

Protecting Putah Creek

by Matthew J. Smith

INTRODUCTION

The construction of the Solano Project in the 1950s drastically affected the natural flow of water in lower Putah Creek. Flows in the lower creek since project construction have depended largely on scheduled releases from the Solano Diversion Dam. In determining the proper amount of these releases, the courts and administrative agencies of the state have sought to provide water to prior water rights holders, including groundwater users, to the extent water would have been available from unregulated flow in the creek. The creek itself, and the aquatic and riparian habitats it provides for fish and wildlife, has received little consideration in the establishment of release rates.

A legal action filed in the summer of 1990 to compel additional releases into the lower creek has brought attention to the needs of the creek, its plants, and its inhabitants. These needs should play an important role in any future determination of the release rates from the Diversion Dam. Even with the threat of a continuing drought, Putah Creek itself must be treated as a repository of public trust values worthy of protection.

I. EARLY HISTORY OF THE CREEK

Putah Creek originates on the eastern slopes of the Coast Range of California, at the junction of Big Canyon and St. Helena Creeks in Lake County. From there the creek flows east through Lake County, then southeast through Napa County until it empties into Lake Berryessa. Before the construction of Monticello Dam and the creation of the lake, Putah Creek flowed through the Berryessa Valley to Devil's Gate, a narrow gap in the Blue Ridge of the Coast Range. Devil's Gate, which lies at the junction of Napa, Solano, and Yolo Counties, is now the site of Monticello Dam. From Devil's Gate, Putah Creek flows east to Lake Solano, the reservoir created by the Solano Diversion Dam. From the Diversion Dam, Putah Creek continues east out of the hills to the Yolo Bypass, the course of the creek generally marking the boundary between Yolo and Solano Counties.

Originally, lower Putah Creek flowed immediately south of what is now the city of Davis. In the 1870s, however, local residents began diverting the creek into a deeper, man-made channel southwest of town, now called the "South Fork." In 1948, the Army Corps of Engineers completed the diversion by permanently sealing off the "North Fork." The University of California at Davis now uses part of the North Fork as an arboretum and wildlife reserve.

Local residents diverted the creek from the North Fork to prevent the periodic flooding of town that resulted from heavy winter flows in the creek. Extreme seasonal variations in flow from summer to winter derived from the pattern of precipitation characteristic of the Central Valley of California. The basin drained by Putah Creek receives ninety percent of its annual rainfall during the winter months. Thus, prior to Monticello Dam's construction, about ninety percent of the annual flow of the creek occurred between December and April. From July through October, the creek flowed at a fraction of its winter rate.

Wide variations in annual flow also occurred. Between 1902 and 1955, the annual flow of Putah Creek at Devil's Gate varied from 35,000 acre-feet in 1931 to about 1.4 million acre-feet in 1941. In the winters of wet years, the creek overflowed. In the summers of dry years, no surface flow reached the Yolo Bypass or the Sacramento River, but water remained in the lower reaches of the creek in scattered deep pools.

Despite these wide seasonal and annual variations in flow, an abundant and varied population of fish inhabited Putah Creek. Resident fish included carp, catfish, sunfish, largemouth bass, and bluegill. In addition, Putah Creek was one of the most important smallmouth bass fisheries in the state. In years when the creek flowed all the way to the Sacramento River, anadromous fish such as steelhead, salmon, and Pacific lamprey added to the fish population. The creek also has supported an abundant beaver population, as well as occasional otters.

II. THE SOLANO PROJECT

The United States Bureau of Reclamation (hereafter, the "Bureau") began investigating water storage on Putah Creek in 1908. Though that initial investigation did not result in a project, the Bureau remained interested in Putah Creek. Early plans of the Bureau envisioned a project drawing water from the Cache Creek watershed, as well as Putah Creek. By 1940, when Solano County began to show significant interest in diverting water from Putah Creek, the Bureau and the Army Corps of Engineers had created specific plans for a project involving Putah Creek alone: the Solano Project. Solano County vigorously pursued this project to supply its growing agricultural, municipal, and industrial water needs. The federal government wanted the project to provide water for the military bases located in Solano County.

Despite opposition to the project, the Secretary of the Interior authorized construction on November 11, 1948. The Korean War delayed project funding until 1953, when Congress made an initial appropriation of three million dollars to get construction started. Monticello Dam, the major feature of the project, was completed in November 1957; water diversion began on May 15, 1959.

