

San Luis Obispo County
Master Water Plan
Environmental Demand - Current and Projected

Current Demand

Information on current environmental water demands is available from two sources:

1) conditions on water rights permits and licenses and associated orders on file with the State Water Resources Control Board (SWRCB), and 2) agreements between the California Department of Fish and Game (CDFG) and other entities. In most instances the latter will be incorporated in the former. In many cases permit or license conditions do not specify a reservation of stream flow for environmental benefit, rather they are restrictions on use by individual rights holders. These restrictions are intended to provide benefits to fish and wildlife however, it is not usually clear how restrictions on an individual water right interact with other water rights without such restrictions on the same stream and the resulting net effect on streamflows. Placing restrictions on one or a few diverters may or may not provide benefits to fish and wildlife in the absence of specific streamflow reservations for that purpose. Diversion of water from streams under riparian rights does not require a permit or license and therefore would have no conditions such as can be imposed on a permit or license.

Current environmental demands, as reflected in water rights and regulating agreements, are presented in the following table for each planning area. Actual permit conditions are included in the appendix to the table. As can be seen, it is not always clear how these would be interpreted in terms of an environmental demand. For example, many of the permit conditions call for a “visible surface flow” in a given stream but it is not clear how much water this represents. Only one stream in the County, the Nacimiento River downstream of Nacimiento Dam currently has a specific required instream flow reservation.

Future Demand

Future environmental water demand will depend on a number of biological and political factors. The CDFG is the primary agency responsible for protection of fish and wildlife resources and plays an important role in determining associated needs for water. Under the Fish and Game Code the owner of a dam is required to allow sufficient water to pass downstream at all times in order to keep fish below in good condition.

The SWRCB has responsibility under the water code and the public trust doctrine (as defined by the California Supreme Court in the Audubon Decision) to take into account amounts of water needed to remain in the source for protection of beneficial uses and to protect the public trust by withholding water from appropriation. Water rights applications are also subject to review under the California Environmental Quality Act (CEQA). If a Federal agency is involved the project will be subject to environmental review under the National Environmental Policy Act (NEPA). Many entities, including CDFG, have ability to influence streamflow requirements through the CEQA or NEPA process. CDFG and other fish and wildlife protection groups may protest a water right application and gain measures for streamflow protection through negotiation.

SWRCB actions are also influenced by the Endangered Species Act. The issuance of a water right permit by the SWRCB does not authorize any activity that would result in a “take” of any

protected species, and possession of a water right permit does not authorize diversion in a manner that would result in a “take” of any protected species (SWRCB 1997). Failure to provide measures to protect fishery resources could subject future permittees to sanctions under provisions of section 9 of the Act (SWRCB 1997). The SWRCB must also comply with consultation requirements under the California Endangered Species Act.

Animals of concern inhabiting streams in San Luis Obispo County include the California red-legged frog, two-striped garter snake, southwestern pond turtle, tidewater goby, and steelhead trout. Steelhead trout and California red-legged frog are listed under the Federal ESA as a threatened species. Tidewater goby are listed as endangered under the ESA. It is illegal to take these species and this protection is generally extended to their habitat as well.

Steelhead are potentially found in most streams in Planning Areas 1-5 and in the Upper Salinas Basin including the mainstem below Santa Margarita Dam, Santa Margarita Creek and Paso Robles Creek and its tributaries, and Atascadero Creek. The healthiest steelhead populations are north of Morro Bay including populations in Santa Rosa Creek, and Arroyo de la Cruz that have been relatively well studied recently. There is some question whether steelhead persist in the Upper Salinas Basin though resident trout have been reported fairly recently from Santa Margarita Creek and the mainstem upstream of Highway 58.

Tidewater goby are restricted to coastal, brackish-water habitats in California (coastal lagoons), originally from the mouth of the Smith River in Del Norte County, south to Aqua Hedionda Lagoon, San Diego County (Swift et al. 1989). It is apparently absent between Monterey Bay and Arroyo del Oso (Planning Area 1), most likely due to the steepness of the coast and the absence of suitable lagoons. Swift et al. (1989) list several criteria for lagoon conditions that favor tidewater gobies. These include: little or no channelization; allowing closure to the ocean for much of the year so that tidal fluctuation is absent or minimal; fresh unconsolidated sand is optimal for reproduction; high quality of inflowing water to increase habitable area of the lagoon in summer (nutrient enrichment can stimulate algal blooms, deplete oxygen, and lead to hydrogen sulfide formation). Non-native predatory fish should be excluded. Most of the streams in Planning Areas 1-6 south of Arroyo del Oso potentially support tidewater gobies. Gobies have been lost in some lagoons but may re-colonize from nearby streams within 10-20 kilometers (Swift et al 1996).

