

YUBA BASIN WATER RIGHTS

By Alan Lilly, November 12, 2009

Water Rights

-A Water Right Is Needed for Diversion and Beneficial Use of Most Surface Water

Riparian Rights

-Riparian Right Comes With Ownership of Riparian Parcel

-Limited To Direct Diversions (No Seasonal Storage) and Uses On Riparian Parcel

-All Riparian Rights Normally Have the Same Priority

Appropriative Rights

-Created by:

(1) intent to apply the water to be appropriated to some beneficial use;

**(2) actual diversion of water from natural channel for the intended purpose;
and**

(3) an application of water to beneficial use.

-Right Is Created, and Limited, By Rates Of Historical Diversion and Use.

-Pre-1914 Appropriative Rights:

(1) no permit from SWRCB required to perfect or maintain right;

(2) now often reported in statements of water diversion and use.

-Post-1914 Appropriative Rights:

(1) permit from SWRCB required to perfect right;

(2) after right is perfected, SWRCB issues a license, which supersedes the permit and confirms the right.

-Priority Date Is Based On Date Of First Intent (for pre-1914 rights) or Application Date (for post-1914 rights)

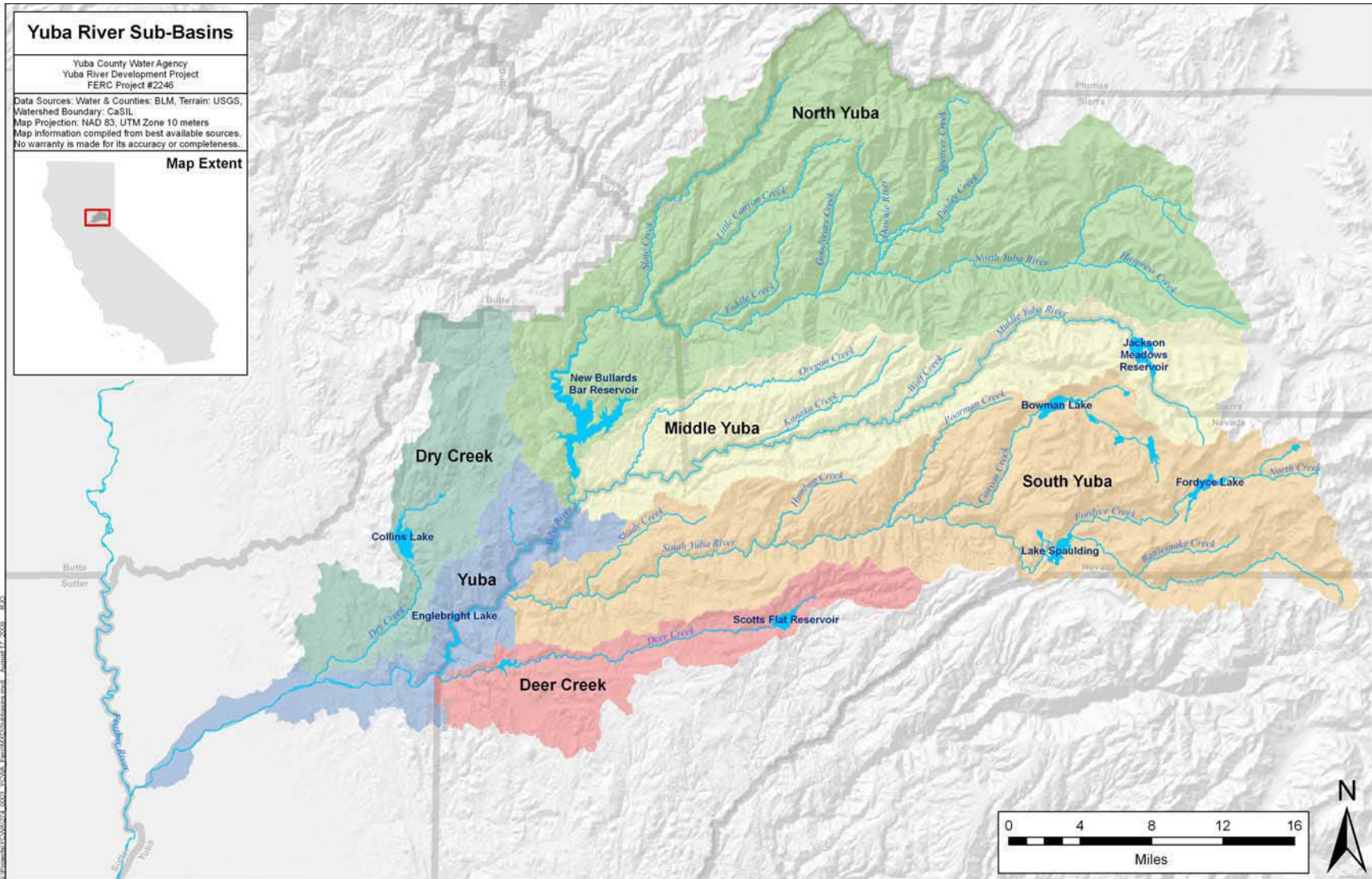


Figure 3.1-1. Sub-basins of the Yuba River.

Yuba Basin water-right licenses permits held by South Feather Water & Power Agency and North Yuba Water District

Priority	SWRCB Designation	Purpose	Source	Amount & Place of Diversion or Storage	Season	Place of Beneficial Use
(date)	(application and permit numbers)	(use)	(Waterbody)	(amount and place)	(period)	(place)
9/20/1950	App. 13956, License 10940	Power	Slate Creek	300 cfs dir. div.	1/1 to 12/31	South Feather Power Project
				34,200 ac-ft/yr div. to storage at max. rate of 300 cfs	1/1 to 7/1	
