United States Department of Agriculture **Forest Service** **Manti-La Sal National Forest**

Moab/Monticello Ranger District
62 East 100 North
P.O. Box 386
Moab, UT 84532
Phone # (435) 259-7155
Fax # (435) 259-7737

File Code: 2210/2230
Date: May 16, 2013

Kenneth E. Bates
PO Box 165 or
3021 Spanish Valley Drive
Moab, UT 84532

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Dear Mr. Bates:

This letter will serve as your Annual Operating Instructions (AOI) for the Brumley Ridge C&H Allotment for the 2013 grazing season. This AOI is made part of your Term Grazing Permit consistent with Part 1, item 3 and Part 2, item 8(a). A failure to follow these instructions is a violation of your permit. The AOI complies with the standards and guidelines found in the Forest Plan. **Please read your instructions thoroughly.**

AUTHORIZED USE FOR 2013

Allotment	Numbers	Kind	Class	Season	Permittee	Non-use	
						Resource protection	Personal convenience
Brumley Ridge	270	Cattle	Cow/calf	06/06 to 10/19	Bates, Kenneth E.	30 c/c	

GRAZING SYSTEM AND SCHEDULE

Pasture	Number	Kind	Approximate Dates
Lower Brumley	270	Cattle	06/06 - 06/16
South Mesa	270	Cattle	06/13 - 07/07
Mill Creek	270	Cattle	07/08 - 08/02
Geyser Pass	270	Cattle	08/03 - 08/31
Upper Brumley (Gold Basin)	270	Cattle	09/01- 09/10
Upper Brumley (Boren Mesa)	270	Cattle	09/11- 09/25
Upper Brumley (Brumley Ridge)	270	Cattle	09/26 - 10/11
Lower Brumley	270	Cattle	10/12 - 10/19 (Trail off)

* As discussed during the AOI and previous meetings, the Upper Brumley pasture is large and somewhat naturally divides into about three main areas: Gold Basin, Boren Mesa and Brumley Ridge. The majority of the herd will move to each area as approximated in the above schedule. However, because there are no fences separating each area, it is expected that some animals may wander from the main herd and be grazing in a different area of the pasture than what is indicated in the schedule above.

Permitted pack and saddle stock authorized on the allotment for livestock management will not exceed four head.

Management Response to Drought Conditions

You are planning to take non-use for 30 c/c pair due to current below normal snow pack, precipitation and soil moisture conditions and because current forecasts are predicting a continuation of drought conditions into this summer (*see enclosed documents concerning current conditions and forecasts)*. In addition to a lowered stocking rate, you have a full-time rider which keeps cattle dispersed so avoid overuse of some pasture areas. Management may need to be adjusted depending upon actual conditions on the ground. Livestock may need to be removed from the allotment earlier than planned if drought conditions worsen.

Your allotment should be inspected for range readiness to determine forage growth and fence and water improvement conditions. **The pasture move dates shown above are an estimate, and may change on the basis of actual range conditions.** Situations may develop during the grazing season which requires changes to these instructions. If this becomes necessary, or if you cannot comply with some part of these instructions, contact the District Ranger and obtain approval before initiating changes or deviating from these instructions.

PROPER GRAZING-USE INDICATORS

Utilization standards are tools used in achieving or moving towards desired rangeland conditions. Utilization standards are not the desired conditions or management objectives themselves, they are indicators. Desired conditions and objectives are discussed in the 1986 Forest Plan and/or the Brumley Allotment Management Plan.

The proper use criteria listed in the box below are within the ranges identified in the 1990 Forest Plan amendment. However, these more specific criteria have been established through the completion of the Brumley Allotment EA in 2011, in order to provide effective ground cover and to ensure plant recovery from grazing on the Brumley allotment.

Maximum Forage Utilization
Based on the Average Current Year's Growth
(includes use by livestock and wildlife)

Uplands

Management System	**Percent Use of Key Species***		
	June pastures	**July-Aug pastures**	**Sept-Oct pastures**
Deferred Rotation	40	40-50	50
Rest Rotation	40	40-50	50

Note: Management systems that may be used on the allotment include but are not limited to those listed above.

Browse Utilization on Key Woody Shrubs: Riparian and Upland (non-Aspen)

Browsing hits on new leaders of key riparian (willow) and upland woody shrubs should not exceed 45%.

Browse Utilization on Aspen Suckering

Midseason browse should be avoided over consecutive years. Intensity of terminal leader browse should be minimized during mid- and late season. Repeat browsing of suckers within a growing season should be avoided.

Forage Utilization on Key Species*: Riparian, Greenline, and Wetland**

Vegetation Type	Percent Utilization by Season Used –measured in general riparian area.			Stubble Height- measured on the Greenline	Comments
	June	July/Aug	Sept/Oct		
Greenline/Riparian Hydric Species	≤ 45	≤ 45	≤ 40	4-5”	Utilization % at the time livestock are in the pasture, stubble height, vegetation remaining at end of the growing season.
Hydric species in wetlands** not influenced by streams	≤ 45	≤ 45	≤ 40	4-5”	Utilization % at the time livestock are in the pasture, stubble height, vegetation remaining at end of the growing season.
Non-hydric species in riparian areas	≤ 45	≤ 45	≤ 40	2-3”	Utilization % at the time livestock are in the pasture, stubble height, vegetation remaining at end of the growing season.

** The key species selected will depend upon the plant species in the present plant community, the present ecological status, and the potential natural communities for the specific sites monitored.*
***Typically perennially wetlands are not grazed, this refers to seasonal wetlands.*

Soil Disturbance

Riparian, Wetlands, Springs and Seeps

Stream bank alteration – *Current year stream bank alteration due to shearing, trampling and trailing – no more than an average of 30% of the **reach area monitored.

Wetland, spring or seep soils – No more than an average of 30% of the wetland, spring or seep area will be disturbed by *current year trampling or trailing.

**Current-year alteration is discernible from previous years’ alteration because of weathering effects of freeze/thaw cycles, rain events, and erosion by stream flow or vegetative regrowth.*
***A stream reach is the length of the stream selected for monitoring. A suitable size is usually no less than 100m long and ideally it should have a variety of flows.*

Upland Soils –

Slopes 0-25% - No more than 30% soil disturbance***
Slopes 26-40% - No more than 20% soil disturbance
Slopes over 40% - No more than 10% soil disturbance
– Generally slopes over 40% are too steep for cattle and do not get used.
****This is current year disturbance attributed to cattle use within the key area monitored. Soil disturbance includes both subsurface and surface soil alteration which adversely impacts soil health, function and productivity*

There is a difference between where percentage utilized is applied and where stubble height is applied to determine proper use in riparian areas. Percent utilized is used for plant species that are within the larger riparian area (the area that is influenced by the stream and the water table) but not along the greenline. The greenline is the first perennial vegetation on or near the stream's edge that is at least one foot wide. Stubble height measurements are used to determine proper use along the greenline. The plant species considered are typically water loving species (hydric species) such as sedges.

It is your responsibility as the permittee to recognize when proper use has been reached and promptly move all cattle as necessary. If you need some assistance, or methods and tools for determining proper use, please contact Tina Marian.

When proper use has been reached in the unit being grazed, your cattle are to be herded to the next scheduled unit. **When proper use is reached in the last unit grazed, all cattle are to be removed from the allotment, <u>even if this date is prior to the end of your grazing season.</u>** Cattle found on the Allotment before or after the permitted grazing season will be billed at the unauthorized use rate and permit non-compliance actions will be initiated.

You should be aware that Forest Service policy provides that "an authorized officer may require the permittee to monitor and report information on compliance with the grazing permit, allotment management plan and annual operation instructions as a term and condition of your permit."

To facilitate livestock moves, gates may be opened a few days prior to the scheduled move date only when moving into an adjacent pasture. Gates must be closed and the grazed pasture entirely cleaned of livestock no later than five days following the scheduled move date. Grazed pastures must be kept clean of livestock following the pasture move.

<u>IMPROVEMENTS</u>

Thank you for completing and sending in photos of your 2012 fence improvement agreements.

Work was begun on expanding the exclosures on North Boren Spring but the FS was not able to get the materials to the site to finish it. The CCYC worked on it for about a week and installed all the posts, the fence needs additional rails in some areas to complete it. The "Old Pole Fence Spring" just off the Geyser Pass Rd was not begun but materials should be available for it this year.

