

**PETITION FOR CHANGE  
ATTACHMENT 7  
CEQA DOCUMENTATION**

The CEQA documents prepared for the proposed project and included in Attachment 6 of this Petition for Change include the following:

- Town of Windsor Water Reclamation Master Plan for Treatment, Storage and Disposal Environmental Impact Report, October 2000, SCH No. 99112034;
- Town of Windsor Water Reclamation Master Plan for Treatment, Storage and Disposal Final Environmental Impact Report;
- Addendum to the Town of Windsor Water Reclamation Master Plan for Treatment, Storage and Disposal Environmental Impact Report, October 15, 2008; and
- Notice of Determination for the Geysers Recharge Pipeline Connection Project, November 10, 2008.

## PETITION FOR CHANGE

### ATTACHMENT 8

#### **Item Number 8, General Plant Community Types**

The general plant community type that best describes the tree-dominated riparian corridor in the vicinity of the outfall is Valley Foothill Riparian, transitioning to Valley Oak Woodland southeast of the project site (i.e., above the left bank of Mark West Creek), and to Annual Grassland or Orchard-Vineyard to the northwest (Mayer and Laudenslayer 1988). The aquatic community of Mark West Creek is Riverine.

#### **Item Number 10, Potential Impacts to Fish**

The existing effluent discharge is to Mark West Creek via a structure surrounded by boulders and located on the right bank immediately downstream from the Trenton Healdsburg Road Bridge (Figure 3). Mark West Creek is one of the five largest tributaries feeding the Russian River. It originates in the Mayacamas Mountains to the east and drains a large watershed. Mark West Creek is a perennial stream providing habitat used for migration, spawning, egg/larval development, and juvenile rearing by steelhead (*Oncorhynchus mykiss*) and coho salmon (*O. kisutch*). Steelhead in the Mark West Creek watershed are classified as part of the Central California Coast Evolutionarily Significant Unit (ESU), which is listed under the Endangered Species Act (ESA) as a threatened species. Coho in Mark West Creek belong to the Central California Coast ESU of Coho, which is federally listed as an endangered species and is also listed as endangered under the California Endangered Species Act (CESA). Chinook salmon (*O. tshawytscha*) of the California Coastal ESU, a federally threatened species, must occasionally pass through the lower reach of Mark West Creek (i.e., downstream of the confluence with the Laguna de Santa Rosa), because both adults and juveniles have occasionally been captured in Santa Rosa Creek (Fawcett et al 1996, Fawcett et al 2003). However, Chinook have not been documented to occur elsewhere in the Mark West Creek watershed.

Mark West Creek is designated critical habitat for both coho and steelhead (NMFS 1999, 2005). For coho, critical habitat includes "all river reaches accessible to listed coho within the range of the ESUs listed". Critical habitat consists of the water, substrate, and adjacent riparian zone of estuarine and riverine reaches, including off-channel habitats (NMFS 1999). For steelhead, critical habitat includes the water, streambed, and banks, with a lateral extent defined by the ordinary high water line or, if the ordinary high water line has not been defined, by the bankfull elevation (NMFS 2005). The entire Mark West Creek watershed is excluded from critical habitat for Chinook (NMFS 2005).

During fyke net studies conducted from 1991 through 1995 by Merritt Smith Consulting for the city of Santa Rosa in Mark West Creek near the Slusser Road Bridge and (in one year) near the River Road Bridge (Roth et al 1995, Fawcett et al 1996), and summer surveys of juvenile salmonid abundance from 1993 through 2004 at lower, middle, and upper reaches of Mark West Creek (Fawcett et al 2003, with updates for years 2003 and 2004), wild adult and juvenile steelhead and wild juvenile coho were captured in fyke nets near Slusser Road and River Road and juveniles of both species were captured by

