YOUR NATIONAL WEATHER SERVICE SPOKANE QUARTERLY REPORT

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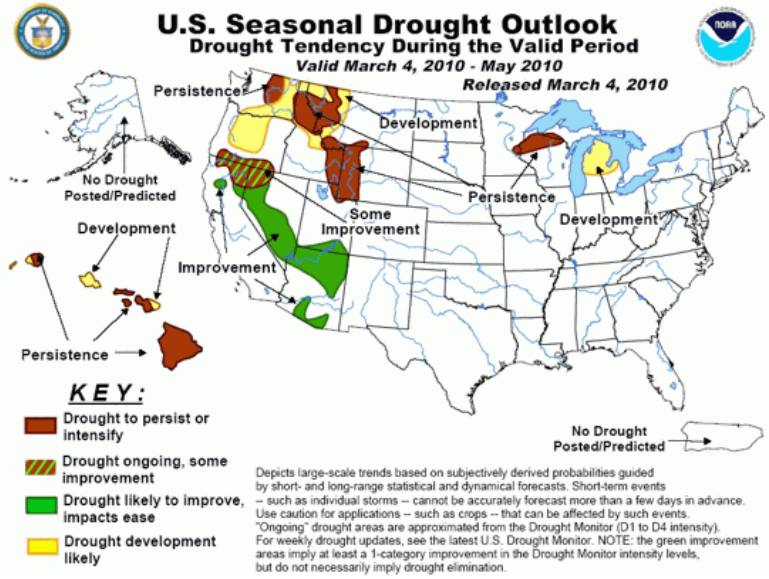
The Weather Watcher

of the Inland Northwest

www.weather.gov/Spokane

Does the lack of snow = Drought?



Across the interior Pacific Northwest and northern Rockies, relatively dry weather has prevailed for much of the winter, largely because of the southward displaced storm track and jet stream, which is common during El Niño winters. In addition, the snow pack is running below normal in many areas, which means less recharging of both soils and streams during the upcoming spring, and related water supply issues. The Climate Prediction Center's monthly and seasonal precipitation outlooks keep the highest likelihood for drought or dryness over much of eastern Washington, north Idaho, and western Montana.

According to the National Resources Conservation Service, the mountain snowpack for the region is running 55 to 70% of normal. The east slopes of the northern Cascades and Okanogan Highlands have received closer to average mountain snowpack this winter, but not enough to impact the long term dry conditions this region has experienced over the last couple of years. Snowpack is running around 50% of normal across much of the Idaho panhandle and extreme eastern Washington.

Mountain temperatures continue to be above average with new record highs in some areas. This trend combined with an obvious lack of precipitation, has caused low and mid-elevation snow packs to dwindle in all areas of the Inland Northwest. Predicted spring and summer stream flows are expected to be less than normal. The probability of spring runoff flooding due to snowmelt is low in most areas. The water supply outlook for the summer 2010 is forecast to be much below normal for all rivers across eastern Washington and north Idaho. The lowest percentage from normal will be in the St. Joe, Coeur d'Alene/Spokane, and the Snake river basins.

El Niño conditions are expected to continue at least through the Spring 2010 with a continuation of below-average precipitation with above-average temperatures. This is not too much different than the trend experienced during the past winter.

Updates on the drought and water supply outlooks will be released monthly. Visit www.nwrfc.noaa.gov/water_supply and www.cpc.noaa.gov for details. ☼ *Katherine Rowden & Robin Fox*

WOW! From the WSDOT on January 17th, 2010: US 2 was closed at Leavenworth, Washington due to a large rock in the road. Traffic was stopped westbound at Leavenworth and eastbound at Coles Corner with a detour available using Chumstick highway and SR 207. *Steve Bodnar*

INSIDE THIS ISSUE:

Editor's Notes

It seems like Spring has been here for the past several weeks, especially with the lack of winter snowfall. Even some of the wildflowers are ahead of schedule. But remember, the first day of spring arrives on March 20th at 10:32 am PST.

We are always looking for new ideas and stories for our publication. If you have any ideas or pictures you would like to share, please contact Robin at (509) 244-0110 or email nws.spokane@ noaa.gov.

This newsletter and past issues are available online on our NWS Spokane web page. But if you would like a paper copy, please contact us and we will be happy to put you on the mailing list.

The main purpose of this publication is to keep our readers informed about our services and programs, and recognize those who help us with our mission, including weather spotters, observers, media, and emergency management.

All articles are written by the NWS staff. A special thanks to Ron Miller, Katherine Rowden, Anthony Cavallucci, and Steve Bodnar for their contributions.

