

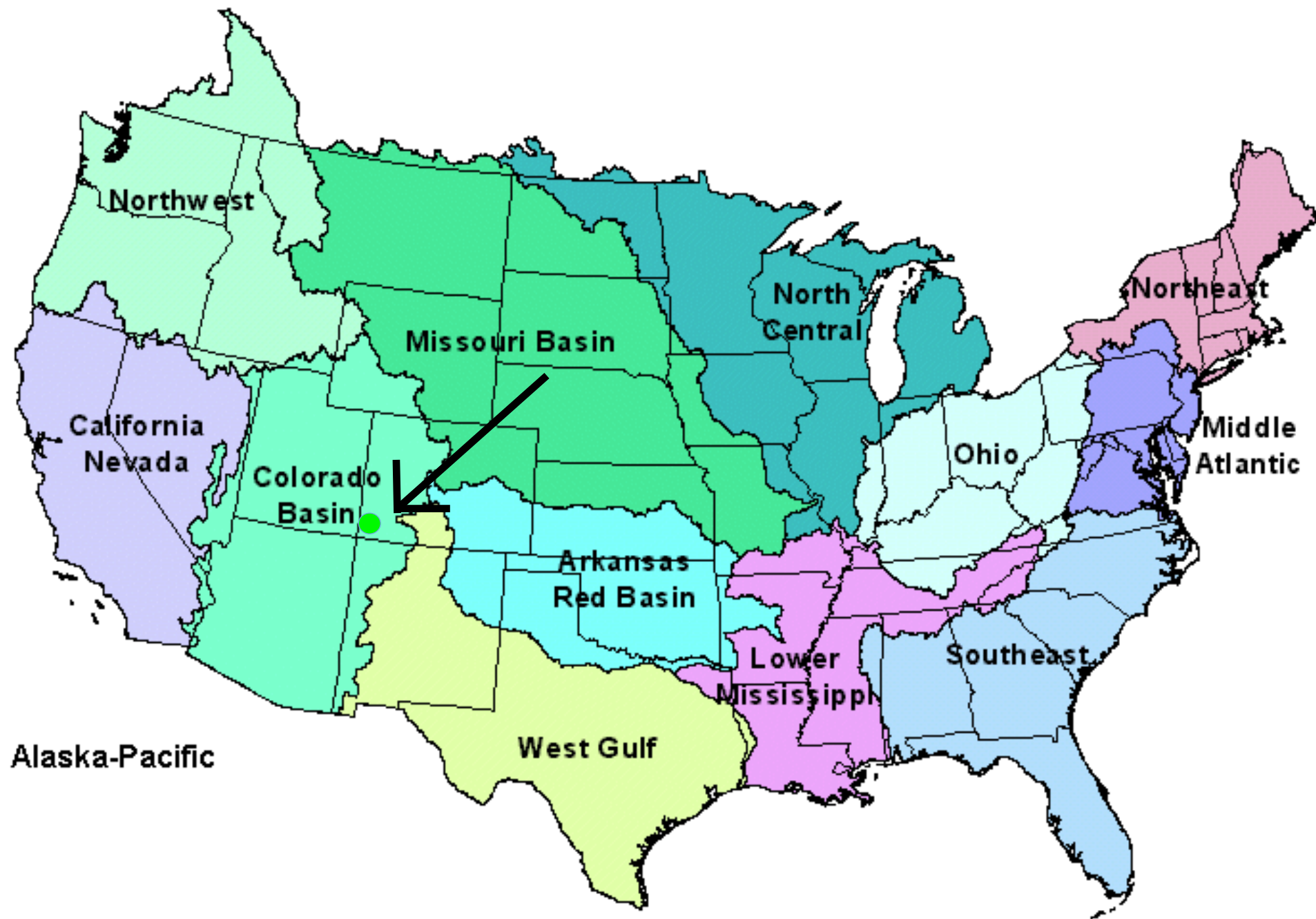


**DWCD 2017 Controlled Release
Summary for CBRFC Annual
Stakeholder Meeting**

Eric Sprague

30-OCT-2017

River Forecast Centers



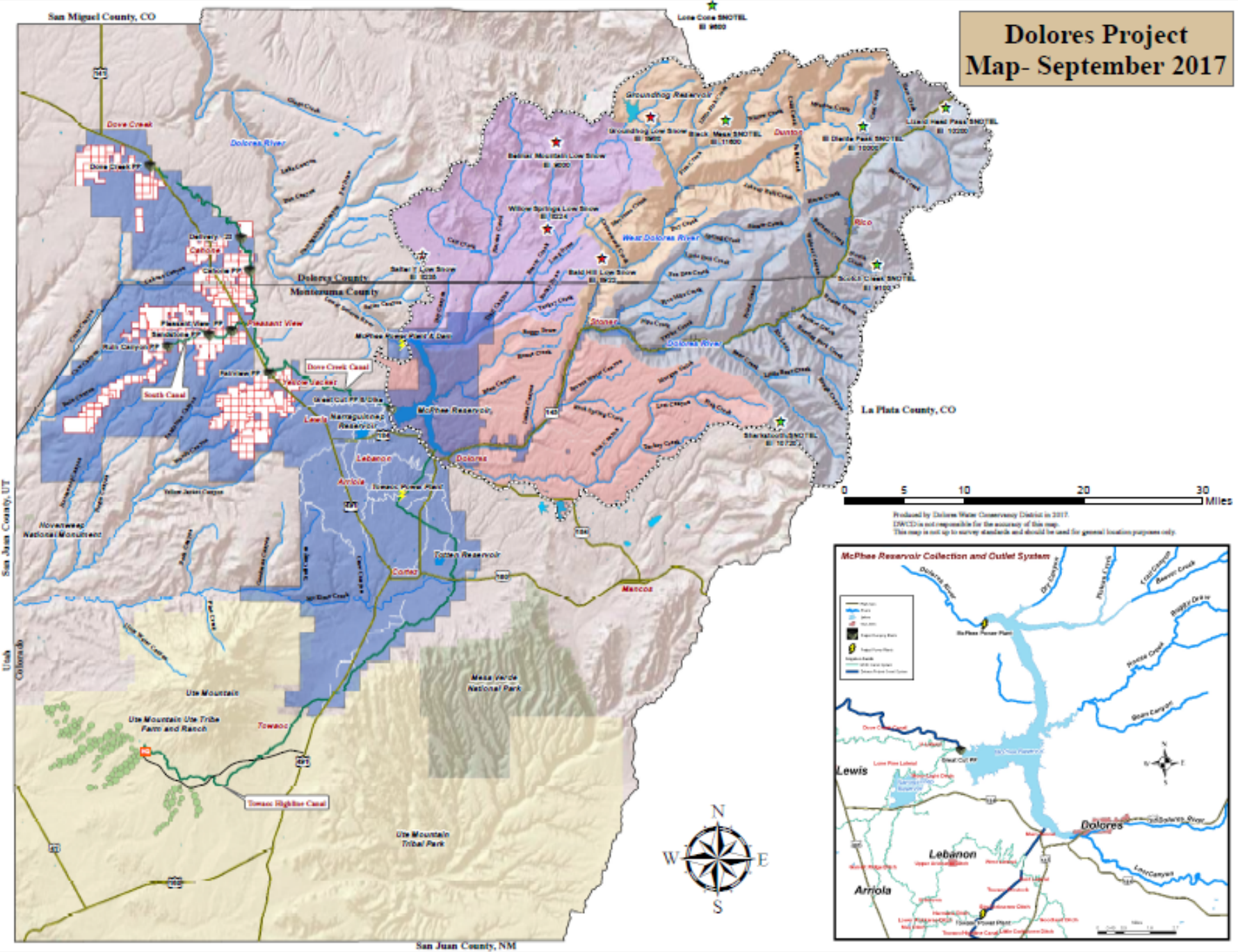


Dolores Project Map- September 2017



- Rivers
- Lakes
- Highways
- Mesa Verde National Park
- Ute Mountain Ute Tribe Farm & Ranch
- DWCD District Boundary
- DWCD Full Service Farmers
- Project Pumping Plants
- Project Power Plants
- County Line
- SNOTEL Sites
- Low Snow Course
- UMUT Boundary
- Dolores Project Canals
- MVIC Canal System
- Watershed Boundary
- Dolores River Headwaters
- Lower Dolores River/Lost Canyon
- Plateau/Beaver Creek
- West Fork Dolores River

