The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert R. Scott, Commissioner

AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS

	Actual Rainfall (inches)	Normal Rainfall (inches)	Deviation from Normal (inches)	Percent of Normal
Coastal Drainage: Rockingham, Strafford counties				
four month	-2.86	16.26	-2.76	-18%
six month	15.20	23.58	-4.32	64%
nine month	25.24	36.02	-6.71	70%
twelve month	35.23	46.73	-7.44	75%
Southern Interior: Belknap, Hillsborough, Merrimack counties				
four month	15.92	15.99	-0.07	100%
six month	22.09	23.80	-1.71	93%
nine month	33.40	36.04	-2.64	93%
twelve month	42.98	46.17	-3.19	93%
South Western: Cheshire, Sullivan counties				
four month	14.60	15.88	-1.28	92%
six month	21.69	24.30	-2.61	89%
nine month	33.22	36.21	-3.00	92%
twelve month	39.07	45.99	-4.14	85%
White Mountain: Carroll, Grafton counties				
four month	18.18	17.34	0.85	105%
six month	26.38	26.33	0.05	100%
nine month	38.21	39.24	-1.03	97%
twelve month	48.25	49.43	-1.18	98%
North Country: Coos county				
four month	15.79	16.34	-0.55	97%
six month	23.70	25.75	-2.05	92%
nine month	35.61	38.37	-2.76	93%
twelve month	44.59	47.39	-2.80	94%

four month period : September 2017 - December 2017
six month period : July 2017 - December 2017
nine month period : April 2017 - December 2017
twelve month period: January 2017 - December 2017

Source: Northeast River Forecast Center, NH Des Dam Bureau

www.des.nh.gov
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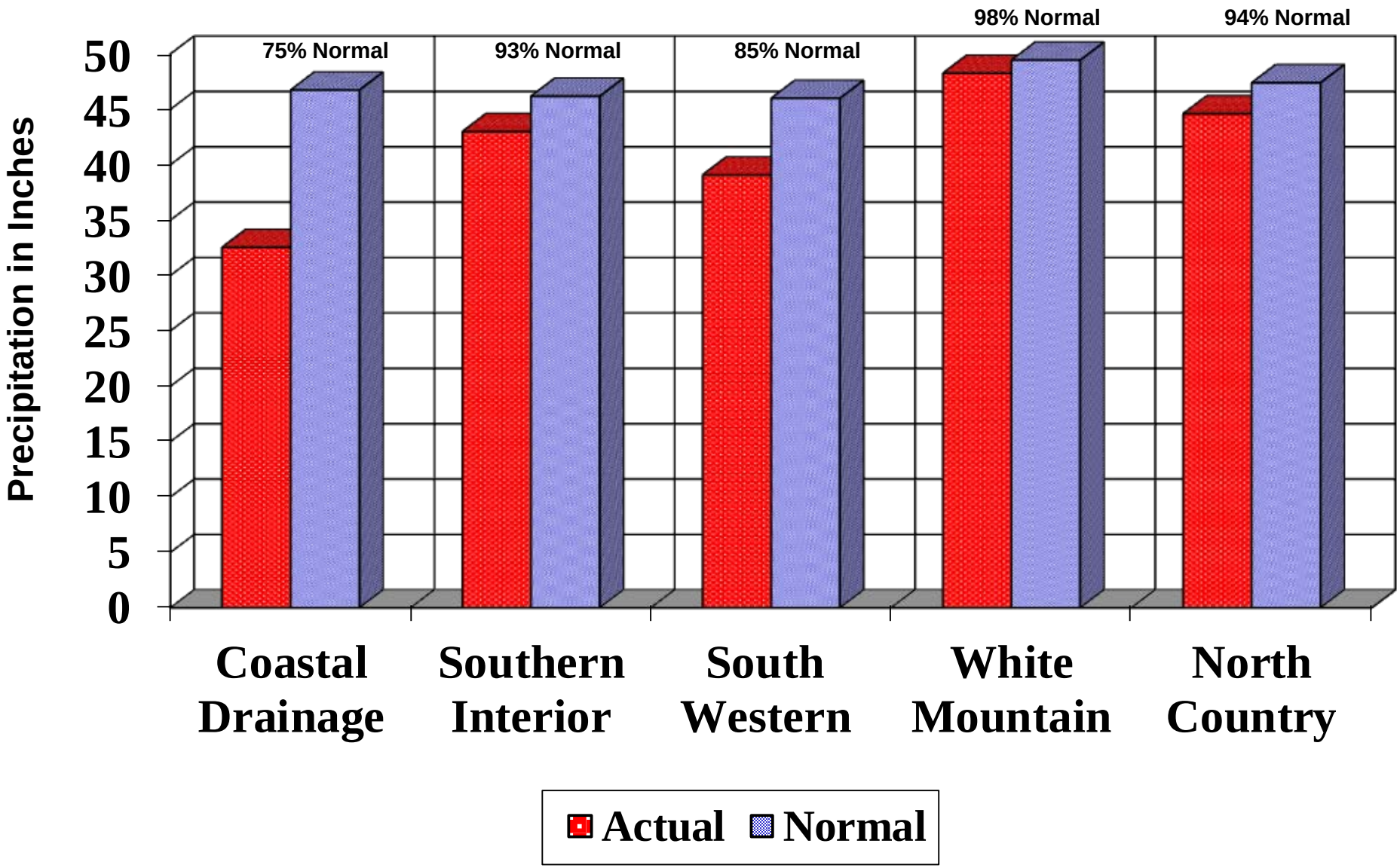
(603) 271-3503 • Fax: (603) 271-6120 • TDD Access: Relay NH 1-800-735-2964

TWELVE MONTH AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS from January 2017 through December 2017



