Bear River Basin
Advisory Group Meeting
May 22, 2014

Water Resources Data System (WRDS) Services & Products

Michelle Ogden
Water Resources Data System
http://www.wrds.uwyo.edu

WRDS
Water Resources Data System

Water Resources Data System (WRDS)

- Who we are
- What we do
- Existing Product Updates

WHO is WRDS?

- Serves as the technical services/advisory branch of the Wyoming Water Development Office (WWDO).
- Funded by the WWDC and housed within the Department of Civil and Architectural Engineering at the University of Wyoming.
- The Wyoming State Climate Office (SCO) and Wyoming Water Library are branches of WRDS, and together serving as a primary clearinghouse of hydrological and climatological data for the State of Wyoming.
- Provides a variety of services ranging from the development of enhanced drought-monitoring products (in association with NIDIS) to the online dissemination of water resources publications.
- Supports a variety of stakeholder groups by assisting in the development of the State Water Plan and helping to coordinate long-term monitoring efforts throughout the region.

Goals:

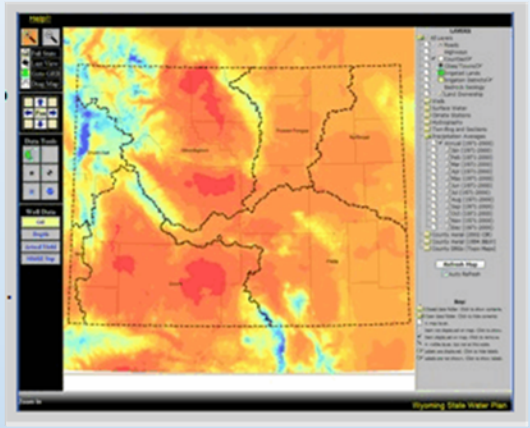
- Compile key resources from multiple providers in a central location
- Archive and distribute unique datasets
- Independent broker of credible water and climate data

Services:

- Fill >300 requests for water and climate data annually
- Data related to "real world" applications in the state
- Provide datasets that are not easily accessed via the web, or on problems that require specialized analysis or expertise

Examples of What WRDS DOES:

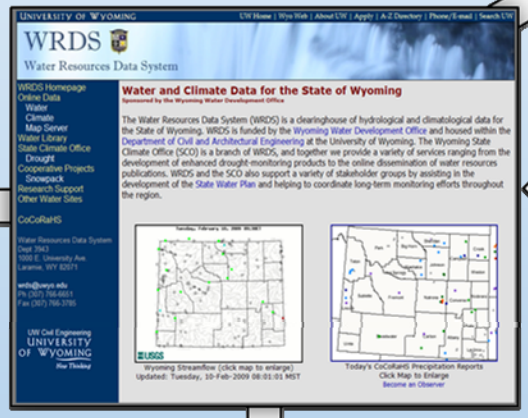
GIS Web Mapping (SCO)



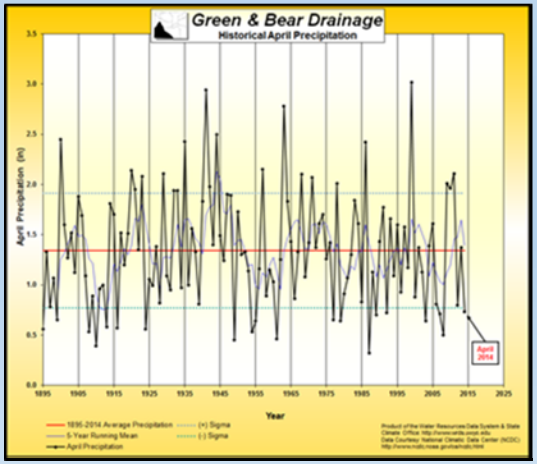
WRDS

http://www.wrds.uwyo.edu

WY Water Library

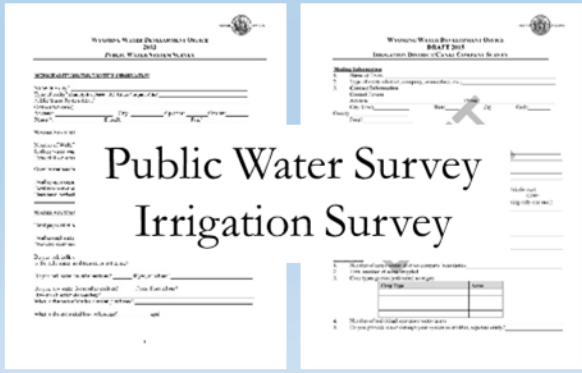


State Climate Office (SCO) Products



WY CoCoRaHS

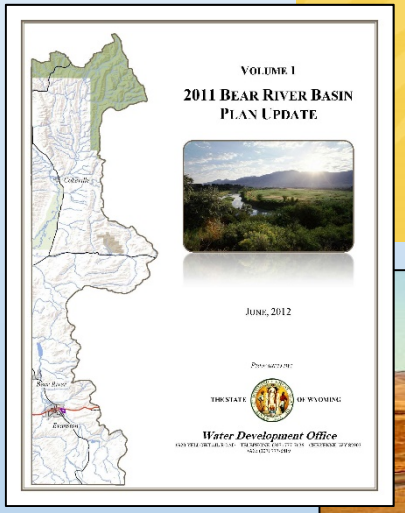
State Water Plan & WWDC Publications and Products

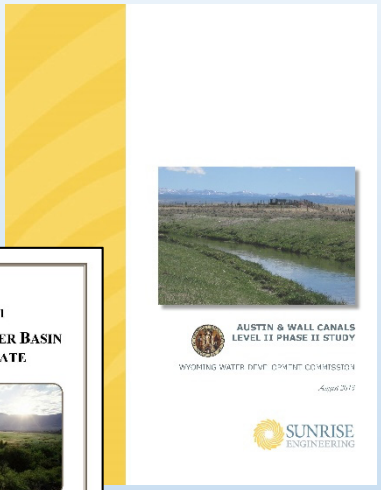


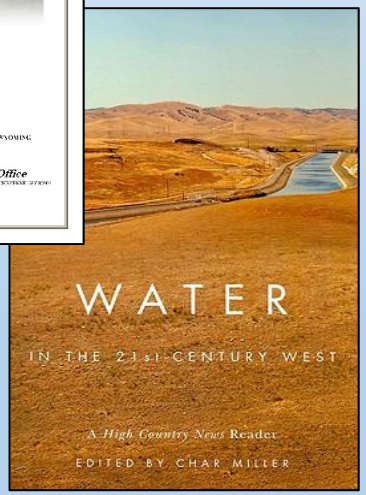
Wyoming Water Library

http://library.wrds.uwyo.edu

- Government Documents
- Maps
- Water Institute publications
- Specific agency publications
  - (examples: WWDO, SEO, WSGS, USGS, BLM, UW)
- Topics included in the library collection
  - Drought
  - Global Climate Variability
  - WY Water Planning Program
  - WY Environmental Impact Statements
  - Reference Collection wyldcat







WRDS
Water Resources Data System

Community Collaborative Rain, Hail & Snow (CoCoRaHS)

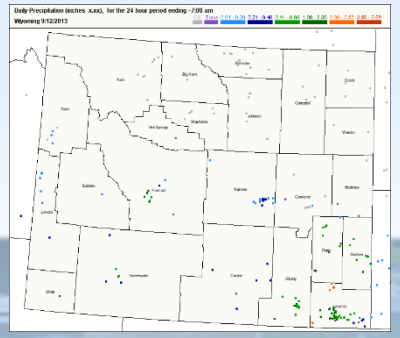
"Because every drop counts"

For more information please visit :

http://www.cocorahs.org

http://www.wrds.uwyo.edu

Photo courtesy of Tony Bergantino



WRDS

Water Resources Data System

State Climate Office

Offers links to websites that host both water and climatological data for the state of Wyoming.

- Water Resources Data System (WRDS)
- Wyoming Water Library
- Wyoming State Water Plan
- WyGISC GIS Data
- USGS Stream Flow – WaterWatch
- Wyoming CoCoRaHS
- Snotel Plots and Snotel vs River Stage Charts
- WY Water Resources Center (WWRC) Archives
- Cooperative Data Posting

Federal Agencies

National Weather Service, Cheyenne, WY
- Climatic Data/Analyses
- Hydrologic Data/Forecasts

Natural Resources Conservation Service, Casper, WY

- Basin Snowpacks and Streamflow Forecasts

US Forest Service, Rocky Mountain Research Station, Laramie, WY

- Wind Blown Snow as a Water Resource
- Blizzards and Snowdrift Control

State Agencies

Wyoming State Engineer's Office, Cheyenne, WY
- Minutes of the Monthly Water Forum Meetings

Wyoming State Geological Survey, Laramie, WY

- Powder River Basin IMS
- Earthquakes in Wyoming
- Wyoming Landslides
- Geohydrologic Expansion of WRDS in the Little Snake River Basin
- Wyoming Earthquake Database
- Wyoming Landslides (coverages and maps)
- 3D Interactive Images: Landscapes and Landslides NEW

Wyoming Water Development Commission, Cheyenne, WY

- State Water Plan Information
- Legislative Reports
- 2000 Water System Survey Report
- 1999 Irrigation System Survey Report
- Water Management & Conservation Assistance Program Information
- Operating Criteria, Application Information

Board of Registration for Professional Engineers and Professional Land Surveyors Wyoming Department of Environmental Quality - Water Quality Division, Cheyenne, WY

- Wyoming's Wellhead Protection Guidance Document
- Wyoming's Source Water Assessment Program (SWAP)

Cooperative Data Posting

Through the use of its website, WRDS/SCO disseminates Wyoming water resource information from State and Federal Agencies to its users.

