

**Water Right Application 29408 and Wastewater Change
Petition WW-6 of the City of Thousand Oaks**

and

r
**Findings Regarding Availability of Water for Appropriation
Under Water Right Applications 29816, 29819, 29829, 29581,
29959, 30037, 30092 and 30194**

Decision No. 1638

**Arroyo Conejo, Conejo Creek
and Calleguas Creek**

Ventura County

September 1997

**STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY**



STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Right)
Application 29408 and Waste Water)
Change Petition WW-6,)

CITY OF THOUSAND OAKS,)

Applicant and Petitioner,)

and,)

Availability of Unappropriated)
Water for Applications 29816,)
29819, 29829, 29581, 29959,)
30037, 30092, and 30194 of)

FITZGERALD RANCH, STANLEY AND)
SANDRA GOLDBERG, B-H FARMS,)
ROBERT B. LAMB, LENA M. JONES)
TRUST, RICHARD ROGERS, STANLEY)
AND SANDRA GOLDBERG, AND CAMROSA)
WATER DISTRICT,)

Respectively Applicants,)

DEPARTMENT OF FISH AND GAME,)
STANLEY AND SANDRA GOLDBERG,)
LENA M. JONES TRUST, B-H FARMS,)
ET AL., CAMROSA WATER DISTRICT)
ROGERS FAMILY TRUST, ROBERT B.)
LAMB, FITZGERALD RANCH,)

Protestants.)

DECISION: 1638

SOURCE: Arroyo Conejo,
Conejo Creek
and Calleguas
Creek

COUNTY: Ventura

DECISION APPROVING, IN PART, WATER RIGHT
APPLICATION 29408 AND WASTE WATER CHANGE
PETITION WW-6 OF THE CITY OF THOUSAND OAKS
AND

FINDINGS REGARDING AVAILABILITY OF WATER FOR
APPROPRIATION UNDER WATER RIGHT APPLICATIONS 29816,
29819, 29829, 29581, 29959, 30037, 30092, AND 30194

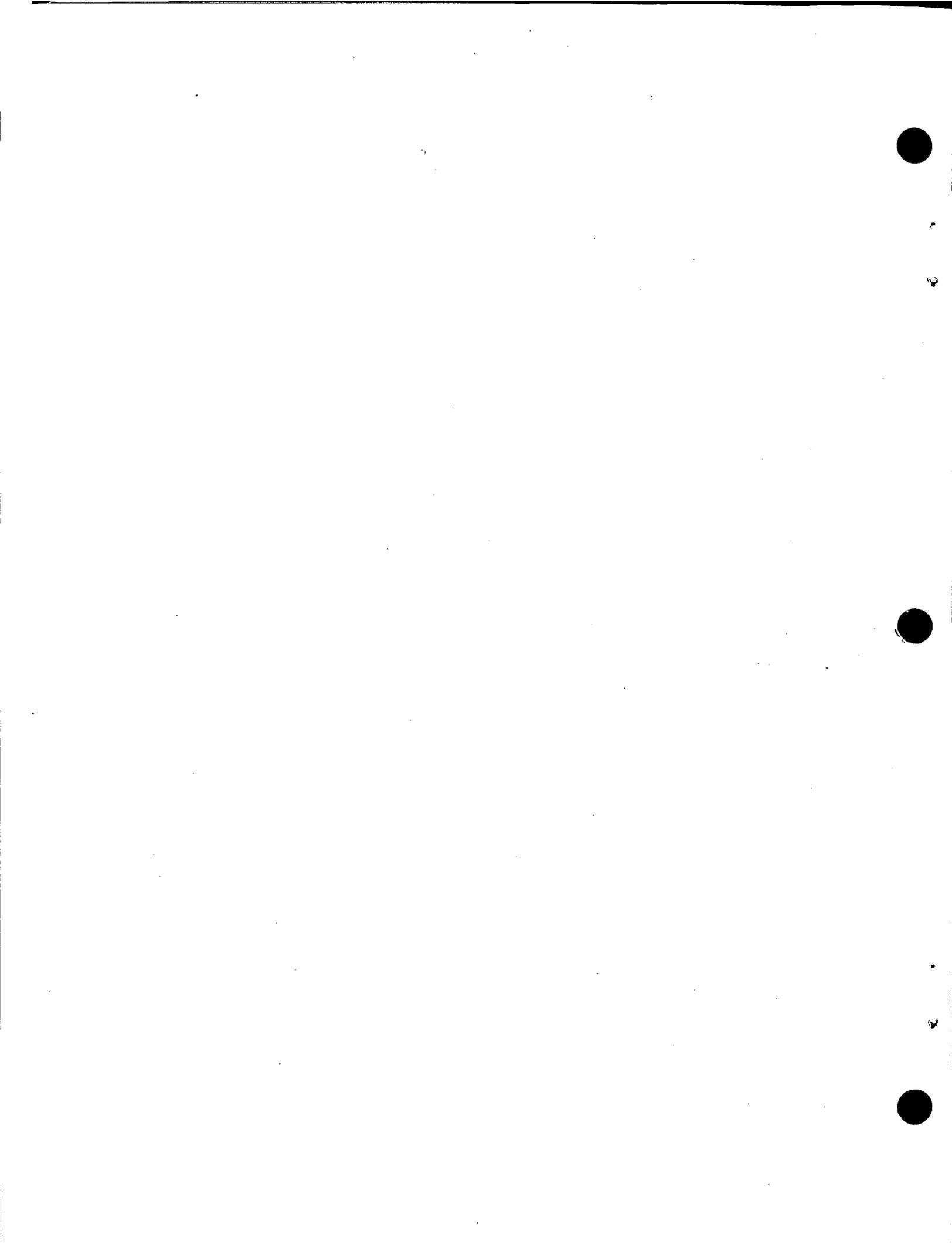


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CITATIONS TO THE RECORD

The following notation is used to cite information from the hearing record:

Citation to Hearing Transcript: Citations to the hearing transcript are indicated by a "T" followed by the volume of the transcript, followed by the starting page and line number, followed by the ending page and line number. (Example: T, Vol. I, 136:10-136:21.)

Citations to Exhibits: Citations to exhibits in the record are indicated by the abbreviation for the party submitting the exhibit, followed by the number of the party's exhibits, followed by the page number or other location of the information in the exhibit.

BY THE BOARD:

1.0 INTRODUCTION

The City of Thousand Oaks (City) submitted Water Right Application 29408 and Waste Water Change Petition WW-6 for a proposed project that involves diversion of water from Conejo Creek in Ventura County. Application 29408 requests a permit from the State Water Resources Control Board (SWRCB) to appropriate water for irrigation in the Pleasant Valley County Water District (PVCWD), the Camrosa Water District (Camrosa) and the City. The majority of the water which the City proposes to appropriate is treated waste water released into the North Fork of Arroyo Conejo (a tributary of Conejo Creek) from the City's Hill Canyon Waste Water Treatment Plant (Hill Canyon WWTP). Because the project proposes a change in the use of treated waste water released into Arroyo Conejo, the City filed Waste Water Change Petition WW-6. In addition to making water available for diversion as proposed in the City's water right application, Petition WW-6 proposes that 2.0 cubic feet per second (cfs) of treated waste water be dedicated to instream use for fish and wildlife pursuant to Water Code section 1212.

This decision considers the availability of water for appropriation by the City, the proposed changes in the use of the treated waste water released from the Hill Canyon WWTP, the need for water to protect environmental and instream resources, and the use of water by competing water right applicants. As explained below, this decision approves, in part, Application 29408 and Waste Water Change Petition WW-6, subject to specified conditions.

This decision also addresses the availability of water for appropriation under Applications 29816, 29819, 29829, 29581, 29959, 30037, 30092 and 31094. These applications seek to appropriate water from Conejo Creek and Calleguas Creek for irrigation by several applicants as described in Section 2.3 below. The applications were filed after the City's Application 29408 and, therefore, are junior in priority to the City's application. Due to the relatively small quantity of water involved, the applications are subject to a separate review procedure for "minor protested applications" pursuant to Water Code section 1345 et seq. However, the relationship between water availability for the City's application and the competing applications makes it appropriate to address the issue of water availability for all the pending applications in this decision. Other issues regarding those applications will be addressed in accordance with the procedures specified in Water Code section 1345 et seq.

2.0 BACKGROUND

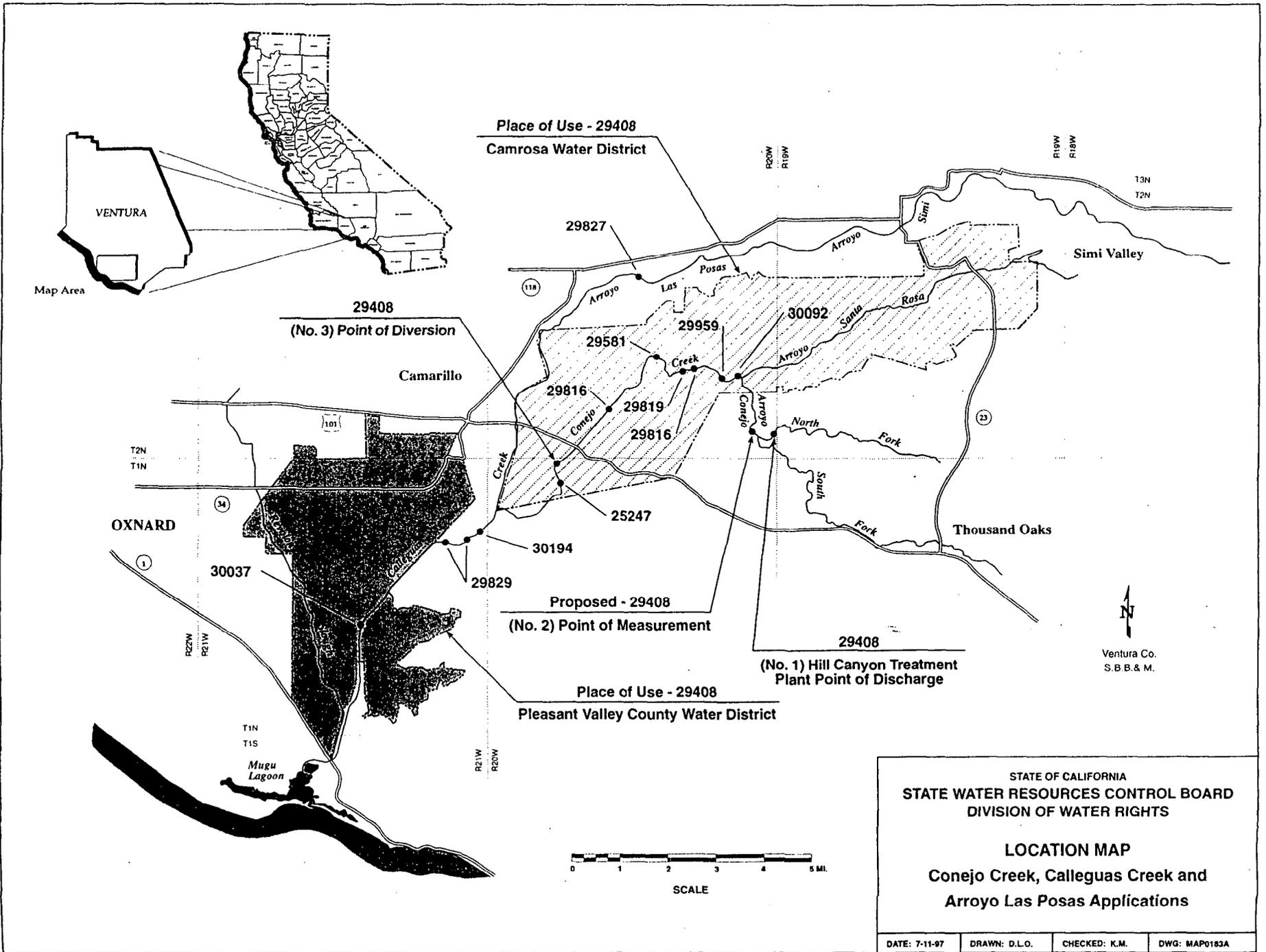
The Calleguas Creek watershed, of which Conejo Creek is a tributary, is described in Section 2.1 below. Section 2.2 describes the project proposed by the City, and Section 2.3 describes the projects proposed in the competing water right applications. As discussed in Section 2.2, Application 29408 states that the City seeks to appropriate water that would not have been in Conejo Creek under natural conditions. The other applications request the right to divert any water that may be present at their respective points of diversion up to the quantity of water specified in the applications. The availability of water for appropriation by the City and the competing applicants is addressed in Sections 5.0 through 5.3.2.

2.1 Description of Watershed

The Calleguas Creek watershed covers approximately 325 square miles in eastern Ventura County. As shown on Figure 1, the principal tributaries to Calleguas Creek are Conejo Creek, Revolon Slough and Arroyo Simi. Calleguas Creek flows into the Pacific Ocean at Mugu Lagoon.

The Hill Canyon WWTP is located on the North Fork of Arroyo Conejo, approximately 17.5 stream miles upstream of the discharge of Calleguas Creek into Mugu Lagoon. The South Fork of Arroyo Conejo joins the North Fork approximately 0.4 miles downstream of the Hill Canyon WWTP discharge point. The combined North and South Forks form Arroyo Conejo which flows approximately 2 miles to the Santa Rosa Valley. Once in the Santa Rosa Valley, the watercourse is known as Conejo Creek. Conejo Creek flows approximately 8 miles through the Santa Rosa Valley and Pleasant Valley before joining Calleguas Creek south of the City of Camarillo. Conejo Creek drains an area of approximately 78 square miles.

The three groundwater basins in the area of the proposed project are the Oxnard Plain Basin, the Pleasant Valley Basin and the Santa Rosa Basin. The upper aquifer system in the Oxnard Plain is defined by the Oxnard and Mugu aquifers. Overpumping in this area has led to concerns about seawater intrusion. (City 1, Vol. 2, pp. 4-34.) The groundwater level in this area is 80 to 120 feet below sea level, whereas the groundwater elevation at Point Mugu is 40 feet below sea level. The Santa Rosa Basin is located east of the Pleasant Valley Basin.



STATE OF CALIFORNIA
 STATE WATER RESOURCES CONTROL BOARD
 DIVISION OF WATER RIGHTS

LOCATION MAP
 Conejo Creek, Calleguas Creek and
 Arroyo Las Posas Applications

DATE: 7-11-97	DRAWN: D.L.O.	CHECKED: K.M.	DWG: MAP0183A
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FIGURE 1

2.2 Description of Project Proposed by the City of Thousand Oaks

The flow in Conejo Creek above the City's proposed point of diversion is composed of water from four sources:

- (1) Accretions from the adjoining groundwater aquifer within the City. The water enters the creek as a result of deep percolation of water obtained from the Metropolitan Water District of Southern California (Metropolitan) which is used for irrigation of lawns and other purposes within the City.
- (2) Water entering the creek from the City's storm drainage system. Much of this water is surface runoff of water obtained from Metropolitan which is used for lawn irrigation and other purposes within the City.
- (3) Discharge of treated waste water from the Hill Canyon WWTP. The City discharges treated waste water from the Hill Canyon WWTP into the North Fork of Arroyo Conejo. The treated waste water eventually flows into Conejo Creek and Calleguas Creek.
- (4) Natural flow. The City has stated that it does not seek to appropriate or divert natural streamflow under Application 29408.

The City requests authorization to divert water from Conejo Creek which is attributable to flow elements (1) through (3) described above. With the exception of the measured quantity of water released from the Hill Canyon WWTP, it is difficult to quantify the amount of water attributable to each of the above sources. The City estimates that flow elements (1) and (2) contribute a

total of 1,954 acre feet per annum (afa) in the South Fork Arroyo Conejo and 940 afa in the North Fork Arroyo Conejo. In 1995, the City discharged 9,586 acre feet (af) at the Hill Canyon WWTP. The City estimates that its discharge of treated waste water will increase to 15,010 afa by the year 2020.

Application 29408 proposes to divert water throughout the year at a maximum rate of 24 cfs up to a maximum annual quantity of 17,380 af. The proposed project will utilize three 100 horsepower pumps which will convey the water to regulatory storage ponds through a 36-inch diameter pipeline. Water would be transported from the storage ponds to PVCWD, Camrosa, and the City. Water will be used for irrigation in PVCWD, in Camrosa, and on municipally-owned property in the City to substitute for water from other sources. In addition to providing water for irrigation, the City proposes to dedicate 1,460 afa to provide an instream flow of 2.0 cfs for fish and wildlife maintenance pursuant to Water Code section 1212.

The project proposed by the City would utilize the following facilities:

- (1) The existing Hill Canyon WWTP;
- (2) A proposed "flow control and monitoring station" located within the SE 1/4 of the NE 1/4 of projected Section 36, T2N, R20W, SBB&M; and
- (3) Proposed diversion facilities on Conejo Creek located with the SE 1/4 of the SE 1/4 of projected Section 32, T2N, R 20W, SBB&M.