FENCE AGREEMENT: For 2013, the Boren Mesa fence will be the agreed upon fence to inspect and make sure it is to permit standards as shown on the attached map.

SPRING AGREEMENT: For 2013, the South Mesa Spring/Seep area will be developed with an exclosure built and troughs installed as approximately shown on the map included. Grand Canyon Trust has agreed to help with the labor in developing the spring, but won't be available till the fall. You would like to start earlier and the FS will provide materials to begin working on the project. In order to extend the pipeline across BLM you must receive authorization from that agency.

You have requested and have been authorized to erect panels to create a temporary corral near the Geyser Pass/Upper Brumley fenceline in order to medicate your calves.

When you complete your fence and spring agreements you must fill out and sign the Improvement Agreement Form (pink) that is found in your folder. I suggest that you provide photographs of before and after conditions to assist in documenting compliance with maintenance requirements. I also encourage you to contact Tina when you complete your maintenance so she can schedule a timely inspection.

If you fail to bring the above agreed improvements up to standard by **Oct 19th, 2013** you will not be allowed to stock the allotment in 2014 until the agreement is fulfilled.

Range improvements are essential in ensuring that livestock are well distributed and that Forest standards and guides are met.

- Improvements are to be maintained to standard prior to livestock entering the pasture and that failure to do so is a violation of their permit and action will be taken when violations are documented.
- If improvements have not been maintained, then develop a schedule to bring them up to standard.
- Until all improvements are functional it is not appropriate to authorize full numbers or season of use, unless assurances can be made that utilization standards will not be exceeded.

The maintenance of all structural improvements listed under part 3 of your Term Grazing Permit, Special Terms and Conditions: *Construction and Maintenance of Structural Improvements* is a requirement and should be completed prior to your entry into each pasture. The allotment permittee or permittees are responsible for the maintenance of all structural range improvements on this allotment. For allotments managed by an Association or Herd Manager specific maintenance responsibilities may be assigned to individual permittees by the Association President or Herd Manager.

If you wish to use forest products (trees and oak brush) from the National Forest to maintain your fences/spring exclosures on your allotment, you must receive authorization from either the Moab or Monticello Office prior to cutting.

NEPA and PLANNED PROJECTS

As discussed during the AOI meeting, an Environmental Assessment was completed for the Brumley Ridge Allotment in 2011. An Allotment Management Plan (AMP) is currently being developed to implement the decision that was made. The AMP shall become a part of Part 3 of the Term Grazing Permit. A monitoring plan is part of the AMP and a map which shows current key areas on the Brumley Allotment that are to be monitored is attached.

There are several bike races that will occur during the grazing season within the Brumley Ridge Allotment. Please let us know if there are any substantial impacts to your management as a result of these races.

MISCELLANEOUS

Refer to Special Terms and Conditions in Part 3 of Term Grazing Permit for specific instructions pertaining to maintenance standards for range stock water developments, range fences, corrals, and herding standards.

All permitted livestock must be branded with your registered brand as documented in your Term Permit before they enter the National Forest.

Place salt blocks away from water, roads, meadows and other open areas so as to draw livestock into areas that receive light utilization. When livestock leave a pasture move the salt out of the pasture as well.

You will furnish sufficient riders or herders to achieve proper distribution of livestock. For the Brumley allotment the standard is that a full-time rider will be provided.

Certified Weed Free Hay must be used if you do any supplemental feeding of horses on the allotment while gathering or moving cattle.

If you find the need to use mechanical clearing (tractors, bulldozers etc.) of fence lines or to clean ponds or other water improvements, you must have proper archeological clearance and permission from the District Ranger.

Enclosed in your AOI folder you will find an Actual Use Record sheet. As your 2013 grazing season progresses, please fill out this form in detail and return it promptly at the end of the grazing season. There are also extra sheets included in the folder where you are encouraged to document management on your allotment.

PAYMENT OF FEES

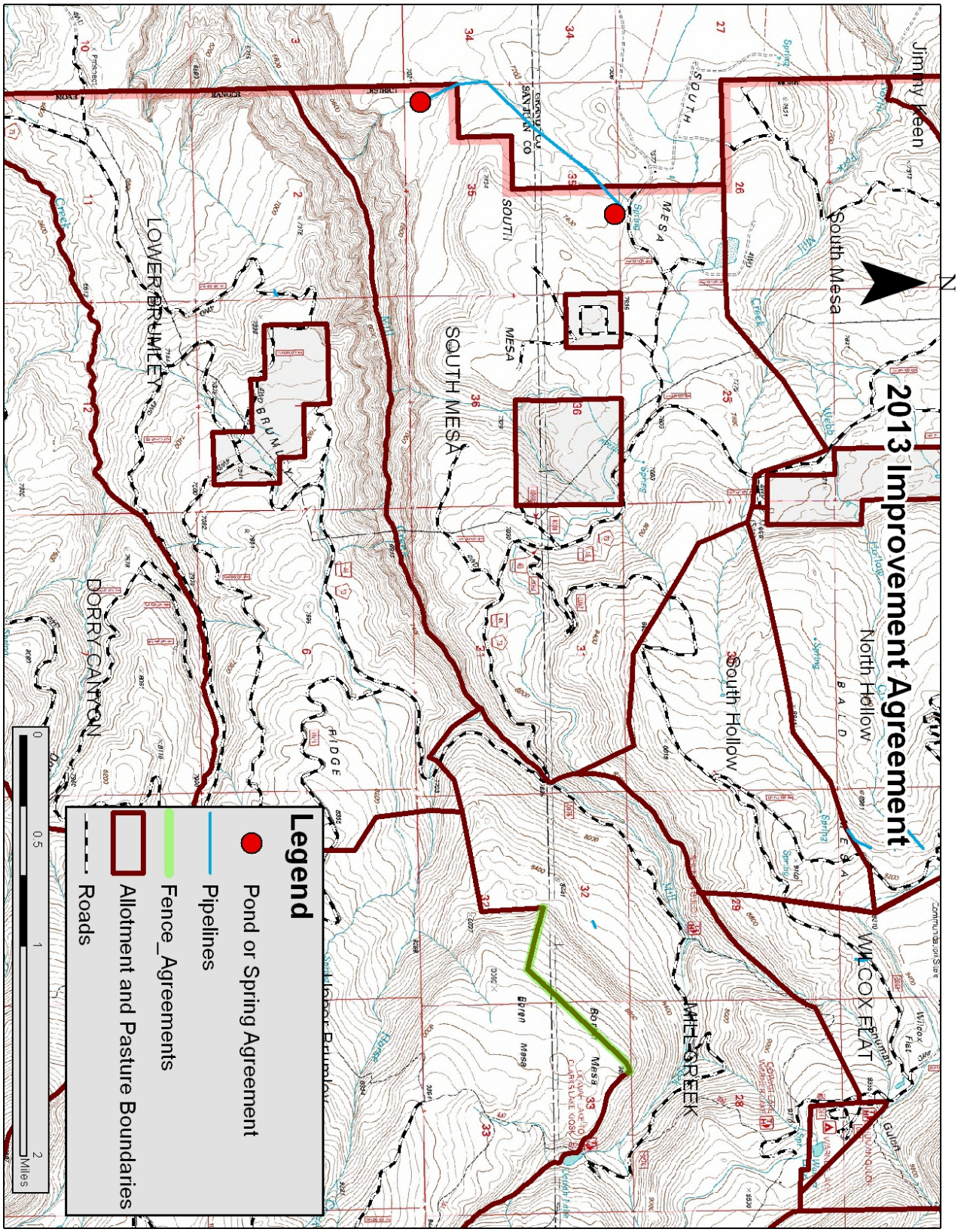
The permittee will not allow owned or controlled livestock to be on Forest Service-administered lands unless the fees specified in the Bill for Collection are paid and confirmation of payment through the "lock box" process is received prior to livestock entering NFS lands.

I am looking forward to working with you this summer. Please call Tina Marian (435-636-3368) if you have any questions or if we can be of assistance.

