YOUR NATIONAL WEATHER SERVICE SPOKANE QUARTERLY REPORT

VOL XVI, ISSUE 1
MARCH 2012

The Weather Watcher

of the Inland Northwest

www.weather.gov/Spokane

Mountain Snowpack and Flood Outlook


Lookout Pass where the snowpack is near 100% of normal.

Based on current conditions, the total volume of water that will flow in the Inland Northwest rivers and streams in 2012 is forecast to be near normal or just above normal for most basins. Spring snowmelt flood potential is low for most areas, although some rivers in Idaho have a moderate chance of flooding this spring.

February and early March 2012 saw the return of winter with several weather systems that moved through the region and deposited a significant amount of snow in the mountains. Mountain snowpack made considerable gains and snowpack deficits were eliminated throughout the region.

River basins with headwaters in the Canadian Rockies and Cascades are forecast to have around 100% of average spring/summer runoff. River basins in the Idaho Panhandle are expected to see over 100% of their average runoff. The mountains typically continue to gain snow into April, so there is still time for the water supply and spring flood potential forecasts to be adjusted.

Based on current snowpack conditions, the threat of spring flooding due to melting snow is low. At this time, the Coeur d'Alene and St. Joe Rivers have the potential for some normal snow melt flooding. This does not account for heavy rain or rain-on-snow events, which may cause rivers and streams to react much faster and higher than expected. Please visit our hydrology section of the web page for detail on river levels and short-term river forecasts at *http://water.weather.gov*.

The central Columbia Basin is still suffering from abnormally dry conditions as noted in the U.S. Drought Monitor (*www.drought.gov)*. ☼ *Katherine Rowden*

NWS Spokane is on Facebook! Find us at http://www.facebook.com

NWS Spokane Amateur Radio Station

The NWS Spokane office has seven more qualified amateur radio operators, making the office total now 11. In mid February, a local amateur radio operator came to the office and taught a course to prepare for the Technician class amateur radio certification. Dwight Williams, Matt Fugazzi, Jon Fox, Ellie Kelch, Colby Neuman and Steven Van Horn all passed the Technician test and Anthony Cavallucci passed the General exam. This group joins Laurie Nisbet, Stephen Bodnar, Robin Fox and Bob Tobin, who were already certified.

The group is in the process of obtaining a club license with a vanity call sign which will help the local ham community quickly recognize when the NWS Spokane is on the air. This will help continue to strengthen relationships with the amateur radio community across the Inland Northwest. Should normal communications be disrupted from a disaster, NWS Spokane will be able to communicate with the outside world. ☼ *Laurie Nisbet & Anthony Cavallucci*

INSIDE THIS ISSUE:

Editor's Notes

The first rumble of thunder was heard in the Spokane area recently, reminding us that the spring convective season is upon us. Lightning may be an uncommon occurrence across the Inland NW, but we need to be safe. Being outside on a golf course or ball field during a lightning storm is NOT SAFE. Being inside your home or car during a lightning storm is SAFE. The Inland NW Severe Weather Awareness Week runs from April 29-May 5.

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

This newsletter and past issues are available online on our NWS Spokane web page. 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 NWS services and programs, and recognize those who help us with our mission, including weather spotters, observers, media, emergency managers, and government agencies.

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

What happened to Winter 2011/12?

During the Fall of 2011, it became evident that yet another La Niña winter was on tap. Research has shown that La Niña winters are usually colder and snowier for the Inland Northwest. The key word is "usually", which is not the same as "always." And the winter of 2011/12 showed that seasonal forecasting is still not a sure bet.

December was a dry month for all of the Pacific Northwest. Precipitation amounts were generally half of normal or even less. But December ended with some hope. A change in the persistent dry weather pattern allowed some Pacific storms to move into the area. The Cascades had one snow storm on the 27th that brought 8" of snow to Chelan and 9" to Chumstick. Rain fell at most other lowland locations, including 1.10" at Sandpoint and 1.49" at Rathdrum, ID. The following day the rain and snow was replaced by wind and warmth. A few locations set high temperature records, including a 52°F reading at Wenatchee and a 57°F temperature at Quincy. The wind gusted to 54 mph at Uniontown, WA and 48 mph at Spokane airport.