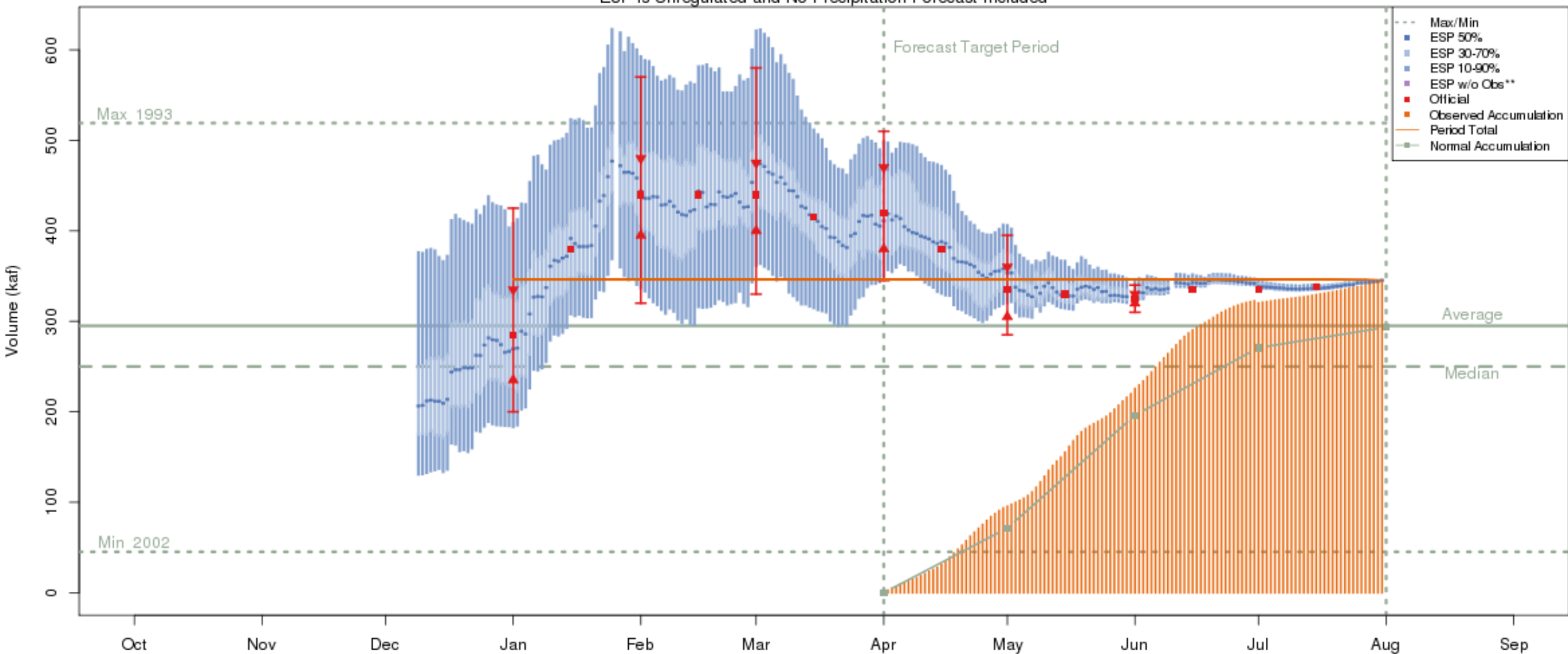
Acres:	
Full Service:	28,800 Ac
Ute Farm:	7,600 Ac
MVIC:	37,500 Ac



Produced by Dolores Water Conservancy District in 2017.
DWCD is not responsible for the accuracy of this map.
This map is not up to survey standards and should be used for general location purposes only.

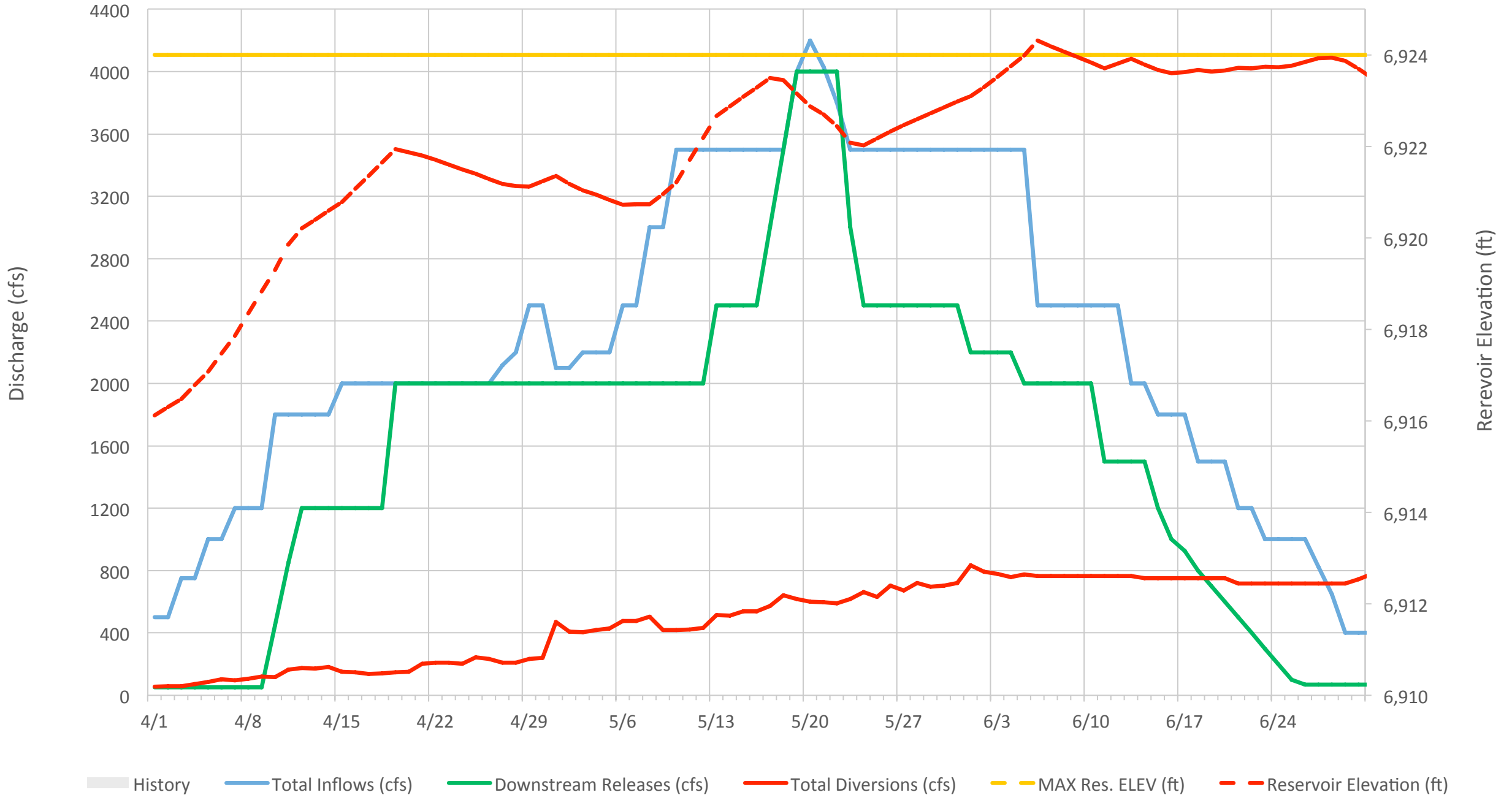


Dolores - Mcphee Res (MPHC2)
Apr-Jul Observed Volume: 346 kaf (117% of average)
ESP is Unregulated and No Precipitation Forecast Included

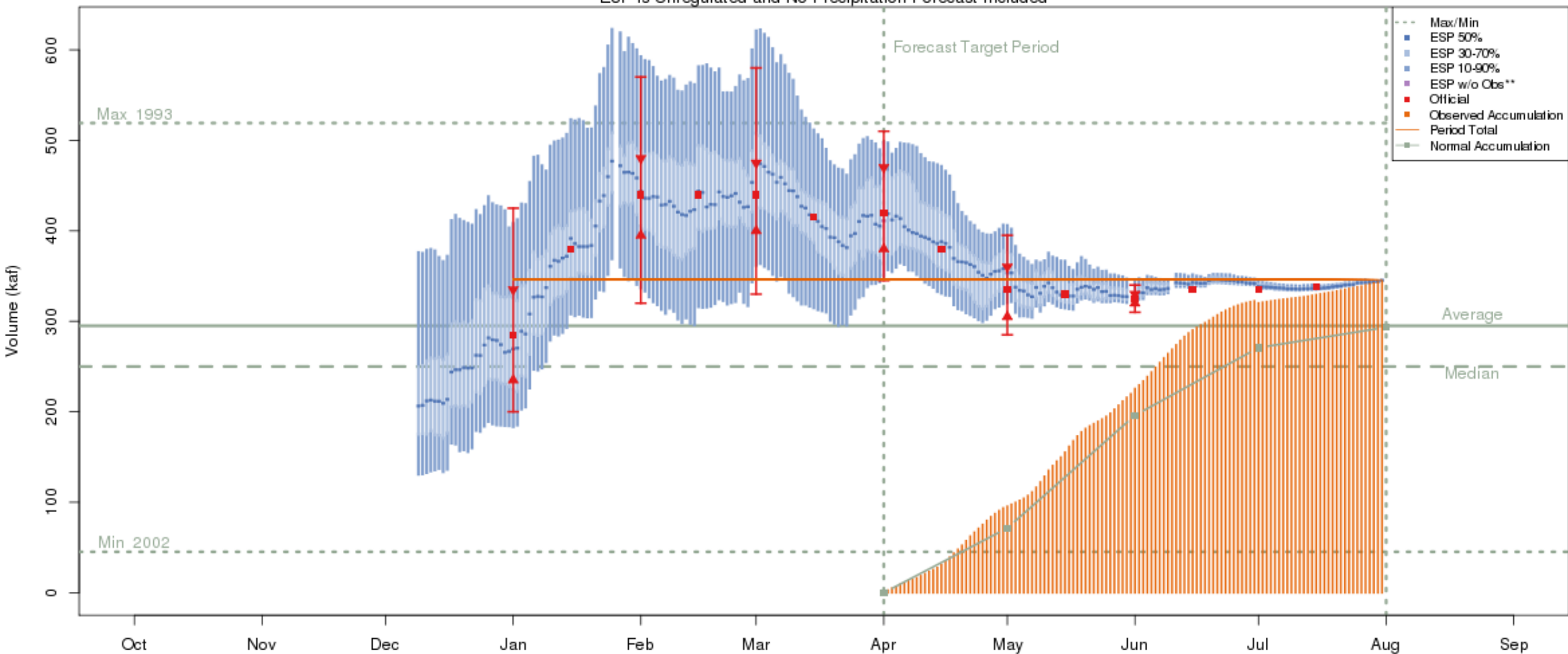


Plot Created 2017-08-14 12:23:46, NOAA / NWS / CBRFC
Forecasts in the forecast target period include observed values.