Red-legged frogs and southwestern pond turtle and two-striped garter snake are potentially found within any watershed in the County.

Declines in abundance of certain animals associated with stream habitat, particularly in coastal streams, together with population increases and increasing levels of water use, has caused concern among fish and wildlife agencies and advocacy groups that diversion of water from streams has damaged stream habitat and led to concern that any further increases may also be detrimental. It is possible that environmental needs cannot be met given existing water rights on many streams. Under the current ESA legislation any water development projects in these streams will require protection of listed species. The specific protections, including reservation of streamflows, will be negotiated and will rely on information that has not yet been developed. This makes it extremely difficult to project future levels of demand for water for the environment.

The CDFG is currently developing a protocol for determining stream flow needs to protect environmental values (Waithman, CDFG, Yountville, personal communication, February 1998). This protocol is under development and has not been formally accepted or even formally proposed. It is presented here to indicate one estimate of possible future demand. This protocol has not been adopted by CDFG and if it were, it may not be accepted by other groups or agencies. Key provisions may include the following:

- Reservation of 60% of the average annual unimpaired wet-season flow for instream habitat.
- Bypass of all natural flow during dry season (June to September).
- No diversions until stream flows to the ocean (sandbar breached).

Considering existing permits and licenses, riparian rights, pre-1914 rights, and small domestic users, it is possible that these provisions could not currently be met on some streams. In such cases CDFG may consider requesting that the SWRCB re-open the existing rights. Re-allocation of water rights to augment instream reservations for environmental benefit under the public trust doctrine and State Fish and Game Code has some important recent precedents. Streams supporting protected species (such as steelhead trout) will be of particular importance.

The SWRCB has developed similar criteria for the Russian River watershed (SWRCB 1997). Both of these approaches are based on an approach to instream flow determination known as the Tennant or Montana method (Stalnaker et al. 1995). Setting streamflow standards is a complex and challenging process. In general, fish and other aquatic life have evolved under highly variable conditions of streamflow and other habitat features. Life history features are generally tuned to, and to some degree, depend upon this variability. Instream flow standards must consider different species and life stage habitat requirements as well as physical processes that modify habitat if beneficial instream uses are to be protected. Flow requirements may be highly variable from one stream basin to another and even in different parts of the same watershed.

Future environmental demands shown in the table are based on an approach such as that being considered by CDFG and the SWRCB using a percentage of average annual unimpaired runoff. Such an approach must account for the extreme annual variability in rainfall and runoff and recognize that this is an essential factor in the ecology of streams in Central California.

Future environmental water demand is subject to great uncertainty due to lack of knowledge of instream flow needed to protect the aquatic resources, lack of information on existing runoff conditions and diversions, and the inherent annual variability in rainfall and runoff. For planning purposes, one could assume that the upper range of future demand will be defined by a percentage of the average annual unimpaired runoff (UAAR) during the wet season and no diversion during the dry season. This task is complicated since many streams are not gaged streams and unimpaired flow must be estimated using hydrologic modeling. This information is not presently available.

Watersheds on the west side of the coast range (Planning Areas 1-6) generally receive higher rainfall than the streams draining inland areas (Planning Areas 7-10). These watersheds are also somewhat cooler during the summer than inland areas and are more likely to support steelhead. Tidewater goby are also found in lagoons at the mouths of streams in the coastal watersheds. Annual runoff during drought years in these streams can be 10% or less of the average runoff and result in extreme conditions for aquatic life. Extreme high flow events can also occur and these can also be detrimental to aquatic life in the streams. Based on these considerations future environmental water demand for minimum instream uses in Planning Areas

1-6 were estimated to range from 10% of unimpaired average annual runoff during drought years to 100% of unimpaired average annual runoff in wet years. This assumes that some uncontrolled high flows will still occur with a frequency that maintains basic stream habitat features.

