Draft Basin Roundtable Conservation Mini-Summit Agenda

December 3, 2012 at the Silverthorne Pavilion from 10 am – 3 pm

10:00 **Welcome** (Mark Koleber and Michelle Pierce)

10:10 **Why is conservation important?**
(Panel discussion with: Wayne Vanderschuere, John McClow, Greg Fisher)

11:00 **What have we already done?**
(Panel discussion with: Beorn Courtney, Kevin Reidy, Rick Brinkman)

12:00 **Lunch**

12:30 **Statewide policy and implementation issues (small table discussion)**

- 12:30 **Overview**
- 12:45 **Question 1:** Should entities planning to import or acquire new water supplies be held to a higher standard for conservation? If the participating Front Range providers meet this higher conservation standard, would there be support from the West Slope for a transbasin water project? (25 minutes for small group discussion followed by 15 minutes of plenary discussion)
- 1:25 **Question 2:** What level of conservation participation should there be statewide? The Water Conservation Act of 2004 applies only to retail water providers that sell 2,000 acre-feet or more annually. Is that an appropriate threshold? (25 minutes for small group discussion followed by 15 minutes of plenary discussion)
- 2:05 **Question 3:** Do we all agree that a) we should get to at least medium levels of conservation with a significant amount applied to the gap, b) that we aren't on that path now, and c) that Front Range water utilities cannot achieve medium without significant support statewide? If so, what can we implement now that would be helpful, how can we do this, and who is doing the implementation? (25 minutes for small group discussion followed by 15 minutes of plenary discussion)

2:45 **Next steps**

3:00 **Adjourn**

SWSI 2010 Water Conservation Strategies

Key Tables & Slides for

Basin Roundtable Conservation Mini-Summit

December 3, 2012

Methods

- County wide analysis aggregated to basin level
- 2050 Demands (w/ passive accounted for)
- Basin-level per capita demands, 6 demand categories
  - US Census data for SF/MF split
  - 54% outdoor, 46% indoor
  - Losses & other data reported in conservation plans
- Potential savings calculated by sector
  - Indoor based on gpcd
  - Outdoor & loss based on % reduction

Table 1: Comparison of 2050 implementation and penetration level for three conservation strategies, and demand reductions used in forecasts

Measure	Implementation or Penetration Level by 2050		
	Low Strategy	Medium Strategy	High Strategy
System-wide conservation measures with potential to impact all customers			
Public information and education	~100%	~100%	~100%
Integrated resources planning	~100%	~100%	~100%
Conservation-oriented water rates	~100%	~100%	~100%
Water budget-based water rates	<=10% of utilities implement	<=30% of utilities implement	<=50% of utilities implement
Conservation-oriented tap fees	0 - 5% of utilities implement	5 - 10% of utilities implement	<= 50% of utilities implement
Smart metering with leak detection	<=10% of pop.	<=50% of pop.	50 - 100% of pop.
Residential indoor savings and measures			
Reduction in Residential Per Capita Indoor Use	**Res. Indoor gpcd = 40**	**Res. Indoor gpcd = 35**	**Res. Indoor gpcd = 30**
• Conservation-oriented plumbing and building codes, green building, rules for new residential construction	30-50% of state impacted	50-70% of state impacted	70-100% of state impacted
• High efficiency toilets, clothes washers, faucets, and CII equipment	Passive ~100%	Passive ~100%	Passive ~100%
• Submetering of new multi-family housing	0%	~50%	~100%
• Reduction in customer side leakage	33% savings - passive from toilet replacement	37% savings -passive from toilet replacement and active repairs	43% savings -passive from toilet replacement and active repairs
Non-Residential indoor savings and measures			
Reduction in Non-Residential Per Capita Indoor Use	**15% reduction**	**25% reduction**	**30% reduction**
• High efficiency toilets, urinals, clothes washers, faucets, and showers	Passive ~100%	Passive ~100%	Passive ~100%
• Conservation-oriented plumbing and building codes, green building, rules for new non-residential construction	30-50% of state impacted	50-70% of state impacted	70-100% of state impacted
• Specialized non-residential surveys, audits, and equipment efficiency improvements	0-10% of utilities implement	10-50% of utilities implement	50-80% of utilities implement
Landscape conservation savings and measures*			
Landscape water use reductions (residential and non-residential)	**15% reduction**	**22-25% reduction**	**27-35% reduction**
• Targeted audits for high demand landscape customers	0-30% of utilities implement	30-50% of utilities implement	50-80% of utilities implement
• Landscape transformation of some high water requirement turf to low water requirement plantings	<=20% of landscapes	20-40% of landscapes	>50% of landscapes
• Irrigation efficiency improvements	<=10% of landscapes	<=50% of landscapes	50 - 100% of landscapes
Utility Water Loss Control			
Improved utility water loss control measures	**<=7% real losses**	**<=6% real losses**	**<=6% real losses**

*Landscape water demand reductions include the anticipated impact of urban densification.

Table 10: Low, Medium, and High water savings strategy measures

Conservation Measure	Water Saving Strategy		
	Low	Medium	High
Passive water conservation savings from natural replacement of fixtures and appliances	X	X	X
Public information and education	X	X	X
Reduction in customer side leakage	X	X	X
Conservation-oriented plumbing and building codes	X	X	X
Landscape water use reductions	X	X	X
Improved utility water loss control measures	X	X	X
Conservation-oriented and water budget-based water rates		X	X
Smart metering with leak detection		X	X
Submetering of new multi-family housing		X	X
Targeted utility audits for high demand non-residential and landscape customers		X	X
Irrigation efficiency improvements		X	X
Informational landscape water budgets and customer feedback		X	X
Landscape water budgets tied to the rate structure and customer feedback	X	X	X
Landscape transformation from high water requirement turf to low water requirement		X	X
Improved utility water loss control measures		X	X

Table 12: Estimated indoor residential per capita demands, efficiency level, and penetration rate under three conservation scenarios[+]

	Estimated Current Level			Low Water Saving Strategy			Medium Water Saving Strategy			High Water Saving Strategy		
End Use	gpcd	Efficiency Level	Penetration Rate	gpcd	Efficiency Level	Penetration Rate	gpcd	Efficiency Level	Penetration Rate	gpcd	Efficiency Level	Penetration Rate
Toilet	11.1	2.2 gpf	100%	8.1	1.6 gpf	80-100%	6.5	1.28 gpf	85-100%	5.1	1.0 gpf	85-100%
Clothes Washer	9.8	25 gal/load	100%	7.4	20 gal/load	80-100%	5.6	15 gal/load	85-100%	5.0	13.5 gal/load	85-100%
Shower	10.0	2.2 gpm	100%	8.7	2 gpm	80-100%	7.5	1.75 gpm	85-100%	6.5	1.5 gpm	85-100%
Faucet	9.2	2.1 gpm	100%	8.2	2.0 gpm	80-100%	7.8	1.0 gpm	85-100%	6.3	0.5 gpm	85-100%
Dishwasher	1.0	10 gal/load	100%	0.9	9 gal/load	80-100%	0.8	8 gal/load	85-100%	0.7	7 gal/load	85-100%
Leak*	7.0	NA	NA	4.7	NA	NA	4.4	NA	NA	4.0	NA	NA
Bath	1.2	NA	NA	1.2	NA	NA	1.2	NA	NA	1.2	NA	NA
Other**	1.4	NA	NA	1.2	NA	NA	1.2	NA	NA	1.2	NA	NA
TOTAL	**50.7**			**40.4**			**35.0**			**30.0**		