TABLE 1 Applications Junior to Application 29408 of the City (Staff 1) (See Figure 1 for Application Locations)			
Application Number and Name	Source	Quantity (1) application amount; (2) existing pump capacity	Requested Diversion Season
29581--Robert B. Lamb, et al.	Conejo Creek	(1) 2.9 cfs (2) 3.0 cfs	Jan. 1 - Dec. 31
29816--Fitzgerald Ranch	Conejo Creek	(1) 0.9 cfs (2) 2.0 cfs	Jan. 1 - Dec. 31
29819--Sandra and Stanley Goldberg	Conejo Creek	(1) 0.9 cfs (2) 2.0 cfs	Jan. 1 - Dec. 31
29829--B-H Farms	Calleguas Creek	(1) 2.61 cfs (2) 4.5 cfs	Jan. 1 - Dec. 31
29959--Lena M. Jones Trust	Conejo Creek	(1) 0.71 cfs (2) 0.7 cfs	Jan. 1 - Dec. 31
30037--Pacific Earth Resources (aka Richard Rogers, et al. or Pacific Sod Farms)	Calleguas Creek	(1) 0.62 cfs (2) 6.68 cfs	Jan. 1 - Dec. 31
30092--Sandra and Stanley Goldberg	Conejo Creek	(1) 0.9 cfs & 5 af (2) 0.9 cfs	Jan. 1 - Dec. 31
30194--Camrosa Water District	Calleguas Creek	(1) 2.0 cfs & 200 af (2) 1.4 cfs	Jan. 1 - Dec. 31

All of the above applications have a later filing date than Application 29408 filed by the City. Six of the above applications were filed to obtain appropriate water right permits for water which is presently pumped from Conejo Creek and Calleguas Creek for irrigation. The other two applications (Application 29959 of the Lena M. Jones Trust and Application 30194 of Camrosa Water District) describe proposed projects which are not now in operation. The City filed protests against each of the applications shown in Table 1.

All of the pending applications, except for the City's, are subject to the separate review process for "minor protested water

right applications" pursuant to the provisions of Water Code section 1345 et seq. In accordance with the statutory procedures, a field investigation of the projects described in the applications listed in Table 1 above was conducted on October 28, 1992.¹ Preparation of the staff analysis and action on the applications was held in abeyance until the SWRCB could determine the quantity of unappropriated water available for appropriation. As specified in the hearing notice, the issue of the availability of water to serve the applications was included as an issue to be addressed in this proceeding. A brief description of each of the competing applications is provided below.

Application 29581 of Robert Lamb et al.

Application 29851 requests a right to divert 2.9 cfs from Conejo Creek for irrigation of a maximum of 652 acres within projected Sections 14, 15, 22, 23, 27, and 28 within T2N, R20W, SBB&M. The applicant requests a year-round season of diversion. The maximum annual diversion requested is 1,790 af.

Application 29816 of Fitzgerald Ranch

Application 29816 seeks a right to divert 0.9 cfs from Conejo Creek for irrigation of 162 acres within projected Sections 26 and 28, T2N, Range 20 West, SBB&M. The applicant requests a year-round season of diversion. The maximum annual diversion requested is 650 af.

¹ The field investigation included all the applications listed in Table 1 except for Application 30194 which was filed after the field investigation was scheduled.

Application 29819 of Stanley and Sandra Goldberg

Application 29819 seeks a right to divert 0.9 cfs from Conejo Creek for irrigation of 125 acres within the NW 1/4 of the NW 1/4 of projected Section 26, T20N, R26W, SBB&M. The applicant requests a year-round season of diversion. The maximum annual diversion requested is 650 af.

Application 29829 of B-H Farms

Application 29829 seeks a right to divert 2.61 cfs from Calleguas Creek for irrigation of 200 acres within projected Sections 12, 13, and 14 all within T1N, R21W, SBB&M. The application requests a year-round season of diversion. The maximum annual diversion requested is 1,419 af.

Application 29959 of Lena M. Jones Trust

Application 29959 seeks a right to divert 0.71 cfs from Conejo Creek for irrigation of 57 acres within projected Section 26, T2N, R20W, SBB&M. The application seeks a year-round season of diversion. The maximum annual diversion requested is 513 af.

Application 30037 of Richard Rogers et al.

Application 30037 of Richard Rogers, Elizabeth Davis Rogers, and Pacific Earth Resources, Ltd. requests a right to divert 0.62 cfs from Calleguas Creek for irrigation of 627 acres within projected Sections 15, 16, 20, 21, 22, 27 and 29, T1N, R21W, SBB&M. Water will be pumped from the stream into an offstream regulatory reservoir. The application seeks a year-round diversion season and the maximum annual diversion requested is 332 af.

Application 30092 of Sandra and Stanley Goldberg

Application 30092 seeks a right to divert 0.9 cfs from Conejo Creek for irrigation of 101 acres within projected Sections 24,

25, and 26, T2N, R20W, SBB&M. Water will be pumped from the stream into a 5 af offshore reservoir. The application seeks a year-round season of diversion, and the right to divert 5 afa to storage. The total annual quantity of water requested under the direct diversion and storage portion of the application is 468 af.

Application 30194 of Camrosa Water District

Application 30194 seeks a right to divert 2.0 cfs from Calleguas Creek to be used for irrigation of 800 acres within Sections 1 and 2, T1N, R21W, SBB&M. Water will be pumped to offshore storage in existing 300 af capacity treated effluent ponds located near Camarillo State Hospital. After the water is discharged into the effluent ponds, it will be rediverted via distribution pipelines to agricultural customers located within the District. In addition to direct diversion rights, Camrosa seeks the right to store 200 af in the existing ponds. The application seeks a year-round season of diversion for the direct diversion portion of the application. The application also seeks a season of December 1 of each year to March 1 of the succeeding year for diversion to storage. The maximum total annual diversion requested under the direct diversion and the storage portions of the application is 1,445 af.

2.4 Presently Authorized Diversion Under Water Right License 12598

Cal-Cel Marketing, Inc. and Hiji Brothers have License 12598 (Application 25247) which authorizes direct diversion of 0.82 cfs from Conejo Creek for irrigation.² The license authorizes a year-round season of diversion and a maximum annual diversion of

² License 12598 was formerly held by Gloria Petit Longo et al.

306 af. License 12598 is the only existing appropriative water right on Conejo Creek and its tributaries.

3.0 PROTESTS FILED AGAINST CITY'S PROPOSED PROJECT

The SWRCB Division of Water Rights originally provided public notice of the City's proposed project on March 9, 1990. The Division of Water Rights accepted 11 protests filed against the City's application and waste water change petition following the initial public notice of the project. The City subsequently revised the proposed project and filed change petitions to describe the proposed modifications. The revised project is described in Section 2.2. Following receipt of the change petitions, the Division of Water Rights issued a "renotice" of the City's Application 29408 and Treated Waste Water Change Petition WW-6 on December 8, 1995. Pacific Sod Farms was the only additional party to file a protest in response to the 1995 notice. Several of the protests were dismissed prior to the hearing and those protestants were notified accordingly.³ The remaining protests are discussed below.⁴

3.1 Protest Filed by the California Department of Fish and Game

The protest filed by the California Department of Fish and Game (DFG) states that Conejo Creek, Calleguas Creek and Mugu Lagoon support a wide variety of wildlife and riparian habitat. DFG argues that riparian habitat is rapidly being lost in Southern California, and that maintenance of the remaining riparian habitat is critical for fishery and wildlife resources. The DFG

³ The reasons for dismissal of the affected protests were stated in letters to the protestants. None of the parties whose protests were dismissed appeared at the hearing.

⁴ The protest originally filed by Carmel Camarillo Jones Estate was assumed by Stanley, Sandra and Leroy Goldberg upon purchase of the Estate property.

protest requests that, in addition to the 2.0 cfs of treated waste water which the City plans to provide for instream uses, the City be required to bypass the water from Arroyo Conejo and Conejo Creek which is attributable to accretion from the groundwater aquifer within the City, storm drainage system return flow and natural streamflow. The total quantity of these flows is not estimated in the DFG protest, but DFG provided testimony at the hearing regarding minimum flows needed for protection of instream uses.

3.2 Protests Filed by or Assigned to Fitzgerald Ranch, Stanley and Sandra Goldberg, and Robert B. Lamb

The protests of Fitzgerald Ranch, Stanley and Sandra Goldberg, and Robert B. Lamb allege that approval of the City's project would result in disruption to the protestants' ongoing farming operations. The protestants claim that the water which the City seeks to appropriate is the same water which the protestants currently use for irrigation under riparian rights and that water diversion for the City's project would leave insufficient water in the stream system. The protestants have also filed applications to appropriate water, but all the applications are junior in priority to Application 29408 filed by the City.

On behalf of the Lambs, the Goldbergs, and Fitzgeralds, attorney David Lamb proposed that a condition be included in any permit issued to the City to address the concerns raised in his clients' protests. The suggested term would require: (1) the City to provide water to the Camrosa Water District for subsequent use on the parcels identified in the water service agreements between Camrosa and the Lambs, Goldbergs, and Fitzgeralds; (2) that water be made available to the three named protestants prior to any diversion of water by the City's project for use in other areas.

The suggested term also provides that water diverted for the City's project be measured at the point where the water is diverted from Conejo Creek.

In response to the term suggested by the protestants, the City suggested a permit term which would: (1) require the City to provide water to Camrosa for use on the parcels identified in the water service agreements between Camrosa and the protestants; and (2) provide that the water diverted for the City's project be measured at the City's proposed "flow control and monitoring station," upstream of the actual point of diversion on Conejo Creek. For the reasons stated in Section 8.3.3, the "flow control and monitoring station" proposed by the City should not be considered a part of the project for which any permit is issued to the City on Application 29408. The SWRCB finds, however, that it is in the public interest to avoid disruption of the existing farming uses on the Lamb, Goldberg and Fitzgerald properties by including a condition in any permit issued to the City which ensures that the protestants are provided water by Camrosa pursuant to their water service agreements.

3.3 Protests Filed by Pacific Sod Farms and B-H Farms

Pacific Sod Farms (Richard Rogers, et al.)⁵ and B-H Farms filed protests against Application 29408 claiming injury to riparian rights. Neither protestant presented evidence at the hearing in support of their positions and, consequently, both protests are dismissed.⁶ (See Water Code section 1352.) However, in accordance with the information in the hearing notice, this

⁵ As stated above, Richard Rogers et al., also filed Application 30037 under the name of Pacific Earth Resources.

⁶ Neither protestant holds an appropriative water right permit or license.

decision considers the availability of water for appropriation by Pacific Sod Farms and B-H Farms under Applications 30037 and 29829, respectively.

3.4 Protest filed by Gloria Petit Longo et al.

A protest against the City's project was filed by Gloria Petit Longo et al. on the basis of potential injury to prior vested rights held by the protestant under License 12598. License 12598 has been reassigned to Cal-Cel Marketing, Inc. and Hiji Brothers. The protest was dismissed on March 27, 1996, on the basis that any approval of the City's project would be subject to the prior appropriative water right under License 12598 (Application 25274).

The City subsequently contacted the protestant and suggested a modification of the protest dismissal term which would provide that the City's rights would be subject to the prior right of the licensee to divert up to 0.912 cfs from Conejo Creek pursuant to License 12598. However, License 12598 authorizes direct diversion of 0.82 cfs, rather than 0.912 cfs as referred to by the City. Rather than referring to 0.912 cfs as proposed by the City, it is appropriate to include a condition in any permit or license issued to the City stating that the City's right is subject to the prior right under License 12598.

4.0 HEARING ON WATER RIGHT APPLICATION AND WASTE WATER CHANGE PETITION

The SWRCB conducted a hearing on May 13 and 14, 1996, in order to receive evidence to resolve issues concerning the City's water right application and waste water change petition, and issues regarding the availability of water for competing applications. The hearing notice identified 15 key issues on which interested

parties were invited to present evidence. The issues included: quantification of the water in Conejo Creek and Calleguas Creek from various sources, the effect of the City's project on other legal users of water, the appropriate distribution of available water among competing water users and applicants, the appropriate point of measurement for water to be diverted by the City's project, potential impacts of proposed water diversions on instream and other public trust resources, the need for and impacts of the City's proposed "flow control and monitoring station," the City's proposed dedication of 2.0 cfs of treated waste water to instream uses, the quantity of instream flows necessary for protection of public trust resources, the relationship between the City's project and seawater intrusion in local groundwater basins, the effect of freshwater inflow into Mugu Lagoon, the health of an endangered plant (saltmarsh bird's beak) in the area of Mugu Lagoon, and consideration of the appropriate places of use for water diverted as part of the City's project.

The participants in the hearing before the SWRCB were the City of Thousand Oaks; representatives of Calleguas Municipal Water District, Pleasant Valley County Water District, Camrosa Water District and the County of Ventura; attorney David Lamb on behalf of the Lambs, Goldbergs and Fitzgerald Ranch; Robert Lamb on behalf of himself, DFG; and the Los Angeles Regional Water Quality Control Board. The majority of the evidence presented concerned the quantities and sources of water in Conejo Creek and Calleguas Creek, the proper distribution of water among competing users, the effect of the project on instream and other public trust resources, the amount of instream flows needed for protection of public trust resources, and possible mitigation measures for potential adverse environmental effects.

Sections 5.0 through 5.4 below discuss the evidence in the record and the SWRCB's findings concerning the City's proposed project and water availability for competing water users. The evidence presented on other issues, including maintenance of the regional groundwater basins, protection of environmental and public trust resources, and the City's proposed dedication of treated waste water to fish and wildlife are discussed in Sections 6.0 through 9.0. The SWRCB's conclusions regarding approval of Application 29408 and Waste Water Change Petition WW-6 are summarized in Section 9.0.

5.0 WATER AVAILABILITY

Determining the availability of water for appropriation by the City and competing applicants requires examining the quantity of flow in Conejo Creek and Calleguas Creek, the sources of the flow, the diversion and use of water under prior rights, and the amount of water needed for protection of instream uses and other public trust uses.

As discussed in Section 2.2, the flow in Conejo Creek is composed of accretions to the creek from the adjoining groundwater aquifer, water from the City's storm drainage system, discharge of treated waste water from the Hill Canyon WWTP, and natural flow from precipitation. The quantity of accretions from the adjoining groundwater aquifer and the quantity of water from the City's storm drainage system entering Conejo Creek have increased substantially as the City's use of imported water from Metropolitan has increased.

The City's application seeks to appropriate treated waste water and return flow from imported water. Therefore, in determining

the amount of water potentially available for diversion as part of the City's proposed project, it is helpful to examine the quantity of flow in the stream attributable to each source. Records of water releases from the Hill Canyon WWTP and records of the historic flows can be used in evaluating the amount of surface flow in Conejo Creek that is attributable to return flow from imported water.⁷

Similarly, in determining the amount of flow available for downstream uses below the City's proposed point of diversion, it is useful to examine flow records from several locations on Conejo Creek and Calleguas Creek. The quantity of water attributable to various sources and the quantity needed for satisfaction of prior rights and instream needs are addressed in Sections 5.1 through 5.2.3 below.

5.1 Sources of Water

The sources of water which are relevant to the pending applications on Conejo Creek and Calleguas Creek are discussed below.

5.1.1 Discharge From Hill Canyon Waste Water Treatment Plant

Hill Canyon WWTP began operating in 1960 but produced a relatively small quantity of treated waste water from 1960 through 1971. The quantity of treated waste water produced at the facility increased in 1972 following delivery of State Water Project water to the City by Metropolitan. (City 6, p. 2-28.) The gradual increase in treated waste water discharges from the

⁷ Return flows from imported water can enter the stream either as accretions to the stream from the adjoining groundwater basin or as part of the discharge to the stream from the City's storm drainage system.

Hill Canyon WWTP over the last 15 years as reported by the City is shown below in Table 2.

TABLE 2					
HISTORIC HILL CANYON WWTP DISCHARGES IN AFA					
1972*	1973*	1974*	1975*	1976*	1977*
4,920	5,890	5,950	6,620	6,450	6,320
1978*	1979*	1980*	1981*	1982*	1983*
7,110	8,590	8,870	9,380	9,290	10,230
1984**	1985**	1986**	1987**	1988**	1989**
10,085	10,200	10,533	10,533	10,757	10,757
1990**	1991**	1992**	1993**	1994***	1995****
9,637	8,628	9,637	No Data	9,661	9,586

Table Notes:

- * Data obtained from City 6, pp. 2-26 and 2-27.
- ** Data obtained from City 31H. The graphic scale on this exhibit is in million gallons per day (mgd). The data from the City's exhibit is converted to afa using the following conversion:
AFA = "X" mgd x (3.07 af/day/1 mgd) x 365 days/year.
- *** Data obtained from City 2, p. 3-17.
- **** Data obtained from City 25, p. 136.

During the early years of operation, discharges from the Hill Canyon WWTP into the stream served to replenish the groundwater basin. A 1987 report on the Santa Rosa Groundwater Basin Management Plan prepared by Boyle Engineering Corporation states that Conejo Creek was normally a dry stream during the summer months. However, by 1970, Conejo Creek was a perennial stream with continuous flow. (City 6, p. 2-15.) Ventura County

installed a gaging station in October 1968, and year-round flows have been recorded since October 1972. (City 6, p. 2-15.)

Although some of the discharge continues to be lost as infiltration to the groundwater basin and evaporation, the City's 1991 Final Environmental Impact Report (FEIR) estimates that approximately 75 percent of the discharge continues downstream and enters the Pleasant Valley area. (City 1, Vol. 2, p. 4-17.)

The City's application to appropriate water seeks a permit to appropriate the present output of the Hill Canyon WWTP and projected future increases in output up to a maximum of 15,010 afa. The RWQCB calculates the design capacity of the Hill Canyon WWTP, after future expansion, to be 14 mgd, or 21.7 cfs.

(City 21, NPDES permit, p. 2.) The City will need to obtain a new NPDES permit prior to expanding treatment plant capacity from 18.6 cfs in 1995 to the projected capacity of 21.7 cfs in 1999. The City's present permit requires that total treated waste water discharges be measured on a daily basis. (City 21, p. T-11.)

The Ventura County Public Works Agency estimates actual future production of treated waste water at the facility to increase to 17.2 cfs, which equates to 12,399 afa, by the year 2010 as shown below in Table 3. (City 25, Tables 4.4 and 4.5.)