Winter 2009-2010 in Review

December started off dry and seasonable, but this would quickly change. The first Canadian air mass of the winter made its way into the Inland Northwest on the 6th. Northeast winds gusted to 52 mph at Deer Park and 44 mph at the Spokane Airport, causing wind chill temperatures to drop to -10°F to -20°F. High temperatures for the next few days were well below normal. Daytime high temperatures in the teens were fairly common, with a few locations in the Idaho Panhandle staying below 10°. Lows were in the single digits above and below zero. For many areas, these cold temperatures occurred with little or no snow on the ground. This fact, combined with the relatively wet soils from all of the November rain, resulted in deep frozen soil. Temperatures began to moderate by the 14th as a Pacific storm system moved onshore, spreading 2 to 5 inches of snow over most of the region. Leavenworth picked up 7.5" and Inchelium received 6". Temperatures continued to rise, changing the snow to rain in most locations. The odd situation was that the rain and melted snow coupled with the deep frozen ground caused flooding in some locations, as the water couldn't soak into the ground. Temperatures remained above freezing for about a week, from the 16th to the 22nd. This ruined any chances for a white Christmas for most Inland Northwest residents. Then a large area of strong high pressure developed over the western U.S. just before Christmas while cool, dry air from Canada moved into the Inland Northwest. The month finished with a weak storm system that brought light snowfall to most of the region, giving most of us a little snow on the ground to start the New Year.

If there were any thoughts that El Niño wouldn't pan out this winter, those were quickly put to rest in **January**. The month started off rather mild, with temperatures reaching the lower 40s for many locations. One last cold air mass moved in on the 5th, bringing some light snowfall. Heavy rain coupled with frozen ground brought localized flooding to the Palouse area. Temperatures for the next few days remained in the teens and 20s. Little did we know it then, but that was about it for winter. Temperatures rebounded into the 40s and lower 50s for the remainder of the month. Every day for the rest of the month had above normal temperatures. The month wound up being one of the 10 warmest Januarys ever, but was still a bit cooler than the mild January of 2006. While the temperatures were mild, there were still a number of rain events. The Cascades actually received above-normal precipitation for the month. The 1.4" of snowfall at Spokane was the 4th lowest snowfall total for any January.

The mild El Niño weather continued into **February**, with daytime temperatures in the 40s and lower 50s commonplace and nighttime lows often remaining above freezing. The average January and February temperatures at Spokane were the 4th warmest ever, just slightly behind the strong El Niño winter of 1982/83. Pacific fronts on the 5th, 11th, 14th, and 26th brought rain to most of the lower elevations. The front on the 26th was rather impressive, bringing 1.27" of rain to Wenatchee

Winter water damage to portions of Highway 20 near Okanogan.

SPOTTER REPORTS: 509- 244-0435 or *espotter.weather.gov*

Flooding in the Freeze

After a wet November and a sharp cold snap in early December with no snow cover, the ground froze solidly and very deep. Typically our cold snaps are accompanied by either shallow ground moisture, or more commonly, with snow cover which keeps the ground from freezing at all but a couple of inches. But for this winter, it was easy to see in the fields and golf courses, how much the rain and snowmelt water just ponded instead of soaked in. This turned any moderate rain event into a hydrologic problem—like in Genesse, Idaho on

Is your community ready for a potential weather disaster? You can make sure it's ready for severe weather with the National Weather Service's program, **"StormReady"**®.

StormReady helps community leaders and emergency managers strengthen local safety programs. StormReady communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education, communication, and awareness. No community is storm proof, but StormReady helps communities save lives.

For more information, contact Anthony Cavallucci at 509-244-0110 x 223 or email anthony.cavallucci@noaa.gov . For more information, visit the StormReady website at http://www.weather.gov/stormready/ where Emergency Managers can apply online! ☼ *Anthony Cavallucci*

Want to report precipitation? Check out CoCoRaHS at *http://www.cocorahs.org*

New Faces at NWS Spokane

Hi - I'm Anthony Cavallucci, the new Warning Coordination Meteorologist in Spokane. I am originally from - don't know if I should say - Southern California. I moved around as a young kid and lived in Seattle and Denver in the late 70s and early 80s. My family moved to Memphis, TN in 1985...my father started a new job with FedEx at that time. I graduated high school there and went on to get my B.S. in Atmospheric Science at UNC-Asheville. I worked as an on-air broadcast meteorologist for an ABC affiliate in Lubbock, TX for about a year and half before deciding on a career with the NWS. My first job in the NWS was at the Memphis office. Approximately a year later (1999), I was promoted to my next position as a Journeyman Forecaster at the NWS office in Lubbock. I met my wife in Lubbock in 2003...she's a Red Raider (TTU grad). In 2004, I was promoted to Senior Forecaster in Memphis a month after marrying in 2004. I began my new career in Spokane on January 25th. We are happy to be here and look forward to experiencing all there is to offer in the Northwest. ☼

Answer: Yes you can use a cell phone during a thunderstorm since there is no direct path between you and the lightning (no wires).

