

# RECLAMATION

*Managing Water in the West*

**Fontenelle Working Group Meeting**

**August 20, 2014**



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Upper Colorado Region  
Hydraulic Engineer



U.S. Department of the Interior  
Bureau of Reclamation

# Fontenelle Reservoir Current Status

As of 8/18/14

## Storage

Live Capacity	345,000 AF
Capacity on 8/18/14	<u>339,095 AF</u> (98% full)

## Pool Elevation

Reservoir Elev. (Max)	6506.00 ft
Elevation on 8/18/14	<u>6505.28 ft</u>
Elevation below (Max)	.72 ft

## Inflow and Release

Average Inflow on 8/18/14	1,450 cfs
Current Release on 8/18/14	1,650 cfs

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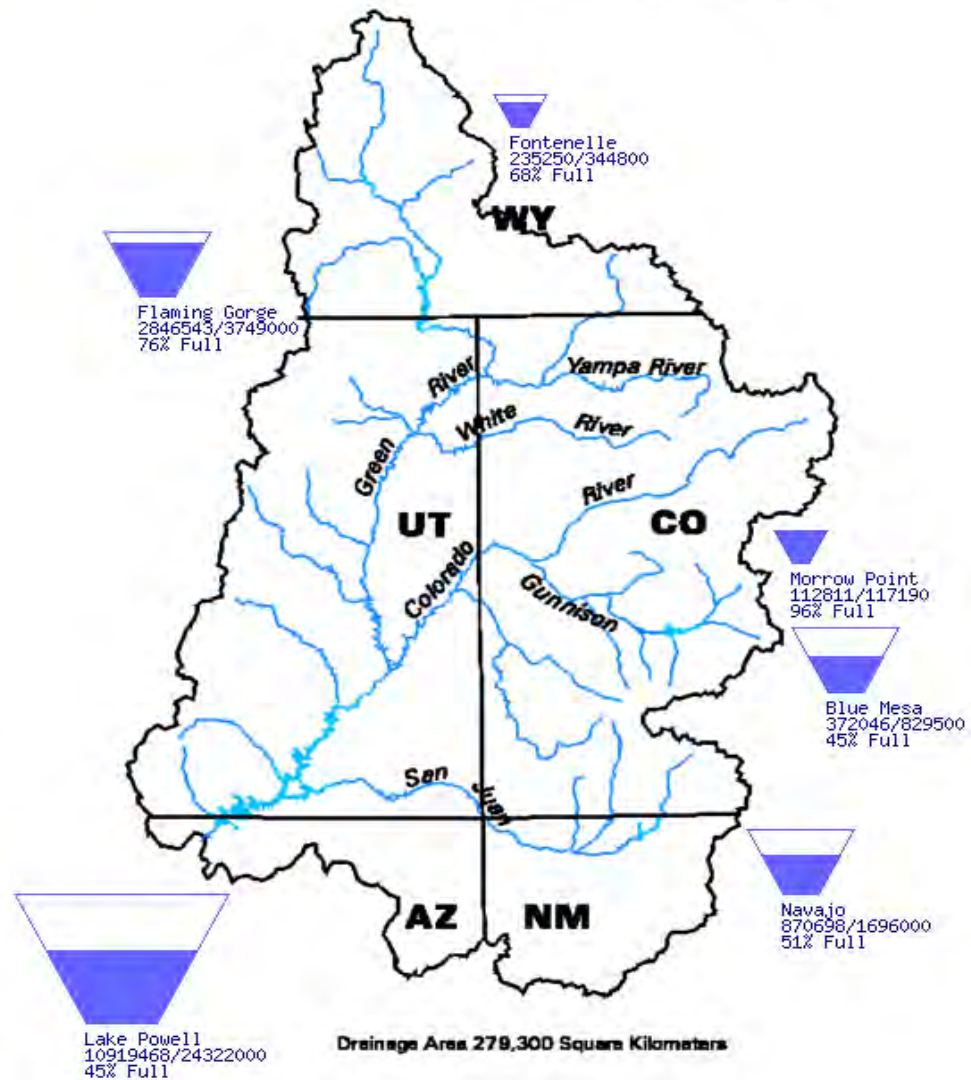
# CRSP System Storage 2013

Observed April-July Inflow Percent of Average Volume

- Fontenelle – 44%
- Flaming Gorge – 37%
- Blue Mesa – 51%
- Navajo – 36%
- Glen Canyon – 36%

Data Current as of:  
08/19/2013

## Upper Colorado River Drainage Basin



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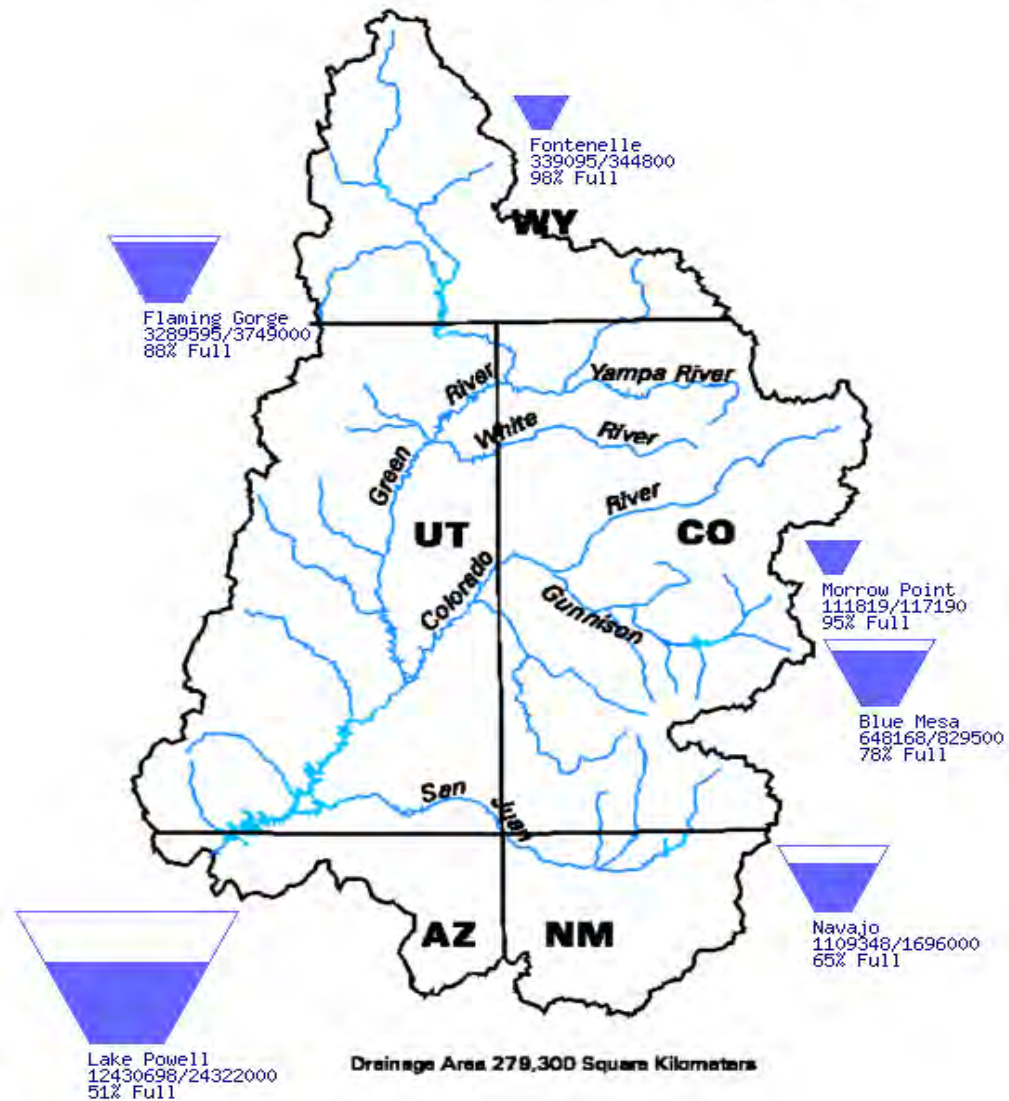
# CRSP System Storage 2014

Observed April-July Inflow Percent of Average Volume

- Fontenelle – 141%
- Flaming Gorge – 118%
- Blue Mesa – 126%
- Navajo – 58%
- Glen Canyon – 97%