seine in reaches higher in the watershed. The reach in the vicinity of Slusser road includes some habitat potentially suitable for salmonid spawning, i.e., there are short riffles where the streambed contains sufficient gravel and cobble to permit the construction of redds, but mostly consists of pools and long glides where the streambed particles are dominated by sand and silt. Insect larvae or nymphs essential for juvenile steelhead or coho rearing (i.e., caddisflies, mayflies, stoneflies, alderflies) are relatively scarce in such sluggish, low gradient, soft-bottom areas, and this is reflected in the consistently low abundance of juvenile steelhead found in summer surveys in the lower reach, compared to the middle and upper reaches of Mark West Creek. (Juvenile coho were captured only once during 12 years of summer surveys in Mark West Creek, in 2001 in the middle reach, near Mark West Springs Lodge.)

Near the Town of Windsor's current discharge location at Trenton Healdsburg Road, there is no spawning habitat (no gravelly riffles) and the rearing habitat is of lesser quality than that available in the Slusser Road area, which is approximately 5 stream miles further upstream. At the discharge location, the stream habitat is one continuous glide, both downstream and upstream of the bridge (Figures 1 and 2, photographs taken at base flow during an unusually dry winter), interrupted only by a short riffle area directly adjacent to the outfall (Figure 3); the streambed in the riffle area is covered with boulders similar to those used in the riprap lining the banks beneath the bridge. It is likely that little juvenile salmonid rearing occurs near the discharge location; it serves mainly as a migration corridor for up-migrating adult coho and steelhead, and for out-migrating juvenile coho and steelhead, and spawned-out adult steelhead.

Additional fishes captured in Mark West Creek during the studies cited above include the following native species: river lamprey (*Lampetra ayresi*), western brook lamprey (*L. richardsoni*), Pacific lamprey (*L. tridentata*), California roach (*Lavinia symmetricus*), Sacramento sucker (*Catostomus occidentalis*), threespine stickleback (*Gasterosteus aculeatus*), Russian River tule perch (*Hysterocarpus traski pomoi*), Sacramento blackfish (*Orthodon microlepidotus*), Sacramento pikeminnow (*Ptychocheilus grandis*), hitch (*Lavinia exilicauda*, and prickly sculpin (*Cottus asper*---some were misidentified as coastrange sculpin, *Cottus aleuticus* in 1995-96 reports). Non-native species include: fathead minnow (*Pimephales promelas*), western mosquitofish (*Gambusia affinis*), bluegill (*Lepomis macrochirus*), green sunfish (*Lepomis cyanellus*), largemouth bass (*Micropterus salmoides*), black crappie (*Pomoxis nigromaculatus*), brown bullhead (*Ictalurus nebulosus*), white catfish (*Ictalurus catus*), common carp (*Cyprinus carpio*), and golden shiner (*Notemigonus crysoleucas*).

River lamprey and Russian River tule perch are state species of special concern. Lampreys in the Russian River region are anadromous, and their spawning habitat requirements are similar to those for steelhead and coho: cool, clean, well aerated gravel beds in fairly swift water (Moyle 2002). After emerging from the gravel, lamprey larvae (ammocetes) move downstream, settle to the bottoms of cool, perennial pools, and live for several years in burrows before changing to the adult form and migrating to estuaries or the sea. It is likely that some ammocetes may live in the streambed near the project site, as they were abundant in the reach near Slusser Road during the 1990s (personal observation). Russian River tule perch are live-bearing fish associated with clear, flowing water, abundant vegetation, woody debris, rootwads, or other cover along stream edges. Both juveniles and adults are likely to occur in the vicinity of the project site.

With development of the Geysers project and the Town's Eastside Road Storage Project, there would initially be a reduction in the amount of water discharged to Mark West Creek (Draft Technical Memorandum on Discharge Capacity Modeling, 17 September 2008). However, at build out conditions, the number of days at which the Town discharges at the maximum daily rate would be increased under all scenarios analyzed. As Average Dry Weather Flow increases over time from the current 1.6 MGD to a future 3.0 MGD, the average annual amount discharged to Mark West Creek would increase from approximately 340 million gallons per year to approximately 410 million gallons per year under all scenarios analyzed. Potential impacts to fish were evaluated in the Master Plan EIR by reference to the long-term fish studies discussed above, and determined to be less than significant.

