River Partners Celebrates its 10th Anniversary

By Irv Schiffman, Board Chair

The year 2008 marks the 10th anniversary of River Partners, an organization started by two Valley farmers for the purpose of restoring riparian habitat along the Sacramento River.

In these 10 years the organization has grown from a small group of scientists and field staff to over forty full time employees engaged in restoration work on eight California rivers and a handful of creeks and streams.

We have expanded our collaborative partnerships with state and federal agencies, local governments, NGOs, educational institutions and the general public. And membership in the organization continues to grow as news of its programs and awards become increasingly known. The contributions received from members help us to develop future projects and educate students and the community about our rivers.

River Partners has prospered because its work is particularly relevant to a society concerned with sustainable development and the loss of environmental assets. The problems that we are engaged in mitigating are some of the most challenging facing California and the world beyond: flood prevention, global warming, water quality, loss of wildlife habitat, and the depletion of native fish runs.

In our 10 years of existence we have re-established mixed hardwood forests along the rivers, the benefits of which are multifold, including their role in carbon sequestration. Included in the 6,000 acres of plantings along Central Valley rivers are varieties of native grasses and over two dozen different native plant species, providing diverse habitat for scores of bird, mammal, reptile, amphibian, fish, and invertebrate species. By fall 2008, we will have planted our one-millionth tree.

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Message from the Board Chair

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We have developed specific design features to attract targeted wildlife species. We are especially proud of our role in the survival of the endangered Riparian Brush Rabbit and the return of the endangered Least Bell’s Vireo to our restoration site at the San Joaquin River National Wildlife Refuge.

We know that riparian habitat is crucial for a healthy ecosystem. The vegetation that we plant along rivers and streams forms a natural buffer that filters runoff and groundwater, removing pollutants from the waterway, particularly harmful runoff from neighboring agricultural fields. The trees also provide important shade to waterways, which helps to moderate water temperature and oxygen, both of which are important to native fish.

The recent closure of commercial and recreational fishing for Chinook Salmon in the ocean off California and most of Oregon after the virtual collapse of the fall salmon run gives emphasis to the important role that River Partners plays in the preservation and restoration of Central Valley salmon populations. Our floodplain plantings provide critical habitat for juvenile salmonid rearing and the floodplains are designed to allow young salmon safe access and egress.

An expected consequence of global warming will be a more rapid melt of the Sierra snow pack and River Partners is working with flood control engineers to establish flood plains which will absorb and control river overflow while creating habitat for native species.

The O’Connor Lakes project along the Feather River is but one example of such a collaborative success. River Partners worked with engineers to use native plants to redirect flood flows and improve floodwater conveyance. For another project at the confluence of the Feather and Bear rivers, River Partners constructed a floodplain of more than 600 acres lying between the river and a new levee. The expanded floodplain not only will absorb and control river overflow, but enabled the organization to plant habitat for such native species as the Swainson’s hawk, the Valley Elderberry Longhorn Beetle, and Chinook Salmon.

Our staff has also enjoyed its association with area schools. Elementary school students have used restoration sites as field classrooms, have helped us assess tree and plant survival after their first year of growth, and, most recently, Las Plumas High School students received practical horticultural experience by growing much needed acorns for our 2008 planting season.

We expect to continue our ability to turn over River Partners properties for recreation purposes. Last year we gave the Gaines and Gianella Landing properties along the Sacramento River to the California State Parks system. Clearly Valley residents are eager to explore our rivers. Our Canoe Floats, which allow the public to view a number of our restoration sites, are regularly oversubscribed.

Looking ahead to the next ten years, we envision an expanded commitment to our mission to create wildlife habitat for the benefit of people and the environment. Challenges that lie ahead will provide opportunities to collaborate with our many partners to bring creative thinking to such areas as river and floodplain restoration, flood control, land purchases, field research, consulting services, ecological monitoring, carbon sequestration, education and recreation opportunities and wetland mitigation.
Project Updates

Spring Planting Season Progress

Thanks to the efforts of River Partners’ staff and several student groups, about 400 acres were put into active restoration this spring. Here are a few of the highlights.

