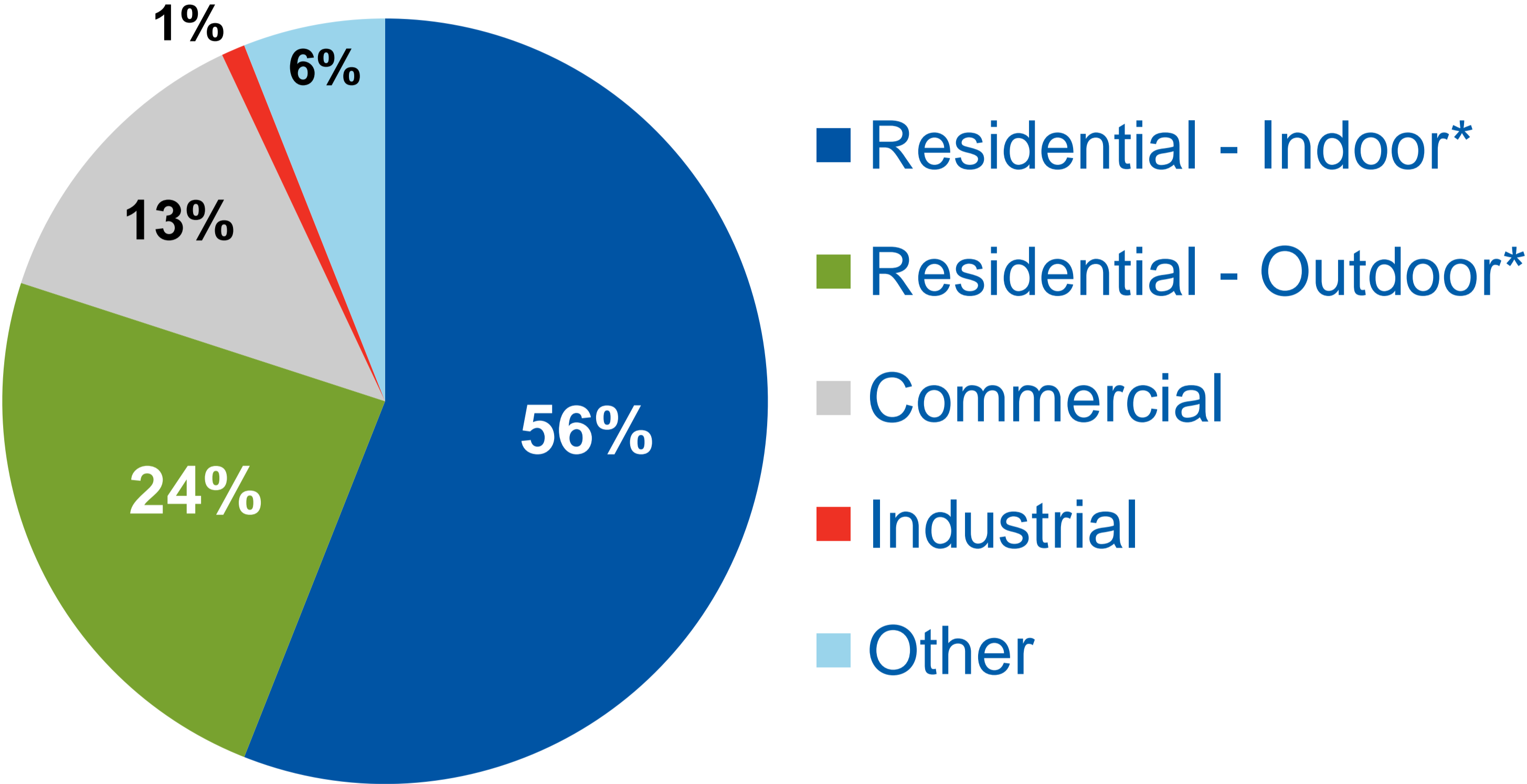
Considering Water Conservation

3/20/2013

Lake Resolution Committee



NE Metro 2010 Municipal Use

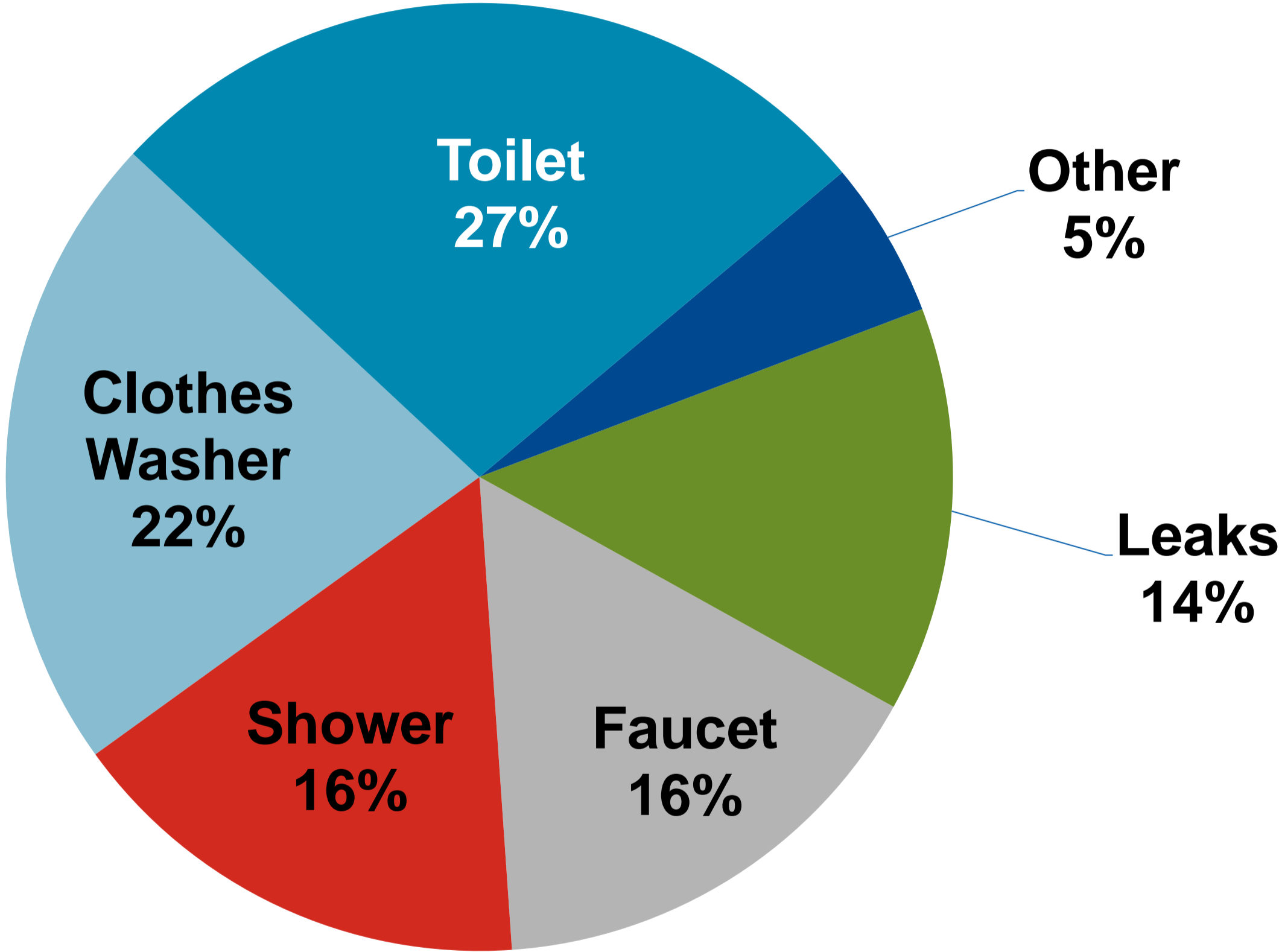


Data submitted by cities to DNR and stored in SWUDS

**Estimated based on SWUDS monthly data*



USA Typical Indoor Water Use



Data from AWWA Research Foundation, 2009

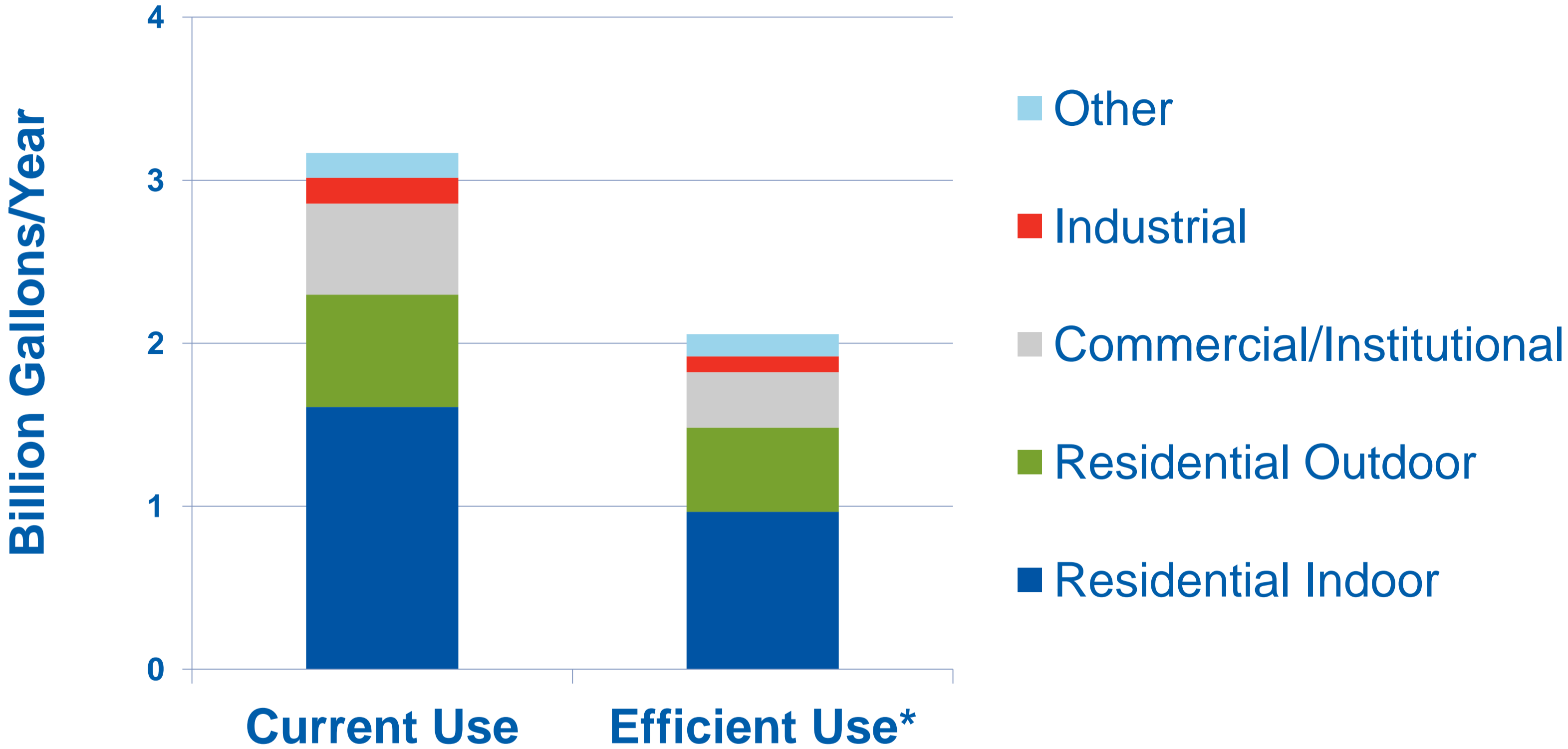


NE Metro Municipal Water Use (Million Gallons/Year)

Sector	Current Use	Potential to Reduce Use*	Initial Estimate of Conservation*
Residential Indoor	1,609	40%	965
Residential Outdoor	689	25-40%	517-413
Commercial/Institutional	558	39%	340
Industrial	159	39%	97
Other	152	10%	137
TOTAL	3,167	35-38%	2,056-1,952

*From work done in California in 2003:
http://www.pacinst.org/reports/urban_usage/

Potential for Conservation



*From work done in California in 2003:
http://www.pacinst.org/reports/urban_usage/

Water Conservation Tips

5 Minutes

Turn off the faucet

5 Hours

Fix a leak

5 Days

Audit your water use

5 Weeks

Update your home

5 Months

Learn your landscape



Examples

Municipal

- Eden Prairie
- Woodbury
- White Bear Lake



Commercial

- Advanced Circuits, Roseville
- Mission Foods, New Brighton
- Mission Viejo Country Club, California

City of Eden Prairie



Actions

- Water Conservation Rebate Program
- Water Conservation Challenge

Results

- 1,746 rebates provided since 2000
- > 5 gallon reduction in daily residential per capita water use from 2000 to 2010
- Winner of Whyland Foundation “Mayor’s Challenge for Water Conservation”

