# Fish Will Need Your Help During This Extreme Drought!

For all of our sensitive runs of fish, water is critical - the cooler the better. Anything we can do individually and as a community to help leave as much water as possible in the streams they rely on for survival, and to maintain their ability to access cool water sources is crucial during a drought.



Salmon River Springers photo by David McLain

The Salmon River is in the midst of an extreme drought. Our watershed experienced historically low snowpack and below average rainfall this past winter. The river, streams and springs that both human and aquatic communities rely on are reaching perilously warm temperatures and low levels and may dry up completely as the summer progresses. Such conditions can altogether reduce the chances of survival for fish as warm water and low flows increase disease and mortality.

#### Salmon River's Unique Fishery

The Salmon River is home to wild runs of all of the native anadromous fish that occur in the Klamath River Watershed, including spring Chinook, fall Chinook, coho, steelhead, green sturgeon and Pacific lamprey. Several of these runs are rare or threatened and this river serves as an important refugia, where fish rely on the relatively cool, clean waters to survive.

The largest remaining wild run of spring Chinook in the Klamath watershed returns to the Salmon River each year. These once abundant fish migrate upstream from the ocean in the spring and reside in the river through the hot summer months, seeking refuge in deep pools and cool creek mouths to survive the warm summer water.

Coho salmon are the only fish species in the Salmon River listed under the endangered species act. Although rare here, at least a handful spawn each winter, and juveniles rear through the summer in the river and small creeks throughout the watershed. Unlike some of our other anadromous fish, coho often utilize small, low gradient creeks for spawning and rearing.

#### Fish Passage

If you have a creek on your property, even a small one, it is likely that fish will be trying to utilize it to stay alive this summer. Almost all of our creeks maintain cooler summer water temperatures than the river, which will exceed the lethal temperature threshold for fish during the heat of the summer by several degrees. The only way that fish can survive such temperatures is to escape for at least part of each day into cooler water. Things that you can do to help fish access this critical cool water include:

Make sure swimmers dams and water diversions do not block fish access into creeks, or upstream.

If your creek mouth gets blocked off by rocks or sediment that prevent fish from getting through, spend some time moving rocks to create channels and step pools that allow fish access to the creek.

Contact us: Salmon River Restoration Council PO Box 1089
Sawyers Bar, CA 96027
(530)462-4665 srrc@srrc.org



## **Water Conservation & Efficiency**

Most of us here on the Salmon River use water from springs, creeks or the river for our household and landscape needs. Making sure that you minimize any waste associated with your water use, so that you can leave as much as possible in the stream for the fish is very important. Examples of conservation and efficiency measures that you can take include:

Avoid unnecessary overflows from your water tanks. By installing float valves, automatic shut-off valves and/or overflow piping back to the source stream, countless gallons of water can be saved at relatively little cost.

Return outflows from your micro-hydro system back to their source stream. Hydro systems use a tremendous amount of water, and by locating your hydro system near enough to the stream for water to return on its own, or by piping the water back to the stream, this water can provide your power while still supporting aquatic life.

System leaks resulting from animal damage, joint leaks or dripping fixtures can also result in wasted water. Conducting system maintenance can reduce these impacts significantly.

Water-efficient gardening and landscaping techniques can also greatly reduce water use. By watering at night, utilizing timers and other methods to avoid over watering, mulching and installing drip irrigation you can significantly reduce your water use. Simple water use efficiency techniques can reduce your water use by more than 50% and can be implemented for relatively low cost.

### **Fish Friendly Water Storage**

Although it is late this season to add water storage to your conservation actions, it is never too early to begin planning for next season. Water storage and forbearance is a water conservation method that requires a household to store enough water during the wet winter months in order to forbear pumping or diverting during the dry summer months when flows are at their lowest. Although it may not be feasible for every household, for those who can, it offers the greatest potential benefit to streamflows of any conservation activity.

The State Water Resources Control Board estimates that for the 3.5 months of summer, a water-efficient, two person household with an 800 square foot garden, requires 23,000 gallons of water storage.

Anyone who is interested in utilizing the storage and forbearance method, should contact us for more info on planning and implementing such a system.



SRRC's crews have been creating step pools to make the cold refugia creeks more accessible to juvenile fish during the summer's low water levels.

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