NH DES Dam Bureau, Northeast River Forecast Center

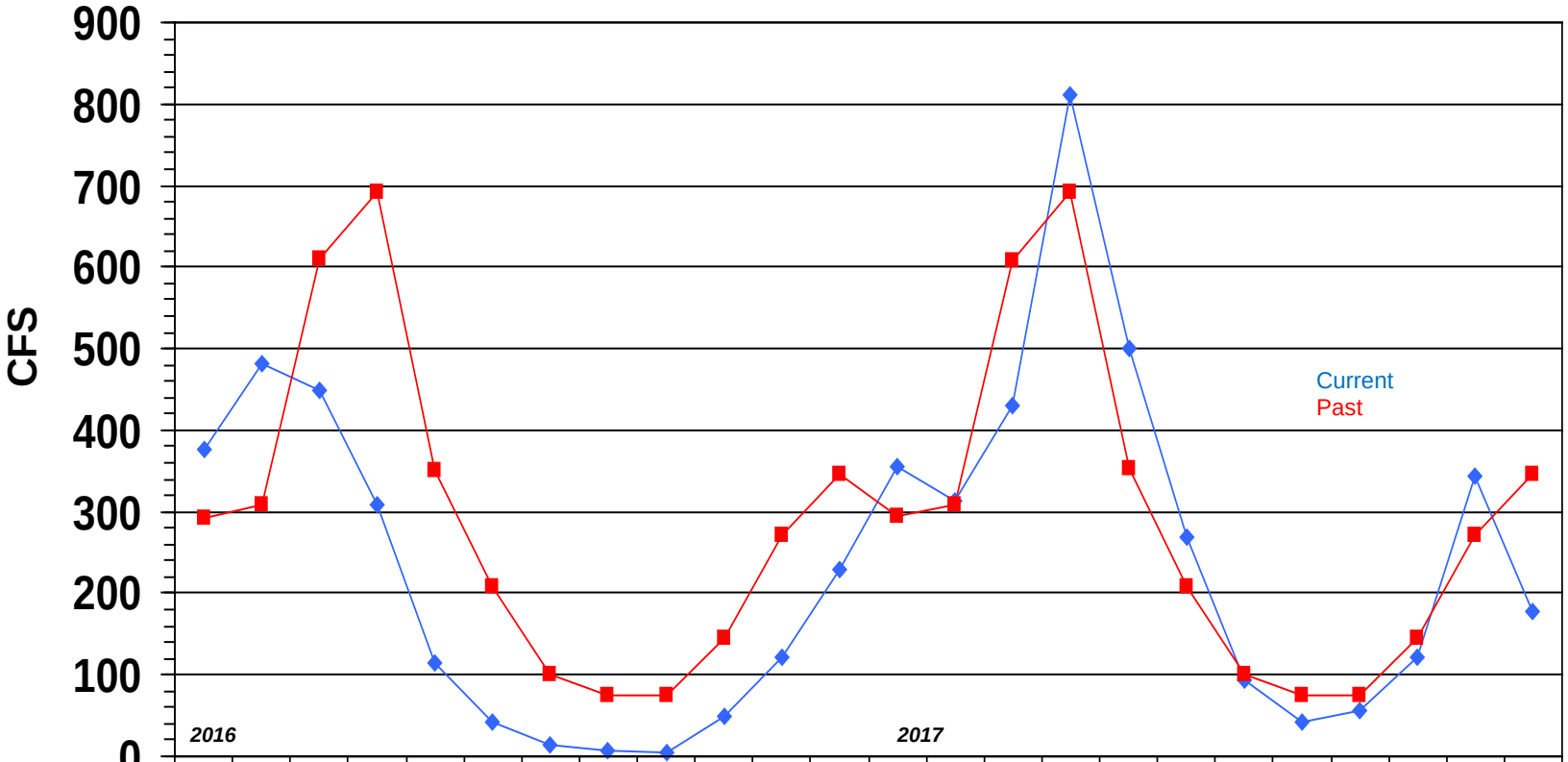
MONTHLY PRECIPITATION DATA FOR N.H COUNTIES