In Redding, after a year of invasive weed management, River Partners installed small trees, native bushes, understory species, and grasses at Turtle Bay Exploration Park. Students from the Shasta Roots and Shoots program visited the project and helped plant native grass plugs on this 47-acre restoration site.

Near Butte City, the second phase of the Del Rio Wildland Preserve restoration began in May. Thanks to the assistance from Boy Scout Troop #2, 1,000 native plants and trees were dedicated to North State Public Radio’s members. Congratulations to Tyler Rice and Griffin Moran for organizing the planting days for their Eagle Scout projects.

Near Caswell Memorial State Park, the riparian brush rabbits will benefit from the new network of shrubs and native vegetation at the Buffington Unit of the San Joaquin River National Wildlife Refuge. This newly planted 50-acre area will serve as a re-introduction site for these endangered mammals. Also at the San Joaquin River NWR, River Partners staff completed a 41-acre planting at the Hagemann Unit.

Working with Vino Farms, a vineyard near Lodi dedicated to sustainability, River Partners completed a restoration planting on 23 acres of private land along the Mokelumne River. Students from the Center for Land-Based Learning’s SLEWS program participated in a planting event at this project.

May 10th Kicked-Off Canoe Tour Season

Paddlers from Sacramento, Solano County, Yuba City, Oroville, Paradise and Chico joined River Partners for its first canoe tour of the 2008 season. Launching at Butte City, more than 31 kayaks and canoes floated down a 5-mile stretch of the Sacramento River, where they saw cliff, bank and tree swallows, ospreys, killdeer, otter slides, terns, herons, and egrets. Stopping near the Thomas Unit of the SRNWR, participants listened to Dr. Tom Griggs talk about salmon, riparian restoration, and meandering river processes. At the end of the tour, Dr. Griggs gave a brief overview of River Partners’ work at the Drummeller Slough Unit, SRNWR.

10th Anniversary Celebration Held April 11th

At least 270 River Partners’ sponsors, members, staff and community members enjoyed an evening of music, food, and silent auction bidding at River Partners’ 10th Anniversary Dinner. During the event, River Partners founders, Barney Flynn and John Carlon, honored their colleague, Scott Clemons, for his dedication to conservation and habitat protection during his tenure at the Wildlife Conservation Board. To see photos of the event, visit www.RiverPartners.org.

Bidwell Ranch Conservation and Mitigation Bank Project

While River Partners prepares the documents necessary to establish a conservation and mitigation bank at Bidwell Ranch, Chico CA, the City of Chico and River Partners continue to host public meetings and share progress reports.

During the third Citizen Work Group session on January 31, 2008, staff members Dan Efseaff and Colleen Martin provided an overview of the Prospectus and Preliminary Mitigation Bank Package, scenarios and management options for the site, and the potential resources and species to be protected by the bank. Paul Kirk (North State Resources) discussed the analysis of long-term management costs for the project, while Greg White (Pacific Legacy) discussed the cultural resources study.

On Thursday, May 15, 2008, River Partners and the City of Chico presented the management and conceptual plans to the Mitigation Bank Review Team (MBRT), which included representatives from US Army Corps of Engineers, Environmental Protection Agency and California Department of Fish and Game. The MBRT were receptive to the conceptual plans and encouraged the Project Team to proceed with fine-tuning the details.

Additional information for the Bidwell Ranch Conservation and Mitigation Bank Project is available at www.riverpartners.org/where-we-work/bidwell/bidwell.html.