<p style="text-align: center;">TABLE 3</p> <p style="text-align: center;">Hill Canyon WWTP Projected Output Based Upon 1994 Ventura Public Works Agency Report</p> <p style="text-align: center;">All Values Converted From MGD To Either CFS Or AFA</p>				
	1995	2000	2005	2010
Total Flow From Domestic, Commercial and Industrial Uses	14.8 cfs (10,734 afa)	15.6 cfs (11,292 afa)	16.4 cfs (11,835 afa)	17.2 cfs (12,399 afa)

The actual amount of treated waste water produced in 1995 from Table 2 was 9,586 af, or approximately 11 percent less than the projected amount of 10,734 af as shown in Table 3. Since 1989, the actual quantity of treated waste water has been less than the anticipated amount due to water conservation within the City. The record shows that treated waste water is a significant portion of the flow in Conejo Creek, that the actual amount discharged to the stream has varied from projected amounts, and that future discharge of treated waste water may be less than the 21.7 cfs future capacity of the treatment plant.

Although the City also has applied to appropriate return flow from imported water, the majority of the water which the City seeks to appropriate is treated waste water. The quantity of treated waste water present in Conejo Creek at a specific time depends upon the rate of discharge from the Hill Canyon WWTP. Therefore, it is reasonable to account for variations in the rate of waste water discharge when establishing criteria regulating the City's rate of diversion under any permit issued to the City.

As stated in Application 29408 and Petition WW-6, the City proposes to dedicate 2.0 cfs of treated waste water for fish and wildlife purposes in Conejo Creek and in Calleguas Creek downstream of the confluence. The water would be dedicated pursuant to Water Code section 1212 and would not be available for diversion. Therefore, the amount of water from the Hill Canyon WWTP which is potentially available for diversion by the City should also be adjusted to account for the 2.0 cfs dedication to instream use proposed by the City.

Another factor to be accounted for in determining the amount of treated waste water from the Hill Canyon WWTP which is

potentially available at the City's proposed point of diversion is the quantity attributable to channel losses between the point of discharge and the point of diversion. Water released from the Hill Canyon WWTP flows downstream approximately 7 miles before reaching the City's proposed point of diversion on Conejo Creek. The City estimates that an average loss of 1,370 afa of treated waste water to the groundwater basin occurs between the WWTP and the point of diversion. (City 2, Vol. 2, pp. 24 and 25; T, Vol. 1, 146:6-146:18.) In addition, the City calculates that approximately 50 afa is lost due to evapotranspiration between the WWTP and the proposed point of diversion. (City 1, Vol. 2, p. 4-22.) Together, these losses total about 1,420 afa which equates to an average rate of channel loss of 2.0 cfs.

In summary, the amount of treated waste water from the Hill Canyon WWTP which is potentially available for diversion is a function of the rate of discharge from the treatment plant as adjusted for approximately 2.0 cfs in channel losses and the 2.0 cfs dedication to fish and wildlife proposed by the City.

5.1.2 *Runoff From Use of Imported Water Within City of Thousand Oaks*

In addition to diversion of treated waste water, Application 29408 seeks to appropriate water from Conejo Creek which is attributable to surface runoff from use of imported water in the City and deep percolation of applied imported water. (See flow elements (1) and (2) described in Section 2.2 above).

Collectively, this water can be classified as return flow from imported water which would not have been in the basin under natural conditions. The return flow from imported water which the City seeks to appropriate collects in the North Fork and South Fork of Arroyo Conejo. The City asserts that the combined

average rate of flow for this return flow is 4.5 cfs. (City 24, Section 404 permit application, p. 5.) In another document, the City estimates that 1,954 afa is available in the South Fork Arroyo Conejo and 940 afa in the North Fork Arroyo Conejo from this source. (City 2, Vol. 2, Attachment 2, Table A.)

The City did not offer its streamgage data for City measuring stations 101, 102 and 103 as evidence. Instead, the City submitted graphics which were prepared based upon composite data.⁸ City Exhibit 31G depicts the composite flows as nearly constant, increasing somewhat in April. Mr. Nuss, testifying on behalf of the City, stated that the combined "base flow" of 4 cfs which the City seeks to appropriate from the North and South Fork of Arroyo Conejo is attributable to return flow from imported water, and none of it is attributable to natural flow.

This conclusion was based upon a comparison of summer flows before and after importation of State Water Project water purchased from Metropolitan. The City's planners then assumed that the base flow present in the summer months represented the quantity of return flow from imported water which would be present throughout the year in the North Fork and South Fork of Arroyo Conejo. (T, Vol. I, 275:19-279:25.) The City relied upon "composite data" in its exhibits and did not offer its streamgage data into evidence. In determining the quantity of unappropriated water which may be available for appropriation by

⁸ In the City's Exhibit 31A, Gary Nuss explained the method of preparation of graphical exhibits 31D through 31H. Mr. Nuss did not, however, explain the meaning of the term "composite data." Consequently, the SWRCB is unable to ascertain whether composite data provides a true representation of the flows from each source shown in the City's exhibits.

TABLE 4*											
DAILY AVERAGE FLOWS IN CFS											
1. CONEJO CREEK ABOVE HIGHWAY 101 PERIOD OF RECORD: 1973-1983 DRAINAGE AREA - 64 SQUARE MILES											
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
11	18	17	56	81	76	21	15	13	12	13	15
2. CALLEGUAS CREEK AT CAMARILLO STATE HOSPITAL PERIOD OF RECORD: 1969-1983 DRAINAGE AREA - 248 SQUARE MILES											
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
10	25	31	103	135	119	22	14	10	9.4	9.2	12
3. CALLEGUAS CREEK AT CAMARILLO PERIOD OF RECORD: 1929-1958 DRAINAGE AREA - 168 SQUARE MILES											
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
0	0	0.2	3.3	4.4	1.7	8.9	0	0	0	0	0
4. ARROYO SIMI NEAR SIMI PERIOD OF RECORD: 1934-1983 DRAINAGE AREA - 71 SQUARE MILES											
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
0.6	5.1	4.6	9.6	17	15	2.8	0.7	0.6	0.5	0.7	4.7

* Data from USGS records, Staff 2.

In addition to natural runoff and return flow from urban water usage, the streamgage data in Table 4 includes any treated waste water which is discharged by the waste water treatment plants into the Calleguas Creek stream system above the specified gage and which is not lost to diversions, channel losses, or evapotranspiration above the gages. The quantity of water

measured by the gage does not include the quantity which is presently diverted from the stream system by various farmers above the gages. The following protestants presently divert water from Conejo Creek upstream of the Highway 101 streamgage: Fitzgerald Ranch, Lena M. Jones Trust, Stanley and Sandra Goldberg, and Robert Lamb.

The City's 1996 Final Subsequent EIR (1996 FSEIR) estimates that farms in the vicinity of Conejo Creek (including the listed protestants) extract approximately 1,700 afa upstream of the City's proposed diversion point. (City 2, Vol. 1, p. 3-41.) The FSEIR also estimates that agricultural demands downstream of the proposed diversion works are 1,955 afa, totaling 3,655 afa of water utilized for agricultural purposes both upstream and downstream of the proposed diversion works. (City 2, Vol. 1, p. 3-41.)

The runoff pattern has been subject to change over time due to changing land use practices and use of imported water. Much of the agricultural land overlying the Santa Rosa Groundwater Basin within Camrosa Water District boundaries has recently been converted to residential use (City 6), and the residential parcels utilize septic systems. (City 6, p. 2-16.) Imported State Water Project water has increased over time on lands overlying the Santa Rosa Groundwater Basin, with importation of water ranging from a low of 350 afa in 1972 (the year when imported water first became available) to 1,300 afa in 1985, and projected to reach 2,400 afa by the year 2015. (City 6, p. 2-27.) Return flow is generated by runoff from irrigation and other land use practices.

TABLE 5

Treated Waste Water Production
 Camrosa, Moorpark (County Waterworks District No. 1)
 and Simi Valley County Sanitary District

Per 1994 Ventura Public Works Agency Report

All Values Converted From MGD
 to Either CFS or AFA (City 25, Table 4.6)

	1995	2000	2005	2010
Camrosa WWTP	2.6 cfs (1,847 afa)	2.8 cfs (2,054 afa)	3.1 cfs (2,253 afa)	3.4 cfs (2,455 afa)
Simi WWTP	14.5 cfs (10,512 afa)	15.8 cfs (11,408 afa)	17.1 cfs (12,357 afa)	18.4 cfs (13,309 afa)
Moorpark WWTP	4.0 cfs (2,887 afa)	4.8 cfs (3,451 afa)	5.6 cfs (4,081 afa)	6.4 cfs (4,661 afa)

The Simi WWTP discharges into Arroyo Simi, which is a tributary of Arroyo Las Posas, thence Calleguas Creek. The point of discharge is approximately 17.5 miles upstream of the confluence of Calleguas Creek and Conejo Creek. The discharge continues downstream as surface flow for a limited distance, and then percolates into the sandy stream channel. Flow in the Arroyo Simi near Simi is minimal for the months of May through October. (Staff 1:WW-18, Table 4.)

The Moorpark WWTP discharges into Arroyo Las Posas, which is a tributary of Calleguas Creek, roughly 8.5 miles upstream of the confluence of Calleguas Creek and Conejo Creek. The Moorpark WWTP discharge percolates into the sandy stream channel a short distance downstream of the point of discharge. Arroyo Los Posas does not contribute any flow to Calleguas Creek from late spring to late fall. (City 1, Vol. 2, p. 4-16.) The intermittent flow pattern is documented in the Draft EIR for the Arroyo Los Posas Sediment Control Project and the City's 1991 Final EIR. (Staff 1:A29827, June 1992 Draft EIR; City 1, Vol. 2, p. 4-17.)

Historically, the Camrosa WWTP has not been authorized by the RWQCB to discharge to the stream system, except for emergency purposes. Water from the Camrosa WWTP is generally either sold to farmers for irrigation use or discharged to groundwater. (City 25, Vol. 2, p. 96; Staff 1, Application 30194, letter dated 12-3-97, p. 2.) Therefore, the Camrosa WWTP has not added any appreciable quantity of water to the instream flows.

The Camarillo WWTP discharges into Conejo Creek. A landowner adjacent to the Camarillo WWTP purchases the treated waste water and utilizes the water to irrigate his lands. (Staff 1:A30194, 12-3-93 letter.) Camrosa contends that the landowner cannot take or use all of the effluent, and that approximately half of the effluent generated by the plant is discharged to the stream system, primarily at night. Camrosa calculates that an average of approximately 2.3 cfs of effluent is abandoned to the creek. (Staff 1, files on Application 30194, 12-3-93 letter.) The City estimates the Camarillo WWTP discharges a monthly average of 3.2 cfs to Conejo Creek. (T, Vol. II, 467:3-469:16 and 498:4-500:15.) In order to verify the quantity of unappropriated water which is generated by the treatment facility, the parties could have submitted: (1) the actual discharge records for the Camarillo WWTP;⁹ or (2) USGS streamgage records.¹⁰ None of the

⁹ The Camarillo WWTP submits self-monitoring reports to the RWQCB, which are available for inspection. The City provided data on monthly discharges from the Camarillo WWTP to Conejo Creek only for 1989. (City 1, Vol. 2, p. 4-18.) This data showed that discharges from the Camarillo WWTP varied from 1.5 cfs in July to 4.8 cfs in December.

¹⁰ To determine the quantity of water contributed to the stream by the Camarillo WWTP, the USGS records (Table 4) for Calleguas Creek at Camarillo State Hospital would have to be analyzed and adjusted for the following factors: (1) treated waste water generated by Hill Canyon WWTP; (2) urban runoff; and (3) existing diversions.

parties provided evidence on the quantity of waste water discharged by the Camarillo WWTP which is lost to evaporation and seepage.

For the months of May through October, Table 4 documents that the flows in Calleguas Creek downstream of its confluence with Conejo Creek are lower than flows in Conejo Creek upstream of the confluence.¹¹ If the flows had shown an increase, that would have helped document the quantity of flow contributed by the Camarillo WWTP. However, based on the record before the SWRCB, there is insufficient evidence to determine the specific quantity of water entering Conejo Creek from the Camarillo WWTP.

None of the waste water treatment facilities discussed in this section discharge water above the City's proposed point of diversion. As discussed above, the record shows that the Camrosa WWTP, Moorpark WWTP, and the Simi WWTP contribute little or no water to the surface flow in the stream reaches at issue in this proceeding. The Camarillo WWTP contributes a significant but unknown amount of water to Conejo Creek about one mile downstream of the City's proposed point of diversion. As discussed in Section 8.3.1 below, however, DFG presented testimony suggesting that water discharged from the Camarillo WWTP is needed to maintain the minimum flows necessary for protection of riparian habitat and vegetation. For these reasons, the determination of unappropriated water for the applications under consideration in this proceeding will not consider the output from the Camrosa WWTP, Camarillo WWTP, Moorpark WWTP, or Simi WWTP.

¹¹ The Conejo Creek Above Highway 101 drainage area is 64 square miles. The Calleguas Creek at Camarillo State Hospital drainage area is 248 square miles, or nearly four times as large as the Conejo Creek drainage area. Thus, the winter runoff for these two drainage basins is not equivalent.

5.2 Water Needed to Serve Prior Rights and Other Uses

The amount of water available for appropriation by the City and competing applicants depends in part on the quantity needed to satisfy prior water rights and the amount needed for public trust and environmental purposes. Each of these factors are discussed below.

5.2.1 Prior Appropriative Right Under License 12598

Water Right License 12598 (Application 25274) held by Cal-Cel Marketing and Hiji Brothers authorizes year-round direct diversion of 0.82 cfs from Conejo Creek, not to exceed a total annual diversion of 306 af. As discussed in Section 3.4, any permit issued to the City should be conditioned upon bypassing sufficient water for protection of the prior appropriative water right under License 12598. Similarly, any permits granted to other applicants for diversion of water upstream of License 12598 should be conditioned upon protection of the prior right under License 12598.

5.2.2 Riparian Rights

Several of the protestants protested the City's application based on alleged injury to riparian rights. Although the protestants provided information on the quantity of water they divert on an annual basis, no monthly water use data was provided.

As a general rule, "riparian water rights exist only in natural watercourses and in waters naturally flowing therein." *Chowchilla Farms v. Martin* (1933) 219 Cal. 1, 19; 25 P.2d 435, 442. Water imported from outside of the watershed and return flow from imported water is not ordinarily available to riparian diverters.

E. Clement Horst Co. v. New Blue Point Mining Co. (1918) 177 Cal. 631, 171 P. 417.

Although the Calleguas Creek drainage basin is larger than the Conejo Creek basin, flow data for Calleguas Creek provide the best available record for determining when natural flow was present prior to the importation of water from Metropolitan. The evidence regarding the flow in Calleguas Creek watershed prior to importation of water from Metropolitan shows that Calleguas Creek had water in it at the Camarillo streamgage site during the months of December through April.¹² The December flow, however, was minimal. (See Section 5.1.3 above, Table 4, Station 3.)

The continual flow in Conejo Creek in recent years is due to water from the following sources: (1) discharge of treated waste water into the creek; (2) return flows from surface runoff and groundwater accretions attributable to applied imported water within the City boundaries and within the boundaries of Camrosa Water District; and (3) return flow from groundwater pumping within the Santa Rosa and Fox Canyon groundwater basins.¹³

Waste water from urban water use in the City is treated in the Hill Canyon WWTP. Waste water generated from residential water use by Camrosa customers and groundwater pumpers overlying the Santa Rosa Groundwater Basin is directed into septic systems.

¹² State Water Project water has been available in this basin since 1972. (See Section 5.1.2) The City began discharging treated waste water into the Conejo Creek stream system in 1960.

¹³ Return flow from groundwater pumping within the Pleasant Valley Groundwater Basin is generally directed into Revolon Slough, which flows into Calleguas Creek a short distance upstream of Mugu Lagoon. The location where Revolon Slough outlets into Calleguas Creek is downstream of the water users identified in this proceeding.

Camrosa customers located elsewhere within the district utilize sewer systems to dispose of residential waste water.

The Santa Rosa Groundwater Basin was subject to a rapid decline in water levels prior to 1964. With initiation of discharge of treated waste water from Hill Canyon WWTP, the water levels in the basin began to recover. Recovery to pre-overdraft conditions was reestablished by 1970 and water levels have remained relatively stable since 1970.¹⁴ Only a minimal quantity of water, if any, would have exited the groundwater basin prior to the use of imported water, during the period when groundwater levels were rapidly declining. Consequently, the SWRCB concludes the groundwater basin did not contribute to the surface flow of the stream for use by the downstream riparians prior to the use of imported water in the City.

Based on the information discussed above, the SWRCB concludes that there is natural flow available for diversion by riparian water users only during the months of December through April, and that the water available to riparians in December is minimal. The City does not propose to divert water from Conejo Creek which is attributable to natural flow. The conditions established by this decision limit the City's diversions to a maximum of the quantity of treated waste water available at the City's point of diversion plus up to 4.0 cfs attributed to return flow from imported water.¹⁵ Inclusion of these conditions will prevent the City's project from infringing upon riparian rights.

¹⁴ "Staff Report on the Water Supplies and Demands of Lands Within Camrosa Water District," October 1992, page 17, Application 29408, Miscellaneous Reports.

