

Water Conservation Forum

April 8, 2014

Placer County Board of Supervisors





Water Conservation Forum

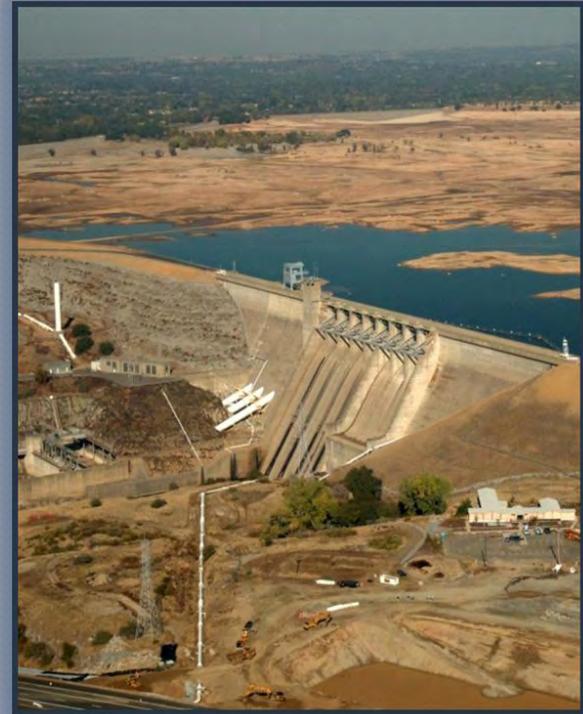
Purpose

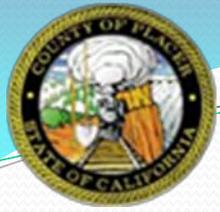
1. Provide Update to the Board of Current Regulations and Departmental Actions during Drought
2. Bring Forward Sustainable Water Conservation Options
3. Policy Level Discussion and Direction by Board



Federal/State Responsibility - Water

- Regulation Authority
 - Middle Fork Project (American River)
 - Drum Spaulding (Yuba & Bear Rivers)
 - Lake Tahoe
- Operational Authority
 - Folsom Reservoir
- Future Interactions





Local Water Agency Responsibility

- Provide Clean Water - water resource planning and management, retail and wholesale supply of irrigation water and drinking water

| Water Agency | Drought Actions | Conservation Rebates |
|---------------------------------|---|----------------------|
| Placer County Water Agency | Voluntary 20% Reduction 4/10 update coming | Yes |
| Nevada Irrigation District | Voluntary 20% Reduction 4/9 update coming | None currently |
| City of Roseville | Voluntary 20% Reduction | Yes |
| San Juan Water District | Mandatory 20 % Reduction | Yes |
| California American Water Co | PUC Request for Voluntary 20% Reduction | Yes |
| City of Lincoln | Voluntary 20% Reduction | No |
| Tahoe Area Water Purveyors (35) | None yet, Voluntary 20% | Some |



County Responsibility – Water

(Surface & Ground)

- **Placer County General Plan – Goal for Water Supply and Delivery**
 - Ensure availability of an adequate and safe water supply and the maintenance of high quality water in water bodies and aquifers used as sources of domestic supply.
- **General Plan Policies (13)**
 - New Development availability & growth rate, guidelines for use, metering, water quality standards, promote efficient water use and reduce water demand, reclaimed water use, groundwater use, agricultural use, etc.
- **General Plan Implementation Programs (3)**
 - Water Quality



County Participation – Water Conservation

- **Placer County Departments:** Environmental Health, OES, mPower, Agriculture, Facilities, Public Works, Advanced Planning, Building Services, Planning
- ***Department accomplishments to date to reduce water consumption during this year's drought***
 - Regulations, Guidelines, BMP's, suspensions or reductions of operations, grant funds etc. are currently enacted to support water savings or water infrastructure
- ***Department options to be studied/implemented that would allow for a more sustainable use of water within the County***
 - Potential Regulations, Guidelines, Negotiations,
- Sheriff Operations
 - Washing vehicles only when necessary
- Air Pollution Control
 - Notified County of \$30,000 grant for Drought biomass removal





Environmental Health:

Regulates public water systems that have fewer than 200 service connections.

Inspects all water well installations to assure protection of groundwater supplies.





Environmental Health

Tracking all well construction permits to determine drought related impacts.

To date, two public water systems have been identified as being affected by the drought.

Ophir Gardens, 16 service connections, is supplementing its potable water supply with deliveries of hauled water, and is in the process of consolidating with Placer County Water Agency with funding from USDA and California Prop 84.

