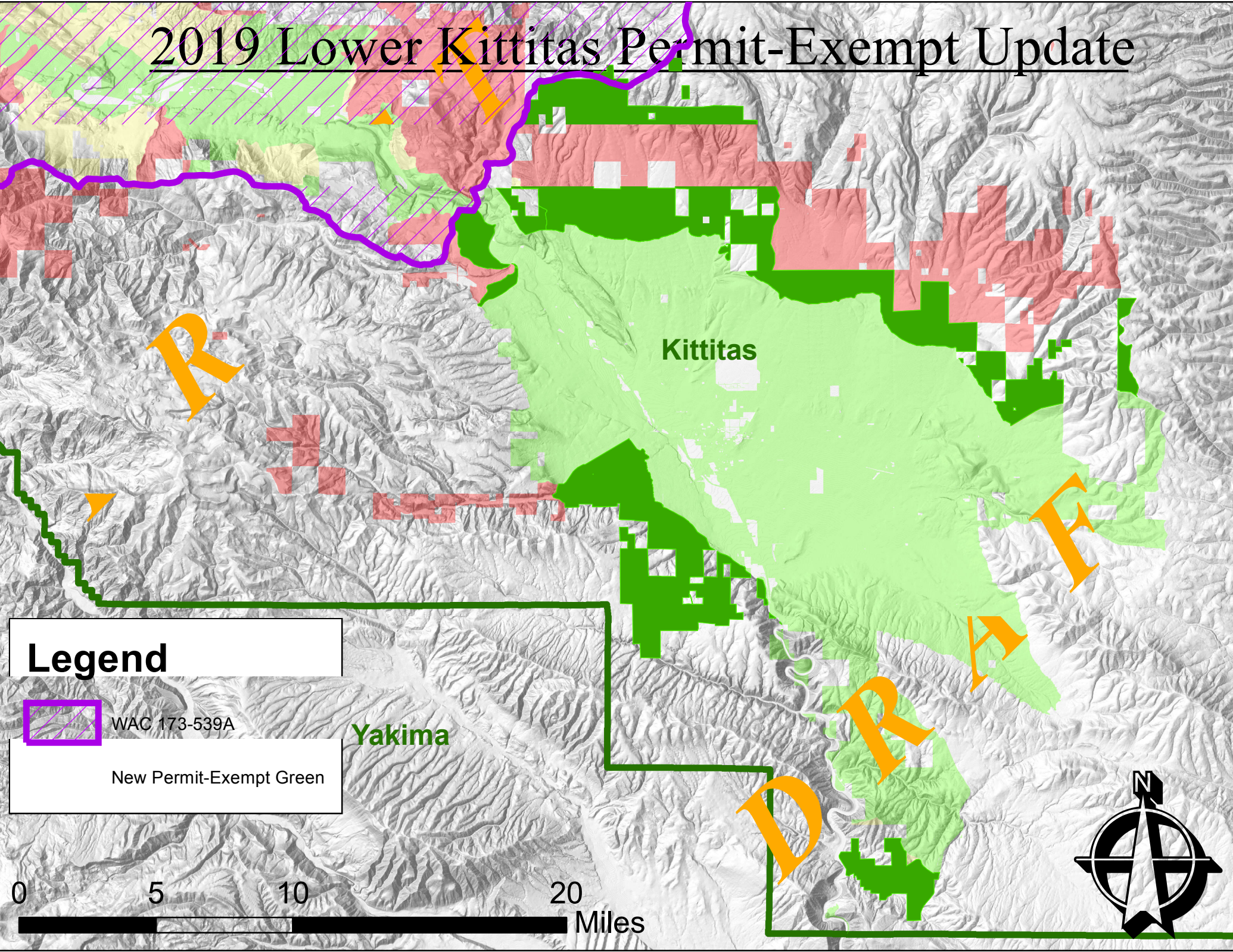


# 2019 Lower Kittitas Permit-Exempt Update



## Legend



WAC 173-539A

New Permit-Exempt Green

0

5

10

20

Miles





**October 2019 WTWG Lower County Update Description**  
**Kurt Walker**

Ecology staff have generally reviewed the occurrence, behavior, and fate of groundwater within the “green” and “red” areas of Lower Kittitas County as shown in Figure 1.

Groundwater from the updated “green” area is physically available throughout the illustrated area. However, it should be noted that pumping capacity and available saturated thickness are variable and particularly limited along the margins of the sediment aquifer as it thins into the uplands.

Aquifer characteristics vary by location, and are primarily controlled by the nature of deposition or emplacement. Shallow portions the sediment aquifer are expected to display water table conditions, but with increasing depth there is a greater likelihood of encountering semi-confined to confining conditions. Basalt aquifers are expected to be utilized along the north and south rims of the Kittitas Valley. These aquifers are typically productive, but water levels are often deep compared to wells at lower elevations.

Generally speaking, pumping from wells completed in close proximity to streams and springs are likely to have a local flow reduction effect. In contrast, pumping from wells which are completed into deep aquifers or are located in lower elevation areas down gradient from local surface water features may only result in flow impacts to the Yakima River.

Considering the aquifer characteristics, relatively large available saturated thickness in most areas, and favorable range of hydraulic conductivity (K), the groundwater withdrawals for low density domestic use under the permit-exemption is not expected to result in severe impacts to existing surface water or groundwater users in the “green” areas of the updated suitability map as outlined in Figure 1.

Areas designated as “red” are locations of known limited water supply where additional groundwater pumping is likely to interfere with existing authorized surface water rights.