50% 440 KAF Reservoir Operating Plan 1-MAR-2017

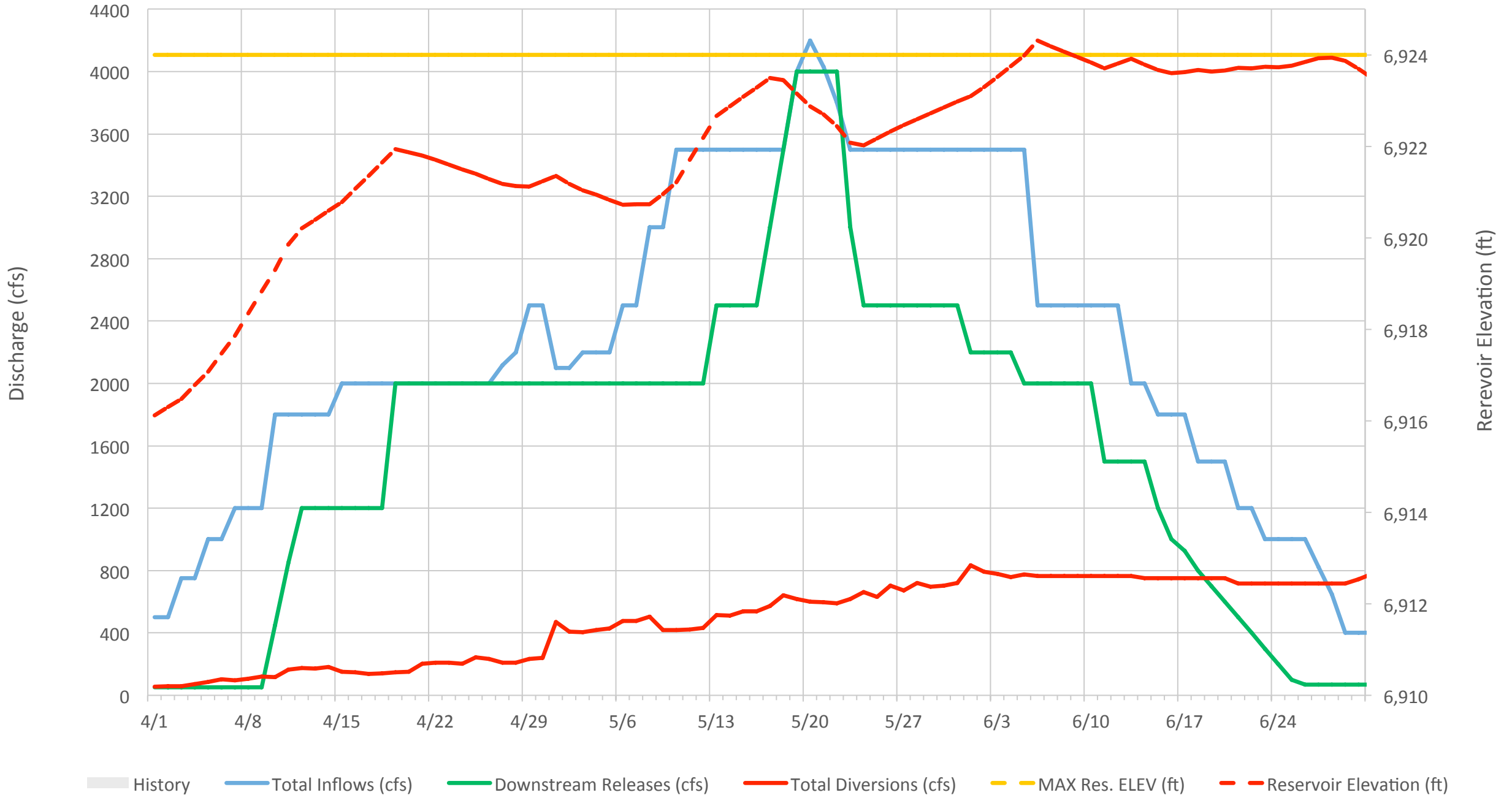


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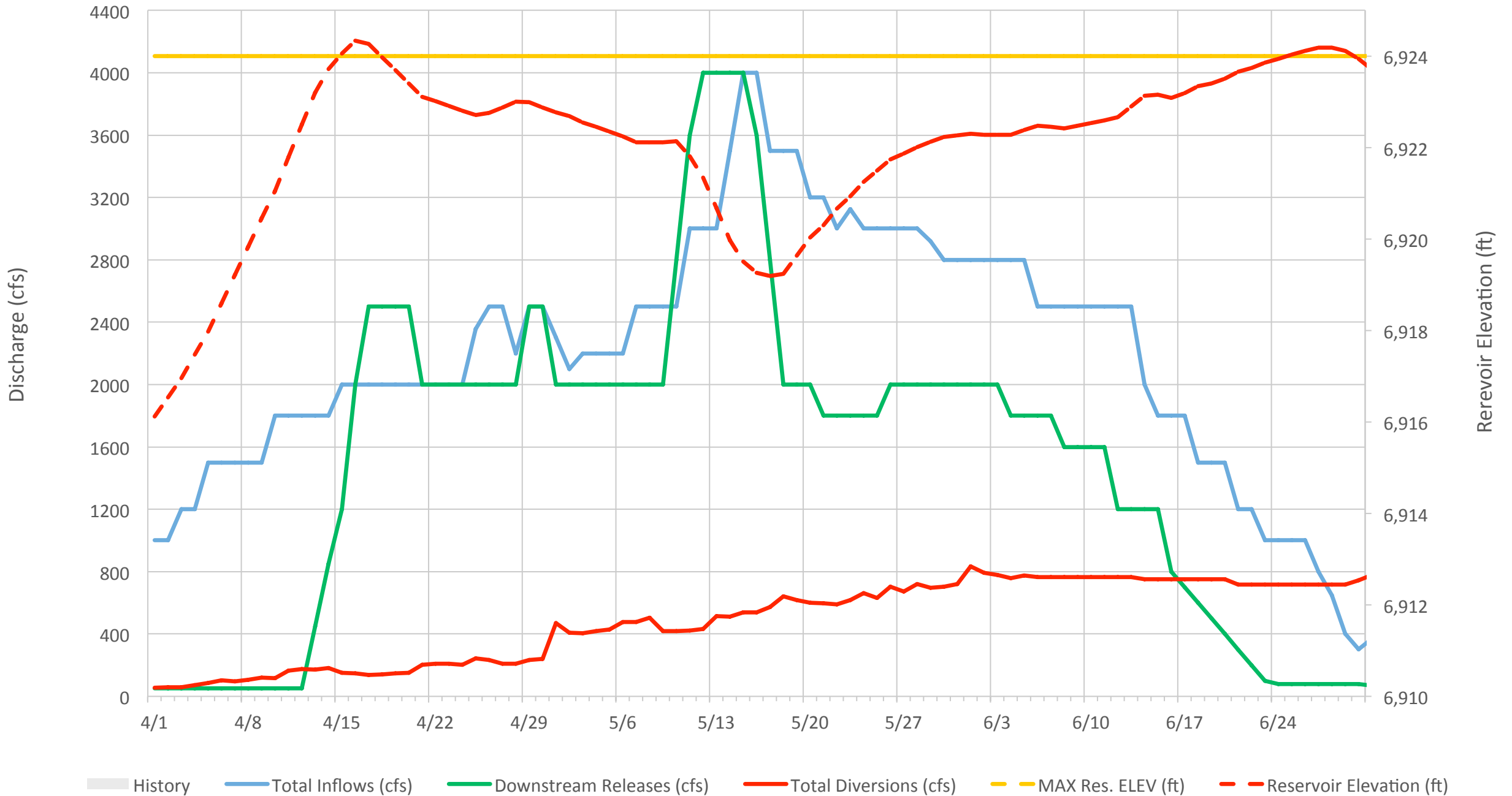