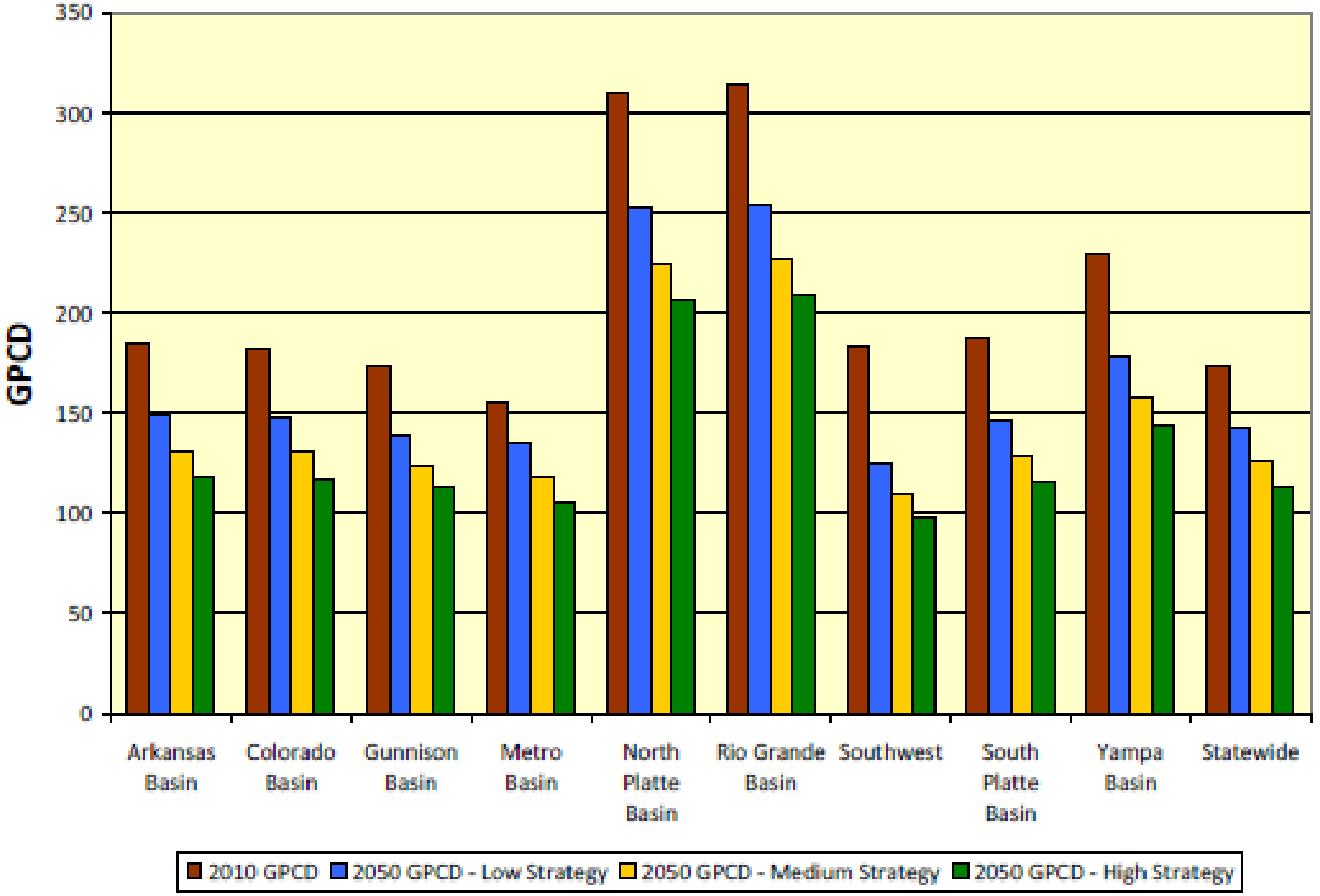


Figure 6: Water use (GPCD) in 2010 and in 2050 under three conservation strategy scenarios by basin and statewide.

Table 22: Matrix of water conservation measures and savings based on Colorado Statewide Water Conservation Best Practices Guidebook and State Water Supply Initiative savings estimates

#	Measure	CWW Best Practice?	Sector Impacted	Estimated Implementation or Penetration Level by 2050	Low Water Saving Strategy Savings (AFY)	Medium Water Saving Strategy Water (AFY)	High Water Saving Strategy Water (AFY)	Estimated Utility Cost Range of Program per AFY of Savings ($/AFY)	Expected Durability of Savings	Sources and Documentation
1	Full metering	BP 1	All	100%	Contributing factor to savings listed in other sectors.	Contributing factor to savings listed in other sectors.	Contributing factor to savings listed in other sectors.	NA	NA	NA
2	Conservation-oriented rates	BP 1	All	~100%				$1,000 - $8,000	No deterioration	AWWA Manuals - M1, M50, M52; 2008 Water Budgets and Rate Structures, 2001 Amy Vickers
3	Conservation-oriented tap fees	BP 1	All	Low 0-5%, Medium 5-10%, High 10-50%%				$500 - $2,000	Dependent on Utility or Governing Board Decisions.	2010 Colorado Best Practices Guidebook, City of Westminster, City of Broomfield
4	Integrated resources planning, goal setting, monitoring	BP 2	Utility	~100%				NA	NA	NA
5	Water loss control	BP 3	Utility	Low <=7% real losses; Medium, High <=6% real losses	39,100	62,300	70,100	$2,000 to $7,000	No deterioration as program is on-going.	AWWA M36, 2009 CWCB, 2010 Best Practices Guidebook
6	Conservation coordinator	BP 4	All	100%	Contributing factor to savings listed in other sectors.	Contributing factor to savings listed in other sectors.	Contributing factor to savings listed in other sectors.	NA	NA	NA
7	Water waste ordinance	BP 5	All	100%				NA	NA	NA
8	Public information and education	BP 6	All	100%				NA	NA	NA
9	Landscape water budgets	BP 7	Outdoor irrigation	Low 0-10%, Medium 10-30%, High 30-50%	102,600	159,600	208,800	$2,500 - $5,000	Limited deterioration if budgets are set fairly.	2007 Water Budgets and Rate Structures, 2009 EPA WaterSense, 2008 GreenCO
10	Rules and reqs. for landscape design and installation	BP 8	Outdoor irrigation	Low 50-65%, Medium 65-80%, High 80-100%				$500 - $1,500	Limited deterioration.	2010 Best Practices Guidebook, 2008 GreenCo, Irrigation Association
11	Certification of landscape professionals	BP 8	Outdoor irrigation	100%				Little or no cost.	Limited deterioration.	2010 Best Practices Guidebook, 2008 GreenCo, Irrigation Association, EPA

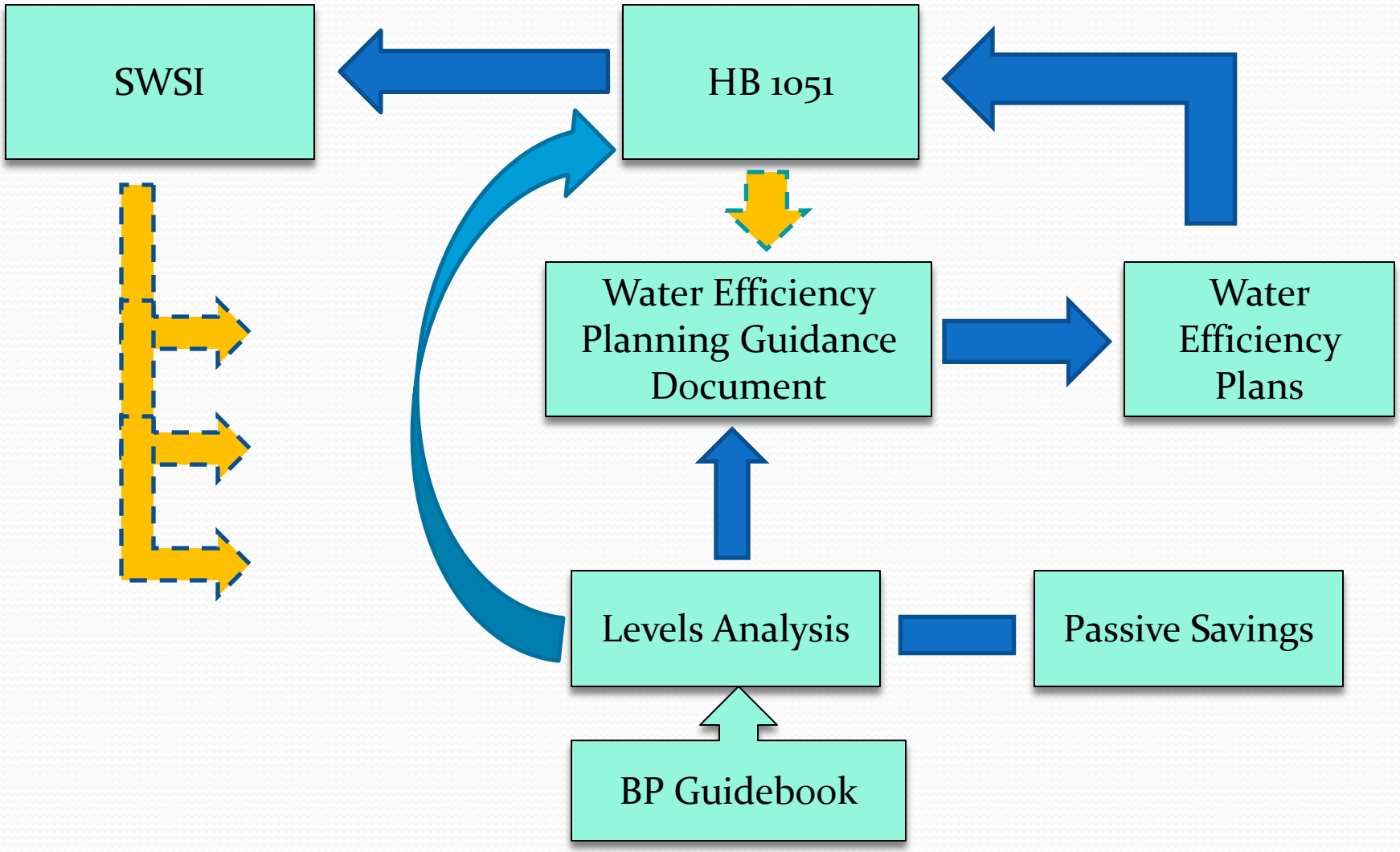
#	Measure	CWW Best Practice?	Sector Impacted	Estimated Implementation or Penetration Level by 2050	Low Water Saving Strategy Savings (AFY)	Medium Water Saving Strategy Water (AFY)	High Water Saving Strategy Water (AFY)	Estimated Utility Cost Range of Program per AFY of Savings ($/AFY)	Expected Durability of Savings	Sources and Documentation
										WaterSense
12	Water efficient design, installation, and maintenance practices for new and existing landscapes	BP 9	Outdoor irrigation	Low 50-65%, Medium 65-80%, High 80-100%				Customer bears cost, except for inspection - $500 - $2,000	Limited deterioration.	2010 Best Practices Guidebook, 2008 GreenCo, Irrigation Association, 2001 Amy Vickers
13	Irrigation efficiency evaluations	BP 10	Outdoor irrigation	Low 30-50%, Medium 50-75%, High 75-100%				$2,000 to $8,000 (assuming utility pays $200 - 500 per audit and customer pays system repair costs)	Same as if no audits are conducted -i.e. standard irrigation system on-going maintenance issues.	2010 Best Practices Guidebook, 2008 GreenCo, Irrigation Association, 2001 Amy Vickers
14	Rules for new residential construction	BP 11	Res.	Low 30-50%, Medium 50-75%, High 75-100%	107,000	158,000	209,000	Customer bears cost, except for inspection - $500 - $2,000	No deterioration if new fixture/appliance standards implemented and old units disposed	2010 Best Practices Guidebook, EPA WaterSense, 2008 WaterSmart Guidebook
15	High efficiency fixtures and appliances - Residential	BP 12	Res.	Passive / 100%				$0 - assumes all savings are passive	No deterioration if new fixture/appliance standards implemented and old units disposed	2010 Best Practices Guidebook, EPA WaterSense, 2010, 2007, 2004 Aquacraft, 2001 Amy Vickers
16	Residential water surveys and evaluations, targeted at high demand customers	BP 13	Res.	Low 10-40%, Medium 40-70%, High 70-90%				$2,000 to $7,000 (assuming utility pays $100 per audit and customer pays system repair costs)	Limited deterioration.	2010 Best Practices Guidebook, EPA WaterSense, 2010, 2007, 2004 Aquacraft, 2001 Amy Vickers
17	Submetering of new multi-family res.		Res.	Low 0%, Medium 50%, High 100%				Variable ($0 to $4,000) depending upon who pays for the metering.	No deterioration	2004. National Submetering and Allocation Billing Program Study