Water Planning Area 9a contains the Salinas River and some of its tributaries. Streams in this area could support steelhead trout although the habitat is not as good and populations are not as secure as those in coastal streams on the west side of the coast range. The same criteria were used for estimating future environmental water demand in WPA 9a as for WPA's 1-6. Applying the criteria to average annual gaged runoff available from USGS gages in the Salinas Basin can develop some idea of the magnitude of environmental water demand. Environmental demand in the Salinas River could be between 7 TAF and 66 TAF depending on water year type. For Santa Rita Creek environmental demand could be 1 TAF to 10 TAF. In the Nacimiento River below Nacimiento Dam environmental demand could range from 19 TAF to 194 TAF. This estimate for the Nacimiento is quite different than the present environmental instream flow reservation (which is a minimum of 25cfs, except under drought or emergency conditions).

Water Planning Area 10 contains the Nacimiento River drainage upstream of Nacimiento Dam. Streams in this area contain populations of resident rainbow trout that are probably derived from steelhead. Steelhead can no longer enter this area due to the presence of Nacimiento Dam. Much of the upper Nacimiento watershed is relatively undeveloped military reservation lands. Future environmental water demand estimates in WPA 10 were based on the same criteria as for WPA's 1-6 and 9a.

Water Planning Areas 7,8, 9b, and 9c are dryer than the others and many streams in these areas are dry seasonally or during drought periods. WPA 8 has no permanent streams. None of the streams in these areas support steelhead, resident rainbow trout, or other protected fish species. Many of the smaller streams probably do not support fish though western pond turtle, red-legged frog, and other aquatic dependant species may use ponded areas even during low flow periods. Stream flow is highly variable and runoff tends to be rapid after rainfall events. Future environmental water demand may be as low as 0 in drought years (similar to existing conditions). Based on the fact that these streams do not support protected fish species and given their intermittent nature the upper estimate for environmental water demand was relaxed to 60% of unimpaired average annual runoff.

Conclusions and Recommendations

There has been no organized complete effort to quantify instream flow needs in streams of San Luis Obispo County. Studies have been conducted on some streams and restrictions have been placed on certain water rights permit holders to protect instream uses but these have generally focused on the needs of one or a few key species and have not resulted in clear, objective assessments of instream flow needs. Only one stream in the County, the Nacimiento River downstream of Nacimiento Dam currently has a specific required instream flow reservation. The basis for the Nacimiento reservation and its efficacy in protecting environmental benefits is not well documented. An instream flow study has recently been completed for San Luis Obispo Creek but the study only addresses conditions in the lower few miles of the Creek. Studies have been conducted in Santa Rosa Creek but they are limited to steelhead migration requirements.

There is not sufficient data to complete a detailed analysis of environmental water demands for all streams in the County. There is no known data for unimpaired runoff for any stream though it

is possible estimates could be developed from available rainfall data. The only readily available (electronic) data is from USGS and County maintained streamflow gaging stations. The USGS data presents average runoff estimates as well as minimum and maximum runoff for each station but this data reflects existing water use and water project operations and in most cases does not reflect unimpaired conditions. Average runoff estimates could also be developed for the SLO gage data and discontinued USGS gages but the information would need to be in an accessible database.

A generic approach to instream flow needs assessment may be useful and data for such an assessment may be available. The County should consider a Tennant type approach using unimpaired runoff estimates generated from rainfall data. Given the wide annual variability in rainfall and runoff, an instream flow needs assessment should account for differences in normal, wet, and dry year flow needs. The County should also have all streamflow data entered in a computer database to facilitate its use.

REFERENCES

Stalnaker, C., B.L.Lamb, J. Henriksen, K. Bovee, and J. Bartholow. 1995. The Instream Flow Incremental Methodology: A primer for IFIM. Biological Lreport 29. U.S.D.I., National Biological Survey, Washington, D.C.

SWRCB, 1997. Staff Report Russian River Watershed. Proposed Actions to be taken by the Division of Water Rights on Pending Water Right Applications within the Russian River Watershed. Division of Water Rights. Sacramento, California