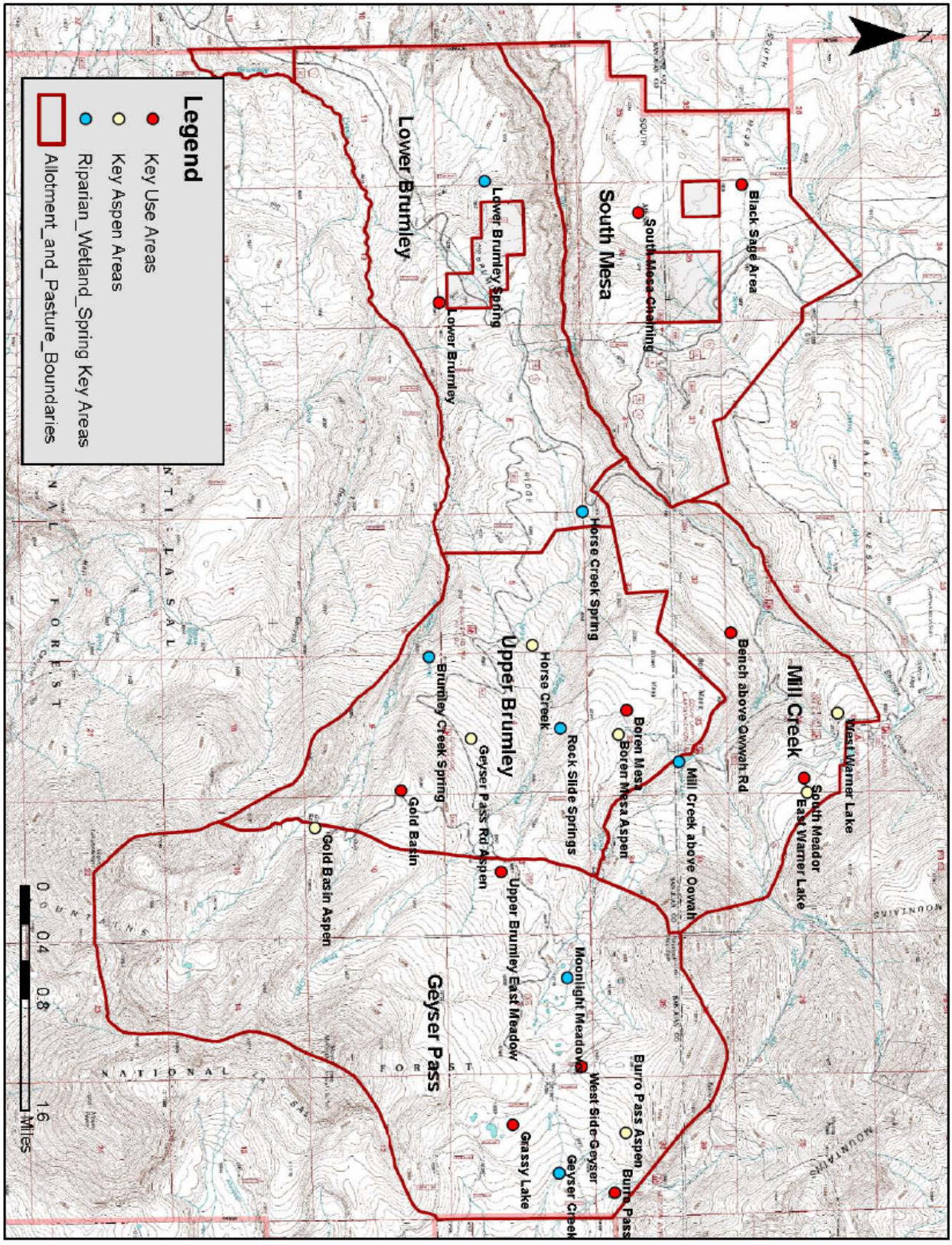
Sincerely,

Tina Marian

for MICHAEL DIEM
District Ranger

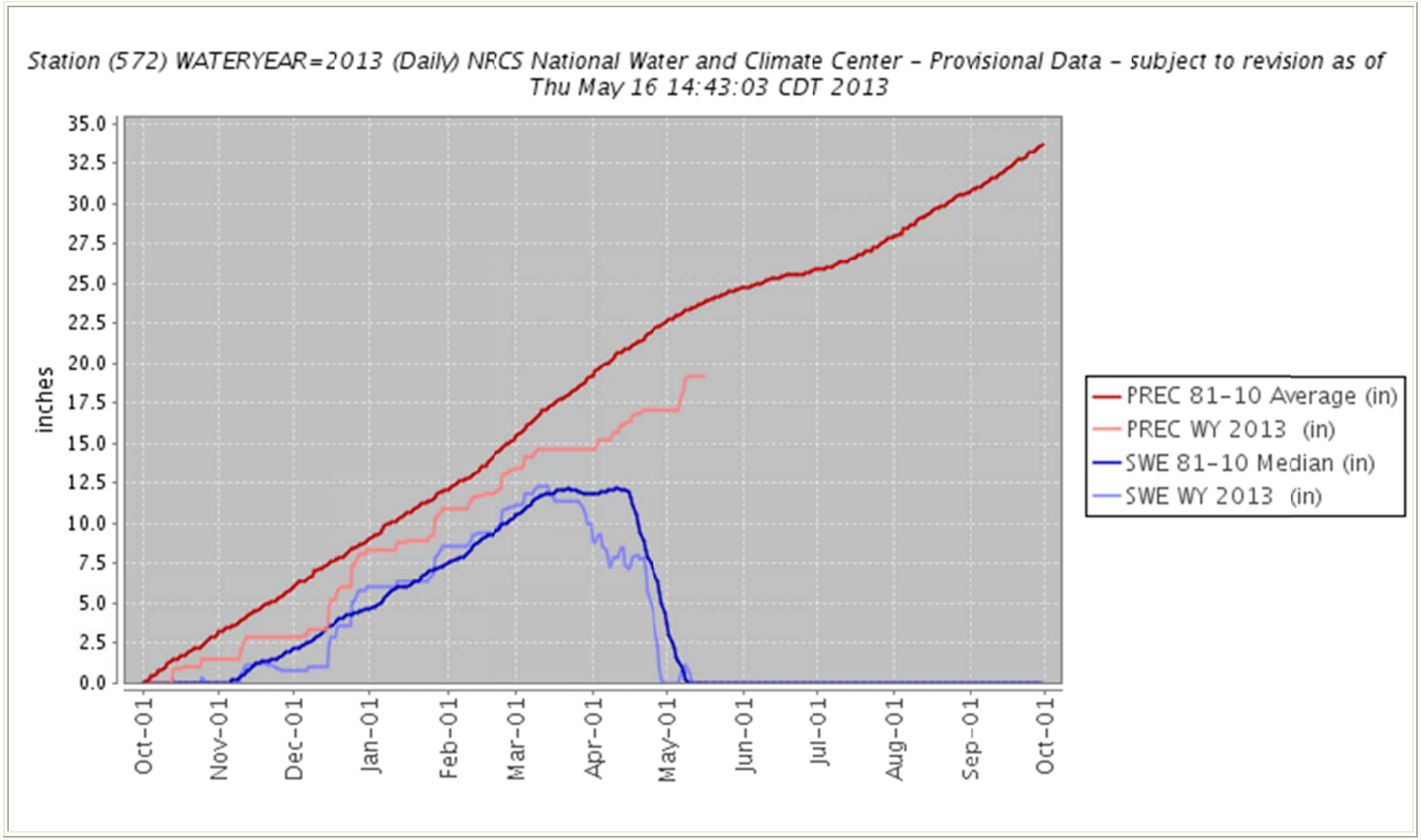

2013 Improvement Agreement
N
South Mesa
North Hollow
South Hollow
WILCOX FLAT
WHITE CREEK
SOUTH MESA
LOWER BRUMLEY
DORRY CANYON
Legend
Pond or Spring Agreement
Pipelines
Fence_Agreements
Allotment and Pasture Boundaries
Roads
0
0.5
1
2
Miles

Key Monitoring Locations for the Brumley Ridge Allotment



Utah (PST) SNOTEL Site LASAL MOUNTAIN (572) (09L03S) Daily series for wateryear=2013

NRCS National Water and Climate Center - Provisional Data - subject to revision as of 2013-May-16. Notes on dates - Daily sensors (e.g. TAVG.D-1) report a summary value for the previous day. Hourly sensors (e.g. TAVG.H-1) report a summary value for the previous hour. Instantaneous sensors (e.g. TOBS.I-1) report a single observation on the hour.