Plot Created 2017-08-14 12:23:46, NOAA / NWS / CBRFC
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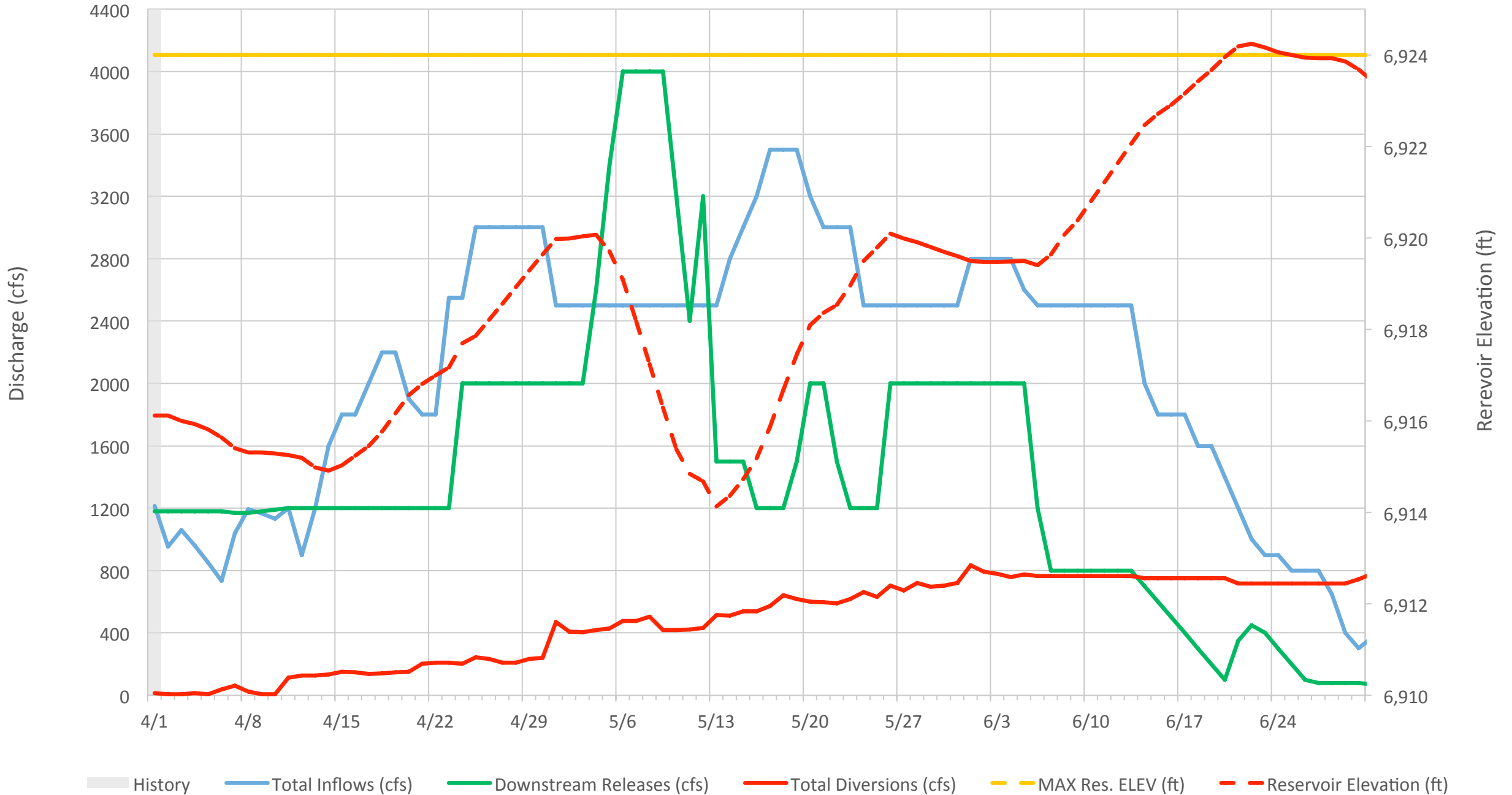
50% 440 KAF Reservoir Operating Plan 1-MAR-2017



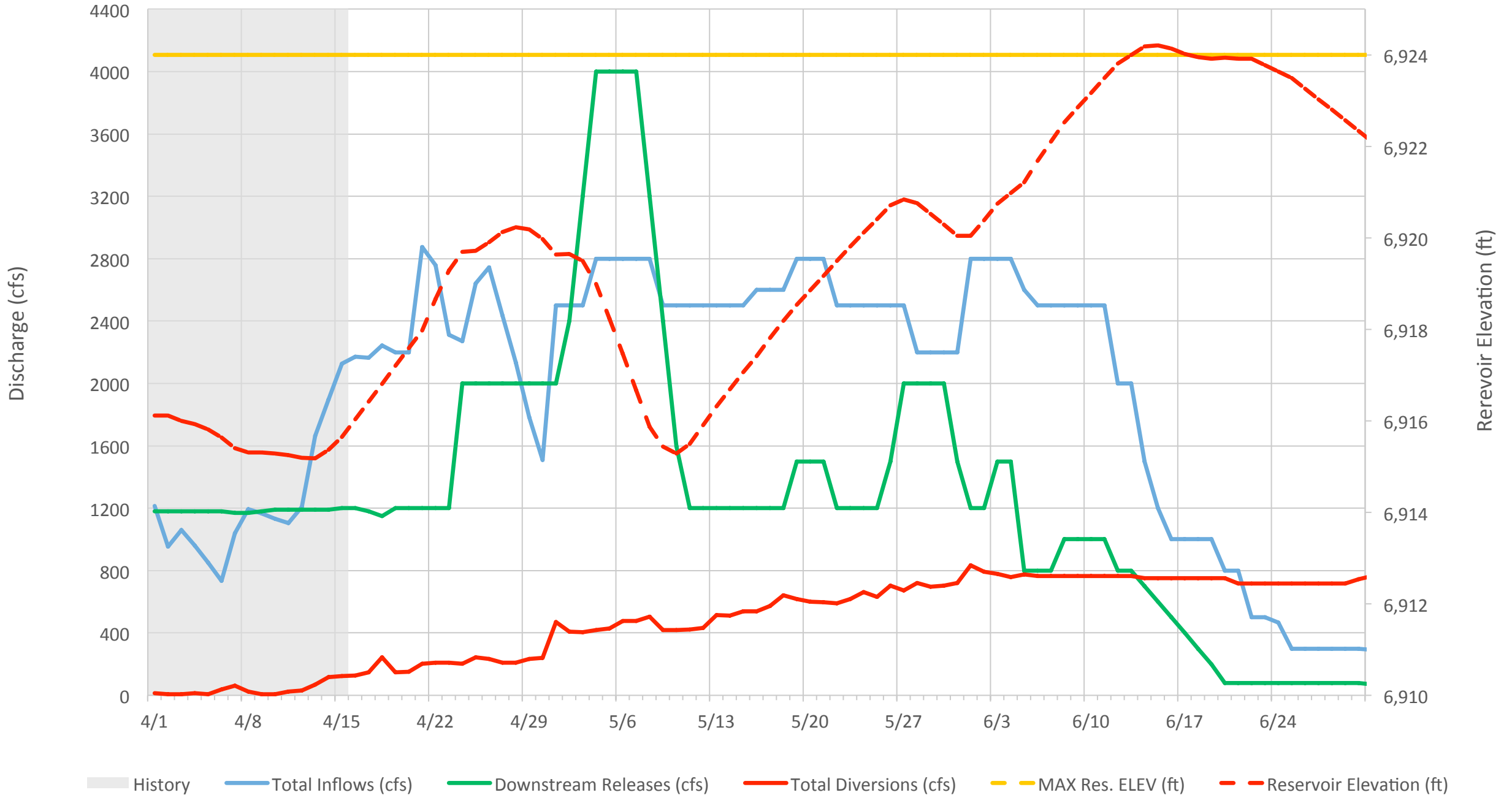
50% 420 KAF Reservoir Operating Plan 15-MAR-2017



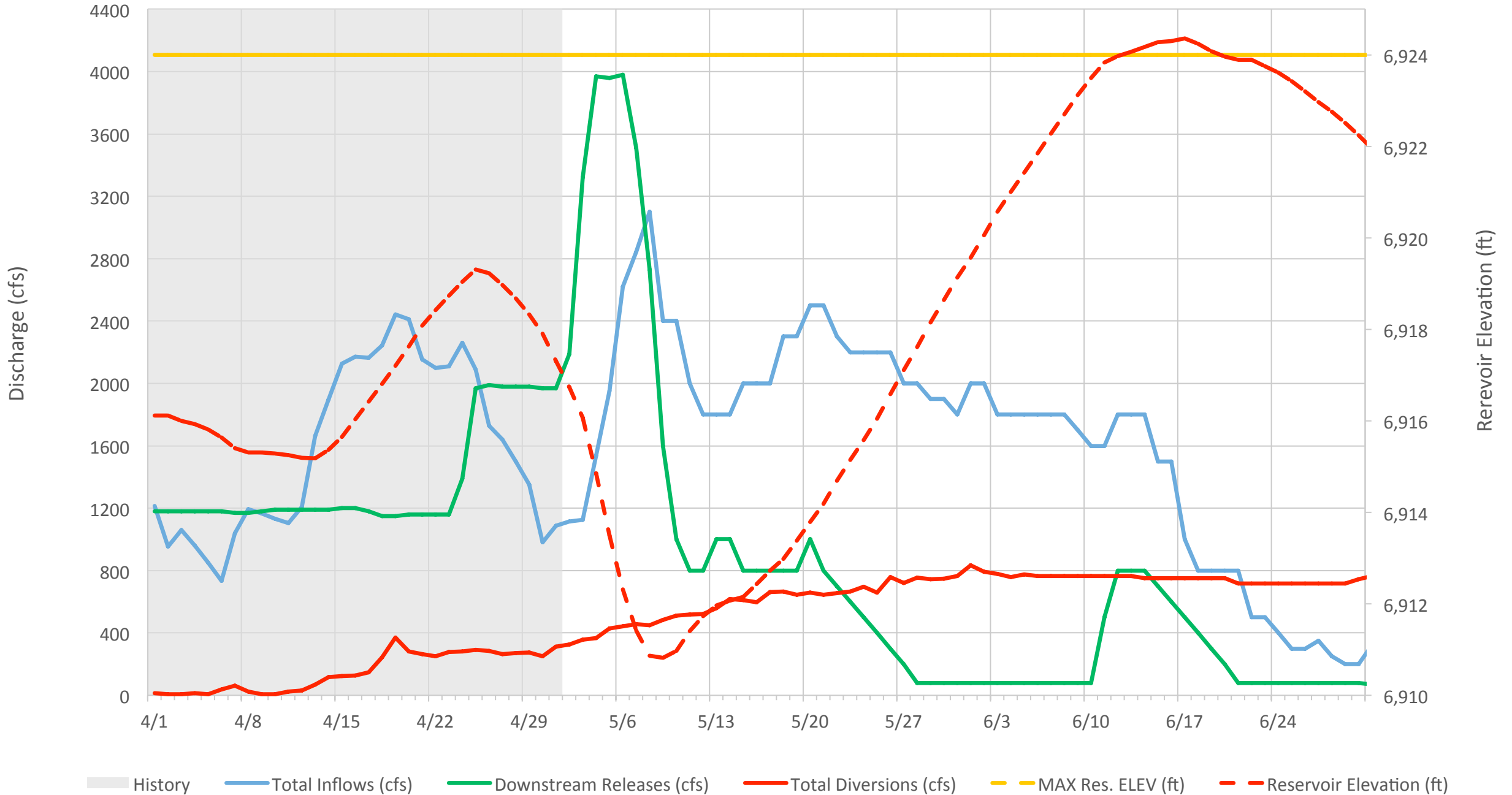
50% 400 KAF Reservoir Operating Plan 1-APR-2017



