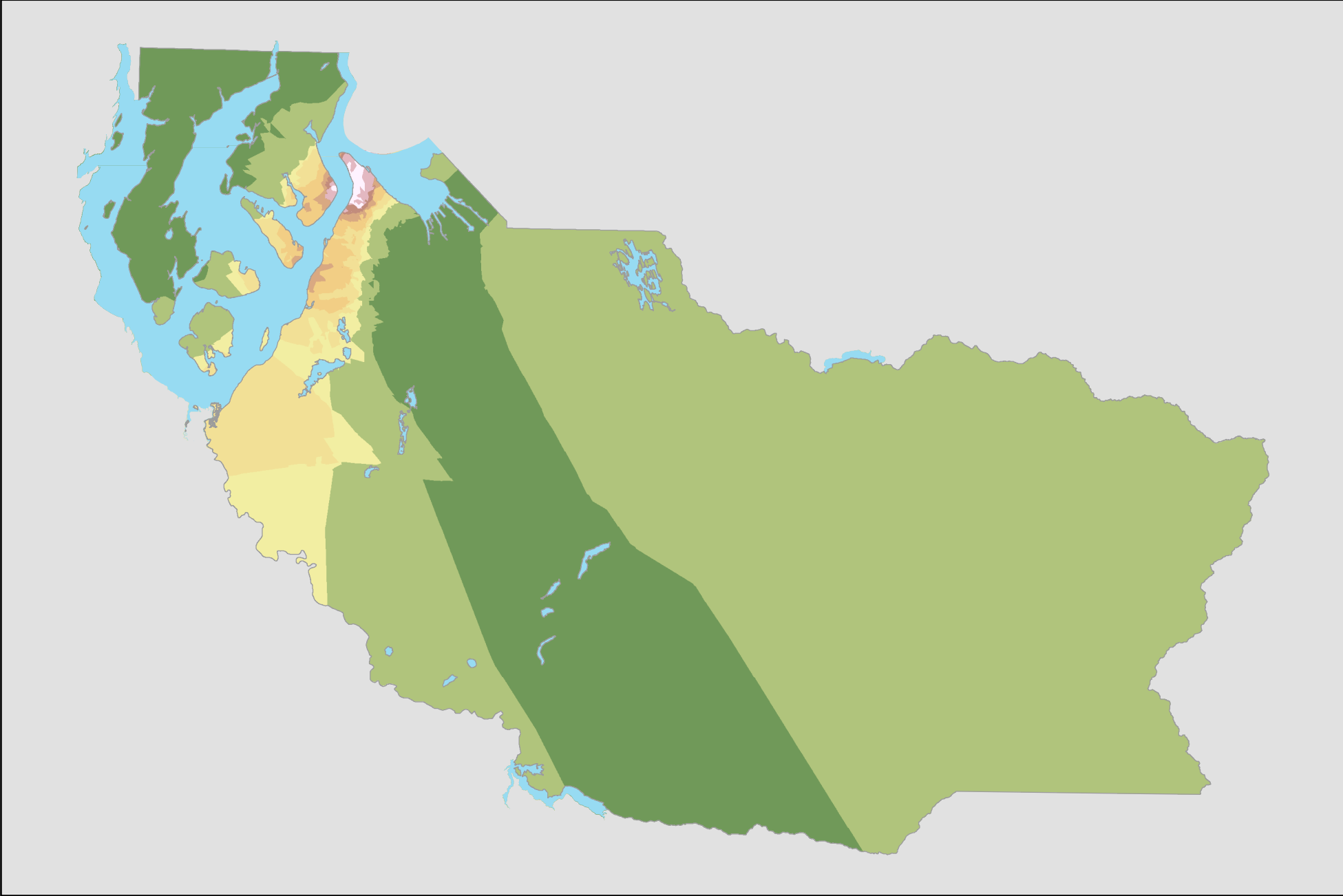
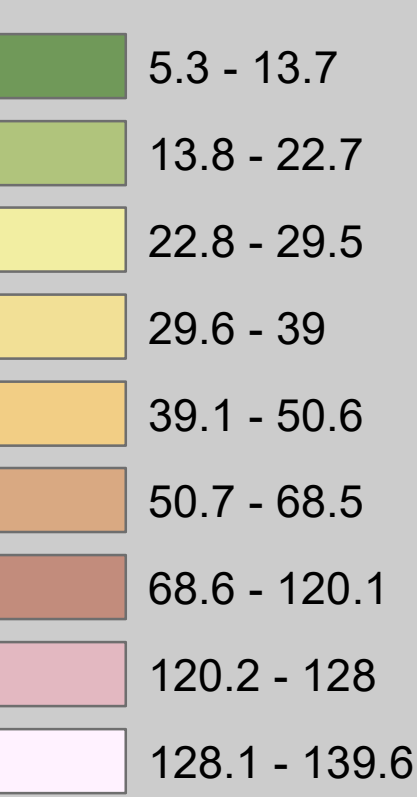