Winter Weather Statistics

Wenatchee Water Plant	Dec	Jan	Feb	Total
Avg High Temp	31.7	38.6	47.0	39.1
Departure from Norm	-4.0	+3.5	+4.2	+1.2
Avg Low Temp	20.3	30.5	32.2	27.8
Departure from Norm	-4.9	+7.3	+4.8	+2.4
Total Precip	0.48	1.99	1.49	3.96
Departure from Norm	-1.04	+0.64	+0.55	+0.15
Total Snowfall	6.4	3.9	0.0	10.3
Departure from Norm	-4.2	-5.4	-4.2	-13.8
Lewiston Airport	**Dec**	**Jan**	**Feb**	**Total**
Avg High Temp	35.4	46.8	50.7	44.3
Departure from Norm	-3.8	+7.4	+5.1	+2.9
Avg Low Temp.	23.0	35.2	34.5	30.9
Departure from Norm	-4.7	+7.3	+3.3	+2.0
Total Precip	1.04	1.82	0.59	3.45
Departure from Norm	-0.01	+0.68	-0.46	+0.21
Total Snowfall	2.6	T	0.0	2.6
Departure from Norm	-2.2	-5.7	-2.2	-10.1
Spokane Airport	**Dec**	**Jan**	**Feb**	**Total**
Avg High Temp	29.6	40.0	44.2	37.9
Departure from Norm,	-3.2	+7.2	+4.9	+3.0
Avg Low Temp	19.1	30.1	31.5	26.9
Departure from Norm	-2.5	+8.4	+5.8	+3.9
Total Precip	1.88	1.54	1.28	4.70
Departure from Norm	-0.37	-0.28	-0.23	-0.88
Total Snowfall	6.7	1.4	0.9	9.0
Departure from Norm	-8.4	-12.8	-5.8	-27.0

Hi—I'm Katherine Rowden, the new Service Hydrologist at the Spokane NWS office. I grew up in the Spokane area and graduated from Gonzaga University with a B.S. in Civil Engineering. After college, I worked for several years as a civil engineer in both the public and private sectors before joining the National Weather Service. A combination of my interest in the area's rivers and my love of math and science led me to my civil engineering degree, so working as a hydrologist for the place I call home for over 25 years is a perfect fit! ☼

Remember your Spring Spotter Checklist

Tornado or **Funnel Cloud**

Snow:
2"+ valleys and 4"+ mountains

Strong Winds:
30 mph+ or damage

Reduced Visibility:
under a mile due to rain, dust, fog, snow, etc.

Any Flooding

Hail: pea size or larger

Heavy Rain:
Showery: 1/2" + in 1 hr
Steady Rain: 1"+ in 12 hrs
or 1.5"+ in 24 hrs

Any mixed precipitation

Travel Problems or
Any Damage: due to severe or hazardous weather.

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Trivia: Can you use a cell phone during a thunderstorm?

Twitter Storm Reports

Now you can submit your significant weather observations or spotter reports to the National Weather Service via Twitter. As a free social networking service on the internet, Twitter enables users to send and read message known as "tweets."

Thanks to the new GPS features available through Twitter, individual tweets can be tagged with the location in which it was sent. This will help enhance timely and accurate online weather reporting. It will also increase communications between the public and their local weather forecast offices.

A valid Twitter user account is required to submit reports at www.twitter.com/twitter. This project is in an experimental state and may not always be seen or the message may get stuck in "twitter-space." So don't rely on Twitter for reporting life threatening reports, use the original reporting methods. For more information on this program, please visit www.srh.noaa.gov/srh/twitter/twitter.php. ☼ *Anthony Cavallucci*

Facebook the NWS

Facebook is a social utility that connect people with family, friends and others who work, study and live around them. And now you can be a Facebook friend with the National Weather Service. On the NWS page, you can find fans, friends and employees of the agency in addition to swap photographs and stories. Sign up for an account at www.facebook.com. ☼

Thunderstorm Safety

Spring is the season for thunderstorms across the Inland Northwest. It's important to play it safe when the lightning strikes and the thunder roars.

- Go and stay indoors
- Don't use landline phones
- Don't take a bath or shower
- Don't do the dishes
- Turn off your TV and computer
- Stay away from windows
- Wait at least a half hour after the storm has passed to go outside and resume regular activities.

National Lightning Safety Week is June 20-26. Please visit www.lightningsafety.noaa.gov ☼ *Robin Fox*