Humboldt Bay Municipal Water District - Water Rights Telemetry Data

PROVISIONAL DATA, SUBJECT TO REVISION. Daily values calculated from hourly telemetry (SCADA) readings; not yet reviewed as final.

Claimed water rights (State Water Board identification numbers): A016454 (Permit 11714), storage in Ruth Lake; A026657 (Permit 18347), direct diversion for power generation at Matthews Dam; A017291 (Permit 11715), direct diversion from the Mad River at Essex. Values are not apportioned to each right.

Water year beginning 10/01/2026. Data through 10/24/2026. Large diversion submission under California Code of Regulations, title 23, section 935(b); updated at least weekly.

Measurement locations: Ruth Lake level sensor at Matthews Dam (water surface elevation; storage is calculated by SCADA from the elevation); outflow from Ruth Lake is calculated by SCADA as turbine flow (ultrasonic flow meter) plus Howell-Bunger valve flow (valve rating) plus spillway flow (lake elevation and spillway rating); the fish release pipe is normally closed; Essex Ranney collector flow meters (Col134 venturi and Col2).

End-of-day elevation and storage are the last hourly reading of the day. Rates are the average of the hourly readings for the day; daily volume = daily average rate x 1 day (1 cfs for one day = 1.98347 acre-feet). Hourly records are retained by the District and are available on request.

Date	Ruth Lake water surface elevation, end of day (ft)	Ruth Lake storage, total volume at end of day (AF)	Change in storage from prior day (AF)	Outflow from Ruth Lake, daily volume (AF)	Outflow from Ruth Lake, daily average rate (cfs)	Turbine flow (included in outflow), daily volume (AF)	Turbine flow (included in outflow), daily average rate (cfs)	Diversion from the Mad River at Essex, daily volume (AF)	Diversion at Essex, daily average rate (cfs)	Note
10/01/2026	2,642.71	36,349	-57	86.7	43.7	86.7	43.7	21.1	10.6	
10/02/2026	2,642.56	36,207	-142	87.2	44.0	87.5	44.1	26.6	13.4	
10/03/2026	2,642.50	36,151	-56	85.5	43.1	86.3	43.5	20.2	10.2	
10/04/2026	2,642.33	35,990	-161	85.2	42.9	86.1	43.4	27.0	13.6	
10/05/2026	2,642.10	35,773	-217	85.6	43.2	85.3	43.0	23.2	11.7	
10/06/2026	2,641.91	35,594	-179	84.9	42.8	85.1	42.9	25.8	13.0	
10/07/2026	2,641.83	35,520	-74	87.0	43.9	87.3	44.0	23.8	12.0	
10/08/2026	2,641.68	35,380	-140	88.9	44.8	88.2	44.5	22.8	11.5	
10/09/2026	2,641.64	35,343	-37	88.7	44.7	88.4	44.6	25.7	12.9	
10/10/2026	2,641.51	35,222	-121	87.3	44.0	87.9	44.3	20.3	10.2	1 of 24 hourly Ruth readings unusable
10/11/2026	2,641.43	35,147	-75	89.0	44.9	88.4	44.5	25.3	12.7	
10/12/2026	2,641.18	34,914	-233	89.3	45.0	40.3	20.3	23.4	11.8	
10/13/2026	2,640.97	34,719	-195	90.0	45.4	0.2	0.1	26.4	13.3	1 of 24 hourly Ruth readings unusable
10/14/2026	2,640.90	34,655	-64	89.8	45.3	0.2	0.1	21.2	10.7	1 of 24 hourly Ruth readings unusable
10/15/2026	2,640.86	34,619	-36	89.5	45.1	26.0	13.1	25.9	13.1	
10/16/2026	2,640.21	34,022	-597	89.5	45.1	89.4	45.1	22.8	11.5	Ruth Lake level sensor (pressure transducer) flushed by Ops on 10/16; the drop in elevation and storage that day is from the flush.
10/17/2026	2,640.24	34,050	28	88.9	44.8	89.7	45.2	25.3	12.8	
10/18/2026	2,640.57	34,353	303	89.9	45.3	89.3	45.0	19.4	9.8	
10/19/2026	2,640.57	34,353	0	89.1	44.9	89.4	45.1	27.5	13.9	
10/20/2026	2,640.45	34,243	-110	89.3	45.0	90.0	45.4	22.2	11.2	
10/21/2026	2,640.38	34,179	-64	90.6	45.7	89.8	45.3	26.9	13.6	
10/22/2026	2,640.19	34,004	-175	90.3	45.5	90.2	45.5	18.2	9.2	
10/23/2026	2,639.99	33,821	-183	89.8	45.3	89.6	45.2	24.6	12.4	
10/24/2026	2,639.94	33,776	-45	89.8	45.2	90.0	45.4	19.6	9.9	