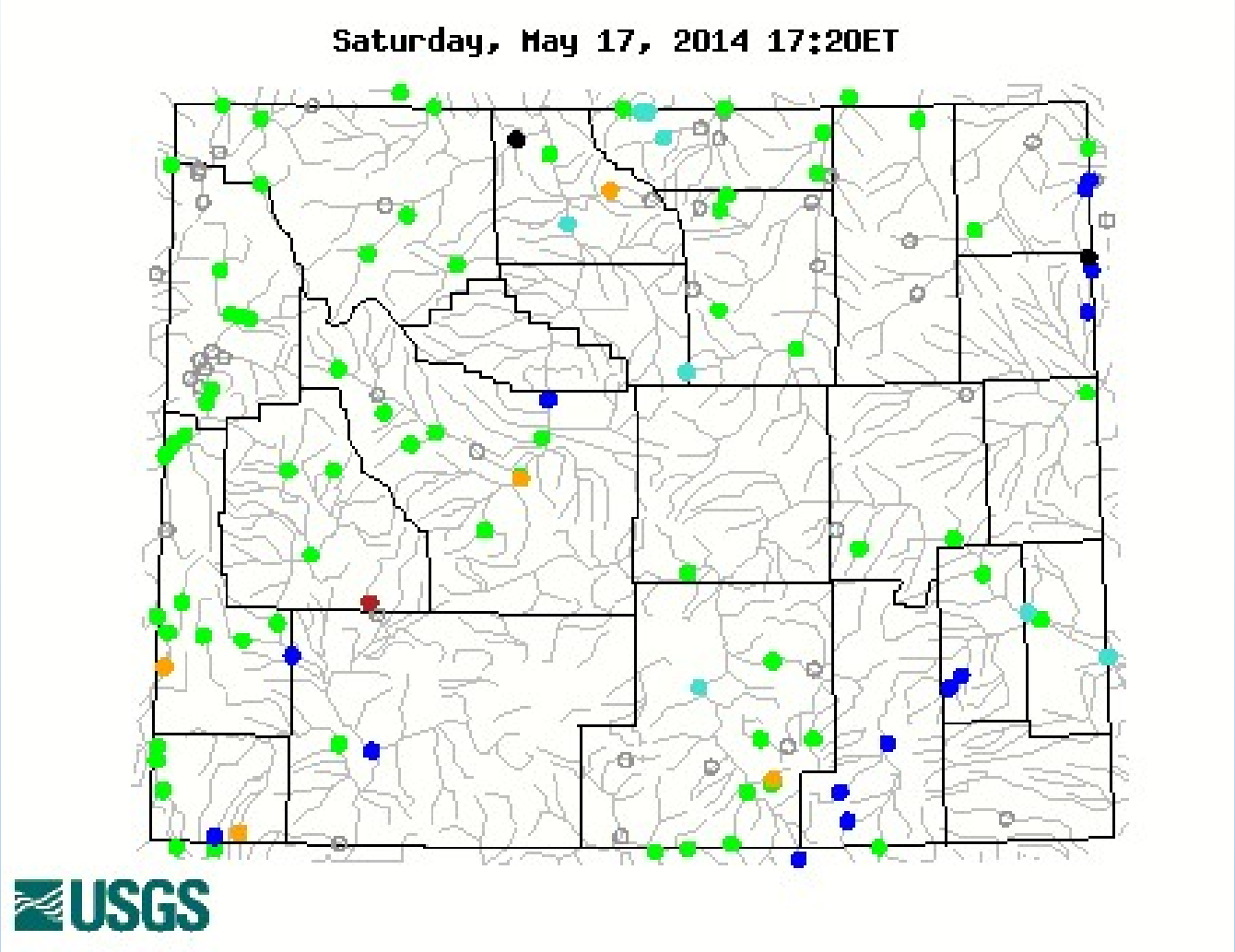
WRDS

Water Resources Data System

Retrieve monthly and annual data for mean, maximum, minimum and dew point temperature as well as monthly and annual precipitation for the period 1895-2012. Also, dates of first and last frosts are available for the period 1960-2001. The preceding data are available for the continental US. Data are Copyright © 2012, **PRISM Climate Group, Oregon State University, http://www.prismclimate.org** Created 2012 and NRCS National Water and Climate Center, http://www.wcc.nrcs.usda.gov

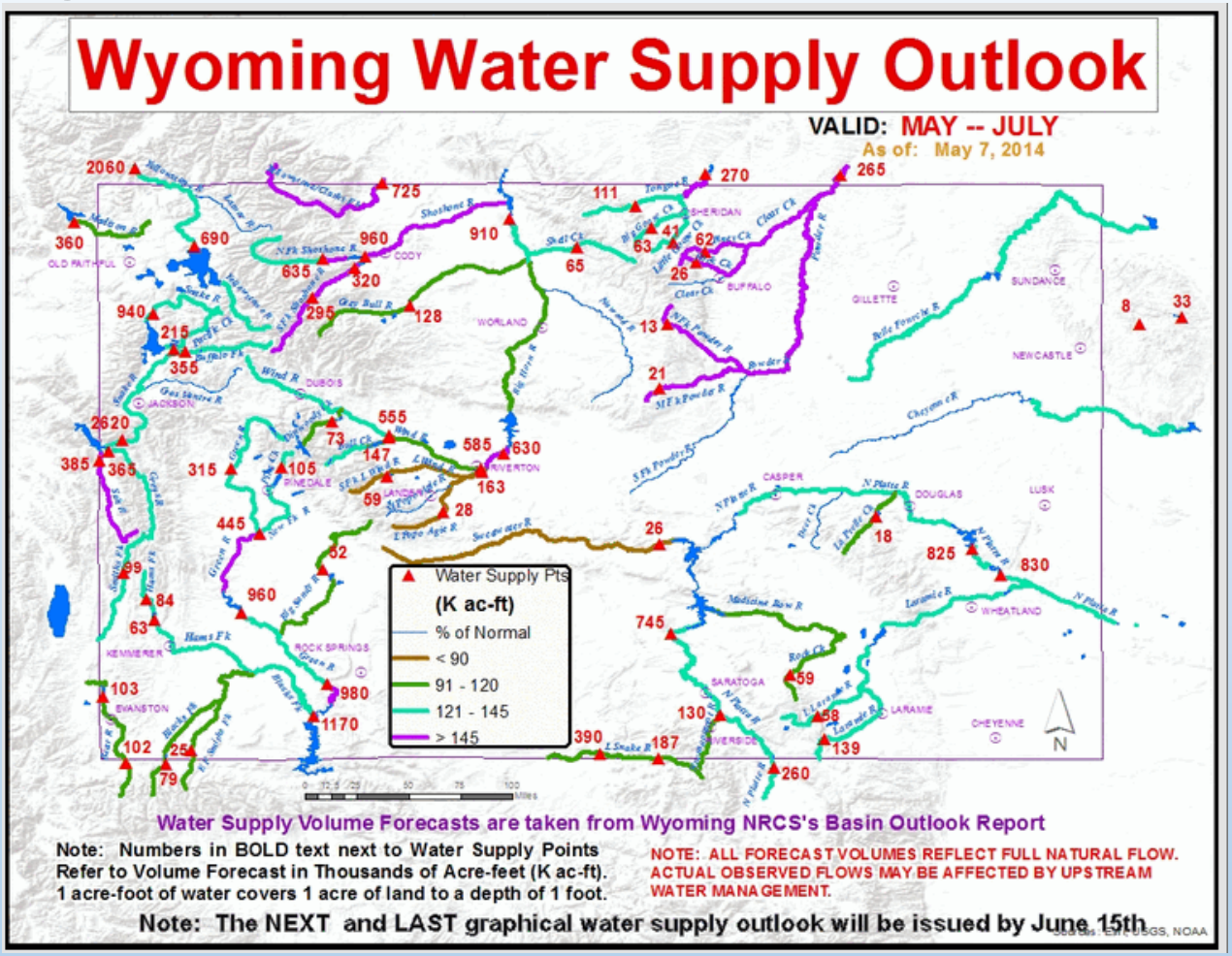
WRDS
Water Resources Data System

Wyoming Streamflow



Data courtesy of United State Geological Survey (USGS)

Wyoming Water Supply Outlook (May-June 2014)



This page is a joint effort between the Natural Resources Conservation Service and the Water Resources Data System (WRDS) for the State of Wyoming.

WRDS

Water Resources Data System

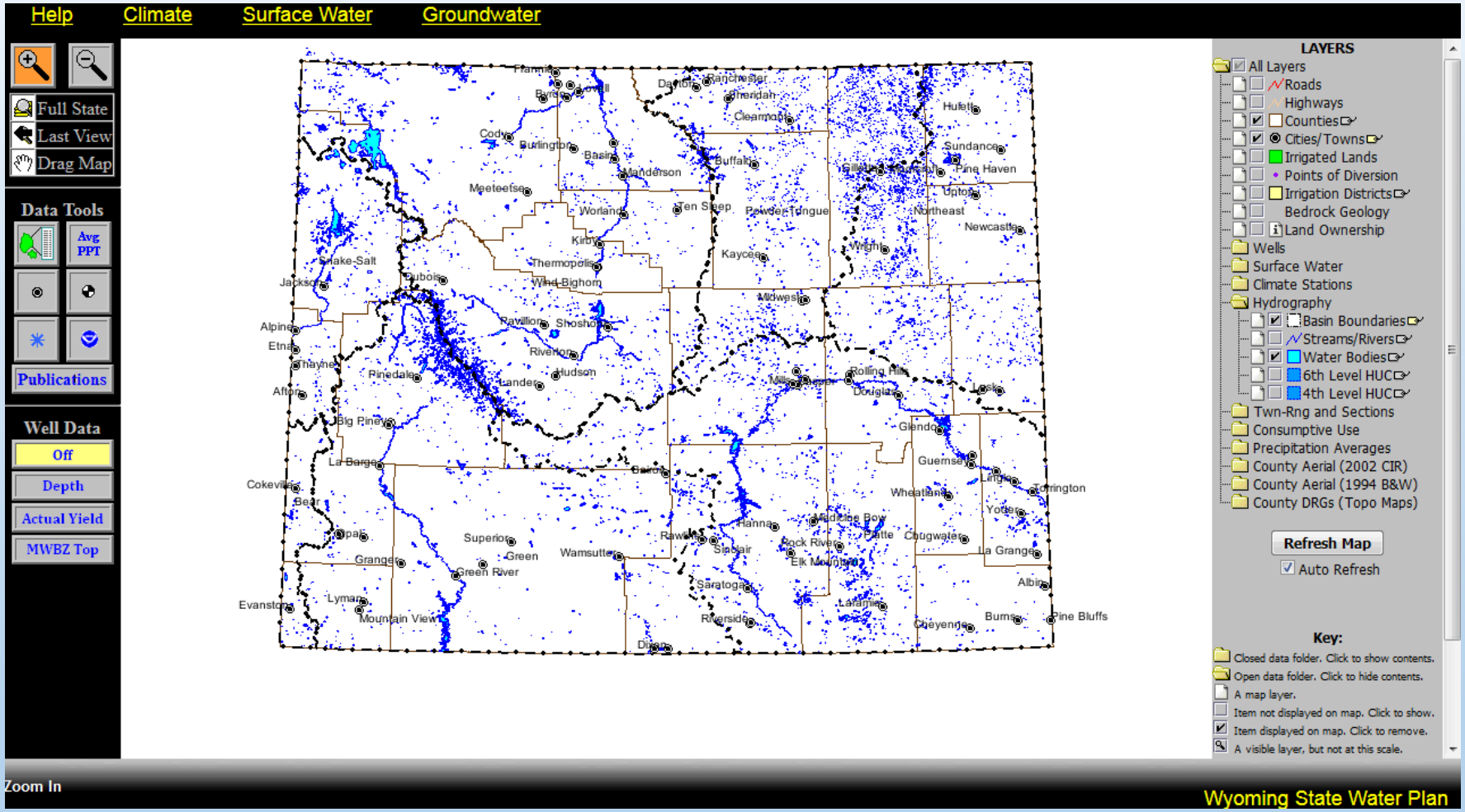
GIS Map Servers

WRDS and the SCO have taken the opportunity to make water and climate data available using customized ArcIMS (**IMS=Internet Map Services**). These customized applications allow users to examine numerous aspects of Wyoming water and climate simultaneously. This approach provides "one stop shopping" for access to important sources of data and information.

