

2015 Basin Advisory Group Meetings

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Topics

- Governor's Water Strategy
- Weather Modification Pilot Program

Governor's Water Strategy

- Started with the Governor's Energy Strategy - 2013
 - Objective 9D – Wyoming State Water Strategy and Management Plan
- Public Listening Sessions
 - Started in the Fall of 2013
 - 9 Sessions in total
 - Comments were tabulated into 59 potential action items
 - Summary listening session held on June 4, 2014
- Governor's Office in Consultation with Water Agencies
 - Selecting priorities for Governor's consideration

Governor's Water Strategy

- Release Date for the Governor's Water Strategy
 - January 2015
- Contents
 - Water Development
 - Water Management
 - Water Conservation and Protection
 - Watershed Restoration
- Water Development
 - Build more storage
 - Ten in Ten – Build 10 new reservoirs in the next 10 years
 - WY currently has 16 storage projects in planning, valued at \$473 million
 - Pursue Fontenelle Reservoir riprap project
 - Increase active storage from 260KAF to 345KAF

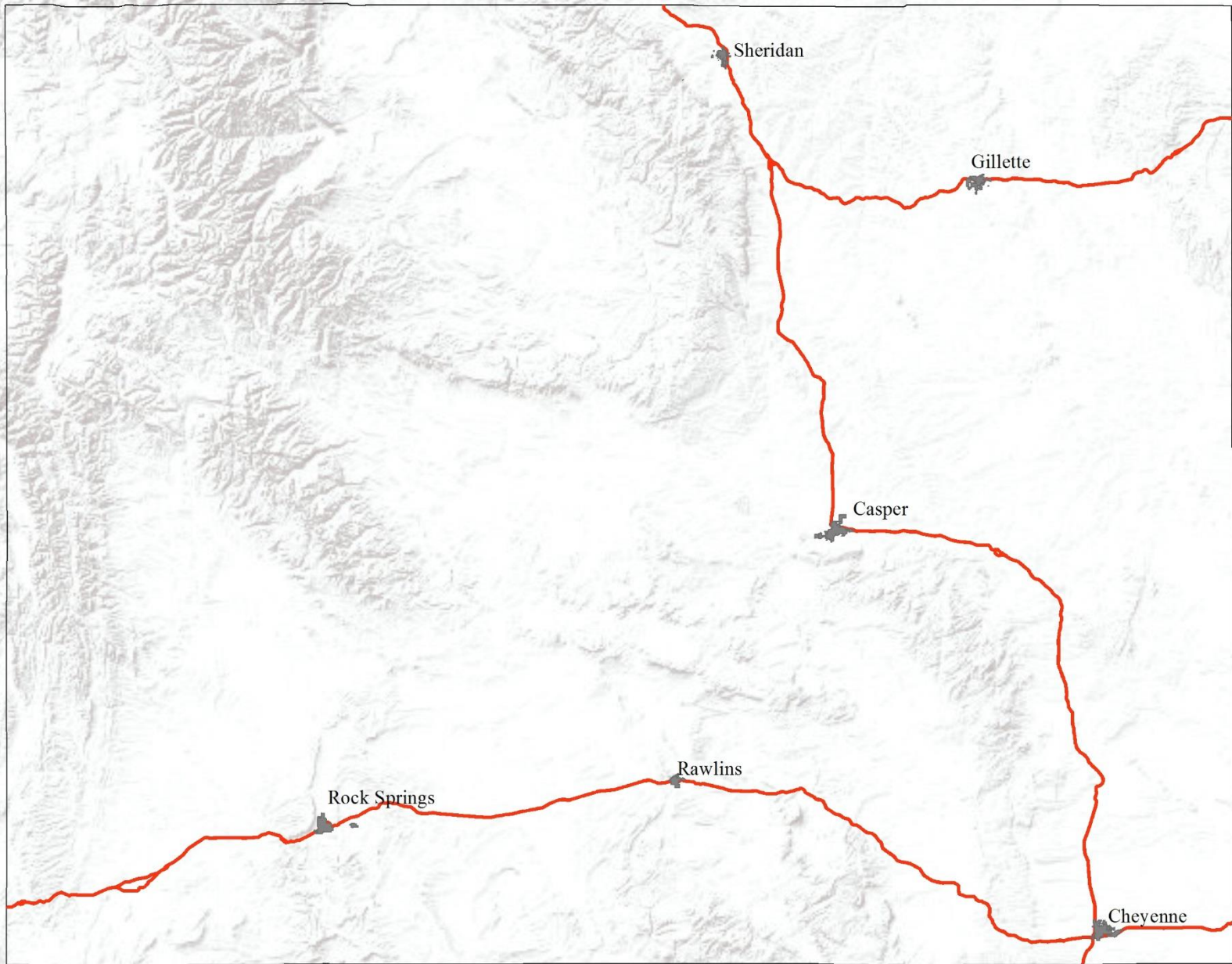
Governor's Water Strategy

- Water Development
 - Glendo Reservoir
 - Re-purpose a portion of the 275KAF now allocated to flood storage
- Water Management
 - Credible Climate, Weather and Stream Flow Data
 - Uniform Hydrographers Operations Manual
 - Groundwater Analysis and Control Area Management Framework
- Water Conservation and Protection
 - Collaborative Planning and Authorization Processes
 - Water Quality Data Integrity Initiative
- Water and Watershed Restoration
 - River Restoration
 - Collaborative Fish Passage Restoration

Questions

Weather Modification Pilot Program

- Goal was to evaluate winter orographic cloud seeding
- Randomized Scientific Study
 - Time Frame: 2008 – 2014
 - Location: Medicine Bow and Sierra Madre Mountains
 - WMI, Inc. provided all seeding equipment and operational personnel
 - NCAR provided scientific analyses
 - 154 Cases
 - 36 Cases disqualified for quality control issues with precipitation gauges