¹⁵ The quantity of treated waste water available for diversion by the City does not include the 2.0 cfs of treated waste water dedicated to fish and wildlife pursuant to Water Code section 1212, nor does it include the amount
(Footnote continued next page)

5.2.3 Water Needed for Instream Flows

The environmental and public trust uses of water which could be affected by the City's project and water diversions by competing applicants are discussed in Section 8.0 through 8.3.3 below. The 2.0 cfs of treated waste water which the City proposes to dedicate to protection of fish and wildlife will provide a portion of the water needed for protection of environmental and public trust uses. However, as discussed in Sections 8.2.2 and 8.3.1, the record in the present proceeding establishes that a minimum bypass flow of 6.0 cfs at the City's proposed point of diversion is needed for protection of environmental and public trust values. In accordance with Water Code section 1243 and the SWRCB's duty to protect public trust resources, the need for a bypass flow of 6.0 cfs must be taken into account in determining the conditions under which water is available for appropriation by the City and competing applicants.

5.3 Analysis of Data on Water Availability

Determining the availability of water for appropriation generally requires examination of streamflow records, data on existing water uses under a recognized basis of right, and the quantity of water necessary for protection of public trust values. In this instance, extensive changes in water use and the sources of water present in the Calleguas Creek watershed complicate the task of determining the availability of water for appropriation. The evidence regarding the sources of water present in the Calleguas Creek stream system and the use of water under prior rights is

of treated waste water lost to channel losses between the Hill Canyon WWTP and the City's proposed point of diversion. The portion of the 4.0 cfs of water attributable to return flow from imported water which is available for diversion by the City at a specific time will depend upon the amount of water available from other sources to meet minimum bypass flow requirements.

discussed in Sections 5.0 through 5.2.2 above. The quantity of water needed for protection of instream uses is referred to in Section 5.2.3 and evaluated in Sections 8.0 through 8.3.2 below.

Appendix I of this decision shows calculations of unappropriated water in Conejo Creek above Highway 101 using streamflow data from 1974 through 1988. Continuing changes in water use, the increasing quantity of water imported into the basin, and the inherent variability in precipitation, serve to limit the conclusions that can be drawn from past data.¹⁶ Nevertheless, evaluation of the data shown in Appendix I is helpful in determining the average quantity of unappropriated water which can reasonably be expected to be available at the City's proposed point of diversion under certain assumed conditions.

The calculations reported in Appendix I begin with the monthly gage flows in Conejo Creek above Highway 101 for the years 1974 through 1988. The recorded gage flows are then adjusted as follows:

- (1) The measured monthly quantity of treated waste water discharged from the Hill Canyon WWTP, minus 2.0 cfs to reflect the average quantity of treated waste water lost to channel losses over that period, is subtracted from the gage measurement.¹⁶ This removes the effect of treated waste water discharges from calculations regarding other water that may be available for appropriation.

¹⁶ The amount of treated waste water which arrives at the point of diversion is composed of the 2.0 cfs which the City has proposed to dedicate to instream flow pursuant to Water Code section 1212 plus the remaining water available for diversion by the City.

- (2) The quantity of water needed to satisfy the prior right of 0.82 cfs under License 12598 is subtracted.
- (3) The estimated quantity of water diverted upstream of the gage by unauthorized diverters is added.¹⁷

After adjusting the reported monthly flows to account for the above three factors, the resulting number provides an estimate of the amount of water from all sources, except the Hill Canyon WWTP, that would have been available for diversion and other uses in each of the months shown. As discussed in Section 5.3.2, the SWRCB's analysis of water availability for competing applicants is based on the assumption that the City, or those contracting with the City, will divert all the treated waste water available for diversion at the point of diversion after accounting for upstream channel losses and the 2.0 cfs which the City proposes to dedicate to fish and wildlife.

The remaining water present at the point of diversion is available to provide: (1) instream flows in excess of the 2.0 cfs provided by the City's dedication of treated waste water under Water Code section 1212, (2) water which can be diverted by the City pursuant to its application to appropriate 4.0 cfs of return flow from imported water, and (3) water which is available for diversion by applicants junior to the City.¹⁸

¹⁷ This decision informs the parties diverting water from Conejo Creek of the SWRCB's findings regarding the months of the year when naturally occurring runoff is present in the stream system for diversion under riparian rights. The majority of those diverters have signed agreements to purchase water to be provided by the City's project. Therefore, we anticipate that unauthorized water use will be curtailed and will be replaced by use of water delivered by pipeline to those diverters under the City's water rights.

¹⁸ The figures for unappropriated water shown in Appendix I reflect the assumption that diversions upstream of the City's proposed point of diversion which occurred during the months of December through April were pursuant to riparian rights. Continued diversions by riparians at historic levels during
(Footnote continued next page)

5.3.1 Water Availability for the City's Application 29408

The City seeks to appropriate treated waste water discharged from the Hill Canyon WWTP and return flow from imported water. The quantity of treated waste water produced by the City has fluctuated over the years (see Table 1) and will continue to fluctuate in the future. As discussed in Section 5.1.1, channel losses between the Hill Canyon WWTP and the point of diversion amount to approximately 2.0 cfs. In addition, the City proposes to dedicate 2.0 cfs of treated waste water reaching the point of diversion to fish and wildlife pursuant to Water Code section 1212. Therefore, the treated waste water potentially available for diversion at the City's proposed point of diversion equals the quantity discharged at the Hill Canyon WWTP minus 4.0 cfs to account for channel losses and the City's proposed dedication to fish and wildlife.

The City's NPDES permit requires daily monitoring of treated waste water discharged to the stream system. Any approval of the City's water right application and waste water change petition should be conditioned upon the City limiting its diversions of treated waste water to the rate of discharge as measured at the Hill Canyon WWTP minus a constant flow of 4.0 cfs.

Application 29408 also requests that the City receive the right to divert 4.0 cfs¹⁹ of return flow from imported water. As discussed

the December through April period would not be expected to affect the estimates of unappropriated water shown in Appendix I.

¹⁹ The City estimates 1,954 afa is available from South Fork Arroyo Conejo and 940 afa is available from North Fork Arroyo Conejo. This equals 2,894 afa (241 af per month), which is 4.0 cfs ($2,894 \text{ afa} \times [(1 \text{ cfs}/1.98 \text{ af/day} \times 1 \text{ year}/365 \text{ day}] = 4.0 \text{ cfs}$). The City asserts that urban return flow from use of imported water is constant throughout the year (City 31A), but has not provided
(Footnote continued next page)

in Section 8.3.1, the SWRCB concludes that the total bypass flow requirement for instream flows and public trust purposes is 6.0 cfs at the City's proposed point of diversion. Of this amount, 2.0 cfs is made up of treated waste water which the City proposes to dedicate to instream use pursuant to Water Code section 1212, thereby leaving an additional 4.0 cfs to be made up from other sources. Therefore, in order for water to be available to fully satisfy the City's request for a right to divert 4.0 cfs of return flow, the flow in Conejo Creek at the proposed diversion point, after deducting for treated waste water, must be 8.0 cfs or greater. A flow of 8.0 cfs for a 30-day period equals approximately 476 acre feet. Using the figures from Appendix I, Table 6 below shows the percentage of months during which flows in Conejo Creek over a 30-day period (after subtracting treated waste water reaching the point of measurement) were within a specified range.

TABLE 6					
Availability of Unappropriated Water in Conejo Creek (Not Including Treated Waste Water)					
Flow Data From Appendix I "Unappropriated Water" (AF)					
	0 to 237	238 to 356	357 to 475	476 to 594	>594
November 1- April 30	18.9%	7.8%	5.6%	6.7%	61.1%
May 1 to October 31	37.8%	20%	15.5%	8.9%	17.8%

evidence to support that conclusion. The SWRCB believes that it is likely that less water is required for landscape irrigation during the winter months than during the summer months and that it is reasonable to expect a commensurate reduction in urban return flows during the winter. To some extent, however, any reduction in urban return flow reaching Conejo Creek during the winter months would be offset by a reduction in the amount of channel losses for water from all sources.

As can be seen from Table 6, for the months of November through April, monthly flows near the City's proposed point of diversion exceeded 476 af approximately 68 percent of the time. For the months of May through October, the monthly flows exceeded 476 af only 27 percent of the time, but the flows were in excess of 238 af approximately 62 percent of the time. Stated another way, the analysis summarized in Table 6 shows that, for the November through April period, there was sufficient water to meet the desired bypass flow requirement and to allow the City to divert up to 4.0 cfs (in addition to treated waste water diversions) approximately 68 percent of the time. During the May through October period, there was sufficient water to meet bypass flow requirements and the City's 4.0 cfs diversion request only 27 percent of the time, but the flows exceeded the 4.0 cfs needed for bypass flows (not including 2.0 cfs from treated waste water) approximately 62 percent of the time.

The SWRCB is cautious about approving proposed appropriations where the quantity of water requested is expected to be available less than half the time. In this instance, however, the majority of water which the City seeks to appropriate is made up of treated waste water which is expected to be available with reasonable certainty. The additional 4.0 cfs which the City requests will be available most of the time during the November through April period, and there will be some water available for diversion approximately two thirds of the time during the remaining months. The proposed project is intended primarily to reduce groundwater pumping by existing water users. Therefore, in this instance, the SWRCB concludes that it is appropriate to approve the City's request to divert 4.0 cfs, in addition to diversion of treated waste water, on a year-round basis, subject to the City complying with the bypass flow requirement and all other conditions of this

decision. The SWRCB recognizes that the full 4.0 cfs (from sources other than treated waste water) frequently will not be available for diversion during some months.

In summary, the maximum rate of diversion allowed under the City's application and waste water change petition will depend upon the rate of discharge from the Hill Canyon WWTP. Of the 21.7 cfs projected capacity for the Hill Canyon WWTP, 2.0 cfs is assumed to go to channel loss between the point of discharge and the point of diversion. An additional 2.0 cfs will be dedicated to fish and wildlife as proposed by the City. Therefore, at the projected capacity of the Hill Canyon WWTP, the City will be able to divert up to 17.7 cfs or approximately 81.6 percent of waste water discharge from the plant, and approximately 89.8 percent of the waste water reaching the proposed point of diversion. During times when there is sufficient additional flow in the stream to meet bypass flow requirements, the City will be able to divert up to an additional 4.0 cfs attributable to return flow from imported water.

In addition to the treated waste water which reaches the City's point of diversion, the data in Table 6 show there usually is more than 4.0 cfs from other sources present at the City's proposed point of diversion. Adding 4.0 cfs of water from other sources to the 2.0 cfs of treated waste water dedicated to instream use will result in a minimum flow of 6.0 cfs below the City's proposed point of diversion under most conditions.

For the reasons discussed in Sections 8.0 through 8.3.2, the SWRCB believes it is desirable to provide a minimum instream flow of 6.0 cfs at the City's point of diversion. However, there are strong public policy considerations encouraging the use of

reclaimed water. (See Water Code section 461.) Use of reclaimed water should be especially encouraged in areas where it can help reduce ground water pumping and overdraft. In this instance, the SWRCB concludes that an appropriate balancing of competing interests results in allowing the City to divert its treated waste water at the rate of discharge from the Hill Canyon WWTP less 2.0 cfs to account for channel losses, less 2.0 cfs which the City proposes to dedicate to instream uses. The City's proposed diversion of additional water from other sources should be allowed only when a total of 6.0 for instream uses is bypassed at the City's point of diversion.

A final point regarding the quantity of the water available for appropriation by the City concerns channel losses above the City's proposed point of diversion and the 2.0 cfs which the City proposes to dedicate to fish and wildlife. The amount of water diverted and applied to beneficial use under any permit which the City receives on Application 29048 will not include the channel losses which occur between the Hill Canyon WWTP and the City's point of diversion, nor will it include the 2.0 cfs of water dedicated to fish and wildlife under Waste Water Change Petition WW-6.

Although the channel losses may serve to help recharge the adjoining groundwater basin, the same is true of channel losses from numerous other streams. The City did not file an underground storage supplement as part of its water right application (Cal. Code Regs., tit. 23, § 733), nor has it demonstrated how it could control the quantity of water which exits the stream channel as

deep percolation.²⁰ The quantity of water lost to deep percolation above the City's point of diversion is not available for appropriation at the point of diversion under Application 29408. Similarly, the 2.0 cfs which the City proposes to dedicate to fish and wildlife pursuant to Water Code section 1212 will not be considered to be water appropriated by the City, nor will it be available for appropriation by any other party.

5.3.2 Water Availability for Junior Applications

The eight junior applications filed with the SWRCB for appropriation of water in the vicinity of the City's project are located on Conejo Creek and Calleguas Creek. The availability of water for appropriation by the junior applicants is addressed below. Water is available for diversion by these applicants only when the flow in the stream exceeds the 6.0 cfs needed for instream flows and the quantity of water needed for satisfaction of prior rights. The analysis of water availability for the pending junior applications is complicated by several factors including the number of applications involved, the different locations of proposed points of diversion, the different sources of water involved, and the yearly and monthly flow fluctuations in Conejo Creek and Calleguas Creek. With the exception of water availability in April, the analysis below considers water availability for the applications on Conejo Creek separately from the applications on Calleguas Creek. Due to the absence of significant additional flow in Calleguas Creek during April, water availability for all the junior applications on both streams is evaluated jointly for April.

²⁰ Counsel for the City specifically acknowledged that there is no [ground water] recharge component to this project. (T, Vol. 1, 150:5-150:6.)

Availability of Water for Applications on Conejo Creek
(Applications 29581, 29816, 29819, 29959 and 30092)

The best information available to the SWRCB for use in determining the availability of water for appropriation by the junior applicants on Conejo Creek is provided by the data in Appendix I and the analysis of that data shown in Table 6. As discussed in Section 5.3.1 above, the data presented in Table 6 indicate that, for the period of May through October, there is sufficient water available to meet the City's request for diversion of 4.0 cfs of water (beyond the treated waste water which the City proposes to divert) only 27 percent of the time. Since the 4.0 cfs needed to satisfy the City's right is expected to be available less than half the time, the SWRCB concludes that there is insufficient water available to serve later priority applications on Conejo Creek for the period of May 1 through October 31.

The total rate of direct diversion requested under Applications 29582, 29816, 29819, 29959, and 30092 is 6.31 cfs. Maintaining a flow of 6.31 cfs for 30 days would take approximately 375 af. Water would be available for these applicants only after satisfying the City's demand under Application 29408 for 4.0 cfs (from sources other than treated waste water) and satisfying the need for 4.0 cfs for instream flows (in addition to the 2.0 cfs of treated waste water dedicated to fish and wildlife by the City). Therefore, accounting for instream flow requirements, the City's prior right under Application 29408 and the need for water to satisfy the junior applicants would require a total of approximately 850 af over a 30-day period.

The data in Appendix I show that, during the November 1 to April 30 period, 850 af is available approximately 50 percent of

the time.²¹ The unappropriated water figures shown in Appendix I are calculated using gage flows in Conejo Creek above Highway 101. The gage flows reflect existing water use under riparian claim by three of the applicants (Lamb, Fitzgerald Ranch, and Goldberg). Thus, a portion of the water to be appropriated under Applications 29582, 29816, 29819, 29959, and 30092 is already being diverted and was subtracted in determining the amount of "unappropriated water" for the months of December through April.²² Since there is no evidence that the Lambs, Fitzgerald Ranch, or Goldbergs intend to increase their water use in the winter months, the actual availability of water for the junior applicants on Conejo Creek would be expected to exceed the 50th percentile indicated by data from Appendix I.

Examination of the monthly flow data used in Appendix I and the evidence regarding current diversions under riparian claim on Conejo Creek, would indicate that there is water available for appropriation under Applications 29582, 29816, 29819, 29959, and 30092 from November 1 through April 30. However, as explained below in the discussion of water availability during April, the demand for water to serve diversions under downstream riparian claims on Calleguas Creek makes water unavailable for Applications 29959 and 30092 during April. The data indicate that there is sufficient water available in April of most years to satisfy proposed diversions under the earlier applications on Conejo Creek (Applications 29581, 29816, and 29819), even after accounting for downstream riparian demands on Calleguas Creek.

²¹ The need for water to satisfy the prior right to 0.82 cfs under License 12598 was taken into account in determining the "unappropriated water" figures in Appendix I.

²² Based on the quantities of water requested in their applications, the Lambs, Fitzgerald Ranch, and the Goldbergs may have been diverting up to 4.7 cfs of the 6.31 cfs requested by the junior applicants on Conejo Creek.

Availability of Water for Applications on Calleguas Creek
(Applications 29829, 30037, and 30194)

Applications 29829, 30037, and 30194 request a combined direct diversion rate of 5.23 cfs from Calleguas Creek. The flow data summarized in Table 4 indicate that, during the months of May through October, the average flow in Calleguas Creek below the confluence with Conejo Creek is less than the flow in Conejo Creek above Highway 101. Therefore, during those months, any higher flows that may have been present in Calleguas Creek above the confluence with Conejo Creek appear to have been diverted upstream.

As discussed in Section 5.3.1, our analysis of the available flow information indicates that there is sufficient water in Conejo Creek to fully satisfy the City's request under Application 29408 only about 27 percent of the time during the months of May through October. Based on the information in Table 4, it appears that the flow in Calleguas Creek during those months is contributed almost entirely by Conejo Creek. Since water is available to satisfy the City's application much less than half the time during those months, the SWRCB concludes that there is insufficient water available to approve the junior applications on Calleguas Creek during the months of May through October.

For the months of November through March, the data in Table 4 indicate that average flows in Calleguas Creek at Station 2 exceed the flows in Conejo Creek by between 7 cfs and 54 cfs. As discussed above, the available data indicate that there should normally be water available for the pending applications on

Conejo Creek for the months of November through March.²³ In view of the significantly higher flows in Calleguas Creek downstream of the confluence with Conejo Creek during the months of November through March, the SWRCB concludes that there is water available for appropriation under the pending applications on Calleguas Creek for the months of December through March.

