

# La Plata Archuleta Water District

Water Management and Conservation Measures  
Planning Meeting

November 12, 2013

## Workshop Agenda

- Review of Colorado Water Plan
- Review of Water Management and Conservation Plan
- Present and discuss proposed conservation measures
- Present and discuss proposed conservation tools
- Outcomes and recommendations

## Colorado Water Plan

- Gov. Hickenlooper orders work to begin on Plan
- Colorado Water Conservation Board to draft a plan that will support agriculture in rural CO and align state policy to state's water values
- The Colorado Water Plan is necessary to address a variety of issues
  - The gap between water supply & water demand
  - Drought conditions
  - Water quality & quantity
  - Interstate water concerns

## Our role in the Water Plan

- La Plata Archuleta Water District addressing the domestic water quantity and quality issues in southeast La Plata county
- Conservation will be a major component
- Lead by example by implementing water management and conservation measures
  
- GOAL: 200 gallons per day per home on average (for about 2.5 people)

## Water Management & Conservation Plan (WMCP)

- Bureau of Reclamation grant program: WaterSmart funded
- State Statute requirement for entities serving 2,000 AF per year; District currently serving zero AF
- District will on day serve over 2,000 AF per year; the drafting of this Plan is a heads start to satisfy State Statutes and qualifying for additional BOR or State funding
- WMCP is a guidance document used by the District
  - Develop best management practices
  - Efficient management of water resources
  - Identify practical means for conserving water
  - Prioritize water management & conservation measures

## Water Management and Conservation Measures

- Meters
  - Meter technologies
  - Meter types
  - Meter reading options
- Conservation Orientated Rate Structure
- Tools for Improving Conservation
  - Rebate Programs
  - Residential Water Audits
  - New construction regulations

## Meter Technologies

- Meters are fundamental to all water conservation efforts
- Meters measure customers ACTUAL usage which in turn leads to customers who pay for their actual usage consume less water
- Metering allows District staff to locate leaks and line breaks more efficiently
- Meters allow the District to develop relationships with customers through billing cycles
  
- GOAL: 100% metering of all customers

## Meter Types

- Metering requirements: Colorado State Statute [C.R.S. 37-97-103] requires all public water systems meter customers when serving at least 600 taps
  
- Basic meters: read monthly, records total usage, physical read and recorded
- Advance meters: read monthly, records usage, provides leak, tamper and reverse flow detection (protection against stealing)
- Automatic infrastructure meters (aka “Smart” meters): data logging capabilities, records usage on a frequency basis (ie, every 15 minutes), provides leak, tamper and reverse flow detection
  
- Discussion: Does anyone have an estimate of their monthly usage?

## Meter Reading Options

- The transmitter allows the meter to be read from a handheld device to mobile remote readings to fixed network systems
- Field collection hardware options
  - Walk by automatic readings
  - Mobile automatic readings up to 72-channels receivable of data as the collector drives by meters
  - Fixed network infrastructure allowing remote readings at District office or on District website
- Discussion: How would real time usage data influence your daily use? Is the up front expense of advance meter infrastructure worth it?

## Conservation Orientated Rate Structure

- Five
  - Standard
  - As
  - Take
  - Discussion: Assumption correct?
- |                | Water Usage (gallons) |       |                        |
|----------------|-----------------------|-------|------------------------|
|                | From                  | To    |                        |
| Minimum charge | 0                     | 2,000 | \$30.00                |
|                | 2,001                 | 5,000 | \$6 per 1,000 gallons  |
|                | 5,001                 | 8,000 | \$10 per 1,000 gallons |
|                | 8,001 and greater     |       | \$15 per 1,000 gallons |
- Average monthly bill for 2.5 people is 6,000 gallons
  - GOAM monthly bill is \$80
  - All monthly bills are based on demand to be an average 200 gallons per home per day (or 80 gallons per person per day)
  - Average monthly bill for 2.5 people with outside usage
    - Monthly usage: 15,000 gallons
    - 6,000 (inside) plus 9,000(outside) gallons
    - Monthly bill: \$183.00

## Tools for improving conservation

- Rebate Programs
- Residential Water Audits
- New construction regulations
- Other ideas?

## Rebate Programs

- District provides rebates to the customer to be used towards purchases of water efficient hardware
  - Shower and faucet replacements
  - Rebates or vouchers for replacements of fixtures & appliances
  - New homeowner require replacements prior to service
- GOAL: Encourage installation of water efficient fixtures and appliances
- Discussion: Age of your homes? Year of appliance installation? Would you utilize a rebate program? How do you see this as an incentive?

## Residential Water Audits

- Identify water savings opportunities
- Educate customers on their water use
- Reveal leaks and unintended water usage
- Relationship development
- Audits developed based on EPA WaterSense specifications
  - Leaks, hot water deliver systems, toilets, faucets, showerheads, dishwashers, clothes washers, evaporative cooling systems (swamp cooler), water softeners
- Discussion: Would you participate in a water audit? What would make you sign up for an audit? Would you pay for an audit?

## New Construction Regulations

- Water conservation measures can be built into new buildings which in turn can help slow growth of new water demands
- Mandatory or recommendations
- La Plata County would adopt regulations and enforce
- Discussion: Necessary to mandate new construction?

## Recommendations...

- Meters
- Rate structure
- Rebate programs
- Residential water audits
- New construction regulations
- Any others?

## Future Steps...

- January 9, 2014 Board Meeting
  - Present outcomes and recommendations from workshops
  - Prioritize recommendations for plan
- February 13, 2014 Board Meeting
  - Water Management and Conservation Plan DRAFT review
- March 13, 2014 Board Meeting
  - Water Management and Conservation Plan DRAFT review
- April 2014
  - Draft of Plan submitted to BOR
- May 2014
  - 30 day public comment period
- June 30, 2014
  - Board adopted, final draft of Plan submitted to BOR



## Contact Information

- Ed Tolen, General Manager

[etolen@laplawd.org](mailto:etolen@laplawd.org)

970-563-0320

- Carrie Lile

[carrie@durangowater.com](mailto:carrie@durangowater.com)

970-259-5322

Thank you for participating!