Data Current as of:  
8/18/2014

## Upper Colorado River Drainage Basin

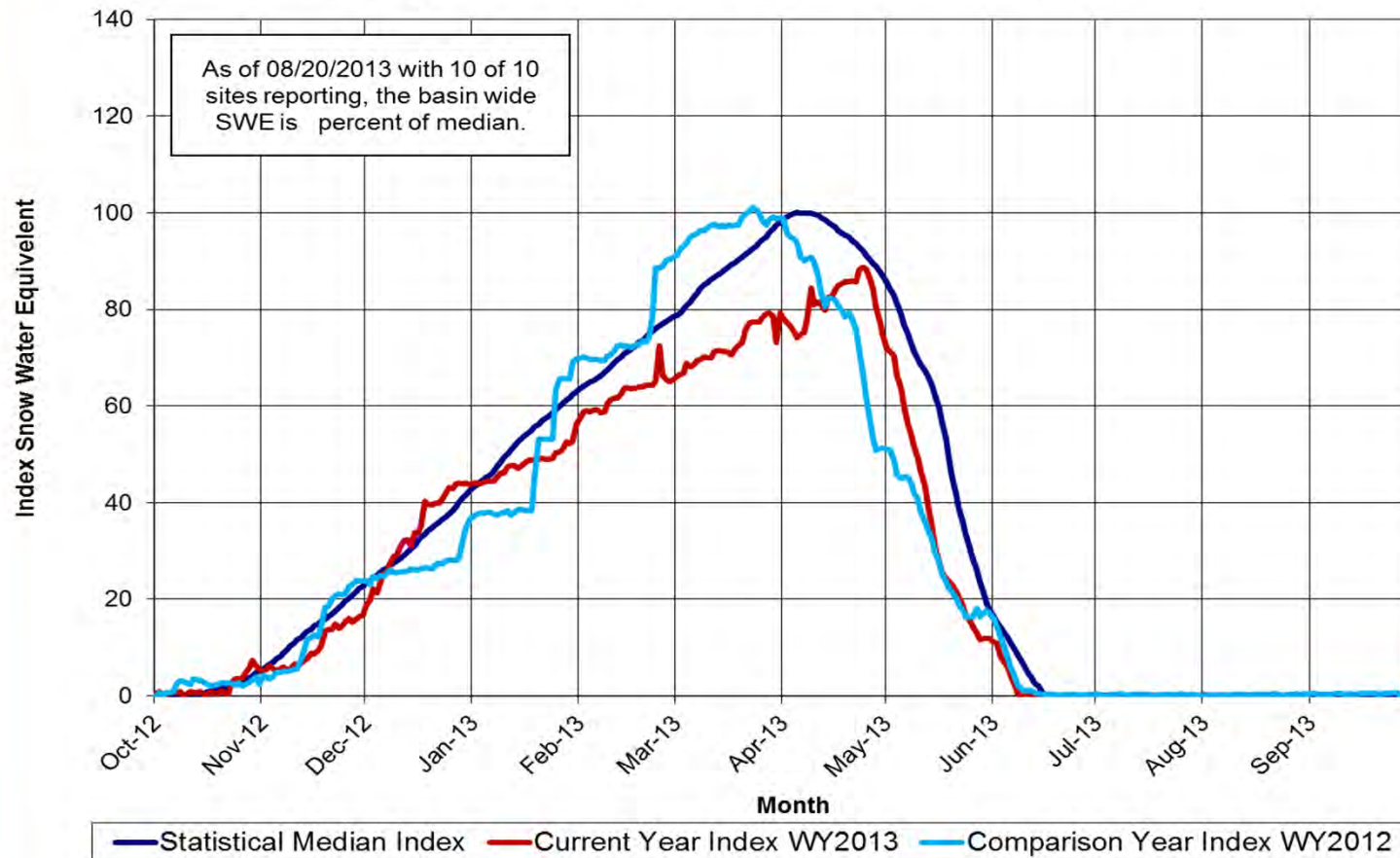


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# Observed Snowpack

## Water Year 2012-2013

**Upper Green River Basin Snotel Tracking**  
Aggregate of 13 Snotel Sites above Fontenelle Reservoir

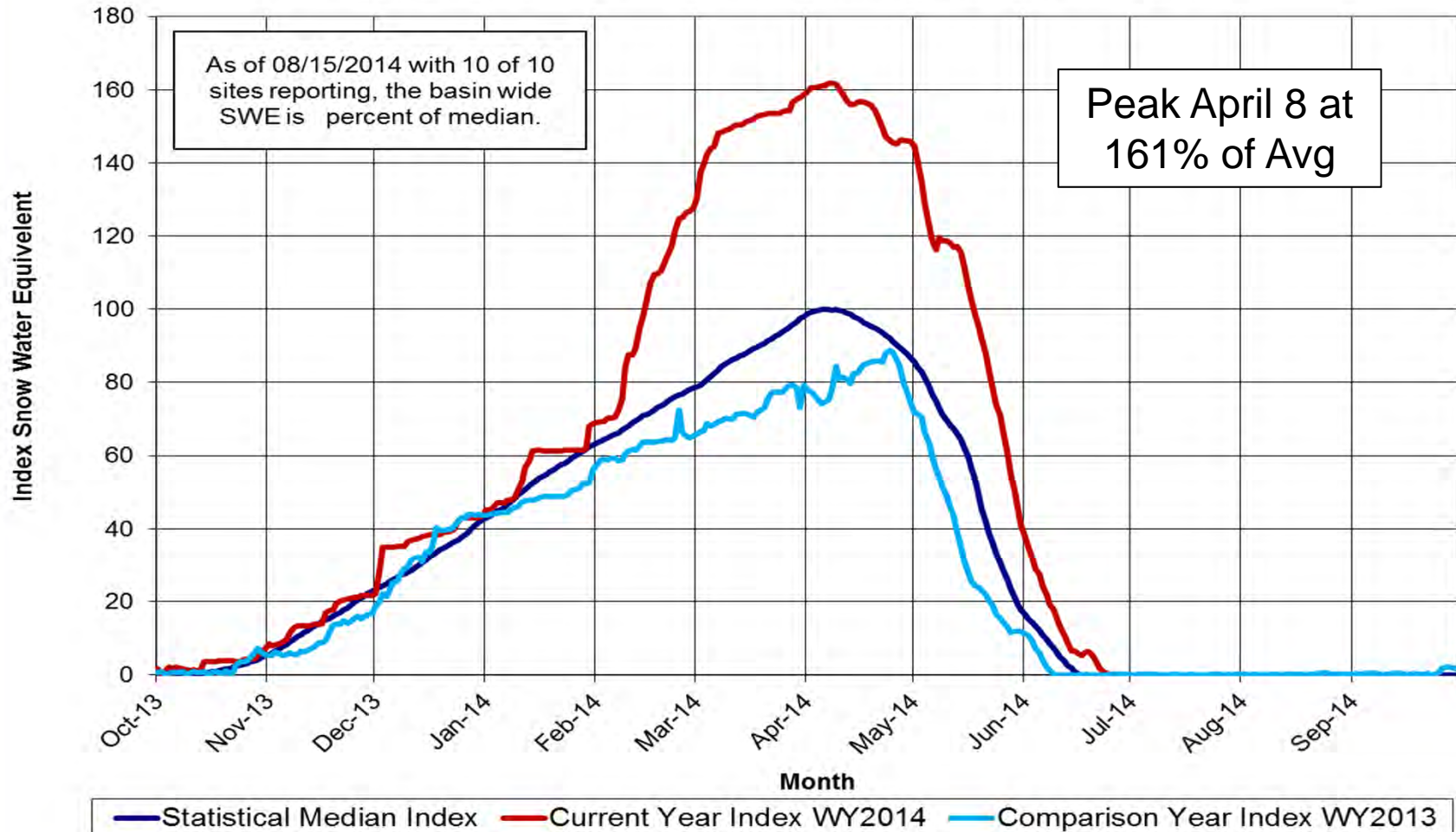


Data Provided by the Natural Resource Conservation Service

