
Review Memo

Date: December 26, 2024

From: Craig Saxton

RE: Review claim 97-2020

Minimum Lake Level Discussion:

Original Language on the License, “..., the amount necessary to maintain the level of Priest Lake no higher than normal high water stage and not lower than the natural low water stage at any season of the year.”

In order to administer this right, we need to identify what the “natural low water stage” is for “any season of the year”. IDWR moved forward to identify the historic minimum lake levels for each month.

Data was not available prior to 1927, the licensed priority date. IDWR’s hydrology section acquired minimum lake levels from 1928 thru 1949 (before the dam was constructed). The minimum lake levels recommended for each month of the year represent the mean(average) of the minimum lake levels recorded for each month from 1928 thru 1949.

The datum used to represent the minimum lake levels is described as: **2438.43 ft above NAVD 88**. The elevations were determined by taking the average minimum lake level and adding it to 2438.43 feet.

MONTH	MINIMUM LAKE LEVEL
January	2439.43 feet
February	2439.39 feet
March	2439.50 feet
April	2439.99 feet
May	2441.77 feet
June	2441.13 feet
July	2439.80 feet
August	2439.10 feet
September	2438.83 feet
October	2438.81 feet
November	2439.03 feet
December	2439.28 feet

USGS 12393000 PRIEST LAKE AT OUTLET NR COOLIN ID

https://waterdata.usgs.gov/nwis/inventory/?site_no=12393000&agency_cd=USGS

USGS 12393000 PRIEST LAKE AT OUTLET NR COOLIN ID

Available data for this site
SUMMARY OF ALL AVAILABLE DATA
GO

Lake Site

DESCRIPTION:
Latitude 48°30'27", Longitude 116°53'13" NAD83
Bonner County, Idaho, Hydrologic Unit 17010215
Drainage area: 572 square miles
Contributing drainage area: 572 square miles,
Datum of gage: 2,438.43 feet above NAVD88.

AVAILABLE DATA:

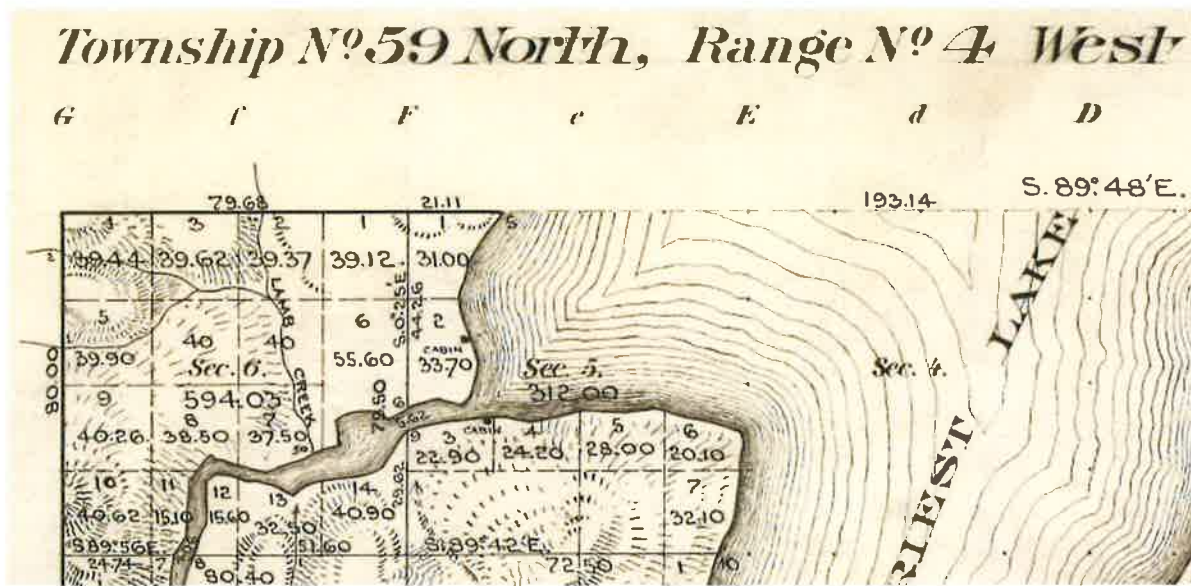
Data Type	Begin Date	End Date	Count
Current / Historical Observations (availability statement)	2013-10-17	2024-11-06	
Daily Data			
Gage height, feet	1928-04-21	2013-10-16	30681
Gage height, feet	2013-10-01	2024-11-05	4021
Peak streamflow	2014-05-26	2020-06-02	7
Water-Year Summary	2006	2023	18