### **Item Number 11, Potential Impacts to Riparian and Terrestrial Wildlife**

The effect of the entire project identified in the Master Plan on riparian and terrestrial wildlife was analyzed in the Master Plan EIR (ESA 2000, 2001) and Addendum (CH2M Hill 2008). No significant impacts to wildlife associated with the Windsor Geysers Recharge Pipeline Connection Project were identified. As indicated in the answer to Item No. 8 (above) and shown in Figures 1-3, the only community type present at the outfall site is Valley Foothill Riparian, which is typical of floodplains and low velocity flows, and is usually dominated by deciduous trees such as cottonwood (*Populus* sp.), California sycamore (*Platanus racemosa*), and valley oak (*Quercus lobata*) with subcanopy trees such as Oregon ash (*Fraxinus latifolia*), boxelder (*Acer negundo*), white alder (*Alnus rhombifolia*), and willows, *Salix* sp. (Mayer and Laudenslayer 1988). In the vicinity of the outfall, the trees lining the stream are all willows, including arroyo willow (*Salix lasiolepis*) and a rough-barked tree-type willow (possibly Pacific willow, aka western black willow, *Salix lasiandra*). Both species are seen in Figures 1-3. Further away from the stream are a few mature valley oak, Coast live oak (*Quercus agrifolia*), Oregon ash, and California bay (*Umbellularia californica*). Understory vegetation in the vicinity of the outfall is primarily California blackberry (*Rubus ursinus*), non-native Himalayan blackberry (*Rubus discolor*), and poison-oak (*Toxicodendron diversilobum*).

Many species of native wildlife, including amphibians, reptiles, birds and mammals are associated with riparian habitat in the project region, either as full-time residents (e.g., dusky-footed woodrat, *Neotoma fuscipes*), or as part-time residents using it for nesting, roosting or sheltering while foraging in surrounding habitats (e.g., white-tailed kite, *Elanus leucurus*, and many other birds; and many species of bats), while other species use it as a migration corridor linking other habitat types or in daily movements to obtain water or food. However, since the existing outfall will not be altered in any way for this project, there should be no construction noise, dust, or other disturbance that might affect riparian wildlife. The anticipated changes to the amount of effluent discharged at this site are not expected to have any impact on wildlife associated with the riparian corridor or adjacent areas.

### **References**

Fawcett, M.H., J.C. Roth, M.L. Commins, and R.W. Maddox 1996. Anadromous Fish Migration Study Program 1991-1995. Prepared by Merritt Smith Consulting for Harland Bartholomew Associates and the City of Santa Rosa and. 48 p. + appendices.

Fawcett, M.H., J.C. Roth, and D.W. Smith 2003. Salmonid juvenile density monitoring in Sonoma County streams, synthesis of a ten-year study (1993-2002). Prepared by Merritt Smith Consulting for the City of Santa Rosa. 52 p. + appendices.

Mayer, K.E. and W.F. Laudenslayer, Jr. (Eds.) 1988. A Guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection, Sacramento. 166 p.

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National Marine Fisheries Service 2005. Endangered and Threatened Species; designation of critical habitat for seven evolutionarily significant units of Pacific salmon and steelhead in California. Federal Register Vol. 70, No. 170: 52487-52627. 2 September 2005.

Roth, J.C., M.H. Fawcett, M.L. Commins, and R.W. Maddox 1995. Santa Rosa Subregional Long-Term Wastewater Project, Anadromous Fish Migration Study Program, 1991-1994. Prepared by Merritt Smith Consulting for Harland Bartholomew Associates and the City of Santa Rosa.