These efforts are funded by the WWDO, and these tools will be a key component of updates to the State Water Plan.

Wyoming Water and Climate Map Server

(Developed with funding from the Wyoming Water Development Commission)



WRDS

Water Resources Data System

Updates on Existing Products

Monday Morning Snow Report

Wyoming – NRCS

Report #30 **Monday Morning Snow Report** **May 19th, 2014**

This is the 30th Monday Snow Report for the 2014 Water Year. Last year at this time the state median fell to 57% with a low of 17% and a high of 85% of median. This year the state median rose to 164% with a low of 117% and a high of 205% of median. See the table and map below for more information. The map may differ slightly from the table depending on the stations reporting & date.

For those of you with INTERNET access, this report and map showing SWE percentages for the state can be found at: http://www.wrds.uwyo.edu/wrds/nrcs/nrcs.html. Median info at: http://www.wcc.nrcs.usda.gov/normals/median_average.htm

SNOW WATER EQUIVALENT (SWE) AS PERCENT OF MEDIAN - The following table shows the percent of median for 3 recent dates, and then the percent of median a year ago along with its preceding week in the last 2 columns. SWE percent of medians are for Wyoming basins. The median is based on reporting SNOTEL sites in a basin, and does not include manually measured snow courses. Medians are computed using the period 1981 through 2010.

DRAINAGE BASIN	5/19/2014	5/12/2014	5/5/2014	5/19/2013	5/12/2013
SNAKE RIVER	160	153	144	58	73
MADISON	146	139	130*	48	73
YELLOWSTONE	157	160	154	61	75
WIND RIVER	148	135	115	45	80
BIGHORN BASIN	174	153	145	59	92
SHOSHONE RIVER	149	153	145	62	81
POWDER	198	161	156	58	105
TONGUE	192	153	144	53	86
BELLE FOURCHE	*	*	*	*	*
CHEYENNE	*	*	*	*	*
UPPER N. PLATTE	151	131	117	71	85
SWEETWATER	117	98	81	19	54
LOWER N. PLATTE	328*	177	130	17	79
LARAMIE	173	154	131	75	101
S. PLATTE	167	162	145	85	102
LITTLE SNAKE RIVER	136	157	100	58	70
UPPER GREEN	205	174	163	49	66
LOWER GREEN	143	152	115	61	97
UPPER BEAR	126	119	89	37	61
Weighted State Average	164	152	132	57	85

red = down blue = up green = same * data is suspect

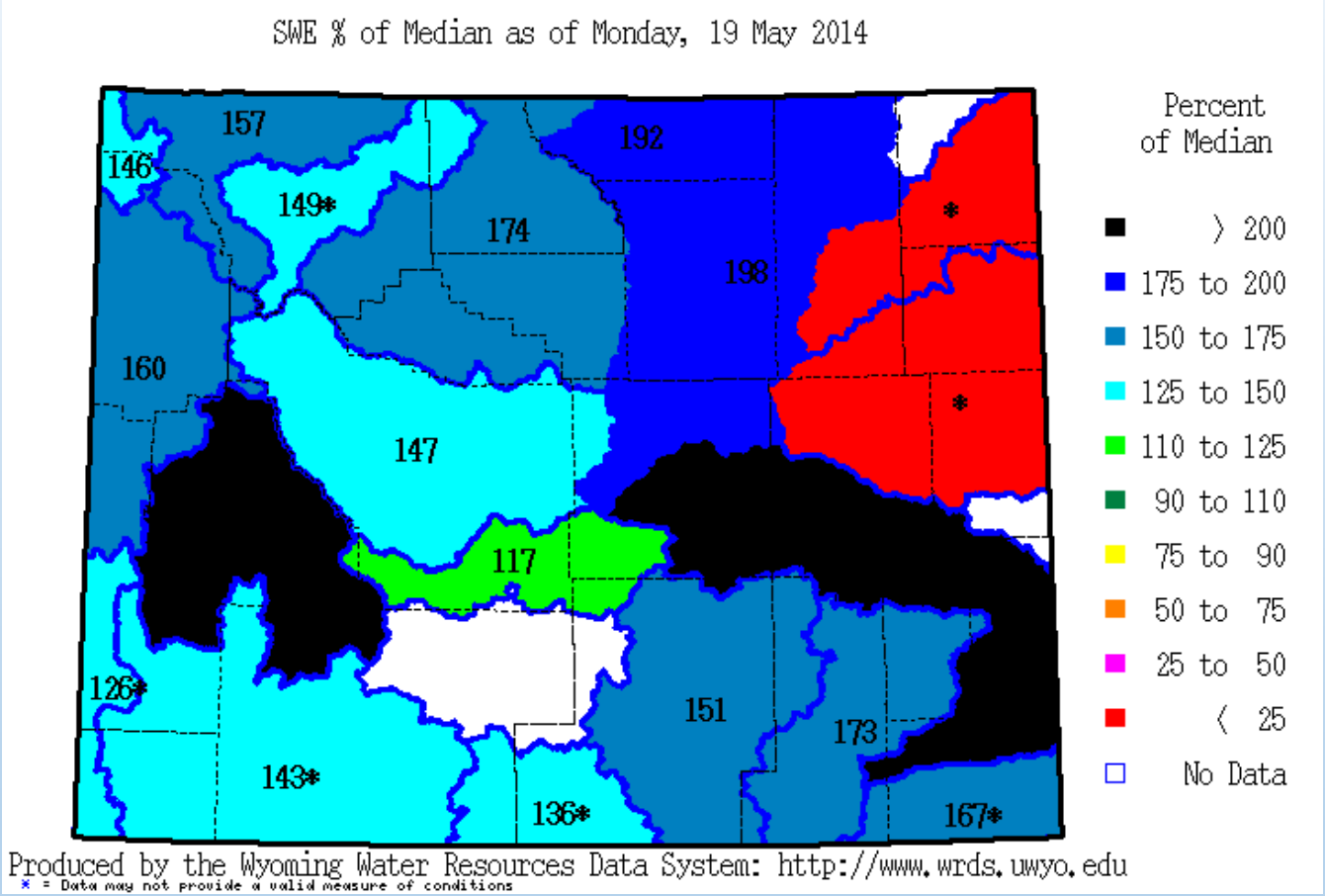
For more information, contact: Lee Hackleman or Ken Von Buettner (307) 233-6744, 6743
NRCS Snow Surveys 100 East B St., Room 3124 Casper, WY 82601

Data courtesy of Natural Resources Conservation Service (NRCS) Snow Survey

For more information, contact: Lee Hackleman or Ken Von Buettner (307) 233-6744, 6743 NRCS Snow Surveys; 100 East B St., Room 3124 ; Casper, WY 82601

WRDS
Water Resources Data System

% of Median Snow Water Equivalent (SWE) by Wyoming Basin



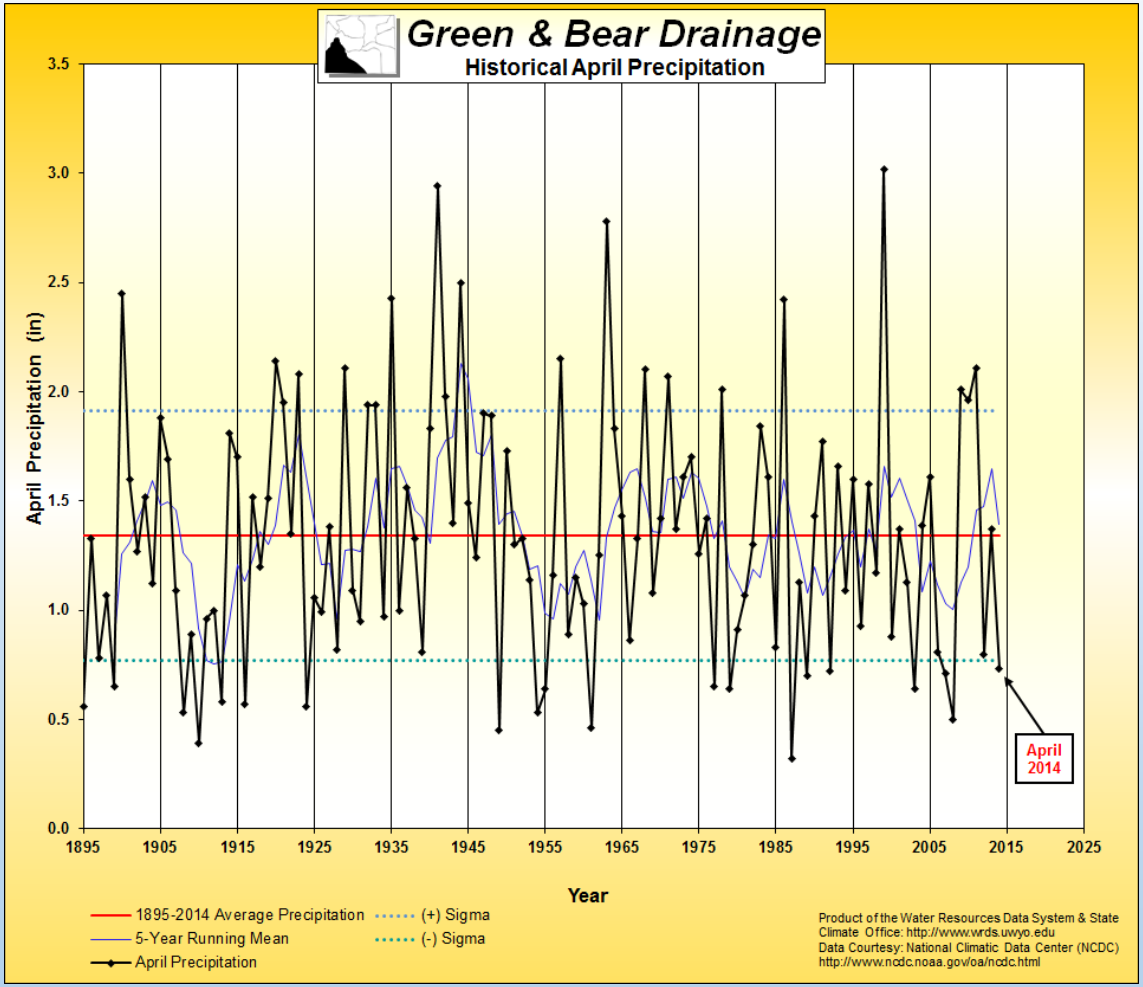
Data courtesy of Natural Resources Conservation Service (NRCS) Snow Survey