#	Measure	CWW Best Practice?	Sector Impacted	Estimated Implementation or Penetration Level by 2050	Low Water Saving Strategy Savings (AFY)	Medium Water Saving Strategy Water (AFY)	High Water Saving Strategy Water (AFY)	Estimated Utility Cost Range of Program per AFY of Savings ($/AFY)	Expected Durability of Savings	Sources and Documentation
18	High efficiency fixtures and appliances - Non-Residential	BP 12	CII	Passive / 100%				$0 - assumes all savings are passive	No deterioration if new fixture/appliance standards implemented and old units disposed	2010 Best Practices Guidebook, 2008 WaterSmart Guidebook, 2001 Amy Vickers, 2000 Commercial and Institutional End Uses of Water
19	Specialized non-residential surveys, audits, and equipment efficiency improvements	BP 14	CII	Low 0-10%, Medium 10-50%, High 50-80%	63,500	105,800	126,900	$3,300 to $16,300 (assuming utility pays $500 per audit and customer pays any repair costs)	Limited deterioration.	2010 Best Practices Guidebook, 2008 WaterSmart Guidebook, 2001 Amy Vickers, 2000 Commercial and Institutional End Uses of Water
20	Rules for new non-residential construction	BP 11	CII	Low 30-50%, Medium 50-70%, High 70-100%				Customer bears cost, except for inspection - $500 - $2,000	No deterioration if new fixture/appliance standards implemented and old units disposed	2010 Best Practices Guidebook, EPA WaterSense, 2008 WaterSmart Guidebook
	TOTAL PASSIVE SAVINGS				154,000	154,000	154,000			
	TOTAL ACTIVE SAVINGS				160,200	331,200	461,300			
	TOTAL				314,200	485,200	615,300			

Recommendations

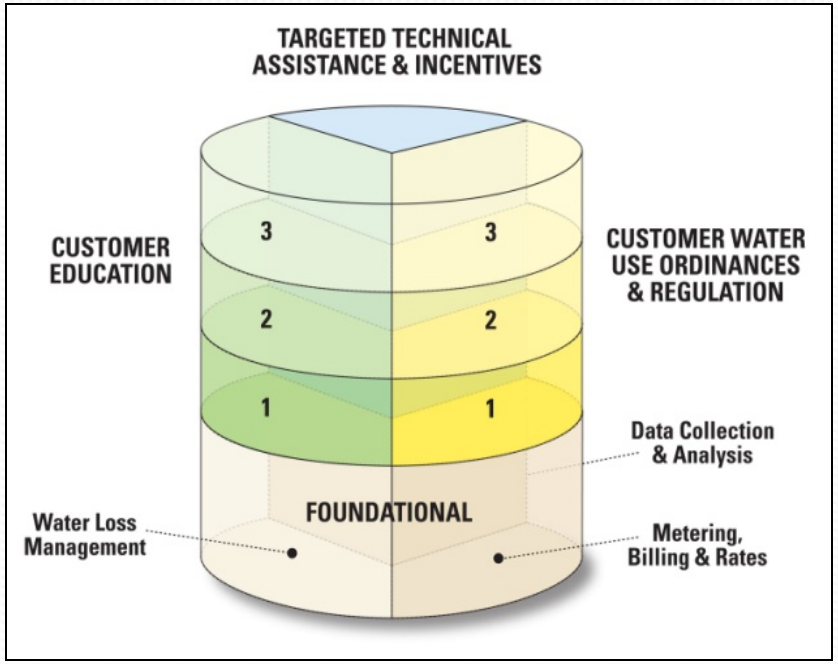
- Regional Analysis
- Improve Water Demand Data (HB 1051)
- Fixture/Appliance Penetration Rates
- Colorado Landscape Transformation
- Technical Assistance to Improve Water Loss Control
- Non-Residential Baseline End Use Study
- Economics of Water Conservation & Supply
- Conservation & Drought Response Relationship

Process and Initiative Schematic



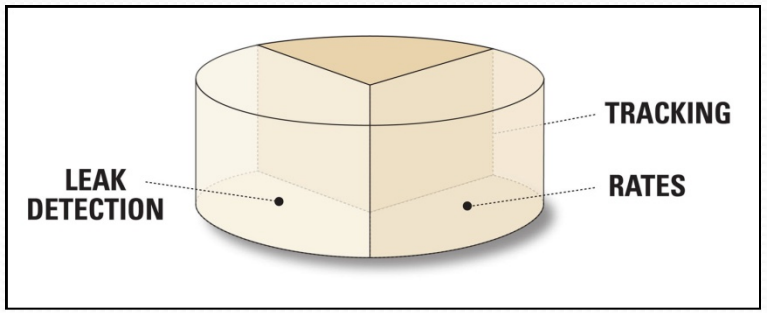
Purpose of SWSI Levels

- Focus on prioritizing efficiency activities
  - Those areas that utility can control as top priority
    - Metering, Billing, Leak Detection and Repair
    - Utility's Facilities
  - Ability to focus resources on needs
- Provide means to help CWCB:
  - Develop new guidance and policies
  - Develop program priorities

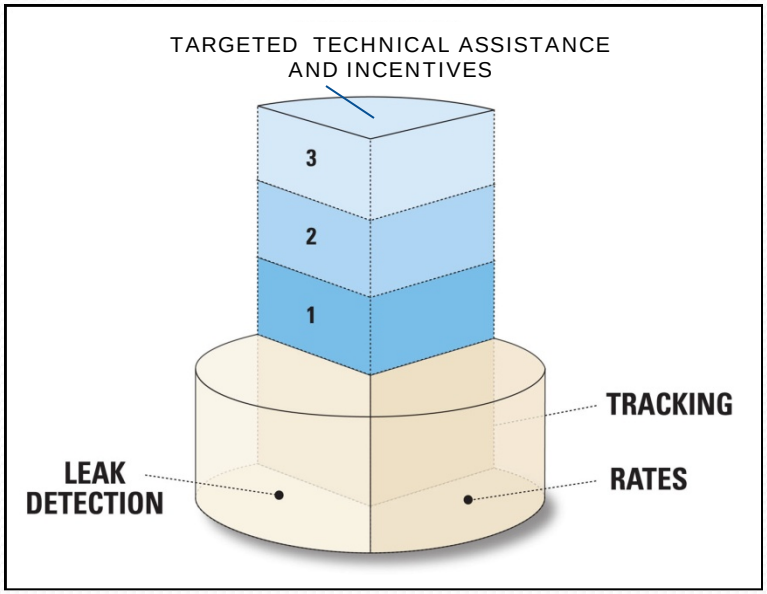


Foundational

- Metering and Billing
- Leak Detection and Repair (Water Loss Audit)
- Data Tracking
  - By Customer Types (HB 1051 requirement)
  - Monthly/Seasonal/Annually
  - By Water Supply Type
    - Treated
    - Raw/Reuse/Reclaimed
  - By Connection/GPCD
- Staffing
- Integration of Planning



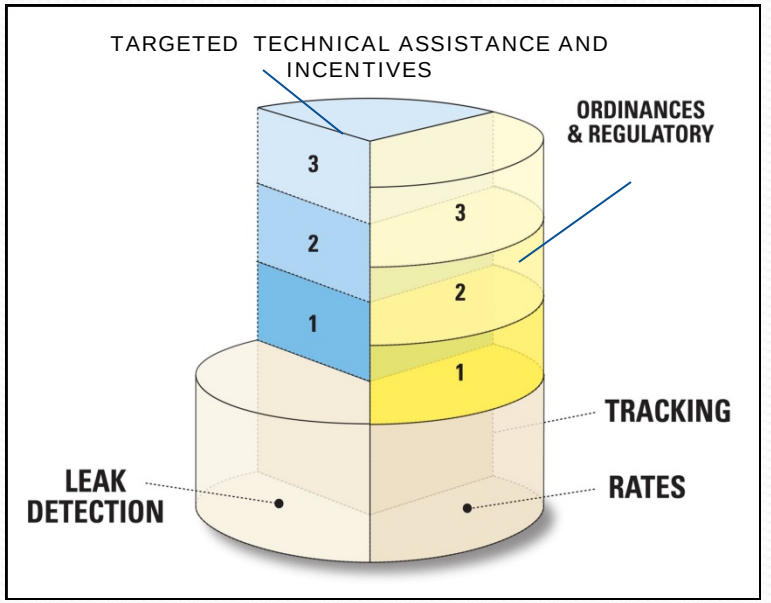
Targeted Technical Assistance and Incentives