		2017 JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Coastal drainage													
STRAFFORD	actual	2.65	3.42	3.74	3.62	1.65	3.93	1.72	3.21	2.84	6.03	1.73	3.13
	normal	3.20	3.30	4.17	4.22	4.10	4.16	3.99	3.72	3.74	4.38	4.50	3.76
	deviation	-0.55	0.12	-0.43	-0.60	-2.45	-0.23	-2.27	-0.51	-0.90	1.65	-2.77	-0.63
ROCKINGHAM	actual	2.96	3.21	3.99	4.01	1.76	5.12	2.42	1.00	3.43	5.73	1.56	2.56
	normal	3.27	3.30	4.19	4.19	4.10	4.10	3.77	3.16	3.77	4.35	4.29	3.73
	deviation	-0.31	-0.09	-0.20	-0.18	-2.34	1.02	-1.35	1.00	-0.34	1.38	-2.73	-1.17
Average	actual	2.81	3.32	3.87	3.82	1.71	4.53	2.07	-0.38	3.14	5.88	1.65	2.85
	normal	3.24	3.30	4.18	4.21	4.10	4.13	3.88	3.44	3.76	4.37	4.40	3.75
	deviation	-0.43	0.02	-0.32	-0.39	-2.40	0.40	-1.81	0.25	-0.62	1.52	-2.75	-0.90
Southern Interior													
HILLSBOROUGH	actual	3.06	2.83	4.63	3.74	1.98	5.15	2.22	3.93	3.65	7.67	1.33	3.00
	normal	3.39	3.29	3.95	4.14	4.10	4.22	3.96	3.75	3.74	4.46	4.22	3.80
	deviation	-0.33	-0.46	0.68	-0.40	-2.12	0.93	-1.74	0.18	-0.09	3.21	-2.89	-0.80
MERRIMACK	actual	2.56	3.08	3.76	3.84	2.50	5.62	2.00	4.01	3.18	7.46	1.58	3.60
	normal	3.26	3.09	3.73	3.96	4.01	4.33	4.11	3.76	3.77	4.42	4.15	3.64
	deviation	-0.70	-0.01	0.03	-0.12	-1.51	1.29	-2.11	0.25	-0.59	3.04	-2.57	-0.04
BELKNAP	actual	2.43	3.21	3.20	3.53	2.32	5.24	2.50	3.86	3.11	7.63	1.87	3.67
	normal	3.08	3.03	3.58	3.75	3.95	4.25	4.08	3.79	3.66	4.49	4.03	3.58
	deviation	-0.65	0.18	-0.38	-0.22	-1.63	0.99	-1.58	0.07	-0.55	3.14	-2.16	0.09
Average	actual	2.68	3.04	3.86	3.70	2.27	5.34	2.24	3.93	3.31	7.59	1.59	3.42
	normal	3.24	3.14	3.75	3.95	4.02	4.27	4.05	3.77	3.72	4.46	4.13	3.67
	deviation	-0.56	-0.10	0.11	-0.25	-1.75	1.07	-1.81	0.17	-0.41	3.13	-2.54	-0.25
South Western													
CHESHIRE	actual	2.64	2.81	4.04	3.10	2.38	6.37	3.37	4.29	3.02	7.69	1.44	3.17
	normal	3.42	3.17	3.73	3.79	4.10	4.20	4.36	4.06	3.83	4.60	3.98	3.68
	deviation	-0.78	-0.36	0.31	-0.69	-1.72	2.17	-0.99	0.23	-0.81	3.09	-2.54	-0.51
SULLIVAN	actual	2.18	2.73	3.23	3.48	2.50	5.22	3.35	3.18	2.73	6.07	1.55	3.52
	normal	2.72	3.00	3.51	3.66	3.91	4.17	4.36	4.06	3.80	4.51	3.86	3.49
	deviation	-0.90	-0.27	-0.28	-0.18	-1.41	1.05	-1.01	-0.88	-1.07	1.56	-2.31	0.03
Average	actual	-0.55	2.77	3.64	3.29	2.44	5.80	3.36	3.74	2.88	6.88	1.50	3.35
	normal	3.07	3.09	3.62	3.73	4.01	4.19	4.36	4.06	3.82	4.56	3.92	3.59
	deviation	-0.84	-0.32	0.02	-0.44	-1.57	1.61	-1.00	-0.33	-0.94	2.33	-2.43	-0.24
White Mountain													
GRAFTON	actual	2.53	3.28	3.58	3.53	3.13	5.45	5.61	3.42	2.69	7.67	2.56	3.91
	normal	3.19	2.84	3.45	3.76	4.20	4.58	4.56	4.61	4.09	4.68	4.35	3.71
	deviation	-0.66	0.44	0.13	-0.23	-1.07	0.87	1.05	-1.19	-1.40	2.99	-1.79	0.20
CARROLL	actual	3.33	3.78	3.59	4.42	2.35	4.78	4.05	3.31	3.35	9.00	2.74	4.44
	normal	3.57	3.31	4.02	4.46	4.32	4.49	4.40	4.42	3.99	4.96	4.72	4.17
	deviation	-0.24	0.47	-0.43	-0.04	-1.97	0.29	-0.35	-1.11	-0.64	4.04	-1.98	0.27
Average	actual	2.93	3.53	3.59	3.98	2.74	5.12	4.83	3.37	3.02	8.34	2.65	4.18
	normal	3.38	3.08	3.74	4.11	4.26	4.54	4.48	4.52	4.04	4.82	4.54	3.94
	deviation	-0.45	0.46	-0.15	-0.14	-1.52	0.58	0.35	-1.15	-1.02	3.52	-1.89	0.24
North Country													
COOS	actual	3.05	2.84	3.09	3.51	2.92	5.48	3.91	4.00	2.30	7.78	2.63	3.08
	normal	3.09	2.72	3.21	3.62	4.21	4.79	4.57	4.84	4.00	4.52	4.24	3.58
	deviation	-0.04	0.12	-0.12	-0.11	-1.29	0.69	-0.66	-0.84	-1.70	3.26	-1.61	-0.50

Source; Northeast River Forecast Center, NH DES Dam Bureau

LAMPREY RIVER near NEWMARKET NH
Gage# 01073500

MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Monthly Mean Flow	376	481	450	308	115	43	14	7	5	50	121	230	355	314	429	811	500	269	93	41	57	120.4	344	178
Mean of Monthly Flows	293	309	609	691	350	207	100	75	74	145	271	347	294	309	607	692	352	207	100	75	74	145	272	345
% of Normal	128%	156%	74%	45%	33%	21%	14%	9%	7%	34%	44%	66%	121%	102%	71%	117%	142%	130%	93%	55%	78%	83%	126%	52%