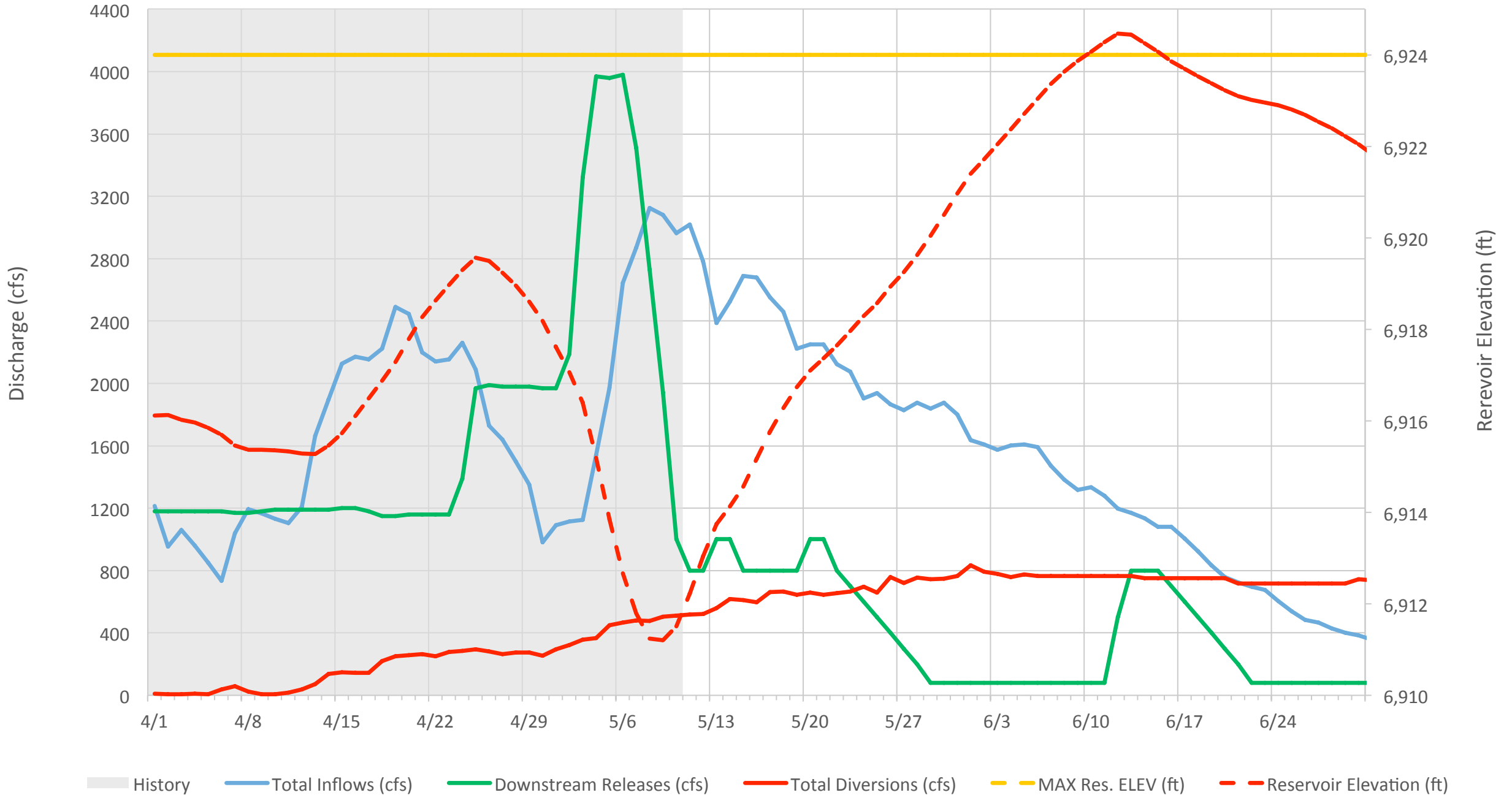
50% 367 KAF Reservoir Operating Plan 15-APR-2017



70% 311 KAF Reservoir Operating Plan 1-MAY-2017



70% 305 KAF Reservoir Operating Plan 10-MAY-2017



Special Forecast Products

Volumes

Upper Basin Reservoirs (3 month + Apr-Jul): [current](#) | [archive](#)
 Upper Basin Reservoirs (Water Year): [current](#) | [archive](#)
 San Juan (Animas-La Plata): [current](#) | [archive](#)
 Lake Mead Local: [current](#) | [archive](#)
 Utah Reservoirs: [current](#) | [archive](#)

CUWCD

CUWCD peaks: [current](#) | [archive](#)
 West Fork Duchesne inflow csv: [current](#) | [archive](#)
 West Fork Duchesne inflow plot: [current](#) | [archive](#)

Yampa - Deerlodge Peak

Text Product (no QPF): [current](#) | [archive](#)
 Traces Graph (no QPF): [current](#) | [archive](#)
 Traces Text Table (no QPF): [current](#) | [archive](#)
 Weekly Exceedance Histogram (no QPF): [current](#) | [archive](#)
 Exceedance Probability Graph: [current](#) | [archive](#)
 Daily model/ESP merge csv: [current](#) | [archive](#)

Green River - LaBarge Peak

Daily model/ESP merge csv: [current](#) | [archive](#)

North Fork - Gunnison Peak

Text Product (no QPF): [current](#) | [archive](#)
 Weekly Exceedance Histogram (no QPF): [current](#) | [archive](#)
 Daily model/ESP merge csv: [current](#) | [archive](#)

Animas - Durango Peak

Text Product (no QPF): [current](#) | [archive](#)
 Weekly Exceedance Histogram (no QPF): [current](#) | [archive](#)

McPhee Inflow

Daily model/ESP merge csv: [current](#) | [archive](#)
 Daily Exceedance: [current](#) | [archive](#)

Daily Exceedance – Special Forecast Products

Chance of Exceeding River Levels for:
 DOLORES - MCPHEE RES
 Forecast Period: 2017-05-17 - 2017-07-31
 Simulation date: 2017-05-17

