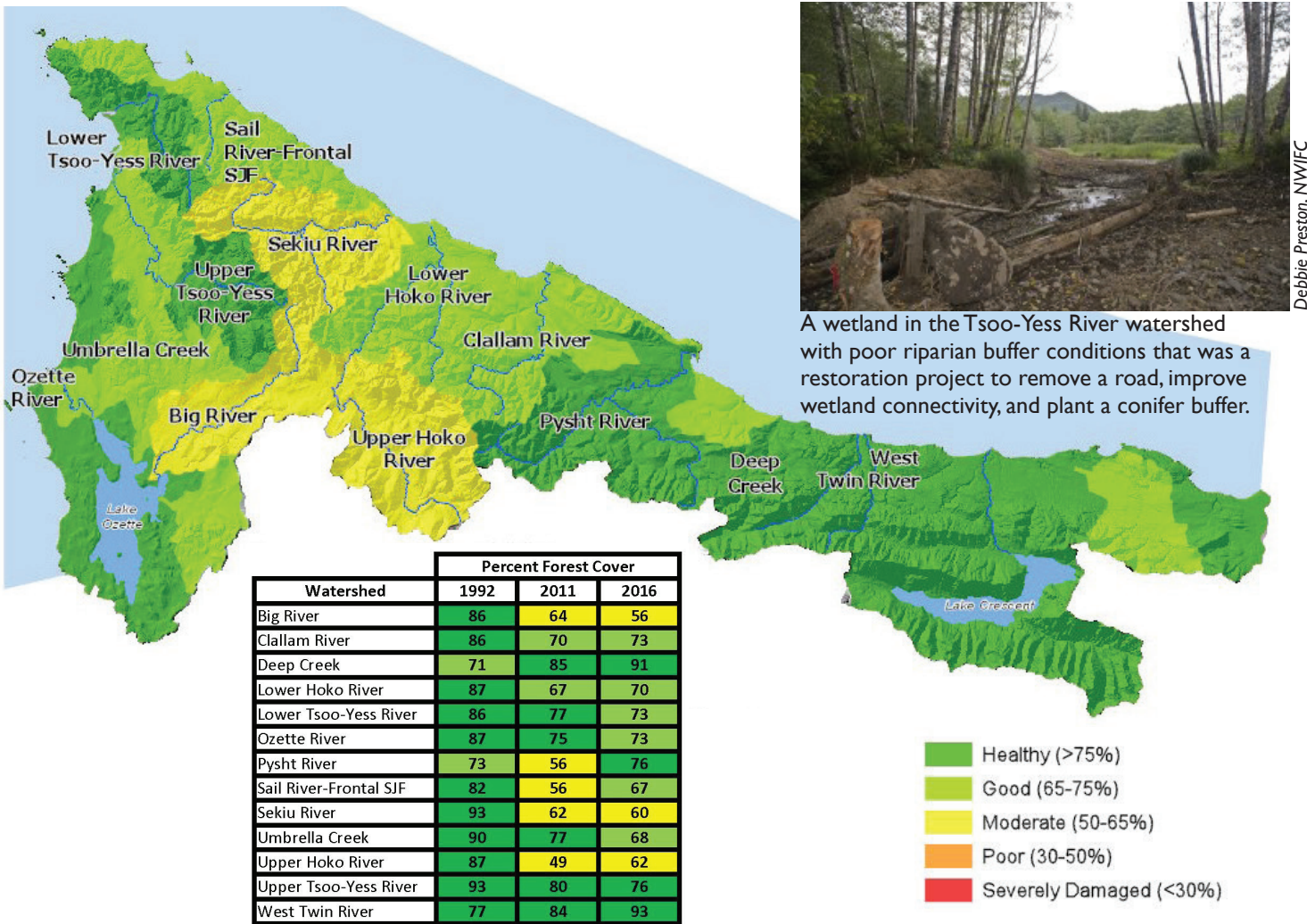


Forest Cover Conditions

Twenty watersheds (81.2% by land area) have healthy (more than 75%) or good (65-75%) forest cover conditions in the Makah Area of Interest. This is an improvement over the 2011 forest cover conditions when 18 watersheds had healthy or good conditions (65.4% by land area) but a decline from 1992 when all watersheds had healthy or good conditions.



The current forest cover conditions of watersheds in the Makah Area of Interest are mostly healthy to good with 20 watersheds (81.2% by land area) having healthy (over 75%) or good (65-75%) forest cover conditions. This is an improvement compared to the 2011 forest cover conditions when 18 watersheds (65.4% by land area) had healthy or good conditions. However, a different picture in forest cover emerges over the longer period between 1992 and 2016. In 1992, all 23 watersheds (100% by land area) had a healthy to good forest cover as opposed to 20 watersheds in 2016. It is important to note that because the rotation length of many of the industrial timberland owners has shortened significantly, the resulting forest stands are not reaching an age where they are capable of providing full habitat functionality. The long term im-

pact of this is that the entire area becomes severely damaged because the basins repeatedly never reach the ability to achieve a functioning habitat, and thus become less resilient.

Between 2011 and 2016, a few watersheds like Umbrella Creek had a significant decline in forest cover but the overall trend was an increase in forest cover including an increase from 56% to 76% in the Pysht River watershed. In the longer period between 1992 and 2016, there were some gains in forest cover in some watersheds like West Twin River (which increased from 77% to 93%) and Deep Creek (71% to 91%). However, the general trend was a decrease in forest cover in various watersheds with the largest reductions in Big River (which decreased from 86% to 56%), Upper Hoko River (87% to 62%), and Umbrella Creek

(90% to 68%).

Forest cover conditions have a tremendous impact on watershed processes and thus on salmonid habitat. Changes in forest cover can affect the rate of solar radiation reaching the stream surface, the delivery of water, large woody debris (LWD), sediment and nutrients to stream channels, as well as bank and channel stability. For the Sekiu River, Smith¹ lists extensive sedimentation problems, lack of LWD, extensive riparian areas dominated by hardwoods, and the reduced age of the surrounding forests as important habitat limiting factors. According to Smith,² excess sedimentation and a lack of LWD are primary factors which affect channel stability, impact incubating salmon eggs, and therefore limit salmon production in the Hoko River watershed.

Map Data Sources: SSHIAP 2004,³ USGS 2014,⁴ NOAA 2019,⁵ WAECY 2018⁶