Below average precipitation in 2013

Utah Climate and Water Report

May 2013

Western Uintah Mountains; April 2013.
Photo by Kent Sutcliffe

Utah Climate and Water Report

The purpose of the Climate and Water Report is to provide a snapshot of current and immediate past climatic conditions and other information useful to agricultural and water user interests in Utah. The report utilizes data from several sources that represent specific parameters (streamflow data from the United States Geological Survey, reservoir data from the Bureau of Reclamation, and other sources), geography including high elevation United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Snowpack Telemetry (SNOTEL) data, and agriculturally important data from the USDA-NRCS Soil Climate Analysis Network (SCAN). Data on precipitation, soil moisture, soil temperature, reservoir storage, and streamflow are analyzed and presented. These data analyses can be used to increase irrigation efficiency and agricultural production. As with all data and analyses, there are limitations due to data quality, quantity, and spatial application.

Report Content

1) Climate and Water Information – Soil Climate Analysis Network

a) Utah SCAN Water Year Precipitation
b) North Central
c) Northern Mountains
d) Uintah Basin
e) Southeast
f) South Central
g) Western and Dixie
h) 2010 Minimum Soil Temperatures at Utah SCAN sites

2) General Hydrological Conditions

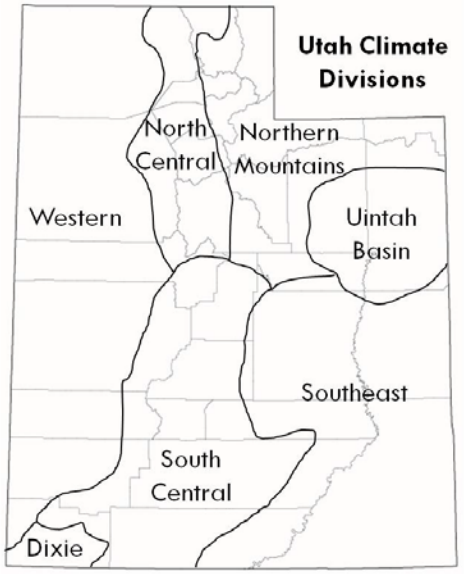
a) SNOTEL Current Snow Water Equivalent (SWE) % of Normal
b) SNOTEL Water Year to Date Precipitation
c) Bear River Basin
   - Water Availability Index
d) Weber and Ogden River Basins
   - Water Availability Index
e) Utah Lake, Jordan River, and Tooele Valley Basins
   - Water Availability Index
f) Uintah Basin
   - Water Availability Index
g) Southeast River Basins
   - Water Availability Index
h) Sevier and Beaver River Basins
   - Water Availability Index
i) E. Garfield, Kane, Washington, and Iron Co.
   - Water Availability Index

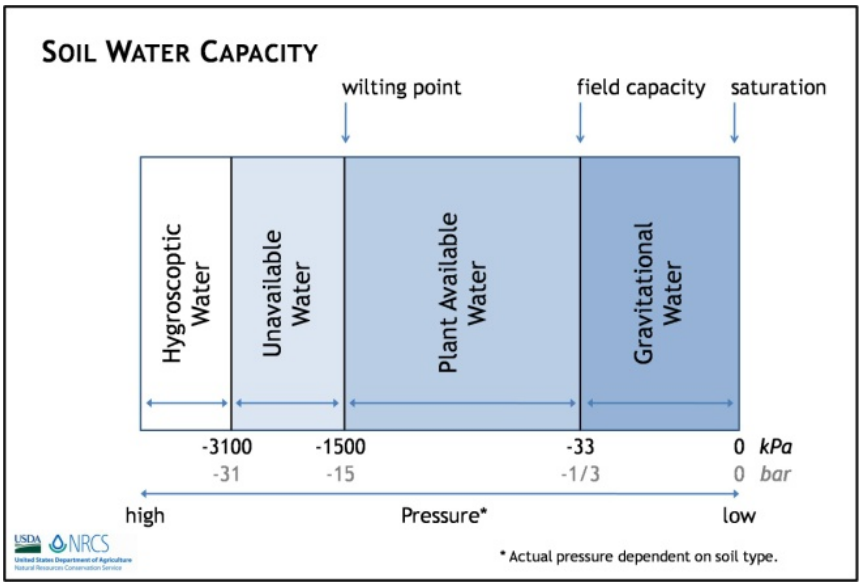
Climate and Water Information

Soil Climate Analysis Network

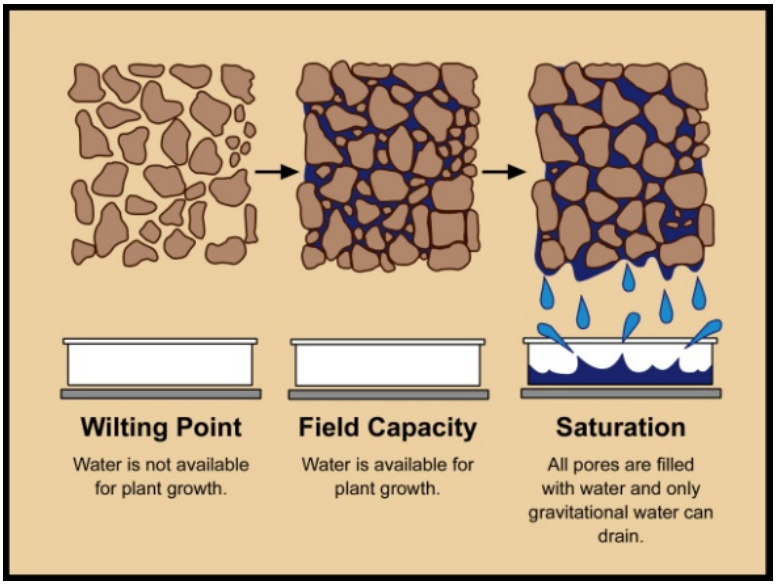
Soil Climate Analysis Network (SCAN) stations are primarily located on low- to mid-elevation, agriculturally important landscapes that maintain representative soils. Elevations range from 3,000 to 7,000 ft. The SCAN network provides real-time soil moisture and temperature data coupled with additional climate information for use in natural resource planning, drought assessment, water resource management, and resource inventory. Stations are situated on non-irrigated, native soils, are remotely located, and collect hourly atmospheric and soils data that are available to the public online.

In order to summarize SCAN data, the 35 sites in Utah are grouped by climate divisions (North Central, Northern Mountains, Uintah Basin, Southeast, South Central, Dixie, and Western).





Explanation of soil water capacity definitions. Field capacity (FC) and wilting point (WP) are calculated in the laboratory for each soil horizon. The amount of water held between field capacity and wilting point is plant available.

