

2021 PRRIP Water Projects Accounting Updates

PRRIP Water Advisory Committee Meeting
February 7, 2023

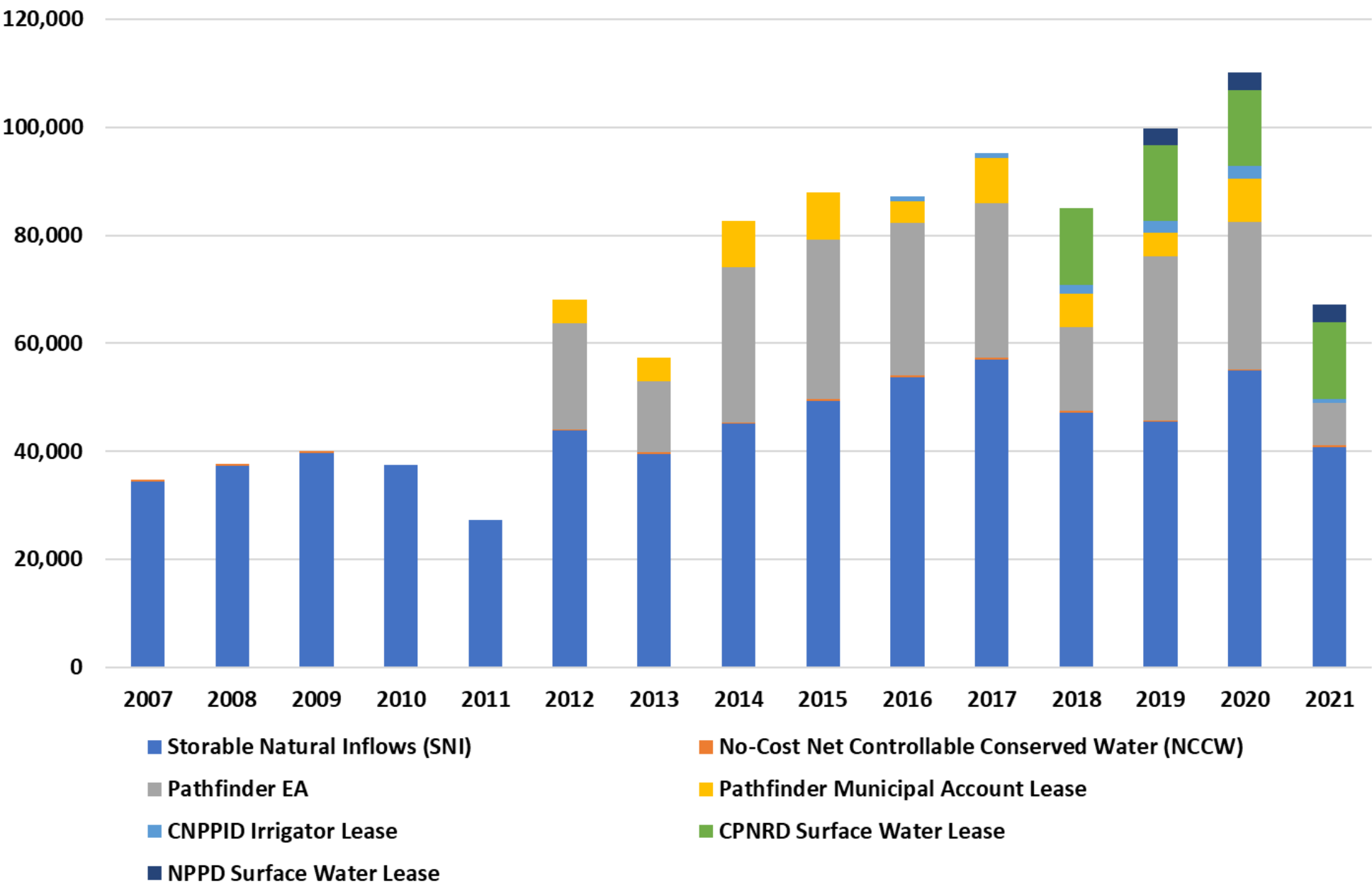
Lake McConaughy EA

Pathfinder EA Release = 9,863 AF

Accruals by Source, 2007-2021

Year of Operation	SNI (AF)	No-Cost NCCW (AF)	Pathfinder EA (AF)	Pathfinder Muni Acct (AF)	CNPPID Irrigator Lease (AF)	CPNRD Surface Water (AF)	NPPD Surface Water Lease (AF)	Total Accruals (AF)
2007	34,480	314	0	0	0	0	0	34,794
2008	37,367	314	0	0	0	0	0	37,681
2009	39,702	314	0	0	0	0	0	40,016
2010	37,548	0	0	0	0	0	0	37,548
2011	27,214	0	0	0	0	0	0	27,214
2012	43,813	314	19,660	4,370	0	0	0	68,157
2013	39,566	314	13,162	4,366	0	0	0	57,408
2014	45,048	314	28,774	8,525	0	0	0	82,662
2015	49,317	314	29,542	8,806	0	0	0	87,979
2016	53,743	314	28,160	4,129	778	0	0	87,124
2017	57,055	314	28,505	8,356	956	0	0	95,186