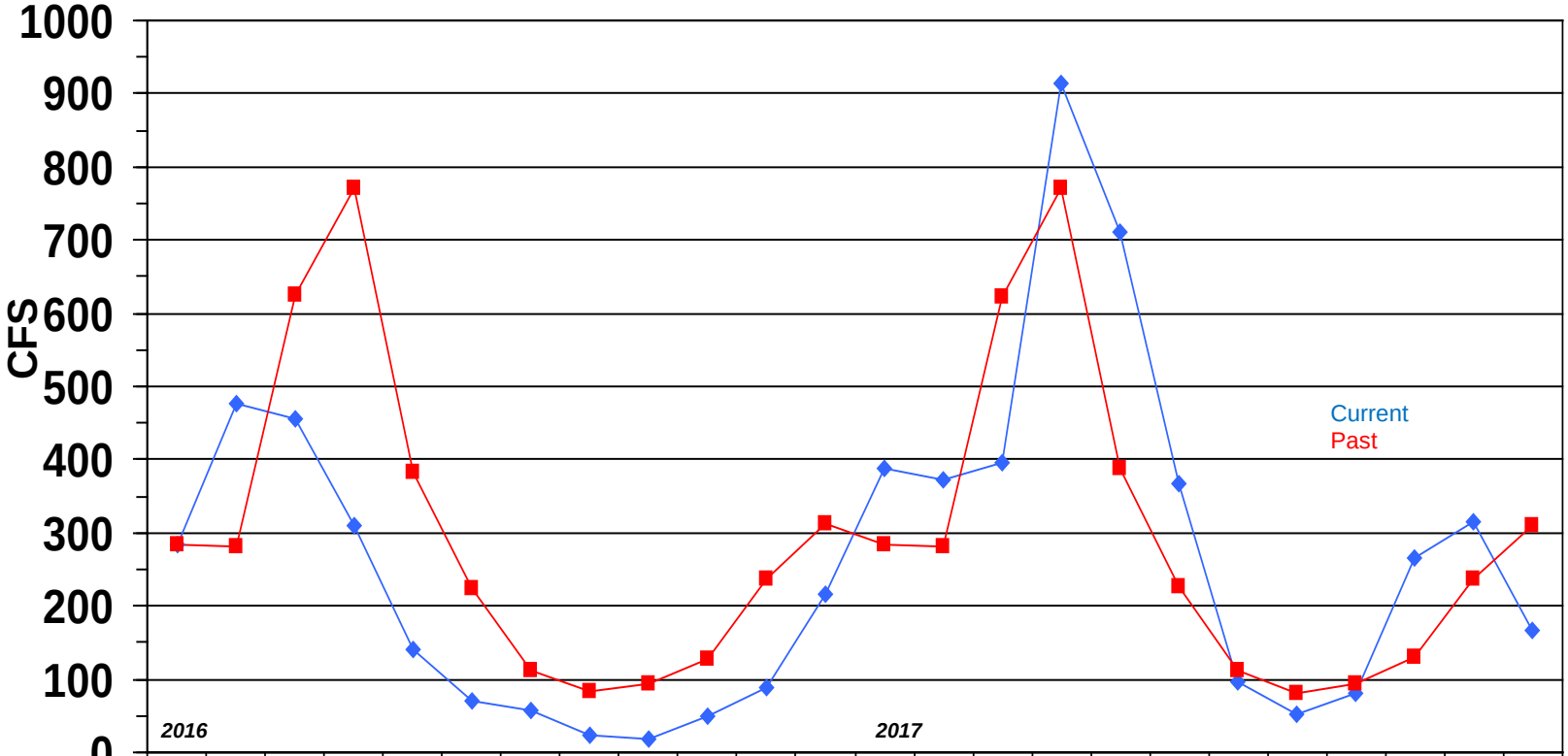
NH DES, Dam Bureau, Source: USGS

Start of record 1934

Dec – 7 days ice

SOUHEGAN RIVER at MERRIMACK NH
Gage# 01094000

MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Monthly Mean Flow	285	476	457	309	141	71	58	23	17	50	89	217	388	373	395	914	710	367	96	51	80	266.3	315	167
Mean of Monthly Flows	283	281	626	770	384	225	111	83	93	127	237	312	284	282	623	772	388	227	111	82	93	129	238	310
% of Normal	101%	169%	73%	40%	37%	52%	52%	28%	18%	39%	37%	70%	137%	132%	63%	118%	183%	162%	87%	62%	86%	206%	132%	54%