Location	Dec 2011 Precip	Normal Dec Precip	Percent of Normal	Rank
Spokane	1.01	2.30	44%	11th of 132 years
Lewiston	0.21	0.97	22%	4th of 132 years
Wenatchee	0.53	1.53	35%	16th of 88 years
Ephrata	0.21	1.24	17%	6th of 65 years
Republic	0.55	1.81	30%	5th of 114 years
Bonners Ferry	1.86	2.87	65%	18th of 106 years
Ritzville	0.71	1.74	41%	12th of 114 years


Hoar Frost from Dec. 2011 @ NWS office

The first half of **January** continued the trend of dry and seasonable weather. Temperatures on the 4th warmed into the 50s in parts of southeast Washington and the southern Panhandle. La Crosse and Pomeroy, WA hit 60°F and 59°F respectively, both records for the day. By the middle of the month changes were in sight. The storm door opened providing some much needed moisture to most of the region. The first in the series of storms primarily struck the central Panhandle and Cascades. Wallace and Mullan, ID reported 14" of snow as well as Chelan which received a foot of snow on the 17th. Southeast Washington and the southern Panhandle were next in line with heavy snow. Many locations received around a foot of snow including Pomeroy and La Crosse along with Deary and Nez Perce in Idaho. Lewiston picked up 8.4" of snow, which ranked 4th on the all-time list of 24-hour snowfall (record is 11" in 1916). For some locations like Plain, WA and St Maries, ID, the combination of these 2 storms resulted in more than 2 feet of snow. By the 19th a third storm rolled in bringing more snow. Spokane received around 10" and Rosalia, WA picked up 13". Localized freezing rain on the 20th resulted in numerous accidents in Spokane. After a brief break, another Pacific storm brought 10-15" of snow to the Methow Valley on the 25th. This was followed up by up to a ¼" of freezing rain in the Methow on the morning of the 29th. The stormy second half of January made up for the dryness of the first half of the month, but couldn't overcome the precipitation deficit of November/December.

February was fairly average weather-wise. The first half of the month was fairly mild, so most of the valley precipitation fell in the form of rain or light snow. The 18th saw the first widespread snow event with 2-5" falling over the northern valleys. A strong jet stream brought winds in excess of 50 mph to the area on the 22nd. Several locations in southeast Washington gusted to near 60 mph, while a DOT sensor at Shirrod Hill south of Moscow reported a gust to 90 mph. Three days later a strong low pressure system developed over northern Idaho. This brought the combination of strong winds and snow to the Panhandle and extreme eastern Washington. Bonners Ferry, ID picked up nearly 10" of snow overnight. Spokane County reported 125 collision accidents during the day. Fourth of July Pass was also closed at one point due to accidents. The weather took advantage of the one extra day this month, bringing more snow to the region. Most locations received 2-4" but Wenatchee picked up 4-7" making it the second snowiest event of the winter. ☼ *Ron Miller*

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

CoCoRaHS March Madness

Answer: Hail with the diameter of 1" or larger is considered severe hail. That's the size of a quarter!

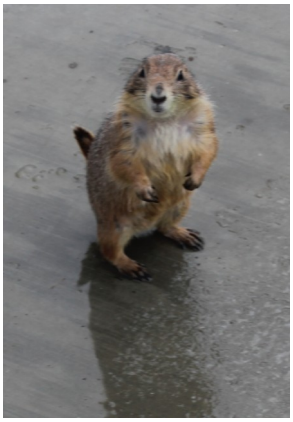
March is the time of the year when the CoCoRaHS network organizes a friendly recruiting contest. CoCoRaHS stands for the Community Collaborative Rain Hail and Snow network and it's a volunteer precipitation measurement network. This network has expanded to all 50 states and Canada. The goal of this contest is to see which state can recruit the most new volunteers before the end of the month.

There is always a need for a greater number of observations, as the saying goes "the rain doesn't fall the same on all." Due to the variability of precipitation, amounts measured can be quite different only a block or two away. Help fill in the gaps by recruiting a friend or relative during our contest! The more observations, the clearer the picture, and the better our understanding of where it did and did not rain. If you are interested in measuring rain and snow, consider joining the CoCoRaHS network. For details and the registration form, please see http:// www.cocorahs.org ☼ *Robin Fox*

So who got Snow...

While the Inland Northwest did not receive as much snow as in years past, parts of Alaska did. In Valdez, Alaska, they have measured 426 inches of snow this winter which is 152% of normal! In a 48 hour period last January, they received 39 inches of snow. Currently they have a snow depth of 87 inches. This may seem like a lot of snow, but this snow total did not break their all time record of 550.7 inches set in 1989/90 winter. By comparison, the all-time record snow in Holden Village, WA is 585 inches set in 1955/56 ☼ *Ron Miller*

Shadow or Not?



