

## **Auburn Ravine/Coon Creek**

### ***Description***

The Auburn Ravine, Markham Ravine, Coon Creek, and Doty Ravine watershed is located in Placer and Sutter counties and bounded by Highway 49 at Auburn in the east, the City of Rocklin to the south, the Bear River to the north and Steelhead Creek (Eastside Canal) to the west. Auburn Ravine, which drains approximately 79 square miles with a change in elevation from 1600 feet to 30 feet (msl), is the southern most watershed of the group and includes the City of Lincoln. Markham Ravine, north of Auburn Ravine, rises northeast of Lincoln and empties into Steelhead Creek one mile north of Auburn Ravine. Coon Creek, between Markham Ravine and the Bear River, begins one mile west of Highway 49 with the merger of Dry Creek and Orr Creek and ends at the northern end of Steelhead Creek. Because the Markham Ravine channel west of Lincoln generally has no flow and will receive the greatest percentage of urban growth, it is unlikely to meet the ecosystem restoration objectives of the CVPIA, CALFED, or related programs. Of the above streams, Coon Creek and its primary tributary, Doty Ravine, may provide the best opportunity for restoration of anadromous and other native fish as well as improved water quality and wildlife habitat.

### ***Aquatic Resource Values***

Steelhead trout, Chinook salmon, Swainson's hawk, Cooper's hawk, Valley elderberry longhorn beetle, tricolored blackbird, bank swallow, white-tailed kite, northwestern pond turtle and the California red-legged frog are some of the species which would benefit from a restoration program. Present water management practices have "a localized negative impact on fish species composition, overall stream production, water quality, juvenile fish survival, adult anadromous fish migration timing and distribution..." (Auburn Ravine/Coon Creek Ecosystem Restoration Plan, April, 2002, 4-14) "Water management in the watersheds is not integrated with ecological concerns and each management entity is focused primarily on meeting water demands. There is no mandate for formal coordination to address multi-agency management of resources." (AR/CC ERP, 4-15) These practices are due in part to rice farming, which is the primary land use in the watersheds west of Lincoln and accounts for the timing and flow volumes of water that is delivered during the spring, summer and early fall. (For example, one water management objective of the South Sutter Water District is to have no flow in Coon Creek below its diversion located west of Highway 65.) Of course, hydropower operations priorities can also have adverse impacts, such as when PG&E shuts down its Wise powerhouse for maintenance from the middle of October through November, resulting in virtually zero flows in Auburn Ravine during that time. The critical low flow period also begins in October with the cessation of imported irrigation water. Auburn Ravine can have flows as low as 1 to 2 cfs below Lincoln until the winter rains. Coon Creek, however, continues to receive 9.5 cfs of discharge and dilution water (NID) from Placer County's SMD-1 wastewater treatment plant at Highway 49. Also, Coon Creek benefits from channel characteristics (larger bedrock pools and riffles) which lessen the impacts of low flows on the aquatic habitat.

### ***Recreation***

Almost all of the land in the watershed is under private ownership, providing few opportunities for increased recreation. The AR/CC ERP does not have a recreation component. Teichart, as part of their proposed expanded gravel operation, is promoting the Coon Creek Conservancy which “will provide the public with access to the largest multi-use environmental preserve in south Placer County. The Conservancy’s hiking trails, habitat viewing areas and educational programs will provide the public with a myriad of ways to enjoy natural open space.” Lakeview Farms Inc., a hunting preserve, is creating the Coon Creek Preserve, a 500 acre habitat restoration site. The City of Lincoln, as part of the Joiner Parkway bridge expansion, is acquiring additional open space area along Auburn Ravine.

### ***Support Groups***

In 1997, the Auburn Ravine/Coon Creek Coordinated Resource Management Plan (CRMP) Group was formed. Signatories to the Memorandum of Understanding include the County of Placer, NID, cities of Lincoln and Auburn, PCWA, SSWD, Placer County Resource Conservation District, Ophir Area Property Owners Association, Placer Nature Center, private property owners, and environmental groups. The CRMP received a CALFED grant to product an Ecosystem Restoration Plan that was completed in April of 2002 and includes about 300 actions designed to improve water quality, habitat, fisheries for steelhead and Chinook salmon and reduce flood risk, fire hazards and invasive species (though it has little to say about improving the fishery through improved flows or re-optimized water management). Due to water agency objections to some of these proposals, the plan is being adopted piece-meal starting with several pilot projects.