City of Woodbury

Actions

- Tough enforcement
- High-volume penalties
- Education through newsletter and website



Results

- Water use dropped per person by 21%

City of White Bear Lake



Actions

- Eliminated municipal water supply system leakage
- Conservation pricing

Results

- Water use dropped per person by 21 percent between 2000 and 2011

Advance Circuits, Roseville

Actions

- Installed flow meters
- Optimized flow sensors and improved operating and maintenance procedures

Results

- Cut water flow by 10.9 million gallons per year
- Saved \$38,000 annually
- Avoided sewer access charge of \$225,000

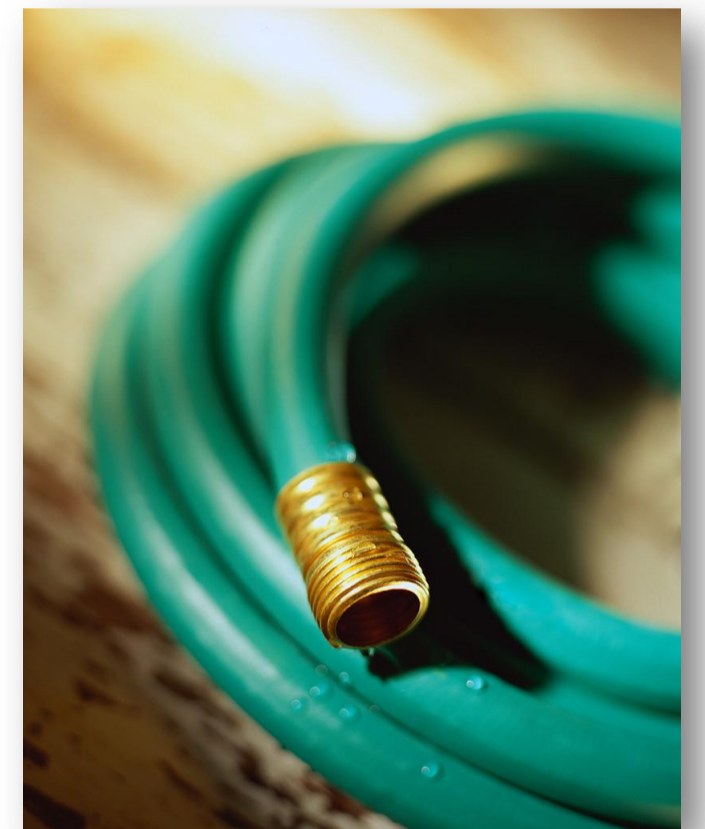
Mission Foods, New Brighton

Actions

- Switched from garden hoses to high-pressure washing equipment
- Cut back on water use
- Improved housekeeping procedures