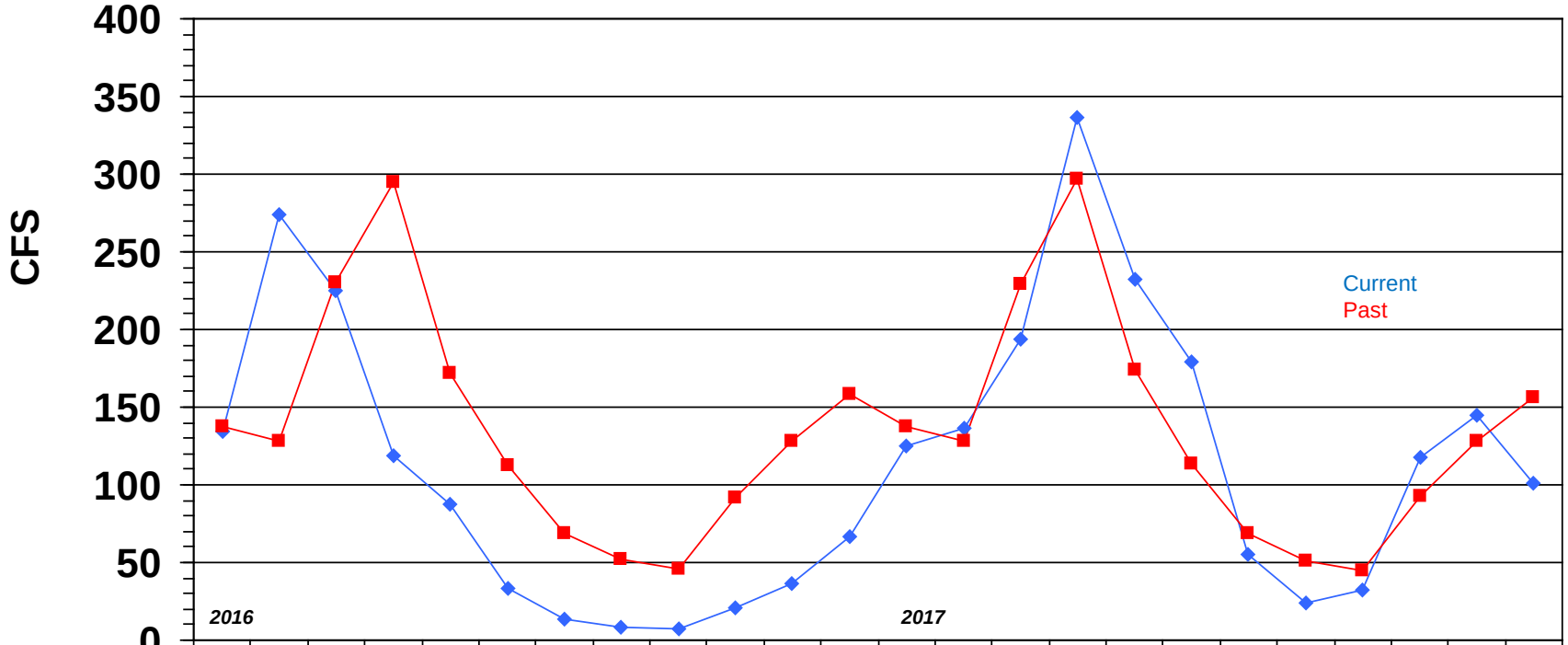
NH DES, Dam Bureau, Source: USGS

Start of record 1909

Dec – 4 days ice

SOUCOOK RIVER at PEMBROKE ROAD
near CONCORD NH, Gage# 01089100

MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Monthly Mean Flow	134	274	225	119	87	33	14	8	7	21	36	67	125	136	194	336	232	179	55	24	32	117.9	145	101
Mean of Monthly Flows	138	128	230	295	172	112	69	52	46	92	128	158	137	128	229	297	174	114	69	51	45	93	128	156
% of Normal	97%	214%	98%	40%	51%	29%	20%	15%	16%	23%	28%	43%	91%	106%	85%	113%	133%	157%	80%	47%	70%	127%	113%	65%

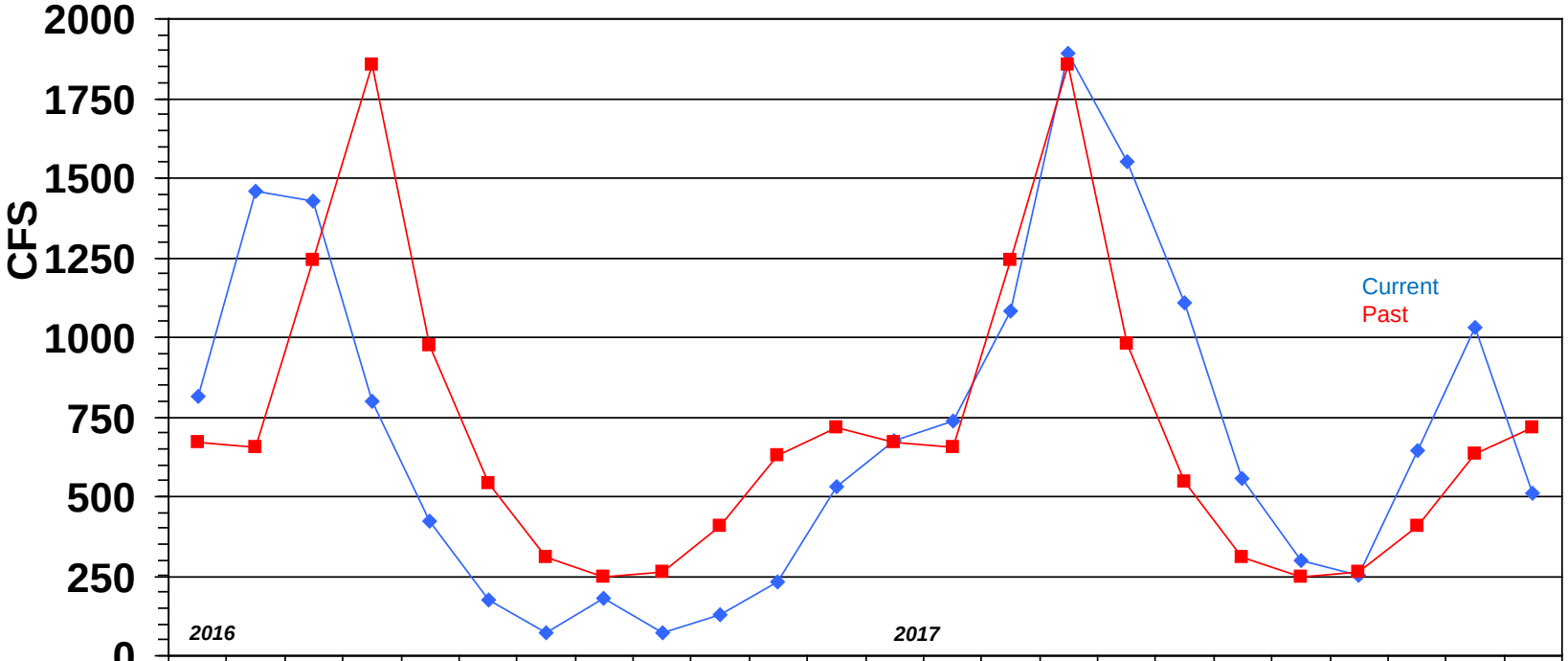
NH DES, Dam Bureau, Source: USGS

Start of record 1988

Dec – 7 days ice

ASHUELOT RIVER at HINSDALE NH
Gage# 01161000

MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Monthly Mean Flow	814	1457	1430	799	425	175	73	180	70	130	231	532	674	739	1082	1893	1550	1108	555	301	254	645.9	1029	511
Mean of Monthly Flows	668	653	1242	1855	975	541	308	245	264	405	628	718	668	654	1241	1856	981	546	310	245	264	407	632	716
% of Normal	122%	223%	115%	43%	44%	32%	24%	73%	26%	32%	37%	74%	101%	113%	87%	102%	158%	203%	179%	123%	96%	159%	163%	71%