The Solano Project utilizes three major structures to divert Putah Creek water for use in Solano County. First, the project impounds water from the creek behind Monticello Dam in Lake Berryessa, a reservoir with a maximum capacity of 1.6 million acre-feet. Water released from Monticello Dam flows downstream to Lake Solano, the reservoir created by

the Solano Diversion Dam. From the Diversion Dam, the project diverts the water into the 33 mile-long Putah South Canal, from which distribution to the various users in Solano County occurs. Water not diverted into the canal is released into the natural channel of Putah Creek.

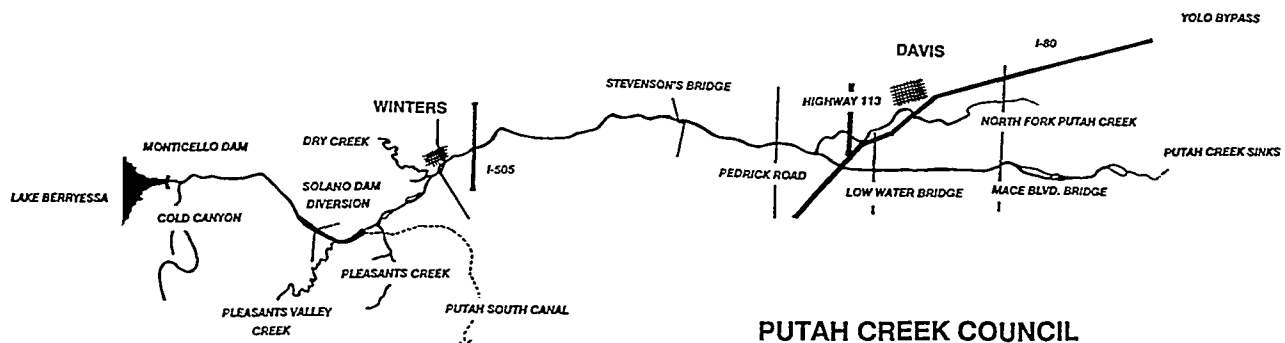
The Bureau owns the Solano Project and holds the water rights to the project. Under a 40-year master contract executed in 1955, the Solano County Water Agency (formerly the Solano County Flood Control and Water Conservation District -- hereafter, the "Agency") serves as a water wholesaler. The Agency purchases substantially all of the project's water from the Bureau and resells the water to its member units, which include the cities of Vallejo, Fairfield, Suisun City, and Vacaville. The University of California at Davis also purchases water from the Agency.

Another member of the Agency is the Solano Irrigation District (hereafter, the "District"). The District delivers water to both agricultural and municipal water users in Solano County. Additionally, the District has operated the Putah South Canal under a contract with the Bureau since the early 1970s. In 1981, the District also took over operation of the dams from the Bureau.

III. INITIAL OPPOSITION TO THE PROJECT

From the beginning, the Solano Project faced stiff opposition. Napa County opposed the project because the reservoir at Devil's Gate would inundate

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approximately 27,000 acres in the Berryessa Valley, including the town of Monticello, without providing any significant offsetting benefit to Napa County. Other parties opposed the project because they anticipated that it would adversely affect Putah Creek below the proposed Diversion Dam. Surface diverters on the lower creek anticipated that project diversions would interfere with the exercise of their rights to divert water naturally occurring in the lower creek. Groundwater users feared that reduced flows in the lower creek would interfere with the exercise of their rights to pump groundwater by percolation from the creek.

To voice their objections, these parties filed protests with the State Water Rights Board (now the State Water Resources Control Board -- hereafter, the "Board"). The Board is the administrative agency of the state responsible for considering applications for new appropriations of surface water. Under the Water Code, the Board may insert terms and conditions in the permits it grants to protect the public interest and the prior rights of other users.

The Department of Fish and Game (hereafter, "DFG") was one of the protesting parties. DFG objected on the ground that unconditional appropriation of water by the Bureau would destroy fish in the creek. DFG wanted conditions in the permits to protect these fish.

Beginning in 1945, even before the Secretary of the Interior had authorized the construction of the Solano Project, the Bureau filed applications for permits to appropriate substantially all of the remaining unappropriated water from Putah Creek. The Board held public hearings on these applications in late 1956, as Monticello Dam neared completion.

In Decision 869, dated February 7, 1957, the Board addressed the various objections to the project. First, the Board acknowledged that there was a conflict in the evidence of how much percolation from Putah Creek actually contributed to groundwater supplies below the Diversion Dam. The Bureau intended to supply prior diverters and maintain the natural rate of percolation by releasing about 15,000 acre-feet annually into the creek from the Diversion Dam. Some evidence suggested, however, that 15,000 acre-feet would not be sufficient.