For more information, contact: Lee Hackleman or Ken Von Buettner (307) 233-6744, 6743 NRCS Snow Surveys; 100 East B St., Room 3124 ; Casper, WY 82601

WRDS

Water Resources Data System

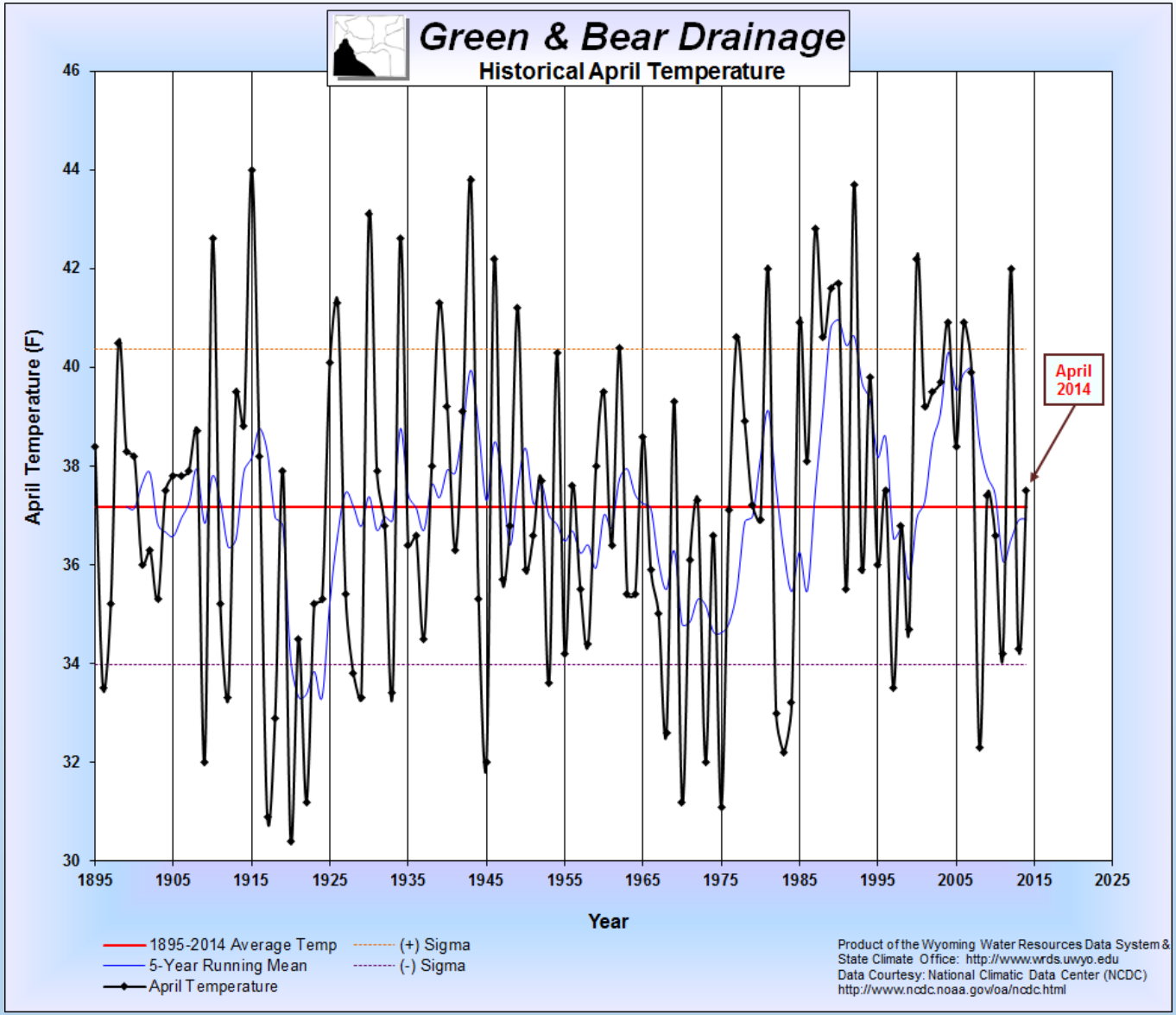
State Climate Office - Products



Generated monthly, these graphs and their related data show monthly precipitation vs. the long-term mean and 5-year moving average precipitation totals (1895-present) for each Climate Division.

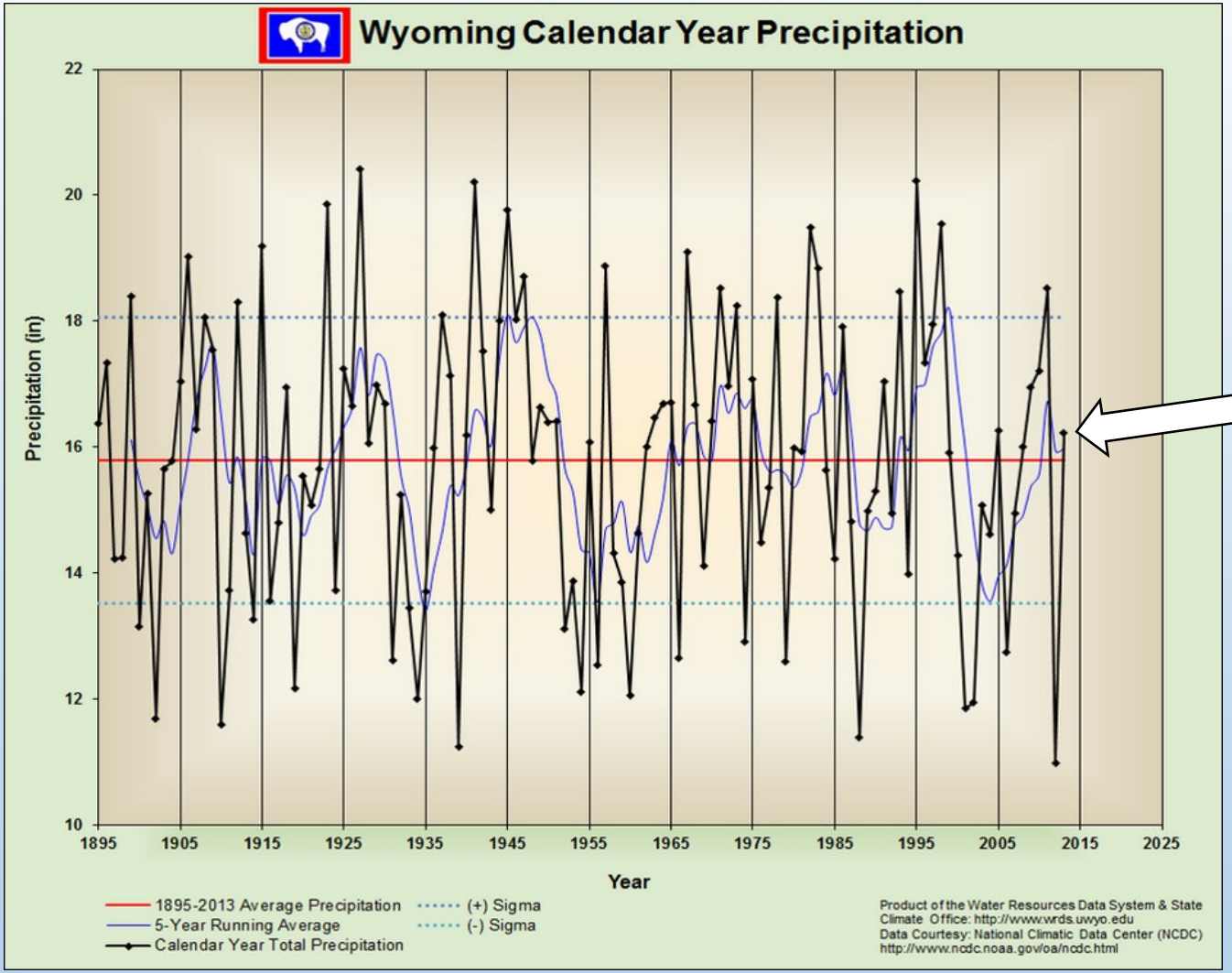
WRDS

Water Resources Data System



WRDS

Water Resources Data System

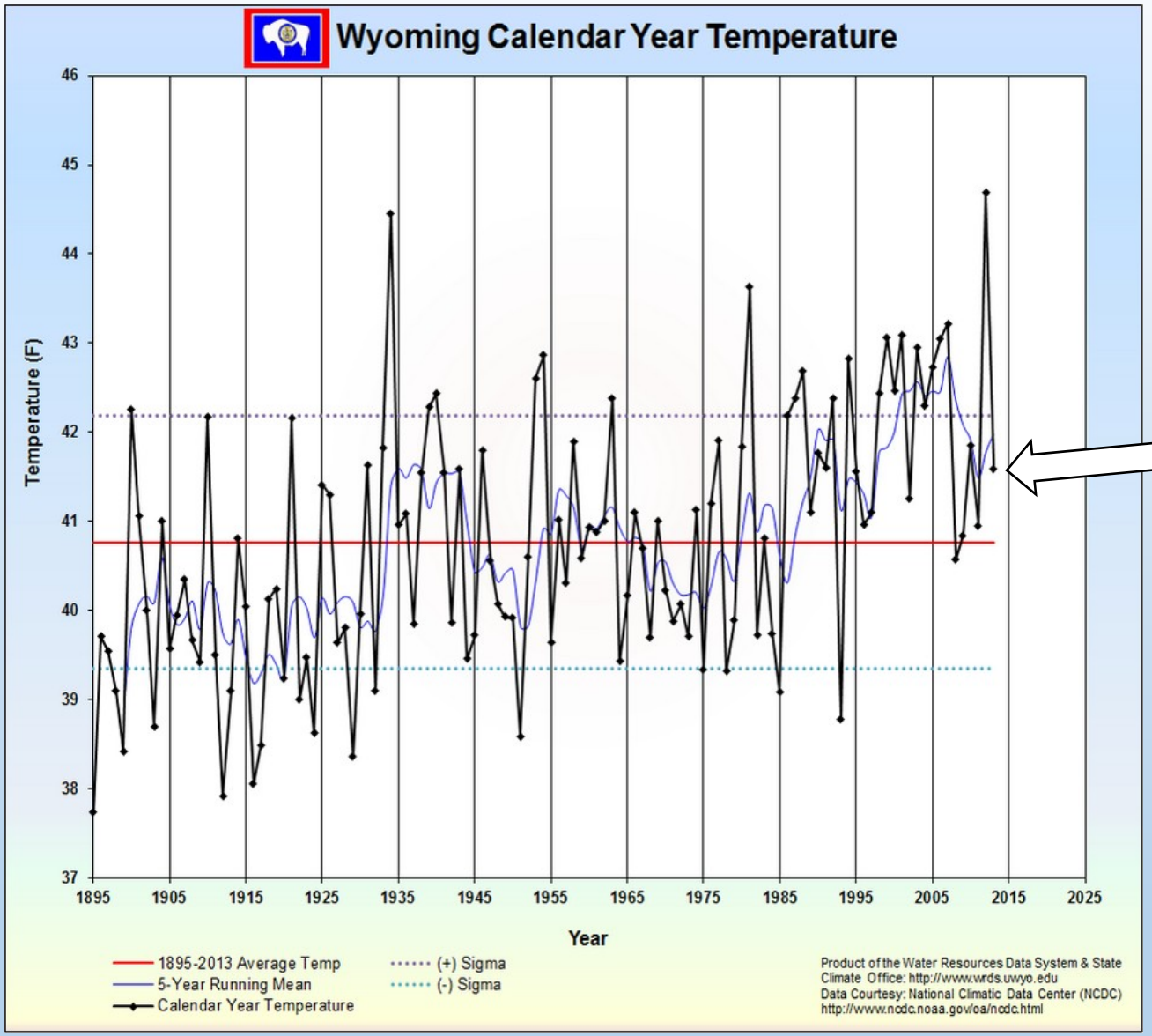


2013

Generated annually, these graphs and their related data show monthly precipitation vs. the long-term mean and 5-year moving average precipitation totals (1895-present) for the state of WY.

