



## Year One Major Milestones

### Russian River & Dry Creek Flows

**Milestone:** Sonoma County Water Agency (SCWA) must petition State Water Resources Control Board (State Board) for permanent changes to Decision 1610, which establishes minimum flows in the Russian River and Dry Creek.

- ✓ SCWA filed a petition with the State Board on September 23, 2009.

### Estuary Adaptive Management

**Milestone:** Within six months of the issuance of the Biological Opinion, SCWA, with the support of NMFS, must begin public outreach on the need to avoid mechanical breaching of the estuary.

- ✓ Three community meetings were held (November 6, November 19 and June 22) in the lower Russian River and Jenner areas. Smaller meetings were held with state parks representatives and Stewards of the Coast & Redwoods. Estuary updates have been regularly emailed to more than 50 people.

**Milestone:** SCWA, in consultation with NMFS, California Department of Fish & Game (CDFG) and the U.S. Army Corps of Engineers (Corps), is required to annually prepare a barrier beach outlet design by April 1.

- ✓ On May 1, Philips Williams & Associates (PWA) consultants completed a draft study of options, which included an initial barrier beach outlet design. Plan was finalized in July.
- ✓ Because of delays in obtaining a Marine Mammal Protection Act (MMPA) Incidental Harassment Authorization from NMFS, SCWA did not implement NMFS “perched lagoon” design. MMPA application submitted to NMFS with a seal monitoring plan. SCWA, in collaboration with the Stewards of the Coast and Redwoods, began implementing the monitoring plan in July.

**Milestone:** SCWA must conduct and record monthly surveys of the beach topography and the outlet channel. SCWA must also place a time lapse video camera to record the interaction of waves, tides and the river mouth.

- ✓ SCWA initiated two months of beach topography surveys. Work was temporarily halted until MMPA Incidental Harassment Authorization is obtained. An encroachment permit from CalTrans for video camera installation is expected by the end of November.

**Milestone:** SCWA must continue its annual estuary water quality monitoring. The BO requires data collection sondes to be calibrated every three weeks.

- ✓ SCWA installed 12 data sondes at six water quality stations in the estuary, which are calibrated every three weeks. In addition, SCWA is working Bodega Marine Lab and PWA consultants on a circulation model and water quality monitoring for the estuary.

**Milestone:** SCWA is required to design and conduct ongoing extensive surveys of estuary invertebrates.

- ✓ SCWA has completed a bathymetric (a topographic) survey of the estuary that will help design a final invertebrate sampling plan. SCWA has an agreement with the University Of Washington to employ a variety of methods to sample invertebrates. The invertebrate study will provide information on the availability of steelhead prey in the estuary.

**Milestone:** From late spring to early fall (when flows are below 300 cfs at Hacienda Bridge), SCWA must conduct monthly surveys of steelhead in the estuary.

- ✓ SCWA conducted seining activities every three weeks from May to October and installed a fyke net, which was monitored daily until the end of June (the fyke net monitoring ended earlier than required because of technical difficulties).

## Dry Creek

**Milestone:** Begin Phase One of Dry Creek habitat enhancement, which includes conceptual design and planning.

- ✓ SCWA consultant Interfluve, Inc. has begun initial studies of Dry Creek with the goal of identifying potential locations for and types of habitat enhancement. Because the vast majority of Dry Creek is privately owned, SCWA has held three community meetings and sent letters to more than 500 landowners to educate them on habitat enhancement. The Center for Collaborative Policy is working with Dry Creek stakeholders to educate the community and solicit input.

**Milestone:** SCWA must initiate a feasibility study of a Dry Creek bypass pipeline during the fall of 2008, to be completed by the end of 2010.

- ✓ Pipeline consultants HDR Inc. have initiated a pipeline feasibility study. Consultants discussed the study at three community meetings and with two groups of stakeholders.

**Milestone:** SCWA must implement five habitat enhancement projects on Dry Creek tributaries by the end of Year 3.

- ✓ SCWA contracted with Sotoyome Resource Conservation District to conduct restoration work on 1,950 feet of Grape Creek. Phase I of the project is complete and Phase II is under construction.
- ✓ SCWA in collaboration with the Sonoma County Dept. Transportation and Public Works has started restoration design for the Wallace Creek Fish Passage Project and Wine Creek Fish Passage Project.

## Warm Springs Dam

**Milestone:** The Corps must provide annual updates on progress toward a new flow bypass system for the Don Clausen Fish Hatchery.