Pursuant to its authority under the Water Code, the Board decided to retain jurisdiction over the permits for a 15-year trial period (Condition 13 of Decision

869). During that period, the Board could modify the permit terms to protect prior downstream use and groundwater recharge. Before the end of the trial period, the Board would make a final determination of the release amounts required below the Diversion Dam to protect these prior rights.

To ensure sufficient releases during the trial period, the Board attached other conditions to the permits. Condition 11 required the Bureau to release sufficient water past the Diversion Dam to supply downstream users and maintain percolation as it would occur from unregulated flow of the creek. Condition 12 required the Bureau to conduct studies to determine the amount of water needed to comply with Condition 11. Condition 12 also required the Bureau to produce annual reports based on those studies. On the basis of those reports, the Board would make its final determination.

The Board also addressed the objections raised by DFG. The Board acknowledged that releases from Monticello Dam would be too cold to support the smallmouth bass fishery that had existed in the creek previously. Additionally, the releases would be too small to allow steelhead to enter from the Sacramento River. DFG proposed to replace these fish by stocking trout in the portion of the creek between the two dams. To support this new fishery, the Board granted DFG's request for a permit condition requiring the Bureau to release a minimum of 10 cubic feet per second from Monticello Dam. This condition (Condition 15) placed no burden on the Bureau, however, because project plans called for continuous releases from Monticello Dam at even greater rates.

To support fish below the Diversion Dam, the Board required the Bureau to release water past the dam "in such a manner as to maintain a permanent live stream at all times as far below the diversion dam as possible, consistent with the purposes of the project and the requirements of downstream users" (Condition 16). The Board also required the Bureau to study the amount of water needed to maintain fish in the creek as part of its studies related to prior rights (Condition 17). However, the Board did not expressly reserve jurisdiction during the trial period to modify release rates to protect fish in the creek. The Board's reserved jurisdiction extended only to review of the needs of surface diverters and groundwater users below the Diversion Dam.



Phyllis V. Saroff

IV. THE FIRST FIXED RELEASE SCHEDULE

On March 2, 1969, ten years after the Bureau began diverting water from Putah Creek, the Bureau filed a petition with the Board to replace Conditions 11, 12, and 13 of Decision 869 with a schedule of fixed releases from the Diversion Dam. On June 17, 1969, the Board held a public hearing on the petition. No one opposed the petition. After making various findings, the Board granted the petition in an order dated April 16, 1970.

Under the release schedule adopted by the Board, the Bureau was required to release 22,145 acre-feet per year into lower Putah Creek, at rates varying monthly. Of this amount, approximately 12,359 acre-feet (56 percent of the annual release) was to occur from May through October. The Board concluded that this amount actually exceeded inflow into Lake Berryessa during those months.

In dry years, when inflow to Lake Berryessa was less than 150,000 acre-feet, the schedule allowed the Bureau to reduce its annual release from the Diversion Dam to 19,223 acre-feet. The release schedule allocated the reduction in flow to the months of May through October, allowing the Bureau to reduce its releases during the critical summer months by about twenty-five percent.

The Board concluded that this release schedule, plus any uncontrolled spills and tributary inflow below the dams, would satisfy surface diverters and maintain groundwater (except in one area of groundwater near Davis influenced by the lower reach of the creek).

Nevertheless, the Board retained jurisdiction until December 31, 1974, to determine if the schedule would actually work. The Board did not refer at all to the anticipated effect of the release schedule on fish life in the creek, although DFG had appeared at the hearing.

V. A NEW RELEASE SCHEDULE

Over the next nine years, the Board continued its reserved jurisdiction three times (Orders WR 74-38, WR 76-13, and WR 78-20) while additional data were gathered on the effect of the 1970 release schedule on groundwater recharge. On February 5, 1979, the Board held a public hearing to determine whether the 1970 release schedule was adequate. At that hearing, the Putah Creek Riparian Owners and/or Water Users Association (hereafter, the "Landowners") proposed a new schedule to correct alleged deficiencies in the 1970 schedule. Other parties advocated increased releases to benefit fish and wildlife.

The Board issued Order WR 79-14 on June 21, 1979. The Board found that data regarding the effect of the 1970 schedule on groundwater recharge were inconclusive. The Board concluded that further study would be of little value due to recurring uncontrolled spills from the project. In lieu of further studies, the Board decided to impose a new schedule of releases, a compromise between the 1970 schedule and that proposed by the Landowners.