start date	90%	80%	70%	60%	50%	40%	30%	20%	10%
2017-05-17	2902.51	2902.51	2902.51	2902.51	2902.51	2902.51	2902.51	2902.51	2902.51
2017-05-18	2455.70	2455.70	2455.70	2455.70	2455.70	2455.70	2455.70	2455.70	2455.70
2017-05-19	1990.08	1990.08	1990.08	1990.08	1990.08	1990.08	1990.08	1990.08	1990.08
2017-05-20	1654.97	1654.97	1654.97	1654.97	1654.97	1654.97	1654.97	1654.97	1654.97
2017-05-21	1470.54	1470.54	1470.54	1470.54	1470.54	1470.54	1470.54	1470.54	1470.54
2017-05-22	1397.74	1397.74	1397.74	1397.74	1397.74	1397.74	1397.74	1397.74	1397.74
2017-05-23	1437.63	1437.63	1437.63	1437.63	1437.63	1442.16	1450.19	1462.69	1505.04
2017-05-24	1560.02	1560.02	1560.02	1561.35	1575.31	1609.27	1628.35	1643.87	1777.62
2017-05-25	1662.20	1662.20	1664.12	1669.81	1687.96	1733.47	1781.81	1836.31	1979.41
2017-05-26	1662.52	1662.57	1676.01	1690.91	1720.94	1754.92	1840.73	1937.80	2090.67
2017-05-27	1775.22	1777.98	1804.80	1825.40	1837.79	1901.59	1946.96	2018.98	2496.83
2017-05-28	1896.67	1900.78	1930.70	1947.92	1988.43	2033.74	2119.93	2206.23	2537.03
2017-05-29	1727.39	1949.60	1999.01	2027.15	2074.96	2168.78	2200.89	2330.79	2502.92
2017-05-30	1563.32	1856.89	1974.63	2081.95	2202.26	2244.27	2293.60	2372.20	2720.63
2017-05-31	1568.76	1724.68	1929.07	2041.68	2070.95	2175.12	2259.07	2470.50	2855.11
2017-06-01	1440.44	1681.57	1767.65	1903.80	1993.14	2070.60	2266.32	2562.53	2828.62
2017-06-02	1485.79	1657.19	1731.48	1808.08	1961.30	2060.50	2190.70	2454.15	2850.52
2017-06-03	1521.29	1682.92	1782.76	1867.56	1991.68	2112.88	2342.99	2437.00	2744.61
2017-06-04	1553.94	1733.30	1823.04	1871.63	1952.65	2149.18	2368.83	2453.56	2567.01
2017-06-05	1581.42	1672.78	1772.54	1939.30	2069.37	2213.15	2266.17	2328.21	2459.24
2017-06-06	1478.76	1684.13	1796.69	1950.85	2054.82	2175.82	2252.93	2292.72	2385.87
2017-06-07	1441.32	1511.82	1742.30	1871.52	1967.34	2166.87	2224.57	2282.31	2400.25
2017-06-08	1348.23	1492.07	1686.96	1879.67	1922.41	2087.75	2187.74	2266.53	2370.02
2017-06-09	1402.09	1491.42	1610.37	1829.86	1967.15	2019.31	2135.75	2237.50	2326.18
2017-06-10	1340.49	1447.27	1597.25	1666.80	1830.97	1923.25	2009.32	2100.13	2224.43
2017-06-11	1251.13	1407.42	1580.44	1701.25	1768.82	1874.63	1959.24	2077.51	2156.72
2017-06-12	1264.33	1420.05	1570.57	1624.20	1725.98	1838.99	1908.60	1945.10	2080.78
2017-06-13	1350.66	1408.38	1475.39	1579.36	1667.65	1738.72	1810.94	1959.81	2068.65
2017-06-14	1241.23	1380.05	1425.54	1472.15	1519.73	1695.57	1766.86	1822.48	2020.24
2017-06-15	1220.85	1269.42	1344.34	1416.16	1547.75	1596.96	1726.55	1799.56	2033.99
2017-06-16	1097.50	1241.85	1352.52	1439.58	1540.60	1591.54	1707.22	1853.48	1934.90
2017-06-17	1054.78	1172.59	1270.16	1380.48	1457.53	1507.94	1625.54	1784.36	1864.95
2017-06-18	998.34	1167.22	1222.29	1283.65	1361.16	1427.08	1603.37	1725.11	1804.96
2017-06-19	983.19	1110.21	1150.89	1212.30	1348.83	1427.85	1510.01	1570.66	1758.91
2017-06-20	910.45	1029.19	1063.39	1140.00	1382.33	1423.57	1497.93	1584.25	1775.31
2017-06-21	879.79	966.81	988.17	1094.40	1215.41	1340.31	1517.06	1626.86	1729.99

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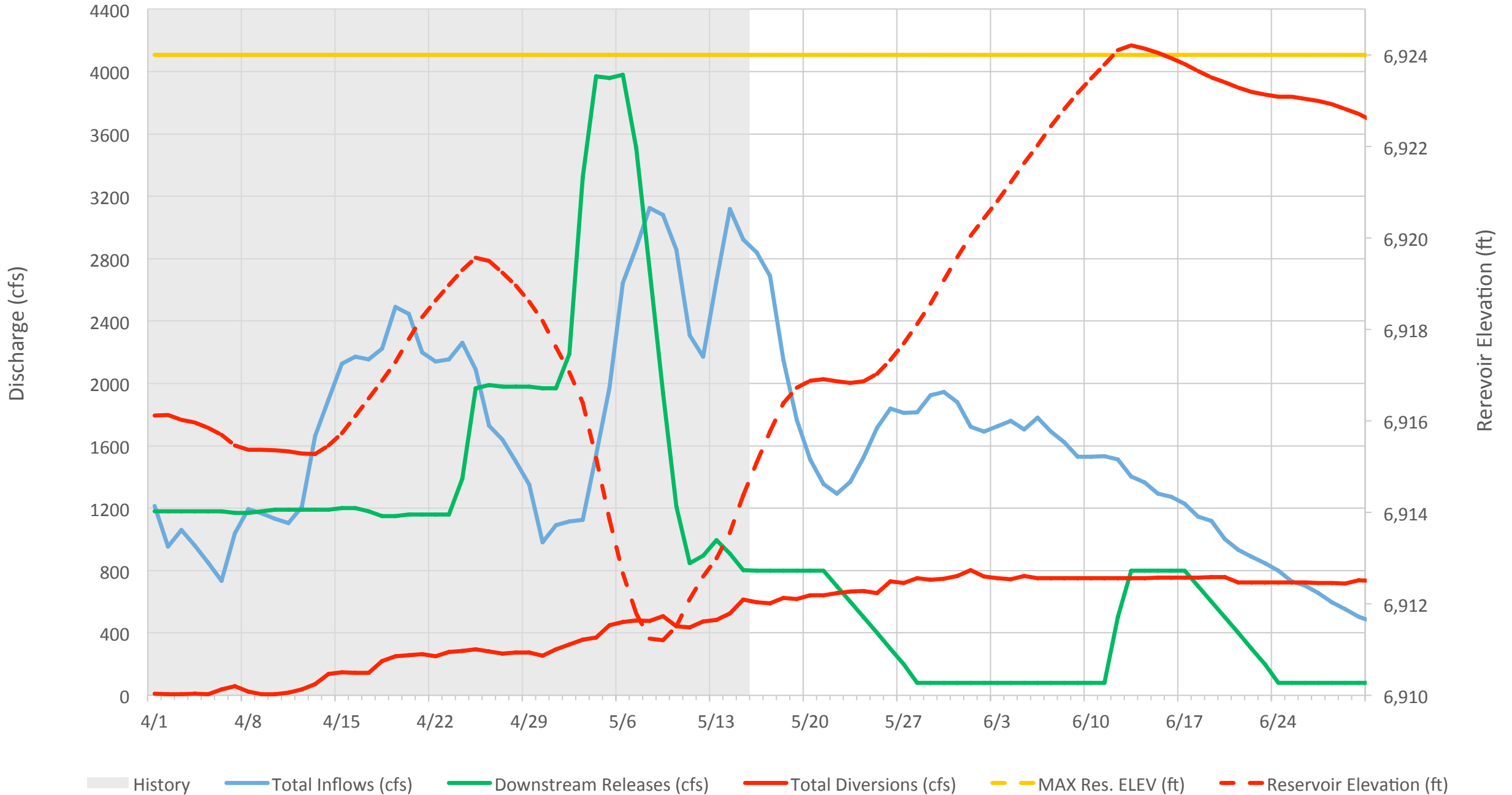
[WATER SUPPLY](#)

[Official Forecast Map](#)

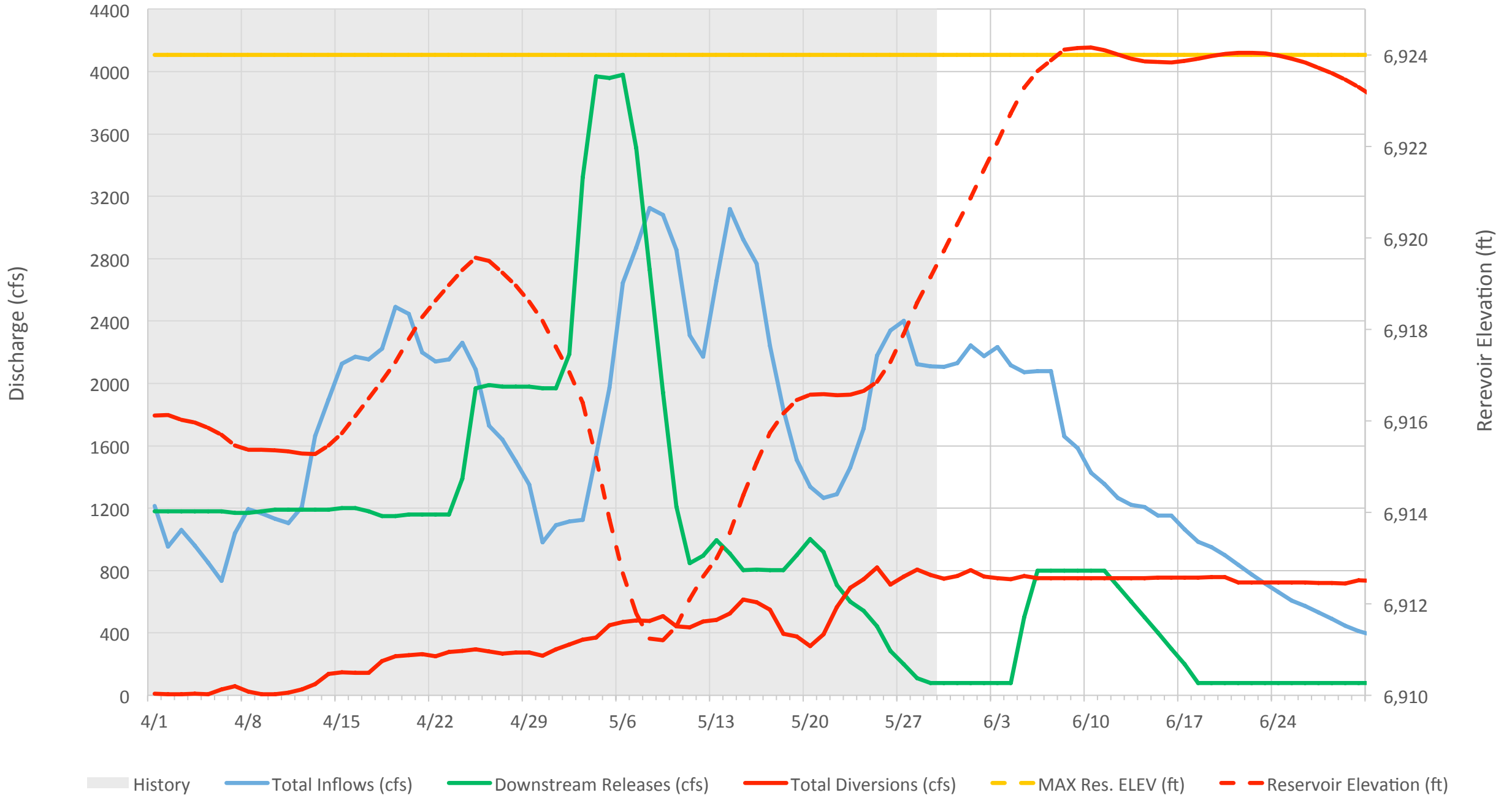
[RESERVOIRS](#)