Results

- Reduced water use by 1.9 million gallons
- Avoided SAC fees
- Saved \$20,200



Mission Viejo Country Club

Issue

Uncertain water availability & expected cost increase

Action

Re-design golf course with alternative water supply

Results

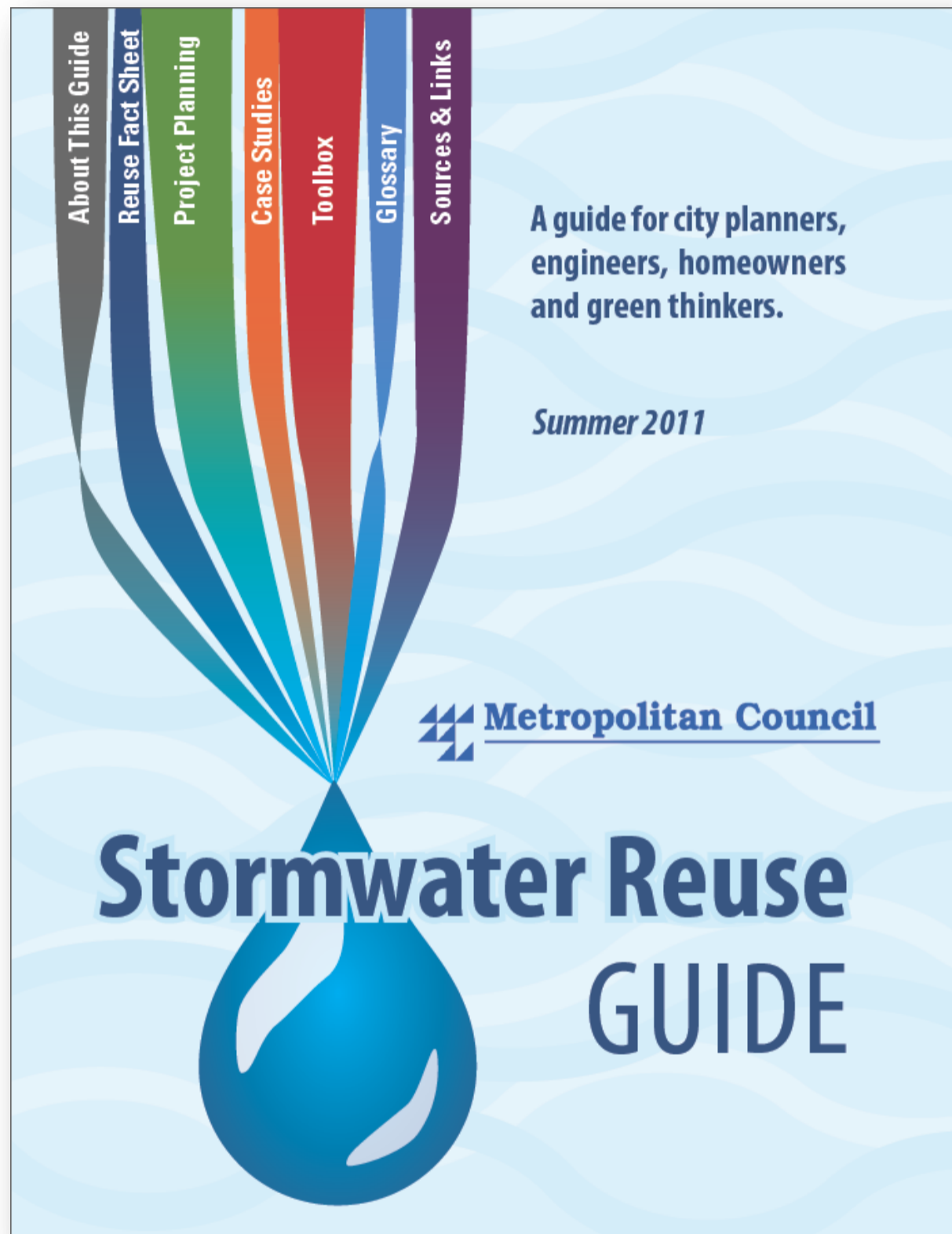
> 2.5 million gallons of stormwater captured, of a quality acceptable for irrigation

<http://ebookbrowse.com/gdoc.php?id=255975459&url=ec47f00702f4a123183088f161f9e511>



Photo: Mission Viejo Country Club
Michael Blankinship, Blankinship & Associates, Inc., 2009

Stormwater Reuse Guide



- Reduce demand on potable infrastructure
- Diversify water sources to reduce risk
- Reduce mass loading of pollutants to surface waters

<http://www.metrocouncil.org/Wastewater-Water/Planning/Water-Supply-Planning/Stormwater-Reuse-Guide-Tools-zipped-file.aspx>



Conservation Toolbox

WATER SUPPLY PLANNING

Water Conservation
Toolbox

Conservation Toolbox -
Water Customers

Conservation Toolbox -
Water Suppliers

News & Events

Funding & Finance

Publications & Resources

Contact Us

WATER CONSERVATION TOOLBOX

Tips for water suppliers and customers

Water suppliers in Minnesota are required to have a water conservation plan as part of their [water supply plan](#). To assist in the development of these plans and to help water suppliers select programs appropriate for their communities, the Metropolitan Council developed this water conservation toolbox. The toolbox contains program information and resources water suppliers can use to promote the efficient use of water.



Programs for water suppliers



Tips and resources for water customers

If you have comments or questions, please let us know. We will continually update and improve the toolbox based on your input.

E-mail: watersupply@metc.state.mn.us

Phone: 651-602-1000

www.metrocouncil.org/Wastewater-Water/Planning/Water-Supply-Planning/Water-Conservation-Toolbox.aspx



Take Home

- Potential exists to significantly reduce water use in communities around White Bear Lake
- Various water conservation options exist and can be implemented relatively quickly
- Evaluation of water conservation should be included in feasibility analysis

Additional Resource

Balancing the Water Budget

- Focuses on developing and promoting innovative financing mechanisms to fund water conservation and stormwater management activities
- <http://ipswichriver.org/water-friendly-demonstrations/balancing-the-water-budget/>