In the new schedule, the Board established maximum release rates, as opposed to the minimum rates under the 1970 schedule. As long as the Bureau

maintained a 5 cubic feet per second flow at a gauge located in the creek near Davis, the Bureau could reduce its releases from the Diversion Dam. The Board's staff had determined that water in excess of this amount flowed out into the Bypass and did not contribute to either groundwater or downstream diversions.

From November to April, the Bureau would have to release no more than 13,497 acre-feet of water from the Diversion Dam. This amount exceeded releases required for the same period under the 1970 schedule by about 3700 acre-feet. As long as the Bureau maintained the required flow at the Davis gauge, however, it could reduce its releases from the Diversion Dam below this maximum amount. Thus, potentially the Bureau could release less water than under the 1970 schedule. From May to October, the Bureau would have to release no more than 11,994 acre-feet. This amount was actually less than the amount required for the same period during a normal year under the 1970 schedule.

The new schedule did not differentiate between normal and dry years. Instead, the board added a new condition dealing with prolonged droughts. Under this new condition, the Board could modify the release schedule if a prolonged drought created a threat to the municipal water supplies of the cities in Solano County that relied on water from the project. The Board did not define what constituted a prolonged drought, however.

VI. UPROAR OVER THE NEW SCHEDULE

The new release schedule came under fire immediately. In Order WR 79-26, dated August 16, 1979, the Board granted petitions for reconsideration filed by five separate parties, including the Bureau and the District. Two years later, on August 20, 1981, the Board issued Order WR 81-11, affirming the 1979 release schedule.

On reconsideration, the Board addressed four major issues. The first was whether additional investigations should be conducted prior to the adoption of a final release schedule. The Board found that 23 years of groundwater study by the Bureau had not produced a precise answer to the question of how much water was needed to replicate pre-project groundwater recharge. Since further study would not provide a better answer, the Board refused to require more studies.



Barbara Cushmore From "RE:SOURCES"

The second issue the Board addressed was whether the 1979 schedule was appropriate as a final release schedule. The Board first noted that the 1970 schedule had not accounted for the annual variation in the flow of Putah Creek. In creating the schedule, the Bureau had not taken into account the effect of uncontrolled spills from the project. Thus, in wet years, the fixed releases, added to uncontrolled spills and tributary inflow below the dams, caused surplus water to flow into the Bypass. In dry years, the releases might have deprived groundwater users of percolation to which they were entitled.

To cure these defects, the 1979 schedule instituted a minimum flow requirement at the Davis gauge, subject to a maximum monthly release rate. The Board concluded that this schedule protected the rights of downstream diverters and groundwater users better than the 1970 schedule while allowing the Bureau to conserve water that otherwise would flow into the Bypass.

The third issue addressed by the Board was whether the 1979 schedule was consistent with Congressional directives related to the authorization of the Solano Project. The Bureau argued that the schedule reduced the firm yield of the project, thus confounding the plan for the project to pay for itself in 50 years. Under *California v. United States*, 436 U.S. 32 (1978), the Board could not impose a condition inconsistent with clear Congressional directives. The Board concluded that the estimate of project yield on which the Bureau had based repayment of project costs (and thus the cost of water supplied by the project) did not qualify

as a Congressional directive. Moreover, the Board concluded that the schedule would not reduce the firm yield of the project in any case.

The fourth issue addressed by the Board was whether the Board had originally reserved jurisdiction to require the Bureau to increase releases to protect fish in the creek. Decision 869 had required the Bureau to maintain a live stream in Putah Creek as far below the Diversion Dam as possible, consistent with the purposes of the project and the rights of downstream users. With the implementation of a fixed release schedule in 1970, that requirement was implicitly rescinded. Thus, the scope of the Board's reserved jurisdiction became important. The Landowners, as well as the Davis Audubon Society and the State Department of Water Resources, asked the Board to clarify this issue.

After examining Conditions 12 through 17 of Decision 869, the Board concluded that it had not reserved jurisdiction specifically to protect fish in lower Putah Creek. Instead, the Board had reserved jurisdiction only "to make prior rights releases as beneficial as possible to the fish life below Solano Dam." The Board noted, however, that in neither the 1969 hearing nor the 1979 hearing had it received any evidence about what releases would be necessary to protect fish in the creek. Moreover, the Bureau had never conducted the study of water needs for fish in Putah Creek required by Condition 17 of Decision 869.

