James C. Feider, Area Manager

The Western Area Power Administration was established in December 1977 under the Department of Energy Organization Act. Western's mission is to repay the Federal power investment by marketing the Central Valley Project (CVP) power at the lowest possible rates consistent with sound business principles. The Sacramento Area Office markets approximately 1,480 megawatts of firm Federal power to 77 wholesale customers in northern and central California. Western's preference customers include irrigation districts, utility districts, municipalities, cooperatives, military and Federal research installations, and State of California penal and educational institutions.

The CVP power system has a maximum installed capacity of approximately 2.0 million kilowatts (kW). Average annual generation is approximately 4.7 billion kilowatthours (kWh). Average annual power sales to Western's customers is over $200 million.

Under agreements between Western and the Pacific Gas and Electric Company (PG&E), operation of the CVP generation resources is integrated with the PG&E system for the mutual benefit of both Western and PG&E customers in California.

At the May 16, 1994 Workshop, Western emphasized the need to consider all impacts of the Bay/Delta decisions, including those impacting hydroelectric power generation of the CVP.

This morning I would like to comment on Issue Number 2.

2. What modifications have the SWP and the CVP made to their operations to protect endangered species and other species of concern?

The US Bureau of Reclamation (Reclamation) has operational control of the Central Valley Project (CVP) reservoirs. Western, through Reclamation, has realized impacts to power generation at the Shasta Dam due to cold water bypasses of the penstocks of Shasta Dam for protection of the winter-run chinook salmon. Because of this action, Western has had to purchase power from other sources to makeup for the loss of generation due to the Shasta Dam bypasses.

The Shasta bypass releases are designed to provide cooler water temperatures to help protect salmon eggs and emerging fry in a 28-mile stretch of the river below Keswick Dam where salmon spawn. If air temperatures rise, releases of colder water are required. Most of the bypasses relate to the winter-run, but some of the October, November, and December bypasses benefit the fall-run chinook salmon.

The replacement energy due to the Shasta bypasses has cost over $31 million (through September 1993). Replacement power not only has resulted in additional cost but has required power generation to be increased from other sources, primarily fossil-fueled generation.

Actual Realized Dollars-Energy Only		
FY '87	51,905,209 KWh	$895,523
FY '88	129,503,940 kWh	$4,321,066
FY '89	63,001,986 kWh	$1,769,555
FY '90	90,331,000 kWh	$1,824,338
FY '91	164,026,302 kWh	$2,880,684
FY '92	434,909,766 kWh	$12,588,464
FY '93	242,220,447 kWh	$6,993,502
Total	1,175,898,650 kWh	$31,273,132

Western looks forward to the start of construction of the Shasta Temperature Control Device later this year so that the bypasses can be eliminated by the fall of 1996.

Also as part of temperature control, Reclamation has initiated the Trinity Dam bypasses. The Trinity bypasses cause cold water to be diverted through the low level outlets at Trinity Dam instead of through the penstocks bypassing power generation. These bypasses are used for temperature control of Lewiston Lake and the Trinity River below Lewiston Lake.

Estimated Cost		
FY '91	31,547,001 kWh	$946,614
FY '92	66,064,615 kWh	$1,982,365
FY '93	32,168,678 kWh	$965,268
Total	129,780,294 kWh	$3,894,247

In addition to the bypasses at Shasta and Trinity, Reclamation has made operational changes to CVP reservoirs in part to maximize their ability to control water temperatures for endangered species protection. These changes have shifted CVP generation patterns and consequently has changed Western's requirements for firming energy. Western would like to see these operational changes made on a more predictable basis.

As I have indicated to you today, the Western Area Power Administration and its preference power customers have been impacted by the modifications to CVP operations to protect endangered species both in the Sacramento River and the Trinity River basin through added costs to purchased power. Western is very interested in these proceedings and believes the total power impact of the proposed alternatives needs to be studied.

Western supports the need for standards to protect endangered species in the San Francisco Bay/San Joaquin-Sacramento River Delta and upstream rivers and tributaries. At the same time, Western hopes whatever standards the Board adopts through this process will be based on sound biological science that lends to the most cost-effective approach to a solution. We agree with many here today that a "balanced" approach be taken for determining a long-term plan for the Delta.