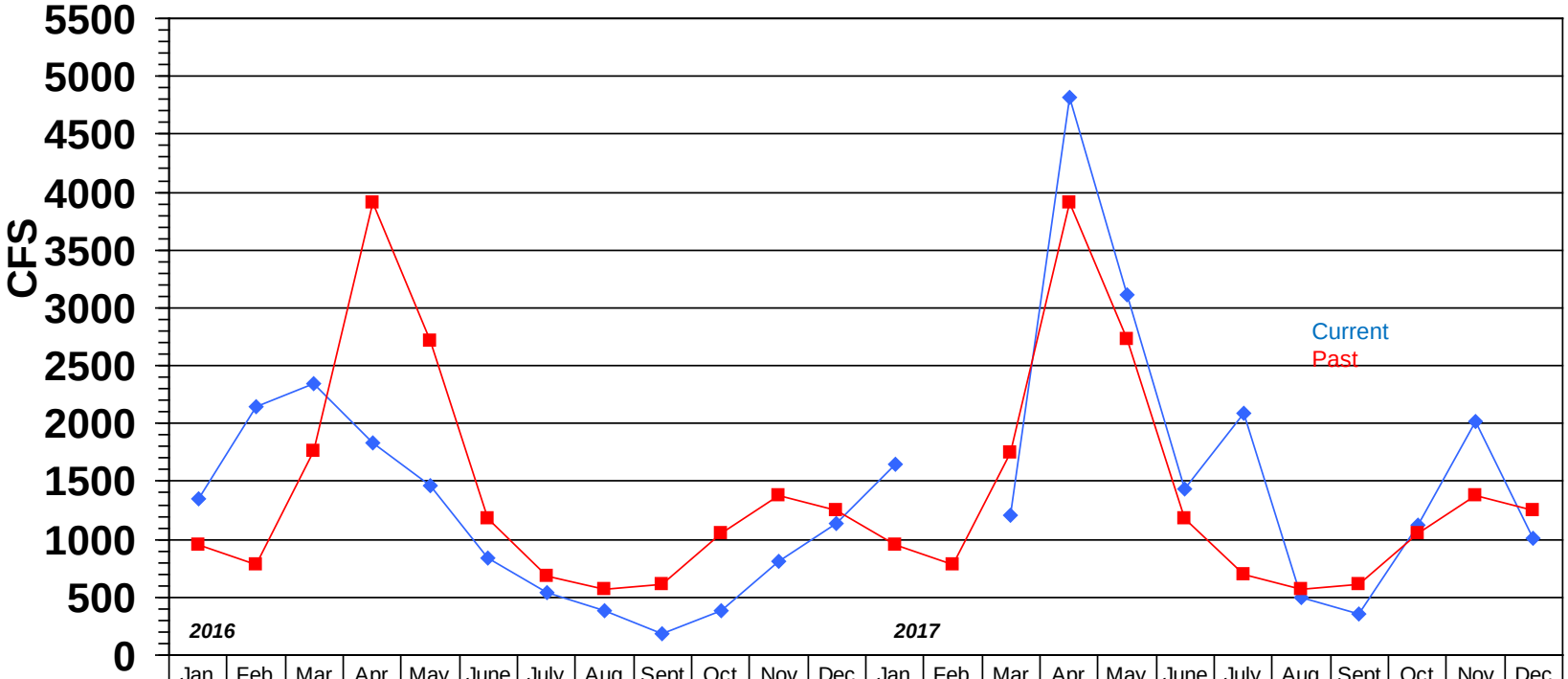
Start of record 1907

Dec – 14 days ice

NH DES, Dam Bureau, Source: USGS

PEMIGEWASSET RIVER at PLYMOUTH NH
Gage# 01076500

MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Monthly Mean Flow	1357	2142	2348	1830	1461	845	538	384	186	390	814	1139	1651	ice	1213	4813	3106	1433	2083	502	351	1126	2012	1014
Mean of Monthly Flows	949	778	1760	3903	2719	1175	681	565	609	1056	1376	1246	955	778	1755	3911	2722	1177	693	565	606	1056	1382	1244
% of Normal	143%	275%	133%	47%	54%	72%	79%	68%	30%	37%	59%	91%	173%		69%	123%	114%	122%	301%	89%	58%	107%	146%	81%