- Utility/City Facility Water Use
  - Indoor and Outdoor
- Largest Customer Use
  - Data Collection
  - Program Development
    - Retrofits/Rebates
    - Technical Support
    - Grants/Incentives/Awards
- Other Customer Uses
  - Data Collection
  - Program Development
    - Same as above

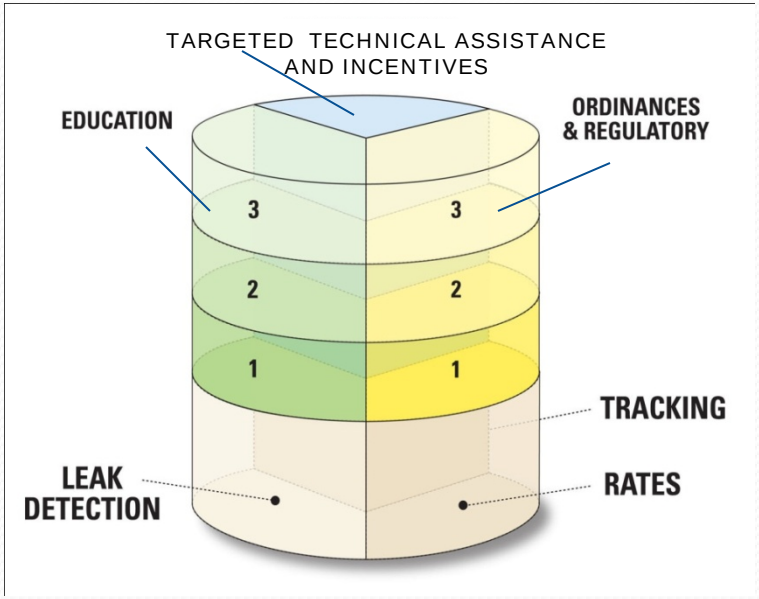
Ordinances/Regulatory

- Water Waste Ordinance
  - Time of Day/Over Spray
  - Day of Week
- New Construction
  - Green Building
  - Soil Amendments
  - Landscape
  - Irrigation
- Existing Construction
  - Point of Sale

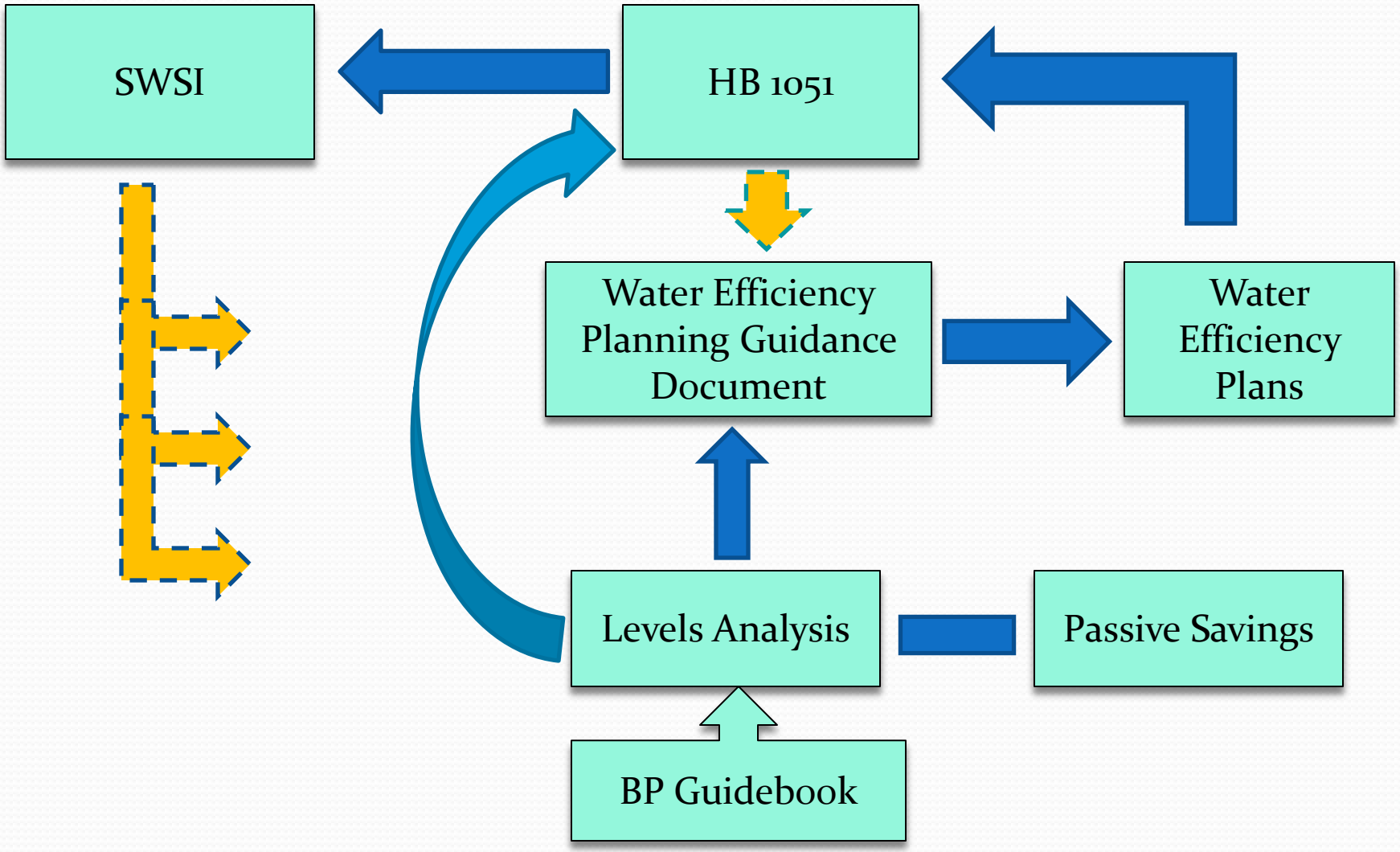


Education

- One Way
  - Mass Mailings, Bill Stuffers, etc.
- One way with Feedback
  - K-12, Workshops, etc.
- Two Way
  - Focus Groups
  - Citizen Advisory Groups
  - Use of AMI to create a customer feedback mechanism