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# Observed Snowpack

**Upper Green River Basin Snotel Tracking**  
Aggregate of 13 Snotel Sites above Fontenelle Reservoir

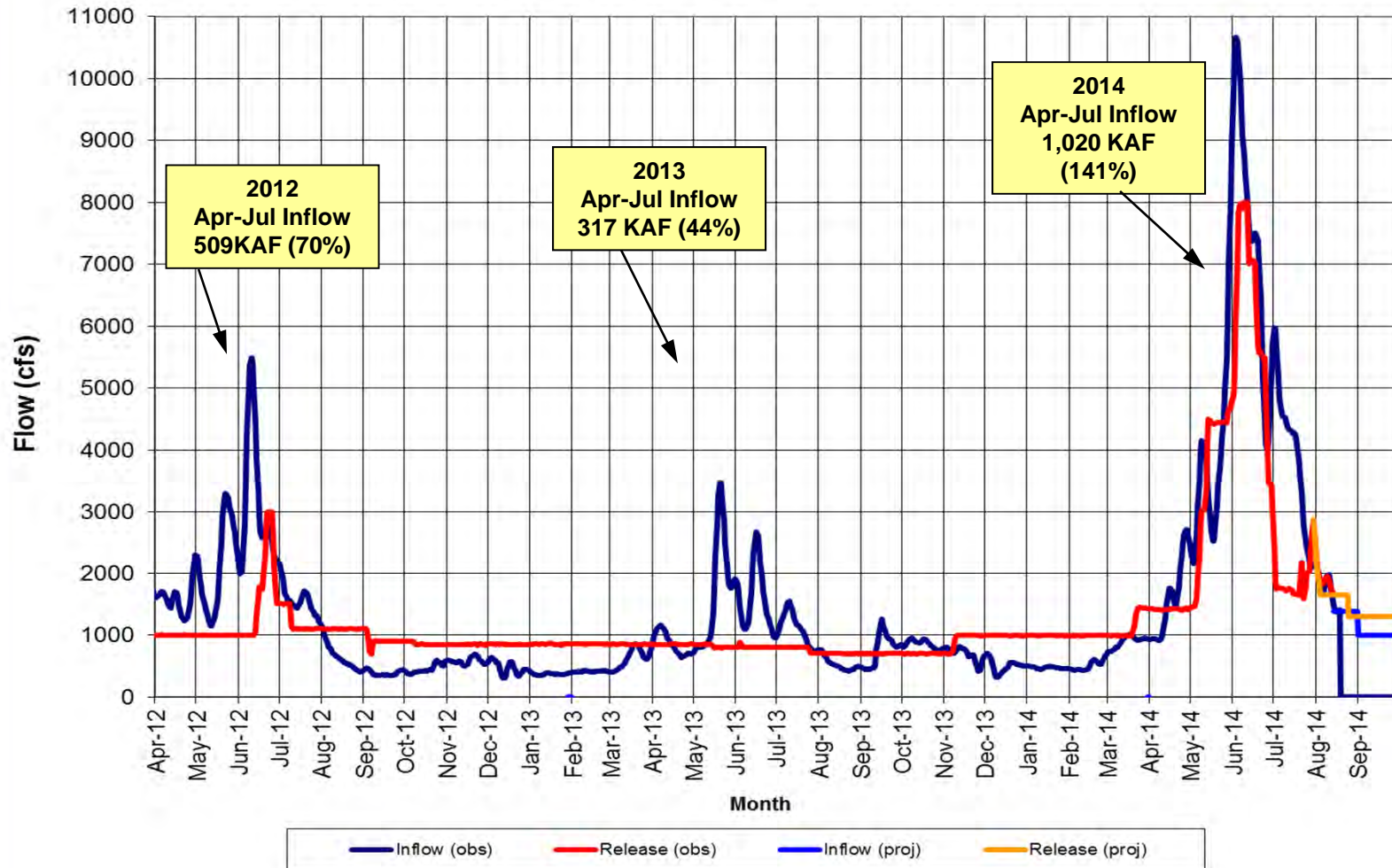


Data Provided by the Natural Resource Conservation Service

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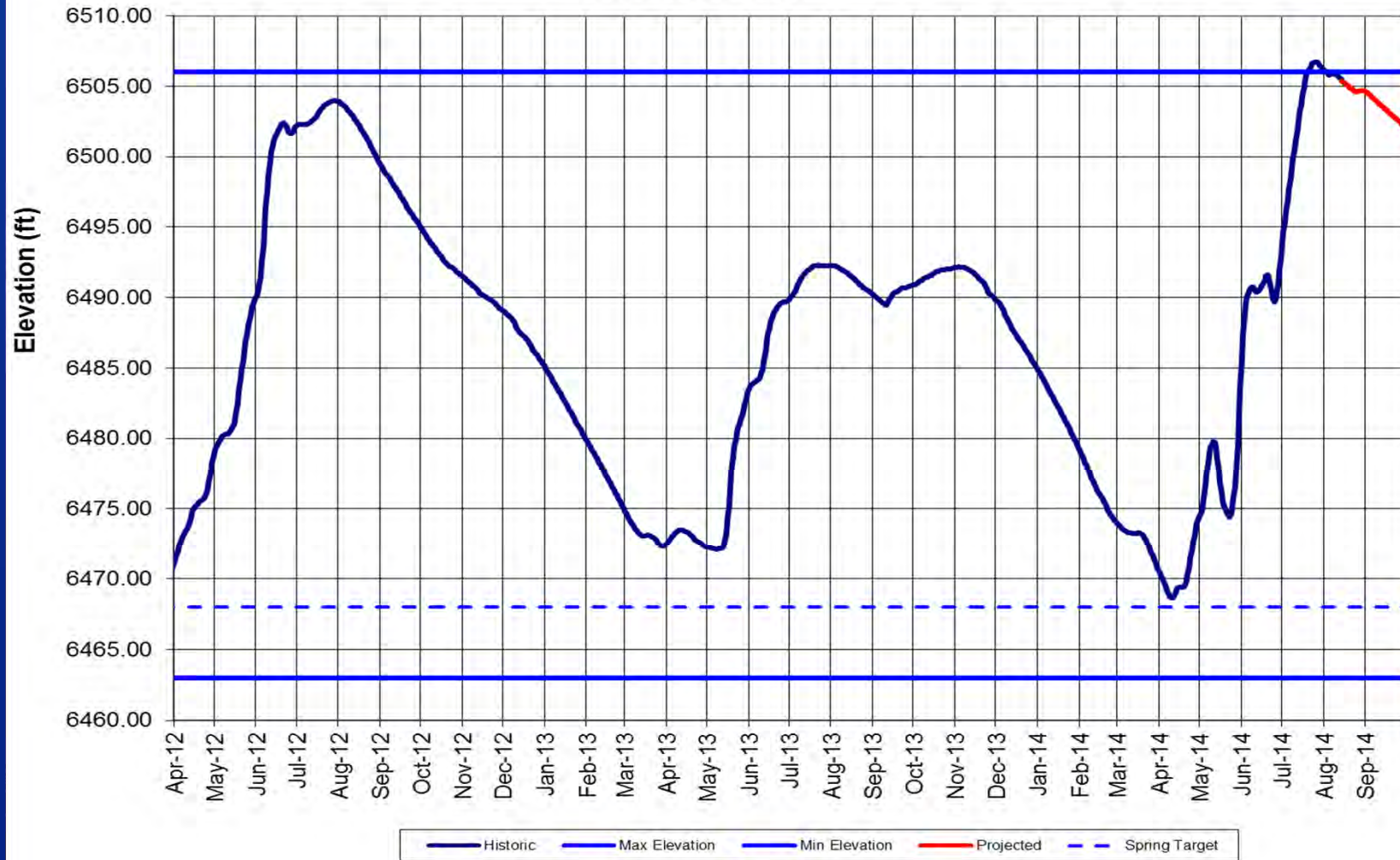
# Observed Inflow and Release