Appendix: Future Water Demands by Water Planning Area

Planning Area	Stream	Environmental Instream Flow Reservation	Average Annual Unimpaired Wet-Season Flow (AF)	Stream Discharge Data Availability	Annual Gaged Runoff (AF) Average (range)	Future Environmental Water Demand (AF)
1	San Carpofofo			SLO (Disc.) near San Simeon	Not available	10%-100% of UAAR
	Arroyo Hondo					10%-100% of UAAR
	Arroyo de los Chinos					10%-100% of UAAR
	Arroyo de al Cruz	Diversión restrictions		SLO (Disc.) near San Simeon	Not available	10%-100% of UAAR
	Burnett					10%-100% of UAAR
	Oak Knoll					10%-100% of UAAR
	Arroyo Laguna					10%-100% of UAAR
	Little Pico					10%-100% of UAAR
	North Fork Pico					10%-100% of UAAR
	South Fork Pico					10%-100% of UAAR
	San Simeon			SLO-Lower SLO (Disc.) Upper	Not available	10%-100% of UAAR
	Steiner					10%-100% of UAAR
	Santa Rosa	Diversión restrictions		SLO at Main St. SLO (disc.) Lower SLO (disc.) Upper	Not available	10%-100% of UAAR
	Perry					10%-100% of UAAR
	Van Gordon	Diversión restrictions				10%-100% of UAAR
Villa			SLO near Harmony	Not available	10%-100% of UAAR	
2	Cayucos					10%-100% of UAAR
	Old					10%-100% of UAAR
	Willow					10%-100% of UAAR
	Toro			SLO (disc.) near Morro Bay	Not available	10%-100% of UAAR
3	Morro			SLO at Morro Bay	Not available	10%-100% of UAAR
	Chorro	Diversión restrictions		SLO near Morro Bay	Not available	10%-100% of UAAR
	Los Osos					10%-100% of UAAR
4	Islay					10%-100% of UAAR
	Coon					10%-100% of UAAR
	San Luis Obispo	Diversión restrictions		SLO (Disc) near Avila SLO (Disc) nr San Luis Obispo	Not available	10%-100% of UAAR
	Stenner			SLO (disc) Cal Poly	Not available	10%-100% of UAAR
5	Pismo					10%-100% of UAAR
	Corral de Piedra	Diversión restrictions				10%-100% of UAAR
	Arroyo Grande			SLO USGS (disc.) nr Arroyo Grande	Not available	10%-100% of UAAR
	Tar Springs			USGS (disc.) nr Arroyo Grande	Not available	10%-100% of UAAR
	Los Berros			SLO near Nipomo	Not available	10%-100% of UAAR
6	Nipomo					10%-100% of UAAR
	Suey					10%-100% of UAAR

Planning Area	Stream	Environmental Instream Flow Reservation	Average Annual Unimpaired Wet-Season Flow (AF)	Stream Discharge Data Availability	Annual Gaged Runoff (AF) Average (range)	Future Environmental Water Demand (AF)
7	Cuyama					10%-60% of UAAR
	Huasna Creek					10%-60% of UAAR
	Huasna River			USGS (disc.) near Santa Maria	Not available	10%-60% of UAAR
	Alamo			USGS (disc.) near Santa Maria	Not available	10%-60% of UAAR
8						
9a	Salinas River	Diversion restrictions		USGS @ Paso Robles SLO below Salinas Dam	66 (0-380)	10%-100% of UAAR
	Rinconada					10%-100% of UAAR
	Santa Margarita			SLO near Santa Margarita	Not available	10%-100% of UAAR
	Atascadero	Diversion restrictions				10%-100% of UAAR
	Graves	Diversion restrictions				10%-100% of UAAR
	Jack Creek			USGS (disc.) near Templeton	Not available	10%-100% of UAAR
	Paso Robles					10%-100% of UAAR
	Santa Rita			USGS (disc.) near Templeton	10 (0-38)	10%-100% of UAAR
	Sheepcamp					10%-100% of UAAR
	San Marcos					10%-100% of UAAR
	Lower Nacimiento River	18 TAF normal and wet 7 TAF drought 0 TAF severe drought			USGS below Dam	194 (2.5-750)
Yerba Buena			SLO at Santa Margarita	Not available	10%-100% of UAAR	
9b	Huerhuero	Storage restrictions		USGS (disc.) near Creston	Not available	10%-60% of UAAR
9c	San Juan					10%-60% of UAAR
	Cholame			SLO (Disc) near Shandon SLO (Disc) near Cholame	Not available	10%-60% of UAAR
	Estrella River			USGS near Estrella	175 (0-185)	10%-60% of UAAR
10	Little Burnette					10%-100% of UAAR
	Tobacco					10%-100% of UAAR
	Upper Nacimiento			USGS near Bryson	126 (4-450)	10%-100% of UAAR

