Stormwater Management Program - Water Quality Design Storm

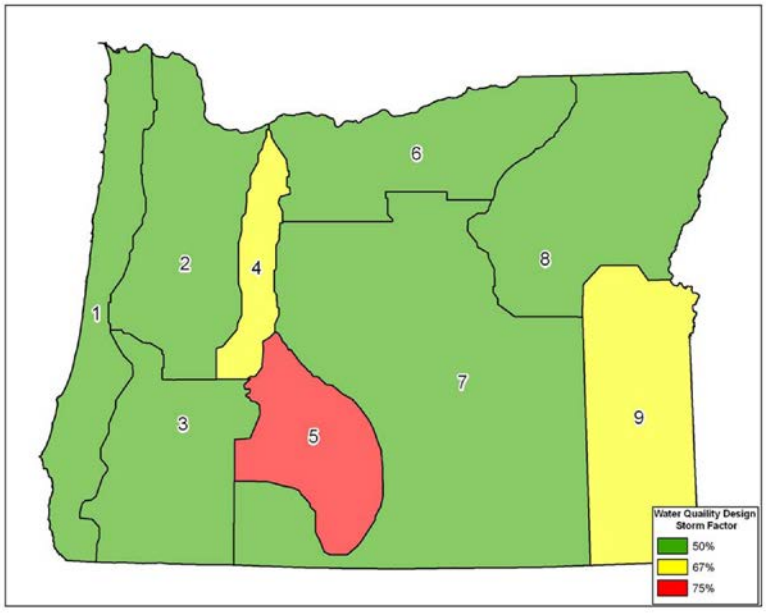
Water Quality Design Storm

The Water Quality Design Storm defines the magnitude of the precipitation event that must be managed for water quality. Treatment facilities are to be designed to handle the volume and peak flow rate generated by the CIA during the Water Quality Design Storm.

Because Oregon's climate varies across the state, each major climate zone has its own Water Quality Design Storm. Percentage of the annual average precipitation for the design storm is the same for all the climate zones.

For cumulative rainfall from the 2-year, 24-hour storm for the project site, the Water Quality Design Storm is 50 percent except as follows:

- Climate Zone 4: 67 percent
- Climate Zone 5: 75 percent
- Climate Zone 9: 67 percent



For ODOT purposes, minimum storm size (0.7 inches during 24 hours) was selected to make sure that the "first flush" of high pollutant concentration is always captured. A maximum storm size has also been set in recognition that the large storms usually have low pollutant concentrations and loads at the end.

A detailed discussion of the development and rational for the selection of the Water Quality Design storm is in the Water Quality Design Storm Evaluation and Guidance.

William Fletcher -
Water Resources Program Coordinator
503.731.3024

Alvin Shoblom -
Senior Hydraulics Engineer
503.986.3365