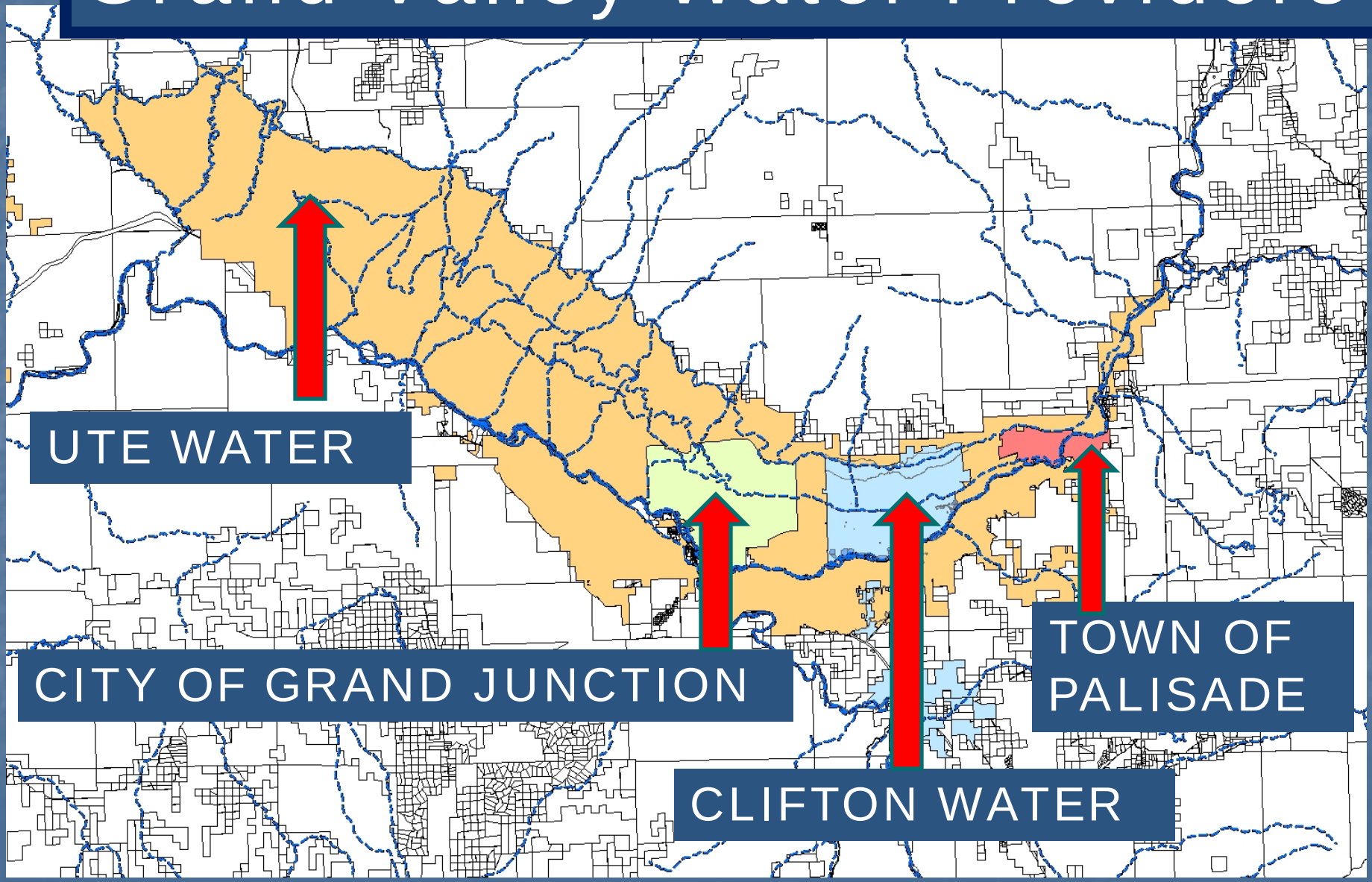
Process and Initiative Schematic



Grand Valley Regional Water Conservation Plan

Rick Brinkman
City of Grand Junction
rickbr@gjcity.org
(970) 244-1429

Grand Valley Water Providers



Water Conservation Measures

- Foundational
- Ongoing Water Use Programs
- Ordinances and Regulation
- Education

Water Conservation Measures-Foundational

- Conservation-oriented rates
- Leak Detection
- Tracking

Water Conservation Measures-Programs

- Toilet Rebates
- Landscape Audits
- Commercial/Industrial Audits

Water Conservation Measures-Ordinances

- Water Waste
- Landscapes
- Fixtures

Water Conservation Measures-Education

- DRIP
- Children's Water Festival

What is DRIP

Drought

Response

Information

Project

Who are the DRIP members?

City of Grand Junction

Town of Palisade

Clifton Water District

Ute Water Conservancy District

and the Colorado State University Cooperative Extension

The DRIP Mission Statement

Water for our future means conserving now. We live in a semi-arid climate where low precipitation and drought will always be a part of our environment.

Use Water Wisely

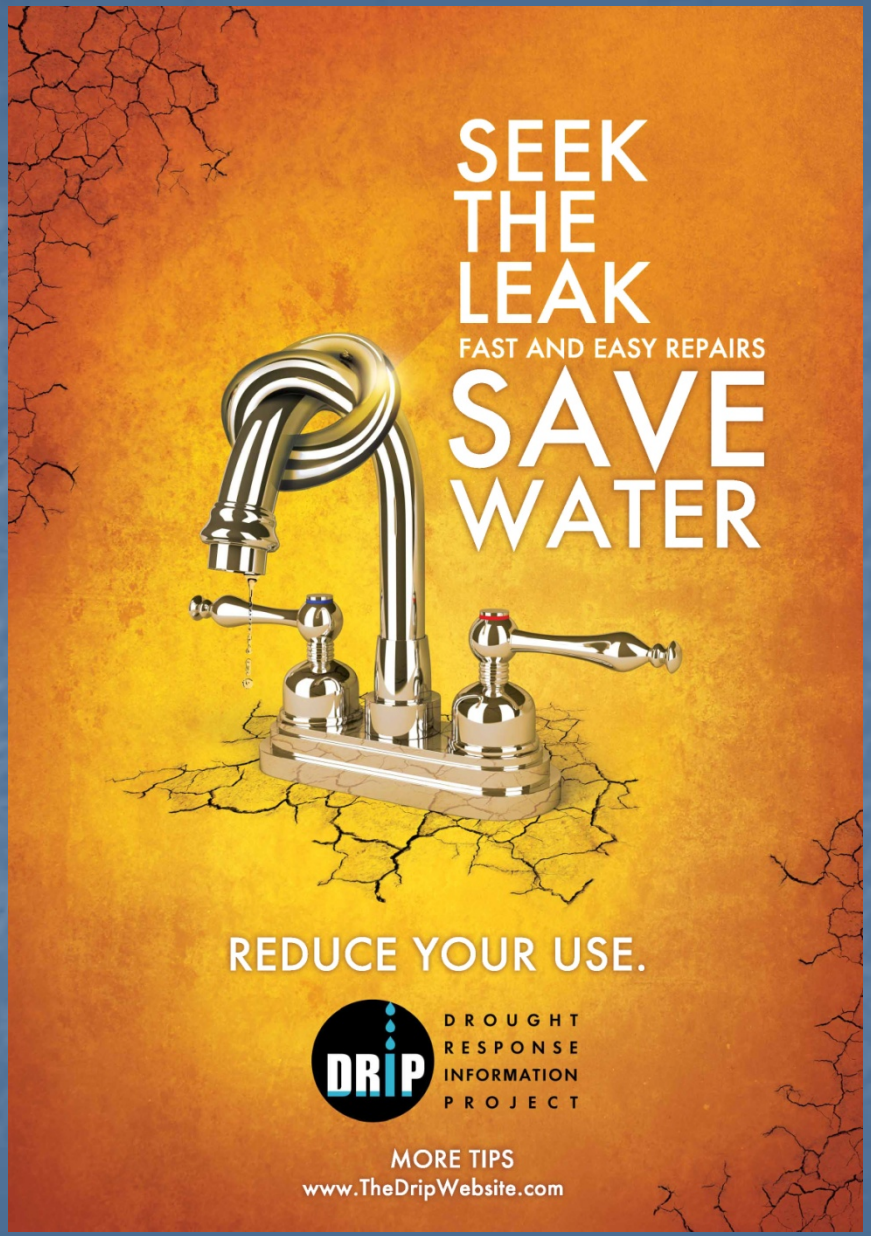
How Does DRIP Get the Water Conservation Message to Our Customers and the General Public?

- Maintain our own Website – www.thedripwebsite.com
- Media (print, radio, television)
- Direct mailings to our customers
- Face to face presentations
- Water bill messages and stuffers
- Children's Poster Coloring Contest
- Annual Children's Water Festival
- Sponsor/participate in Water Conservation Workshops and Conferences

www.thedripwebsite.com

Television and Radio Broadcast Media

- Video PSA broadcasts, 30 second spots – updated annually
- Radio PSA broadcasts, 30 and 60 second spots, updated annually
- Radio call-in shows
- Television and radio spot interviews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GRAND VALLEY
BUSINESS TIMES
A BUSINESS JOURNAL SERVING MESA COUNTY ESTABLISHED 1994

The Daily Sentinel • Saturday, August 25, 2007

Water waste can cause your pocketbook to leak

By DALE TOOKER
Special to the Sentinel

Many people don't realize how much water costs until water rates increase or they have a leaky toilet which makes their bills suddenly spike.

In the Grand Valley, most water utilities charge a base rate for a minimum number of gallons used, and the price increases with more water use.

DROUGHT RESPONSE INFORMATION PROJECT
EVERY DROP MATTERS

revenue lost from less water being sold.

To understand this problem, it helps to examine water-rate structures, which are usually built using a "cost-of-service analysis." This method determines exactly how much it costs to take water from the source and deliver it to the customer.

Projected water usage and the cost-of-service analysis are also used to develop the rate structure that is designed to cover

12B The Daily Sentinel • Saturday, August 11, 2007

Despite monsoon rains, drought still lingers

By TERRY FRANKLIN

DROUGHT RESPONSE INFORMATION PROJECT
EVERY DROP MATTERS

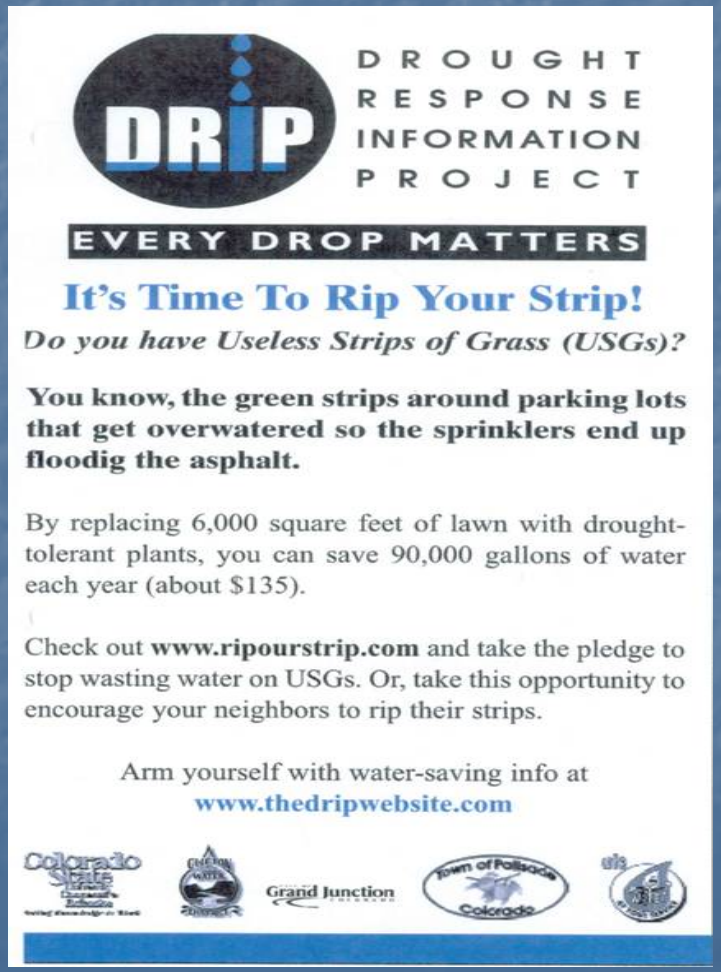
The latest U.S. Drought Monitor update, published Aug. 2, shows Western Colorado rates between moderate drought conditions and abnormally dry conditions.

as the end of summer and beginning of fall. But residents cannot forget that the valley just went through more than a month of numerous 100-degree temperature days with little or no moisture. The valley's farmers and ranchers are barely halfway through

residents live in a semi-arid desert environment and need to keep in mind that water is a precious resource.

