Uniting for a Common Goal: Regional Partnerships in Water Conservation

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Introductions

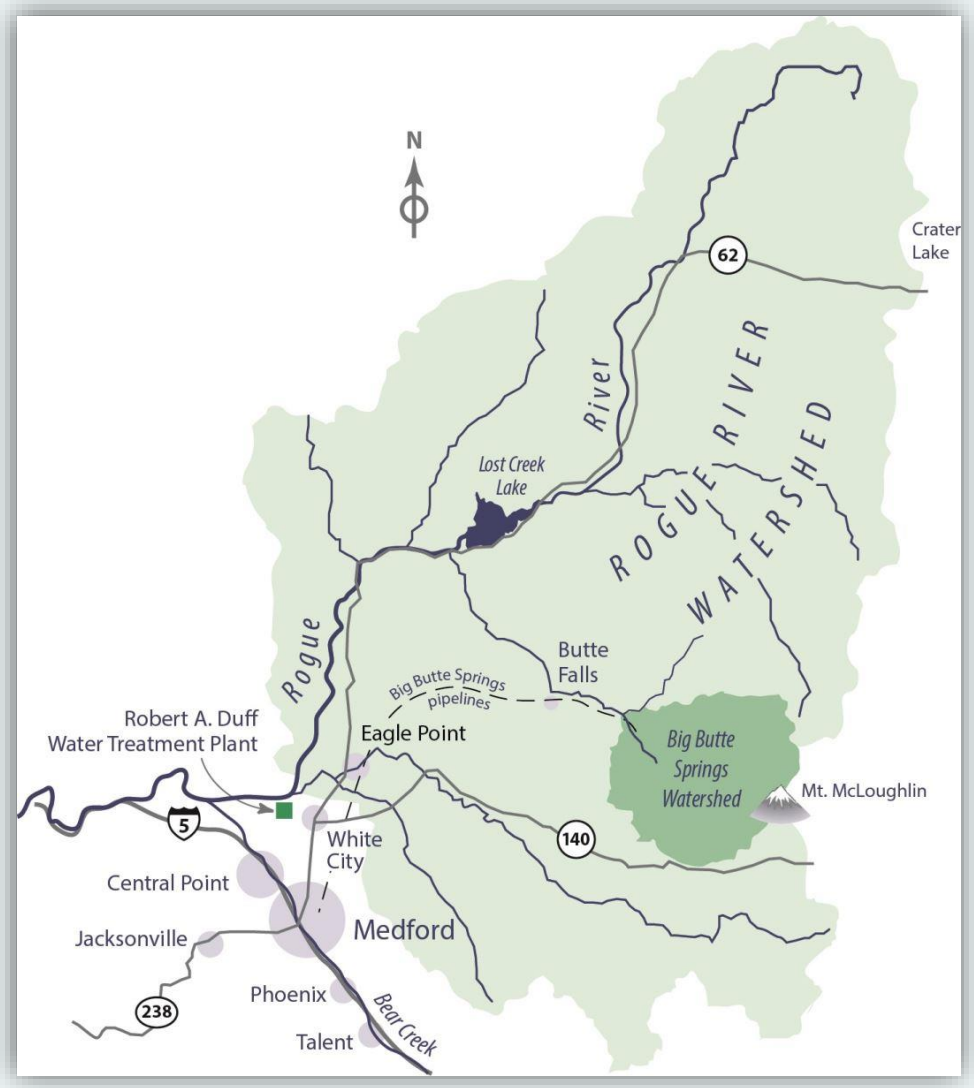
- Ways water is used in Southern Oregon
- Sources of water in the Rogue valley
- Importance of water conservation
- Benefits of a regional partnership
- Water rights strategy for partner water providers
- Challenges and solutions
- Best practices

Ways We Use Water In Southern Oregon

- **Agriculture & Livestock** – many small farms orchards, vineyards & much more
- **Rural Domestic Use** – groundwater not always reliable – over appropriation
- **Municipal** – (Drinking Water & Wastewater treatment)
- **Recreation/tourism** – (snow skiing; summer fishing, boating, swimming)
- **Instream** (fish, water quality, riparian) Known for our lakes, rivers and forests
- **Other** (Hydro, Industrial, Wildlife)