North Eden Valley, 21 service connections, drilled a second well to supplement its water supply from an existing well that was declining in yield.





Office of Emergency Services

- Local Hazard Mitigation Planning
(recognized best practice)
- Support agencies and departments to be competitive for State and Federal grants



Placer County Fire

- No wet drills (fire hydrant drills)
- Reduced landscape watering at stations (twice weekly)
- Reduced vehicle washing
- Water saving fixtures in stations





mPOWER PLACER
SAVE MONEY. CONSERVE ENERGY. CREATE JOBS.

mPOWER Placer Is Helping Reduce Water Consumption

Placer County property owners can reduce their water usage during the drought with financing from mPOWER Placer for the following types of projects:



Replace old irrigation systems with high efficiency spray nozzles and low volume drip systems.



Install new technology hot water delivery system.



Install weather based or smart irrigation controllers.



Install solar water heating.



Replace inefficient water fixtures and toilets with low flow fixtures.



Replace conventional landscaping with artificial turf.



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mPOWER Placer Is Helping Reduce Water Consumption

mPOWER Placer continues to promote water efficiency improvements through the cities, partners, agencies and districts it works with.

- City of Auburn
- City of Colfax
- City of Lincoln
- Town of Loomis
- City of Rocklin
- City of Roseville
- SMUD
- PCWA



www.mpowerplacer.org

Agricultural Assistance

UC Farm Advisor

- Crop-Specific Drought Workshops
- Grower Discussion Groups
- Facilitate Information Sharing Among Growers

Placer Co. Ag. Dept.

- County Agricultural Commission used as Informational Forum
- Assist Water Agencies with Agricultural Determinations
- Help Coordinate the Distribution of Information

Agricultural Assistance

Placer RCD

- Assist Growers with Irrigation Efficiency Options and Design
- Provide Information Regarding Available Assistance and Cost Share Programs

USDA NRCS and FSA

- Assist Growers with USDA Loan and Cost-Share Programs
- Distribute Information Regarding Available Assistance Programs



Public Works' Water Conservation



Use Water for:

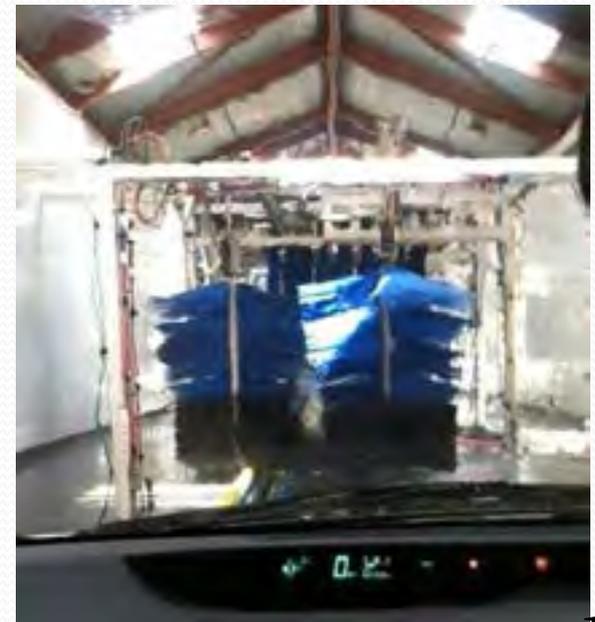
- Grading and Sweeping Dust Control
- Mowing Fire Prevention
- Roadway Maintenance Cleanup
- Facilities Domestic Use/Landscaping
- Prep Heavy Equipment for Transport and Maintenance
- Construction Projects

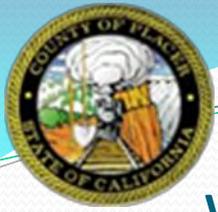


Water Use Reduction:

Minimize Car Washing/Continue Use of Commercial Car Wash Facilities for Fleet Vehicles

Limit Use for Roadway Maintenance Clean Up





PARKS AND GROUNDS DIVISION

WATER CONSUMPTION REDUCTION PRACTICES

- AUTOMATIC AND MANUAL IRRIGATION SYSTEMS HAVE BEEN PROGRAMED TO REDUCE IRRIGATION WATER BY 20% FROM LAST YEAR'S BASELINE
- TIMERS HAVE BEEN PLACED ON HOSE BIBBS IN AREAS THAT ARE NOT AUTOMATED
- IRRIGATION SYSTEMS ARE BEING REGULARLY TESTED TO ENSURE EFFICIENCY
- SITE INSPECTIONS WERE INCREASED TO ENSURE THERE IS NO OVER-WATERING OR OVER-SPRAY OF SIDEWALKS, PLANTERS OR LANDSCAPED AREAS
- LANDSCAPE MAINTENANCE VENDORS HAVE BEEN DIRECTED TO REDUCE WATER USE BY 20%
- WATER CONSERVATION SCHEDULES ARE BEING UPDATED AND ADJUSTED REGULARLY
- TURF CARE PRACTICES ARE BEING FOLLOWED FOR HIGH VISIBILITY LAWNS AND SPORTS FIELDS
- IRRIGATION HAS BEEN PROGRAMMED TO WATER DURING EVENING HOURS, WHENEVER POSSIBLE
- TURF AND LANDSCAPE PLANTINGS ARE BEING REDUCED WHERE FEASIBLE



