edband Trous

THE DESCHUTES RIVER

• O O O O At Risk

Wickiup

Reservoir

• • • • At Risk

WICKIUP RESERVOIR TO FALL RIVER

The estimated number of breeding adults in the reach of the Deschutes River between Wickiup Reservoir and Fall River was relatively low, 309 adults, suggesting that the population in this area is weaker than others along the Deschutes River. The low number of breeding adults sug-

gests that relatively fewer fish are surviving to

become adults or that relatively fewer adults in

are likely the result of the highly altered flow

conditions, the impacts of brown trout, and the

severely degraded condition of instream habitat.

This reach represents the greatest need for flow

and habitat restoration. It, along with the Fall

our river and our native trout.

River to Little Deschutes reach, also represents

the greatest opportunity to make a difference for

the population are breeding. These low numbers

FALL RIVER TO LITTLE DESCHUTES

The redband population between Fall River and the Little Deschutes had the lowest estimated number of breeding adults contributing to 2015 offspring of almost any of the populations studied, at approximately 65 breeding adults. This population was also genetically similar to the Wizard Falls hatchery stock released annually in Fall River, suggesting fewer of the native fish and more of the hatchery fish are breeding in this reach. The low number of natural-origin breeding adults in this population could be resulting in fewer offspring and reduced survival, and makes this population particularly vulnerable to poor habitat conditions and the impacts of stocking and brown trout.

Deschutes River

• • • O O Stable

LITTLE DESCHUTES TO MIDDLE DESCHUTES

The population of redband trout in the Deschutes River between the Little Deschutes and Bend is moderately strong, with genetic analyses suggesting that approximately 1,090 breeding adults contributed to 2015 offspring. The fish ladder installed at North Canal Dam in 2017, along with any future passage at the Mirror Pond Dam, will allow this population to interbreed with the more robust Middle Deschutes population, potentially increasing the overall health of the two newly connected populations.

FOR NEARLY A CENTURY, management of the Upper Deschutes River has significantly altered habitat and streamflow conditions. As early as the 1940s, local biologists predicted that these changes would have negative effects on redband trout populations but, until very recently, data on the status and health of this native trout has not been available for the Deschutes. New information on redband trout along 100 miles of the Deschutes River between Wickiup Reservoir and Big Falls provides important insight into how several distinct populations have fared under the modified flow regime and other changes including the introduction of non-native brown trout and stocking of hatchery fish. The following summary highlights some of the key findings from the USFWS report, Evaluation of genetic population structure and effective population size among populations of redband trout



in the Deschutes River, OR (Bohling et al. 2017). The full report is available at www.RestoreTheDeschutes.org.

Middle Deschutes (Bend to Big Falls) Tumalo Creek

• • • • • Stable

MIDDLE DESCHUTES AND TUMALO CREEK

The population of redband trout living in Tumalo Creek and the Middle Deschutes is relatively strong, with genetic analyses showing that approximately 1,469 breeding adults contributed to 2015 offspring. Given its size and distribution, this population is likely to have more resilience to disease, changing habitat conditions and the effects of a warming climate than some of the smaller populations in the Upper Deschutes River; however, this population is also likely to experience the greatest impacts to stream flow and temperature resulting from climate change. Genetic analyses show that the North Canal Dam was a complete barrier to migration between populations before construction of a fish ladder in 2017. The new ladder connects this population and others located upstream, improving the chances that these populations can remain strong.