Big Butte Springs & Rogue River Watershed

- Big Butte Springs - Cascade Mountains Mt McLoughlin
- Rogue River – Cascade Mountains Boundary Springs, Lost Creek Lake
- Provides water to approx. 140,000 people
- Retail Customers Medford and White City
- Partner Cities of Central Point, Eagle Point, Jacksonville, Phoenix, Talent, Ashland (Wholesale Customer)
- Winter usage 14 MGD
- Summer usage 54 MGD



Big Butte Springs

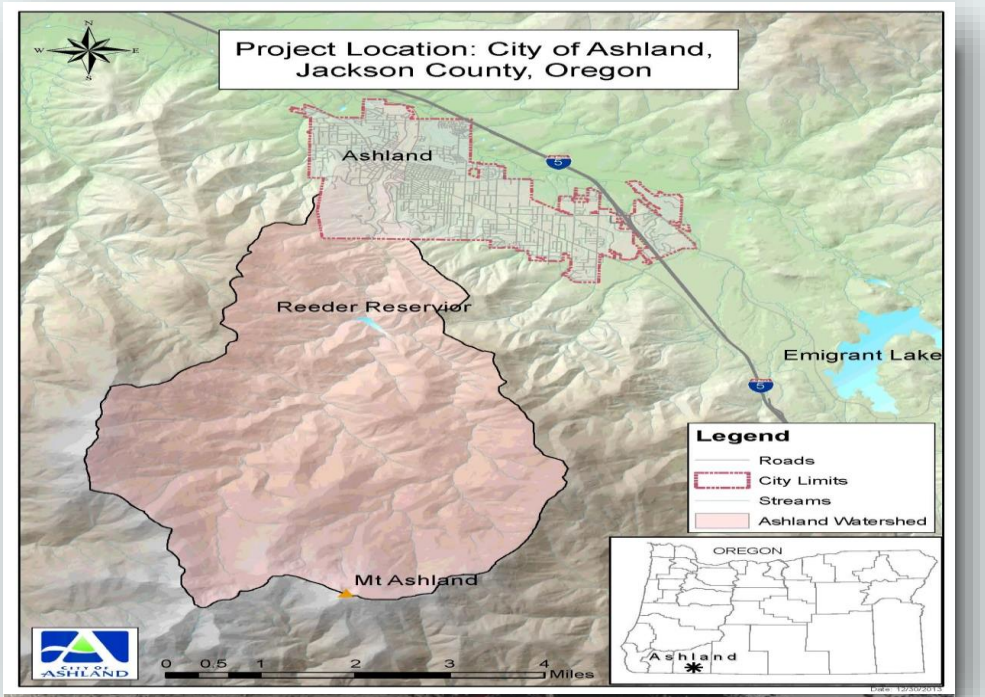
- Primary source of water since 1927
- Located just outside of Butte Falls
- Minimal treatment and pumping
- Two pipes flow by gravity about 30 miles
- Supplies water all year long
- Aquifer – stream flows have decreased by over 20% in the past decade
- 2,700 feet elevation, volcanic rock
- Big Butte Springs pipe capacity 26 MGD
- Currently brings approx. 19 MGD

Rogue River

- Built in 1968, Duff Water Treatment Plant supplements water supply during summer
- Surface water source – requires treatment
- Rogue River capacity 45 MGD (70 CFS)
    - In construction to be 65 MGD capacity
- Summer river flows between 1,500 and 2,500 CFS
- Duff plant makes up for the difference at the springs
- Historically operates May – Oct. but now it runs April – Nov.