2018	47,198	314	15,537	6,148	1,541	14,251	0	84,989
2019	45,456	314	30,270	4,373	2,201	14,096	3,121	99,831
2020	54,915	314	27,168	8,154	2,242	14,073	3,306	110,172
2021	40,817	314	7,789	0	773	14,207	3,306	67,206
Total, 2007-2021	653,239	4,082	228,568	57,228	8,491	56,627	9,733	1,017,968
Average, 2007-2021	43,549	272	15,238	3,815	566	3,775	649	67,865
Total, 2012-2021	476,928	3,140	228,568	57,228	8,491	56,627	9,733	840,715
Average, 2012-2021	47,693	314	22,857	5,723	849	5,663	973	84,071

Lake McConaughy EA Contributions by Source in Acre-Feet, 2007-2021



Lake McConaughy EA – Accruals, Losses, Releases, and Reductions to Target Flow Deficits, 2007-2021

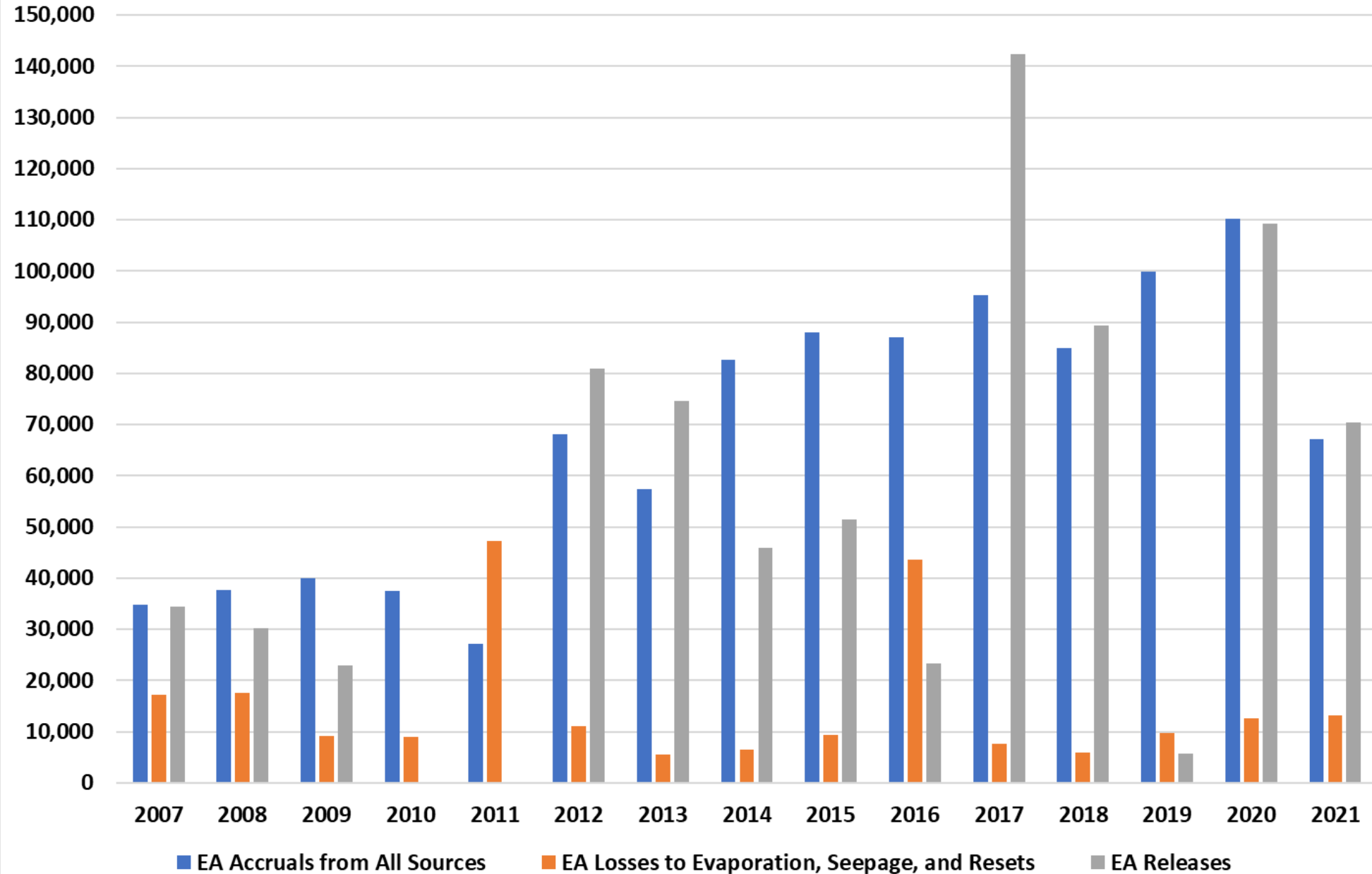
Year of Operation	Total Accruals to EA (AF)	Net Losses (AF)	Total EA Releases (AF)	EA Volume Reaching Grand Island (AF)	Reductions to Deficits (AF)
2007	34,794	17,282	34,374	24,406	13,000
2008	37,681	17,650	30,123	17,833	13,400
2009	40,016	9,199	22,953	13,313	8,200
2010	37,548	8,941	0	0	0
2011	27,214	47,194	0	0	0
2012	68,157	11,135	80,969	43,303	43,000
2013	57,408	5,449	74,642	56,025	28,900
2014	82,662	6,417	45,818	37,634	37,600
2015	87,979	9,296	51,459	43,452	42,600
2016	87,124	43,640	23,288	18,288	15,700
2017	95,186	7,566	142,336	118,175	90,100
2018	84,989	5,956	89,332	74,561	73,800
2019	99,831	9,746	5,653	5,105	900
2020	110,172	12,632	109,307	87,491	43,900
2021	67,206	13,163	70,375	53,458	32,000
Total, 2007-2021	1,017,968	225,267	780,628	593,045	443,000
Average, 2007-2021	67,865	15,018	52,042	39,536	29,500
Total, 2012-2021	840,715	125,001	693,179	537,493	408,400
Average, 2012-2021	84,071	12,500	69,318	53,749	40,800

