2016 Spring Flood Outlook, March 3rd Update
for
the Red River and Devils Lake Basins
(Valid **March 06** thru **June 04** 2016)

1. Key Points:

1.1. There is virtually no remaining snowpack south of Oslo MN, so runoff is most dependent now on spring rainfall.

1.2. Above normal temperatures and near normal precipitation are expected through May.

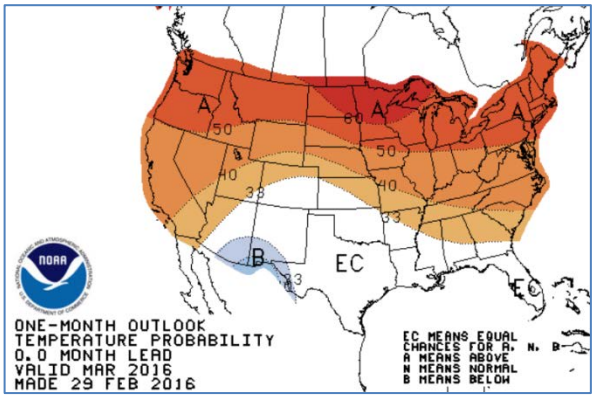
1.3. Summary of Probabilities for exceeding Major, Moderate, or Minor Flood Stage (see table next page)...

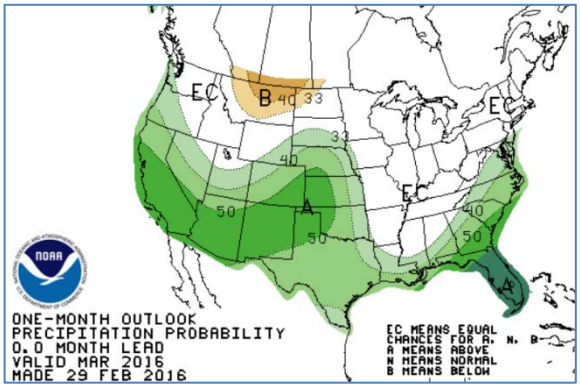
- For the **main-stem Red River**...there is a high chance (greater than 60%) of minor flooding at Fargo and a fair chance (30 to 60%) of minor flooding at Wahpeton, Grand Forks, and Oslo.

- For the **Minnesota tributaries**...there is a fair chance of moderate flooding at High Landing on the Red Lake River and a high chance of minor flooding at Hallock on the Two Rivers River. There is a fair chance of minor flooding at Sabin and Dilworth along the Buffalo River, and at High Landing.

- For the **North Dakota tributaries**...there is a low chance (less than 30%) of exceeding minor flooding.

2. Climate Prediction Center Temperature and Precipitation Outlooks for March:





3. Devils Lake and Stump Lake Outlook:

Probabilities for exceeding listed lake levels...

From **February 28**, 2016 to **September 30**, 2016

LOCATION	95%	90%	75%	50%	25%	10%	05%
DEVILS LAKE.....							
CREEL BAY	1450.8	1450.8	1451.0	1451.3	1451.7	1452.2	1452.9
STUMP LAKE.....							
EAST STUMP LAKE	1450.8	1450.8	1451.0	1451.3	1451.7	1452.2	1452.9

* Current lake level is 1450.0, which is down about a foot and a half from this time last year. This outlook assumes total max pumping capacity of 600 cfs from 01 June thru 10 November. The expected value (50% level) of 1451.3 feet represents an expected 1.3 foot rise due to snowmelt runoff, antecedent soil moisture drainage and springtime rainfall through middle June. Devils Lake reached its current record of 1454.30' on 27 June 2011.

4. Red River of the North and its Minnesota and North Dakota tributaries Outlook:

Probabilities for minor...moderate and major flooding
Valid Period: 03/06/2016 - 06/04/2016

Location	Categorical Flood Stages (FT) Minor	Mod	Major	Current and Historical Chances of Exceeding Flood Categories as a Percentage (%) Minor CS	Minor HS	Moderate CS	Moderate HS	Major CS	Major HS
Red River of the North.....									
WAHPETON	11.0	13.0	15.0	36	55	11	26	<5	14
HICKSON	30.0	34.0	38.0	9	23	<5	13	<5	<5
FARGO	18.0	25.0	30.0	64	76	13	38	8	23
HALSTAD	26.0	32.0	37.5	10	34	<5	19	<5	9
GRAND FORKS	28.0	40.0	46.0	36	60	7	34	<5	10
OSLO	26.0	30.0	36.0	38	64	27	56	<5	21
DRAYTON	32.0	38.0	42.0	18	50	9	38	<5	11
PEMBINA	39.0	44.0	49.0	24	56	15	43	5	22
Minnesota Tributaries.....									
SABIN	13.0	15.0	19.0	35	50	5	15	<5	<5
HAWLEY	8.0	9.0	11.0	11	38	6	25	<5	<5
DILWORTH	13.0	20.0	26.0	53	67	<5	21	<5	<5
TWIN VALLEY	10.0	12.0	14.0	<5	18	<5	6	<5	<5
HENDRUM	20.0	28.0	32.0	32	55	<5	23	<5	6
SHELLY	14.0	20.0	23.0	<5	31	<5	11	<5	6
CLIMAX	20.0	25.0	30.0	<5	24	<5	11	<5	7
HIGH LANDING	12.0	12.5	13.0	55	46	37	43	20	33
CROOKSTON	15.0	23.0	25.0	27	53	<5	13	<5	8
ABOVE WARREN	67.0	71.0	75.0	<5	14	<5	<5	<5	<5
ALVARADO	106.0	108.0	110.0	9	21	<5	16	<5	<5
HALLOCK	802.0	806.0	810.0	77	61	15	42	<5	10
ROSEAU	16.0	18.0	19.0	<5	19	<5	5	<5	<5
Note: The Roseau numbers consider the flow thru its diversion									
North Dakota Tributaries.....									
ABERCROMBIE	10.0	12.0	18.0	17	37	14	36	<5	20
VALLEY CITY	15.0	16.0	17.0	<5	10	<5	9	<5	6
LISBON	15.0	17.0	19.0	<5	11	<5	9	<5	6
KINDRED	16.0	19.0	20.5	6	20	<5	12	<5	9
WEST FARGO DVRSN	18.0	20.0	21.0	8	24	<5	18	<5	13
HARWOOD	884.0	886.0	891.0	8	24	7	21	<5	11
ENDERLIN	9.5	12.0	14.0	9	21	<5	10	<5	<5
MAPLETON	905.0	908.0	910.0	16	33	5	14	<5	<5
HILLSBORO	10.0	13.0	16.0	5	17	<5	10	<5	<5
MINTO	6.0	8.0	11.0	13	26	<5	8	<5	<5
GRAFTON	12.0	13.5	14.5	13	19	<5	6	<5	<5
WALHALLA	11.0	16.0	18.0	<5	19	<5	<5	<5	<5
NECHE	18.0	19.0	20.5	9	28	5	26	<5	19

LEGEND:
CS = Conditional Simulation (Outlook for current conditions)
HS = Historical Simulation (" " normal conditions)
FT = Feet (above gage zero datum)