WRDS

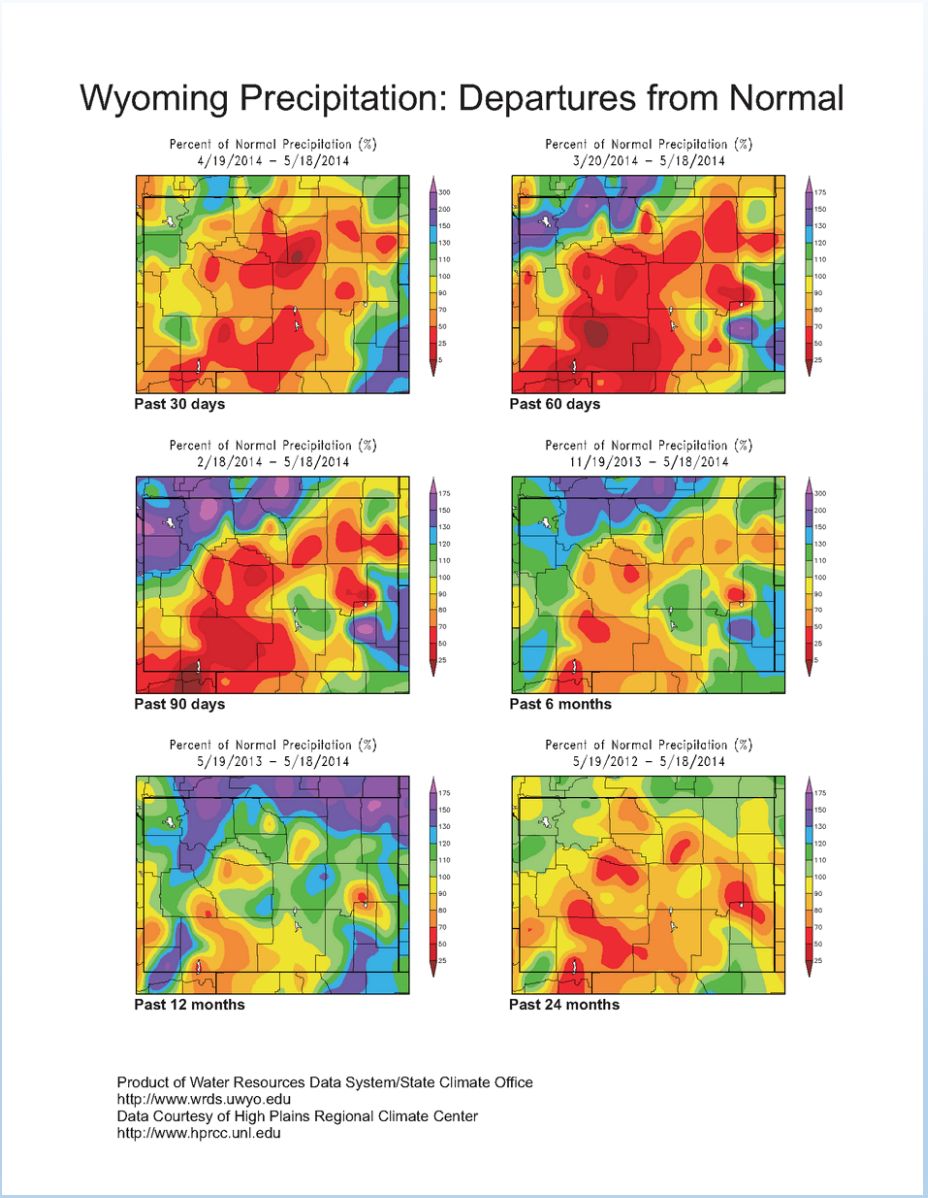
Water Resources Data System



2013

WRDS

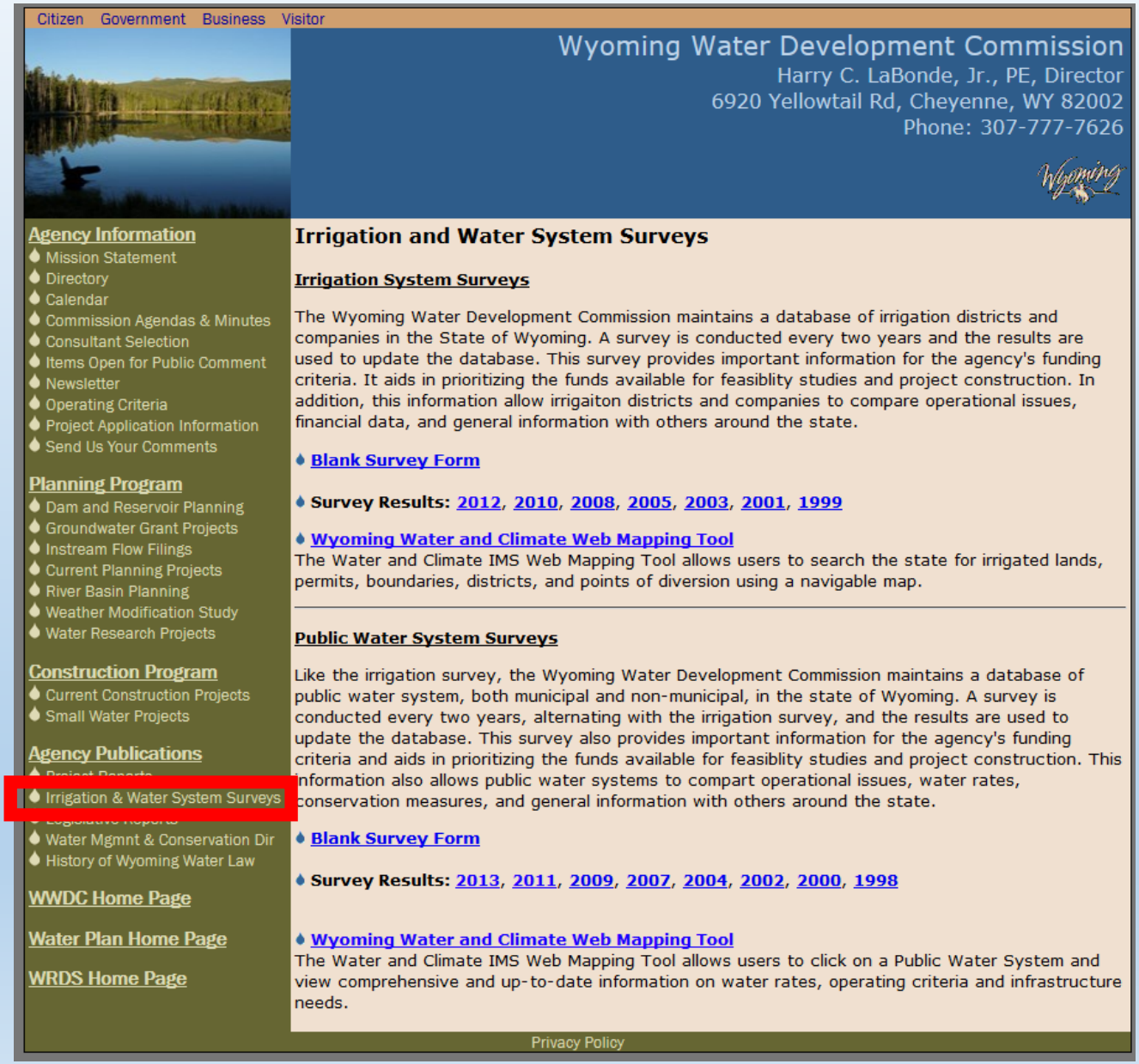
Water Resources Data System



Generated weekly, these maps show statewide precipitation departures from historical averages (vs. 1981-2010) over 1 month to 24 month timescales. To request an archived map of precipitation contact WRDS.

WWDC Surveys on the Web

http://wwdc.state.wy.us/surveys/surveys.html



Citizen Government Business Visitor

Wyoming Water Development Commission
Harry C. LaBonde, Jr., PE, Director
6920 Yellowtail Rd, Cheyenne, WY 82002
Phone: 307-777-7626

Agency Information
- Mission Statement
- Directory
- Calendar
- Commission Agendas & Minutes
- Consultant Selection
- Items Open for Public Comment
- Newsletter
- Operating Criteria
- Project Application Information
- Send Us Your Comments

Planning Program
- Dam and Reservoir Planning
- Groundwater Grant Projects
- Instream Flow Filings
- Current Planning Projects
- River Basin Planning
- Weather Modification Study
- Water Research Projects

Construction Program
- Current Construction Projects
- Small Water Projects

Agency Publications
- Irrigation & Water System Surveys
- Water Mgmnt & Conservation Dir
- History of Wyoming Water Law

WWDC Home Page

Water Plan Home Page

WRDS Home Page

Irrigation and Water System Surveys

Irrigation System Surveys

The Wyoming Water Development Commission maintains a database of irrigation districts and companies in the State of Wyoming. A survey is conducted every two years and the results are used to update the database. This survey provides important information for the agency's funding criteria. It aids in prioritizing the funds available for feasiblity studies and project construction. In addition, this information allow irrigaiton districts and companies to compare operational issues, financial data, and general information with others around the state.

- Blank Survey Form
- **Survey Results:** 2012, 2010, 2008, 2005, 2003, 2001, 1999
- Wyoming Water and Climate Web Mapping Tool

The Water and Climate IMS Web Mapping Tool allows users to search the state for irrigated lands, permits, boundaries, districts, and points of diversion using a navigable map.