9/20/1950	App. 13957, Permit 11516	domestic, municipal, industrial and recreation	Slate Creek	300 cfs dir. div.	5/1 to 11/1	within NYWD's service area
				35,000 af-ft/yr to storage at max. rate of 300 cfs	1/1 to 7/1	

Note: Combined direct diversions under License 10940 and Permit 11516 may not exceed 300 cfs and combined diversions to storage may not exceed 35,000 ac-ft/yr or 300 cfs. Total direct diversion and diversion to storage may not exceed 600 cfs.

NID'S WATER RIGHTS FROM ITS PAD

7.2.6 Existing Water Rights

7.2.6.1 Licensee's Water Rights for Power Generation

Licensee's water rights related to the Yuba-Bear Hydroelectric Project for power generation are listed in Table 7.2.6-1 and Table 7.2.6-2.

Table 7.2.6-1. Summary of Pre-1914 non-consumptive water rights held by the Nevada Irrigation District for the purpose of power generation at the Yuba-Bear Hydroelectric Project (FERC Project No. 2266).

<i>Priority Date</i>	<i>Application</i>	<i>License</i>	<i>Source</i>	<i>Place of Storage or Diversion</i>
1873	S4716	Pre-1914 Right	Canyon Creek	Sawmill Lake
1859	S4717	Pre-1914 Right	Canyon Creek	French Lake
1854	S13330	Pre-1914 Right	Middle Yuba River	Milton
1872	S13800	Pre-1914 Right	Canyon Creek	Bowman
1872	S13801	Pre-1914 Right	Canyon Creek	Faucherie Lake
1874	S13927	Pre-1914 Right	South Yuba River	South Yuba Canal
1874	S13928	Pre-1914 Right	South Yuba River	Drum Canal
1853	S14354	Pre-1914 Right	Bear River	Rollins
1853	S14355	Pre-1914 Right	Bear River	Bear River Canal
1872	S14356	Pre-1914 Right	Canyon Creek	Bowman

Table 7.2.6-2. Summary of non-consumptive water rights held by the Nevada Irrigation District for the purpose of power generation at the Yuba-Bear Hydroelectric Project (FERC Project No. 2266), with Priority Dates after 1914.

