

## **EXISTING EID WATER SUPPLY SOURCES**

### **FOLSOM RESERVOIR**

Folsom Reservoir is located at the west end of El Dorado County, at the confluence of the North and South Forks of the American River. EID treats water from Folsom Reservoir at the El Dorado Hills water treatment plant. The plant underwent extensive improvements in 1993-1994 to increase the treatment capacity from 5.7 million gallons per day (mgd) to 12.0 mgd. The plant was expanded again in 2001 to 14.0 mgd. The plant is designed for expansion to an ultimate capacity of 20.0 mgd. The capacity of the raw-water conveyance and pumping facilities, which convey water from Folsom Reservoir to the treatment plant, is currently 16.0 mgd.

### **FOREBAY RESERVOIR**

EID takes consumptive water at the Main Ditch intake, which is located at the El Dorado Forebay Reservoir. Water is conveyed to the forebay in the 24-mile-long El Dorado Canal, which originates at a diversion dam on the South Fork American River near the community of Kyburz. Diversions of water can also be made from Alder Creek, approximately 3.4 miles downstream.

The El Dorado Canal water constitutes approximately 35% of EID's total existing supply of water. It is the only means of supply to the northern portion of EID's service area and also contributes greatly to supplying the central portion of the service area by gravity. The communities of Pollock Pines, Cedar Grove, and Camino are exclusively served by water from the El Dorado Canal. The Apple Hill and Gold Hill agricultural areas, the city of Placerville, and communities west of Placerville to Cameron Park are served jointly by water from the El Dorado Canal and Jenkinson Lake (or Sly Park Reservoir).

### **JENKINSON LAKE**

Jenkinson Lake (Sly Park Reservoir) is EID's largest water supply, providing 20,450 acre-feet per year (afy) to EID's system firm yield. It was constructed by the U.S. Bureau of Reclamation (USBR) in 1954-1955. Although EID operates and maintains the Jenkinson Lake and Sly Park Dam facilities, including the recreational features, USBR maintains ownership of the dams and surrounding lands and holds the water rights.

The reservoir is located south of Pollock Pines, in the Cosumnes River basin. Water is supplied to Sly Park Reservoir from Sly Park Creek and Hazel Creek, which are natural tributaries to the North Fork of the Cosumnes River. Water is also diverted into Sly Park Creek from Camp Creek via the Camp Creek diversion dam and tunnel. Under average inflow conditions, Jenkinson Lake is operated to maintain 14,000-18,000 acre-feet (af) carryover storage each year.

At its normal high-water elevation of 3,471 feet, the reservoir is capable of supplying up to 125 cubic feet per second (cfs) of water through the dam outlet work and Main Conduit to the Reservoir A water treatment plant. Under the current permit issued by the California Department of Health Services, the Reservoir A water treatment plant has a capacity of 82 cfs. The Jenkinson Lake water supply is used in the contiguous EID water system.

## **CRAWFORD DITCH**

The Crawford Ditch is a conveyance system of pipes, siphons, and a lined and unlined canal. The ditch diverts water from North Fork Cosumnes River (North Fork Ditch) and is also supplied water released from the Jenkinson Lake by redirection from Clear Creek. The diversion is based on a pre-1914 water right acquired by EID.

Generally, diversions from the North Fork Cosumnes River into Crawford Ditch can commence on April 1 and continue through October 31 each year. Approximately 5,560 af of water is available annually for diversion into Crawford Ditch. However, because of conveyance losses, not all the water diverted is fully used. EID has an ongoing maintenance program to replace much of the open ditch portions with buried pipe and/or lined ditch to reduce these losses.

## **OTHER WATER RESOURCES**

EID has additional water entitlements from other sources; however, these are not included as part of its existing system firm yield. Some of the water from these sources is used for nonconsumptive purposes, such as irrigation and recreation.

## **NEW WATER SUPPLY PROJECTS UNDER CONSIDERATION BY EID**

The following projects are under consideration by EID as part of the ongoing, countywide El Dorado County Water Agency (EDCWA) water planning process.

### **FEDERAL ENERGY REGULATORY COMMISSION PROJECT 184**

The EDCWA and EID applied to the State Water Resources Control Board (SWRCB) to obtain water rights to make consumptive use of waters previously stored and released for power generation from Caples Lake, Silver Lake, and Lake Aloha, as well as certain direct diversions from the South Fork of the American River (South Fork), all of which have been used by Pacific Gas and Electric Company's Project No. 184 for hydroelectric power generation or instream flows. EID's acquisition and exercise of the water right would not result in changes to Project No. 184's historic operating patterns.

In Decision 1635 (1996) (D-1635), the SWRCB granted to EDCWA and EID the right to appropriate 17,000 af of water. D-1635 allows EID to make direct diversions from the South Fork at Folsom Reservoir; to store water in Caples, Silver, and Aloha Lakes; and to redivert the water released from storage. The sole approved point of rediversion is at Folsom Reservoir. The maximum amount approved in D-1635 is 17,000 afy, including both direct diversion and rediversion. D-1635 conditioned the new rights on certain standard permit terms and 26 special conditions. In Water Rights Order 96-06, the SWRCB ordered reconsideration of D-1635, and SWRCB has not yet ruled on the merits of the reconsideration. As part of the Federal Energy Regulatory Commission (FERC) licensing process for this project, FERC is preparing an environmental impact statement (EIS) that is assessing potential operational alternatives and protection, mitigation, and enhancement measures for the project. EID also will need to prepare an environmental impact report (EIR) for this project to comply with the California Environmental Quality Act and to assist the SWRCB with its permitting process.

