The successful work performed this past year to promote salmon recovery in the Sacramento Valley as part of the Sacramento Valley Salmon Recovery Program was celebrated by water managers and others in October at an event hosted by the Northern California Water Association (NCWA) and held at the City of Sacramento's fish screen and diversion facility.

The event on the Sacramento River brought together water management entities, conservation organizations, and state and federal fishery agencies.

The survival rate of salmon in Northern California has been the subject of much discussion and debate in recent years – from water management issues to drought and wet winter impacts. The briefing and commemorative event in October was a unique opportunity to hear from experts from throughout the region and water industry about the collaborative and innovative projects and programs completed to aid the survival of salmon in the Sacramento Valley. It also provided a close-up look at a water intake facility and fish screen on the Sacramento River.

During the past year, projects have been completed to increase spawning and rearing habitat in the upper reaches of the Sacramento River, decrease adult salmon straying in the Yolo Bypass, and test a program to create food during the winter months in harvested fields that could help to feed migrating juvenile salmon in the Sacramento River. Thirteen Sacramento Valley Salmon Recovery Program projects have been completed to promote salmon recovery in the Sacramento Valley since 2014.

**Understanding the Aquatic Food Web**

Jacob Katz of CalTrout spoke about fish food programs, in particular a program termed Flooding Agricultural Tracts for Improved Salmon Habitat, or Operation FATFISH. The program is intended to better understand aquatic food web productivity on managed agricultural floodplains. The Sacramento Valley has more than 500,000 acres of managed agricultural floodplains on the dry side of the levees. Working with growers and water suppliers, researchers are developing new farm practices that reintegrate flood plain production into farm and water management.

Roger Cornwell, general manager of River Garden Farms, also spoke at the event. He discussed a recent project which installed 25 new salmon shelter
structures in the river near Redding. The structures are new habitats for salmon that are made of large tree trunks and root wads bolted to 12,000 pound limestone boulders. The structures are intended to help baby salmon hide out and experience refuge against large predators, while enticing them to stay in colder waters longer, increasing their odds of healthy maturation for their journey to the Pacific Ocean.

During the Sacramento River event, Ted Trimble, general manager of Western Canal Water District, also acknowledged the recent 20-year celebration of the Butte Creek Salmon Recovery Project. That project reveals how salmon can recover when conditions improve for every freshwater part of the spring-run salmon life-cycle.

**Much Progress Made Since 2000**

These projects, and numerous others discussed at the event, join a substantial body of projects, flows, and scientific work that has been developed since 2000, which is summarized in the NCWA document, "Improving Conditions for Salmon—Programs and Projects Implemented Since 2000."

Since the State Water Resource Control Board’s Water Quality Control Plan Update and Decision 1641 in 2000, there has been a serious and concerted effort to implement numerous flow arrangements, habitat enhancements, fish passage improvements, fish-food production projects, and studies to advance the science that informs management decisions. These programs and projects collectively address every salmon life-stage and will be adaptively managed into the future based on lessons learned and better understanding the science.

The actions since 2000 have made significant progress to improve habitat for salmon recovery in the Sacramento River Basin, yet, there is more work ahead. It is the comprehensive approach taken by NCWA, its members, and its partners that will be critical to similar success in other parts of the Sacramento River Basin.

A summary video of the event is available at Facebook.com/SacValleyCA.

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