Priority Date	SWRCB Designation			Source	Amount		Place of Storage or Diversion	Season of		Beneficial Use – Powerhouse (PG&E in Parentheses)
	Application	Permit	License		cfs	ac-ft		Diversion	Storage	
3/25/21	2275	2084	12796 (Issued 7/10/91)	Middle Yuba River		60,000	Jackson Meadows Bowman		1/1-12/31	(Spaulding No. 3)
6/3/21	2372	2087	12798 (Issued 7/10/91)	Jackson Creek Canyon Creek Canyon Creek Canyon Creek Canyon Creek Texas Creek Fall Creek Trap Creek	152 30 15 5	970 2,993 3,030 47,530	Jackson Lake Faucherie Lake Sawmill Lake Bowman Bowman-Spaulding Conduit Bowman-Spaulding Conduit Bowman-Spaulding Conduit Bowman-Spaulding Conduit	1/1-12/31 1/1-12/31 1/1-12/31 1/1-12/31	12/1-7/15 12/1-7/15 12/1-7/15 12/1-7/15	(Spaulding No. 3)
11/7/34	4309	2935	4544 (2/11/57)	Middle Yuba River Canyon Creek & Others Not Listed	135		Drum Canal	1/1-12/31		(Spaulding No. 1, Drum, Dutch Flat)
11/7/24	4310	2936	1707 (12/15/36)	Middle Yuba River Canyon Creek & Others Not Listed	126		South Yuba Canal	1/1-12/31		(Spaulding No. 2, Deer Creek)
6/16/30	6701	5806	12799 (7/10/91)	Clear Creek Fall Creek Trap Creek	5 10 5		Bowman-Spaulding Conduit Bowman-Spaulding Conduit Bowman-Spaulding Conduit	10/1-9/30 12/1-7/31 1/1-7/31		Dutch Flat No. 2, Chicago Park (Spaulding No. 1, Spaulding No. 2, Spaulding No. 3, Deer Creek, Drum, Dutch Flat No. 1)
11/27/34	8178	5813	12802 (7/10/91)	Texas Creek Clear Creek Fall Creek Trap Creek Rucker Creek	68 13.6 75.7 8.6 25		Bowman-Spaulding Conduit Bowman-Spaulding Conduit Bowman-Spaulding Conduit Bowman-Spaulding Conduit Bowman-Spaulding Conduit	1/1-6/30 1/1-7/31 12/1-7/31 4/15-6/30 1/1-12/31		Dutch Flat No. 2, Chicago Park (Spaulding No. 1, Spaulding No. 2, Spaulding No. 3, Deer Creek, Drum, Dutch Flat No. 1, Halsey, Wise)
11/27/34	8179	5814	12803 (7/10/91)	Wilson Creek	3.5	680	Milton-Bowman Conduit Bowman	1/1-12/31	11/1-6/30	Dutch Flat No. 2, Chicago Park (Spaulding No. 1, Spaulding No. 2, Spaulding No. 3, Deer Creek, Drum, Dutch Flat No. 1, Halsey, Wise)
9/3/53	15525	13771	10016 (3/5/73)	South Yuba River	200		Spaulding Lake	9/1-6/30		Dutch Flat No. 2, Chicago Park (Spaulding No. 1, Halsey, Wise)
4/6/61	20072	13773	In Progress	Middle Yuba River		50,000	Jackson Meadows Bowman		10/1-6/30	Dutch Flat No. 2, Chicago Park (Spaulding No. 1, Spaulding No. 2, Spaulding No. 3, Deer Creek, Drum, Halsey, Wise)
2/5/63	21151	14799	9903 (4/19/72)	Bear River	1,056		Chicago Park Flume	1/1-12/31		Chicago Park
2/5/63	21152	14800	9902 (4/19/72)	Bear River	550		Dutch Flat Flume	1/1-12/31		Dutch Flat No. 2
1/9/76	24983	16953	In Progress	Bear River	700	62,080	Rollins Reservoir	1/1-12/31	11/30-6/1	Rollins
10/22/82	27559	19158	In Progress	Canyon Creek	322	65,000	Bowman	1/1-12/31	1/1-7/31	Bowman

Table 7.2.6-1. Summary of water rights held by PG&E related to the Drum-Spaulding Project (FERC Project No. 2310).