Fontenelle Inflow and Release  
2012, 2013, 2014



# Observed Reservoir Elevation

Fontenelle Elevations  
2012, 2013, 2014

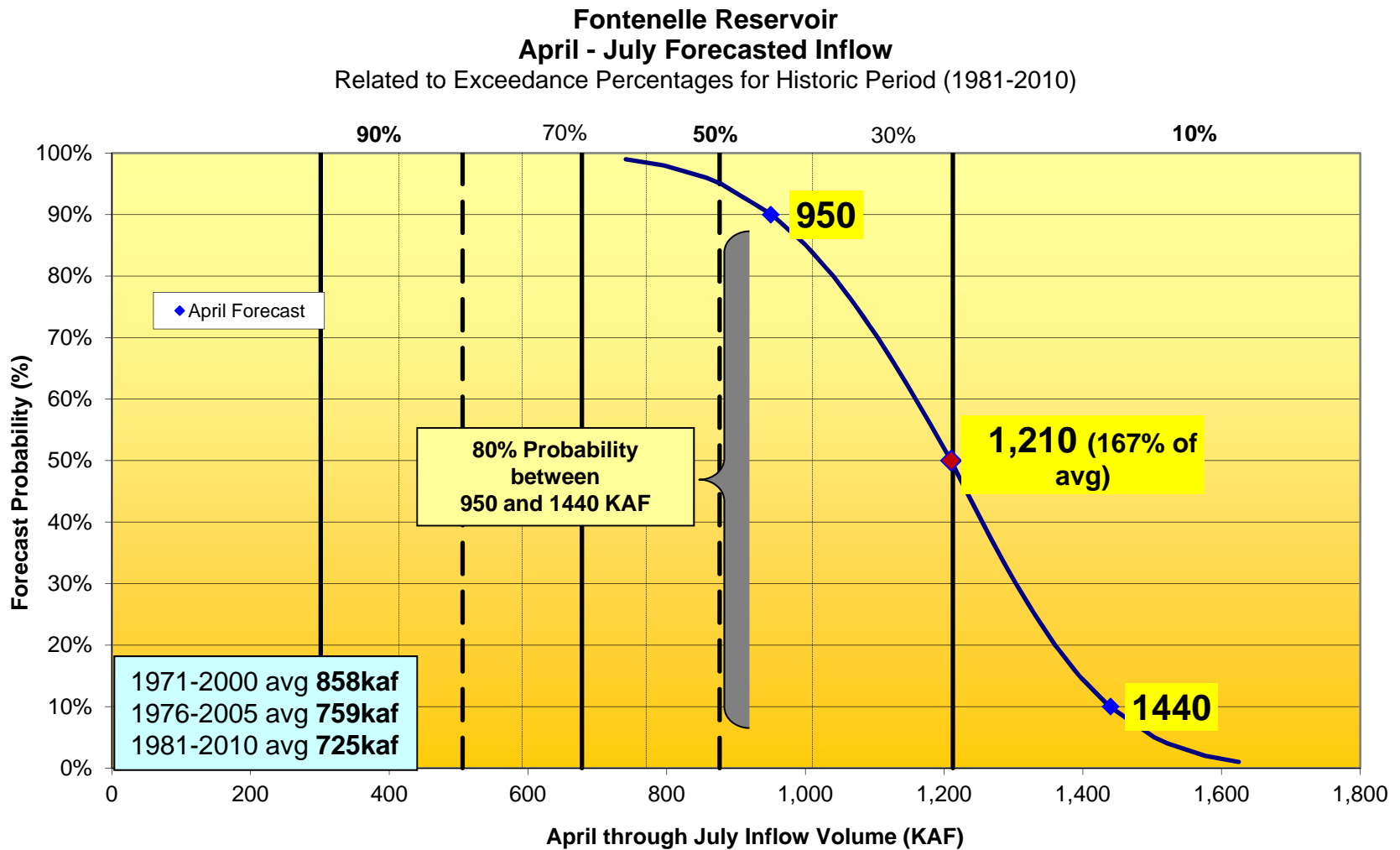




# Water Year 2012 Operations Review

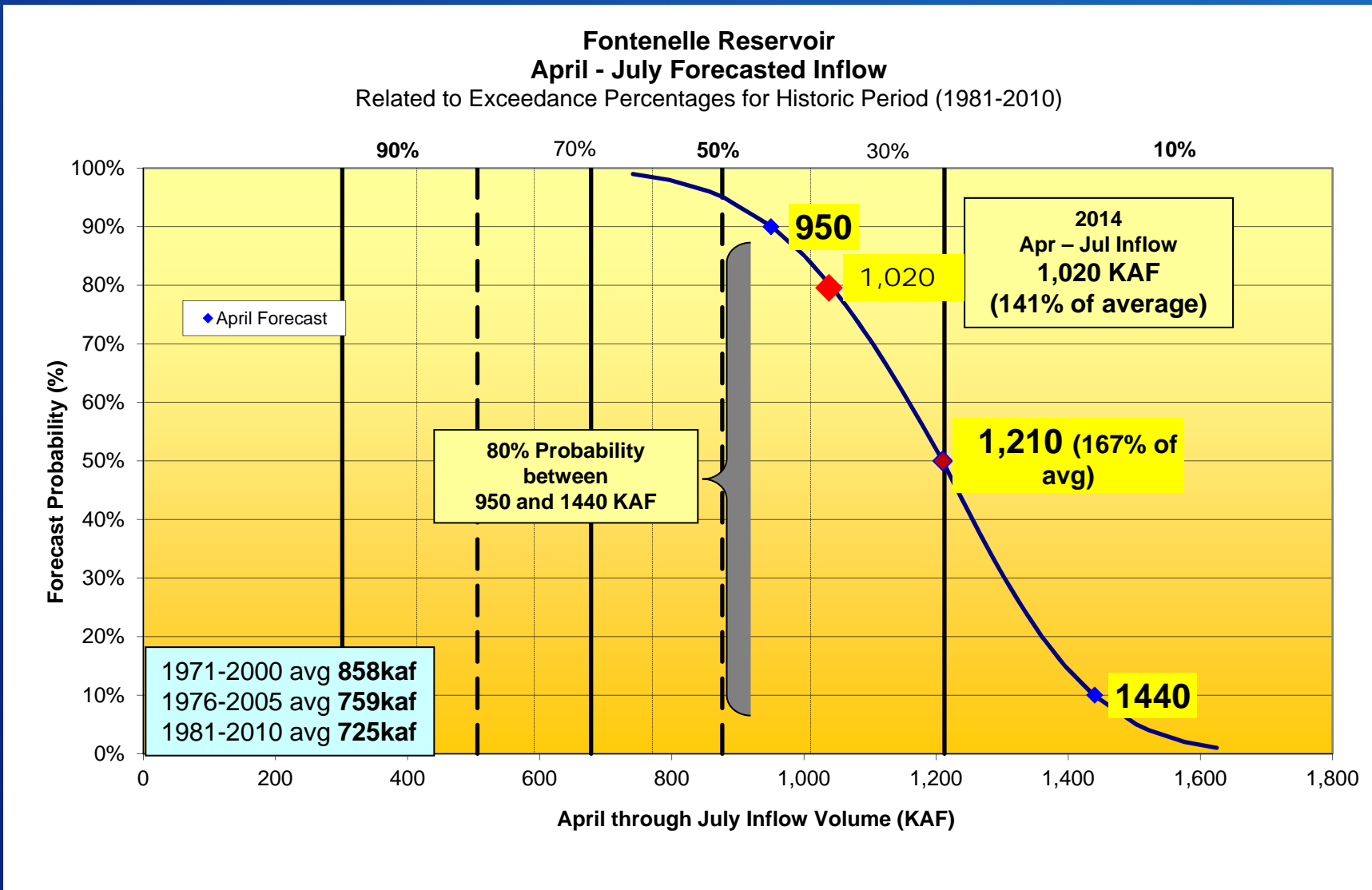
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# April Official and Midmonth Forecast



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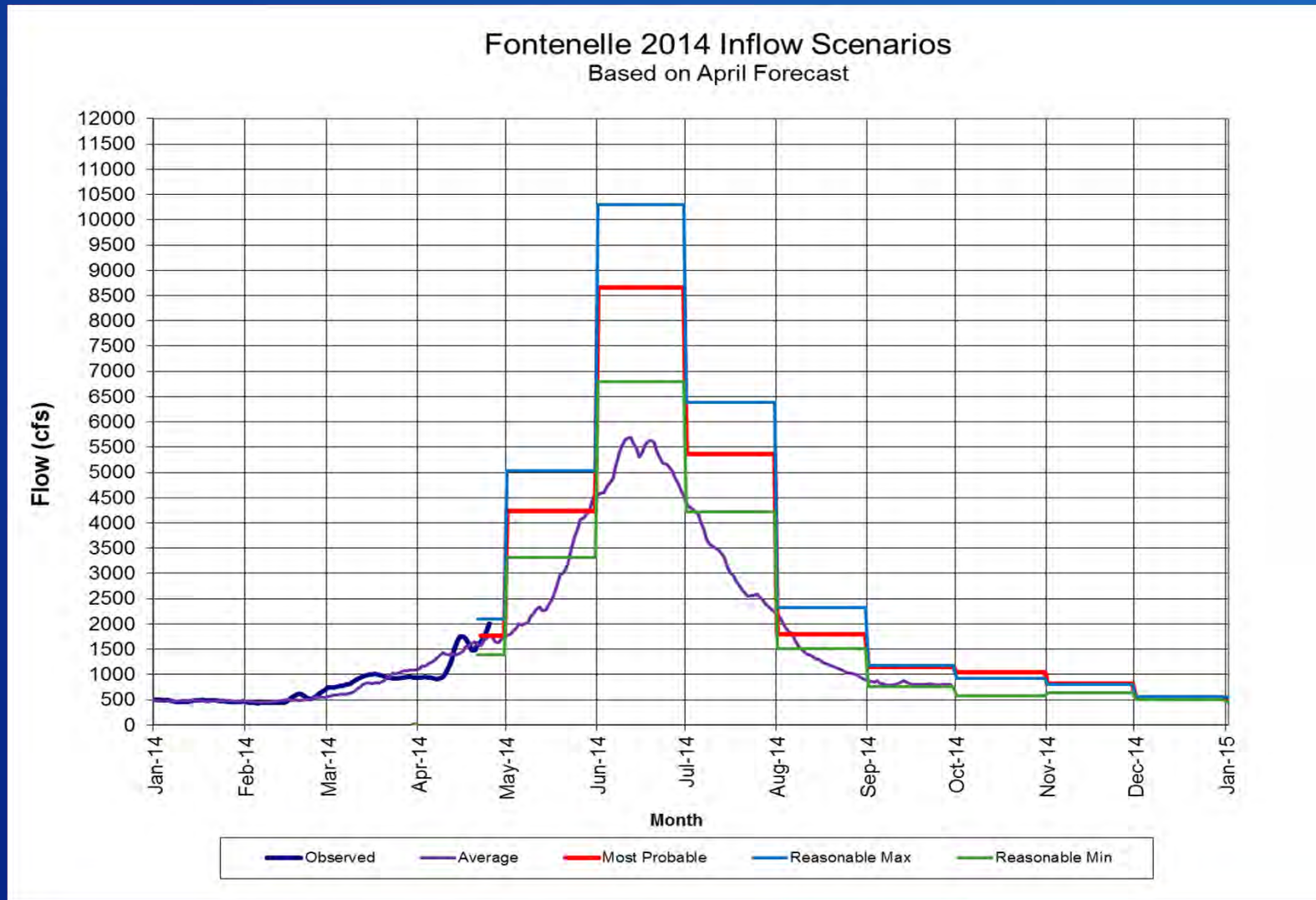
# April Official and Midmonth Forecast