The Board indicated that it had not yet abandoned the objective of maximizing the benefit of prior rights releases to fish, however. To further this objective, the Board modified Order WR 79-14 to require the Bureau to consult with DFG. If DFG determined that an adjustment of release rates could substantially increase the fishery in lower Putah Creek, then the Bureau and DFG would be required to submit plans for the fishery study originally required of the Bureau in Decision 869. The Board reserved jurisdiction to act on this study but determined that jurisdiction would terminate automatically if DFG decided that increase of the fishery was an unrealistic goal.

VII. THE SOLANO INTERESTS GO TO COURT

On September 16, 1981, almost immediately after the Board issued Order WR 81-11, the Agency filed a petition for a writ of mandate in Solano County Superior Court, seeking to have Order 81-11 over-

turned. (*Solano County Flood Control and Water Conservation District v. State Water Resources Control Board*, Solano County Superior Court No. 80284.) On October 29, 1981, the court issued a stay on Order 81-11 and reinstated the 1970 schedule pending resolution of the petition. A hearing was held on November 30, 1983. On February 29, 1984, the court issued a peremptory writ of mandate directing the Board to set aside the 1979 schedule in favor of the 1970 schedule. Moreover, the court ordered the Board to allow the Bureau to reduce releases as long as it maintained a 5 cubic feet per second flow at the Davis gauge. Thus, the court gave the Bureau the lower release rates from the 1970 schedule and the reduction of releases over minimum flow provision from the 1979 schedule.

In Order WR 84-7, dated July 21, 1984, the Board amended Decision 869 and the Bureau's permits to comply with the writ of mandate. The Board noted that the record did not indicate whether the court-ordered release schedule would satisfy the needs of prior users, especially if a drought like that which occurred from 1916 to 1934 should occur again. Since the writ had not limited the Board's discretion to amend the schedule on remand, the Board reserved jurisdiction to modify the permits if circumstances demanded an adjustment. Again, however, the Board's reserved jurisdiction was limited to the protection of prior rights.

In January 1982, DFG notified the Board that a fishery study was not necessary, so the jurisdiction to act on that study, which the Board had reserved in Order WR 81-11, had terminated automatically. However, noting that under the Water Code the Board retains continuing authority to impose limitations on diversion "in order to protect public trust uses," the Board inserted a continuing authority term in the Putah Creek permits. This term left open the possibility that the court-ordered schedule could be modified to protect fish in the creek, even without a showing of effect on prior rights.

VIII. DROUGHT AFFECTS THE LOWER CREEK

In the summer of 1989, as California suffered a third consecutive year of drought, the shortcomings of the court-ordered release schedule began to show on the lower reaches of Putah Creek. In May, the District

invoked the dry year release schedule. By June, the reduced flow in the creek began to alarm local residents, who feared that the fish in the creek would be destroyed. Beginning July 12, the District increased releases for ten days, but the water did not reach the portions of the creek most in need. The District claimed that illegal diversions below the Diversion Dam were causing the extraordinarily dry condition on lower Putah Creek.

In late July, the Putah Creek Council (hereafter, the "Council"), a non-profit group of environmentalists, scientists, creekside residents, and other concerned citizens, called an emergency meeting to find a solution to the immediate needs of the lower creek. This meeting and others resulted in a plan to purchase additional water from the District to help the fish in the creek. The District claimed it had no additional water for the creek but agreed to sell 1000 acre-feet of its agricultural water. The District set the price of the water at \$25 per acre-foot, the cost of pumping replacement water from groundwater sources. The District agreed to absorb \$10,000 of the price of the additional water, while the City of Davis, Yolo County, the University of California, and the Agency agreed to pay the remaining \$15,000. The water was to be carried by a University pipeline for release into the creek near Pedrick Road.

While this emergency purchase helped with the short-term problem of maintaining fisheries in lower Putah Creek through the summer of 1989, the purchase provided no solution to the continuing long-term problem. Another winter of below-average rainfall followed and the District invoked the dry year release schedule again in 1990, despite a plea from the Council not to do so. As the creek began to dry up, the Council worked to negotiate a purchase agreement between the University of California and the Bureau.

Meanwhile, on July 23, 1990, the City of Davis filed suit in Sacramento County Superior Court against the Board, the Bureau, the District, and the Agency to compel the release of additional water from the Diversion Dam. The City based its suit on Fish and Game Code section 5937, which requires every dam owner to release sufficient water past the dam to maintain fish below the dam in good condition. The Bureau removed the suit to federal court.