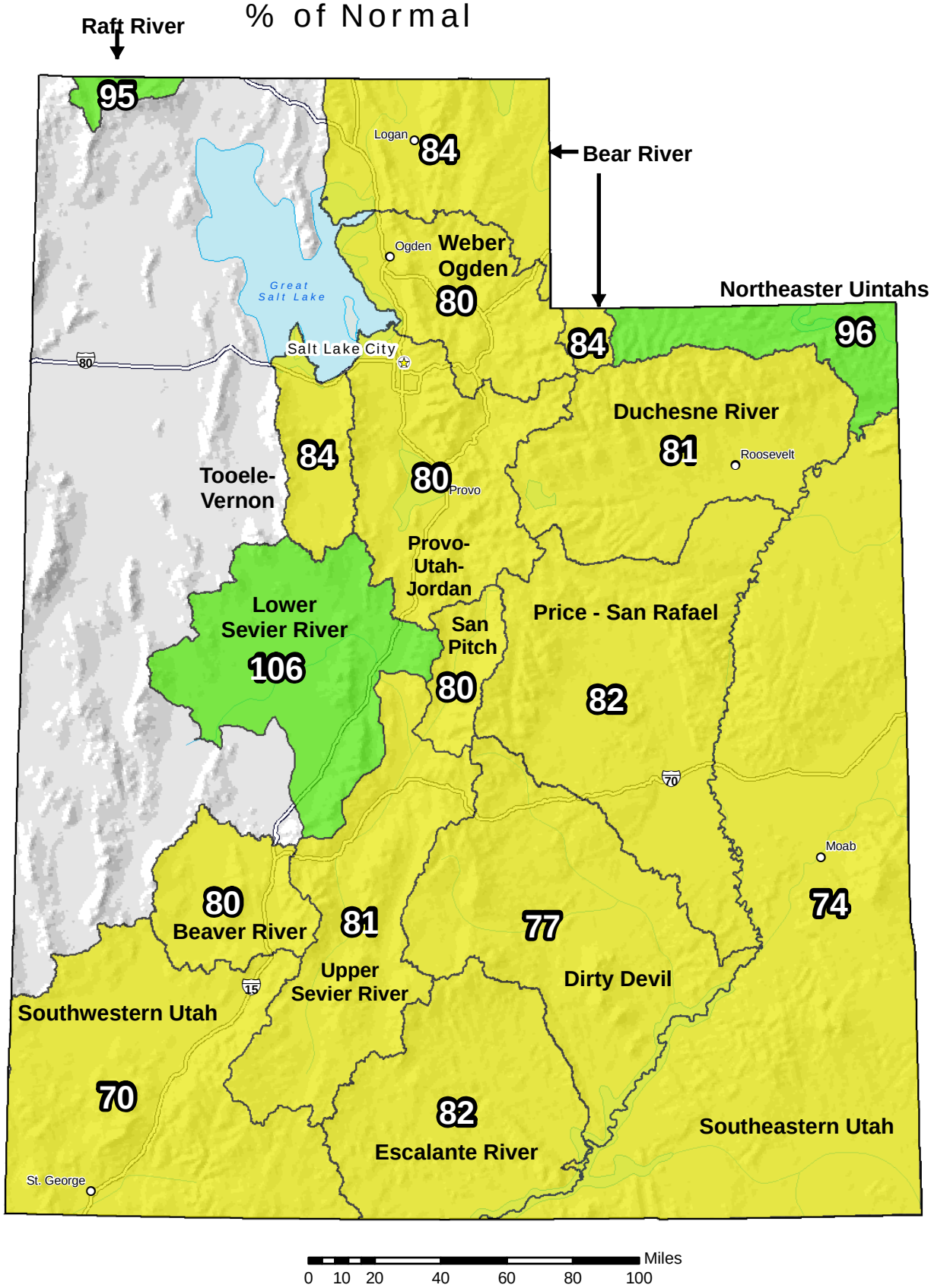


Visual explanation of soil water capacity definitions.

http://www.wcc.nrcs.usda.gov/scan/Utah/utah.html

Utah
SNOTEL Water Year (Oct 1) to Date Precipitation
% of Normal

May 01, 2013



Water Year (Oct 1) to Date Precipitation Basin-wide Percent of 1981-2010 Average

- unavailable *
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >=150%

* *Data unavailable at time of posting or measurement is not representative at this time of year*

Provisional Data Subject to Revision

USDA NRCS

The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon http://www.wcc.nrcs.usda.gov/gis/
Based on data from http://www.wcc.nrcs.usda.gov/reports/
Science contact: Jim.Marron@por.usda.gov 503 414 3047

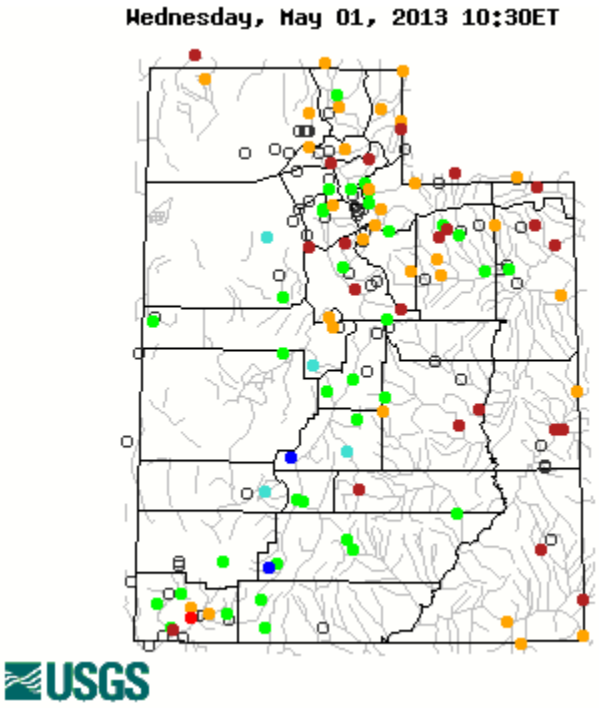
Utah Hydrologic Summary

May 1, 2013

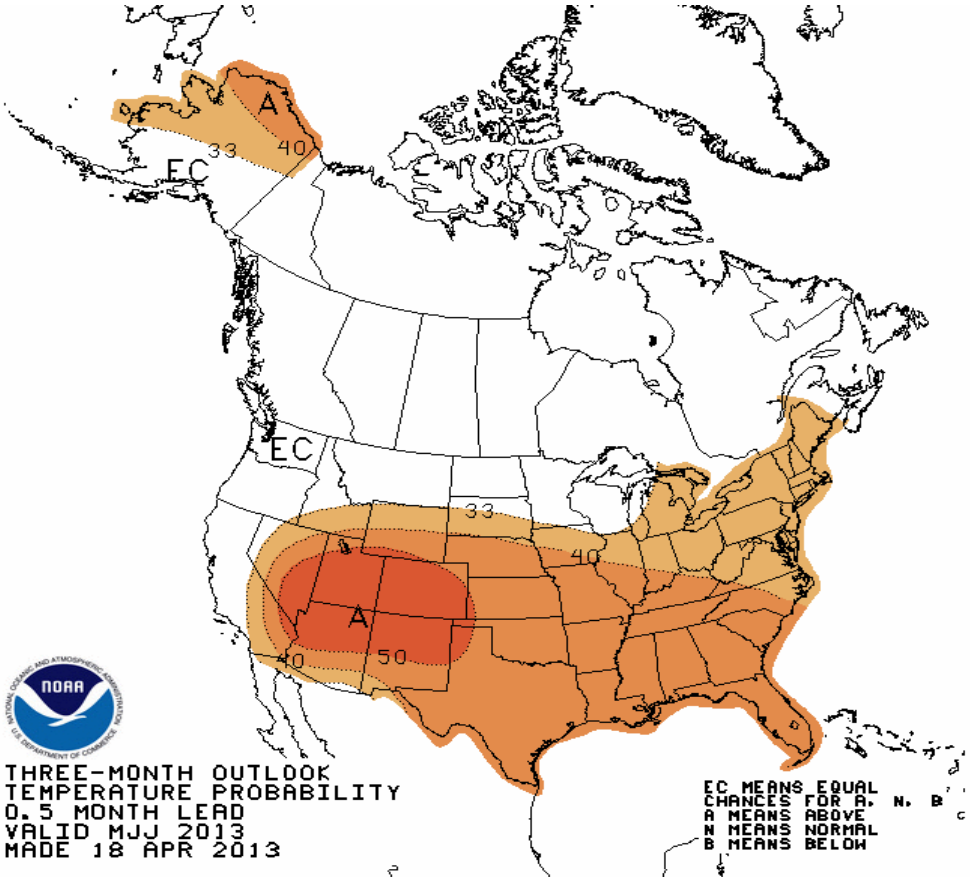
Current Conditions

Current runoff, as shown in the USGS graphic below, is mostly below to much below average across many areas of Utah. Snow packs over much of southern Utah are close to melt out with the exception of the Beaver and upper Sevier. In southeast Utah, peak flows and in some cases, the majority of this season's stream flows are already past and stream flow will continue to decline. Peak flows in the remainder of the state will likely occur in May with rapid declines thereafter. There simply isn't sufficient snowpack to sustain high flows this year and long term base flow conditions will likely be much lower as well. Much of this year's snowmelt has gone to recharge soil moisture which is currently average in the north and much dryer and drying quickly in the south. The southeast is very dry and is reflected in the observed streamflows. April precipitation was fantastic in the north (150%-200%) and below normal in the south (25%-75%). Reservoir storage is nearly 20% less than last year, near 73% of capacity across the state. Southeast Utah is very low at 49% of reservoir capacity. Having melted the greater part of snowpack in southeastern Utah, observed runoff response has been very weak. Expect this trend to continue for many areas of the state: low volumes and low peak flows. Poor runoff conditions will and already have had impacts on agriculture across the state with water allocation cuts. The National Climate Prediction Center forecasts for the area suggest warmer and drier conditions for the next 3 months. Based on all available water supply data, (reservoir storage, runoff predictions, climate forecasts, etc) agriculture producers will have to determine how much and what type of crops to plant in order to minimize risk and maximize production in what is becoming a very challenging year.