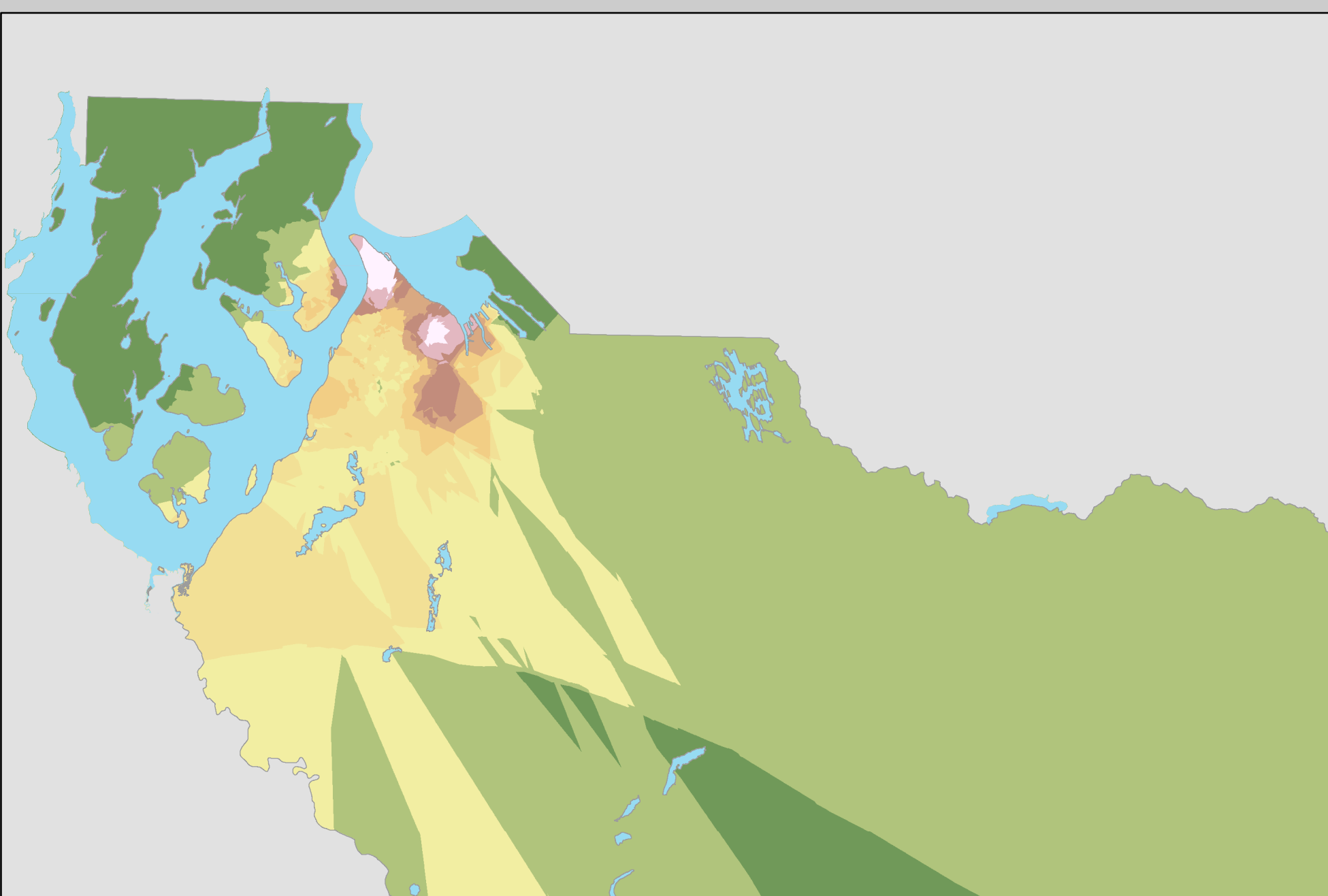
Arsenic Surface



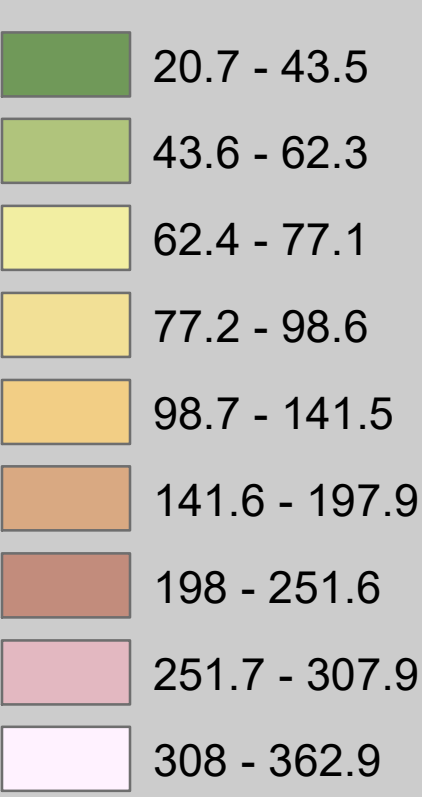
Arsenic Surface (ppm)