Ashland Creek Watershed

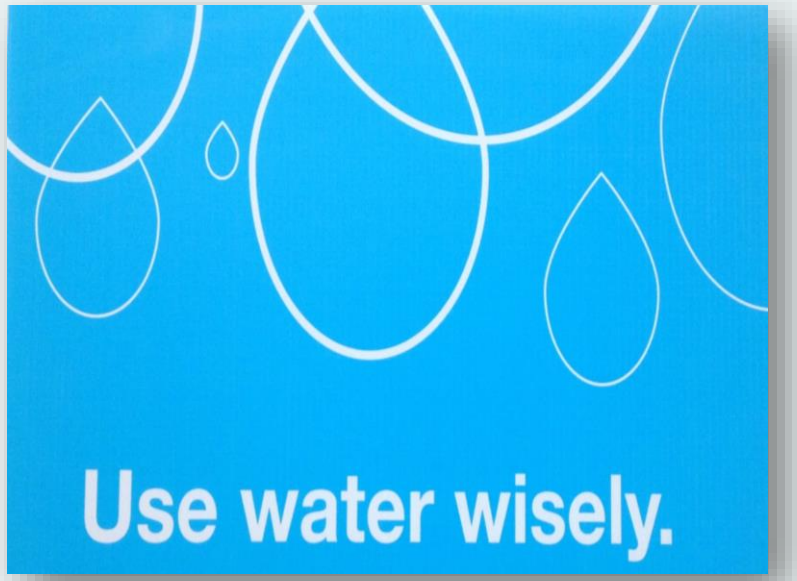
- Siskiyou Mountains
- Snowpack is summer storage
- Limited aquifer storage (Geology)
- Ashland Creek East & West Forks
- Fills Reeder Reservoir
- Approx. 21,000 people
- Winter Use 1.5 - 2 MGD
- Summer Peak Use 5.5 - 6 MGD



Importance of Water Conservation

- Water conservation isn't a choice, it's a necessity!
  - Controlled by decreasing supply and increased demand year after year