Current Utah Streamflow - Courtesy US Geological Survey

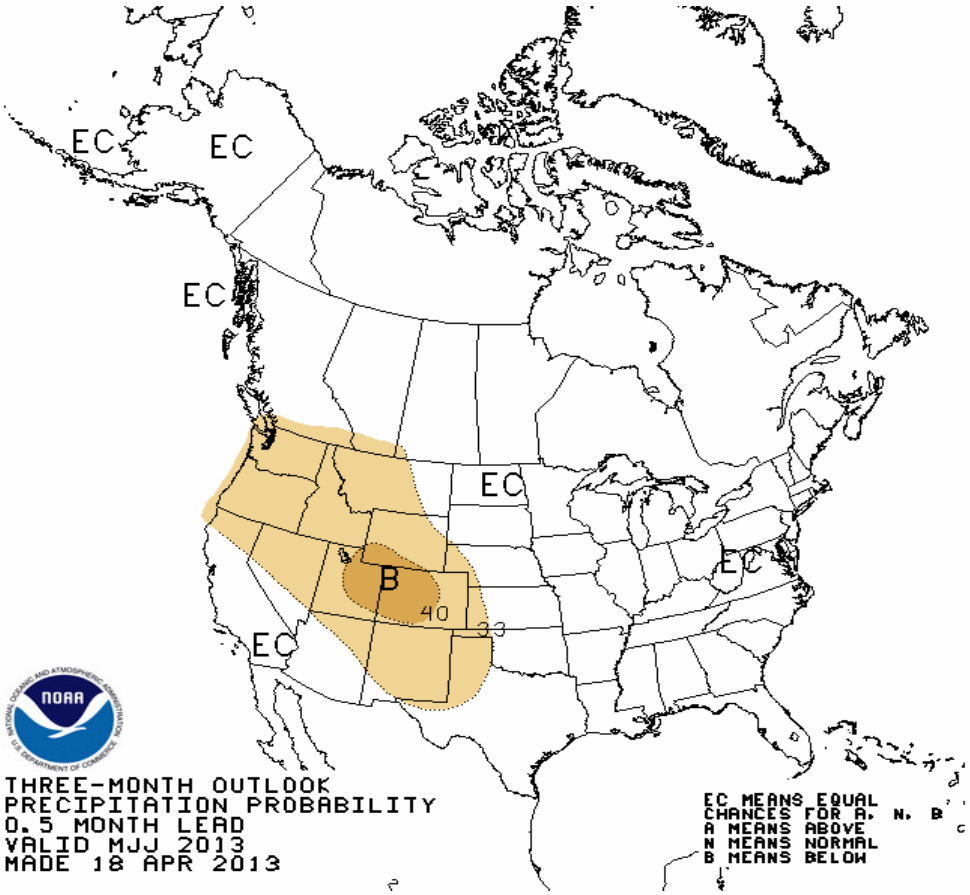


Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked



THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID MJJ 2013
MADE 18 APR 2013

EC MEANS EQUAL CHANCES FOR A. N. B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW



THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID MJJ 2013
MADE 18 APR 2013

EC MEANS EQUAL CHANCES FOR A. N. B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

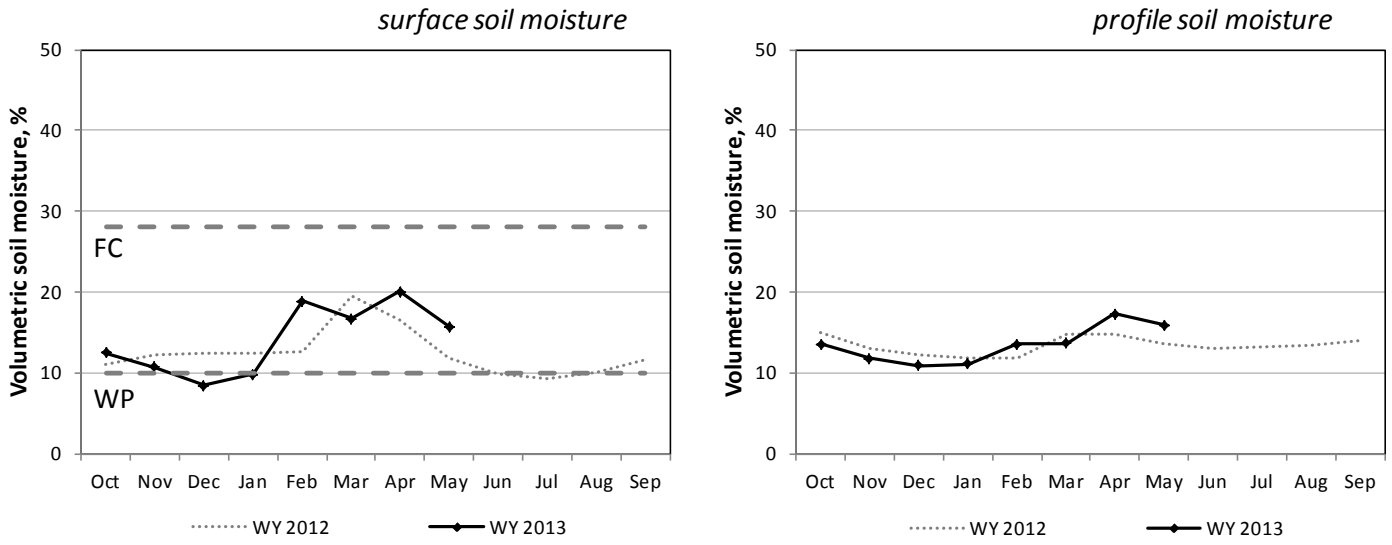
Southeast

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	in.	*in.*	*volume %*					*^{o} F*				
SOUTHEAST												
Price	4.3	1.3	2	20	26	15	18	55	59	60	55	51
Green River	1.9	0.4	7	12	13	5	8	66	67	68	62	56
Harm's Way	3.1	0.6	12	0	20	24	11	59	57	58	53	49
West Summit	2.6	0.4	11	18	22	24	16	56	58	57	51	47
Eastland	3.0	0.1	17	19	22	33	34	55	56	56	51	48
Alkali Mesa	4.2	0.1	9	9	18	20	13	60	60	60	55	50
McCracken Mesa	4.7	0.2	9	24	24	24	12	62	64	64	58	55

* Precipitation since October 1 (beginning of the water year). Monthly Precip is the amount of precipitation accumulated in the past month. SCAN sites utilize tipping bucket rain gauges which do not accurately measure precipitation in the form of snowfall. Soil moisture and temperature values reflect conditions measured on the first of the month.

Southeast



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. **FC** is the mean field capacity, **WP** is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and **WY** is the water year lasting October through September. *Profile soil moisture* is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

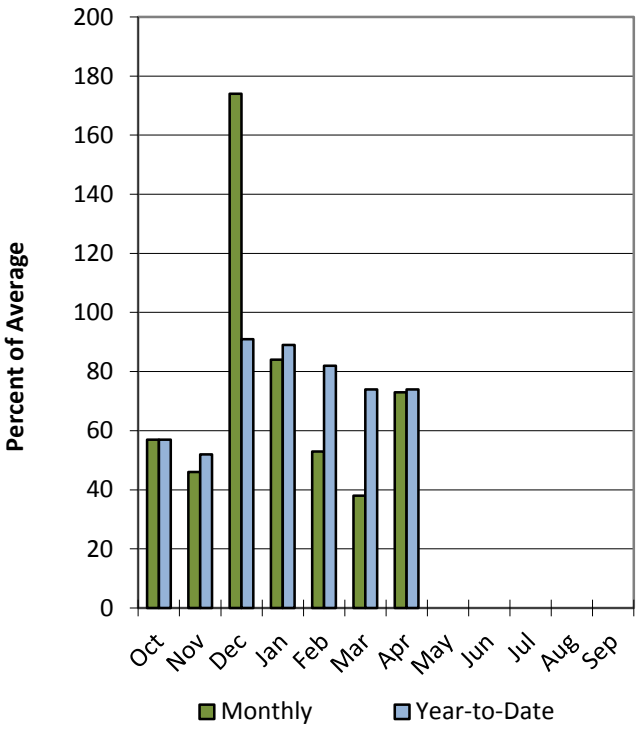
http://www.wcc.nrcs.usda.gov/scan/Utah/utah.html