 - 118 Cases used in the primary statistical analysis



Sheridan

Gillette

Casper

Rawlins

Rock Springs

Cheyenne

Weather Modification Pilot Program

- Results – 118 Cases
 - 3% increase in precipitation
 - 28% probability that the results occurred by chance
- Unintended Downwind Effects
 - Modeling studies indicated that 18 cases resulted in downwind precipitation in the Medicine Bow Mountains (control range)
 - 100 Cases Remained
 - Precipitation results increased from 3% to 9%
- Generator Hours (8 generators at 4 hours each = 32 hours max.)
 - Eliminate cases with less than 27 generator hours (38 cases)
 - 62 Cases Remained
 - Precipitation increased from 3% to 17%

Weather Modification Operational Programs

- Wind River Mountains
 - 10 Generators – used in the Pilot Program
 - First Season of Operations
 - Start Date: November 15, 2014
 - End Date: April 30, 2015
 - Total Cost: \$911,393
 - WY share (25% plus management): \$240,000
 - Water users share: 75% (\$684,000)
 - Second Season
 - Total Cost: \$640,000
 - WY share (25% plus management): \$170,000
 - Water users share: 75%

Weather Modification Operational Programs

- Wind River Mountains – Funding Partners (2014 – 2015 Season)
 - Central Arizona Project
 - Colorado Water Board of California – Six-Agency Committee
 - Southern Nevada Water Authority
 - Arizona Dept. of Water Resources
 - Utah Division of Water Resources
 - US Bureau of Reclamation

Weather Modification Operational Programs

- Big Horn Mountains
 - Feasibility Study
 - Start Date: July 1, 2015
 - Completion Date: July 1, 2016
 - Budget: \$300,000

- Laramie Range Mountains
 - Feasibility Study
 - Start Date: July 1, 2015
 - Completion Date: July 1, 2016
 - Budget: \$300,000

Weather Modification Operational Programs

- Medicine Bow and Sierra Madre Mountains
 - Design and Permitting
 - Start Date: July 1, 2015
 - Completion Date: December 31, 2016
 - Budget: \$300,000
 - Unknown: Forest Service NEPA process
- All Three New Operational Programs Require:
 - Public Outreach
 - Seek funding commitments for in-basin water users

Questions