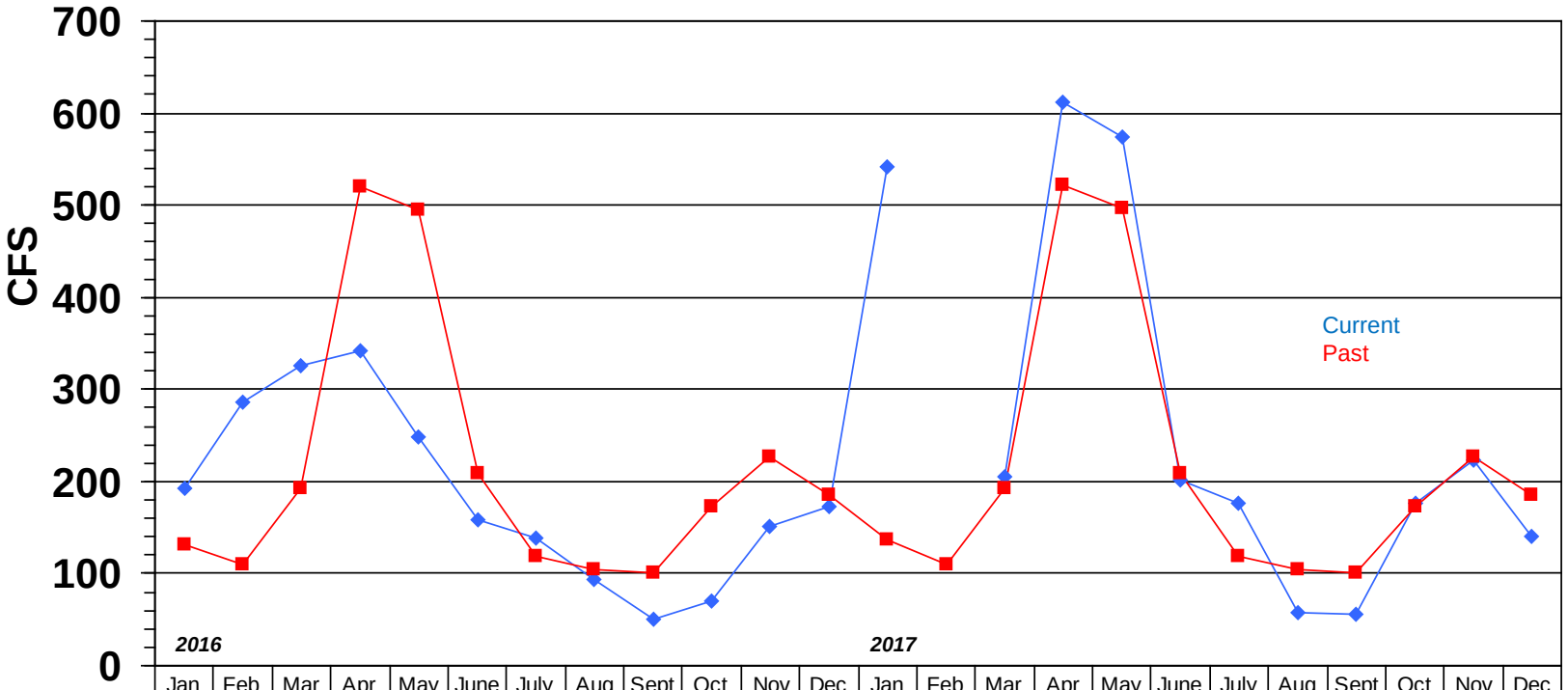
Start of record 1903

NH DES, Dam Bureau, Source: USGS

AMMONOOSUC RIVER at BETHLEHEM JUNCTION NH
Gage# 01137500

MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

This station replaces gage# 01137000 which was discontinued by DES at the end of Sept 2004