[Conditions Map](#)

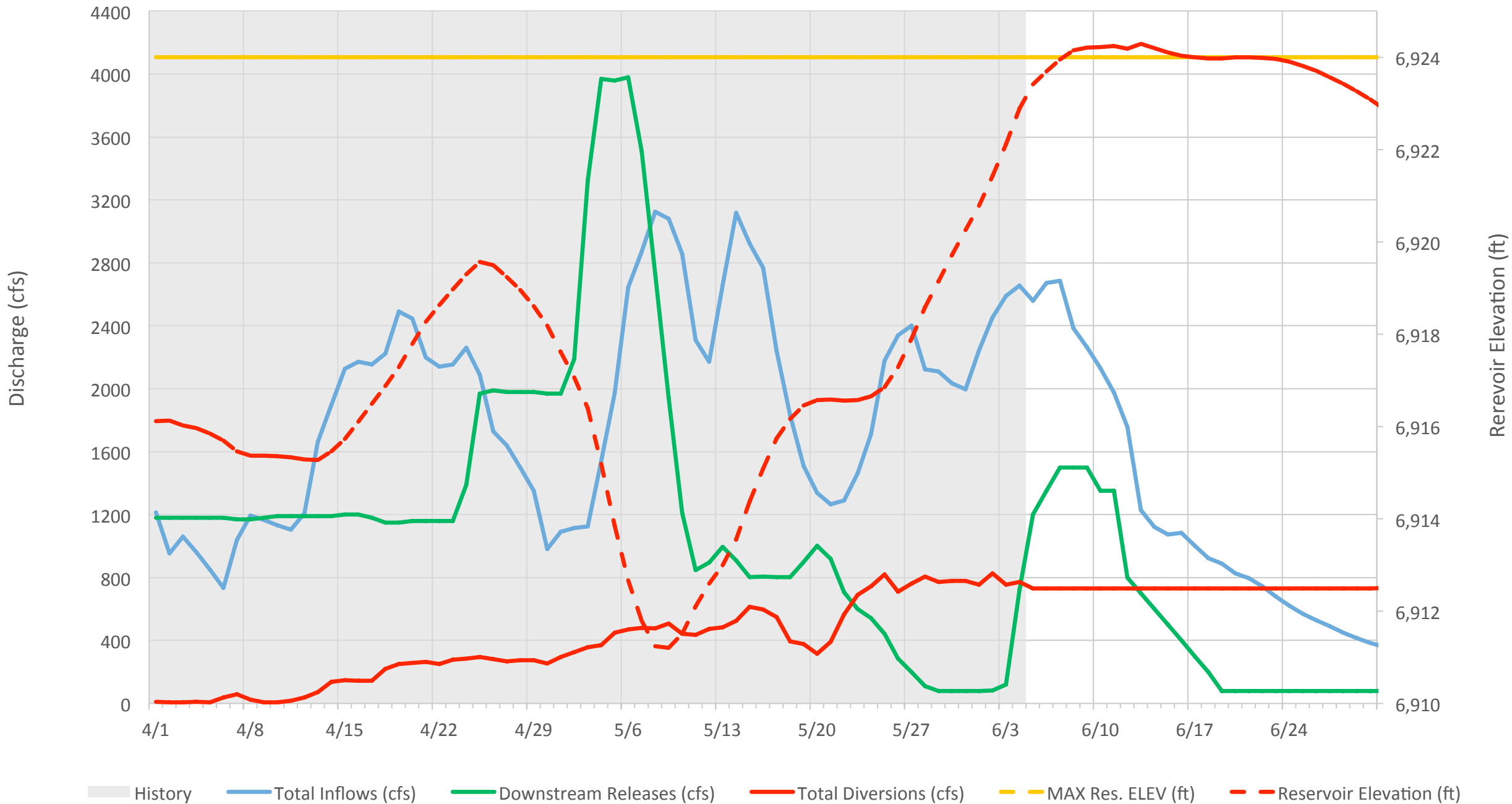
70% 310 KAF Reservoir Operating Plan 15-MAY-2017



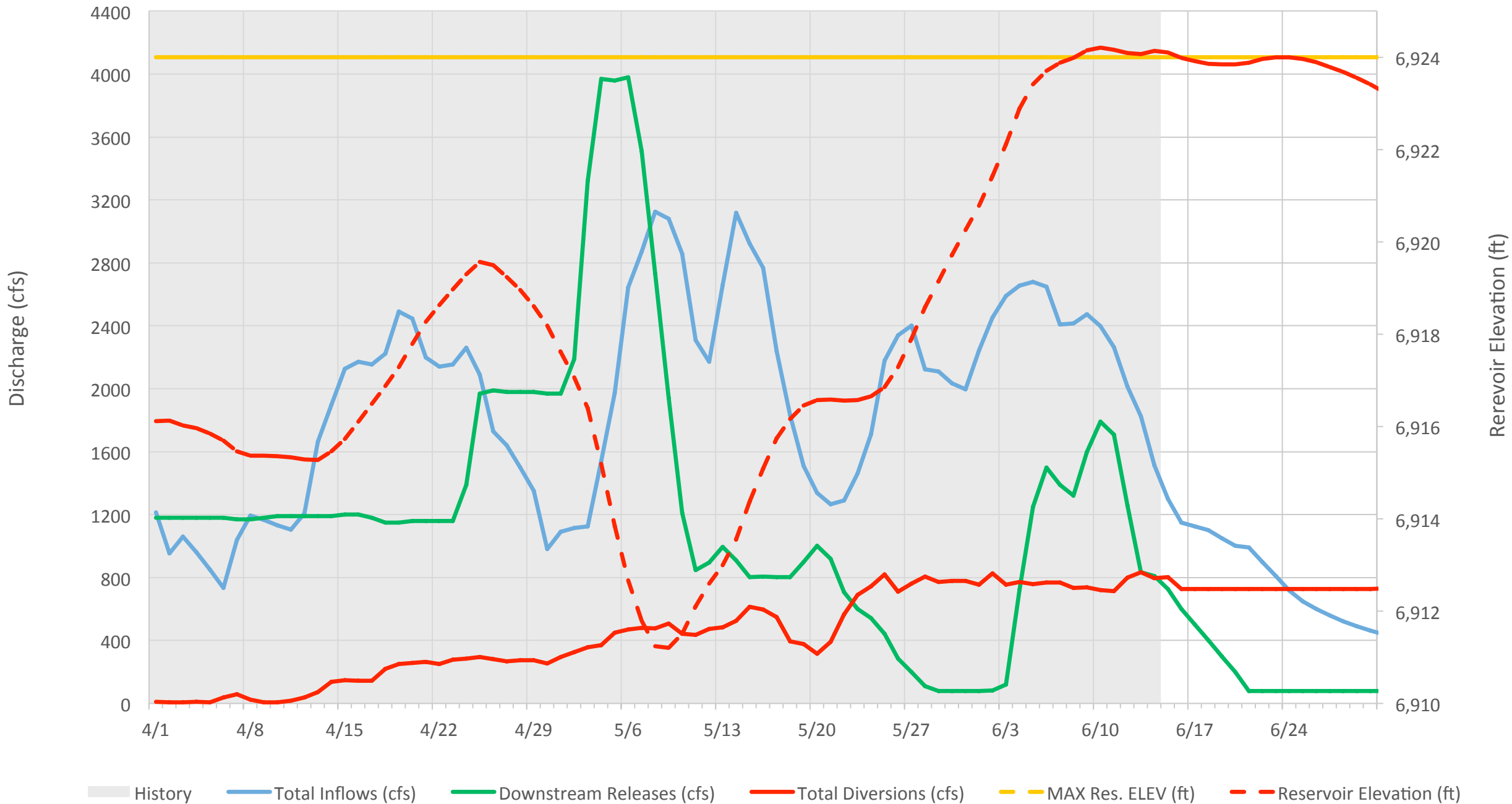
70% 310 KAF Reservoir Operating Plan 30-MAY-2017