ON-GOING EFFORTS TO PROMOTE SUSTAINABLE USE OF WATER

- EXPAND CENTRAL CONTROL WATER MANAGEMENT SYSTEM
- CONTINUE TO PURSUE RECLAIMED WATER TO DRY CREEK COMMUNITY PARK AND THE WALERGA ROAD LANDSCAPE MEDIAN
- WORK WITH THE DROUGHT TASK FORCE TO IDENTIFY AND SECURE APPLICABLE GRANTS FOR WATER CONSERVATION
- EXPAND AUTOMATED IRRIGATION SYSTEMS AT THE PCGC
- PURSUE FUNDING FOR PLANNING & DESIGN STUDIES REQUIRED FOR USE OF CANAL WATER AT THE PCGC
- PLAN FOR VEHICLE WASH FACILITIES AT THE PCGC & SPJC THAT UTILIZE RECYCLED WATER TO ELIMINATE HAND WASHING OF VEHICLES



Low Impact Design Program

Storm water management and land development strategy

- ✓ Implemented in the Sierras
- ❖ In development for the Western Placer County

The LID Guidebook promotes:

- ❑ Replacement of turfed area with drought tolerant landscaping and efficient irrigation systems.
- ❑ Less impervious surface cover which will result in significantly higher site infiltration rates and improved groundwater recharge.
- ❑ Use of Cisterns.
- ❑ Use of bio-retention and bio-filtration features.
- ❑ LID is only one piece of a integrated sustainable solution to improving water supply and water quality.



Bio-retention - Street Planters





Bio-filtration - Filter Strips





Rain Garden





Building Services

Mandatory Measures (Today)

- **New Construction**

- Current California Plumbing & Green Code mandates:
 - Low-flow water fixtures;
 - Landscape irrigation control if installed at the time of new construction;

- **Existing Construction**

- Current California Plumbing & Green Code mandates:
 - Fixture replacement requires low-flow exchange

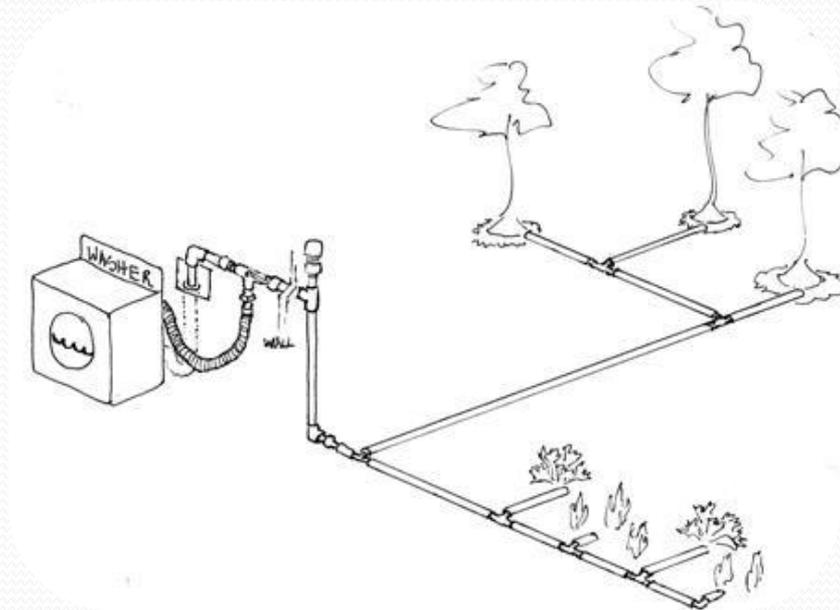




Building Services

Voluntary Measures (Today)

- New and Existing Construction
 - **Clothes Washer Irrigation System:** may be installed or altered without permit if such work is in compliance with outlined construction standards found in the California Plumbing Code.