Excerpt from *PRRIP Water Projects Accounting Update* (EDO Memo, November 30, 2021)

“Releases from the Lake McConaughy EA to benefit threatened and endangered species downstream are overseen by the USFWS in coordination with CNPPID and the EDO. The USFWS EA Manager prepares an Annual Operating Plan (AOP), which outlines priorities for the timing, target flow rates, and purpose of planned releases from the Lake McConaughy EA during the upcoming year. Releases are often timed to coincide with the spring and fall whooping crane migrations or to provide species benefits for interior least terns and piping plovers. Other releases are made for channel maintenance, germination suppression, or to facilitate one-time events such as the North Platte chokepoint test that was conducted in July 2020. While Lake McConaughy EA releases do contribute to target flow deficit reductions at times, the account is typically not operated specifically for that purpose.”

EA releases are made for a variety of purposes other than deficit reduction that are intended to provide species benefits. Reductions to target flow deficits are still calculated and shown in this table because that is the metric used in score analyses to assess water project contributions toward fulfilling the First Increment Water Objective (130kaf-150kaf average annual deficit reductions at Grand Island).

Lake McConaughy EA Accruals, Losses, and Releases in Acre-Feet, 2007-2021

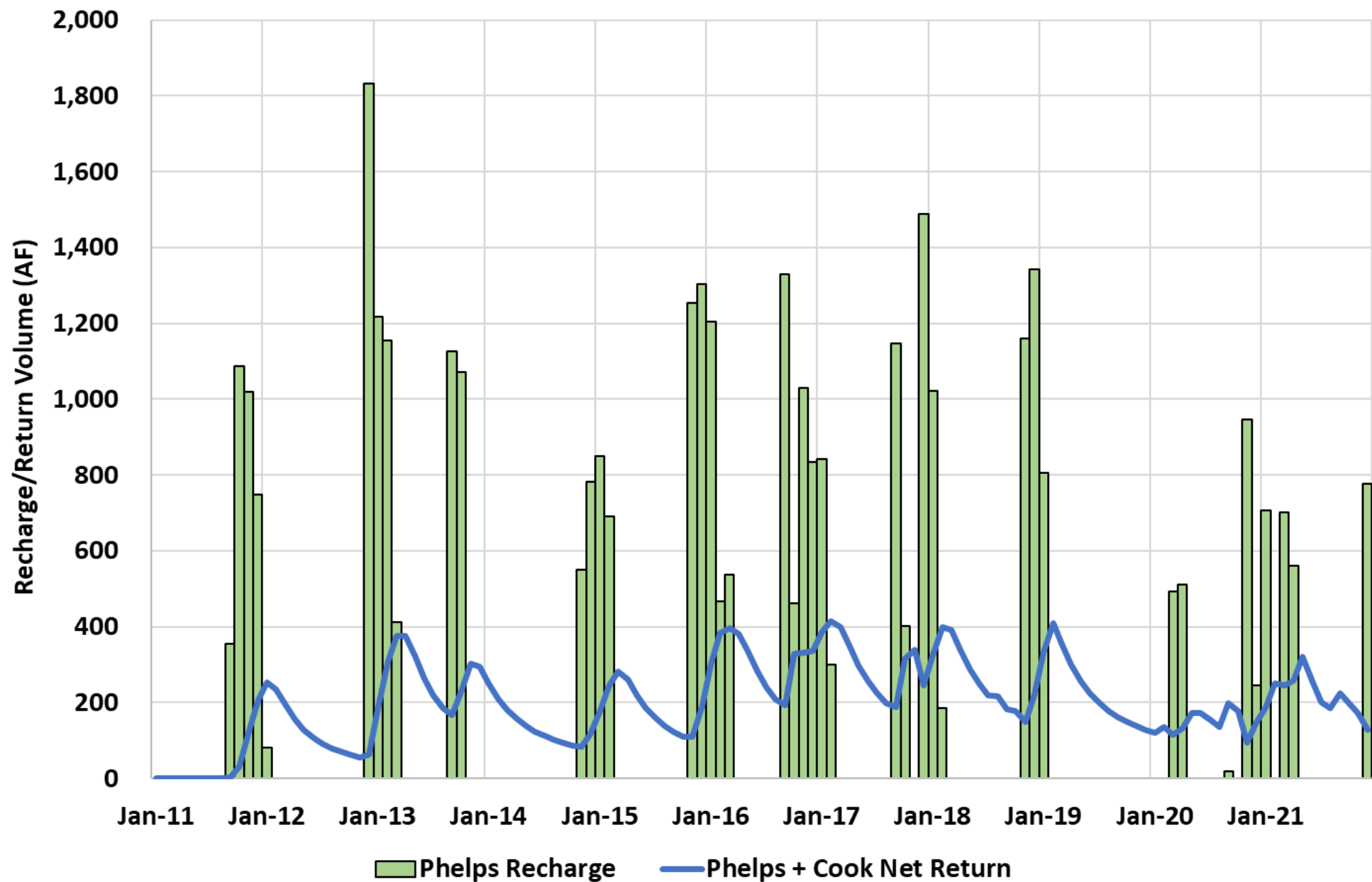


Phelps County Canal + Cook Recapture Well

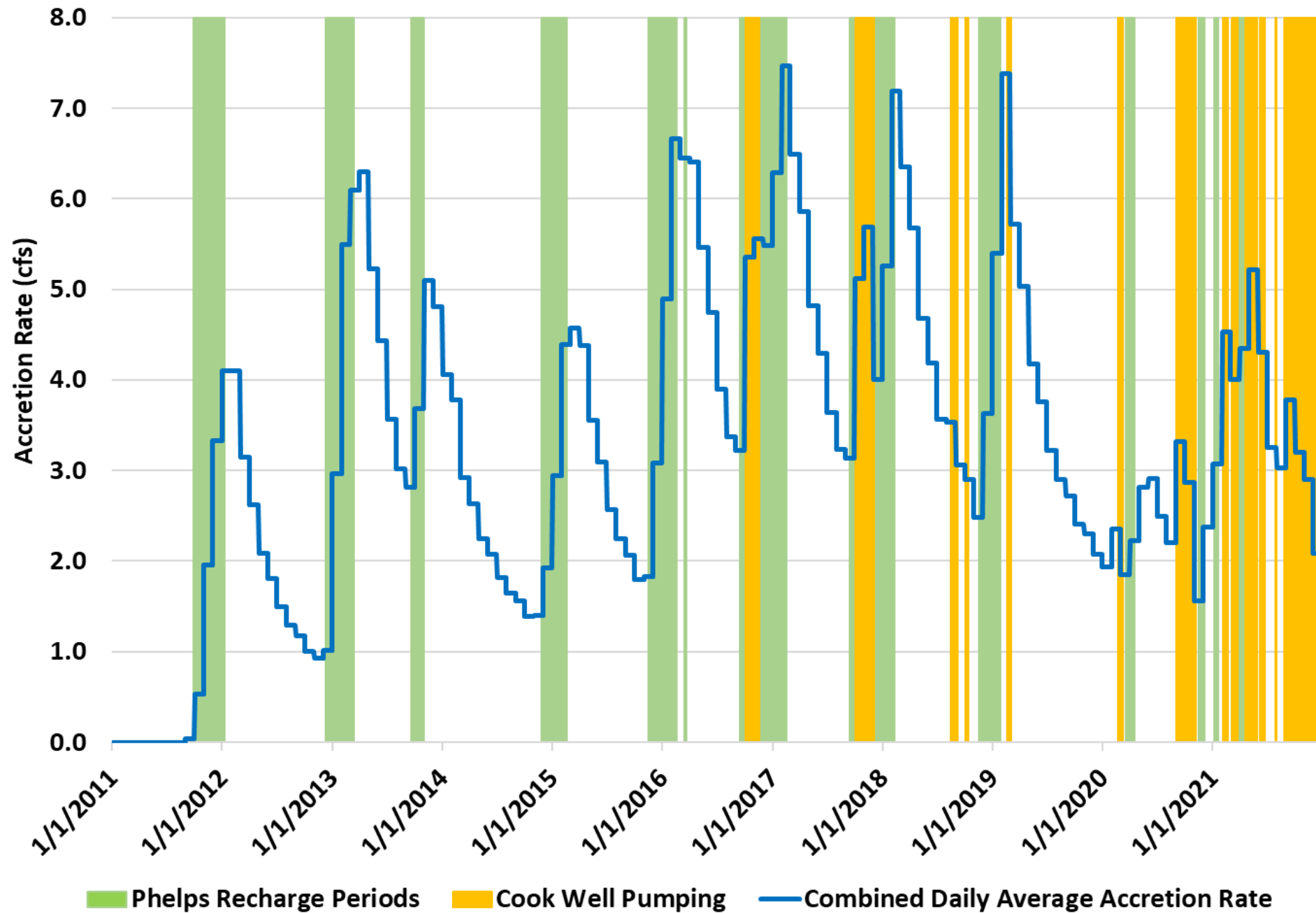
Recharge, Accretions, and Reductions to Target Flow Deficits, 2011-2021

Year of Operation	Invoiced Diversions	Amount Recharged	Cook Well Pumping	Phelps + Cook Lagged Accretions	Accretions Reaching Grand Island	Reductions to Target Flow Deficits
	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)
2011	2,709	3,200	0	360	300	0
2012	1,685	1,900	0	1,500	1,200	800
2013	4,418	5,000	0	3,200	2,500	1,800
2014	1,173	1,300	0	1,600	1,400	1,000
2015	3,613	4,100	0	2,200	2,000	910
2016	5,182	5,900	117	3,700	3,400	1,100
2017	3,687	4,200	152	3,600	3,100	1,600
2018	3,258	3,700	59	3,200	2,800	1,800
2019	712	810	26	2,800	2,600	870
2020	1,986	2,200	217	1,700	1,500	720
2021	2,482	2,700	541	2,600	2,200	1,500
Total	30,903	35,000	1,112	26,600	23,000	12,200
Average	2,809	3,200	185	2,400	2,100	1,100