Availability of Water During April for Junior Applications on Conejo Creek and Calleguas Creek

Due to the higher flows in Calleguas Creek during the months of November through March, it was possible to evaluate water availability of the Calleguas Creek applications separately from the Conejo Creek applications for those months. The flows reported in Table 4, however, indicate that during April, the flow in Calleguas Creek below the confluence is provided almost entirely from Conejo Creek inflow. Table 4 indicates that Calleguas Creek contributes an average of about 1 cfs (or 59 af) during April. The estimated monthly demand to meet riparian claims on Calleguas Creek downstream of the confluence is 163 af. Since Conejo Creek is the primary source of water to meet riparian demands on both Conejo Creek and Calleguas Creek in April, it is appropriate to examine water availability for applications on both creeks jointly for the month of April.

The availability of water for appropriation under the applications in question can be determined through a series of calculations based on evidence in the record. The calculations

²³ The additional flow in Calleguas Creek during the months of November through March is more than sufficient to meet the 5.23 combined direct diversion rate under Applications 29829, 30037 and 30194. During December through March, the flow in Calleguas Creek is also more than sufficient to meet an estimated demand of 163 af per month for identified diversions under riparian claim.

begin with the unappropriated water numbers for April shown in Appendix I. The unappropriated water figures for April shown in Appendix I are then adjusted to account for water needed to meet the City's demand under Application 29408, instream flow requirements, estimated downstream riparian demands, and the additional inflow from Calleguas Creek of approximately 59 af. The quantity of water available after accounting for those factors is used to determine water availability for the pending applications in order of priority by date of filing. The calculations are performed for each year to determine the percentage of years that water is expected to be available for appropriation under each application during the month of April.

The results of the calculations indicate that Applications 29581, 29816, and 29819 would be fully satisfied 47 percent of the years during April. Application 29829 would be fully satisfied only 27 percent of the time; Applications 29959 and 30037 would be fully satisfied 20 percent of the time; Application 30092 would be fully satisfied 13 percent of the time; and Application 30194 would be fully satisfied only 7 percent of the time.

The analysis described above leads the SWRCB to conclude that water is not ordinarily available for appropriation during April under Applications 29829, 29959, 30037, 30092, and 30194. The applicants requesting permits on Applications 29581, 29816, and 29819 also claim riparian rights. After accounting for the overlap in diversions under riparian claim and the proposed appropriations, the SWRCB concludes that the season of water availability for diversion under Applications 29581, 29816, and 29819 should include the month of April.

Summary of Conclusions Regarding Water Availability for Junior Applications

Based on the evidence in the record and the analysis described above, the SWRCB concludes that the season of diversion for any permits granted on Applications 29581, 29816, and 29819 should include the period November 1 through April 30. The season of diversion for any permits issued on Applications 29829, 29959, 30037, 30092, and 30194 should include the period November 1 through March 31. As in other instances, the issuance of a water right permit on these applications provides no guarantee that water will be available to the permittee at a particular time. In this instance, the evidence regarding wide variations in flow in response to storms provides an additional reason for caution by any parties intending to divert water under any permits issued on the pending applications.

5.4 Declaration of Fully Appropriated Streams Listing

The SWRCB's findings in this decision establish that there is insufficient water available to fully satisfy the applications pending before the SWRCB. With the exception of Applications 29408, 29581, 29816, and 29819, this decision excludes the period of April 1 through October 31 from the authorized season of diversion for the applications before the SWRCB in the present proceeding. The record establishes that, after meeting the instream flow requirements specified in this decision, the diversion of water under existing rights and the applications evaluated in this decision ordinarily will consume all available flow in the Calleguas Creek stream system upstream of Mugu Lagoon during April through October.

Based on our findings in this decision, the SWRCB concludes that the next revision of the Declaration of Fully Appropriated

Streams should include the Calleguas Creek stream system upstream of Mugu Lagoon, including all tributaries with hydraulic continuity. The period during which the Calleguas Creek stream system is fully appropriated should include April 1 through October 31.

6.0 PLACE OF USE FOR WATER APPROPRIATED BY CITY

The City has requested authorization to use project water within the City, Camrosa, and PCVWD. The land within the City is located about 400 feet upgradient of the Hill Canyon WWTP. (T, Vol. I, 304:19-305:4.) Correspondence in the file indicates that, due to cost considerations and other factors, the City has previously advised SWRCB staff that the City does not presently intend to use project water within City boundaries. (SWRCB 1, files on Application 29408, letter dated 3-20-96.) There is no evidence in the record of specific diversion facilities that the City would use to divert and deliver water for use within City boundaries. In the absence of evidence of the specific facilities proposed for diversion and delivery of water to that area, the place of use for water diverted under any permit issued on Application 29408 should not include the land within City boundaries.

The City also owns land located outside of the City limits within the boundaries of Camrosa. (Staff 1, files on Application 29408, 4-95 engineered drawings and 8-30-95 letter.) As shown on the map provided by the City, the land is located downgradient of the Hill Canyon WWTP, and Conejo Creek flows through one of the City-owned parcels. (Staff 1, files on Application 29408, 4-95 engineered drawings.) The change petition filed by the City indicates that the City plans to utilize 1,440 afa to irrigate these lands. (Staff 1, files on Application 29408, 6-12-95

change petition.) The City is exploring the feasibility of developing a regional recreational facility at the site which would include a golf course and equestrian trails. (T, Vol. I, 136:10-136:21.)

The City has not yet determined the rate of diversion or the specific type of diversion facilities needed to serve the proposed regional recreational facility. (T, Vol. I, 136:4-139:19.) In addition, the City has not yet produced the environmental documentation required under CEQA for the proposed regional recreational facility. (T, Vol. I, 136:22-137:12.) In the absence of more specific information about the proposed diversion facilities and an environmental document evaluating the impacts of the proposed facility, the SWRCB concludes that the place of use for water diverted under Application 29408 should exclude the City-owned lands in Camrosa which are proposed to be used for the regional recreational facility. When the completed environmental documentation and more specific information about the diversion facilities needed to serve the proposed facility are available, the City can petition to add a point of diversion and amend its place of use under Application 29408. The places of use for Application 29408 approved in this decision are the Pleasant Valley County Water District and the Camrosa Water District, excluding the land owned by the City within Sections 24 and 25, T2N, R20W, SBB&M.

7.0 MAINTENANCE OF REGIONAL GROUNDWATER BASINS

The three groundwater basins within the project area are the Oxnard Plain Basin, the Pleasant Valley Basin and the Santa Rosa Basin. As noted in Section 2.0, seawater intrusion from overpumping is a primary concern in this area. Seawater intrusion occurs in the Point Mugu area. (City 25, p. 161.) In addition to

seawater intrusion issues, groundwater pumping has resulted in overdraft of some of the local groundwater basins.

The upper aquifer system in the Oxnard Plain is defined by the Oxnard and Mugu aquifers. The Oxnard and Mugu Aquifer systems do not underlie the Pleasant Valley Basin. (City 9, p. 67.) The basin is separated from the Las Posas and Santa Rosa Basins by folding and faulting which act as groundwater barriers. (City 9, p. 67.) The confined Fox Canyon Aquifer is the most important water-bearing zone in the basin, and it is believed to be in an overdraft condition. (City 9, p. 67.)

In the Pleasant Valley Basin, 1975 groundwater levels showed a cone of depression existing in the vicinity and north of the City of Camarillo. As discussed in Section 5.1.1, the Santa Rosa Basin was in a state of overdraft until the City began discharging treated waste water into the stream system.

In 1982, the Fox Canyon Groundwater Management Agency (GMA) was formed to oversee the groundwater basins of the Oxnard Plain, Pleasant Valley and North Las Posas. (City 25, p. 159.) The Fox Canyon GMA instituted an extraction reduction ordinance which requires pumpers within the Fox Canyon GMA boundaries to reduce their pumpage by 25 percent over the next 25 years, beginning with a 5 percent reduction by 1992. (City 25, p. 164.) If users can prove an irrigation efficiency of 80-percent efficiency, then reductions may not be required. The plan includes a prohibition of drilling new wells in areas subject to seawater intrusion. (City 25, p. 168.)

The record establishes that the groundwater basins in the project area are subject to significant impacts due to the levels of

ongoing pumping. The City's project has the potential to impact these groundwater basins by affecting groundwater recharge in the Pleasant Valley and Oxnard Plain areas immediately adjacent to Conejo and Calleguas Creeks as instream flows are reduced.

(City 2, Vol. 2, p. 3-40.) The City has indicated that the primary objective of its project is to utilize reclaimed and recaptured foreign imported water for irrigation of lands within Camrosa and PVCWD to help alleviate Ventura County's reliance on imported water and local groundwater supplies. (City 2, Vol. 1, p. 2-4.)

The RWQCB staff requests that any permit issued to the City take into consideration the need to utilize project water for the purpose of regulating and modifying existing groundwater pumping, rather than putting new lands into production or increasing the use of water on lands currently in production. (RWQCB 1.)

Therefore, the RWQCB staff requests that the SWRCB condition any approval of the City's project in the following manner:

(1) require a reduction of groundwater pumping by an amount equal to or greater than the diversion of water from Conejo Creek for the City's project; (2) limit use of water from the City's project lands which are presently irrigated; and (3) require the City to develop a water balance for the Calleguas and Oxnard Plain groundwater basins. (RWQCB 1, 1B, and 2.)

In this instance, water developed by the City's project will go to numerous water users who will be utilizing water from both ground water and surface water supplies which are subject to different controls based on the particular place of use and the source of supply. In addition, ongoing shifts in land use from agriculture to urban uses affect the area where reclaimed water from the City's project is in demand. Finally, the SWRCB

recognizes that much of the land within the Calleguas and Oxnard Plain groundwater basins is outside of the City's control.

The SWRCB agrees with the RWQCB staff's objective of ensuring that the water developed by the City's project is used to help alleviate existing water supply problems rather than to increase overall water use in the area. However, the number of water suppliers and water users involved with the City's proposed project, in combination with land use patterns in the proposed place of use and the City's lack of control over areas outside of City boundaries, make it infeasible to condition approval of the City's project in the manner requested by the RWQCB staff. Although the SWRCB declines to impose the requirements recommended by the RWQCB staff, it is important that any water appropriated by the City be used very efficiently. Inclusion of a modified version of Standard Permit Term 29 in any water right permit issued to the City will help to promote efficient water use. Term 29B requires the permittee to consult with the Division of Water Rights to develop and implement a water conservation plan. The proposed plan is to be submitted for approval within one year or such further time as may be allowed for good cause shown.

In this instance, the required plan should be developed in conjunction with Camrosa and PVCWD and should cover all use of water diverted under Application 29408. In reviewing the adequacy of the City's water conservation plan, the SWRCB will take into consideration the extent to which water use within the permittee's place of use conforms to the overall 80 percent irrigation efficiency standard applicable to lands within the Fox Canyon GMA and the extent to which the City, Camrosa, and PVCWD

have adopted and are complying with widely accepted standards for efficient water management practices in California.²⁴

8.0 ENVIRONMENTAL AND PUBLIC TRUST ISSUES

In evaluating the environmental and public trust issues regarding the proposed project, the SWRCB reviewed the information presented in the City's environmental documents prepared pursuant to the provisions of the California Environmental Quality Act ("CEQA," Public Resources Code section 21000 et seq.) and other evidence presented at the hearing. The environmental and public trust issues are evaluated in Sections 8.1 through 8.3.3 below.

8.1 Compliance With CEQA

Under CEQA, the City is the lead agency responsible for the preparation of appropriate environmental documents which evaluate the potential environmental impacts of the project. In November 1991, the City completed a Final Environmental Impact Report (FEIR) for the proposed project, and certified it in January 1992. (City 1 and 3A.) Subsequent to certification of the 1991 FEIR, a number of changes occurred with respect to the proposed project which compelled the City to prepare a Final Subsequent EIR (FSEIR) for the project in April 1996, which was certified by the City in May 1996. (City 2 and 38A.) The changes include:

- (1) changes in the proposed allocation and physical distribution of water;
- (2) shifts in financial authorities and responsibilities for various aspects of the project;
- (3) reduction in the projected available supply of treated waste

²⁴ SWRCB Resolution No. 97-018 endorsed the efforts of the Department of Water Resources in developing a memorandum of understanding regarding efficient water management practices by agricultural water suppliers (MOU). A relevant factor in the SWRCB's review of the City's water conservation plan will be whether the City, Camrosa, and PVCWD have agreed to abide by the water management practices established in the MOU.

water; (4) relocation of the proposed point of diversion for the Conejo Creek Diversion Project (CCDP) diversion structure; (5) revisions of the Ventura County Water Management Plan and the California Regional Water Quality Control Plan; and (6) new information on special-status species. Portions of the 1991 FEIR were incorporated into the 1996 FSEIR. (City 2, Vol. 1, pp. S-1 & 1-1 to 1-4; City 2, Vol. 2, pp. S-1; T, Vol. II, 333:11-334:20; and City 34A, pp. 1-2.)

The 1996 FSEIR recognizes that the design of the diversion works and appurtenant facilities had not yet been finalized and that further supplemental CEQA documents would be required prior to diversion of water under the project. (City 2, Vol. 1, pp. 1-3, & 2-3 to 2-4.) In February 1996, a draft negative declaration was circulated by Camrosa for the Conejo Creek Diversion Project (CCDP). (City 16; City 27A, p. 7; T, Vol. I, 54:20-55:7.) The SWRCB takes official notice that, subsequent to the hearing, Camrosa adopted a final mitigated negative declaration for the diversion structure on May 23, 1996. (Staff 1, A29408, Camrosa May 23, 1996 Final Mitigated Negative Declaration for the CCDP.)

In August 1989, the City adopted a negative declaration for its proposed "flow control and monitoring station" to be installed along Arroyo Conejo approximately 7 miles upstream of the City's proposed point of diversion. (City 7, City 27A, p. 6; City 32A.) The City's stated purpose for this facility is to provide control and measurement of the water in the stream channel at a location downstream of the confluence of the North and South Forks of Arroyo Conejo.

The SWRCB is a responsible agency for the project under CEQA. (Cal. Code. Regs., tit. 14, § 15381.) In this capacity, the

SWRCB must review and consider the above-described environmental documents together with other information in the record to reach its own conclusions regarding approval of the proposed project. (Cal. Code. Regs., tit. 14, § 15098(a).) Where appropriate, the SWRCB must make the applicable findings required under CEQA for each significant environmental impact identified. (Cal. Code Regs., tit. 14, § 15091.) The SWRCB is also responsible for requiring mitigation of significant environmental impacts of those parts of the project subject to its jurisdiction which it decides to approve. (Cal. Code Regs., tit. 14, § 15096(g).)

8.2 Environmental Impacts for Which Mitigation Measures are Proposed in the EIR and Related Documents

The City's environmental documents identify a number of significant environmental impacts of the proposed project for which the City proposes various mitigation measures. The environmental impacts identified by the City which are directly related to the diversion of water from Conejo Creek are discussed below.

8.2.1 Impacts on Water Quality

Both the 1996 FSEIR and the 1996 final mitigated negative declaration for the Conejo Creek diversion structure state that construction activities associated with the diversion structure and appurtenant facilities may cause significant short-term adverse impacts on downstream water quality in Conejo Creek, Calleguas Creek, and Mugu Lagoon due to soil erosion and sedimentation. According to the 1996 final mitigated negative declaration, these impacts would include the following:

(1) increase in turbidity that may exceed water quality objectives for the Calleguas Creek watershed in the 1994 Regional Water Quality Control Plan; (2) physical adverse effects on

beneficial uses related to fisheries habitat and wetlands; (3) reduction in light penetration which may reduce primary productivity which, in turn, may reduce plankton food supply for fish; (4) smothering of fish eggs and larvae, and benthic invertebrates; (5) exacerbation of the existing siltation problem in Mugu Lagoon, which is causing loss of saltmarsh wildlife habitat; and (6) mobilization of pollutants previously trapped within the sediment which may be toxic to downstream fish and aquatic wildlife. (City 2, Vol. 2, pp. S-3 to S-4 & 72-73; Staff 1, files on Application 29408, Camrosa May 23, 1996 Final Mitigated Negative Declaration for the CCDP, pp. 21-23.)

To mitigate for such potential impacts, the 1996 FSEIR proposes that an Erosion Control and Revegetation Plan be developed and implemented jointly by Calleguas Municipal Water District (Calleguas MWD) and Camrosa which includes the following measures: (1) removal of no more vegetation than is necessary to complete construction operations; (2) placement of rock, rip-rap, or other erosion protection materials in disturbed areas where vegetation cannot reasonably be expected to become reestablished; (3) installation of temporary fills of nonerosive materials to be removed immediately upon completion of construction; (4) site preparation to divert runoff from steep erodible surfaces to stable areas of low erosion potential; and (5) installation and use of temporary offstream silt catchment basins. (City 2, Vol. 2, pp. S-3 to S-4 & 72-73.)

Although the 1996 final mitigated negative declaration for the diversion structure acknowledges the potential significant impacts of construction on downstream water quality, it does not include the specific mitigation measures identified in the 1996 FSEIR. The 1996 final mitigated negative declaration only

mentions planned temporary rerouting of surface flow during project construction as being sufficient to ensure such impacts would not be significant. (Staff 1, files on Application 29408, Camrosa May 23, 1996 Final Mitigated Negative Declaration for the CCDP, 21-23.) In view of the above, this decision contains a condition requiring the City, in cooperation with Camrosa and Calleguas MWD, to develop and implement a satisfactory Erosion Control and Revegetation Plan which includes the specific mitigation measures identified in the City's 1996 FSEIR. With inclusion of this condition, construction of the proposed water diversion structure and appurtenant facilities should not cause significant adverse impacts on water quality.