Southeastern Utah Basin

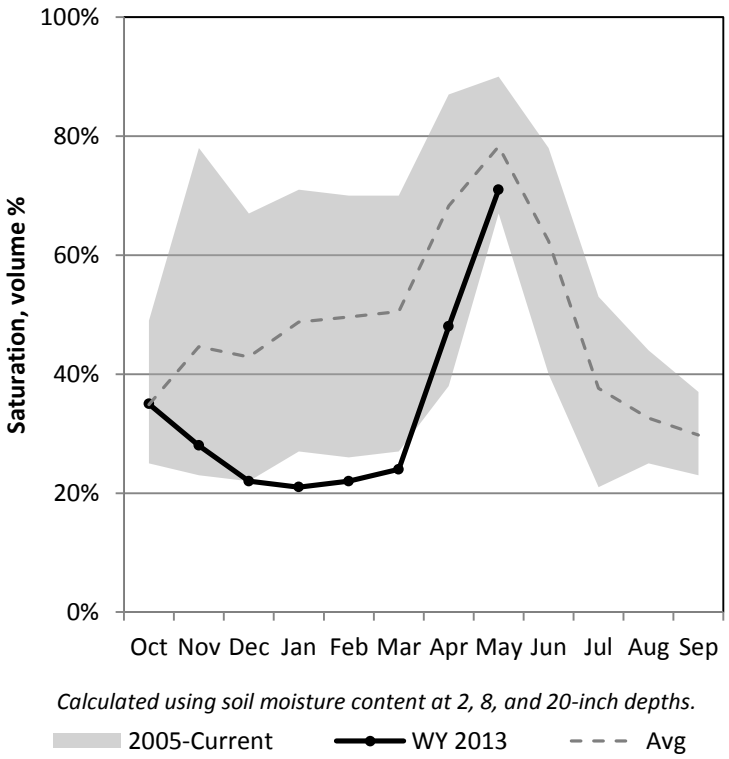
5/1/2013

Precipitation in April was below average at 73%, which brings the seasonal accumulation (Oct-Apr) to 74% of average. Soil moisture is at 71% compared to 72% last year. Reservoir storage is at 20% of capacity, compared to 65% last year. The water availibility index for Moab is 4%.

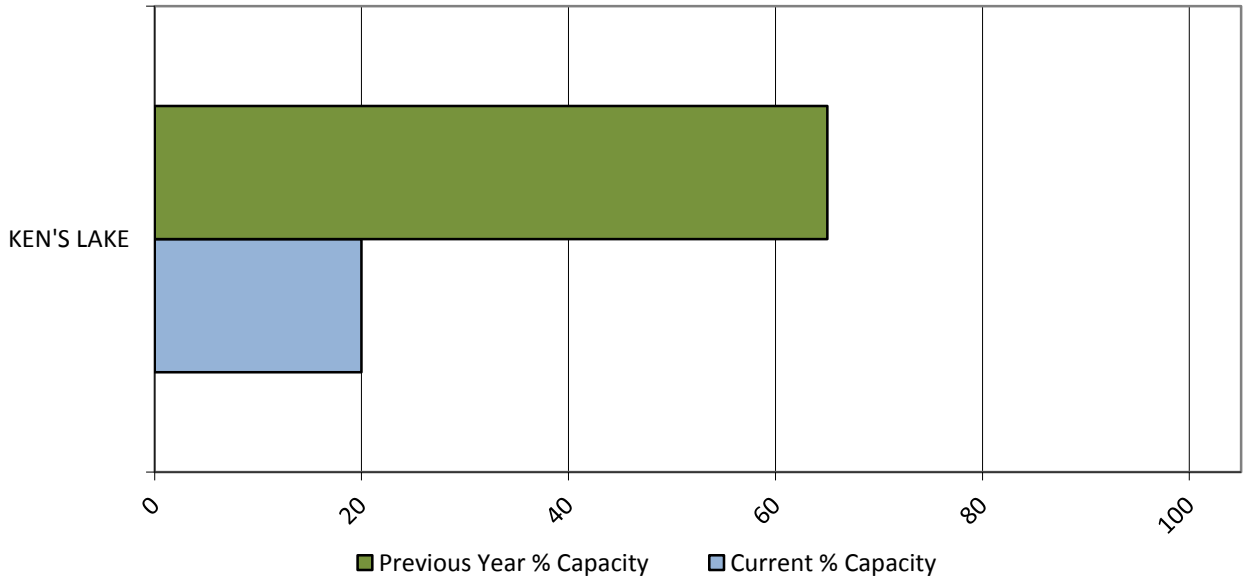
Precipitation



Soil Moisture



Reservoir Storage



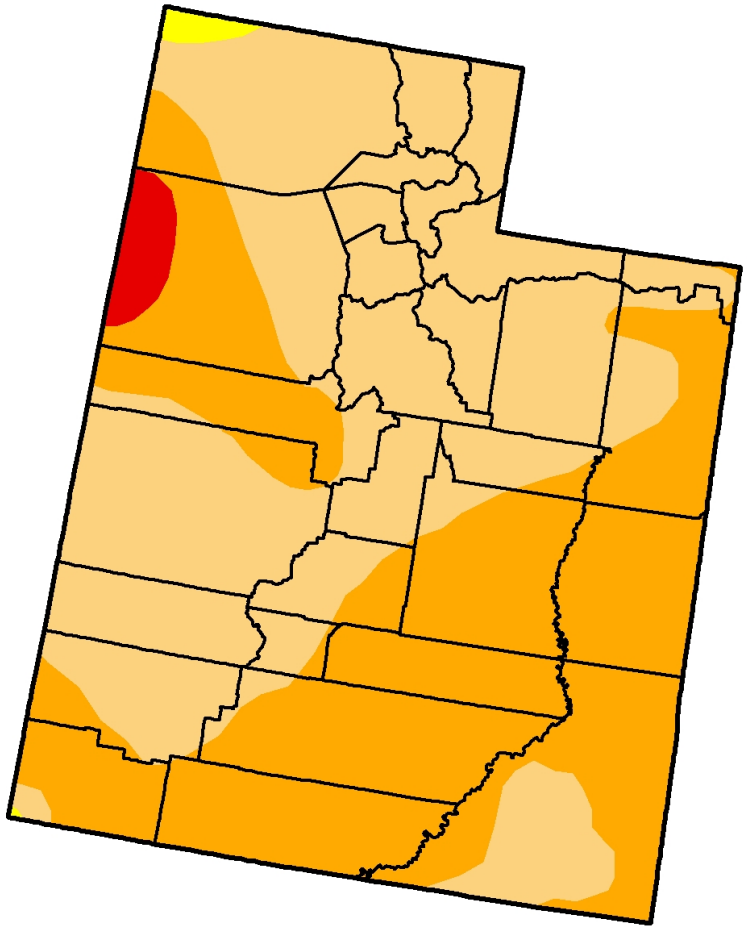
U.S. Drought Monitor

Utah

May 14, 2013
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.46	47.09	1.53	0.00
Last Week (05/07/2013 map)	0.00	100.00	96.29	51.39	1.53	0.00
3 Months Ago (02/12/2013 map)	0.00	100.00	99.90	55.35	2.02	0.00
Start of Calendar Year (01/01/2013 map)	0.00	100.00	99.99	66.47	21.34	0.00
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	83.18	22.53	0.00
One Year Ago (05/08/2012 map)	1.05	98.95	85.80	26.33	0.00	0.00



Intensity:

- *D0 Abnormally Dry*
- *D1 Drought - Moderate*
- *D2 Drought - Severe*
- *D3 Drought - Extreme*
- *D4 Drought - Exceptional*

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Released Thursday, May 16, 2013