**Monthly Phelps Canal Recharge and Net Returns
(Phelps Accretions + Cook Pumping - Cook Depletions), 2011-2021**



Phelps Recharge + Cook Well Pumping with Accretion Rates, 2011-2021

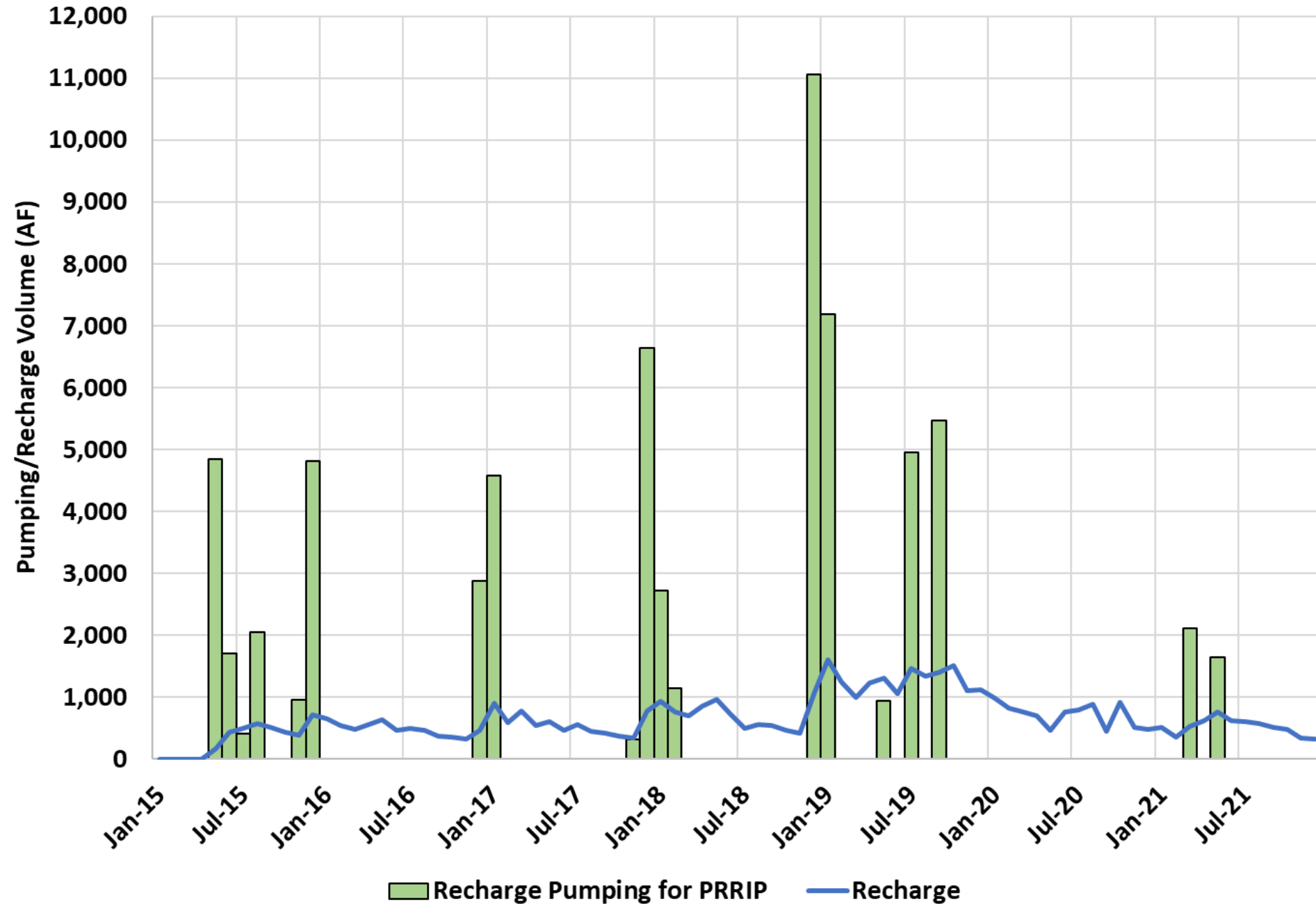


Elwood Reservoir

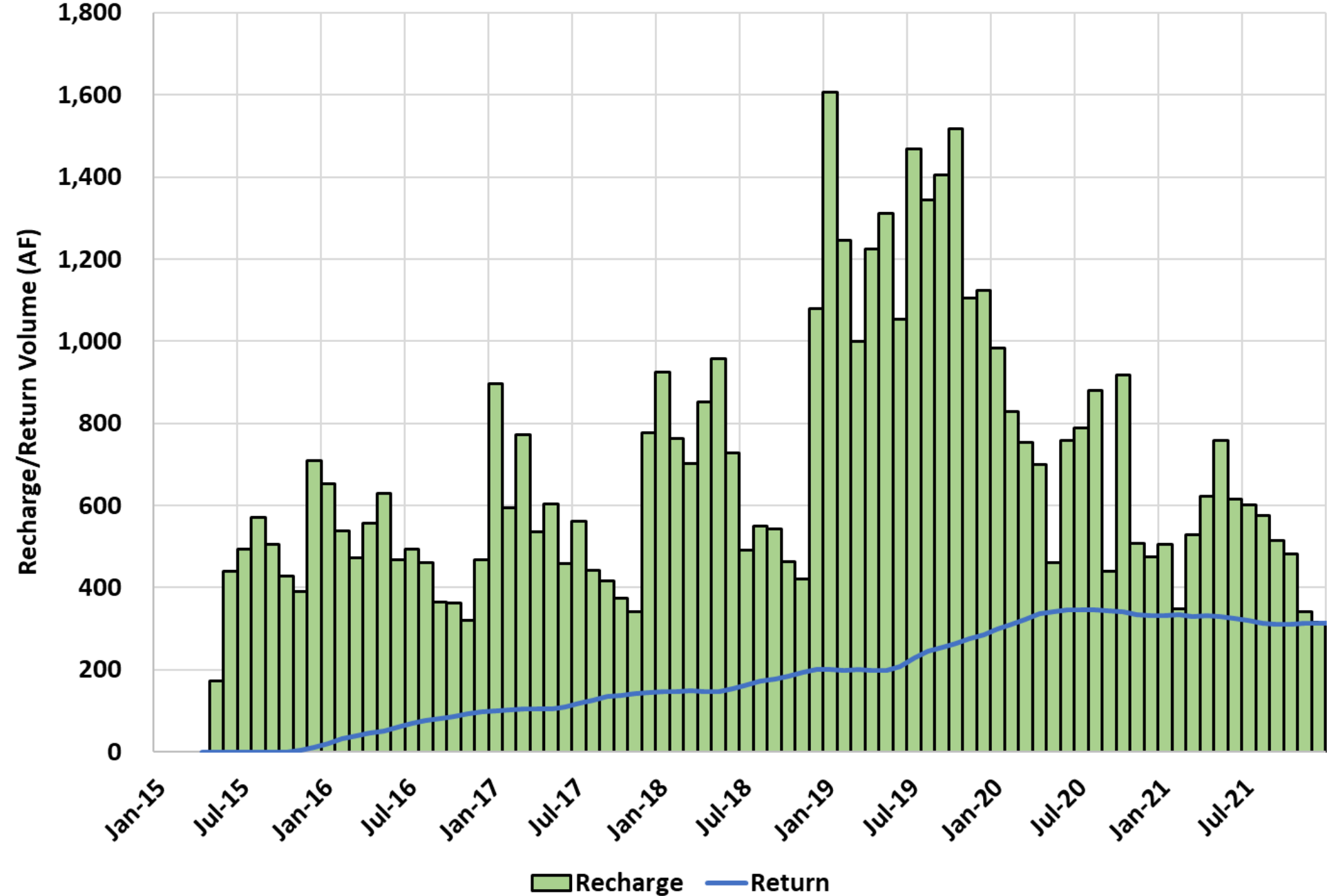
Recharge, Accretions, and Reductions to Target Flow Deficits, 2015-2021

Year of Operation	Invoiced Diversions (AF)	Volume Recharge (AF)	Lagged Accretions at the River (AF)	Accretions Reaching Grand Island (AF)	Reductions to Target Flow Deficits (AF)
2015	14,785	3,700	10	10	0
2016	2,880	5,800	750	660	220
2017	11,524	6,800	1,400	1,100	600
2018	14,916	8,500	2,000	1,700	1,000
2019	18,539	15,400	2,800	2,400	630
2020	0	8,500	4,000	3,500	1,600
2021	3,764	6,200	3,900	3,300	2,200
Total	66,408	54,800	14,800	12,700	6,200
Average	9,487	7,800	2,100	1,800	890