8.2.2 Impacts on Southwestern Pond Turtles

According to the 1996 FSEIR, the proposed project's diversion will result in the reduction of surface flows in lower Conejo Creek, which will eliminate a significant amount of open water (pools and riffles) and emergent freshwater marsh habitat important to populations of the southwestern pond turtle (*Clemmys marmorata pallida*). As a result, significant losses to southwestern pond turtle populations are expected downstream of the point of diversion. The City's FSEIR classifies this as a significant impact. The southwestern pond turtle is listed as a Species of Special Concern by DFG and the U.S. Fish and Wildlife Service (USFWS). (City 2, Vol. 1, pp. 3-49, 3-57 & 3-64; City 2, Vol. 2, pp. S-4, 87, 94-95 & 103; T, Vol. II, 337:16-338:6, 356:18-356:21, 430:21-432:7.)

In the 1996 FSEIR, the City proposes to mitigate for the significant impact of the project on southwestern pond turtles and their habitat, with two distinct types of mitigation measures. The first measure is maintenance of minimum surface

flows downstream of the point of diversion. The second proposed mitigation measure is improvement of emergent freshwater marsh habitat throughout the Conejo-Calleguas Creek system, including upstream of the point of diversion. These proposed mitigation measures are evaluated below.

Maintenance of Minimum Surface Flow

In the 1996 FSEIR, the City proposes to provide a guaranteed minimum flow of 2 cfs (1,460 afa) which would bypass the point of diversion. The stated purpose of this minimum flow would be to provide a stable, but minimal, level of protection for instream beneficial uses (riparian and wetland habitat maintenance) downstream. Under the City's proposal, a minimum flow of 2 cfs is expected to occur for approximately a one-mile reach between the point of diversion and the Camarillo WWTP discharge outfall. (City 2, Vol. 2, pp. S-1, 57, 60, 62, 80, 90 and 91.)

At the Camarillo WWTP discharge outfall, the City expects a discharge of 3.2 cfs of treated waste water to raise the minimum flow in the stream channel to 5.2 cfs. (City 2, Vol. 2, p. 90.) The 1996 FSEIR considers the additional inflow as providing a higher degree of protection for instream beneficial uses (riparian and wetland habitat maintenance) downstream of the Camarillo WWTP outfall. The location of the Camarillo WWTP outfall is of particular importance because it occurs near the center of distribution of the largest concentration of southwestern pond turtles observed in lower Conejo Creek by the City's environmental consultants. (City 2, Vol. 2, pp. 62, 87 and 89-91.) The City's assumption that the future discharge to Conejo Creek from the Camarillo WWTP will be about 3.2 cfs conflicts with other evidence in the record that Camarillo WWTP currently sells a portion of its treated waste water to a nearby

irrigator. (See Section 5.1.4) Although the City cannot control the Camarillo WWTP discharge, the City's assessment of environmental impacts and development of proposed mitigation measures to address those impacts are based on the assumption that the Camarillo WWTP will discharge 3.2 cfs of treated waste water to Conejo Creek.

Preservation of sufficient flows downstream of the point of diversion is necessary to minimize impacts of the project on southwestern pond turtles and their habitat. As discussed in Section 8.3.1 below, DFG presented testimony that a minimum flow of 6.0 cfs should be provided at the point of diversion for protection of riparian habitat and wildlife. Under the DFG recommendation, the instream flow would increase below the Camarillo WWTP outfall. Although the minimum instream flow level recommended by DFG is substantially less than the current flows, the DFG recommendation provides for greater instream flows than proposed by the City. Testimony of the City's witnesses is consistent with the conclusion that providing a minimum flow of 6.0 cfs at the point of diversion would reduce the impact of the proposed diversion on southwestern pond turtles and their habitat. (T, Vol. II, pp. 337:16-337:25; 433:6-434:19.) In the absence of a showing that the City has developed a habitat improvement program that would fully compensate for loss of turtle habitat at lower flows, the SWRCB concludes that a minimum flow of 6.0 cfs at the City's point of diversion should be provided for protection of the southwestern pond turtles and their riparian habitat.²⁵

²⁵ The relationship between flows and other riparian resources is addressed in Section 7.3.1 below.

Improvement of Open Water and Emergent Freshwater Marsh Habitat

The 1996 FSEIR proposes improvements in the amount and quality of open water and emergent freshwater marsh habitat to compensate for the expected loss of southwestern pond turtle habitat downstream of the point of diversion. A mitigation program for developing and implementing the specific habitat improvements would be carried out by the City, in cooperation with Camrosa, Calleguas MWD and Ventura County Flood Control District (Ventura County FCD). The mitigation program would receive prior approval from DFG, USFWS, and the U.S. Army Corps of Engineers. It would include the following elements: (1) creation of new or more open water (pools and riffles) and emergent freshwater marsh habitat areas elsewhere in the Conejo-Calleguas Creek watershed; (2) relocation of southwestern pond turtles from habitat expected to be jeopardized by the project to safer areas where suitable new habitat has been created; (3) development and implementation of an effective program to reduce populations of bullfrogs which prey on turtle hatchlings and eggs; (4) implementation of a comprehensive monitoring program to evaluate the effectiveness of the mitigation program in preventing a net loss of turtles and their habitat; and (5) development and implementation of additional mitigation measures, such as increasing the minimum flow bypass amount, if a net loss of turtles or their habitat is detected. (City 2, Vol. 2, pp. S-4 to S-6, 21-22, 26, and 94-97.)

Except for the proposed bullfrog control plan, the mitigation plan identified in the 1996 FSEIR and subsequently adopted by the City provides very little detail on the plan elements outlined above. The 1996 FSEIR and testimony from the City's witnesses at the hearing assert that a detailed mitigation plan will be developed in subsequent CEQA documents prepared by Camrosa for

the CCDP. (City 2, Vol. 2, pp. 94 and 95; T, Vol. II, 433:14-434:19.)

However, Camrosa's 1996 final mitigated negative declaration on the CCDP, adopted after the SWRCB hearing, does not address mitigation for impacts associated with reduced flows downstream of the point of diversion. The only potential impacts dealt with are those associated with a short-term disturbance of habitat during construction of the diversion facility, and measures to prevent entrainment of aquatic wildlife at the diversion intake. Further, Camrosa's response to the City's comments on the draft negative declaration clearly states that mitigation measures to offset habitat losses due to reduced surface flow should be addressed during the water right process for the City's application, not as part of Camrosa's construction of the diversion facilities. (City 2, Vol. 2, pp. S-4 to S-6, 21-22, 87, 94-97; City 38B, p. 1 and Exhibit C, pp. 5-10; T, Vol. II, 387:7-388:11, 399:21-400:24; Staff 1, files on Application 29408, Camrosa May 23, 1996 Final Mitigated Negative Declaration for the CCDP, 29-31, response to April 22, 1996 comments from DFG and response to May 16, 1996 comments from CH2MHill/City of Thousand Oaks.)

The record shows that both the City and Camrosa acknowledge the need for additional mitigation measures to offset loss of turtle habitat, but neither appear to accept responsibility for developing and undertaking those measures. The evidence discussed above establishes that more specific mitigation and monitoring measures need to be identified to ensure that the habitat improvement program will be successful. Consequently, this decision requires that, prior to the commencement of construction of diversion works and prior to any diversion of

water at the point of diversion, the City, in cooperation with Camrosa, Calleguas MWD and Ventura County FCD, shall develop and implement a detailed mitigation and monitoring plan for the overall project, which incorporates the elements outlined above. A plan, acceptable to the SWRCB, must ensure that proposed habitat improvements will provide for no net loss of southwestern pond turtles or their habitat in Arroyo Conejo, Conejo Creek or Calleguas Creek. Implementation of these conditions, together with the instream flow requirements established in this decision, should reduce identified impacts to southwestern pond turtles or their habitat to less than significant levels.

8.3 Other Issues Raised by the Department of Fish and Game

The DFG raised several issues regarding potential impacts of the project on public trust resources. As discussed below, DFG contends that the City has not proposed adequate mitigation measures for these impacts in the environmental documents for the project. Regardless of any responsibility the City or others may have under CEQA, the SWRCB has an independent obligation to consider the effect of proposed water diversions on public trust resources and to protect those resources where feasible.

(*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, [189 Cal.Rptr. 346].) Similarly, Water Code section 1253 directs the SWRCB to allow water appropriations under such terms and conditions as will best develop, conserve, and utilize in the public interest the water sought to be appropriated.²⁶

²⁶ The City argues that, due to the presence of imported water in Conejo Creek, the public trust doctrine should not be relied upon as a basis for establishing conditions for protection of fish, wildlife and other instream resources in this instance. However, counsel for the City concedes that there is independent statutory authority for protection of fish, wildlife and other environmental resources under Water Code section 1243, Water Code section 1253, and Fish and Game Code section 5937. Although the SWRCB does not necessarily agree with the limitations on the public trust doctrine suggested by the City, the SWRCB agrees that the statutes cited by the City (and other.
(Footnote continued next page)

8.3.1 Impacts on Riparian Habitat

The DFG has consistently advised both the City and SWRCB staff that it considers the City's proposed minimum bypass flow of 2.0 cfs at the point of diversion as being insufficient to protect downstream riparian habitat and the wildlife it supports. DFG biologist Ms. Morgan Wehtje testified that the proposed minimum bypass flow of 2.0 cfs was derived from a 1980 U.S. Department of Interior (USDI) report recommendation that was not substantiated by any biological evidence. DFG recommends that a minimum bypass flow of 6.0 cfs be required at the point of diversion and that 9.2 cfs be required at the location of the Camarillo WWTP outfall. The latter flow recommendation takes into account the expected discharge of 3.2 cfs from the Camarillo WWTP. However, the DFG explained it was more concerned about the quantity of water in the stream than the source of water. (Staff 1, files on Application 29408, and WW-6; DFG 96-4, p. 2-4; DFG 96-5; T, Vol. II, 467:3-469:16 and 498:4-500:15.)

Despite lengthy environmental documents prepared in connection with the project, it appears that the City gave little consideration to determining the appropriate level of instream flows needed to protect public trust resources. Environmental consultant Dawn Nilson, who supervised preparation of the City's environmental documents, testified that her firm was never asked to recommend an instream flow level to protect the existing vegetation and wildlife in the project area, nor did her firm

statutes) provide sufficient legal authority for the conditions established by this decision for protection of fish, wildlife and other environmental resources. Therefore, it is not necessary to resolve the dispute over the limits of public trust authority in order for the SWRCB to allow for appropriation of water by the City on the conditions established in this decision.

ever evaluate the environmental effects of a higher level of minimum instream flows than what was proposed by the City. (T, Vol. II, 430:11-430:19.) City consultant Mr. Gary Nuss testified that the 2.0 cfs minimum instream flow proposal was derived from a 1981 report on the Ventura County Water Management Project prepared by the USDI. The report proposed a flow of 2.0 cfs for the purpose of maintaining riparian habitat along Conejo Creek. (T, Vol. I, 283:15-285:24.)

No additional information was provided on the scientific rationale used to determine the proposed instream flow of 2.0 cfs or what degree of protection of riparian habitat was intended to be achieved by this flow. Dr. Freas testified that the biological basis for the adequacy of the 2.0 cfs flow was not an issue that the City's environmental consultants were to evaluate. Their assignment was to evaluate the environmental impacts of the proposed 2.0 cfs minimum bypass flow. Dr. Freas testified that the proposed bypass flow of 2.0 cfs would not maintain fish and wildlife habitat at pre-project levels and that she has never contended that it would. (T, Vol. II, 377:12-378:7.)

Dr. Freas testified that the proposed reduction in surface flow to 2.0 cfs at the point of diversion would lead to a reduction in the width of the active stream channel downstream which, in turn, would cause a decrease in the amount of nonwoody freshwater emergent marsh vegetation (dominated by cattails) that could be supported. Dr. Freas further explained that this reduction in freshwater emergent marsh habitat is expected to be offset by an increase in the amount of woody riparian vegetation (dominated by willows) that depend primarily on shallow groundwater, not necessarily on surface flow. Dr. Freas concluded that although there would be a shift in available riparian habitat from the

non-woody freshwater emergent marsh type to the woody riparian type, there would be no net loss of riparian/wetland habitat overall. She also stated that channel scour caused by extreme storm events and the channel clearing and maintenance activities of Ventura County FCD may be more important factors than the proposed flow reduction, in terms of determining the amount and quality of riparian/wetland habitat available. (T, Vol. II, 351:5-356:4, 359:22-361:10, 378:1-7, 382:6-384:8, 387:3-388:11, and 450:11-451:18; City 33A, pp. 4-7.)

The evidence presented by the City does not establish that a minimum bypass flow of 2.0 cfs is adequate to protect important freshwater riparian/wetland habitat downstream of the point of diversion or the wildlife species supported by that habitat. Although existing open water and freshwater emergent marsh vegetation may be replaced with woody riparian habitat, the 1996 FEIR and Dr. Freas' testimony establish that the proposed flow reduction to 2.0 cfs will cause substantial losses in the amount of open water (pools and riffles) and emergent freshwater marsh habitats available downstream of the point of diversion. Testimony by Ms. Wehtje indicates that DFG is particularly concerned with minimizing the type of loss of available open water and freshwater emergent marsh habitats which could be caused by the project. (T, Vol. II, 494:22-500:15; DFG 96-4, pp. 1-4.)

Both the City and DFG appear to agree that mitigation of potential impacts on riparian public trust resources will require actions to prevent or substantially reduce any net loss of existing open water and freshwater emergent marsh habitats. As discussed in Section 8.2.2 above, this decision requires that the City undertake specific mitigation and monitoring measures to

prevent a net loss of southwestern pond turtles or their habitat. These mitigation measures should also help protect other wildlife resources dependant upon the same type of riparian habitat. However, at this time, the specific mitigation measures which the City or others plan to take to prevent a net loss of open water and freshwater emergent marsh habitats have not been identified and the likelihood of success of those measures cannot be evaluated.

Neither the City nor DFG has done any detailed study of the amount of instream flow that should be provided to protect riparian and instream resources downstream of the proposed diversion, but both agree that a minimum flow of 2.0 cfs would adversely affect those resources. The City acknowledges that "[n]egative impacts of the project, including reduced fish populations, altered plant and animal species composition within Conejo and Calleguas Creek[s], and a potential reduction in habitat for western pond turtles could be minimized by diverting less water...." (City 2, Vol. 2, p. S-8.)

DFG presented testimony that the Calleguas Creek stream system provides habitat for many species of wildlife and that the area is extremely important for migrating and wintering songbirds, waterfowl, and shorebirds. (DFG 96-4, p.1.) After foraging in nearby fields in the morning, flocks of wading and shorebirds move to the creek bottoms later in the day. (DFG 96-4, p. 1.) In addition to the previously discussed southwestern pond turtle, DFG presented testimony that the variety of instream habitats in the project area support amphibians such as the tree frog and western toad. The stream corridors of the Calleguas Creek stream system also provide a movement corridor for mammalian species. (DFG 96-4, p. 2.) The DFG testimony concludes that a reduction

of flows to 2.0 cfs below the City's point of diversion would "remove most if not all functioning pool/riffle habitat supporting SWPT [southwestern pond turtle] and waterfowl." (DFG 96-4, p. 2.) Other wildlife which would be displaced include redwing and yellowheaded blackbird, the Sora rail, Virginia rail and snipe. (DFG 96-4, p.2.)

Based on DFG's evaluation of public trust resources in the project area, the scarcity of comparable riparian habitat in surrounding areas, and the need for continued instream flows below the point of diversion, DFG recommends that the SWRCB establish a minimum bypass flow of 6.0 cfs at the City's proposed point of diversion. In order to protect instream beneficial uses and wetland habitat, staff of the RWQCB recommend providing minimum instream flows at a level satisfactory to DFG. (RWQCB 1B, letters dated 5-17-95 and 12-8-95.)

In addition to the SWRCB's duty under the public trust doctrine to protect public trust resources where feasible, our consideration of instream flows is subject to statutory guidance provided in the Fish and Game Code. Fish and Game Code section 2780 provides, in part:

"Protection, enhancement, and restoration of wildlife habitat and fisheries are vital to maintaining the quality of life in California. As the state's human population increases, there is an urgent need to protect the rapidly disappearing wildlife habitats that support California's unique and varied wildlife resources."

More specifically, Fish and Game Code section 5937 requires that the owner of a dam bypass sufficient water to maintain in good condition any fish that exist or may be planted below the dam. Under Fish and Game Code section 45, "fish" are defined to include wild fish, mollusks, crustaceans, invertebrates, and amphibians.

Based on the record before us, the SWRCB concludes that it is reasonable to provide a minimum bypass flow of 6.0 cfs at the City's proposed point of diversion as recommended by DFG. However, as discussed in Section 5.3.1 above, there are strong public policy considerations supporting the use of reclaimed water. In this instance, the SWRCB believes that the City's should not be required to provide more than 2.0 cfs of treated waste water for meeting the 6.0 cfs needed for instream flows below the point of diversion. The remaining 4.0 cfs for instream flows below the point of diversion will normally be provided by natural flow or return flow from imported water. With the exception of allowing the City's diversion of treated waste water, any permits authorizing diversion of water from Conejo Creek or Calleguas Creek issued on the pending applications should be subject to a minimum instream flow requirement of 6.0 cfs.