Public Water System Surveys

Like the irrigation survey, the Wyoming Water Development Commission maintains a database of public water system, both municipal and non-municipal, in the state of Wyoming. A survey is conducted every two years, alternating with the irrigation survey, and the results are used to update the database. This survey also provides important information for the agency's funding criteria and aids in prioritizing the funds available for feasiblity studies and project construction. This information also allows public water systems to compart operational issues, water rates, conservation measures, and general information with others around the state.

- Blank Survey Form
- **Survey Results:** 2013, 2011, 2009, 2007, 2004, 2002, 2000, 1998
- Wyoming Water and Climate Web Mapping Tool

The Water and Climate IMS Web Mapping Tool allows users to click on a Public Water System and view comprehensive and up-to-date information on water rates, operating criteria and infrastructure needs.

Privacy Policy

PWS & Irrigation Surveys

- Provide important WWDO information for feasibility studies and potential construction projects:
- related to funding criteria
- aids in prioritizing the funds
- Allows public water systems and irrigators to compare information with others around the state:
- operational issues
- water rates
- conservation measures
- general information

WRDS
Water Resources Data System

Public Water System Surveys

- WRDS maintains a database of public water systems, both **municipal** and **non-municipal**, in the state of Wyoming
- Surveys have been conducted **1998-2013**

- A survey is conducted every **two years**, alternating with the irrigation survey, the results are used to update the database

2013 Public Water System Survey

THE STATE OF WYOMING

WYOMING WATER DEVELOPMENT OFFICE
2013
PUBLIC WATER SYSTEM SURVEY

MUNICIPALITY/DISTRICT/ENTITY INFORMATION

Name of entity? _____
Type of entity? (Municipality, District, JPB, Private Company, Other)_____
Public Water System I.D. #_____
Contact person(s)_____
Address: _____ City: _____Zip code: _____County:_____
Phone #: _____ E-mail:_____ Fax#:_____

WATER SYSTEM DATA

Number of Wells? _____ Depth of wells? _____ Number of springs? _____
Surface water source(s)? _____
Type of diversion(s)? (Surface Direct, Infiltration Gallery, Alluvial Wells, Dam, Ditch, Other)
_____
Other water sources? _____

Total system capacity in gallons per day? _____
Total raw water storage (gal)?_____Total treated water storage (gal)?_____
Treatment method(s) (Disinfection/Chlorination, Filtration, Conventional Water Treatment Plant, or other)?
_____

WATER SYSTEM USAGE

Total population served? _____ # of taps in entity? _____ # of taps outside entity? _____

Total annual water use by the system (gallons)? _____
Peak day water use for the system (gallons)? _____

Do you sell bulk water? _____What is the charge for bulk water?_____
Is the bulk water sold treated or untreated? _____

Do you sell water to other entities? _____ If yes, to whom?_____

Do you buy water from other entities? _____ If yes, from whom?_____
How much water do you buy?_____
What is the cost of the bulk water purchased?_____

What is the estimated loss to leakage? _____gpd

BILLING RATES

What % of the system is metered? _____ Does the entity bill by meter?_____
What are the unmetered uses within the system if any? _____

What is the average monthly water bill? _____

	TAP FEES	BASE WATER RATE	GALLONS INCLUDED IN BASE RATE
RESIDENTIAL			
COMMERCIAL			
INDUSTRIAL			
OTHER			

What is the rate for each 1,000 gallons above the base amount? _____
What would a household's bill be for using 10,000 gallons in a month? _____
What would a household's bill be for using 20,000 gallons in a month? _____

WATER SYSTEM FISCAL DATA

	$
What is the annual budget for the system?	
How much is spent on operation and maintenance annually?	
What does water quality testing cost annually?	
How much money is in the emergency/replacement fund?	
What is annual sinking fund contribution?	
What are revenues from water bills?	
What are revenues from tap fees?	

Is the water system financially self supporting? _____
Are there other funding sources for the water system? _____
What are they? _____

WELLHEAD PROTECTION AND CONSERVATION MEASURES

Is there a wellhead protection plan in place? _____
What types of water conservation measures are in place? _____
_____
What is the estimated water savings from the conservation measures? _____
_____
General Comments: _____
_____
_____
_____

2013 PWS Survey Results

(6) Sub-Reports

Mailing List

Wyoming Water Development Commission
2013 Water System Survey
Report #1: Mailing List

Date	Name of Entity	Type of Entity	PWS #	Address	City	Zip	Phone (307) Area Code Unless Noted Otherwise
8/5/2013	Afton, Town of	Municipality	5600002C	PO Box 310	Afton	83110	885-9831
8/21/2013	Air Base Acres Improvement & Service District	District	5600080C	2814 Burns Rd.	Casper	82604	251-2118
6/1/2013	Airport Beach Water and Sewer District (dissolved, now uscop with Town of Greybull)	District	5601385C	PO Box 105	Greybull	82426	765-2862
6/17/2013	Alton, Town of	Municipality	5600189C	PO Box 188	Alton	82050	246-3386
2/3/2009	Alpine	Municipality	5600159C	PO Box 3070	Alpine	83128	654-7774
6/18/2009	Alta Community Pipeline	Private Company	5600275C	250 E. Dry Creek Rd.	Alta	83414	(208) 351-0763
5/30/2013	American Road Water & Sewer District	Special District	5600968C	PO Box 2874	Gillette	82717	685-8255
7/1/2013	Antelope Valley Improvement & Service District	Improvement and Service District	5600231C	PO Box 2787	Gillette	82717	682-4432
6/11/2013	Aspens/Aspens II Water and Sewer District	District	5600220C	PO Box 716	Wilson	83014	739-9777
6/4/2013	Avalon Mobile Manor	Mobile Home Park	5600269C	429 Gardenia Dr.	Cheyenne	82009	635-1645
5/8/2013	Baggs, Town of	Municipality	5600058C	PO Box 300	Baggs	82321	383-2888
5/27/2009	Bairoil, Town of	Municipality	5600003C	PO Box 58	Bairoil	82322	324-7653
9/30/2013	Basin, Town of	Municipality	5600004C	Box 599	Basin	82410	568-3331
6/21/2013	Bear River Regional JPB (formerly North Uinta County I&S)	JPB	5601019C	81 Elk Dr.	Bear River	82930	799-3858
6/19/2013	Bedford Water & Sewer, District	Water & Sewer Improvement District	5600006C	PO Box 4144, 219 B Street	Bedford	83112	883-4144
6/7/2013	Belle Fourche Pipeline	Company	5601156C	PO Drawer 2360	Casper	82602	237-9301
6/21/2013	Bennce Estates Improvement & Service District (added to survey in 2013)	Special District	5601596C	PO Box 2544	Gillette	82717	685-8235
6/14/2013	Big Horn Regional JPB (added to survey in 2013)	JPB	5601630C	PO Box 346	Worland	82401	347-4042
6/12/2013	Big Piney, Town of	Municipality	5600007C	PO Box 70	Big Piney	83113	260-6362
7/3/2013	Big Valley & Crossed Arrows Improvement District	District	5601193C	PO Box 33	Meeteetse	82433	868-2644
5/11/2011	Bridger Valley Joint Powers Board	Municipality	5600757C	5716 S. Hwy 410	Mountain View	82939	782-3130
5/25/2009	Buffalo	Municipality	5600005C	46 N. Main St	Buffalo	82834	684-0572
5/30/2013	Buffalo Valley Water District	District	5600435C	PO Box 321	Moran	83013	543-2555
9/23/2013	Burlington, Town of	Municipality	5601098C	101 West Poplar Ave.	Burlington	82411	272-0534
5/30/2013	Burns, Town of (formerly Burns BD. Of Public Utilities)	Municipality	5600188C	PO Box 66	Burns	82053	547-2206
8/16/2013	Byron, Town of	Municipality	5600008C	PO Box 5	Byron	82412	548-7490
6/14/2004	Cambria I&S	District	5601028C	PO Box 939	Newcastle	82701	746-8017
6/20/2013	Casper, City of	Municipality	Casper (WY5601415); Regional Water System (WY5600069)	200 N. David St.	Casper	82601	235-8213
9/16/1999	Cedar Hills Water Association	Company	5600780C	PO Box 2917	Gillette	82717	299-9911
5/7/2013	Centennial Water & Sewer District	District	5601232C	14 Fox Creek Rd.	Laramie	82070	742-5629

System Data

Wyoming Water Development Commission
2013 Water System Survey
Report #2: System Data

Name of Entity	Number of Wells	Number of Springs	Surface Water Source(s)	Type of Diversion(s)	Other Water Sources	Total System Capacity in Gallons per Day	Total Raw Water Storage (gal)	Total Treated Water Storage (gal)	Treatment Method(s)
Afton, Town of	2	2	None	Infiltration gallery, alluvial wells	NA	6,500,000	2,600,000	2,600,000	Disinfection/ Chlorination
Air Base Acres Improvement & Service District	29	NA	North Platte River	Conservtive System	Central WY Regional Water System	12,500	2,600,000	0	Casper treats water before we get it
Airport Beach Water and Sewer District (dissolved, now uscop with Town of Greybull)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alton, Town of	5	0	None	NA	None	280	0	125,000	Disinfection/ Chlorination
Alpine	3	0	NA	Alluvial Wells	NA	750,000	750,000	750,000	Disinfection/ Chlorination
Alta Community Pipeline	0	1	NA	Springs direct	NA	Unknown	0	0	NA
American Road Water & Sewer District	5	0	None	NA	None	27,000	NA	110,000	Chlorination
Antelope Valley Improvement & Service District	4 (75 non-transient)	0	None	None	None	626,000	0	700,000	Disinfection/ Chlorination
Aspens/Aspens II Water and Sewer District	4	0	NA	NA	NA	2,200 +	NA	NA	None
Avalon Mobile Manor	1	NA	NA	NA	Ogallala Aquifer	Unknown	14,000	NA	None
Baggs, Town of	0	0	1	Intake infiltration gallery	None	288,000	0	280,000	Conventional pretreatment, membrane ultra filtration, disinfection
Bairoil, Town of	1	1	NA	NA	Additional water supplied by Muni Oil	240,000	NA	160,000	Disinfection/ Chlorination
Basin, Town of	NA	NA	No		We are a consecutive system fed by South Big Horn Co JPB	1,152,000	100,000	1,000,000	SBHL JPB disinfects at well head & it's good enough for Basin & Manderson
Bear River Regional JPB (formerly North Uinta County I&S)	NA	NA	City of Evanston	NA	NA	1,250,000	NA	400,000	NA
Bedford Water & Sewer, District	1	1	None	None	None	1,000,000	540,000	None	Chlorination in place, if needed
Belle Fourche Pipeline	2	NA	None	NA	None	25,0000	16,000	16,000	None
Bennce Estates Improvement & Service District (added to survey in 2013)	1	0	NA	NA	NA	NA	NA	125,000	Chlorination

System Use

Wyoming Water Development Commission
2013 Water System Survey Report
Report #3: System Use