**Appendix: Permit Conditions for Protection of the Environment in San Luis
Obispo County, by Water Planning Area**

WPA 1

Arroyo de la Cruz

“Pursuant to the Stipulation between the Hearst Corporation, Sunical Division, and the Department of Fish and Game, Protestant, For Withdrawal of Protest, signed on March 31, 1980, and April 8, 1980, respectively, the permit term substantially as therein agreed to is included herein: For the protection and preservation of fish and wildlife, permittee during the period of January 1 through April 30, shall only pump when the flow of the Arroyo de la Cruz immediately upstream from the wells exceeds 38 cubic feet per second. Alternatively, with the approval of the Department of Fish and Game, permittee may, despite reduced flow, utilize mitigation measures to maintain a minimum depth of flow of 0.6 feet over 25 percent of the width of the channel at the critical passage points in the area generally known as the lower basin. Permittee may resume and continue pumping when the flow or depth reach 10 percent below the critical level established above.” (App 25881, Per. 19247)

Pico Creek

Application 29588 protested in 1990 by numerous parties including CDFG.; no permit, no license (existing license 12272 may have impacts to California red-legged frog).

Van Gordon Creek

“Diversion of water shall be limited to the periods when there is a continuous, visible flow of water in Van Gordon Creek in the reach between the point on the creek that would be intersected by an extension of the east-west fence line immediately south of Well 9M4, and the fork in Van Gordon Creek approximately 600 feet upstream of this point.” (App 29456, Permit 20806)

Santa Rosa Creek

The Cambria Community Services District diversion from Santa Rosa Creek is regulated by SWRCB Decision 1624 filed April 20, 1989. In general provisions include:

- Diversion not to exceed 2.67 cfs
- Withdrawals not to exceed 260 af May 1-October 31
- Limitations Nov 1 to Apr 30 based on surface flow at Highway 1 bridge

WPA 2

Old Creek

subject to “Agreement for Supply of Water from Whale Rock Reservoir to Cayucos Area Water Organizations:

WPA 3

Chorro Creek

Flow in Chorro Creek is regulated by a series of MOUs between the CDFG and the California Mens Colony. An August, 1996: MOA calls for 180 af of effluent to be released into Chorro Creek from May 1 to Nov 30 and stored water to be released on a prescribed schedule.

There is also a 1 cfs streamflow required below the reservoir on California National Guard property in the upper watershed (app 16757, permit 11527, lic. 7844) Under the license, “the licensee shall release or bypass a flow of at least one cubic foot per second into the natural channel of Chorro Creek below the point of diversion (South fifty-five degrees west one

thousand five hundred (1500) feet from NE corner of projected Section 9, T30S, R12E, MDB&M, being within NE1/4 of NE1/4 of said Section 9.) whenever the natural flow of the stream entering the reservoir above the point of diversion is two cubic feet per second or more: and at least one-half of the natural flow into the reservoir shall be bypassed whenever that natural inflow to the reservoir is less than two cubic feet per second. Releases of water from Licensee's storage will not be required to comply with the foregoing provision."

"For the protection of fish and wildlife habitat and other public trust resources in Chorro Creek and Morro Bay, beginning when deliveries are available from the State Water Project Permittee shall: a) Cease all diversions from Well 11A (Romero well field), or from any wells constructed or operated as replacement wells for Well 11A, whenever surface flow measured in Chorro Creek downstream of the reach depleted by extractions of ground water from Well 11A, or other wells as described above, is less than 1.4 cubic feet per second; and b) Cease all diversions from Wells 9, 9A, 10, 10A, 12, and 16 (Ashurst well field), or from any wells constructed or operated as replacement wells for the Ashurst well field, whenever surface flow measured in Chorro Creek downstream of the Ashurst well field is less than 1.4 cubic feet per second." (App 24239 permit 20866, App 24245, permit 20867, App 27386, Permit 20868)

Los Osos

Los Osos Creek has been declared fully appropriated by the SWRCB (Worcester 1991)

WPA 4

San Luis Obispo Creek Basin

Davenport Creek:

"Licensee shall during the period from December 1 through March 31 bypass a minimum of 60 gallons per minute. The total streamflow shall be bypassed whenever it is less than 60 gallons per minute." (App 24914, Lic 11947)

See Canyon

"Once the diversion facilities authorized under this permit are in operation, permittee, in consultation with the California Department of Fish and Game, shall conduct studies of sufficient detail and duration to determine if the authorized underflow diversion in any way affects the quantity or duration of surface flow in See Canyon Dreek. Such studies shall encompass not less than three different hydrological type water years. Permittee's diversion shall not diminish surface flow in See Canyon Creek at any time." (App 28995, Permit 20708)