Application Number	License or (Permit) Number	Statement of Water Diversion and Use Number	Priority /first use	Storage Right (af)	Direct Diversion Right		Description (Name of Works)	Point of Diversion	Type of use*	Water Right Class
					amount	units				
		934	1855	207			Upper Rock Lake	Rock Creek	P,I,D,PS	Pre 1914
		935	1855	48			Lower Rock Lake	Rock Creek	P,I,D,PS	Pre 1914
		936	1852	953			Culbertson Lake	Texas Creek	P,I,D,PS	Pre 1914
		937	1870	18			Upper Lindsey Lake	Lindsey Creek	P,I,D,PS	Pre 1914
		938		110			Middle Lindsey Lake	Lindsey Creek	P,I,D,PS	Pre 1914
		939	1870	293			Lower Lindsey Lake	Lindsey Creek	P,I,D,PS	Pre 1914
		940	1875	739			Feeley Lake	Lake Creek	P,I,D,PS	Pre 1914
		941	1875	150			Carr Lake	Lake Creek	P,I,D,PS	Pre 1914
		9978	1870		20	cfs	Texas Creek Feeder	Texas Creek	P,I,J,M,D	Pre 1914
		9979	1870		20	cfs	Lindsey Creek Feeder	Lindsey Creek	P,I,J,M,D	Pre 1914
		9980	1870		20	cfs	Clear Creek Feeder	Clear Creek	P,I,J,M,D	Pre 1914
		9981	1870		30	cfs	Fall Creek Feeder	Fall Creek	P,I,J,M,D	Pre 1914
		10396	1870		30	cfs	Trap Creek Diversion	Trap Creek	P	Pre 1914
		942	1870	1163			Blue Lake	Rucker Creek	P,I,D,PS	Pre 1914
		943	1870	648			Rucker Lake	Rucker Creek	P,I,D,PS	Pre 1914
		9982	1870		30	cfs	Rucker Creek Feeder	Rucker Creek	P,I,J,M,D	Pre 1914

		9032	1870		70	cfs	Jordan Creek Conduit	Jordan Creek	P,I,D,PS	Pre 1914
		945	1864	4935			Meadow Lake	Tributary to Fordyce Creek	P,I,D,PS	Pre 1914
		946	1850	570			White Rock Reservoir	White Rock Creek	P,I,D,PS	Pre 1914
		951	1877	1764			Sterling Lake	Sterling Creek	P,I,D,PS	Pre 1914
		9033	1873	20,222			Lake Fordyce near Cisco	Fordyce Creek	P,I,J,M,D	Pre 1914
2750	986		2/9/1922	26,572			Lake Fordyce	Fordyce Creek	P	License
3550	10867		7/26/1923	26,662			Lake Fordyce	Fordyce Creek	I,M,J	License
		948	1855	1,505			Kidd Lake	Tributary to South Yuba River	P,I,D,PS	Pre 1914

Table 7.2.6-1. (continued)

Application Number	License or (Permit) Number	Statement of Water Diversion and Use Number	Priority /first use	Storage Right (af)	Direct Diversion Right		Description (Name of Works)	Point of Diversion	Type of use*	Water Right Class
					amount	units				
		949	1855	1,736			Upper Peak Lake	Tributary to South Yuba River	P,I,D,PS	Pre 1914
		950	1860	484			Lower Peak Lake	Tributary to South Yuba River	P,I,D,PS	Pre 1914
		944	1852	74,773			Lake Spaulding	South Yuba River	P,I,D,PS	Pre 1914
		954	1853		165	cfs	South Yuba Canal	South Yuba River	P,I,D	Pre 1914
		965	1853		10	cfs	So. Yuba Canal feeders Sta. 40+08 to 55+83	Tributary to Bear River	P,I	Pre 1914
		970	1853		10	cfs	South Yuba Canal feeder - Sta 637+20	Tributary to Bear River	P,I	Pre 1914
		953	1865		800	cfs	Drum Canal Intake	South Yuba River	P,I,D,PS	Pre 1914
4851	1464		9466	300			Kelly Lake	Six Mile Valley	I,D	License
		952	1887	7964			Lake Valley Reservoir	Lake Valley Creek	P,I,D,PS	Pre 1914
26517	(P20253)		9/4/1980		42	cfs	Lake Valley Canal	NF North Fork American River	P	Permit
		955	1853		40	cfs	Lake Valley Canal	NF of North Fork American River	P,I,D	Pre 1914
		964	1865		10	cfs	Feeder to Drum Canal	Tributary to Bear River	P	Pre 1914