Name of Entity	Total Population Served	Number of Taps in Entity	Number of Taps Outside Entity	Total Annual Water Use by the System (gallons)	Peak Day Water Use for the System (gallons)	Whom do you sell water to?	What is the estimated loss to leakage (gpd)?
Afton, Town of	1,911	1,000	55	100,000,000/mo	6,500,000	NA	Unknown, not much we have a new system
Air Base Acres Improvement & Service District	200	75	6	2,555	NA	NA	582
Airport Beach Water and Sewer District (dissolved, now uscop with Town of Greybull)	NA	NA	NA	NA	NA	NA	NA
Alton, Town of	120	83	0	Unavailable	200,000 gal approx (summer), less than 100,000 gal (winter)	None	NA
Alpine	750	404	0	73,000,000	200,000	NA	5,000
Alta Community Pipeline	40	17	0	Unknown	Unknown	NA	Unknown
American Road Water & Sewer District	228	76	0	9,059,615	68,680	NA	Unknown
Antelope Valley Improvement & Service District	1671 (75 non-transient)	317	8	50,683,000	683,000 (has been higher in past, close to 700,000)	Crestview Subdivision	4,900 (75 non-transient)
Aspens/Aspens II Water and Sewer District	1,400	1,400	0	250,000,000	1,500,000	NA	50%
Avalon Mobile Manor	120	42	0	0	NA	NA	NA
Baggs, Town of	490	280	10	28,370,000	200,000	No	4620
Bairoil, Town of	130	60	0	9,000,000	100,000	NA	Slight
Basin, Town of	1,250	630		50,000,000	400,000	NA	1,000
Bear River Regional JPB (formerly North Uinta County I&S)	1,125	450	NA	18,000,000 - 19,000,000	55,000	NA	31
Bedford Water & Sewer, District	850-950 seasonal	386, permits available	None	200,000,000 approx	750,000 approx	NA	2% approx
Belle Fourche Pipeline	40	6	0			None	
Bennce Estates Improvement & Service District (added to survey in 2013)	135	45	0	5,056,700	28,155	NA	Unknown
Big Horn Regional JPB (added to survey in 2013)	14,500	8	6,427	344,205,000	651 gpm	Kirby, Lucerne, Wyo Bay School, City of Worland, South Big Horn, Greybull, Wahkie Rural and Basin	NA
Big Piney, Town of	498	255	NA	80,000,000	NA	NA	Unknown
Big Valley & Crossed Arrows Improvement District	67	27	0	610,800	3,600	NA	0
Bridger Valley Joint Powers Board	1,650	584	2	20,671,000	642,000	Mt. View & Lyman	0.1
Buffalo	4200		0	307,000,000	3,200,000	NA	Unknown
Buffalo Valley Water District	60	25	0	1,500,000	20,000	NA	Unknown
Burlington, Town of	288	140	7	18,000,000	500,000	NA	2000

Billing Rates

Wyoming Water Development Commission
2013 Water System Survey Report
Report #4: Billing Rates

Name of Entity	Does the entity bill by meter?	Average Monthly Water Bill	Residential Tap Fees	Residential Base Water Rate	Residential Gallons Included in the Base Water Rate	Rate for each 1,000 Gallons Above the Base Amount
Afton, Town of	Not Yet, Still at Flat Rate	$34.00	$4,000	$34.00	Unlimited	Flat Rate
Air Base Acres Improvement & Service District	Yes	$27.50	$1,500	$5.50	1,000	$5.50
Airport Beach Water and Sewer District (dissolved, now uscop with Town of Greybull)	NA	NA	NA	NA	NA	NA
Alton, Town of	No	$43.00	$600	$12.85	15,000	$0.00
Alpine	Yes	$33.00	NA	$33.00	12,000	$2.00
Alta Community Pipeline	No	NA	$200	NA	NA	NA
American Road Water & Sewer District	Yes	$44.83	$3,000	$40.00	18,000	$3.00/1,000 for 18,000-25,000; $3.50/1,000 for > 25,000
Antelope Valley Improvement & Service District	Yes	$58.00	$3,500 (AVI&SD);	$36.00 (AVI&SD); $2.40/1,000 (Crestview)	4,000 (AVI&SD); 2,000,000 (Crestview)	$2.00 (AVI&SD); $3.74 Pinnacle Heights (PH)
Aspens/Aspens II Water and Sewer District	Comm only.	$33.00	NA	NA	NA	NA
Avalon Mobile Manor	No	NA	NA	NA	NA	NA
Baggs, Town of	Yes	$38.00	$1,500	$28.00	0	$2.00
Bairoil, Town of	No	$24.77	$600	$24.77	0	NA
Basin, Town of	Yes	$35.00	$125	$1.12/1,000	0	$1.12
Bear River Regional JPB (formerly North Uinta County I&S)	Yes	$56.00	$3,000	$36.00	2,000	$3.25
Bedford Water & Sewer, District	Yes	$40.00	$5,000	$40.00	20,000/mo	$0.25/1,000 up to 40,000; $0.50 over 40,000
Belle Fourche Pipeline	No	$0.00		$0.00		NA
Bennce Estates Improvement & Service District (added to survey in 2013)	Yes	$130.00	NA	$130/mo (water & roads)	10,000	$1.50
Big Horn Regional JPB (added to survey in 2013)	Yes	$10.24/EDU	NA	NA	NA	$0.45
Big Piney, Town of	Yes	$36.00	$750	0-6000	$5.00/1,500	$0.67/1st 10,000, $0.72/11,000-25,000 (see backcopy)
Big Valley & Crossed Arrows Improvement District	No	$35.00	NA	NA	NA	NA
Bridger Valley Joint Powers Board	Yes	$38.00	$1,200	$17.00	0	$3.00
Buffalo	No	NA	NA	NA	NA	NA
Buffalo Valley Water District	No	$80.00	$5,971	$960/yr-dev; $690/yr-under;	Unlimited	NA
Burlington, Town of	Yes	$45.00	$1,000	$20.00	2,000	$2.50
Burns, Town of (formerly Burns BD. Of Public Utilities)	Yes	$22.00	$1,000	$22.00/ first 20,000	20,000; $0.50/1,000 after	$0.50
Byron, Town of	Yes			$9.00-$18.00/mo	$17.50/mo	3,000	$2.30

Fiscal Data

Wyoming Water Development Commission
2013 Water System Survey Report
Report #5: Fiscal Data

Name of Entity	Annual Budget for the System	Operation and Maintenance (annual)	Water Quality Testing Cost (annual)	Emergency/ Replacement Fund	Annual Sinking Fund Contribution	Revenues from Water Bills	Revenues from Tap Fees
Afton, Town of	$432,000	$421,000	$7,000	$750,000	$30,000	$400,000	$20,000
Air Base Acres Improvement & Service District	$38,950	$11,500	$1,000	$45,000	$0	$24,750	$0
Airport Beach Water and Sewer District (dissolved, now uscop with Town of Greybull)	NA	NA	NA	NA	NA	NA	NA
Alton, Town of	$9,720	$2,500	$2,500	NA	$5,000	NA	NA
Alpine	$219,000	$208,300	$1,500	$23,180	$44,000	$204,000	$15,000
Alta Community Pipeline	NA	$1,800	$542	NA	NA	NA	$1,400
American Road Water & Sewer District	$51,363	$35,755	$1,400 approx	$110,000	$1,500	$40,031	$0
Antelope Valley Improvement & Service District	$260,000 (Fiscal Yr 2012)	$255,391	$2,000 average	$315,000	Low, if any	$234,522	$0
Aspens/Aspens II Water and Sewer District	$30,000	$30,000	$2,000 average	NA	NA	NA	NA
Avalon Mobile Manor	$0	$0	$0	NA	$0	NA	NA
Baggs, Town of	$301,524	$44,000	$2,550	$37,000	$30,000	$184,392	$0
Bairoil, Town of	$15,600	$17,000	$1,000	$ 3,0/50	$0	$17,900	$0
Basin, Town of	$360,224	$13,500	$1,500	$64,000	$0	$294,205	$375
Bear River Regional JPB (formerly North Uinta County I&S)	$330,000	$98,100	$2,000	$10,000	$0	$317,000	$5,000
Bedford Water & Sewer, District	$200,000	$156,000	$3,500	$20,000	$20,000 approx	$180,000 +	$20,000 approx
Belle Fourche Pipeline	Unknown			NA	NA	NA	NA
Bennce Estates Improvement & Service District (added to survey in 2013)	$74,550	$36,052	$1,500 approx	$13,087	$6,030	(water + roads) $70,800 + $2,847 (water coverage); [TOTAL=$73, 647]	$0
Big Horn Regional JPB (added to survey in 2013)	$879,079	$207,000	$10,000	$160,000	$100,000	$789,747/yr	$0
Big Piney, Town of	$45,000	$32,000	$4,000	$35,000	NA	$81,000	NA
Big Valley & Crossed Arrows Improvement District	$1,244	$2,500	$1,200	$500	$0	$8,820	$0
Bridger Valley Joint Powers Board	$1,088,781	$245,400	$6,000	NA	$511,657	$840,000	$4,800
Buffalo	NA			NA	NA	NA	NA
Buffalo Valley Water District	$40,000	$3,000	$1,000	$20,000	NA	$26,000	NA
Burlington, Town of	$55,000	$47,000	$600	$0	$0	$51,500	$4,000
Burns, Town of (formerly Burns BD. Of Public Utilities)	$119,000	$25,000	$3,000	$86,890	$24,000	$44,000	$0 Tap fees only when development- no recent development
Byron, Town of	$100,000	$23,575	$1,626	$136,239	$0	$378,146	$23,868
Cambria I&S	$24,000	$6,693	$670	NA	$11,000	NA	NA

Wellhead/Conservation

Wyoming Water Development Commission
2013 Water System Survey Report
Report #6: Wellhead Protection/Conservation Measures