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# Projected 2014 Inflow Scenarios

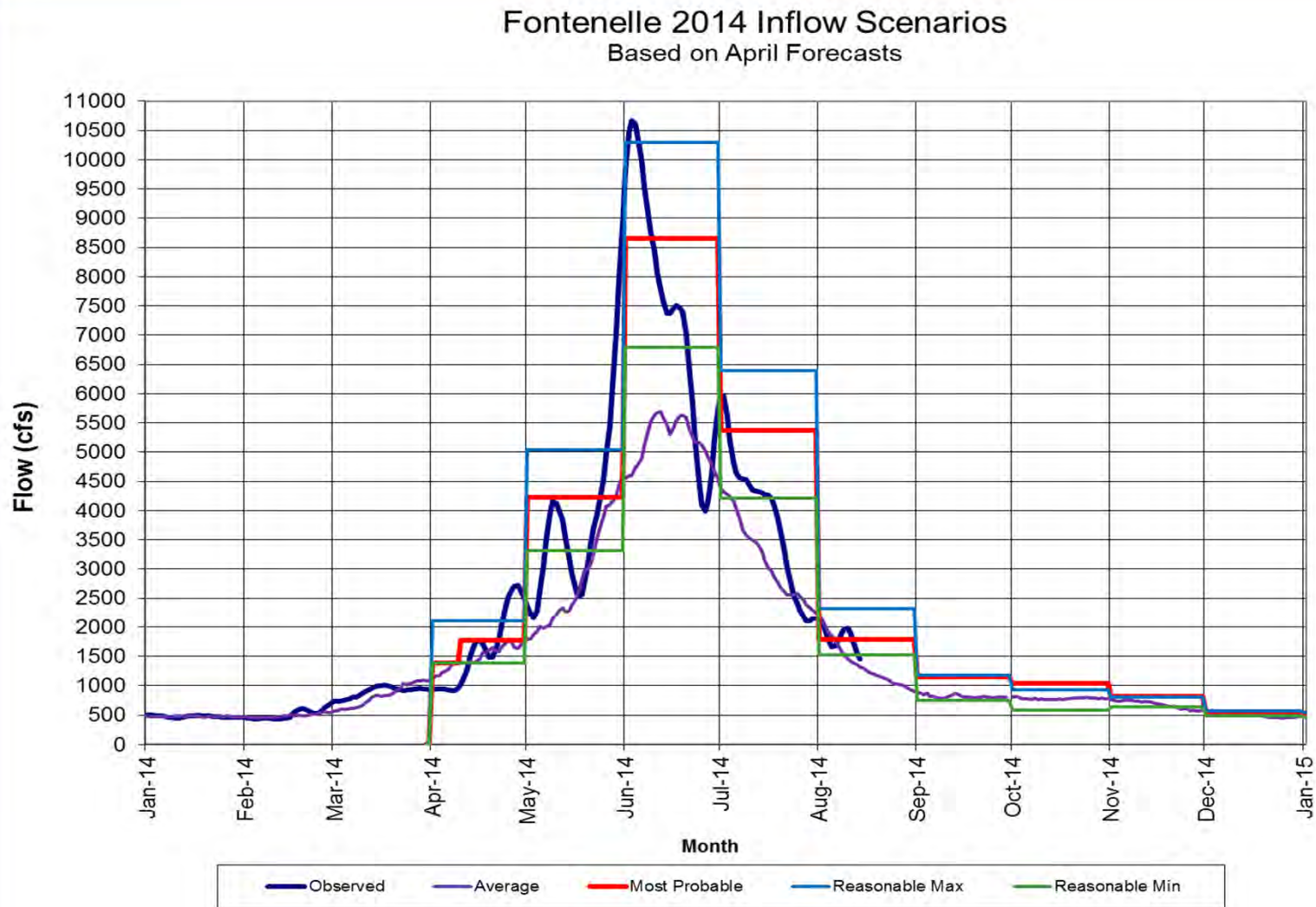
Presented at April Working Group Meeting



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# Observed 2014 Inflow

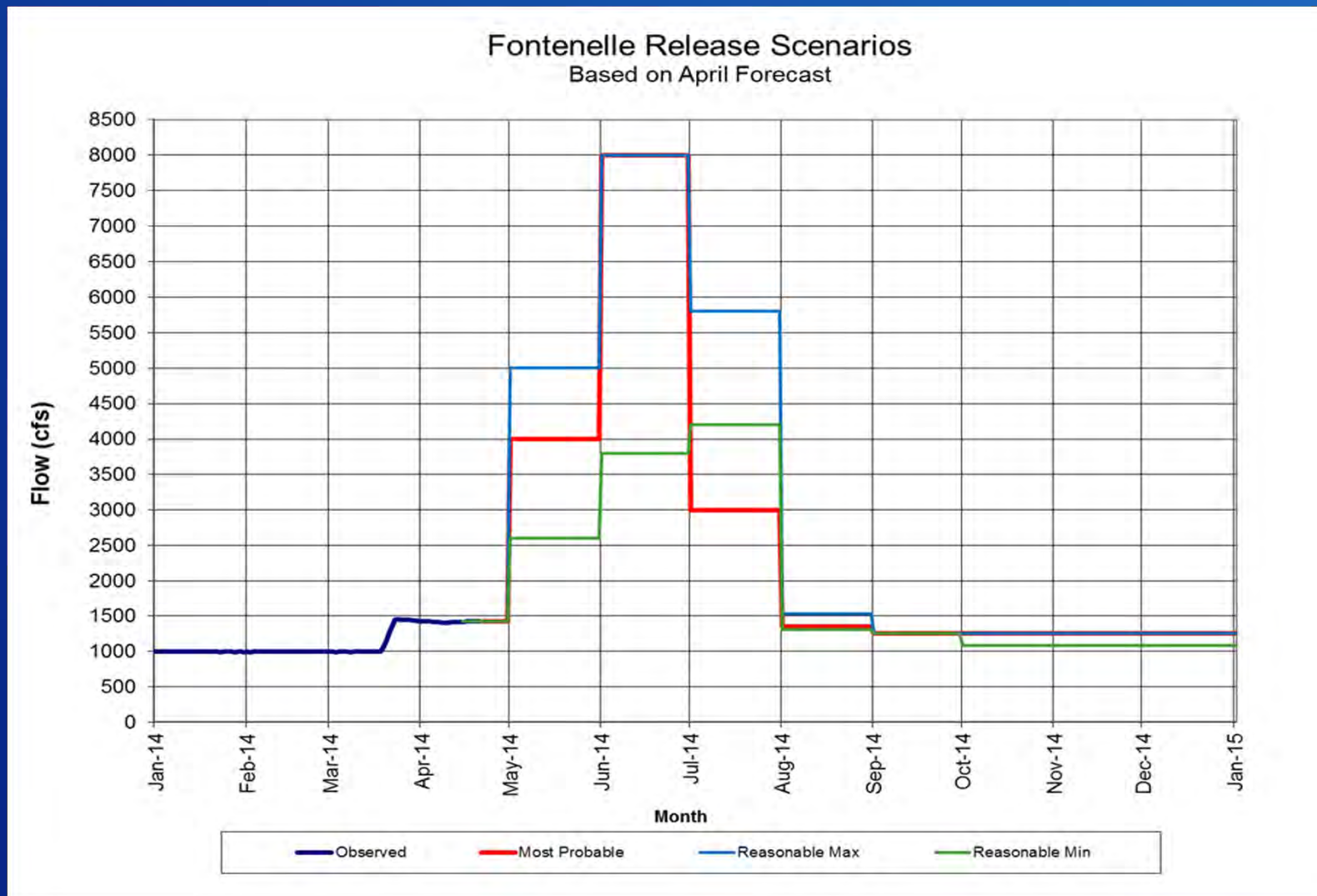
As of Aug 14, 2014



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# Projected 2014 Release Scenarios