  - Continuous drought years = the urgency to conserve water now more than ever
- Reduces unnecessary wastes and increases available supply through water efficiency programs.
- Reduces Carbon Footprint (Treatment, Pumping, Heating)
- Lowers peak demand, which determines infrastructure requirements
- Reduce your water use and lower your water bill

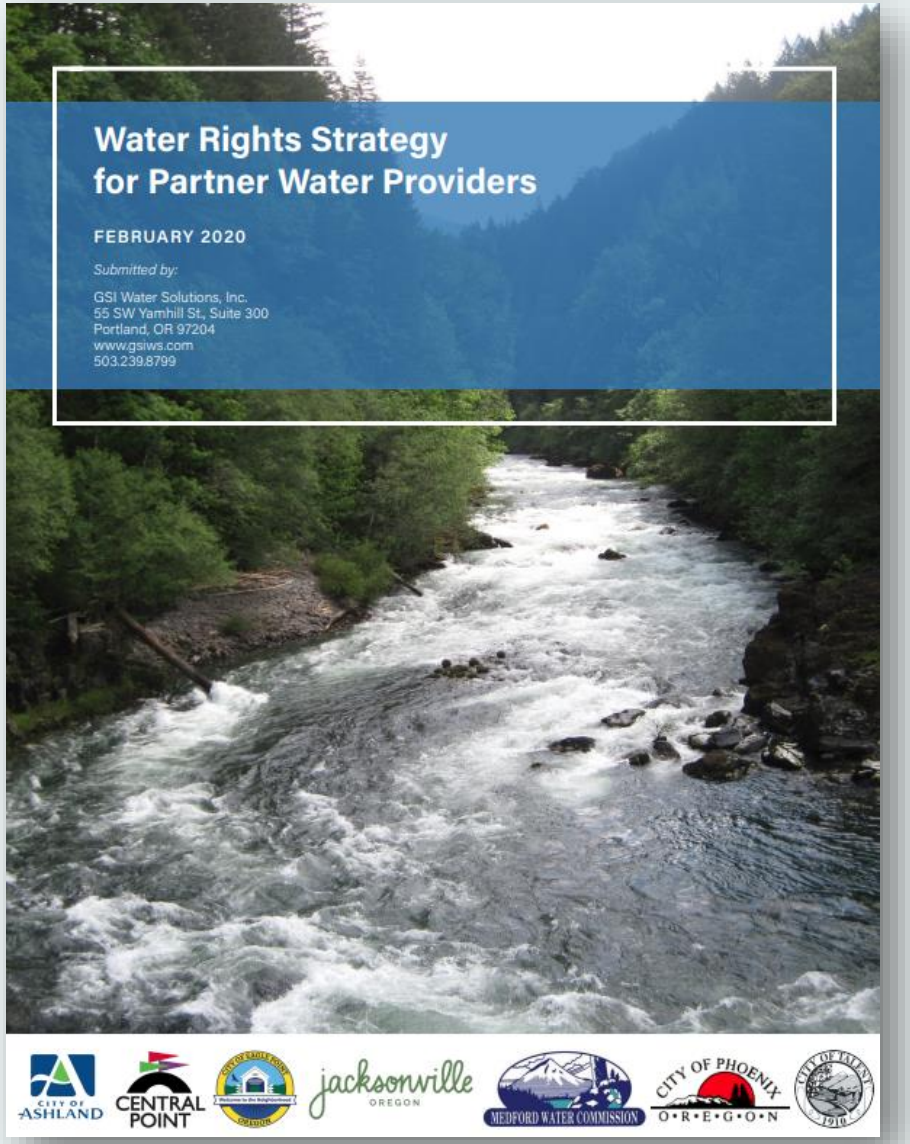
"Water conservation entails doing more with less, not going without."



