

RIPARIAN PLANTING

As an organization the Confederated Tribes of Warm Springs promotes



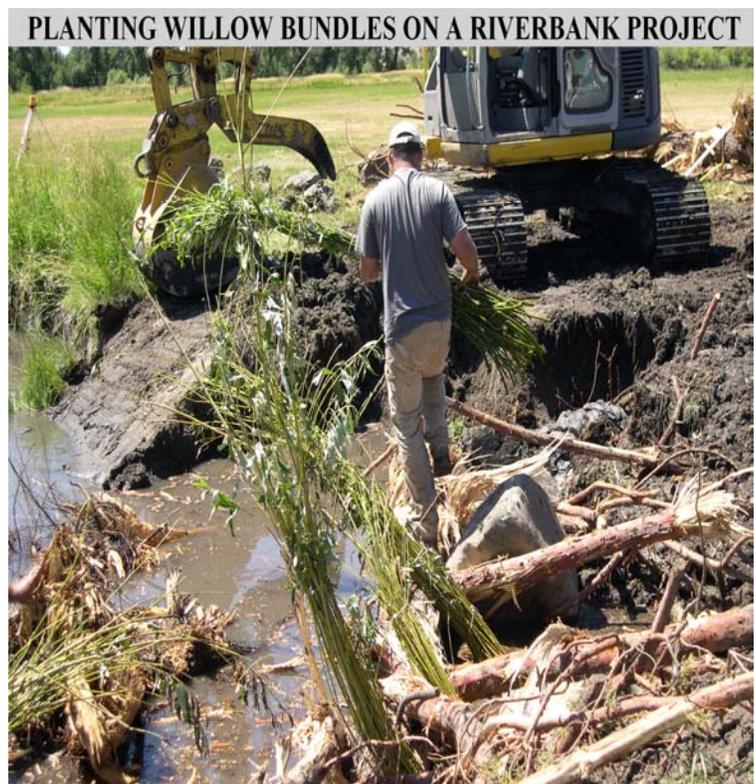
restoration with plants native to our area. Native Plants are those thought to have occurred here prior to European settlement. These plants have adapted to the climate, soils and rainfall of our area. They coexist without becoming invasive to other species native to the area. Natives surpass nonnatives in ruggedness and resistance to insects and disease common to

the area. The importance of these species in our watershed cannot be overstated. They are vital to streambank stability, slowing water and preventing erosion during heavy runoff. They filter pollutants and provide shade for streams and rivers helping to reduce water temperatures. These factors are all extremely important in reducing the mortality of Steelhead (*Oncorhynchus mykiss*) and other species inhabiting the John Day River and its tributaries. Native plants add to the complexity of the river system and surrounding areas by providing food and shelter for many kinds of wildlife. This added complexity helps provide the basis of an ecologically sound environment.

In 2002 we broke ground for the development of a plant nursery to propagate species known to be native to the John Day Basin. Now in 2008, only six years later, we are providing most of the material for our riparian and upland projects in the John Day Basin. Some of the species we have been successful with for riparian restoration are numerous species of Willow, Cottonwood, Chokecherry and Red Osier Dogwood. We have also been successful in propagating Bitterbrush, Rabbitbrush, Mountain Big Sagebrush and several native

grasses. These species are used to restore upland plant communities which are also very important in the big picture of healthy Watersheds.

During 2008 we are expanding our nursery. Grant money we've received will be used to build a greenhouse, making it possible to replicate a variety of conditions needed to propagate other native plant species of the area. One of our goals is to grow larger rooted species to be planted into riparian areas. These larger rooted plants will provide streambank stability and healthy conditions at a much faster rate than the smaller more fragile sizes we currently have access to. We also plan to grow sedge and rush species common to the area. These are important in providing streambank stability as they have a vast root system that offers great holding power. With the ability to provide these additional species we will be able to quickly establish a community that will provide an environment more suitable for establishing other more sensitive species important to our rivers and wetland areas.



Native vegetation along our streams is not the only answer to the survival of endangered Steelhead. However Native vegetation is a very big step towards a healthy watershed which is necessary for the survival of Steelhead and all life that inhabit this basin.

Below is a series of pictures that illustrates recent restoration efforts on the mainstem of the John Day River in Prairie City Oregon.



2001

**The John Day River pre riparian fencing
Almost no shade on the water, no rearing habitat and riverbank has been greatly incised. The river runs wide, shallow and straight.**



2004

During this sucesional stage you see grasses starting to recover. Sedges and Rushes are doing their work healing the banks, slowing the water and providing rearing habitat for juvenile Steelhead.



2007

A healthy river is starting to emerge. Banks are healing, pools are developing and the river is regaining sinuosity. Woody shrubs are starting to take their place and provide the shade that keeps

JOHN DAY BASIN OFFICE PLANT NURSERY

CURRENT SPECIES LIST

- BIG- LEAF SEDGE
- BEAKED SEDGE
- WATER SEDGE
- BUR-REED
- BALTIC RUSH
- INFLATED SEDGE
- NEBRASKA SEDGE
- SMALL WINGED SEDGE
- HARDSTEM BULRUSH
- CREEPING SPIKE-RUSH
- GREAT BASIN BIG SAGE
- RED OSIER DOGWOOD
- BLACK COTTONWOOD
- SUMAC
- SERVICEBERRY
- GREENS MT. ASH
- GREAT BASIN WILD RYE
- BITTERBRUSH
- CURLEAF MT MAHOGANY
- BLACK HAWTHORNE
- MOCK ORANGE
- QUAKING ASPEN
- ARROYO WILLOW
- UNDERGREEN WILLOW
- BEBBS WILLOW
- GEYER WILLOW
- WHIPLASH WILLOW
- ONE COLOR WILLOW
- BOOTH WILLOW
- GREEN LEAF WILLOW
- COYOTE WILLOW
- MACKENZIE WILLOW
- LEMON WILLOW
- GOLDEN WILLOW
- MALLOW NINEBARK
- RUBBER RABBITBRUSH
- CHOCHECHERRY
- GOLDEN CURRANT
- GOOSEBERRY
- VINE MAPLE
- AMERICAN CRANBERRY



WILLOWS