OPERATION:
Record for this site is maintained by the USGS Idaho Water Science Center
Email questions about this site to [Idaho Water Science Center Water-Data Inquiries](#)

Annual Minimum Gage Height by Month													
	1	2	3	4	5	6	7	8	9	10	11	12	
1928				3.29	3.92	2.9	2.52	1.51	1.04	1.2	1.16	1.16	
1929	1.34	1.11	1.33	1.67	3.25	3.53	2.03	1.23	0.82	0.64	0.48	0.47	
1930	0.82	0.9	1.25	1.6	2.75	2.61	1.52	0.92	0.56	0.54	0.62	0.68	
1931	0.64	1.02	1.48	2.37	3.36	1.96	0.97	0.28	0.14	0.06	0.22	0.42	
1932	0.62	0.54	1.02	1.68	4.24	3.46	1.42	0.68	0.32	0.22	0.6	1.4	
1933	1.18	0.88	0.88	1	3.48	4.28	1.76	0.73	0.54	0.55	1.25	1.25	
1934	2.15	1.71	1.71	2.53	3.75	1.71	0.73	0.25	-0.05	-0.1	0.36	1.21	
1935	1.6	1.7	1.64	1.62	3.18	3.02	1.56	0.74	0.29	0.16	0.2	0.28	
1936	0.38	0.3	0.36	0.4	3.66	1.76	0.7	0.14	0.03	-0.06	-0.16	-0.16	
1937	0.06	0.17	0.24	0.3	1.68	2.88	1.3	0.58	0.3	0.28	0.48	1.4	
1938	1.42	1.21	1.15	1.54	4.18	3.16	1.22	0.48	0.18	0.18	0.3	0.32	
1939	0.54	0.52	0.47	1.02	3.4	2.38	1.1	0.32	0.08	0.05	0.1	0.2	
1940	0.66	0.65	0.85	2.01	3.4	1.66	0.67	0.1	0.06	0.1	0.47	0.42	
1941	0.68	0.69	0.86	2.09	3.13	2.21	1.03	0.57	0.57	1.2	1.37	1.62	
1942	1.5	1.05	0.87	0.9	2.68	3.23	2.33	1.13	0.61	0.39	0.49	0.75	
1943	0.66	0.65	0.57	1	2.98	3.43	1.92	1.2	0.78	0.7	0.93	1	
1944	1.05	0.93	0.86	0.87	2.56	1.96	1.15	0.68	0.47	0.59	0.67	0.83	
1945	0.89	1.08	1.13	1.49	2.19	2.85	1.19	0.54	0.38	0.32	0.68	1.09	
1946	1.34	1.5	1.58	1.93	4.66	3.48	1.63	0.98	0.67	0.38	0.67	1.21	
1947	1.07	1.12	1.47	1.96	3.71	2.29	1.22	0.85	0.72	0.71	1.69	1.67	
1948	1.65	1.57	1.6	1.71	3.44	3.08	1.57	0.84	0.47	0.4	0.42	0.74	
1949	0.85	0.87	1.14	1.38	3.8	1.53	0.61	0.09	-0.08	-0.07	0.13	0.67	
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
min	0.06	0.17	0.24	0.3	1.68	1.53	0.61	0.09	-0.08	-0.1	-0.16	-0.16	
max	2.15	1.71	1.71	3.29	4.66	4.28	2.52	1.51	1.04	1.2	1.69	1.67	
mean	1.00	0.96	1.07	1.56	3.34	2.70	1.37	0.67	0.40	0.38	0.60	0.85	
NVGD29 mean	-2.50	-2.54	-2.43	-1.94	-0.16	-0.80	-2.13	-2.83	-3.10	-3.12	-2.90	-2.65	
NAVD88 min	2438.49	2438.6	2438.67	2438.73	2440.11	2439.96	2439.04	2438.52	2438.35	2438.33	2438.27	2438.27	
NAVD88 max	2440.58	2440.14	2440.14	2441.72	2443.09	2442.71	2440.95	2439.94	2439.47	2439.63	2440.12	2440.1	
NAVD88 mean	2439.43	2439.39	2439.50	2439.99	2441.77	2441.13	2439.80	2439.10	2438.83	2438.81	2439.03	2439.28	

Point of Diversion Location:

The claim described the point of diversion as being in section ⁶~~5~~, which is consistent with the location of the Outlet Dam. However, the natural outlet of the lake is in section 5. It is unclear how to determine the exact location of the outlet of the lake and the sill of the lake is unsurveyed. Therefore, the POD description is described only to the section.



2/27/1897 Original Survey



2021 Photography