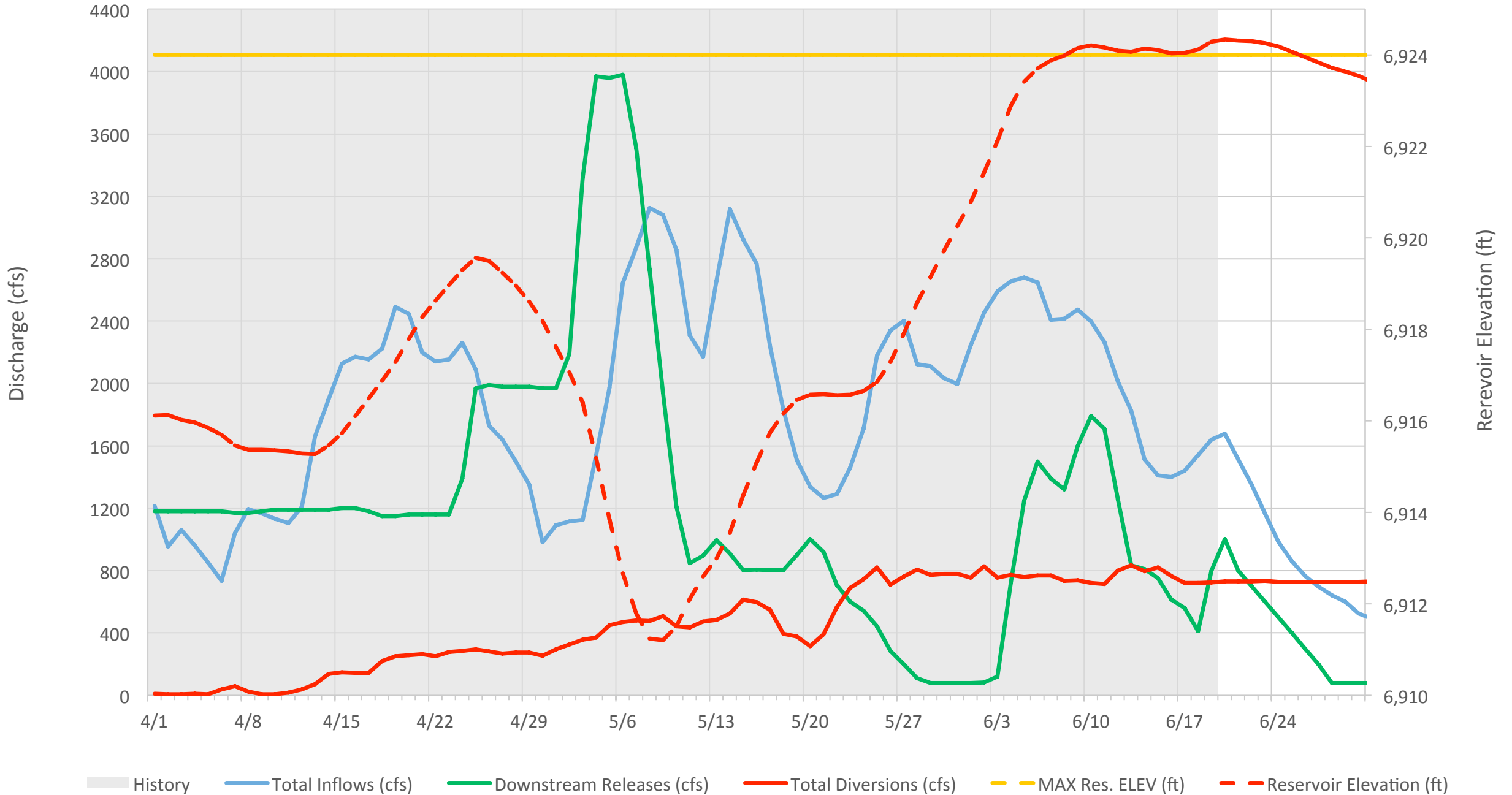
70% 320 KAF Reservoir Operating Plan 5-JUN-2017



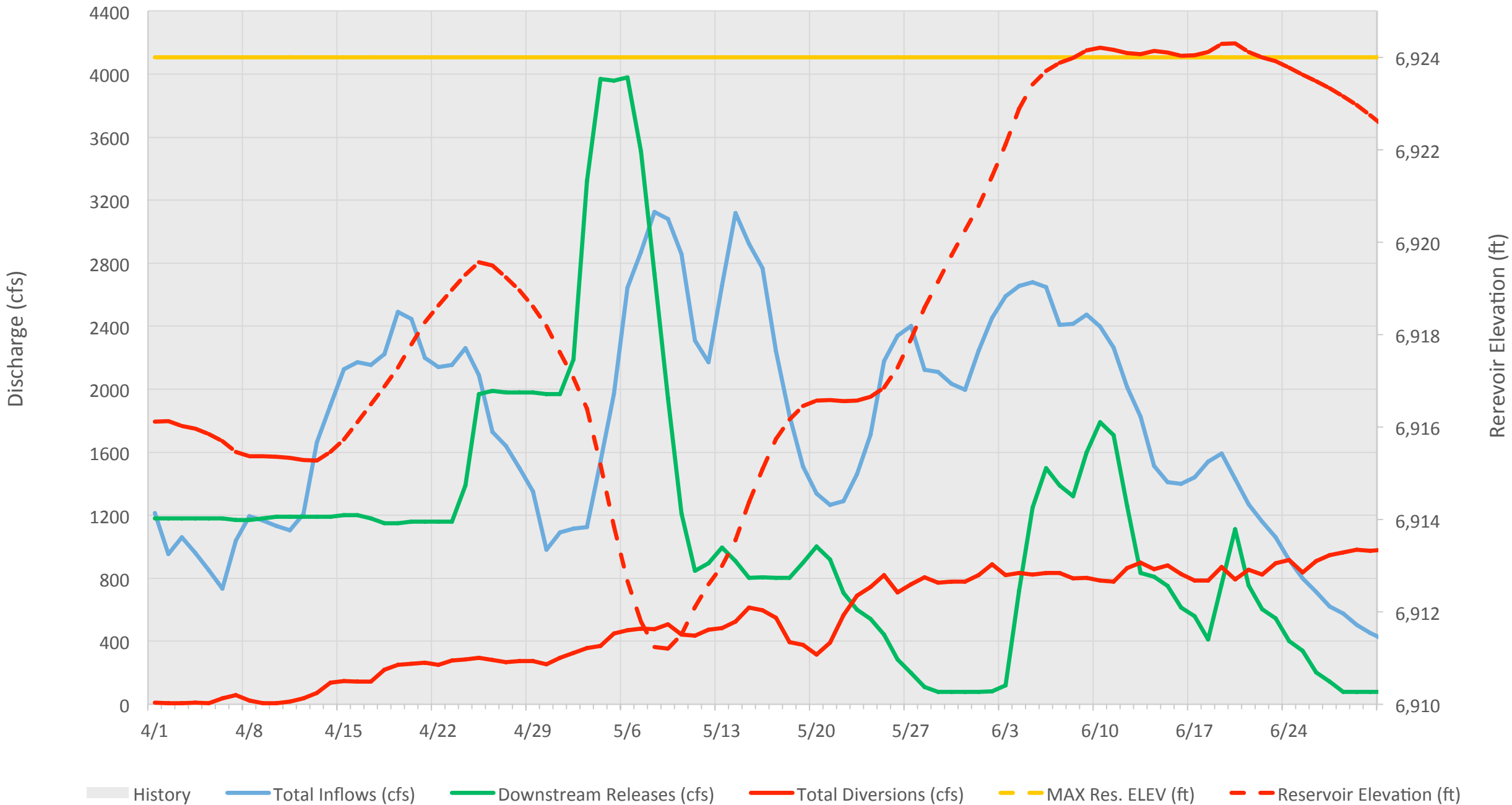
70% 320 KAF Reservoir Operating Plan 14-JUN-2017



50% 335 KAF Reservoir Operating Plan 19-JUN-2017



50% 335 KAF Reservoir Operating Plan 1-JUL-2017



Conclusion

- Suggestions for improvement:
 - Yearly pattern of seasonal forecast starting too high then dropping regularly
 - Representation of high elevation snow in the model
- *Great year for Communication and Education!*



Thank-you



Current Forecast: 50% 335 KAF
1-JUL McPhee Elevation: 6,922.25'

Conclusion (According to Provisional Numbers)

- **The controlled release officially ended on June 27th.**
 - - Total Inflow from 1-APR to 1-JUL: 349,103 AF
 - - Overall spill: Spilled for 86 days, 208,190 AF
 - - Additional boatable days in June: 11 days at or above 800 CFS
 - - March: Spilled for 3 days, 3,552 AF
 - - April: Spilled for 30 days, 79,995 AF
 - - May: Spilled for 28 days, 82,006 AF
 - - June: Spilled for 25 days, 42,637 AF
 - - Total of 63 days at or above 800 CFS
 - - Total of 40 days at or above 1,200 CFS
 - - Total of 11 days at or above 2,000 CFS
 - - Total of 3 days at 4,000 CFS