Presented at April Working Group Meeting



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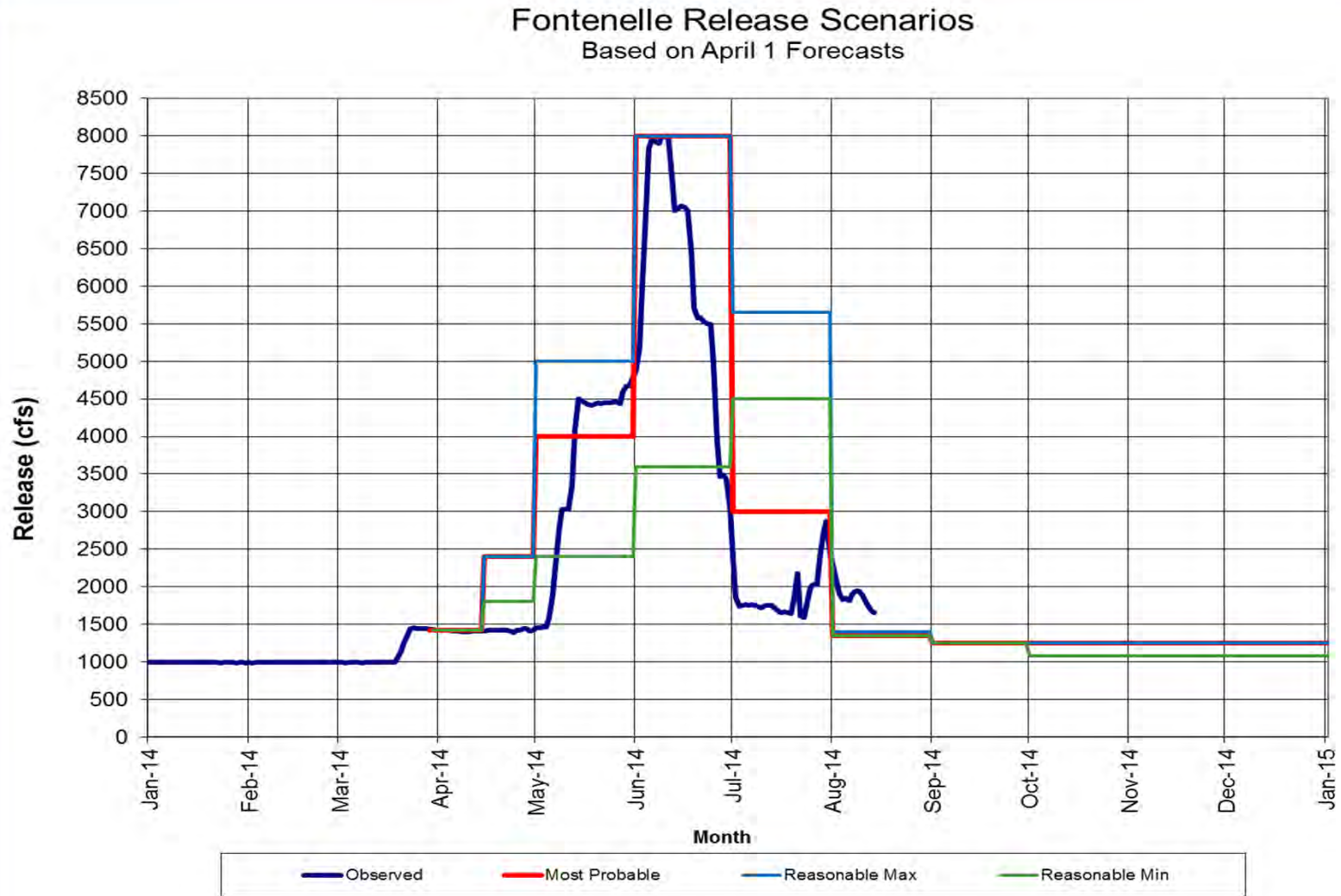
# Spillway Operation



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# Observed 2014 Release

As of Aug 14, 2014

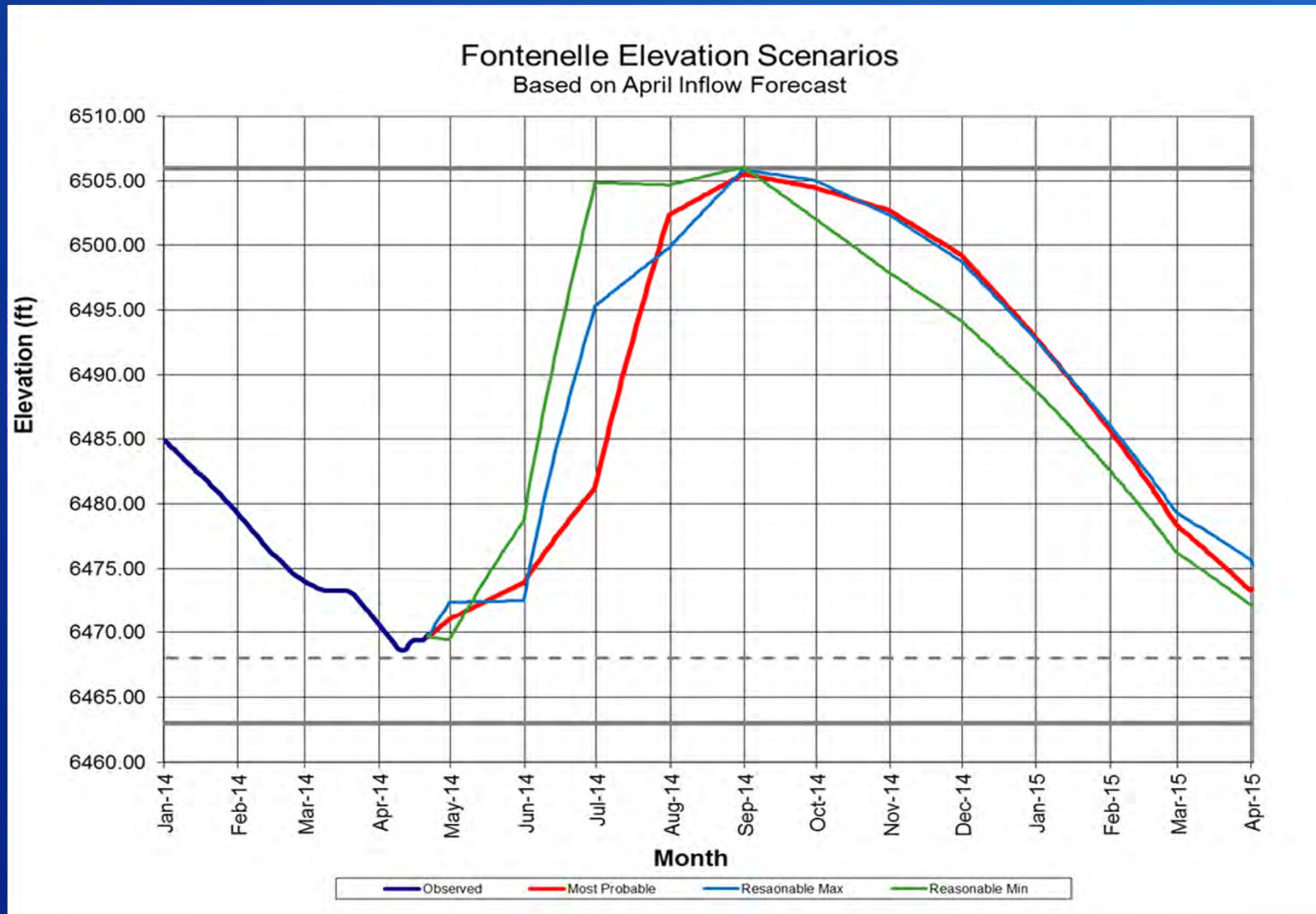


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# Projected Elevation Scenarios

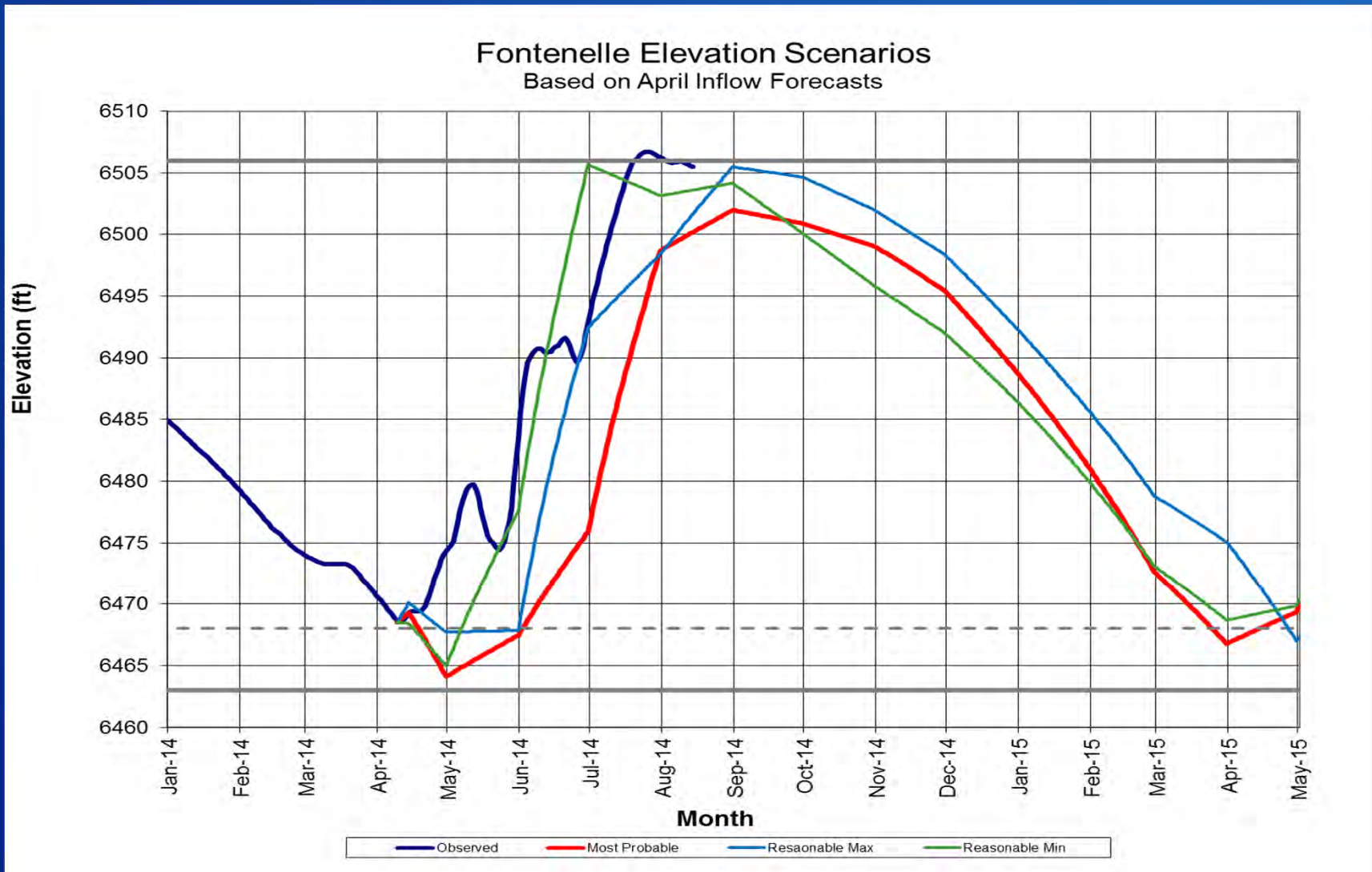
Presented at April Working Group Meeting