Residents need to continue to use all the water saving tips that DRIP has promoted during the past four years. For more water-saving ideas

Grand Junction Free Press Advertisement Examples



DRIP

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It's Time To Rip Your Strip!

Do you have Useless Strips of Grass (USGs)?

You know, the green strips around parking lots that get overwatered so the sprinklers end up floodig the asphalt.

By replacing 6,000 square feet of lawn with drought-tolerant plants, you can save 90,000 gallons of water each year (about $135).

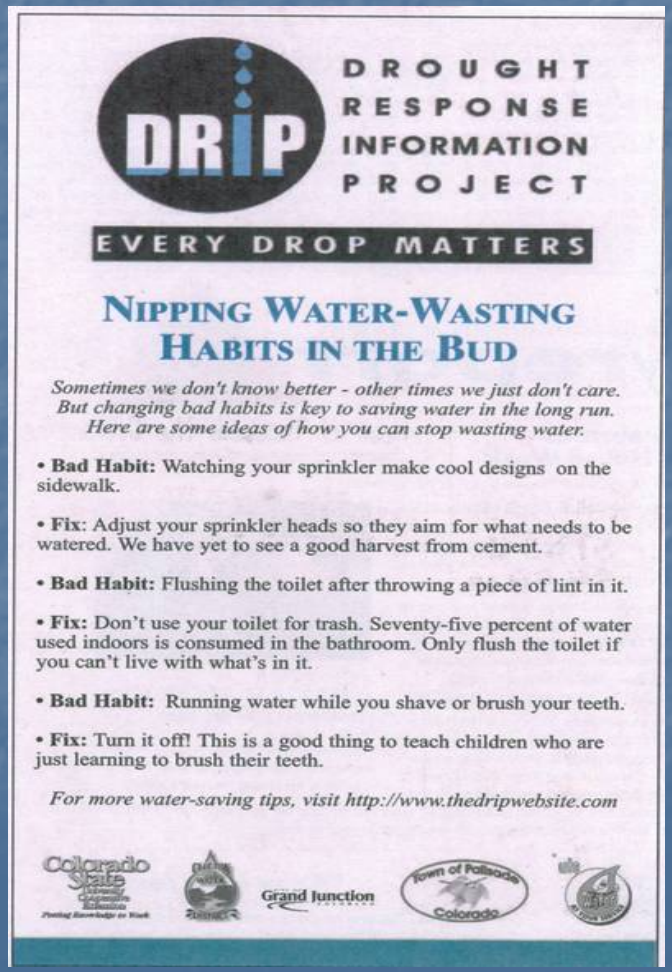
Check out **www.ripourstrip.com** and take the pledge to stop wasting water on USGs. Or, take this opportunity to encourage your neighbors to rip their strips.

Arm yourself with water-saving info at
www.thedripwebsite.com

Colorado State University Extension

Grand Junction

Town of Palisade Colorado



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Nipping Water-Wasting Habits in the Bud

Sometimes we don't know better - other times we just don't care. But changing bad habits is key to saving water in the long run. Here are some ideas of how you can stop wasting water.

- **Bad Habit:** Watching your sprinkler make cool designs on the sidewalk.
- **Fix:** Adjust your sprinkler heads so they aim for what needs to be watered. We have yet to see a good harvest from cement.
- **Bad Habit:** Flushing the toilet after throwing a piece of lint in it.
- **Fix:** Don't use your toilet for trash. Seventy-five percent of water used indoors is consumed in the bathroom. Only flush the toilet if you can't live with what's in it.
- **Bad Habit:** Running water while you shave or brush your teeth.
- **Fix:** Turn it off! This is a good thing to teach children who are just learning to brush their teeth.

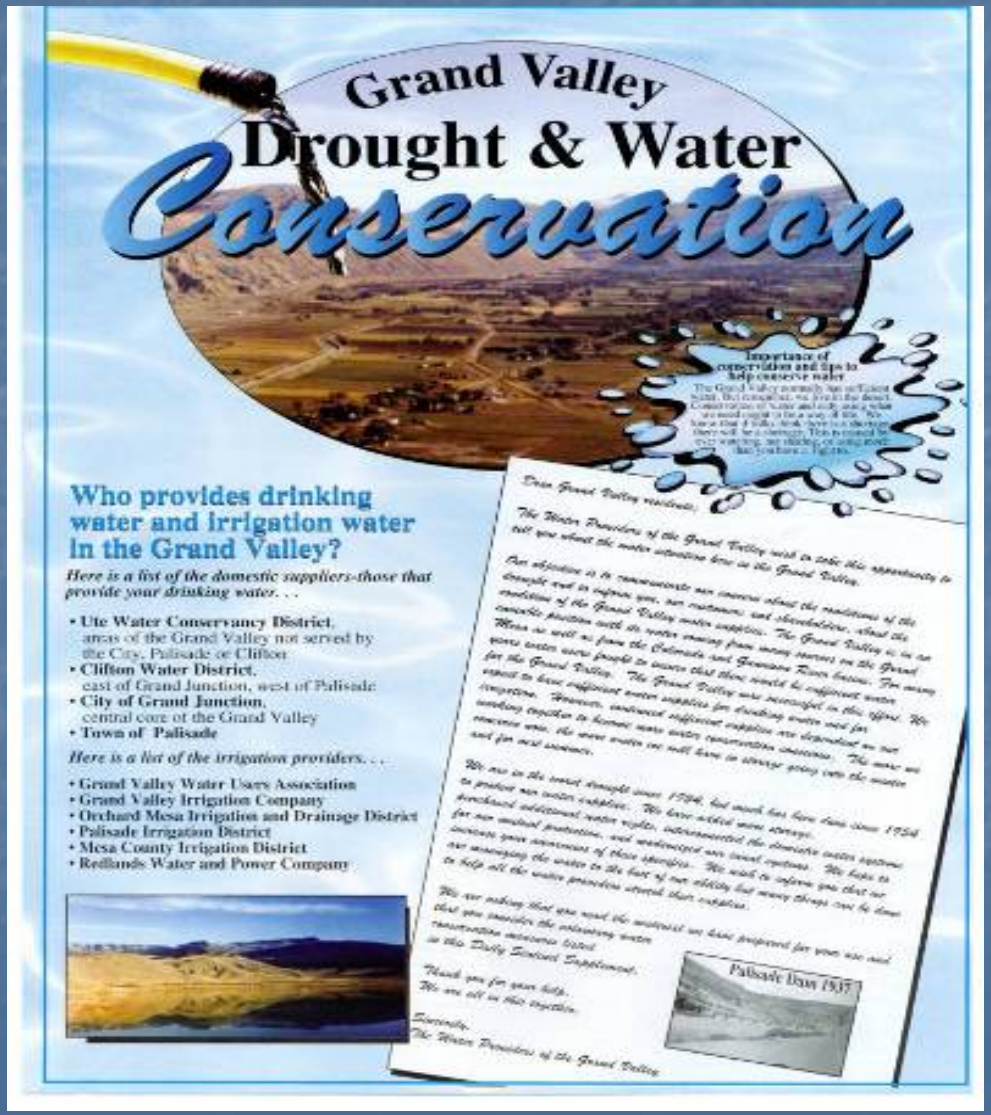
For more water-saving tips, visit http://www.thedripwebsite.com

Colorado State University Extension

Grand Junction

Town of Palisade Colorado

Direct Customer Mailings



Face to Face Presentations

Downtown Farmers Market

Customer Water Bill Stuffers

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EVERY DROP MATTERS

Grand Junction COLORADO

Colorado State University Cooperative Extension

Town of Palisade

Drought Response Information Project

The four water utilities, Grand Junction, Palisade, Clifton and Ute Water along with CSU Cooperative Extension, have created the Drought Response Information Project, or DRIP. For more information visit our website at www.thedripwebsite.com

Mission Statement

Water for our future means conserving now. We live in a semi-arid climate where low precipitation and drought will always be a part of our environment. **Use water wisely.**

Visit
www.thedripwebsite.com
EVERY DROP MATTERS

- **Internet Resources** - Water saving tips as well as facts about the history of drought in Colorado and interesting facts about issues.
- **Water Conservation Tips** - Do's and Don'ts of water conservation.
- **Public Education** - Campaign proclamation to alert public to the need to conserve water.
- **Water Conserving Landscapes** - Encourage Xeriscaping and low-water consumption practices.
- **Drought Response Plan** - Initiate **DRIP** to provide public education through all sources of media on why and how to reduce per capita consumption.
- **Monitor Drought Response Effectiveness** - Monitor recommended adjustments as needed to the city councils and governing boards, report to the public regularly.