### **PUBLIC LAW 101-515 (CENTRAL VALLEY PROJECT SUPPLY)**

EID and Georgetown Divide Public Utility District (GDPUD), with assistance from EDCWA, may be able to obtain new water supplies under Public Law 101-514, enacted by Congress in 1990. This statute requires USBR to enter into "a municipal and industrial water supply contract with the El Dorado County Water Agency, not to exceed 15,000 acre-feet annually."

The 15,000 afy is meant to serve future needs in both EID and GDPUD. Although no formal distribution has been made, for planning purposes it has been assumed that a 50/50 distribution will occur (i.e., 7,500 afy for each district). This 7,500-afy allocation would be subject to the USBR Shortage Policy for Municipal and Industrial Contractors wherein allocations can be reduced by up to 25% of the previous 3 years of normal water deliveries, adjusted for growth. The new water service contract could be combined with the existing USBR contract with EID.

EDCWA and USBR started to prepare a joint EIR/EIS on the water supply project contemplated by Public Law 101-514. This EIR/EIS has been placed on hold and will not be completed until after the El Dorado County General Plan EIR is completed and the EDCWA Water Plan confirms that this project is a preferred project for EID to continue pursuing.

## **REDIVERSION OF EXISTING PRE-1914 AND RESERVOIR STORAGE WATER RIGHTS**

EID has several existing water rights that could be diverted to provide supplemental potable water supplies. In the past, the diversions have been limited to the irrigation season, typically April/May through October/November, subject to water availability at the source. Two diversions are being considered by EID: the Folsom Reservoir Diversion and Bray Reservoir Diversion.

### **TEXAS HILL RESERVOIR PROJECT**

The proposed Texas Hill Reservoir Project, located approximately 1.5 miles south of Placerville, would include a dam and reservoir on Weber Creek. Texas Hill Dam was initially studied in 1963 by USBR as part of the Central Valley Project, American River Diversion–Placerville Ridge Unit. In January 1991, a reconnaissance-level study was performed and titled The Texas Hill Dam and Reservoir. Two stages of dam construction were proposed. The first stage would include a dam that would impound 11,000 af. The second stage of construction would raise the dam to impound a total of 22,000 af.

Water from the Texas Hill Reservoir would be piped by gravity and during periods with low reservoir levels, pumped, treated, and then distributed to the western region of the EID service area. Currently, EID owns approximately 75% of the land needed for the Texas Hill Reservoir, having purchased it from EDCWA in 1995.

### **ALDER RESERVOIR PROJECT**

The potential Alder Reservoir Project, which would be located in the Eldorado National Forest near White Hall, consists of a dam and reservoir on Alder Creek with potential for power generation. Originally, Alder Dam was a component of the South Fork American River Hydroelectric and Water Project, having a gross storage of 185,000 af. After EID decided not to proceed with this project, a smaller dam was evaluated with a storage capacity of 31,000 af.

Water stored in the reservoir would be released into Alder Creek and diverted into EID's El Dorado Canal to supplement canal flows originating in the South Fork American River and its tributaries. Two alternative conveyance routes have been studied to deliver the Alder Project water to the potential Bray Reservoir site for treatment and distribution: the Hazel Creek Tunnel conveyance and the Weber Creek conveyance.

### **SQUAW HOLLOW RESERVOIR PROJECT**

In 1988, EID identified a possible dam and reservoir site across Squaw Hollow Creek as a terminus for the Crawford Ditch system. The reservoir would have a capacity of about 4,200 af. The water stored in Squaw Hollow Reservoir would be pumped up to Ringold Creek near Reservoir 7 and would be conveyed in Weber Creek to the potential Bray Water Treatment Plant.

### **EXPANDED WEBER RESERVOIR PROJECT**

Weber Dam and Reservoir is an existing facility, constructed in the 1920s with a capacity of 1,200 af. Typically, the reservoir has been used to meet irrigation demands during the summer months. However, the irrigation demands have diminished, making the water available for potable use. Water from Weber Reservoir would be released for delivery at the potential Bray Water Treatment Plant or rediverted to Folsom Reservoir.

## **BRAY RESERVOIR PROJECT**

Bray Reservoir is located east of Missouri Flat Road and south of Forni Road, near Diamond Springs. Bray Reservoir is owned by EID and has been in existence since 1947. For some time, the 57-acre Bray Reservoir site has been considered as a potential treatment plant site. The reservoir could be used for storage from other sources and therefore would not produce additional water supply. These sources could consist of direct diversions from the Crawford Ditch and Weber Creek and releases from Weber Reservoir and the potential Texas Hill Reservoir. Additional water supply could be available through releases from Alder Reservoir. Water from the Bray facility could serve portions of the western region (east of Reservoir 9), which includes the eastern portion of the Diamond Springs/El Dorado service zone, and the Shingle Springs and Cameron Park service zones.

## **OTHER EL DORADO IRRIGATION DISTRICT PROJECTS**

The potential projects summarized above are the primary sources of supply that have been considered by EID as part of the EDCWA water planning process. However, other potential projects and programs can supplement or enhance future water supplies and are being considered. These projects include:

- ▶ lining the main canal from the El Dorado Forebay to the Reservoir 1 water treatment plant,
- ▶ installing 2-foot flashboards at Jenkinson Lake to increase storage by 1,280 af,
- ▶ conducting leak detection studies,
- ▶ constructing a Capps Crossing Dam and Reservoir, and
- ▶ adding water from the Marble Valley limestone mine quarry to supplement the EID's recycled water supply.

Source: EID 2001a and Alessandri, pers. comm., 2003