North State Public Radio Listeners Prefer Native Plants

KCHO 91.7 North State Public Radio again teamed up with River Partners for their Spring Membership Drive. With “Sustaining Community” as the drive’s theme, more than 500 public radio supporters elected to have a bird or bee-friendly native species planted in their name by River Partners in lieu of receiving a thank you gift. Boy Scout Troop #2 installed these plants on May 10 and May 18 at the Del Rio Wildland Preserve. To learn more about how River Partners’ restoration helps wildlife, visit www.RiverPartners.org.
Chinook Salmon in the San Joaquin Valley: Natural History and Current Conditions

By Stacy Small and Dan Efsaffe

To many, springtime in the San Joaquin Valley means the brilliant bloom of almond orchards, the hum of irrigation pumps, and the arrival of migrating salmon along Highway 99. However, in the few remaining pockets of riparian habitat, cottonwoods and valley oaks are leafing out, Song sparrows are cranking up their singing along the riverbanks, and Wilson’s warblers are passing through on their way to montane nesting grounds. Less than a lifetime ago, you could add the churning splash of spring-run Chinook salmon migrating upstream to the sounds, sights, and cycles of spring.

Chinook salmon are anadromous, that is they spend most of their life cycle in the ocean and breed in freshwater. Adults spawn in the flowing, well-oxygenated, cold-water riffles of streams, and hollow out gravel nests called “redds.” After the young emerge from the nest, they feed and seek protection along river banks and in shallower, warmer nutrient-rich waters of side channels and inundated floodplains.

Pacific Chinook salmon grow to maturity in the ocean over several years, foraging on small fish and invertebrates and completing their life cycle by migrating back into freshwater streams to spawn. These individuals sought the deep, cold-water pools where they would survive over long, hot, dry California summers and spawn in the early fall (Yoshiyama et al. 1996). It’s easy to see how abundant snowpack, ample gravel, clean water, and massive food sources would contribute to the success of spring-run Chinook.

While in many places these conditions still exist, major barriers to fish migration have gone up. Passage to the higher elevation reaches has long been blocked by a series of man-made obstacles, including early hydropower dams and, more recently, large dams on the mainstem and tributaries. Dams have tamed flood flows and provide hydroelectric power and more dependable water source for crops and cities, but they have come at a cost to salmon. Spring-run Chinook have disappeared from San Joaquin River tributaries, including the Stanislaus, Tuolumne, and Merced Rivers.

Fall-run Chinook are now the last remaining legacy of the great historic Pacific salmon runs in the San Joaquin River system. Throughout California, fall-run Chinook have become the mainstream of Pacific salmon fisheries. These runs have historically occupied lower reaches on the valley floor and foothills than spring-runs. With later upstream migration timing, they arrive at the rivers with eggs ripe and spawn soon after reaching lower elevation spawning beds, rather than holding over in cold pools. Fall-run Chinook have persisted through the large dam-building era largely because they could still gain access to portions of their historic breeding areas. However, numbers have declined over time, and this year, it has become undeniably clear that the Chinook fall-runs are in big trouble, too.

Preliminary data from California Department of Fish and Game indicate that the 2007 fall-fish in the San Joaquin river system were stunningly small, returning in the hundreds rather than thousands to the tributaries (Figure 1). 315 Chinook spawners returned to the Stanislaus River, compared to 8,498 in 2005. 115 returned to the Tuolumne, compared to 17,873 in 2000. The total natural (non-hatchery) adult run was 1,450 for the San Joaquin River, compared to 39,474 in 2000. Initial reports from NOAA and the Pacific Fishery Management Council attribute the recent crash largely to a 2005 shift in ocean currents that delayed upwelling for the California Current, depleting spring food supplies at the time young salmon would have been anadromous. This event, possibly resulting in high mortality.

By all accounts, though, Chinook numbers have been affected over time by a century and a half of historic events in Central Valley rivers related to mining, vegetation clearing, dam-building, predation by non-native fish, water diversions and regulation. In general, smaller populations may be less resilient to sudden environmental shifts, and one major detrimental event can have catastrophic effects on a dwindling population. This may be what we are seeing with the recent crash, which would most appropriately be seen as a long-term culmination of alterations to river and delta environments, coupled with large-scale shifts in ocean conditions likely related to climate change.