A week after the City filed its suit, the Bureau and the University of California agreed to a temporary

water service contract under which the University could purchase up to 3000 acre-feet of water (the difference between the normal and dry year schedules) through February 1991. The Bureau conditioned the contract on approval by the Agency, however. On August 7, 1990, the Agency indicated that it could not agree to the contract until it investigated the contract's legality. The Agency suggested that the master contract between the Agency and the Bureau required the Bureau to offer the additional water to the Agency and its members first. As the Agency studied the contract, the lower creek continued to dry up.

IX. THE COUNCIL GOES TO COURT

On August 15, the Council filed suit against the District and the Agency in Yolo County Superior Court. (*Putah Creek Council v. Solano Irrigation District*, Yolo County Superior Court No. 66178.) The Council based its suit on the same statute as the suit by the City of Davis: Fish and Game Code section 5937. In addition to seeking a permanent injunction prohibiting future invocation of the dry year release schedule, the Council moved for a preliminary injunction to force the District to release water into the creek to save the fish from imminent destruction.

By stipulation, the parties agreed to transfer the case to Sacramento County Superior Court. (*Putah Creek Council v. Solano Irrigation District*, Sacramento County Superior Court No. 515766.) At an initial hearing on August 21, the court held that a motion to stay pending resolution of the suit by the City of Davis was moot because the City had dismissed its action the day before. The court took under submission a motion to compel joinder of the Bureau and the Board as indispensable parties to the action.

In support of the motion for a preliminary injunction, the Council submitted declarations by local residents and experts who claimed that the lower reaches of the creek were as dry as they had ever been. According to these declarations, the fish in the creek were stranded in ever-shrinking pools that would not last the summer. The declarations indicated that the only flow in the lower creek was coming from agricultural drainage and sewage treatment releases. In opposition to the motion, the District and the Agency submitted declarations claiming that the dry year release schedule provided many times the natural flow of

water in Putah Creek. According to these declarations, conditions on the creek were more favorable than they would have been in the absence of the Solano Project.

After a hearing on August 30, Judge Joe S. Grey issued a preliminary injunction ordering the District and the Agency to release 3000 additional acre-feet of water from the Diversion Dam over the months of September, October, and November. The injunction also allowed the District to reduce releases from December 1990 through April 1991 by a corresponding amount. The injunction directed the District to release 300 acre-feet in a single pulse as soon as possible and the remaining amounts (1000 acre-feet in September, 1000 acre-feet in October, and 700 acre-feet in November) according to a schedule agreeable to the Council. The injunction was subject to modification if either party could show changed circumstances and good cause.

The extra water released into the creek in September took longer to reach the downstream pools than anticipated because of unexpectedly high seepage losses to the dry creek bed. Eventually a continuous flow was established as far as the University of California, where many fish had been stranded in shrinking pools, but the flow did not last long. On September 28, 1990, Judge Grey set aside his earlier ruling after an *ex parte* application by the Agency to modify the injunction. A letter from the Board to the Bureau and other parties indicated that the District could not reduce releases into the lower creek from December 1990 through April 1991 without violating the terms of the Bureau's permits. Thus, the District could not recover the additional 3000 acre-feet the court had ordered released. Without any discussion of the condition of the lower creek, Judge Grey decided not to require the District to release the remaining 1700 acre-feet in October and November.

Following Judge Grey's reversal of his initial ruling, the Council petitioned the Third District Court of Appeal for an extraordinary writ, claiming that the District and the Agency had not shown a change in circumstances sufficient to justify the reversal. The Court of Appeal denied that petition on October 11, 1990. Subsequently, on October 19, Judge Grey denied the motion to compel joinder of the Bureau and the Board. Trial on the permanent injunction may be set for mid-1991.

X. WHAT LIES AHEAD

A. Trial on Fish and Game Code § 5937

The long-term problem of protecting lower Putah Creek remains to be solved. Several possible paths to a solution exist. One such path is the trial on the Council's request for a permanent injunction based on Fish and Game Code section 5937.

Fish and Game Code section 5937 provides that "[t]he owner of any dam shall allow sufficient water at all times...to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam." The California courts have not yet determined whether this particular section can be used to force a dam owner to release water otherwise validly appropriated behind a dam. The Third District Court of Appeal has applied a closely related section to accomplish a similar end, however, which suggests that section 5937 may force a resolution to the problem of protecting fish in lower Putah Creek.