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# Observed Elevation

As of Aug 19, 2014



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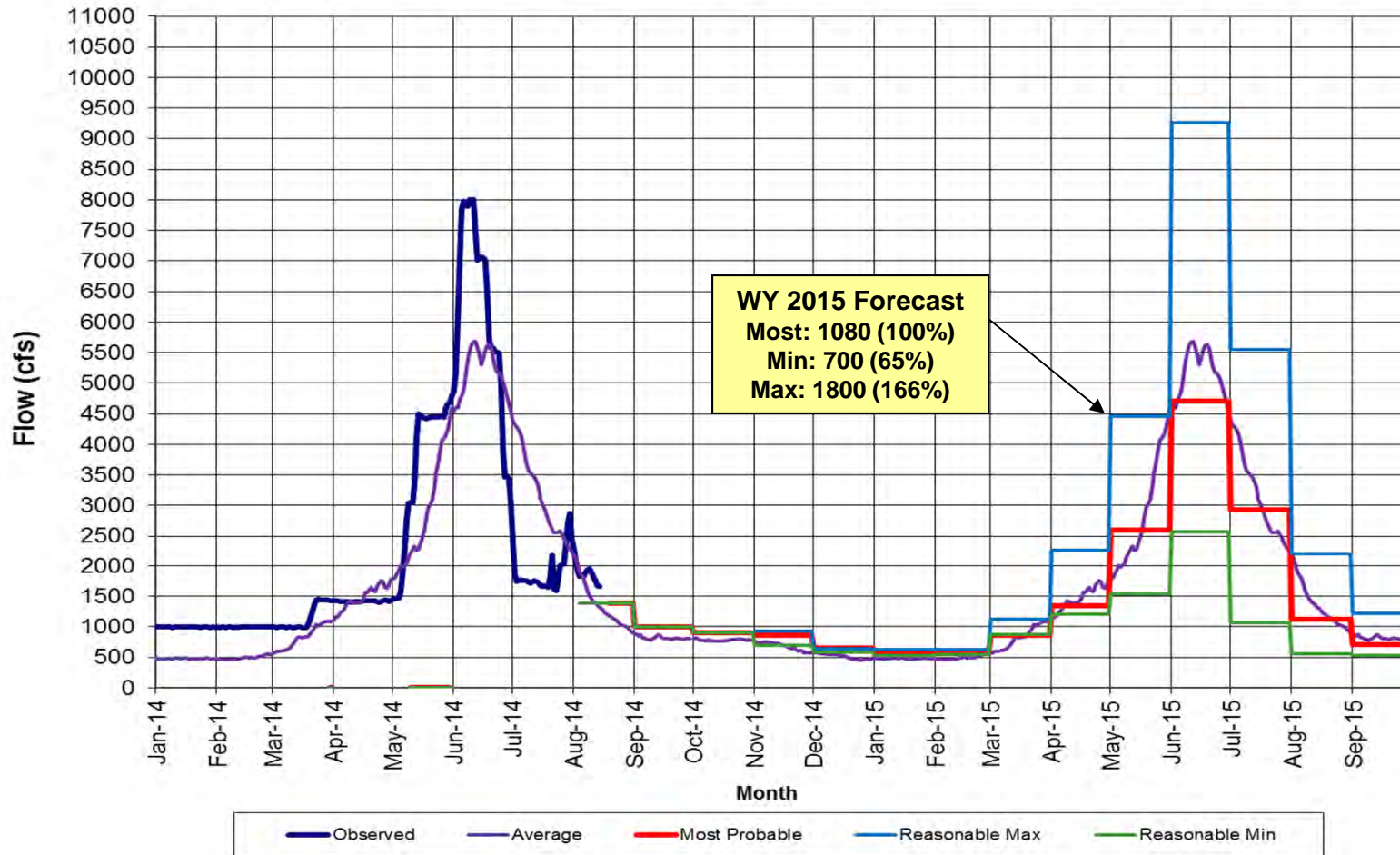
# Water Year 2014 Projected Operations

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# Inflow Scenarios

## Water Year 2014

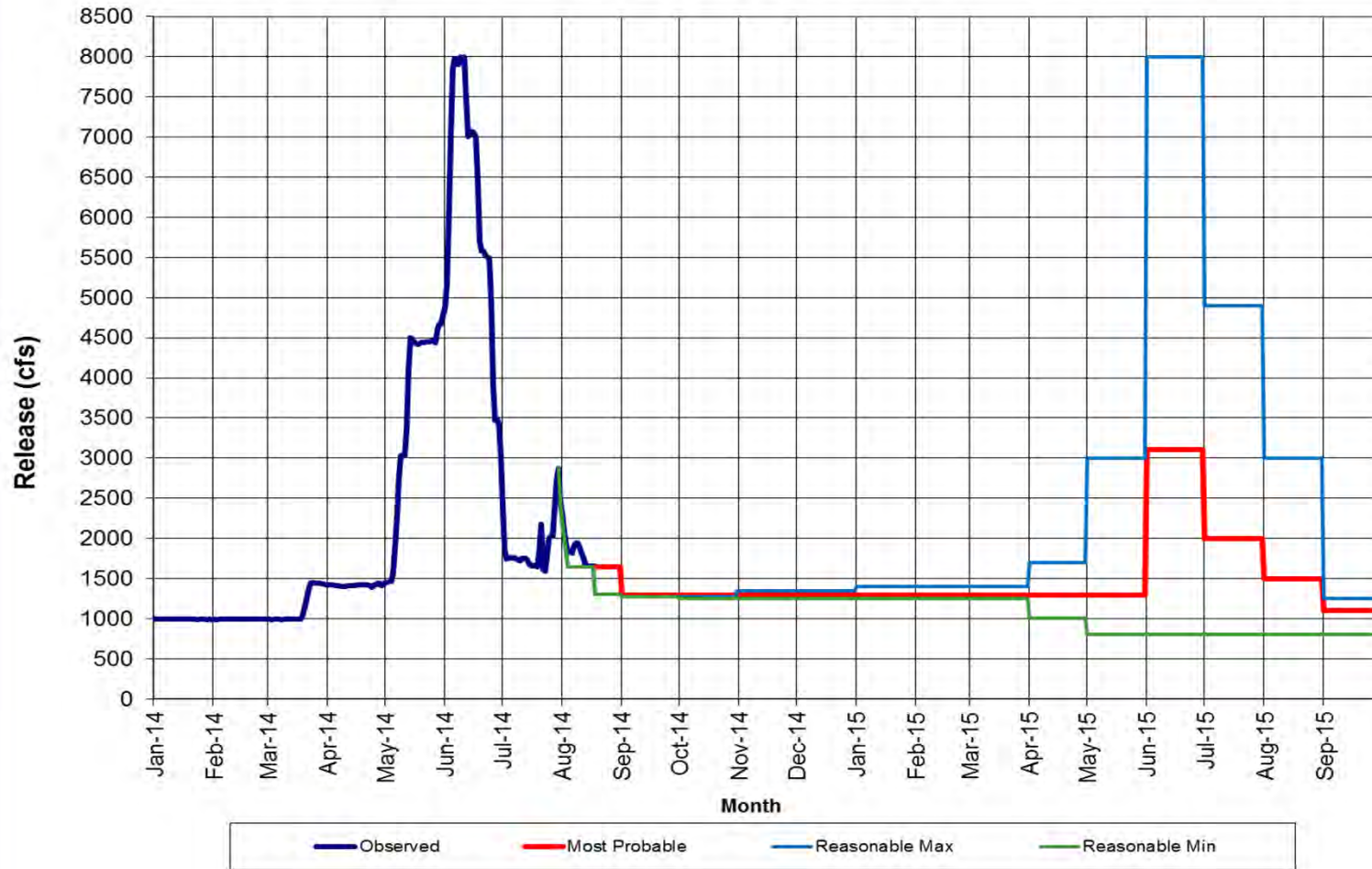
Fontenelle 2015 Inflow Scenarios  
Based on August Forecasts