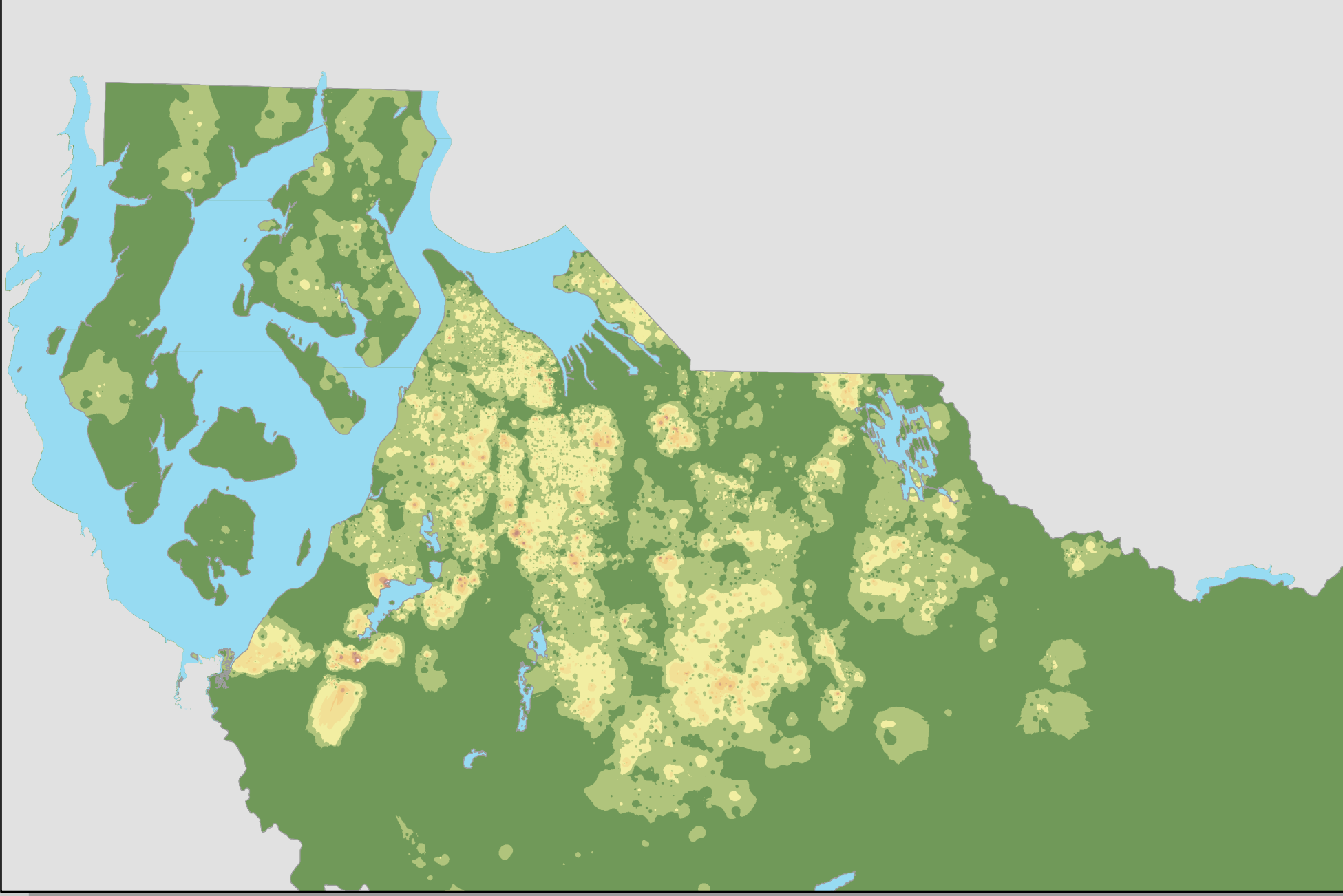
Lead Surface



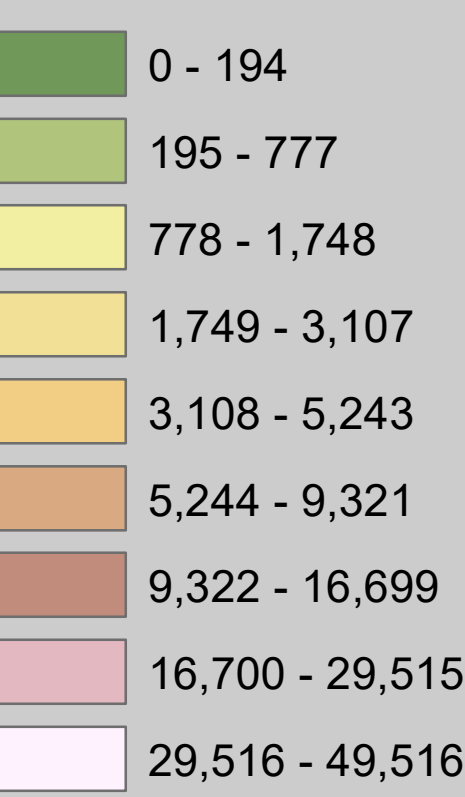
Lead Surface (ppm)