In *California Trout, Inc. v. State Water Resources Control Bd.*, 207 Cal.App.3d 585, 255 Cal.Rptr. 184 (1989), the court held that Fish and Game Code section 5946 required the Board to condition licenses to appropriate water from certain tributaries to Mono Lake on compliance with section 5937. Section 5946 provides that "[n]o permit or license to appropriate water in District 4 1/2 shall be issued by the State Water Rights Board after September 9, 1953, unless conditioned on full compliance with Section 5937." In this case, the Board had failed to attach the required conditions to licenses issued in 1974. The court held that the Board must impose these conditions, even on a license that otherwise authorizes appropriation of all the available water of a stream.

The holding in this case suggests that section 5937 requires a dam owner to release water to maintain fish below the dam, even if such releases reduce the amount of water the owner could otherwise have appropriated under the terms of a permit or license. However, the court did not actually resolve this issue. The real parties in interest in this case, the City of Los Angeles and its Department of Water and Power, argued that section 5946 applied only to dams where unappropriated water remained for release. According to the City, in 1937, when the Legislature amended the predecessor of section 5937, section 525, to apply to all releases "over, around or through the dam," the Water Code declared a state policy that domestic and irriga-

tion purposes were the "highest" uses of water (current Water Code section 1254). The City argued that, given this policy, section 5937 was not meant to limit the appropriation of water but only to facilitate the passage of unappropriated water.

The court did not reach this issue because section 5946 specifically indicates that any permit or license "to appropriate water" in District 4 1/2 must be conditioned on compliance with section 5937. According to the court, in section 5946, the Legislature itself had balanced the needs of fish in a stream with a user's right to appropriate water from that stream. Thus, at least in this case, the amount of water the City could appropriate under its licenses was limited by the needs of downstream fisheries. The court specifically stated, however, that it "need not reach the question of section 5937 alone as a rule affecting appropriation of water." (*California Trout, Inc.* at p. 601.)

The court did suggest that section 5937 alone might limit a dam owner's appropriation of water. The court noted that Title 23, California Code of Regulations, section 782, adopted in 1975, now requires the Board to condition all permits to appropriate water on compliance with provisions identical to those contained in 5937, unless the permit contains more specific provisions for the protection of fish. Moreover, the court noted that the argument of the City involved a narrow reading of the Water Code. The court suggested that under a broader reading of the Water Code, appropriation for domestic and irrigation purposes does not necessarily prevail over the needs of fish life below a dam.

If the trial court in the present action by the Council determines that section 5937 alone requires the District and the Agency to release water into the creek, the question of how much they must release will still have to be answered. By implication, section 5937 requires the dam owner to release only as much water as is needed to maintain the fisheries that existed in the stream prior to the dam owner's diversion of water. (See *California Trout, Inc. v. Superior Court*, 218 Cal.App.3d 187, 210-213, 266 Cal.Rptr. 788, 802-804 (1990).) Moreover, Title 23, California Code of Regulations, section 782 specifies that in the case of a reservoir, a condition in a permit requiring a dam owner to maintain fish below the dam "shall not require the passage or release of water at a greater rate than the unimpaired natural inflow into the reservoir."



In November 1990, however, in a decision on the Walker River, the Board indicated that flow regimes adopted to comply with section 5937 need not be limited by natural seasonal flows. (See Order WR 90-16.) Specifically, the Board said: "We cannot accept an interpretation of Section 5937 which in no case would allow compliance through releases which may exceed concurrent inflows to the reservoir at certain times of the year...." Thus, the court in this case may not need to limit any new release schedule by inflow into Lake Berryessa.

B. Adjudication of Water Rights

A full stream adjudication of water rights may provide another possible path to a solution of the problem of protection lower Putah Creek. On April 16, 1990, the District, the Agency, and most of the Agency's members filed a complaint in Solano County Superior Court for determination of water rights, injunction, and appointment of a watermaster against all the parties claiming water rights in Putah Creek and related groundwater sources. (*Solano Irrigation District v. All Appropriative Water Rights Holders in Upper Basin*, Solano County Superior Court No. 108552.)

This complaint seeks to resolve once and for all the dispute over flow into lower Putah Creek by adjudicating the rights of all parties claiming water rights in the Putah Creek watershed, including groundwater users. Due in part to the tremendous amount of work involved in identifying all of the potential parties to this suit (the complaint contains several appendices with names of water users of Putah Creek, as well as naming 10,000 Doe defendants), the plaintiffs have not yet served the complaint. The resolution of this suit will take years.