Under present conditions, the flow below the City's point of diversion will be augmented by flow from the Camarillo WWTP approximately one mile downstream. However, since the City has no control over inflow from the Camarillo WWTP, the SWRCB concludes that it would not be reasonable to require the City to maintain an instream flow in Conejo Creek of 9.2 cfs at the Camarillo WWTP outflow as recommended by DFG. The 6.0 cfs instream flow requirement established in this decision is based

on the record before the SWRCB at this time. If evidence is developed at a future time which demonstrates that revision of this requirement is appropriate, the SWRCB can revise the instream flow requirement at that time in the exercise of its continuing authority.

8.3.2 Impacts on Endangered Saltmarsh Bird's Beak at Mugu Lagoon

DFG biologist Ms. Mary Meyer testified that the DFG is concerned about potential impacts of the proposed diversion on the saltmarsh bird's beak (*Cordylanthus maritimus* ssp. *maritimus*), a state-listed and federally-listed endangered species. This annual plant occupies high coastal salt marsh habitat around Mugu Lagoon, germinates after heavy winter rainfall, and then grows through spring and summer until it sets seed and dies. Ms. Meyer stated that the proposed diversions might cause losses to existing populations of this plant and its habitat, or inhibit plans for its recovery, through increases in groundwater salinity brought about by reduction of freshwater surface flows from Calleguas Creek into the lagoon.

Ms. Meyer bases her concern on a December 6, 1985 recovery plan for this species, prepared by the USFWS (1985 USFWS recovery plan). Consequently, Ms. Meyer recommended that no reduction in freshwater surface flows into Mugu Lagoon should be allowed during the spring and summer growing period until: (1) the City conducts studies, acceptable to DFG, on surface water/groundwater salinity/plant growth response relationships showing that such reductions would not harm this species or inhibit its recovery; or (2) if such studies show there would be impacts, the City develops additional mitigation and monitoring measures acceptable to DFG to prevent such impacts. (T, Vol. II, 473:1-478:3, 485:3-487:2; DFG 96-2; DFG 96-2A.)

The 1996 FSEIR and testimony by the City's environmental consultants conclude that a reduction in surface flows into Mugu Lagoon should not affect the saltmarsh bird's beak or its habitat. The reasons given to support this conclusion are summarized as follows:

1. The saltmarsh bird's beak is a salt-tolerant, annual plant species which tends to be distributed in high coastal saltmarsh habitat within a narrow strip above the elevation of tidal influence, but below the elevation of nonsalt-tolerant plant species.
2. Although the plant is salt-tolerant, it cannot withstand regular tidal inundation.
3. During the seed germination phase, the plant requires a lower soil salinity (less than 12 parts per thousand total dissolved salts-TDS) than can be tolerated during the vegetative growth phase.
4. Germination of saltmarsh bird's beak appears to be highly correlated with a temporary reduction of shallow soil salinity brought about by direct rainfall during the winter season, not by reduction of lagoon salinity.
5. Even if reduction of lagoon salinity were a potential factor in producing favorable soil-water salinity for plant germination, the proposed reduction in freshwater flow into Mugu Lagoon is so small, in comparison to the large volume of seawater tidal exchange, that the resultant salinity increase

in the lagoon due to the proposed flow reduction would be almost negligible (less than 1.5 percent).

(City 2, Vol. 2, pp. 20-21, 88, 92-93 and 101; City 33A, pp. 7-10; City 39; T, Vol. I, 258:3-259:20; T, Vol. II, 357:21-359:8, 362:21-365:25, and 369:5-370:16.)

There was considerable testimony presented by the City and DFG regarding the potential effects of flow reduction in Calleguas Creek on saltmarsh bird's beak. However, the evidence which the SWRCB finds most persuasive in this instance concerns the location of the existing plant populations relative to the mouth of Calleguas Creek. Dr. Freas' testimony and City Exhibit 39 indicate that most of the existing plant populations were found in a separate wetland area at least 0.5 mile northwest of the western arm of Mugu Lagoon and over 1.5 miles away from the mouth of Calleguas Creek. Only a few plant populations appear to exist near the outermost edge of the western arm of the lagoon, over one mile away from the mouth of Calleguas Creek.

If maintaining existing freshwater flow from Calleguas Creek into the lagoon is important to this plant, then populations would be expected to occur closer to the mouth of the creek along the central basin. In addition, no evidence was presented documenting any freshwater seeps near Mugu Lagoon which: (1) may be influenced by Calleguas Creek; and (2) support existing populations of this plant. (T, Vol. II, 365:4-369:12; City 39.) Based on the evidence before us, the SWRCB concludes that the populations of saltmarsh bird's beak in the Mugu Lagoon areas should not be adversely affected by the water diversion project approved in this decision.

8.3.3 *Impacts of Proposed Flow Control and Monitoring Station*

The City proposes to install a "flow control and monitoring station" along Arroyo Conejo at a location approximately 7 miles upstream of the point of diversion. The City considers this necessary to accurately measure the flow potentially available for diversion. Use of this proposed facility would involve diversion of the entire streamflow into a concrete-lined flume running parallel to the natural channel. The flow would be measured using a device located within the flume, and water would then be returned to the natural stream channel after measurement. (T, Vol. I, 28:2-28:8, 68:21-72:4; City 27A, p. 6.)

Mr. Donald Nelson testified that the City needs to install and operate the "flow control and monitoring station" at the location proposed in order to: (1) measure the water at a point where all the water available to the project gathers together; (2) take temporary physical control of the water at the point of sale described in the City's water supply agreement with Calleguas MWD; and (3) provide a means to ensure that once the City receives SWRCB water right permits for the water sought to be appropriated, any unauthorized diversion of this water upstream of the point of diversion can be detected and prevented. (T, Vol. I, 68:21-69:23, 151:12-152:4; City 27A, p. 6.)

City environmental consultant Ms. Gretchen Honan testified that construction and operation of the facility would cause temporary and/or permanent loss of about 0.3 acres of existing riparian habitat in Arroyo Conejo, including habitat utilized by southwestern pond turtles and other sensitive species. Furthermore, Ms. Honan described, in general terms, mitigation measures proposed by the City to offset these impacts by: (1) restoring temporarily disturbed habitat; (2) replacing

permanently disturbed habitat with enhanced riparian habitat downstream of the facility; and (3) relocating individual southwestern pond turtles to the new habitat. (T, Vol. II, 343:2-348:1; City 7; City 32A, pp. 1-4; City 32C and 32D.) DFG biologist Ms. Wehtje stated that DFG would prefer use of alternative flow measurement methods to avoid causing the above-identified impacts on instream resources in Arroyo Conejo. (T, Vol. II, 510:13-511:8.)

The only water the City will be authorized to appropriate under Application 29408 is water available for diversion at the point of diversion. The actual rate of diversion will be dependent upon the water available after meeting applicable bypass flow requirements. The City will be required to monitor and report the amount of water actually pumped at the point of diversion and the actual quantity of water bypassed at the point of diversion. The quantity of water diverted for beneficial use under an appropriative water right is normally measured at the point of diversion.

In this instance, any permit or license issued to the City will include a limitation on the rate of diversion tied to the rate of discharge from the Hill Canyon WWTP. The quantity of treated waste water discharged from the plant is already measured in accordance with the requirements of the City's National Pollution Discharge Elimination System (NPDES) permit. The flow measurement device present at the Hill Canyon WWTP and the required measuring devices at the point of diversion are the only measurement devices needed for regulation and measurement of water diversions by the proposed project.

The fact that the City may have entered into a contract or contracts providing for measurement of flow 7 miles upstream of the proposed point of diversion does not obligate the SWRCB to approve construction and use of an unnecessary and environmentally harmful structure in an environmentally sensitive area. Any right which the City may obtain to divert and use water for the proposed project is contingent upon approval of the SWRCB and subject to any terms established as part of that approval.

The SWRCB finds that there is no need for the proposed "flow control and monitoring station." To the contrary, there is evidence that the structure will cause unnecessary impacts on southwestern pond turtles and other public trust resources in Arroyo Conejo. Although it may be possible to mitigate some of the adverse impacts of the proposed structure, the SWRCB concludes it would be preferable to avoid those adverse impacts entirely. Consequently, the "flow control and monitoring station" is not considered a part of the project for which a water right permit will be issued on Application 29408.

9.0 DEDICATION OF TREATED WASTE WATER FOR PROTECTION OF FISH AND WILDLIFE

The City's Waste Water Change Petition WW-6 proposes to dedicate 2.0 cfs of treated waste water from the Hill Canyon WWTP to instream use for fish and wildlife pursuant to Water Code section 1212. The 2.0 cfs dedicated to instream use would be measured at the City's proposed point of diversion. Although there is disagreement among the parties as to the need for additional water for instream flows in order to protect environmental and public trust resources, no evidence was

introduced in opposition to the City's proposed dedication of 2.0 cfs to fish and wildlife.

The SWRCB finds that the dedication of 2.0 cfs to instream use for the protection of fish and wildlife is a reasonable and beneficial use of water and that the proposed dedication should be approved. The 2.0 cfs of treated waste water which the City proposes to dedicate to instream use is not available for diversion by other water users.

10.0 SUMMARY AND CONCLUSIONS

The SWRCB finds that there is unappropriated water available for appropriation by the City of Thousand Oaks and the competing applicants in the amounts and seasons established by the conditions at the end of this decision. The SWRCB further finds that the appropriation of water for the proposed uses, subject to the conditions established in this decision, is a beneficial use of water and is in the public interest. The City's proposed dedication of 2.0 cfs of treated waste water from the Hill Canyon WWTP for protection of fish and wildlife in Conejo Creek and Calleguas Creek is in the public interest and is approved subject to the conditions established in this decision. The change in the use of treated waste water approved by this decision will not operate to the injury of any legal user of that water.

The SWRCB finds that, based on the present record, it is desirable to maintain a minimum flow of 6.0 cfs at the City of Thousand Oaks' proposed point of diversion for protection of public trust resources. The desired flow of 6.0 cfs will be met in part by the 2.0 cfs of treated waste water dedicated for fish and wildlife uses by the City. An additional 4.0 cfs component of the 6.0 cfs instream flow must be present before the City may

divert any water in excess of the treated waste water discharged from the Hill Canyon WWTP less a total of 4.0 cfs to account for 2.0 cfs in channel losses and the dedication of 2.0 cfs to fish and wildlife.

In order to mitigate adverse effects on riparian habitat and wildlife downstream of the City's point of diversion, this decision requires the City to consult with appropriate agencies and to develop and undertake monitoring and mitigation measures to prevent harm to the southwestern pond turtle and to prevent a net loss of open and freshwater emergent marsh habitat. Finally, this decision concludes that there is no need for the "flow control and monitoring station" proposed by the City, that the proposed structure would be harmful to the environment and public trust resources, and that the proposed "flow control and monitoring station" shall not be considered a part of the project authorized in this decision.

The terms and conditions to be included in any water right permit issued on Application 29408, and the conditions governing the SWRCB's approval of Treated Waste Water Change Petition WW-6, are set forth below. In addition, the order below includes the SWRCB's findings regarding the availability of water for appropriation under the other pending applications to appropriate water from Conejo Creek and Calleguas Creek.

ORDER

IT IS HEREBY ORDERED that Waste Water Change Petition WW-6 is approved subject to the following conditions:

1. The City of Thousand Oak's dedication of 2.0 cfs of the treated waste water discharged from the Hill Canyon Waste

Water Treatment Plant for protection and maintenance of fish, wildlife, and other instream uses in Conejo Creek and Calleguas Creek is recognized and approved. The 2.0 cfs dedicated to instream uses shall be measured at the City of Thousand Oaks point of diversion under Water Right Application 29408 for diversion of water to serve Camrosa Water District and Pleasant Valley County Water District. The 2.0 cfs of treated waste water dedicated to instream uses by the City of Thousand Oaks shall not be available for diversion or appropriation by any other party for any other purpose.

2. The City of Thousand Oaks or parties contracting with the City of Thousand Oaks may divert the remainder of the treated waste water discharged from the Hill Canyon Waste Water Treatment Plant for the uses authorized by any water right permit or license issued on Application 29408 subject to the conditions stated in that permit or license. The amount of treated waste water subject to diversion and use under any water right permit or license issued on Application 29408 is based upon the measured rate of discharge of treated waste water from the Hill Canyon Waste Water Treatment Plant minus the 2.0 cfs dedicated to instream flows and minus an additional 2.0 cfs to account for channel losses between the point of discharge and the point of diversion authorized in the City's water right permit or license.

IT IS FURTHER ORDERED that Water Right Application 29408 is approved, in part, subject to the conditions established in this order. The permit on Application 29408 shall contain Standard Permit Terms 6, 7, 8, 9, 10, 11, 12, and 13 and the following additional terms:

1. The water appropriated shall be limited to the quantity which can be beneficially used for irrigation and shall not exceed 21.7 cfs. Permittee may take water by direct diversion on a year-round basis. Permittee's maximum rate of diversion at any time shall not exceed the sum of the following:
 - a. The real-time rate of discharge from the Hill Canyon Waste Water Treatment Plant (adjusted to account for flow time between the point of discharge and the point of diversion), less 2.0 cfs to account for channel losses, less an additional 2.0 cfs to account for the dedication of treated waste water for maintenance and protection of fish and wildlife under Waste Water Change Petition WW-6; and
 - b. An additional 4.0 cfs, by direct diversion from January 1 through December 31 of each year at all times that the minimum bypass flow at the point of diversion is 6.0 cfs or more (including the 2.0 cfs dedicated to fish and wildlife).
2. The quantity of water diverted under this permit shall be measured at the point of diversion from Conejo Creek.
3. This permit is specifically subject to the prior right under Water Right License 12598. (Application 25247.)
4. The authorized point of diversion is: Conejo Creek within the SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of projected Section 32, T2N, R20W, SBB&M.

5. The point of discharge of treated waste water is the Hill Canyon Waste Water Treatment Plant located within the SE¼ of the NW¼ of projected Section 36, T2N, R20W, SBB&M.
6. The authorized places of use are the Camrosa Water District and the Pleasant Valley County Water District, excluding City-owned lands located within Sections 24 and 25, T2N, R20W, SBB&M.
7. Permittee shall keep metered records of all water diverted under this permit and shall submit separate records documenting the quantity of: (1) treated waste water and (2) other flows diverted under this right.
8. To the extent that water available for use under this permit is return flow, imported water, or waste water, this permit shall not be construed as giving any assurance that such supply will continue. (Term 25.)
9. Permittee shall provide water for delivery to the Camrosa Water District for subsequent use upon the parcels identified in water service agreements between Camrosa Water District and the Lambs, Goldbergs and Fitzgerald which are within the authorized place of use.
10. For the protection of water quality, prior to construction of any diversion facilities, the permittee shall prepare a specific, detailed erosion control and revegetation plan which conforms to the mitigation measures identified in part 3.3.3 (page 3-11) of the permittee's 1996 Final Subsequent Environmental Impact Report for the project. The plan shall include, at a minimum, the following elements:

- a. Removal of no more vegetation than is necessary to complete construction operations.
- b. Placement of rock, riprap, or other suitable erosion protection materials in areas where removed vegetation cannot reasonably be expected to become reestablished.
- c. Construction of temporary fills of nonerodible material where needed, and a plan for removal of any temporary fills.
- d. Diversion of runoff around all construction sites.
- e. Construction of a suitable silt catchment basin across the stream immediately below any instream construction areas.
- f. Other measures as required by the California Regional Water Quality Control Board to comply with the Basin Plan for the Calleguas Creek watershed.

The erosion control and revegetation plan shall be submitted to the Chief of the Division of Water Rights for approval prior to construction of any diversion facilities. The State Water Resources Control Board reserves authority to require any reasonable, necessary amendments to the plan necessary to ensure that it will accomplish the stated goal. Upon written approval of the Plan, the Plan shall be implemented.

11. No water shall be diverted under this permit until permittee has installed device(s), satisfactory to the State Water Resources Control Board, capable of measuring the bypass flows

required by conditions of this permit. Said measuring devices shall be properly maintained. (Term 62.)

12. For the protection of fish, wildlife, southwestern pond turtles, and riparian habitat and vegetation, the permittee shall bypass the following amounts of water at the point of diversion: (1) 2.0 cfs of treated waste water dedicated to fish and wildlife pursuant to Waste Water Change Petition WW-6, shall be bypassed at all times; (2) an additional 0.82 cfs shall be bypassed when the holder of License 12598 (Application 25247) is diverting water from Conejo Creek; and (3) a minimum flow of 6.0 cfs (including 2.0 cfs of treated waste water dedicated to fish and wildlife) shall be bypassed at all times that permittee diverts any water which is not attributable to the portion of treated waste water released from the Hill Canyon Waste Water Treatment Plant which is available for diversion after accounting for 2.0 cfs for channel losses and the 2.0 cfs dedicated to fish and wildlife.
13. Permittee shall submit, with the Progress Report by Permittee, the following information: (1) a listing of the dates of diversion; (2) quantity of water diverted; and, (3) daily streamgage or other records documenting compliance with the bypass flow requirements of this permit.
14. To mitigate for loss of habitat for southwestern pond turtle (*Clemmys marmorata pallida*), permittee shall prepare and implement a specific, detailed compensation plan, satisfactory to the Chief of the Division of Water Rights, to achieve no net loss of pond turtle habitat in Arroyo Conejo, Conejo Creek, or Calleguas Creek. The compensation plan shall conform to the mitigation measure for Terrestrial Vegetation

and Wildlife, identified on pages S-4 and S-5 of the permittee's 1996 Final Subsequent Environmental Impact Report for the project. The plan shall be prepared in consultation with appropriate environmental consultants, the City of Camarillo, Camrosa Water District, Calleguas Municipal Water District, Ventura County Flood Control District, Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (USFWS) and U.S. Army Corps of Engineers. The plan shall provide specific details covering the following elements, at a minimum:

- a. A comprehensive, quantitative baseline assessment of existing southwestern pond turtle populations and corresponding available open water and emergent freshwater marsh habitat located both upstream and downstream of the point of diversion. The baseline assessment shall be made by a qualified wildlife biologist, acceptable to DFG, and shall be conducted utilizing assessment techniques recognized as appropriate by DFG and USFWS.
- b. Creation of new or larger open water (pools and riffles) and emergent freshwater marsh habitat areas upstream of the point of diversion suitable for the turtle. The new habitat developed by the permittee shall equal or exceed the expected or actual loss of habitat (no net loss provision) downstream of the point of diversion, and shall be permanently maintained by the permittee.
- c. Relocation of turtles from habitat expected to be jeopardized by diversions under this permit to safer areas where suitable new habitat has been created.