This is Nippy the Prairie Dog of Sacheen Lake WA on the morning of February 2nd. Nippy did NOT see his shadow due to extensive low clouds and thus according to legend there will be an early spring. Thanks to weather observer Bob Lutz and Nippy for sharing this important event on Groundhog Day 2012.

Spring Outlook

The forecasts from the Climate Prediction Center indicates La Nina is expected to weaken this spring and transition to ENSO-neutral conditions. This is reflected in the seasonal outlooks which show March having a better chance of cooler and wetter conditions, followed by equal chances of above, near, and below normal precipitation and temperature for April and May.

Winter Weather Statistics

Wenatchee Water Plant	Dec	Jan	Feb	Total
Avg High Temp	37.4	35.4	44.2	39.0
Departure from Norm	+2.6	-0.5	+0.8	+1.0
Avg Low Temp	24.5	21.9	27.8	24.7
Departure from Norm	-0.7	-3.5	+0.1	-1.4
Total Precip	0.53	1.36	0.74	2.63
Departure from Norm	-1.00	+0.03	-0.26	-1.23
Total Snowfall	0.1	12.6	4.2	16.9
Departure from Norm	-6.6	+8.6	+1.5	+3.5
Lewiston Airport	**Dec**	**Jan**	**Feb**	**Total**
Avg High Temp	40.3	44.3	47.0	43.9
Departure from Norm	+0.8	+2.7	+0.5	+1.3
Avg Low Temp	26.3	28.9	31.5	28.9
Departure from Norm	-1.6	-0.7	+0.6	-0.6
Total Precip	0.21	1.75	0.85	2.81
Departure from Norm	-0.76	+0.67	+0.07	-0.2
Total Snowfall	0.5	12.0	T	12.5
Departure from Norm	-3.0	+9.6	-2.1	+4.5
Spokane Airport	**Dec**	**Jan**	**Feb**	**Total**
Avg High Temp	34.0	36.5	38.8	36.4
Departure from Norm	+1.0	+2.1	-0.8	+0.7
Avg Low Temp	23.2	23.4	26.6	24.4
Departure from Norm	+0.7	-1.3	+0.2	-0.1
Total Precip	1.01	1.81	1.68	4.50
Departure from Norm	-1.29	+0.02	+0.35	-0.92
Total snowfall	2.4	11.8	9.4	23.6
Departure from Norm	-12.2	+0.4	+2.6	-9.2

Remember your Spring Spotter Checklist

Tornado or **Funnel Cloud**
Hail: pea size or larger
Strong Winds: 30 mph+ or damage
Reduced Visibility: under a mile due to snow, fog
Heavy Rain: Showery: 1/2" + in 1 hr Steady Rain: 1"+ in 12 hrs or 1.5"+ in 24 hrs
Any Flooding !
Snow: 2"+ valleys & 4"+ mountains
Any **Mixed precipitation**!
Travel Problems or **Any Damage:** due to severe or hazardous weather.

The Weather Watcher
Of the Inland Northwest

National
Weather Service
2601 N Rambo Rd
Spokane, WA 99224
(509) 244-0110

Staff News and Departures

The staff at NWS Spokane will be changing this year as three of our employees will be moving on to new offices and new adventures this spring.

Forecaster Mike Fries accepted a promotion as a Lead Forecaster in Pittsburgh, PA and will be the first to depart. He has been in Spokane since July 2006 and was the Aviation Focal Point. Being from Michigan, he looks forward to being within a decent driving distance from his family and friends.

Meteorologist Intern Colby Neuman accepted a promotion as a Forecaster in Portland, OR and will be leaving in late March. He has been in Spokane since February 2009 and has been active in the Public Service Unit. Colby looks forward to being a full time forecaster and tackling coastal and marine weather.

Warning Coordination Meteorologist Anthony Cavallucci accepted a similar position in Morristown, TN. He and his family have been in Spokane since January 2010 and will be departing in April. Being a Tennessee native, he looks forward to settling back in his homeland.

We wish the best of luck to Mike, Colby and Anthony. You will be missed by your weather fans in Spokane and across the Inland Northwest! ☼ *Robin Fox*


Mike Fries


Colby Neuman


Anthony Cavallucci

Trivia: What size of hail is considered "severe" hail?