Benefits of Regional Partnership for Water Conservation.

- Increased Water efficiency
  - Collaboration with our partners can streamline water usage by reducing waste and maximizing efficiency
- Equitability of programs
  - Program variability and resource availability between regions
- Improved communication
  - Effective communication enhances resilience and adaptability in the face of these evolving conditions
- Excellent Stewardship
  - Sharing Success stories of collaboration and increased efficiency, builds trust within the community

Water Rights Strategy for Partner Water Providers

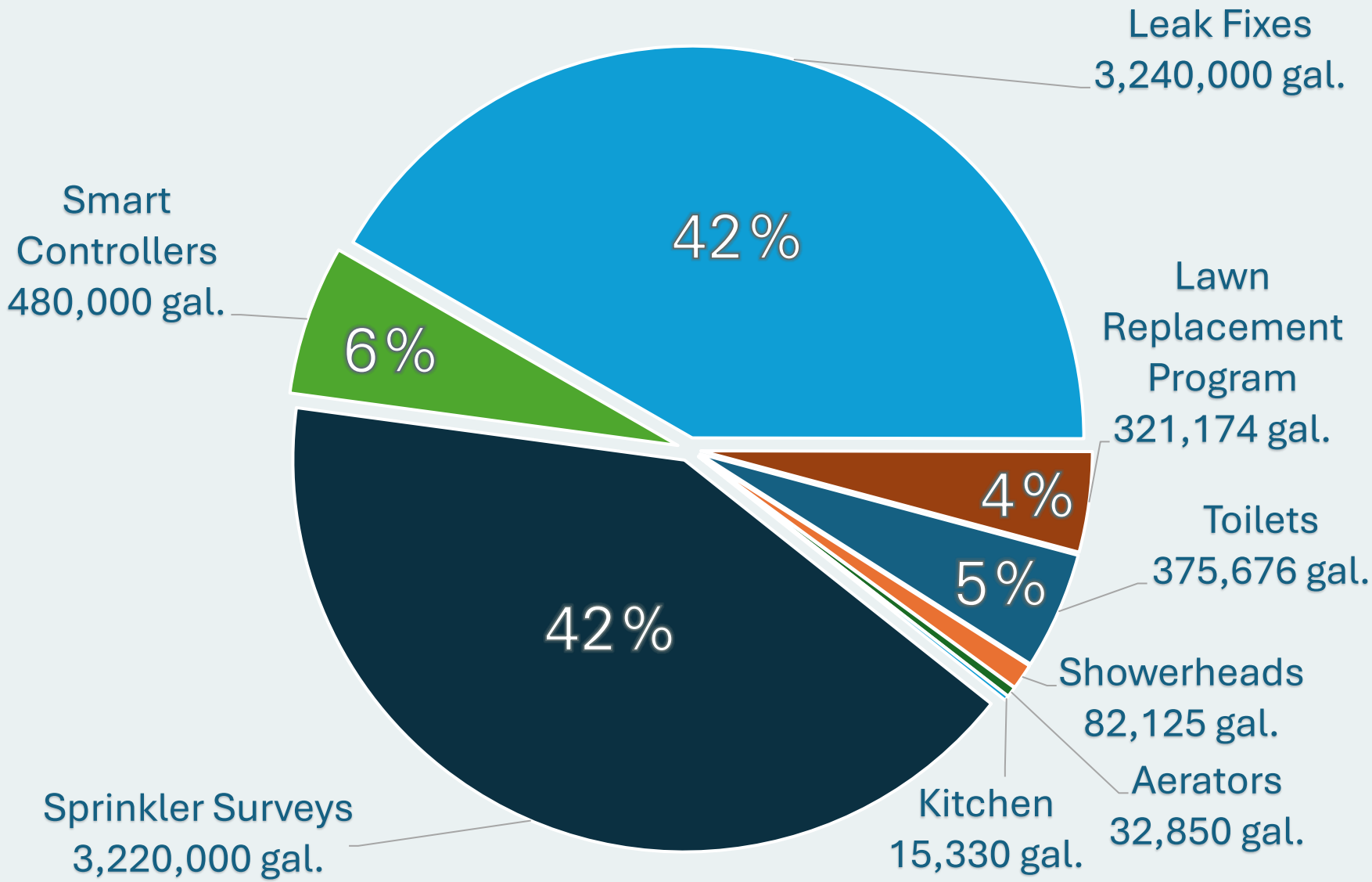


- Agreement signed in 2019 to develop the strategy recognizing the benefits of a mutual cooperation and the vital importance of providing safe drinking water.
- The strategy focuses on the partners water rights and water supply associated with the Robert A. Duff Treatment Plant, during the peak season of May through September.
- The strategy is intended to meet the following goals, interests, and priorities:
  - Ensure water rights are strategically managed
  - Secure long term water supply for all partners
  - Treat all partners equitably
  - Eliminate unnecessary purchases of additional water rights
  - Develop short-term and long-term water efficiency standards

Building Confidence Regionally

- To date, we have provided a variety of resources and program information to all our partner cities. This includes:
  - On the job training
  - Data retrieval pertaining to certain programs
  - Free giveaway information
  - Program layout and implementation of rebate programs
- Program management (IGA)
  - Liaison for Water Management and Conservation Plan
- Continued positive feedback

Building Confidence Regionally



Challenges and Solutions

Challenges:

- Water conservation is a Niche area (training/job shadowing)
- Lack of funding and interest
- Restrictions on data sharing
- Workforce
- Public Awareness and equitability