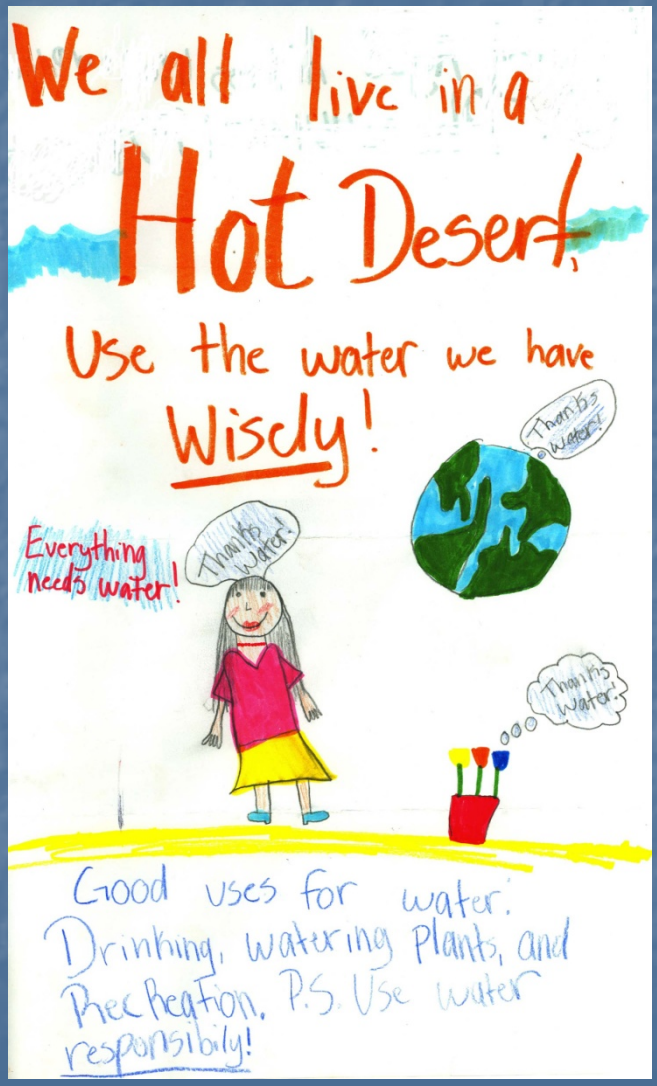

Prospector
Motel
QU EEN B EDS
HBO
WI FI
SEEK
THE
LEAK
SAVE
WATER
REDUCE YOUR USE

Annual Children's Poster Contest

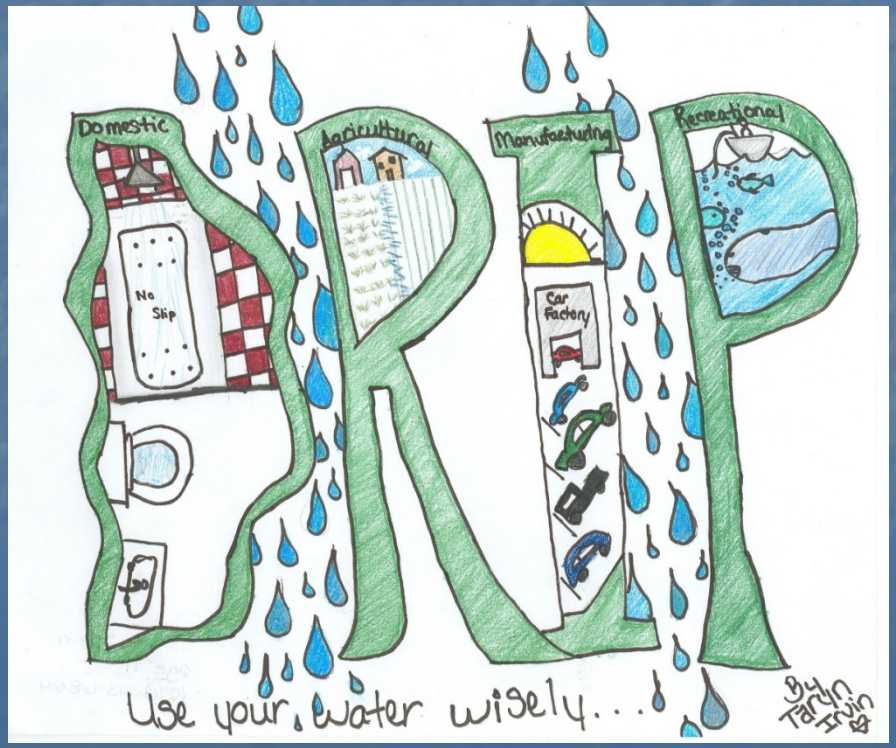
Every year, in conjunction with the Grand Junction Free Press newspaper, DRIP sponsors a poster coloring contest for local youth with the winners receiving a free season pass to Grand Junction's Lincoln Park Pool in three age categories:

- 7 and below
- 8 to 12
- 13 and above

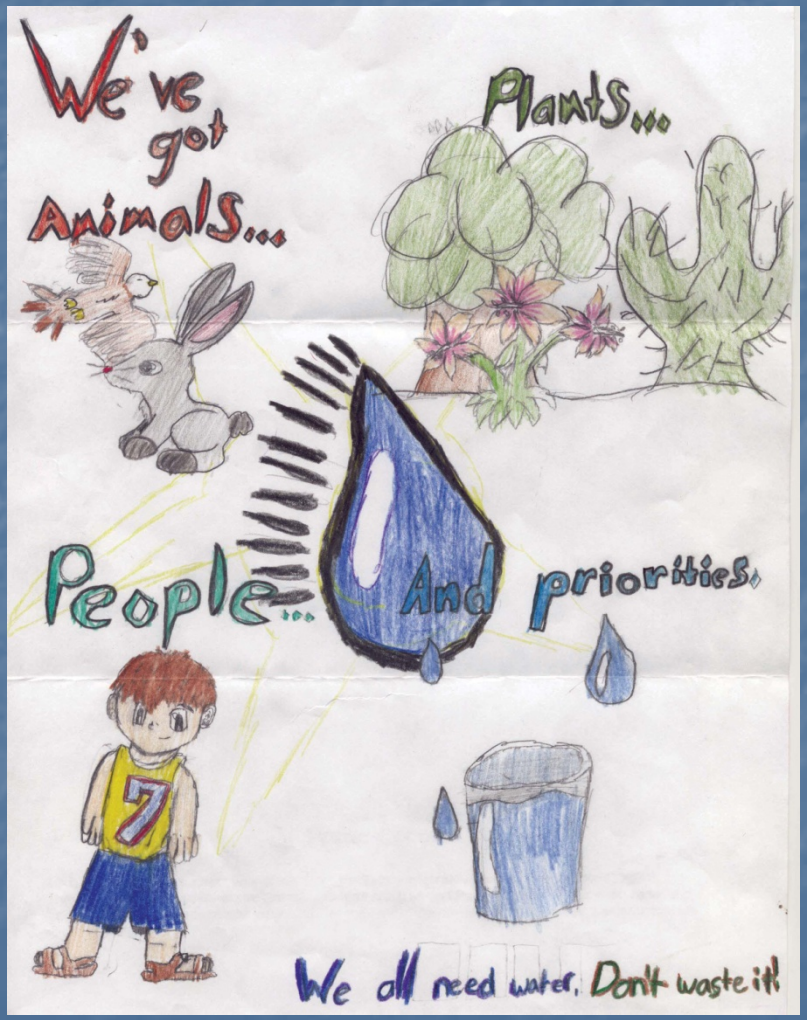

Save WATER
Use a cup when you brush
Tooth Paste


We all live in a Hot Desert.
Use the water we have Wisely!
Thanks Water!
Everything needs water!
Thanks Water!
Thanks Water!
Good uses for water. Drinking, watering Plants, and Recreation. P.S. Use water responsibly!


Fix
it!


Domestic
Agricultural
Manufacturing
Recreational
No Stop
Car Factory
Use your water wisely...


Turn off the Faucet...
It keeps the RIVER flowing


We've got Animals...
Plants...
People...
And priorities.
We all need water. Don't waste it!

Annual Children's Water Festival

- 2012 will be the 19th Annual Festival
- Aimed at the 5th Grade Level
- Over 2,000 students and teachers
- Over 30 Sponsors and 20 Presenters

Annual Children's Water Festival


Demonstration
Xeriscape Garden
A partnership between:
City of
Grand Junction
Colorado
Colorado
State
2004

Grand Valley Irrigators

Special to the Sentinel

WATER PURVEYORS HAVE SPRINKLED billboards such as these around the Grand Valley recently in the hope that residents will remember that the area is in a drought and will try not to squander the precious resource.

Campaign aims to flood valley with water conservation pleas

By GARY HARMON
The Daily Sentinel

Snow still lingers on the peaks and the Colorado River is begin-

District, banded together with Colorado State University Extension Service to campaign for water conservation throughout the summer.

said Curtis Swift of the service. "Lots of people over-irrigate," Swift said.

Audits are $25 per acre.