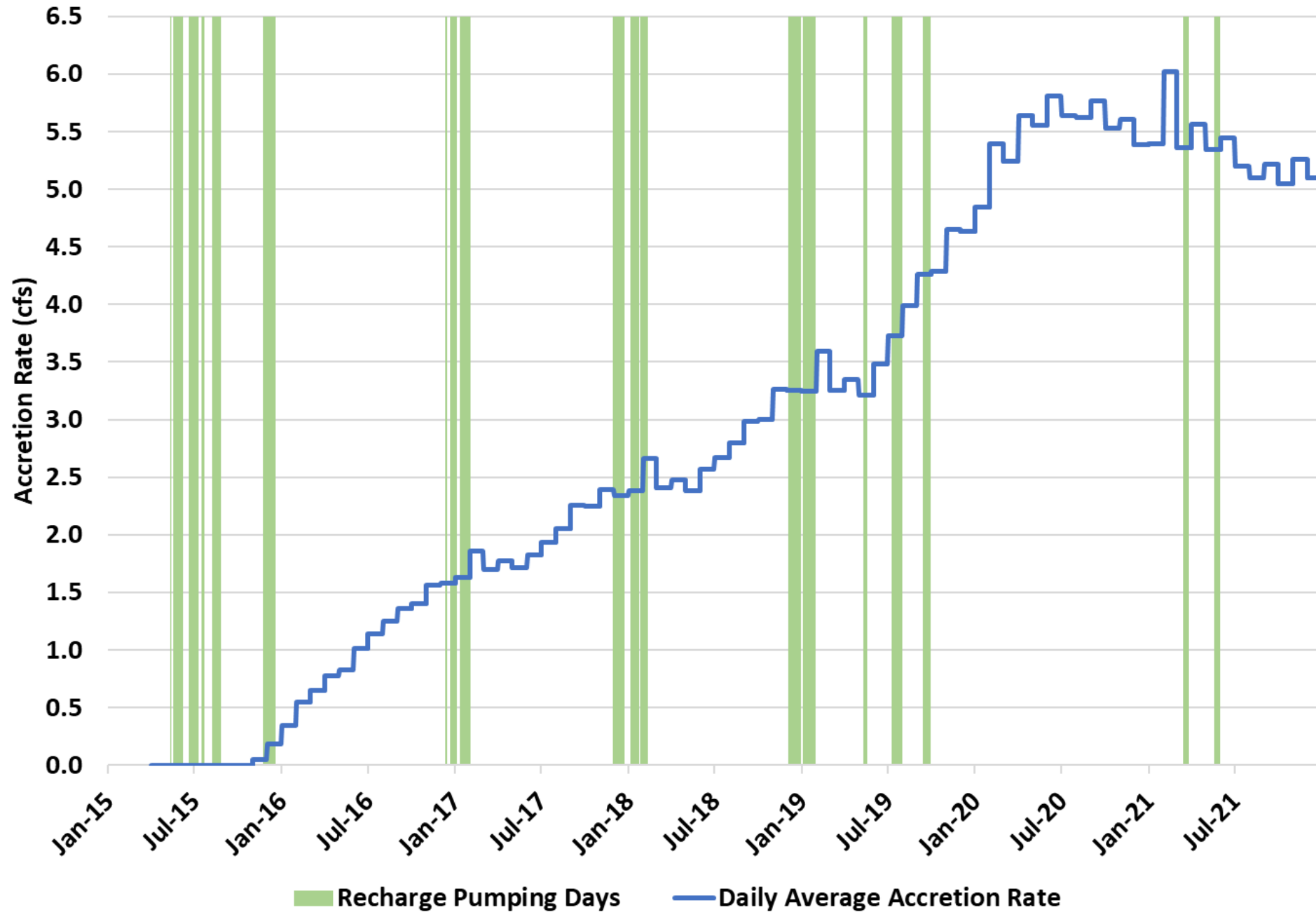
Monthly Elwood Reservoir Pumping and Recharge, 2015-2021



Monthly Elwood Reservoir Recharge and Return Flows, 2015-2021



Elwood Reservoir Recharge Pumping and Accretion Rates, 2015-2021



Elwood Recharge Summary 12/31/2021

• Volume Pumped In	= 66,407 AF
• Volume Recharged	= 54,839 AF
• Volume Lost to Evaporation	= 6,090 AF
• Volume Remaining in Reservoir	= 5,478 AF*
• Cumulative Accretions	= 14,793 AF
• Volume Remaining in Aquifer, Total	= 40,047 AF

*Volume Remaining in Reservoir ~2,000 AF as of 1/31/2023

Other PRRIP Water Projects - 2021

- NPPD recharge (Gothenburg/Dawson) = 563 AF net recharge
- CPNRD recharge (Thirty Mile, Cozad, Orchard-Alfalfa) = No diversions
- Cottonwood Ranch broad-scale recharge = No diversions
- Pilot-scale recapture well network = Construction began Nov 2021