Name of Entity	Number of Wells	Max Depth of Wells (ft)	Is there a wellhead protection plan in place?	What types of water conservation measures are in place?	Estimated Water Savings from the Conservation Measures
Afton, Town of	2	300	Yes	Night time watering when necessary	Unknown
Air Base Acres Improvement & Service District	29	NA	Unknown	None	0
Airport Beach Water and Sewer District (dissolved, now uscop with Town of Greybull)	NA	NA	NA	NA	NA
Alton, Town of	5	240-440	Yes	No	NA
Alpine	3	280	Yes	We establish water restrictions in the other summer months by resolution along with the county	approx 1/4
Alta Community Pipeline	0	NA			
American Road Water & Sewer District	5	340, 340, 495, 495, 1762	Yes	Water meters	Unknown
Antelope Valley Improvement & Service District	4 (75 non-transient)	1,300 average	Yes	Reminders and articles in monthly newsletter	Unknown
Aspens/Aspens II Water and Sewer District	4	100	NA	None	NA
Avalon Mobile Manor	1	180	Yes	None	NA
Baggs, Town of	0	0	Source water protection plan	Tiered rate system	Not sure
Bairoil, Town of	1	600	Yes	Monitoring usage and waste	Unknown
Basin, Town of	NA	NA	NA	Replacing old fire hydrants, put in new 1,000,000 water 2 yrs ago (old one leaked badly)	5%-10%
Bear River Regional JPB (formerly North Uinta County I&S)	NA	NA	NA	Some people use their private wells for watering lawns	NA
Bedford Water & Sewer, District	1	320	Yes	Meters, irrigation ordinance, education	50%
Belle Fourche Pipeline	2	439	No	No	NA
Bennce Estates Improvement & Service District (added to survey in 2013)	1	2030	No	Water meters	Unknown
Big Horn Regional JPB (added to survey in 2013)	8	2,000-5,200	Yes	NA	NA
Big Piney, Town of	6	120-901	Yes	NA	NA
Big Valley & Crossed Arrows Improvement District	1	90	Yes	None	NA
Bridger Valley Joint Powers Board	0	NA	NA	NA	NA
Buffalo	0	NA	No	Odd vs even days of irrigation	
Buffalo Valley Water District	2	Max 140	Yes	Voluntary	Unknown
Burlington, Town of	2	40	Yes	Rate water for irrigation	10%
Burns, Town of (formerly Burns BD. Of Public Utilities)	4	200	No	None at this time, scheduled watering days when needed	NA
Byron, Town of	0	NA	No, we have no wells	No conservation measures in place at this time	NA
Cambria I&S	0		No	No	NA

http://wwdc.state.wy.us/surveys/surveys.html

2013 PWS Summary Results

- 215 Public Water Systems are listed in the WRDS database, 204 viable Systems
- ~69% of the surveys were returned (n = 143)
- 44 entities have not responded since 2009

	Total
Total population served	**524,437**
Number of taps in entity	**163,713**
Number of taps outside entity	**22,968**

2013 PWS Summary Results

	Total	Average
Number of Wells	565	3
Number of Springs	48	
Total annual water use by the system (gal)	56,770,530,648	344,063,822
Total annual water use by the system (a-f)	174,222.13	1,055.89
Peak day water use for the system (gal)	240,265,332	1,692,009
What % of the system is metered		78

2013 PWS Summary Results

	Average
Residential Tap Fees	$1,295
Residential Base Water Rate	$26
Commercial Tap Fees	$1,426
Commercial Base Water Rate	$32
Commercial, Gallons Included in the Base Water Rate	8,878

2013 PWS Summary Results

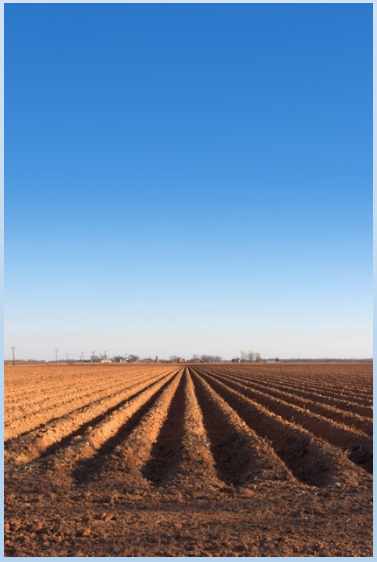
	Average
Average monthly water bill	$42
Rate for each 1,000 gallons above the base amount	$2.15
Household bill for using 10,000 gallons in a month	$42
Household bill for using 20,000 gallons in a month	$61

2013 PWS Summary Results

	Total	Average
Annual budget for the system	$251,196,712	$1,452,004
Operation and maintenance annually	$74,301,617	$444,920
Water quality testing cost annually	$1,147,868	$6,674
Emergency/replacement fund	$75,798,223	$557,340
Annual sinking fund contribution	$7,471,160	$61,239
Revenues from water bills	$103,401,520	$733,344

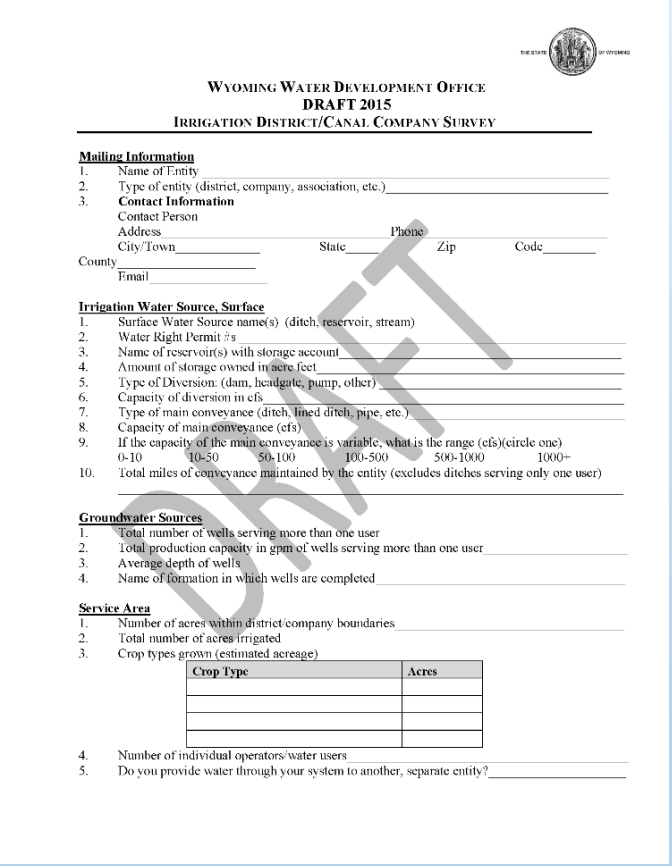
Irrigation Surveys

- Most recent Irrigation Survey completed in **2012**
- **127** Irrigation Districts and Canal Companies were sent surveys
- 65 responded (**51%**)
- Total Reported Irrigated Acres **688,057**



2015 Irrigation Survey

Will begin to send out survey in October of 2014



WYOMING WATER DEVELOPMENT OFFICE
DRAFT 2015
IRRIGATION DISTRICT/CANAL COMPANY SURVEY

Mailing Information

1. Name of Entity
2. Type of entity (district, company, association, etc.)
3. **Contact Information**
   Contact Person
   Address Phone
   City/Town State Zip Code
   County
   Email

Irrigation Water Source, Surface

1. Surface Water Source name(s) (ditch, reservoir, stream)
2. Water Right Permit #'s
3. Name of reservoir(s) with storage account
4. Amount of storage owned in acre feet
5. Type of Diversion: (dam, headgate, pump, other)
6. Capacity of diversion in cfs
7. Type of main conveyance (ditch, lined ditch, pipe, etc.)
8. Capacity of main conveyance (cfs)
9. If the capacity of the main conveyance is variable, what is the range (cfs)(circle one)
   0-10 10-50 50-100 100-500 500-1000 1000+
10. Total miles of conveyance maintained by the entity (excludes ditches serving only one user)

Groundwater Sources

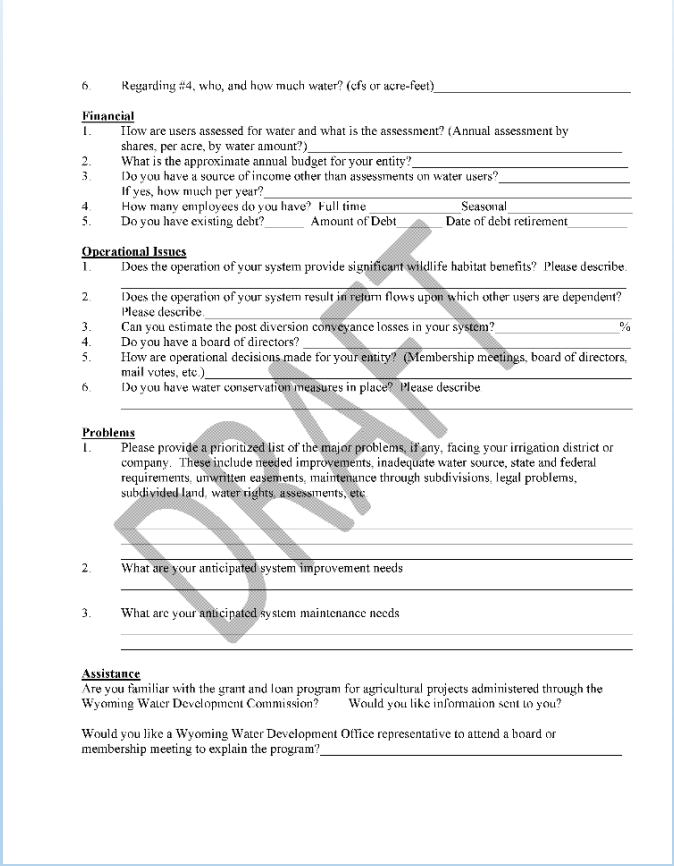
1. Total number of wells serving more than one user
2. Total production capacity in gpm of wells serving more than one user
3. Average depth of wells
4. Name of formation in which wells are completed

Service Area

1. Number of acres within district/company boundaries
2. Total number of acres irrigated
3. Crop types grown (estimated acreage)

Crop Type	Acres

4. Number of individual operators/water users
5. Do you provide water through your system to another, separate entity?



6. Regarding #4, who, and how much water? (cfs or acre-feet)

Financial

1. How are users assessed for water and what is the assessment? (Annual assessment by shares, per acre, by water amount?)
2. What is the approximate annual budget for your entity?
3. Do you have a source of income other than assessments on water users?
   If yes, how much per year?
4. How many employees do you have? Full time Seasonal
5. Do you have existing debt? Amount of Debt Date of debt retirement

Operational Issues

1. Does the operation of your system provide significant wildlife habitat benefits? Please describe.
2. Does the operation of your system result in return flows upon which other users are dependent? Please describe
3. Can you estimate the post diversion conveyance losses in your system? %
4. Do you have a board of directors?
5. How are operational decisions made for your entity? (Membership meetings, board of directors, mail votes, etc.)
6. Do you have water conservation measures in place? Please describe

Problems

1. Please provide a prioritized list of the major problems, if any, facing your irrigation district or company. These include needed improvements, inadequate water source, state and federal requirements, unwritten easements, maintenance through subdivisions, legal problems, subdivided land, water rights, assessments, etc
2. What are your anticipated system improvement needs
3. What are your anticipated system maintenance needs

Assistance

Are you familiar with the grant and loan program for agricultural projects administered through the Wyoming Water Development Commission? Would you like information sent to you?

Would you like a Wyoming Water Development Office representative to attend a board or membership meeting to explain the program?

WRDS

Water Resources Data System

Survey Questions?

Technical Survey Information

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WRDS
307-766-2741

General Survey Information

Jon Wade
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WWDO
307-777-7626

Thank You!