The greatest hope for Chinook runs in Central Valley rivers lies in the fact that some, if only few individuals have survived in each tributary to breed this year. Although the origins of the problem may seem diffuse, it is incumbent upon every individual and institution to determine their immediate sphere of influence and take corrective action in that part of the system where they can be most effective. Although the most recent declines may strongly correlate to oceanic conditions, protection and improvement of riverine habitat becomes all the more critical in the face of dwindling populations. Conditions of freshwater breeding and rearing habitat must be closely examined and improved to maximize reproductive success and improve juvenile survival and condition.

Actions are being taken range-wide to protect and restore Chinook populations. The 2008 salmon fishing season is being limited in phases along the California coast. Planning for the San Joaquin River Restoration Program is underway, which aims to restore water flows and re-introduce spring-run Chinook to the San Joaquin River between the Merced River and Friant Dam by the year 2012. Throughout the state, water regulation and essentially, a stream with vegetated banks and floodplain connectivity offers a more complex habitat structure and a higher quality aquatic environment. Riparian vegetation is a key component of healthy salmonid habitat, as it improves physical habitat structure and provides necessary organic inputs, benefitting salmonids throughout the life cycle by creating conditions that sustain reproduction, survival, and better overall physiological condition. We at River Partners believe that restoration and management of these key freshwater habitat features is one very important part of the solution to the current salmon crisis.


Editor’s Note: This article is first in a series. See the next issue of the River Partners Journal to learn about the benefits to salmon in the San Joaquin Valley from riparian restoration.

Figure 1. Fall-run Chinook spawner numbers for this decade in the San Joaquin River system. Preliminary data from CA Department of Fish and Game.

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Introduce your family and friends to River Partners. Make them partners in protecting our rivers, fish, wildlife, and recreational areas. Gift members will receive a special membership certificate and decal, our quarterly newsletter, *The Journal*, plus special invitations to River Partners’ events.

### Become a River Partner or Make a Special Gift

**Regular Membership Option:** (Choose from options at right, leave gift information blank, and complete below.)

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### Gift Membership Options:

- Lifetime Partner $2,500 - 25 trees
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- Investor $100 - 1 tree
- Family $50
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**Honorary Tree Planting!**

Gift “Investor” members ($100+) and above will also have a native tree planted in their honor. This special bonus will be noted on their new membership certificate.

(left) Canoers on a recent River Partners float. Photo by River Partners staff.

(above) Female Black-headed Grosbeak, like the one students saw at River Partners’ Drumheller Unit restoration project this fall. Photo by Dave Menke, USFWS Digital Library.
Feather River Tour with River Partners

Bring Your Canoe or Kayak: Saturday, June 28, 2008

Join River Partners on a flatwater paddle for our first tour along the Feather River in 2008. Guided by River Partners’ ecologists, we’ll enjoy bird watching and explore several River Partners’ ecological restoration sites along the way. We’ll pull in for a lunch break half-way through the trip.

This is a free community event and reservations are required. Skill level is for paddlers who have the endurance for a 5-6 hour paddle to cover 12 river miles.

Saturday, June 28, 2008
8 am to 3:00 pm
• 7:45-9:00 am: check in at launch and caravan cars to the take out site
• 9:00 am-3:00 pm: boats on the river

Feather River • South Yuba City, CA
• Launch at Boyd’s Pump Boat Launch (Just south of the intersection of Oswald Ave. & Garden Huy., over the Levee Road)
• Take out at Nelson Slough, Feather River Wildlife Area

What You Need:
• Your own canoe or kayak, life jackets, and relevant equipment
• Sunscreen, Water, Bag Lunch, River Shoes
• A friend to help you shuttle between sites

Reservations & Information:
• Call (530) 894-5401 ext 22 or Email jpokrandt@riverpartners.org
• Visit www.RiverPartners.org