The service

Learn to live with the desert and conserve water

By RITA CRUMPTON
Special to the Sentinel

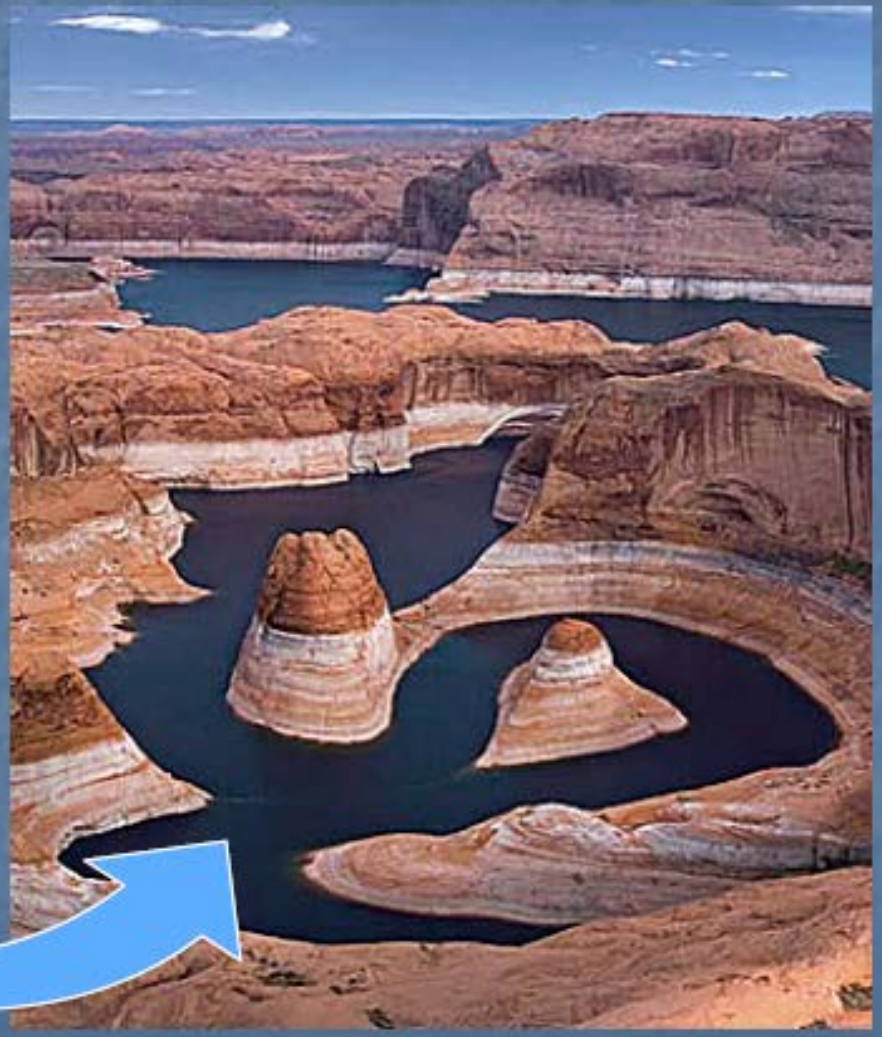
You may have seen billboards lately with the message, "It's

job, and it will become more challenging as the valley grows.

Why does this matter? If irrigation canals dry up and can't deliver water across the

are working hard to cooperate and make it possible for each other to meet demands on the individual water systems.

DRIP



EVERY DROP MATTERS

Basin Roundtable Conservation Mini-Summit
November 23, 2012
Chart Paper Notes

Question 1: Higher conservation standard => Support for new supply?

Table #1

- Yes to higher standard, but might be increased support for equal standard; may be changing
- Conservation levels may not be sufficient
- Conservation and project support = apples and oranges
- Both sides of the Divide might not understand conditions to support or preclude certain conservation actions

Table #2

- Takes 25 years to develop a project
- Maybe there's an agreement like the Colorado River agreement
- It is not just conservation, but maybe start there; East Slope gets surety on good will and gets credit for conservation efforts
- Concerns regarding full use of existing TMDs
- West Slope can't "support" TMD – but what does "support" mean? Non-opposition?

Table #3

- Yes, higher standard – already there
- Need more reason to proceed – to look at and mitigate impacts
- Okay to have different in conservation but keep conservation message throughout state
- This is not a good question!

Table #4

- It would start discussion if the Front Range had a higher standard
- What's achievable/practical?
- Land use on Front Range – what could be better?
- What is a good project? West Slope protections and South Platte ag projections

Table #5

- Agreed that the question is no good!
- Yes – but some providers are already conserving – but not a free pass; not a qualitative answer
- Work together to quantify West Slope needs
- Concerns regarding pitting ag against Front Range

Table #6

- Question is too simple
- Is there a current standard to be "higher than"?
- Efficiency of use of <u>all</u> resources
- Exporting basins don't want to be low-hanging fruit
- Conservation is important in new supply support but not the only issue
- Conservation can have impacts; won't necessarily put water where you want it
- Impacts to downstream users

Table #7

- Depends on definitions
- Agree that roundtable leadership is important
- Look for win-wins - <u>now</u> – it will take time

- There is a higher standard but don't agree what it is
- Need good data and common platform -> start now
- Need flexibility in targets – communities are different
- All future efforts will have to be cooperative
- Yes and it depends

Table #8

- Yes, but with NEPA, permitting etc.
- No to *quid pro quo*
- Water efficiency linked to economics and how to discuss economics of Front Range and West Slope and West Slope and Colorado as a whole
- Link to efficiency of use and Compact call risk

Question 2: Statewide Conservation Participation? What threshold?

Table #1

- Yes, to be fair, but it's not practical; individual needs and constraints
- Whatever can do, should do within resources
- Mandates are not popular; incentives are better
- Four low-flow showerheads does not equal conservation

Table #2

- Education
- Technology support, do-not-waste ordinance = Statewide
- Future 2 KAF entities – should be looking at next level of effort
- Do it how you want, but do something = statewide standard
- Focus on what we are doing vs. what we are achieving

Table #3

- No threshold
- Growing counties under 2 KAF should be covered – maybe have different reporting outline, different needs, implementation money
- Need statewide buy-in; toilet legislation, new construction

Table #4

- Yes, new standards on new construction
- Good technology on outdoor water – providers could encourage; regulation not a provider issue
- Legislation could be a challenge – local governments and such on West Slope don't understand issues -> education
- Current regulations to conserve/write plans need teeth

Table #5

- How much water would be saved if regulated < 2 KAF entities?
- Why conserve if have enough water on West Slope?
- If no storage, not saving for later or applying to Front Range gap
- Conservation does not damage other values
- Avoid gpcd target but could talk about market-based options
- Look at individual solutions, unique dynamics
- Yes, all should do something

Table #6

- Yes, statewide, no distinction on size

- But need to recognize different contexts and different uses in different places ->restaurants, hotels, community, individuals, etc. Apply statewide.
- Regulatory, with education ->social norming

Table #7

- Regional plans are a cost-effective option
- Much of state covered by plans
- 2 KAF = Arbitrary number that is enshrined
- Get plans in place ahead of growth => Increased management
- Small providers may not be able to do conservation due to cost/benefit ratio
- Efficiencies, rate, water loss = focus for smaller entities just below 2 KAF

Table #8

- Could have standards on activities like leak detection
- All should do something
- Different standards – small/large - > need same/shared results -> large travel to help small
- Education step – rates, new development=> help local officials
- Water is changing – increase rates now, benefit later

Question 3: Medium conservation levels – Are we there yet? Should we get there? If so, how?

#1

- What is "medium" – applying the label does not equal "good;" do what you reasonably can and apply what you can to the gap –keep going
- Understand how it fits with rest of work
- Not on path to medium
- Statewide support as needed – need to do education ahead of toilet legislation, etc. –
    - Who gets the word out??
    - What role for roundtables, IBCC, providers, etc.

Table #2

- Yes on B
- On path, but not at/set up to get to medium
- C: What does "support" mean? (money, education, legislation)
- A: Should we get to medium => Cultural and generational shift – in 2040 it may be clear, more apparent

Table #3

- Yes to medium conservation
- Gap = new M&I uses but also nonconsumptive flows
- Not on path to medium – need help from State
- Safety factors/reliability and water reserved from them -> need to discuss

Table #4

- Should aim for medium; will take a while
- Establish milestones along the way (90/20, etc.)
- Apply to gap as can locally; systems are different; growth and drought protection different
- On a path but need help to get there – roundtables can help
- New construction – indoor/outdoor standards and retail sales
- Encourage HOAs, others to develop Waterwise standards

Table #5

- A: No agreement – but agree get to maximum reasonable; depends on definition of "significant amount" for gap
- C: Legislation with exceptions for septic systems, use consensus

Table #6

- At least medium and meaningfully (define) applied to gap
- Are we on the path? Most say yes
- Near term: adopt statewide program, conservation ethic to apply uniformly statewide, but individualized

Table #7

- Hard to get to medium without policies with utilities
- Statewide legislation may be needed
- Aim for high, especially before new project; will take a generation
- Front Range utilities needs statewide support for medium
- Roundtables can be messengers, educate the rest
- Governor's leadership needed
- Storage relates to application to gap

Table #8

- Medium, yes – but can we?
- Yes apply to gap, but how much?
- On path now? Maybe – price may push us there
- Legislation or statewide incentive – no penalty on water rights if conserved
- Need storage – reservoir, alluvial, etc.
- Recognize relationship between water and state economy
- Use it here, do not pass to Lower Basin
- State grants for conservation
- Further discussion on how much to apply to the gap
- Statewide "something" on new development