WPA 5

Pismo Creek Basin

West Corral de Piedra

"Permittees shall allow all of the surface and underground inflow to pass through the reservoir undiminished in quantity during the period from June 1 to November 30 of each year". For the protection of fish and wildlife habitat, permittee shall during the period from December 1 through May 31 bypass a flow of 1.5 cubic feet per second or the natural flow, whichever is less, to the natural stream channel immediately below the dam. The natural flow is the total subsurface and surface flow in the creek immediately above the reservoir. The natural flow shall be bypassed whenever permittee demonstrates, through streamflow measurements acceptable to

the chief of the Division of Water Quality and Water Rights, that mean daily flow is less than 1.5 cubic feet per second. (App 17840 and 21061 App 28883, Permit 20496)

“No diversion to storage shall commence in any year until the unnamed stream below diversion point No. 1 has a visible surface flow from Licensee’s Dam to the road bridge located about 100 feet upstream from the confluence of the unnamed stream with West Corral de Piedra Creek and diversion shall continue only so long as such visible flow continues except that licensee shall not be required to bypass more than the natural inflow to his on-stream reservoir nor shall he be required to release stored water to maintain visible flow in the streambed between his dam and said bridge. #1 NE ¼ of nw ¼ of section 16, t31s, r13e, MDB&M. #2 se ¼ of sw ¼ of section 9, t31s, r13e, MDB&M” (App 22050, permit 15209, lic. 10893)

WPA 9A

Salinas River

“Licensee’s dam shall be maintained so that the water level in the reservoir can be reduced two feet eight inches below full reservoir level by means of spillway flashboards. On November 1 of each year licensee shall remove spillway flashboards and release into Salinas River any water in storage above the spillway level; and each storage season no water shall be stored above the spillway level until a visible surface flow exists in Salinas River between the licensee’s reservoir and the confluence of Nacimiento River. No water shall be diverted directly to use or to storage under this license at any time water is being released from Salinas Reservoir (Santa Margarita Lake) in compliance with condition 2A of Board Order dated June 1, 1972, or as amended, issued pursuant to applications 10211 and 10216. (App 24365, lic 11158)”

“Water shall be diverted under this license only when there is measurable surface flow in the Salinas river at the United States Geological Survey streamflow gage at Paso Robles. Prior to diverting water each year, licensee shall notify the State Water Resources Control Board that such condition exists” (App 25199 Lic. 12295).

“Water shall be diverted under this permit only when there is measurable surface flow in the Salinas River at the United States Geological Survey streamflow gage at Paso Robles (Gage #11147500). Prior to diverting water each year, permittee shall notify the State Water Resources Control Board in writing that said conditions exist. Permittee shall also notify the Board in writing if, after commencing diversion under this permit, the streamflow at the Paso Robles gage becomes un-measurable prior to the end of the diversion season authorized herein. App 30299, Permit 20785

Atascadero Creek

“Water shall be collected to storage behind Eagle Ranch Dam only when there is surface flow from Atascadero Creek into Salinas River. Prior to diverting water each year, licensee shall notify the Board that such condition exists.” (App. 25675, Lic. 12151).

Unnamed tributary to Graves Creek

“Water may be diverted under this license only when surface flow exists in Graves Creek between the point of diversion and the confluence of Graves Creek and Salinas River”. (App. 21339, Per. 14636, Lic. 10520)

Nacimiento River

MOU between CDFG and the Monterey County Flood Control and Water Conservation District (now Monterey County Water Resources Agency) requires a minimum release of 25 cfs from Nacimiento Reservoir except under drought or emergency conditions (defined as water surface elevation of at or below 748-feet which is equal to storage of 132,900 acre-feet). During a drought or emergency condition a minimum 10 cfs discharge is required. At water surface elevation of 689 feet or below (22,000 acre feet storage) no minimum discharge is required.

WPA 9B

Huerhuero Creek (Unnamed stream tributary to Middle Branch Huerhuero Creek thence Huerhuero Creek)

“Should a continuous surface flow of water not occur at least once during the period of November 1 to May 1 of each season in the natural stream channel between licensee’s dam and the State Highway 58 crossing in Section 5, T29S, R14E, MDBM, licensee shall release from his reservoir as soon after May 1 as feasible, all water collected in his reservoir during the November 1 to May 1 period. Licensee shall maintain a staff gage in his reservoir and shall report the staff gage reading as of November 1 of each year to the Board as soon as feasible thereafter (App. 23940, 16592, Per.Lic 11124). On or before June 1 of each year, licensee shall report to the State Water Resources Control Board whether release of water was required by the preceding paragraph, and if so, date that said release was completed.”