5970	8888		7/5/1928		525	cfs	Dutch Flat 1 Intake	Bear River	P	License
2753	987		2/9/1922		100	cfs	Bear River Canal Intake	Bear River	P	License
6332	1375		6/19/1929		120	cfs	Bear River Canal Intake	Bear River	P	License
		957	1852		475	cfs	Bear River Canal Intake	Bear River	P,I,D,PS	Pre 1914
		969	1917		???	???	Inflow to Halsey Afterbay	Dry Creek	P,I,D	Pre 1915
		968	1917		???	cfs	Inflow to Rock Creek Reservoir	Rock trib to Bear Creek	P,I,D	Pre 1916
		960	1863		50	cfs	Towle Canal 500 ft below head	Canyon Creek	P,I,D,PS	Pre 1914
		961	1864		60	cfs	Boardman Canal below Alta PH	Little Bear River	I,D	Pre 1914

* Domestic (D); Irrigation (I); Municipal (M); Power (P); Public Service (PS)

In the spring of each year, Licensee makes a determination of anticipated runoff into New Bullards Bar Reservoir relying upon snow course measurements and forecasts of runoff provided by CDWR. Licensee also makes estimates of water needs for local water deliveries and for releases to meet required instream flows for the current water year and for the following year. Based on these forecasts, a target, carryover storage level for the end of the water year (*i.e.*, end-of-September storage) is determined that will provide a level of drought protection for the following year. New Bullards Bar Reservoir is operated to meet minimum carryover storage requirements designed to ensure that instream flow requirements and at least 50 percent of the surface water deliveries to Licensee's service area is met during the next year. The carryover storage requirement is a drought protection measure. Reservoir carryover storage is used to make up the difference between the available surface water supply and system demands (*e.g.*, diversion demands, instream flow requirements, and system operational losses) under drought conditions.

In addition to a minimum carryover storage target level for New Bullards Bar Reservoir, in wetter years Licensee operates to an end of September target storage level for the Lower Yuba River Accord of 650,000 ac-ft, as well as other target storage levels for various times in mid-winter that are parts of power generation operations and flood control operations.

The average total inflows to New Bullards Bar Reservoir from the North Yuba River and diversions from the Middle Yuba River and Oregon Creek is about 1,200,000 ac-ft per year and has ranged from a low of 163,000 ac-ft in 1977 to a high of 2,800,000 ac-ft in 1982.

6.3.1.3 Compliance with Water Rights

Licensee holds pre-1914 appropriative rights dating from 1897, and post-1914 appropriative water rights confirmed by water-right licenses, for the purposes of operating the Project for hydroelectric power generation. Table 6.3.1-1 lists the post-1914 appropriative water-right licenses held by Licensee for power generation.

Table 6.3.1-1. Water right licenses held by Licensee for operation of the Project for power generation.

Priority (date)	SWRCB Designation (application)	SWRCB Designation (license)	Source (Waterbody)	Amount & Place of Diversion or Storage (amount & place)	Season (period)	Place of Beneficial Use (powerhouse)
2/11/1921	2197	435	North Yuba River	700 cfs at New Bullards Bar Dam	1/1 - 12/31	New Colgate Powerhouse
				5,000 ac-ft/yr at New Bullards Bar Dam	about 12/15 to about 7/15	
9/7/1922	3026	436	North Yuba River	10,000 ac-ft/yr at New Bullards Bar Dam	about 12/15 to about 7/15	New Colgate Powerhouse
4/30/1926	5004	777	North Yuba River	15,000 ac-ft/yr at New Bullards Bar Dam	about 12/15 to about 7/15	New Colgate Powerhouse

Table 6.3.1-1. (continued)