## Fish Monitoring in Russian River & Dry Creek

**Milestone:** SCWA is required to do the following:

- Annually operate rotary screwtraps at Mirabel and in lower Dry Creek to measure juvenile Chinook, coho and steelhead.
  - Implement a field sampling effort to capture fry at several Dry Creek locations.
  - Conduct annual juvenile steelhead and coho salmon rearing surveys pre- and post-habitat enhancement projects.
- ✓ In April, SCWA installed and began operating a rotary screwtrap in Dry Creek, capturing 226 steelhead smolts (a lifestage migrating to the ocean), 21,600 Chinook smolts and 10 coho smolts. The screwtrap at Mirabel was installed in April and captured 61 steelhead smolts, 1,358 Chinook and 213 coho. Juvenile salmonid surveys were conducted in Dry Creek during a three-week period, mid-to-late September.

## Mirabel Fish Screen and Wohler Ponds

**Milestone:** SCWA shall complete design of the new fish screen at Mirabel within three years of the issuance of this biological opinion.

- ✓ In September 2009, SCWA, NMFS, CDFG and consultants Prunuske Chatham, Inc reviewed and commented on the Mirabel Fish Feasibility Report. A conceptual design has been selected and the next phase of design will commence

**Milestone:** Within three years of the issuance of this biological opinion, SCWA shall decommission or modify the infiltration ponds on the East side of the Russian River at the Mirabel/Wohler facility.

- ✓ In September 2009, SCWA submitted a preliminary plan for the pond decommissioning to NMFS and CDFG for review and comment.

## Consistency Determination

**Milestone:** In order to ensure that SCWA can cover all the costs associated with monitoring, management and habitat enhancement, CDFG requires funds be deposited for "Stage One" improvements (covering 2009-2013).

- ✓ In September 2009, the SCWA Board of Directors approved the deposit of \$7.8 million to serve as security for Stage One.

## Year Two Major Milestones

### Russian River & Dry Creek Flows

**Milestone:** Within six months after the State Board's public notice of SCWA's petition to change Decision 1610, SCWA must begin the California Environmental Quality Act/National Environmental Protection Act (CEQA/NEPA) process by issuing a Notice of Preparation/Notice of Intent.

**Milestone:** In 2010, SCWA must petition the State Board for temporary changes in D1610 that will allow minimum flows to be reduced in the summer in the Russian River.

### Estuary Adaptive Management

**Milestone:** If planned estuary closures don't lead to desired water levels by the end of 2010, SCWA must draft a study plan for analyzing the Jenner jetty.

**Milestone:** SCWA must develop a list of structures, properties and infrastructure that could be affected by flooding as the result of a closed sandbar by March 24, 2010.

**Milestone:** SCWA, in consultation with NMFS, California Department of Fish & Game (CDFG) and the U.S. Army Corps of Engineers (Corps), is required to annually prepare a barrier beach outlet design by April 1.

**Milestone:** SCWA must conduct and record monthly surveys of the beach topography and the outlet channel. SCWA must also use a time lapse video camera to record the interaction of waves, tides and the river mouth.

**Milestone:** SCWA must conduct annual estuary water quality monitoring. The sondes which collect the data must be calibrated every three weeks.

**Milestone:** SCWA is required to conduct ongoing extensive surveys of estuary invertebrates.

**Milestone:** From late spring to early fall (when flows are below 300 cfs at Hacienda Bridge), SCWA must conduct monthly surveys of young steelhead in the estuary.

**Milestone:** Within nine months of completing the 2009 fish monitoring studies, SCWA must submit an annual report.

## **Dry Creek**

**Milestone:** Dry Creek bypass pipeline feasibility study is to be completed by the end of 2010.

**Milestone:** Dry Creek habitat enhancement conceptual design is to be completed by the end of 2010.

**Milestone:** Five habitat enhancement or fish passage projects must be built on Dry Creek tributaries before the end of Year 3.

## **Warm Springs Dam**

**Milestone:** The Corps must complete a feasibility report for construction of a flow bypass system for the Don Clausen Fish Hatchery.

## **Fish Monitoring in Russian River & Dry Creek**

**Milestone:** SCWA must do the following:

- Annually operate rotary screwtraps at Mirabel and in lower Dry Creek to measure juvenile Chinook, coho and steelhead.
- Implement a field sampling effort to capture fry at several Dry Creek locations.
- Conduct an annual juvenile steelhead and coho salmon rearing survey during Warm Springs Dam inspection periods, when water releases are lower.

## **Mirabel Fish Screen and Wohler Ponds**

**Milestone:** SCWA shall complete design of the new fish screen at Mirabel within three years of the issuance of this biological opinion.

- In the next 4 months SCWA will prepare and release a Request for Proposals for the Engineering Design of the Mirabel Fish Replacement Project.
- Within the next 6 months SCWA will select an Engineering Consultant and commence with the design of the replacement fish screen.
- SCWA will start the Environmental Review and Permitting process for the fish screen replacement project.

**Milestone:** Within three years of the issuance of this biological opinion, SCWA shall decommission or modify the infiltration ponds on the East side of the Russian River at the Mirabel/Wohler facility.

- Within the next 12 months SCWA will complete the CEQA process required to implement the decommissioning plan.