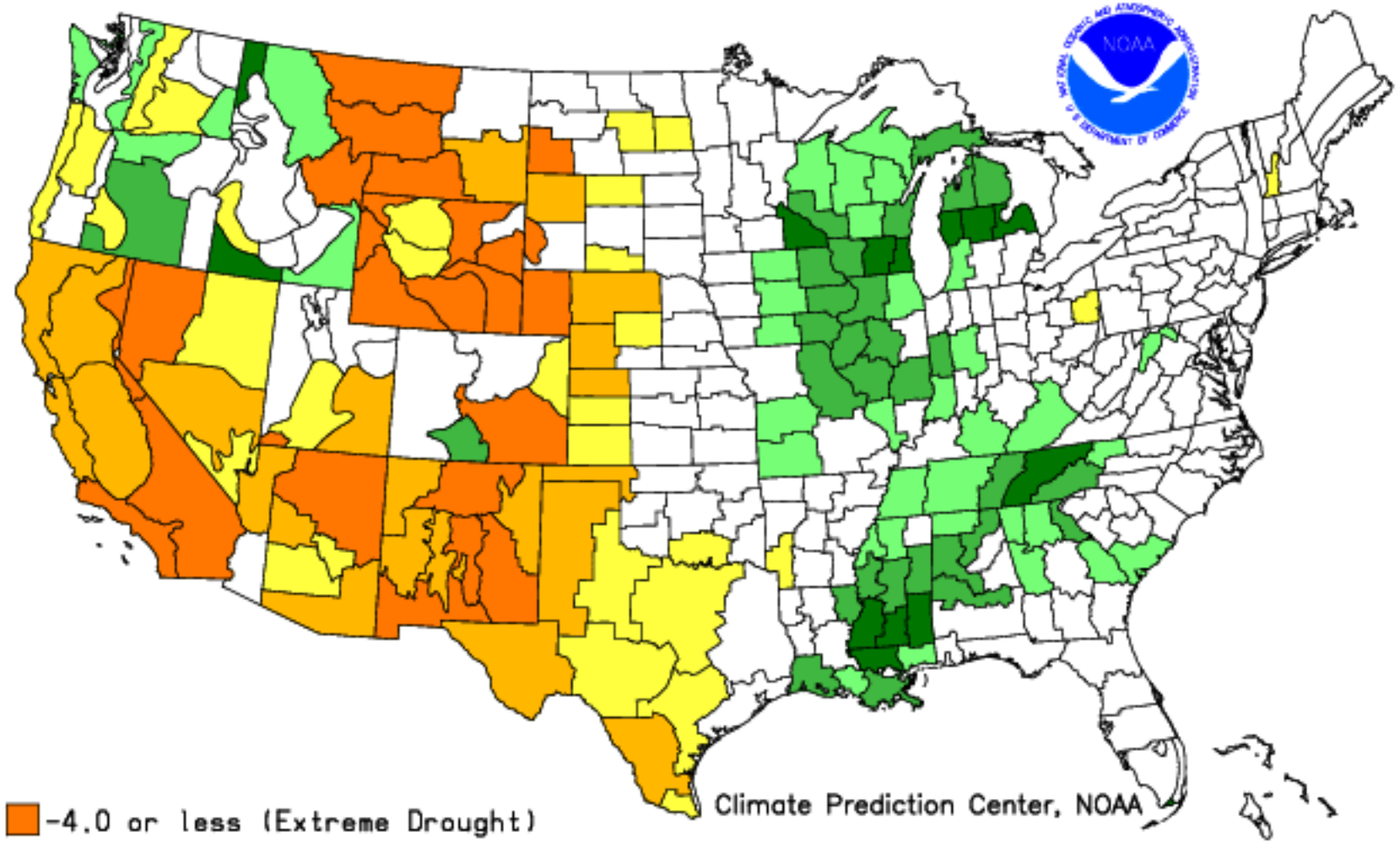
http://droughtmonitor.unl.edu

Rich Tinker, Climate Prediction Center/NCEP/NWS/NOAA

Drought Severity Index by Division

Weekly Value for Period Ending MAY 11, 2013

Long Term Palmer



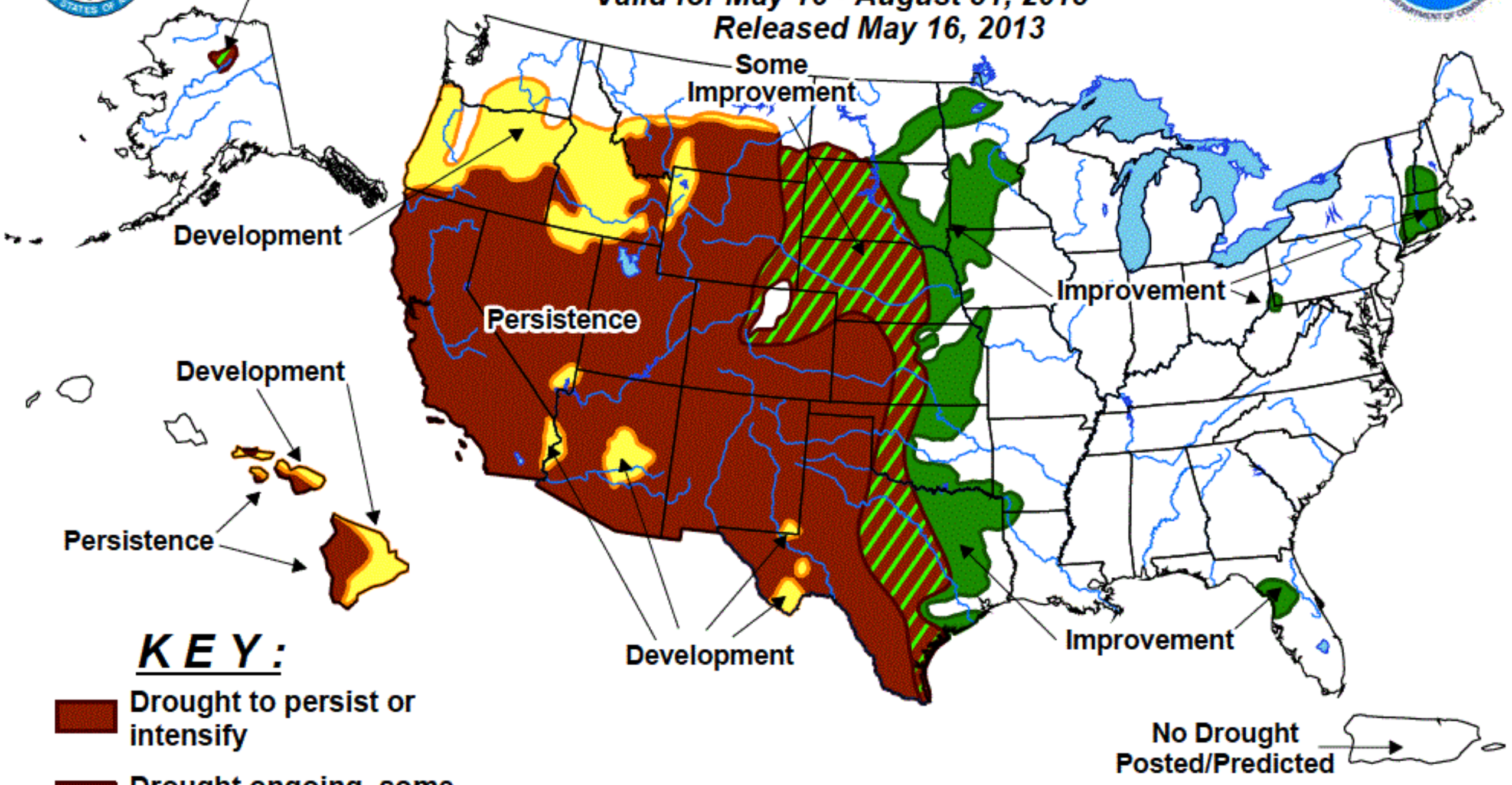
-4.0 or less (Extreme Drought)
-3.0 to -3.9 (Severe Drought)
-2.0 to -2.9 (Moderate Drought)
-1.9 to +1.9 (Near Normal)
+2.0 to +2.9 (Unusual Moist Spell)
+3.0 to +3.9 (Very Moist Spell)
+4.0 and above (Extremely Moist)

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for May 16 - August 31, 2013

Released May 16, 2013



K E Y :

- **Drought to persist or intensify**
- **Drought ongoing, some improvement**
- **Drought likely to improve, impacts ease**
- **Drought development likely**

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.