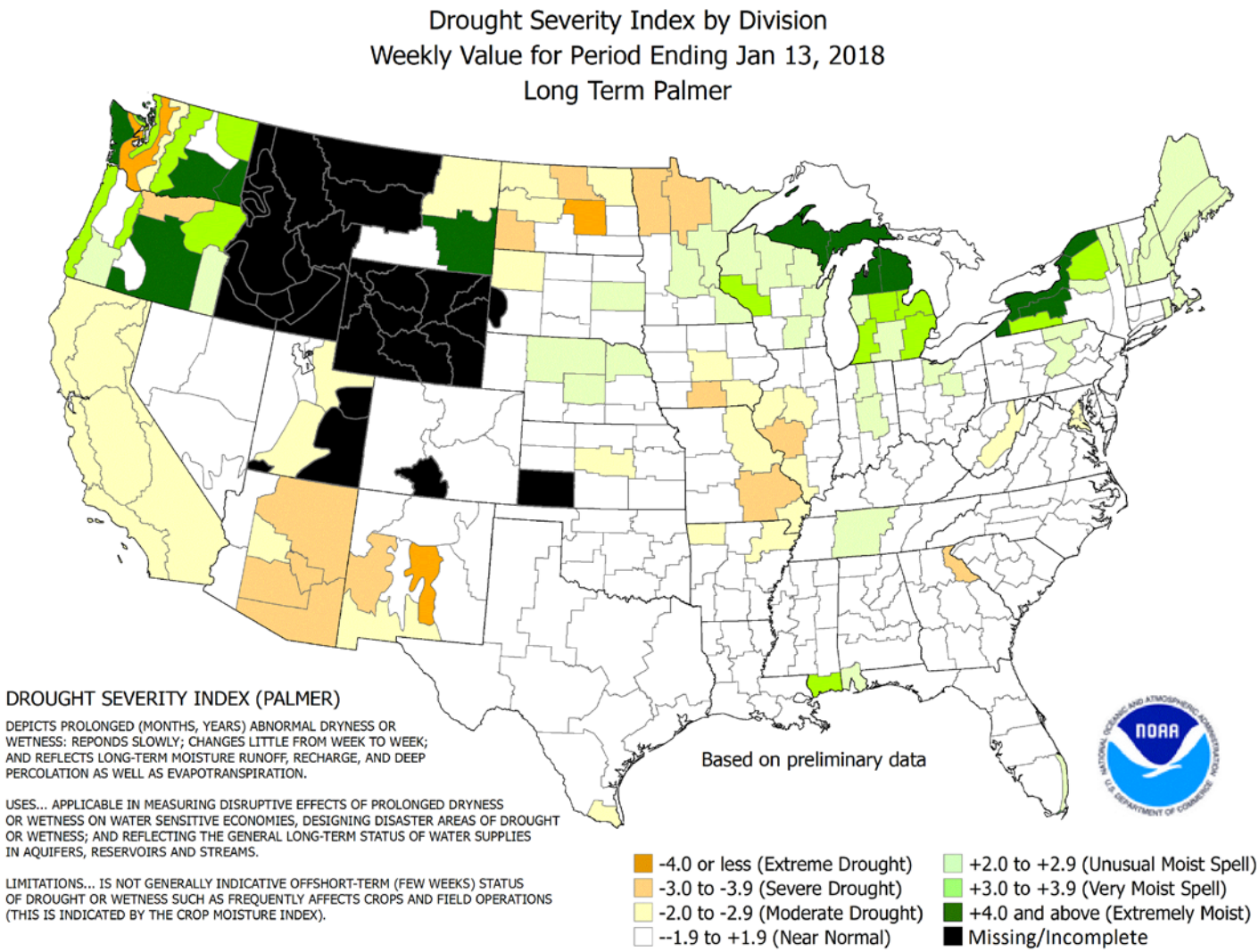


	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Monthly Mean Flow	193	287	325	342	249	158	138	94	50	71	152	172	541	ice	205	611	574	201	177	58	55	176.9	223	140
Mean of Monthly Flows	132	109	192	520	494	209	118	105	101	173	226	185	137	109	193	521	496	209	119	105	101	173	226	185
% of Normal	146%	263%	169%	66%	50%	76%	117%	89%	50%	41%	67%	93%	395%		106%	117%	116%	96%	149%	55%	55%	102%	99%	76%

Start of record 1939

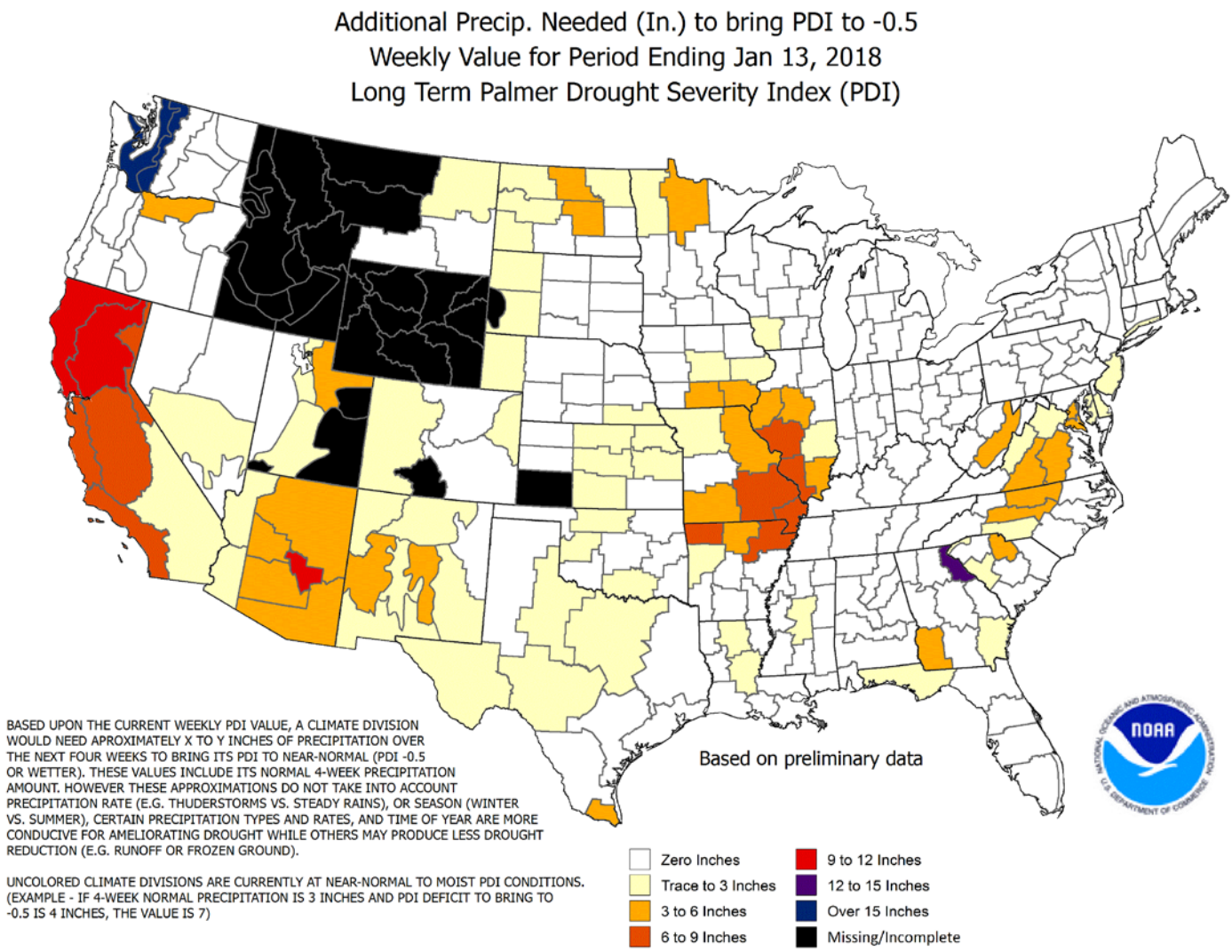
Dec – 18 days ice

NH DES, Dam Bureau, Source: USGS



THE PALMER DROUGHT SEVERITY INDEX

The Palmer Index uses temperature and rainfall information in a formula to determine dryness. The advantage of the Palmer Index is that it is standardized to local climate.



This is the amount of rainfall required in a week’s time to bring the index back to zero inches required.