### ***Key Issues/Concerns***

The CRMP’s signatory water agencies are not supportive of the full ERP as they are reluctant to modify their dams and diversions. However, they may be willing to work with other entities, such as the City of Lincoln and Placer Legacy, which have expressed interest in moving or modifying some of these facilities. The City of Lincoln’s new Wastewater and Reclamation Facility on Auburn Ravine will have an initial capacity of 6.6 cfs (4.3 mgd) with an ultimate rate of 18.6 cfs (12 mgd). Studies are under way to enlarge the Lincoln plant into a regional wastewater facility for Lincoln, Auburn, Placer County’s SMD-1 plant on Joeger Road, Newcastle and, perhaps, Lake of the Pines with a 51 cfs (33 mgd) capacity, eliminating existing year-around discharges into upper Coon Creek and Auburn Ravine. The proposed plant[s] could thus have major impacts on flows, timing, water quality and temperatures unless appropriate mitigations are required and implemented. PCWA’s American River Pump Station will also have an impact on water temperature and chemistry in Auburn Ravine as it enables PCWA to deliver American River water into western Placer and Sutter counties year-around. “The sequential imprinting process found in salmonids has implications in the analysis of the Proposed Project (Pump Station). The sequential process indicates that as wild-spawned salmon and steelhead in Auburn Ravine emerge, rear and migrate, they may become imprinted with numerous odors during their downstream journey.” (American River Pump Station Project, FEIS/EIR). The Bickford Ranch Project (1900 housing units) and other urbanizing projects will convert open space and lead to increase “flashy” run-off

and pollutant discharge into Auburn Ravine. The Teichart Aggregates Project, a large off-stream aggregate and granite mine near Coon Creek and Doty Ravine, will also have adverse environmental impacts. The potential for conversion of rice operations to other uses is high. If rice fields are converted to urban tracts, it would, among other impacts, disrupt the timing and volume of flows and encroach on riparian areas. The reduction of the delivery and transport of sediment and the associated improvement in riparian vegetation and channel expansion are key to enhancing the fishery and wildlife habitat. In addition to sediment, confined channels, urban development and unreliable flows (water management practices) are all constraints on habitat quality. Also, there are numerous fish passage barriers, impediments and unscreened diversions, especially on Auburn Ravine, that have a negative impact on the anadromous fishery. Chief among those requiring modification are NID's District Gauging Station one quarter mile downstream of Highway 65 in Lincoln, Lincoln Ranch Duck Club dam, Hemphill Dam, and NID's Auburn Ravine 1 Dam near Chili Hill Road (1 Dam is halfway up the watershed and much of the best steelhead habitat is upstream with excellent rearing habitat in the area). Urban development is least likely along Coon Creek above Gladding Road due to large parcel sizes, current General Plan designations, a lack of urban services and environmental constraints. Auburn Ravine is experiencing the greatest pressures from urban encroachment with the expansion of housing tracts in the Lincoln area. Development could be a major constraint on fishery restoration as most land in the watershed is in private ownership and has no permanent protection. All of the above underscore the need for a comprehensive and coordinated flow and habitat program to protect, restore, and enhance riparian zones, provide assured and adequate flows for anadromous fishery needs, and reduce the run-off of pollutants.

### ***Target Flows***

Optimum flows and their timing have not yet been determined. As noted, the Auburn Ravine/Coon Creek ERP has little to say about improving the fishery through better flow management. It notes in Table 8-2 (8-11) that "Low fall flows, after irrigation water deliveries are reduced to western area farmers, block or impede adult fall Chinook migration to spawning areas and negatively impact overall aquatic resource productivity." However, no mitigation or improvement plan is offered, noting instead that "Water suppliers operate fully within their water rights and operational procedures." Table 10-2 (10-32) under Objectives AR FR 3 lists "Provide adult Chinook salmon and steelhead trout unrestricted access over diversion structures or gauging stations to spawning areas by 2008" and then offers as one of the strategies "Provide sufficient water flows (Chinook salmon require a minimum water depth of > 0.24 meters, while steelhead trout need depths of > 0.18 meters), under the existing channel configuration, during spawning migration periods so that fish have access to up-stream areas." The task associated with the strategy is to "Evaluate and develop an implementation plan, if necessary, to provide sufficient water depth, through additional flows, to allow upstream passage of adult Chinook salmon and/or steelhead." The CRMP, so far, has shown little interest in addressing the routing and timing of flows.

### ***Bear River Links***

A proposal to improve late summer and/or fall flows in the lower Bear River could have a direct impact on Auburn Ravine flows. At present, NID sells SSWD anywhere from 5,000 to 15,000 af of available “surplus” water each year during the irrigation season. This water is moved to SSWD via the Bear Canal through Auburn Ravine. The resulting flows in Auburn Ravine have both positive and negative impacts. The flows may help to extend riparian and aquatic habitats for species of concern and improve water quality; however, they also encourage the proliferation of non-natives such as blackberry and predators. The timing, volume, and ultimately diversion of these flows also combine to provide little reliable benefit to anadromous fish. One of the greatest potential benefits of a comprehensive problem-shed restoration effort would be to re-optimize water deliveries and management to address sustainable fishery needs, and to advance understanding of how to best address the collective needs of remnant fisheries in the various individual watersheds. (For example, a decrease in summer flows in Auburn Ravine could likely be more than offset by extending flows into the fall. Coon Creek would likewise benefit from extended flow periods.)