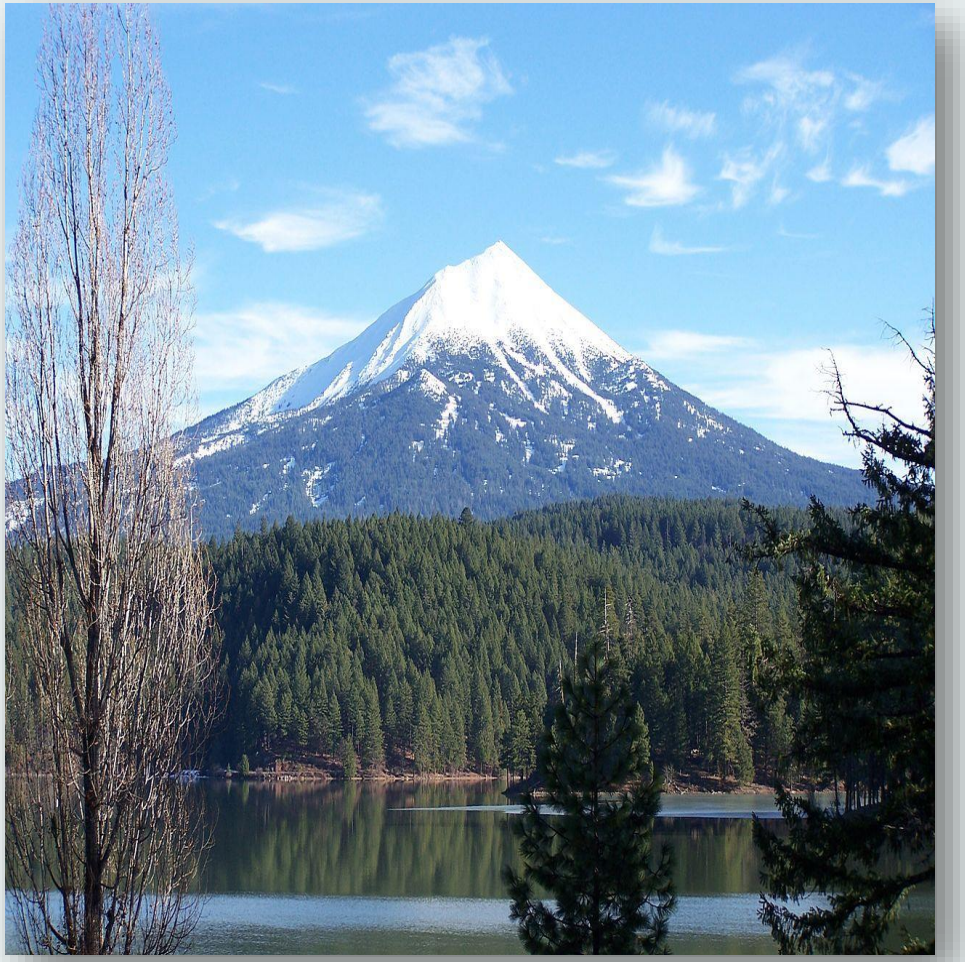
Solutions:

- Development of a shared vision of being water efficient
- Securing Funding through Grants
- Data sharing agreements
- Flexible working agreements
- Proactive community engagement
- Program availability for all customers

Best Practices

- Establishing goals - Development of KPI's for optimal program management
  - Year over year savings for programs
  - Metrics for measuring success within programs.
- Effective communication and collaboration between utilities
- Sharing industry knowledge, resources, and expertise
  - Programs, education and outreach materials, data collection for programs
- Adaptability and resiliency
- Good stewardship of our resources
  - Water and community

Conclusion



- Water conservation is not just a responsibility but a necessity for the long-term availability of our water supplies.
- Through regional partnerships, we can continue to be good stewards of our water resources by:
  - Being the leader for our partner cities
  - Building trust within our communities
  - Ensuring increased efficiency for years to come
- Continue to be diverse and equitable through program availability between regions.

Thank you

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Savings

Toilet = (Old gallonage * 2.5ppl * 5fpd) - (New gallonage * 2.5ppl * 5fpd) * (365 days)
Showerheads =(Old flow * 2.5ppl * 10 min/day) - (New flow * 2.5ppl * 10 min/day) * (365 days)
B-Aerators = (Old flow * 2.5ppl * 3 min/day) - (New flow * 2.5ppl * 3 min/day) * (365 days)
K-Aerators = (Old flow * 2.5ppl * 3 min/day) - (New flow * 2.5ppl * 3 min/day) * (365 days)

Washing Machine = 55gal +40gal+25 gal / 3 = average of 40 gal
40 gallons - 14 gallons = 26 gallons in savings
Based on 2 load / person / week 2ppl use 22.8 gal / day with 40 gallon washer -----
2 ppl use 8 gal/ day or less with energy star washer = savings of 14.8 gallons / day * 365 days

Old Dishwasher is 16 gallons per cycle. Energy Star Dishwasher is 4 gallons per cycle.
Savings of 12 gallons per cycle x 2 cycles per week is a savings of 648 gallons per year.

Hotel savings assumes an average of 65% occupancy every day with average of 2.5 people per room
E.g. Flagship has 66 toilets. 65% is approx. 43 toilets. Saving is calculated assuming that 43 rooms are occupied at all times.

Outdoor Audits save on average about 10,000 gallons (1336 cubic feet) per summer season (May-Oct).