# Release Scenarios

## Water Year 2015

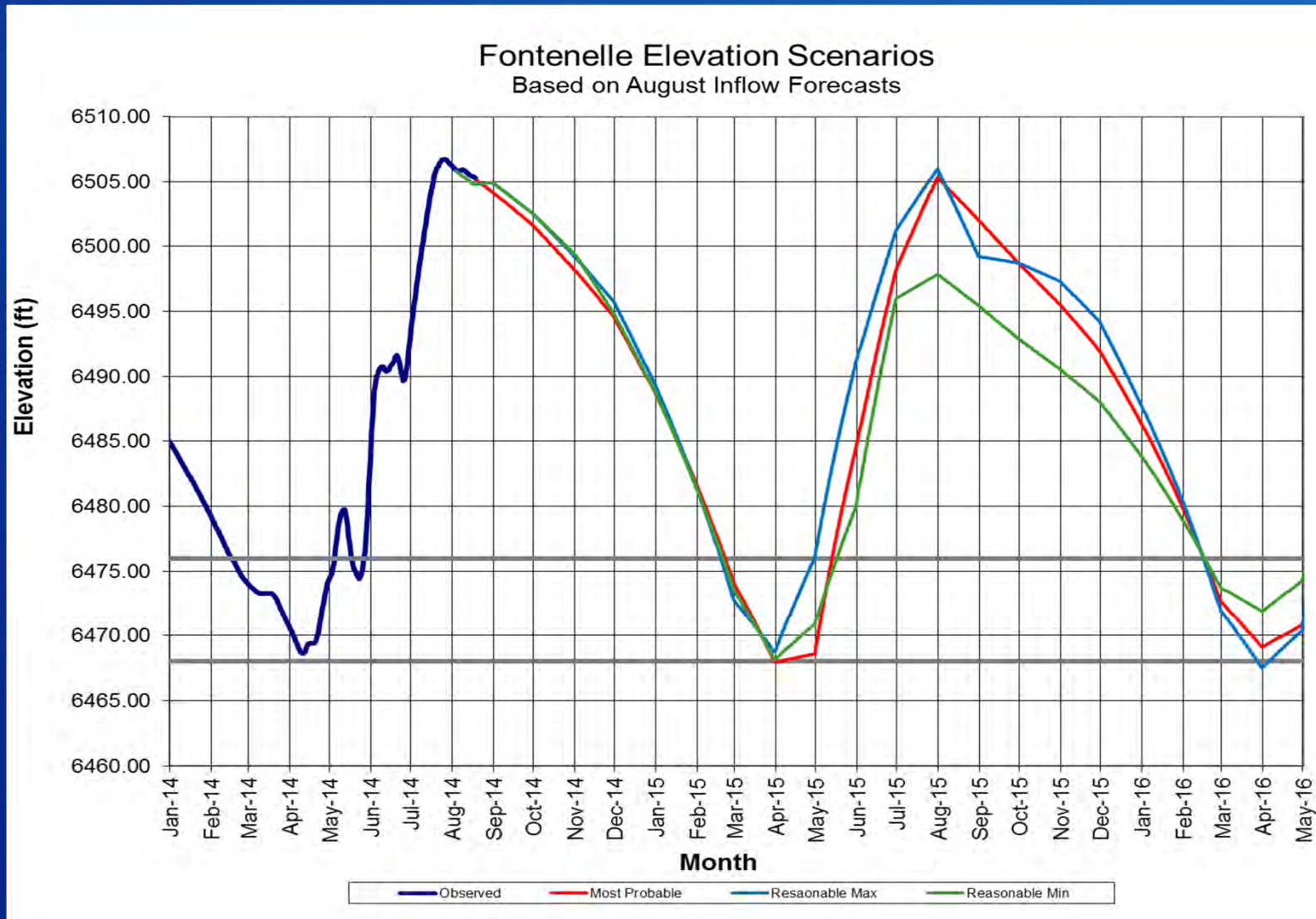
Fontenelle Release Scenarios  
Based on August 1 Forecasts



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# Elevation Scenarios

## Water Year 2015



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# Fontenelle Working Group Meeting August 2014



*Questions?*

*Comments?*

Green River at La Barge, WY 6/20/2009

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Extra Slides Follow

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# Historic Inflow Statistics

## Period of Record 1981-2010

ANNUALIZED MONTHLY INFLOW VOLUME(THOUSAND-ACRE-FEET)														
Month	95%	90%	80%	75%	70%	60%	50%	40%	30%	25%	20%	10%	5%	Average
OCT	28	31	34	36	37	41	44	49	54	57	60	71	81	49
NOV	28	32	37	38	40	42	44	45	47	48	49	51	53	42
DEC	27	28	30	30	31	32	32	33	34	35	35	37	38	32
JAN	23	25	28	28	29	30	31	32	33	34	34	36	37	30
FEB	22	24	26	26	27	28	29	29	30	30	31	32	33	28
MAR	39	42	46	47	49	51	53	55	58	59	60	64	68	53
APR	55	56	62	65	68	74	81	88	97	102	108	126	142	85
MAY	47	74	105	116	128	147	164	182	201	212	224	255	282	164
JUN	93	120	162	180	198	234	271	311	358	389	419	514	601	299
JUL	26	51	85	99	112	137	162	189	220	240	259	318	371	178
AUG	17	27	41	47	52	62	72	83	94	101	107	126	141	77
SEP	20	25	31	33	36	40	44	49	54	57	59	68	75	46
<b>ANNUAL</b>	424	535	686	746	806	917	1,028	1,146	1,279	1,363	1,446	1,697	1,921	1,082
<b>APR-JUL</b>	220	301	414	460	506	592	678	770	876	943	1,010	1,213	1,396	726

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# Historic Inflow Statistics

## Period of Record 1971-2000

ANNUALIZED MONTHLY INFLOW VOLUME(THOUSAND-ACRE-FEET)														
Month	95%	90%	80%	75%	70%	60%	50%	40%	30%	25%	20%	10%	5%	Average
OCT	41	<b>49</b>	57	59	62	66	71	75	80	82	84	<b>90</b>	92	<b>49</b>
NOV	41	<b>51</b>	61	63	65	68	70	70	70	69	68	<b>65</b>	61	<b>42</b>
DEC	39	<b>45</b>	49	50	51	52	52	51	51	50	49	<b>47</b>	44	<b>32</b>
JAN	34	<b>40</b>	46	47	48	49	50	50	49	48	48	<b>45</b>	42	<b>30</b>
FEB	32	<b>38</b>	42	43	44	45	45	45	45	44	43	<b>40</b>	38	<b>28</b>
MAR	57	<b>67</b>	76	78	81	83	85	85	85	85	84	<b>81</b>	77	<b>53</b>
APR	55	<b>56</b>	62	65	68	74	81	88	97	102	108	<b>126</b>	142	<b>85</b>
MAY	47	<b>74</b>	105	116	128	147	164	182	201	212	224	<b>255</b>	282	<b>164</b>
JUN	93	<b>120</b>	162	180	198	234	271	311	358	389	419	<b>514</b>	601	<b>299</b>
JUL	26	<b>51</b>	85	99	112	137	162	189	220	240	259	<b>318</b>	371	<b>178</b>
AUG	24	<b>42</b>	67	77	86	102	115	128	139	144	149	<b>158</b>	161	<b>77</b>
SEP	29	<b>39</b>	51	55	59	65	71	75	79	81	83	<b>85</b>	85	<b>46</b>
<b>ANNUAL</b>	<b>517</b>	<b>673</b>	<b>863</b>	<b>933</b>	<b>1,002</b>	<b>1,123</b>	<b>1,236</b>	<b>1,350</b>	<b>1,473</b>	<b>1,546</b>	<b>1,619</b>	<b>1,824</b>	<b>1,995</b>	<b>1,243</b>
<b>APR-JUL</b>	<b>220</b>	<b>301</b>	<b>414</b>	<b>460</b>	<b>506</b>	<b>592</b>	<b>678</b>	<b>770</b>	<b>876</b>	<b>943</b>	<b>1,010</b>	<b>1,213</b>	<b>1,396</b>	<b>726</b>

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