On October 12, 1990, a stipulation was filed in this action that allows the State of California and DFG to intervene. The goal of the State is to ensure that any adjudication of water rights in Putah Creek adequately provides for the riparian habitat of the creek, and the fish and wildlife dependent on that habitat. In its memorandum of points and authorities in support of its application to file a complaint in intervention, the State cited Fish and Game Code section 5937.

C. Action by the Board

Another possible path to a solution is action by

the Board. The Board may become involved if the court in either action discussed above decides to refer any or all issues to the Board as a referee, pursuant to Water Code sections 2000 to 2076. The Board could also get involved by considering a recent complaint filed with the Board by the Council and other groups.

In November 1990, the Board's staff circulated a memorandum responding to six complaints about the condition of Putah Creek filed with the Board during the summer of 1989. In the memorandum, the Board's staff reviewed the past actions by the Board and the courts. The staff recommended that the Board take no further action on the complaints because no new or significant information had been provided by the complainants.

Subsequently, the Council (along with the Sierra Club, the City of Davis, California Trout, Inc., California Sportfishing Protection Alliance, and the Davis Audubon Society) filed a new complaint. This complaint asks the Board to adjust the present release schedule to protect "the public trust resources of lower Putah Creek," consistent with the public trust doctrine and statutory requirements. The complaint notes that the Board has never reviewed the Putah Creek permits for their affect on public trust values.

Under Water Code sections 100 and 275 and the public trust doctrine, the Board has continuing authority over permits and licenses to protect public trust uses. The *California Trout* cases and *National Audubon Society v. Superior Court*, 33 Cal.3d 419 (1983), indicate that some public trust interests pertain to non-navigable streams that sustain fisheries. To protect these interests, the Board could invoke its authority to consider the complaint by the Council.

D. Action by Congress

Another possible path to a solution to the problem of protecting the habitat, fish, and wildlife of lower Putah Creek is action by the U.S. Congress. On March 23, 1989, Congressman Vic Fazio introduced H.R. 1611, the Solano Project Indebtedness Prepayment Act. (Fazio originally introduced this bill as H.R. 4791 on June 10, 1988, during the 100th Congress.) This bill would allow the Solano County water interests to purchase the Solano Project from the Federal government for about \$28 million.

In an attempt to defuse opposition to the sale of the project, Congressman George Miller proposed an

amendment to the bill meant to address concerns about the fate of lower Putah Creek. Under section 6(c) of the bill, the Federal government would provide the creek with at least 5000 acre-feet of extra water during dry years, at no cost to any other party. The Federal government would also provide a pipeline from the head of the Putah South Canal to the creek at Stevenson Bridge to distribute the supplemental water.

On October 23, 1990, the House Interior Subcommittee on Water, Power and Offshore Energy Resources reported the amended version of the bill to the floor. Congress adjourned, however, before the House could vote on the bill. Thus, the bill will have to be reintroduced in the 102nd Congress.

While section 6(c) of the bill purported to solve the problem of lower Putah Creek, the language of that section did not guarantee better conditions on the creek. The section specified that any program to enhance the instream, riparian, and environmental values of the creek "shall cause no reduction in Solano Project supplies." Thus, the Agency would not have to release the supplemental water unless the Federal government could guarantee replacement water from other sources. Furthermore, the program would be subject to appropriations that were not provided for in the bill. Finally, the bill provided for extra water only in dry years, rather than for overall enhancement of the creek.

The Council has suggested amendments to the bill that would incorporate the release schedule the Board adopted in Order WR 81-11, with the goal of establishing a permanent live stream all the way to the Bypass. The Council's amendments would also require the Federal government to provide 5000 acre-feet of extra water in all years. This requirement would not be subject to the condition that there be no reduction in Solano Project supplies, thus guaranteeing the extra water for the creek even if the Federal government could not provide replacement water to the Agency. Finally, the Council's amendments would authorize appropriations to implement the enhancement program. Whether Congress will incorporate any of these proposals remains to be seen.

CONCLUSION

In at least one of the actions described above, the current schedule of releases from the Diversion Dam into lower Putah Creek will have to be reconsidered.

Although in the past the public trust values of lower Putah Creek have received little attention, recent events have brought these values into the spotlight. Any reconsideration of release rates will have to account for these values. Proper consideration of the creek and the riparian habitat it provides will help to ensure the creek's survival, not only as a source of water for consumption, but as an end in itself.

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