Priority (date)	SWRCB Designation (application)	SWRCB Designation (license)	Source (Waterbody)	Amount & Place of Diversion or Storage (amount & place)		Season (period)		Place of Beneficial Use (powerhouse)
7/30/1927	5631	11565	Middle Yuba River	810 cfs at Our House Dam	490,000 ac-ft/yr storage in New Bullards Bar Res	1/1-12/31 (dir. div.)	10/15 to 6/30 (stor.)	New Colgate Powerhouse and Narrows 2 Powerhouse
			Oregon Creek	240 cfs at Log Cabin Dam		1/1-12/31 (dir. div.)		
			North Yuba River	1,800 cfs at New Bullards Bar Dam		11/1-7/31 (dir. div.)		
			Yuba River	1,800 cfs at USACE's Englebright Dam		1/1-12/31		
3/1/1939	9516	3050	North Yuba River	100 cfs at New Bullards Bar Dam		1/1 - 12/31	New Colgate Powerhouse	
9/12/1941	10282	5544	North Yuba River	5,335 ac-ft/yr at New Bullards Bar Dam		about 10/1 to about 3/1	New Colgate Powerhouse Narrows 2 Powerhouse	
2/20/1953	15205	11566	Middle Yuba River	3,200 ac-ft/yr at Log Cabin Dam; storage in New Bullards Bar Res.		5/1- 6/30	New Colgate Powerhouse and Narrows 2 Powerhouse	
			North Yuba River	245 cfs and 700 ac-ft/yr at New Bullards Bar Dam	3/15- 6/15 (dir. div.); 5/1- 6/30 (stor.)			
			Yuba River	800 cfs at USACE's Englebright Dam	11/1-7/15			
10/2/1953	15563	11567	Middle Yuba River	30,000 ac-ft/yr at Our House Dam	all storage in New Bullards Bar Res.	10/15 - 6/30	New Colgate Powerhouse and Narrows 2 Powerhouse	
			Oregon Creek	1,400 ac-ft/yr at Log Cabin Dam		10/15 - 6/30		
			North Yuba River	146,000 ac-ft/yr at New Bullards Bar Dam		10/15 - 6/30		
			Yuba River	910 cfs at USACE's Englebright Dam		11/1 - 6/30		

Licensee operates the Project consistent with terms and conditions of these water rights.

6.3.1.4 Compliance with the FERC License

Licensee operates the Project in compliance with the current FERC license. Articles 33, 34, 40 and 46 in the existing FERC license are most germane to Project operations. The texts of these four articles are in Section 6.4.1. Each of these articles is summarized below.

Articles 33. This article requires Licensee to maintain in wet and normal water years a minimum streamflows in the periods from April 15 through June 15 and from June 16 through April 14 of: 50 cfs and 30 cfs, respectively, or natural flow, whichever is less, below Our House Diversion Dam; 12 cfs and 8 cfs, respectively, or natural flow, whichever is less, below Log Cabin Diversion Dam; and 5 cfs or natural flow, whichever is less, in both periods below New

Non-power water-right permits held by Yuba County Water Agency.

Priority	SWRCB Designation	Purpose	Source	Amount & Place of Diversion or Storage		Season	Place of Beneficial Use
(date)	(application and permit numbers)	(use)	(Waterbody)	(amount and place)		(period)	(place)
7/30/1927	App. 5632, Permit 15026	irrigation, flood control domestic, industrial, recreation, fish mitigation and fish enhancement	North Yuba River and Yuba River	490,000 ac-ft/yr div. to storage at New Bullards Bar Dam (div. to storage; re-div. at Daguerre Point Dam and Browns Valley ID div.)		about 10/1 to about 6/30	within YCWA's service area
				1,550 cfs dir. div. at Daguerre Point Dam and Browns Valley ID diversion		about 9/1 to about 6/30	
2/20/1953	App. 15204, Permit 15027	irrigation, flood control domestic, industrial, recreation, fish mitigation and fish enhancement	North Yuba River and Yuba River	240,000 ac-ft/yr div. to storage at New Bullards Bar Dam; re-div. at Daguerre Point Dam and Browns Valley ID diversion		about 10/1 to about 6/30	within YCWA's service area
10/9/1953	App. 15574, Permit 15030	irrigation, flood control domestic, industrial, recreation, fish mitigation and fish enhancement	Middle Yuba River	150,000 ac-ft/yr	div. to storage in New Bullards Bar Res.; re-div. at Daguerre Point Dam and Browns Valley ID diversion	about 10/1 to about 6/30	within YCWA's service area
			Oregon Creek	44,000 ac-ft/yr			
			North Yuba River	320,000 ac-ft/yr			

Note: Although flood control is listed as an authorized purpose of use in these permits, water actually may not be appropriated for flood control, because flood control is not a beneficial use of water.

Table 7.2.8-1. North Yuba River Sub-Basin Diversions by SFWPA South Fork Power Project - Slate Creek Diversions for Representative Water Year Types.