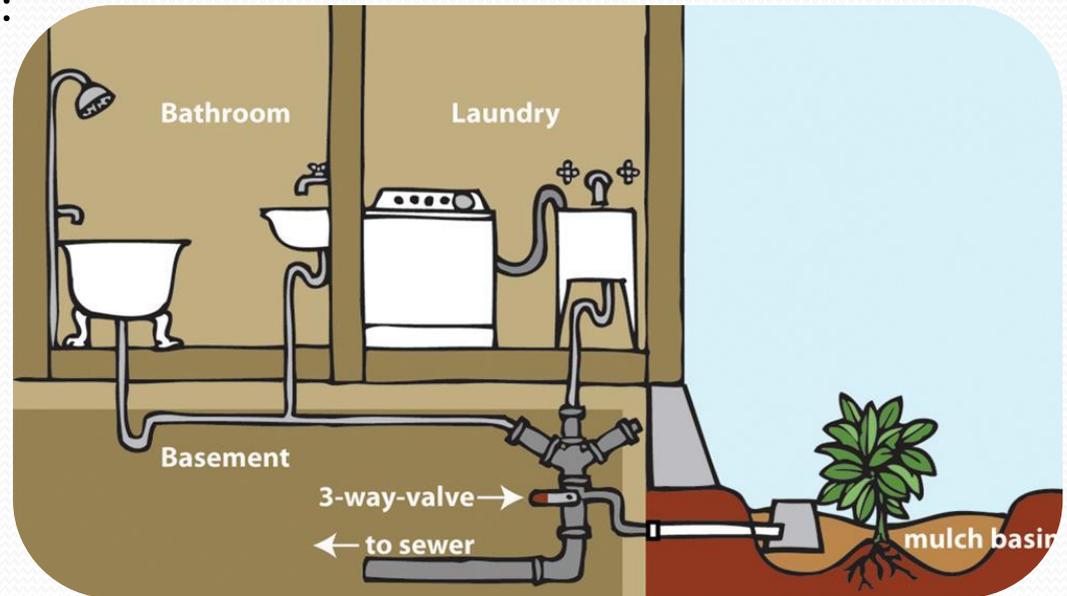


Building Services

Voluntary Cont'd

- **Gray water system:** includes, but is not limited to the diversion of wastewater from residential:

- Bathtubs
- Showers
- Bathroom washbasins
- Clothes washers
- Laundry tubs



- Commercial gray water includes the same as residential, except commercial systems may include discharges from processing and manufacturing processes if treated for contaminants.
- Challenges with slab foundations

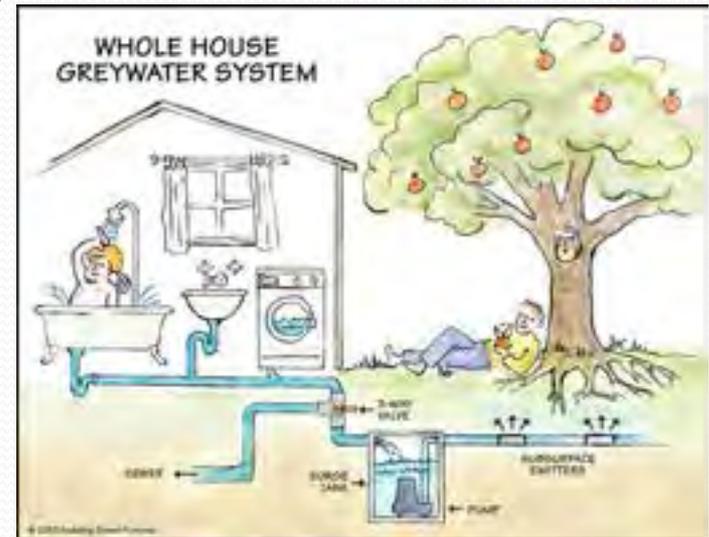


Building Services

Potential Enhancements



- California Green Code
 - California Green Code Chapter A4 offers *voluntary measures* for the Board's consideration. If adopted, water efficiencies and conservation may include:
 - Outdoor water low-water consumption systems;
 - Gray water piping is required;
 - Recycled water piping is required;
 - Innovative concepts as may be approved.





Reclaimed Water Regional Cooperation

Reclaimed Water Resources

Some on-line, more areas in the County available soon

Investigating Project opportunities

MRF

Rio Bravo

Infrastructure Cost

Multiple Jurisdictions Involved/Boundary Issues

Cooperation Agreements needed

Future Policy Direction

Sunset Industrial Area

Land Development Projects



Planning

How to Implement Conservation Measures

- Requirements in:
 - Specific Plans
 - Development Agreements
 - Conditions of Approval
- Applicable County-wide