- d. Development and implementation of an effective bullfrog control program, satisfactory to DFG, to permanently reduce populations of bullfrogs which prey on turtle hatchlings and eggs.
 - e. Development of additional measures, as necessary, to ensure that the compensation plan will prevent net loss of turtles and their habitat. These measures may include increase in minimum flow bypass requirements under this permit, including bypass of additional treated waste water generated by the Hill Canyon Waste Water Treatment Plant (WWTP) if discharges from the Camarillo WWTP into Conejo Creek decrease in the future.
 - f. Development of a monitoring and reporting program to document whether the compensation plan is achieving no net loss of turtles and their habitat, and listing additional measures to be implemented during the forthcoming year to attain full compliance with the no net loss provision. The monitoring program shall include a schedule for reevaluation of conditions evaluated in the baseline assessment listed in (a) above. The permittee shall submit the results of the annual reporting program to the Division of Water Rights with the Progress Report by Permittee and to DFG.
15. Permittee shall consult with the Division of Water Rights and develop and implement a water conservation plan or actions. The proposed plan or actions shall be presented to the SWRCB for approval within one year from the date of this permit or such further time as, for good cause shown, may be allowed by the Board. A progress report on the development of a water

conservation program may be required by the Board at any time within this period. In evaluating the water conservation plan developed by permittee, the Board will consider the extent to which water use throughout permittee's place of use conforms to the 80 percent irrigation efficiency standard applicable to lands within the Fox Canyon Groundwater Management Area and the extent to which the City and district's receiving water under this permit are complying with widely accepted standards for efficient water management practices. All cost-effective measures identified in the water conservation program shall be implemented in accordance with the schedule for implementation found therein.

16. The "flow control and monitoring station" proposed in Application 29408 is not considered a part of the project authorized by this permit.

IT IS FURTHER ORDERED that the season of availability of water for appropriation under Water Right Applications 29581, 29816, 29819, 29829, 29959, 30037, 30092, and 30194 is as specified below:

1. The season of availability of water for diversion under any permit(s) issued on Applications 29581, 29816, and 29819 shall include the period of November 1 of each year through April 30 of the succeeding year.
2. The season of availability of water for diversion under any permit(s) issued on Applications 29829, 29959, 30037, 30092, and 30194 shall include the period of November 1 of each year through March 31 of the succeeding year.

3. Inclusion of a period within the season of diversion for any permit(s) issued on Applications 29581, 29816, 29819, 29829, 29959, 30037, 30092, and 30194 does not guarantee the availability of water for diversion during that time period.

Any permits issued on the specified applications shall be subject to the standard restrictions regarding protection of prior rights and shall be subject to maintenance of a bypass flow of 6.0 cfs for protection of instream uses and public trust resources at any time that water is diverted under the permit(s).

CERTIFICATION

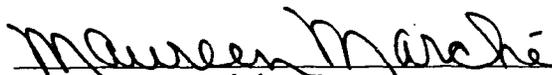
The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on September 18, 1997.

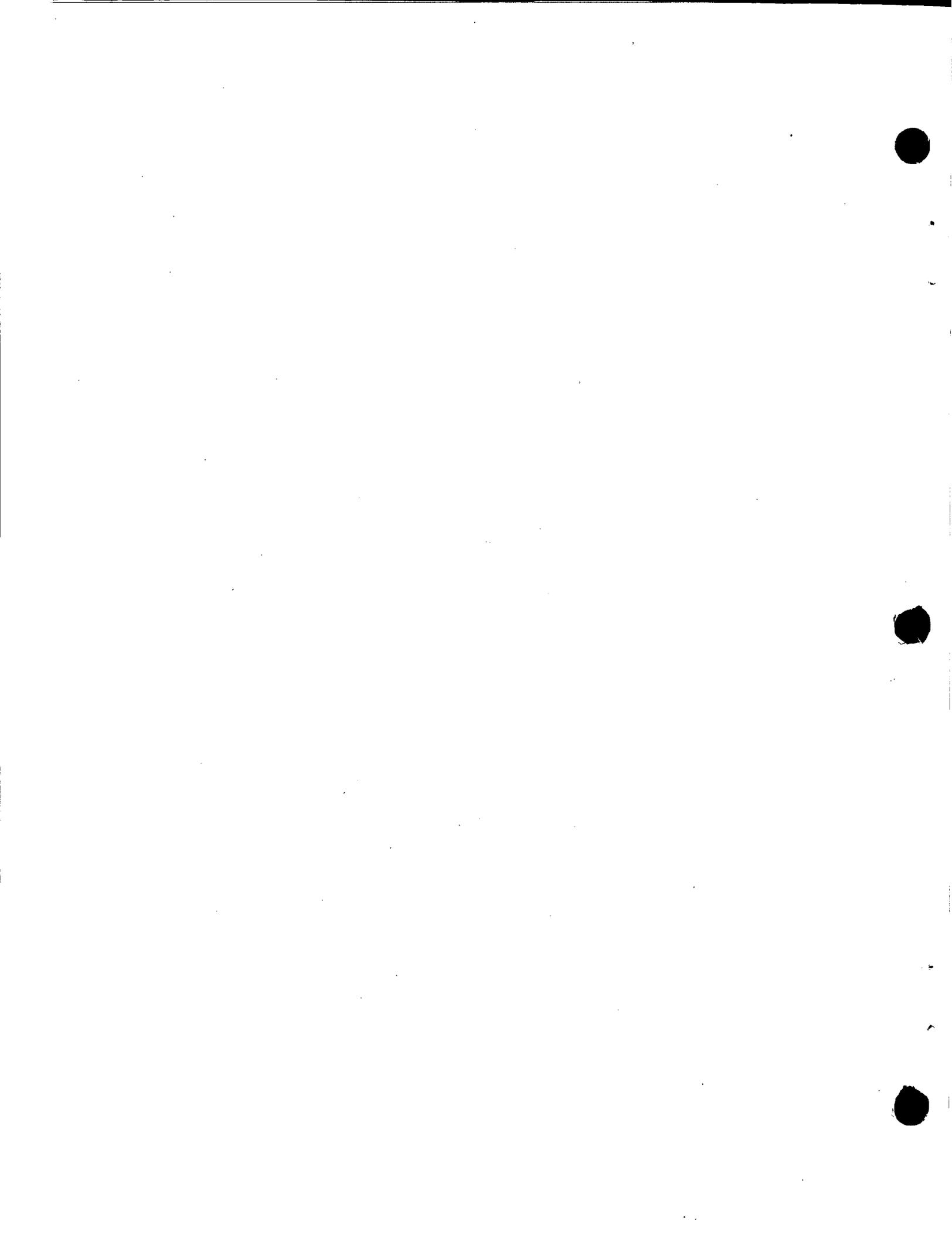
AYE: John Caffrey
James M. Stubchaer
Marc Del Piero
Mary Jane Forster
John W. Brown

NO: None

ABSENT: None

ABSTAIN: None


Maureen Marché
Administrative Assistant to the Board



APPENDIX I

**CONEJO CREEK ABOVE HIGHWAY 101
STREAMGAGE FLOWS (City 1, Vol. 2, Appendix B), TREATED WASTE WATER VOLUME
AND
CALCULATION OF UNAPPROPRIATED WATER**

Note: The unappropriated water identified in this table is the quantity of water in acre-feet remaining after assignment of treated waste water (minus channel losses and dedication of 2.0 cfs to instream uses) to Application 29408 of the City.

	1974	1975	1976	1977	1978	Water Year
October	523.5	491.2	495.0	566.0	511.0	USGS Flow
Subtract	368.0	373.0	428.9	414.7	403.9	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	247.2	209.9	157.8	243.0	198.8	Unappropriated Water
November	787.6	412.3	480.6	591.6	532.5	USGS Flow
Subtract	372.0	377.0	432.9	418.7	407.9	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	508.9	128.6	141.0	266.2	217.9	Unappropriated Water
December	575.1	1,695.8	522.8	657.1	1,215.3	USGS Flow
Subtract	368.0	373.0	428.9	414.7	403.9	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	156.8	1,272.5	43.6	192.1	761.1	Unappropriated Water

APPENDIX I, continued

January	4,487.5	510.6	498.0	2,605.0	4,354.4	USGS Flow
Subtract	373.0	428.9	414.7	403.9	469.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	4,064.2	31.4	33.0	2,150.8	3,834.4	Unappropriated Water
February	500.1	1,270.9	1,202.2	521.1	11,843.4	USGS Flow
Subtract	384.9	440.8	426.6	415.8	481.6	Effluent Minus 2 cfs Losses
Subtract	45.5	45.5	45.5	45.5	45.5	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	69.7	784.6	730.1	59.8	11,316.3	Unappropriated Water
March	1,043.7	1,764.7	759.2	871.9	14,395.0	USGS Flow
Subtract	373.0	428.9	414.7	403.9	469.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	620.4	1,285.5	294.2	417.7	13,875.0	Unappropriated Water
April	501.8	818.5	662.8	504.4	1,693.8	USGS Flow
Subtract	377.0	432.9	418.7	407.9	473.7	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	76.1	336.9	195.4	47.8	1,171.4	Unappropriated Water

APPENDIX I, continued

May	463.2	564.6	537.8	858.0	940.4	USGS Flow
Subtract	373.0	428.9	414.7	403.9	469.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	181.9	227.4	214.8	545.8	562.4	Unappropriated Water
June	465.1	525.6	482.0	460.1	807.2	USGS Flow
Subtract	377.0	432.9	418.7	407.9	473.7	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	181.4	186.0	156.6	145.5	426.8	Unappropriated Water
July	414.6	482.5	519.4	406.5	596.7	USGS Flow
Subtract	373.0	428.9	414.7	403.9	469.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	133.3	145.3	196.4	94.3	218.7	Unappropriated Water
August	444.4	490.8	488.2	678.5	787.4	USGS Flow
Subtract	373.0	428.9	414.7	403.9	469.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	163.1	153.6	165.2	366.3	409.4	Unappropriated Water

APPENDIX I, continued

Sept.	458.3	479.2	1,135.5	394.5	995.6	USGS Flow
Subtract	377.0	432.9	418.7	407.9	473.7	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	174.6	139.6	810.1	79.9	615.2	Unappropriated Water
	1979	1980	1981	1982	1983	Water Year
October	733.6	986.0	950.3	978.0	923.9	USGS Flow
Subtract	469.7	593.0	616.4	658.9	651.4	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	355.6	484.7	425.6	410.8	364.2	Unappropriated Water
November	1,446.8	1,370.5	983.7	1,600.6	2,889.7	USGS Flow
Subtract	473.7	597.0	620.4	662.9	655.4	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	1,066.4	866.8	456.6	1,031.0	2,327.6	Unappropriated Water
December	1,491.9	1,247.3	1,226.0	1,142.7	1,539.5	USGS Flow
Subtract	469.7	593.0	616.4	658.9	651.4	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	971.9	604.0	559.3	433.5	837.8	Unappropriated Water

APPENDIX I, continued

January	8,268.8	4,321.3	1,642.6	1,866.8	7,366.1	USGS Flow
Subtract	593.0	616.4	658.9	651.4	729.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	0.0	0.0	0.0	0.0	0.0,	Unauthorized Diversions
Total	7,625.5	3,654.6	933.4	1,165.1	6,586.1	Unappropriated Water
February	2,761.7	17,386.1	1,429.1	923.8	5,816.6	USGS Flow
Subtract	604.9	628.3	670.8	663.3	741.6	Effluent Minus 2 cfs Losses
Subtract	45.5	45.5	45.5	45.5	45.5	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	2,111.3	16,712.3	712.8	215.0	5,029.5	Unappropriated Water
March	4,505.4	4,908.1	3,126.6	2,168.4	16,519.7	USGS Flow
Subtract	593.0	616.4	658.9	651.4	729.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	3,862.1	4,241.4	2,417.4	1,466.7	15,739.7	Unappropriated Water
April	1,763.2	1,717.6	1,027.4	1,707.7	2,933.4	USGS Flow
Subtract	597.0	620.4	662.9	655.4	733.7	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	1,117.5	1,048.5	315.8	1,003.6	2,151.0	Unappropriated Water

APPENDIX I, continued

May	1,150.6	1,426.4	890.8	990.0	1,862.9	USGS Flow
Subtract	593.0	616.4	658.9	651.4	729.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	649.3	901.7	323.6	430.3	1,224.9	Unappropriated Water
June	1,031.3	1,168.2	890.5	973.8	1,499.4	USGS Flow
Subtract	597.0	620.4	662.9	655.4	733.7	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	527.6	641.1	320.9	411.7	859.0	Unappropriated Water
July	1,107.0	1,114.9	863.0	910.6	1,208.2	USGS Flow
Subtract	593.0	616.4	658.9	651.4	729.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	605.7	590.2	295.8	350.9	570.2	Unappropriated Water
August	1,180.4	1,039.5	878.9	737.6	1,408.5	USGS Flow
Subtract	593.0	616.4	658.9	651.4	729.7	Effluent Minus 2 cfs Losses
Subtract	50.3	50.3	50.3	50.3	50.3	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	679.1	514.8	311.7	177.9	770.5	Unappropriated Water

APPENDIX I, continued

Sept.	1,168.2	977.8	797.3	864.7	1,927.8	USGS Flow
Subtract	597.0	620.4	662.9	655.4	733.7	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	664.5	450.7	227.7	302.6	1,287.4	Unappropriated Water
	1984	1985	1986	1987	1988	Water Year
October	1,945.8	1,237.7	961.8	1,019.5	2,360.0	Recorded Flow
Subtract	729.7	717.6	727.2	755.0	755.0	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	1,309.4	613.4	327.9	357.8	1,698.3	Unappropriated Water
November	1,812.9	1,876.4	2,642.0	1,929.9	1,572.9	Recorded Flow
Subtract	733.7	721.6	731.2	759.0	759.0	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	1,172.5	1,248.1	2,004.1	1,264.2	907.2	Unappropriated Water
December	2,681.7	3,530.6	1,315.1	890.6	3,483.0	Recorded Flow
Subtract	729.7	717.6	727.2	755.0	755.0	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	1,903.3	2,764.3	539.2	86.9	2,679.3	Unappropriated Water

APPENDIX I, continued

January	1,336.9	1,485.6	3,020.9	1,576.9	2,719.4	Recorded Flow
Subtract	717.6	727.2	755.0	755.0	773.6	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	570.6	709.7	2,217.2	773.2	1,897.1	Unappropriated Water
February	1,122.7	1,449.9	6,027.9	1,251.6	1,914.5	Recorded Flow
Subtract	729.5	739.1	766.9	766.9	785.5	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	344.5	662.1	5,212.3	436.0	1,080.3	Unappropriated Water
March	1,083.0	1,311.1	5,385.2	1,303.2	1,275.4	Recorded Flow
Subtract	717.6	727.2	755.0	755.0	773.6	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	316.7	535.2	4,581.5	499.5	453.1	Unappropriated Water
April	1,037.4	862.8	1,707.8	954.1	1,693.9	Recorded Flow
Subtract	721.6	731.2	759.0	759.0	777.6	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	0.0	0.0	0.0	0.0	0.0	Unauthorized Diversions
Total	267.1	82.9	900.1	146.4	867.6	Unappropriated Water

APPENDIX I, continued

May	930.3	866.8	1,309.1	920.3	914.2	Recorded Flow
Subtract	717.6	727.2	755.0	755.0	773.6	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	306.0	232.9	647.4	258.6	233.9	Unappropriated Water
June	1,021.5	761.3	1,118.7	837.0	932.2	Recorded Flow
Subtract	721.6	731.2	759.0	759.0	777.6	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	393.2	123.4	453.0	171.3	247.9	Unappropriated Water
July	852.9	866.8	1,031.4	870.8	876.7	Recorded Flow
Subtract	717.6	727.2	755.0	755.0	773.6	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	228.6	232.9	369.7	209.1	196.4	Unappropriated Water
August	938.2	862.8	985.8	922.3	829.1	Recorded Flow
Subtract	717.6	727.2	755.0	755.0	773.6	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	313.9	228.9	324.1	260.6	148.8	Unappropriated Water

APPENDIX I, continued

Sept.	1,071.1	878.7	1,194.1	799.4	971.9	Recorded Flow
Subtract	717.6	727.2	755.0	755.0	773.6	Effluent Minus 2 cfs Losses
Subtract	48.7	48.7	48.7	48.7	48.7	License 12598
Add	142.0	142.0	142.0	142.0	142.0	Unauthorized Diversions
Total	446.8	244.8	532.4	137.7	291.6	Unappropriated Water

Table Notes: Treated waste water volumes from Table 1.
 USGS gage records from Staff, 2.
 Recorded Flows from City 18.