Year Type	Representative Water Year	Average Diversion (cfs)	Annual Diversion (ac-ft)
Dry	2001	68	48,995
Normal	2003	141	102,108
Wet	1995	209	151,075

Source: USGS Gage 11413250, Slate C Tunnel Nr Strawberry Valley CA. http://waterdata.usgs.gov/nwis/dv/?referred_module=sw

Table 7.2.8-2. Middle Yuba River Sub-basin diversions by NID's Yuba-Bear Hydroelectric Project - Milton Diversion Dam diversions for representative water year types.

Year Type	Representative Water Year	Average Diversion (cfs)	Annual Diversion (ac-ft)
Dry	2001	40	28,682
Normal	2003	97	70,527
Wet	1995	87	62,991

Source: USGS Gage 11408000, Milton-Bowman Tunnel Outlet Nr Graniteville CA. http://waterdata.usgs.gov/nwis/dv/?referred_module=sw.
 Note: These values should be considered estimates, as tunnel gage statistics do not take into account changes in upstream storage.

Table 7.2.8-5. Cumulative South Yuba River Sub-basin diversions by PG&E's Drum-Spauling Project and NID's Yuba-Bear Hydroelectric Project - diversions for representative water year types.

Year Type	Representative Water Year	Average Diversion (cfs)	Annual Diversion (ac-ft)
Dry	2001	337	243,514
Normal	2003	627	452,074
Wet	1995	724	522,219

Source: USGS Gage 11417500 - South Yuba River at Jones Bar CA. http://waterdata.usgs.gov/nwis/dv/?referred_module=sw. Note: These values should be considered estimates, as tunnel gage statistics do not take into account changes in upstream storage.

LOWER YUBA RIVER BASIN

Appl. No.	Permit No.	License No.	Filing Date	Permit or License Date	Deadline to Perfect By Full Use	Facility Name	Max. Amt.		Season of Use		Purpose of Use	Place of Use	Remarks
							Cfs	Ac-Ft	Dir.	Div.			
PACIFIC GAS AND ELECTRIC COMPANY													
8794	5775	6388	9-21-36	7-7-61	Perfected	Englebright & Narrows	700	45,000	1-1 to 12-31	10-1 to 3-1	Power	Narrows P.P.	
(NORTH) YUBA COUNTY WATER DISTRICT													
2978	1278	12394	8-12-22	1-5-23	12-1-26 Perfected	Dry Creek Diversion	400 21.4	-	4-11	to 10-15	-	Irrigation & Domestic 3,064 Acres	Diversion point and place of use changed in 1965
BROWNS VALLEY IRRIGATION DISTRICT													
13138	8649	-	6-2-49	7-28-51	12-1-75	Virginia Ranch Dam	100	20,000	10-1 to 5-1	10-1 to 5-1	Irrigation & Domestic	11,000 Acres	Storage changed from Honcut to Virginia Ranch in 1959
13873	9703	-	7-31-50	3-25-54	12-1-75	Virginia Ranch Dam	-	40,000	-	10-1 to 6-1	Irrigation & Domestic	9,000 Acres	
23757	16792	-	4-12-71	6-23-76	12-1-80	Virginia Ranch Dam	70	-	11-1 to 6-30	-	Irrigation & Domestic	11,000 Acres	Diversion shall not exceed 11,000 acre-feet
1986	Certificate 8	3-26-90	10-8-31	Perfected	North Yuba River	47.2	-	1-1 to 12-31	-	Irrigation	6,438 Acres		
CORDUA IRRIGATION DISTRICT													
9927	6009	3984	6-10-40	8-5-54	Perfected	Daguerre Point Dam	40	-	4-1 to 11-1	-	Irrigation & Domestic	7,464 Acres	Application lists prior right supply of 75 cfs
12371	8322	3985	3-2-48	8-5-54	Perfected	Daguerre Point Dam	50	-	4-1 to 11-1	-	Irrigation & Domestic	7,464 Acres	
HALLWOOD IRRIGATION COMPANY													
8899	6008	4443	5-16-40	1-15-57	Perfected	Daguerre Point Dam	100	-	4-1 to 11-1	-	Irrigation	8,000 Acres	Application lists prior right supply of 150 cfs