Kid Density

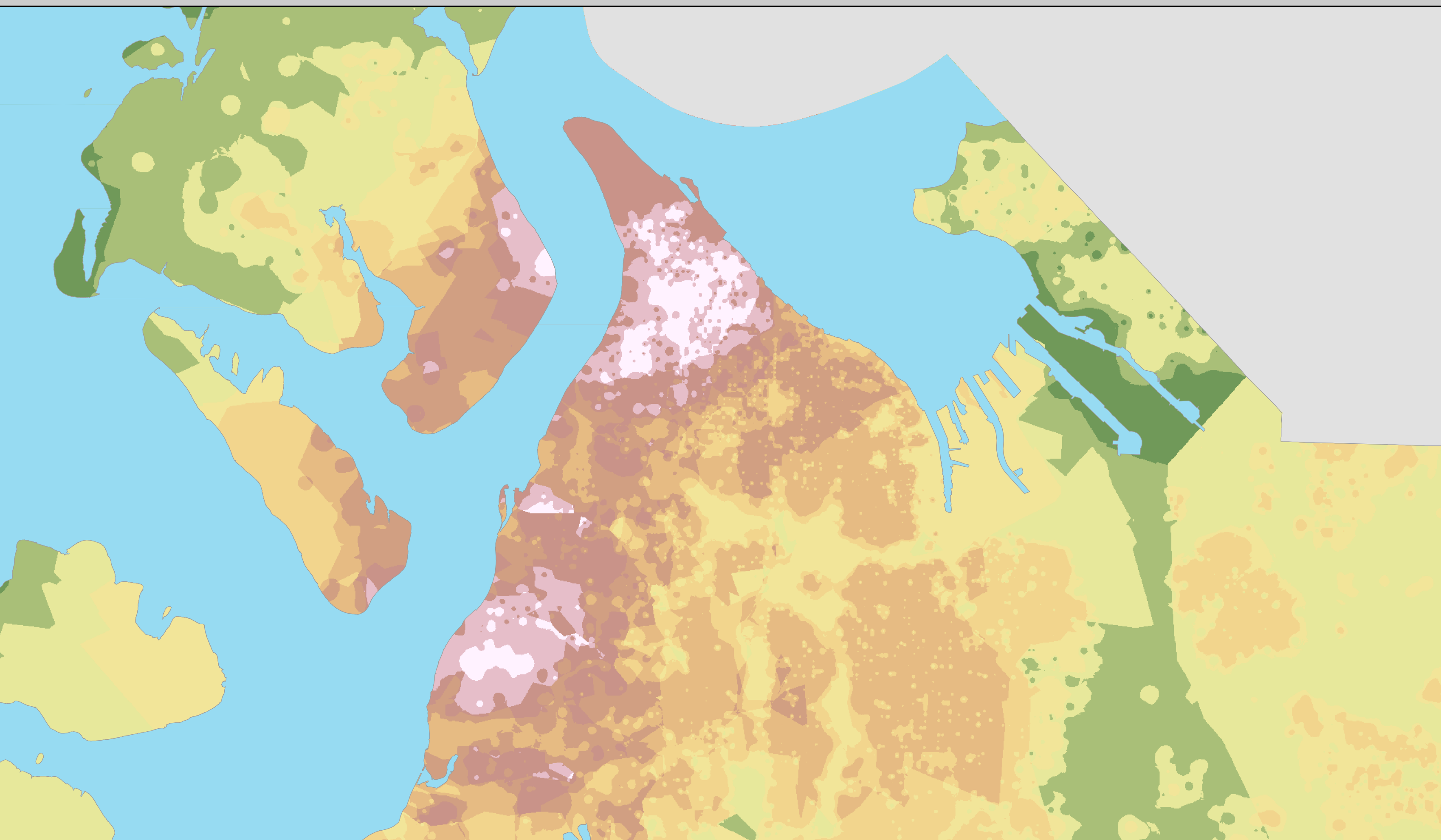


Children Density (Per Square Mile)



# Arsenic and Lead in the Soil! Child Risk Exposure in Pierce County, WA

Potential Toxic Remediation Regions



This analysis looks at the amount of Arsenic and Lead in the soil in relation to the density of kids in Pierce County in order to identify areas in need of toxic remediation.

The first two maps, 'Arsenic Surface' and 'Lead Surface', show the amount of Arsenic and Lead in the soil due to the Copper Smelting plant that use to be located in Tacoma, WA. In Washington State, residential properties cannot have an arsenic concentration higher than 20ppm and play areas cannot have a lead concentration higher than 400ppm per EPA regulations.

The third map 'Kid Density' shows the density of children under the age of 10 years per square mile. As evident by the map, the greatest concentration of children occur around the downtown Tacoma region. The greatest concentration of children is 49,516 children per square mile.

'Potential Toxic Remediation Regions' takes the amounts of lead and arsenic in the soil and compares it to the density of children in Pierce County. Using rasters of the data Arsenic, Lead, and Kid Density, areas that feature highest amounts of lead, arsenic, and kid density were calculated using the Raster Calculator. This created the values 3 to 12 with the lower values representing areas of low risk and the higher values representing areas of higher risk. The higher the grade of toxic remediation, the more at risk the children are to exposure to high concentrations of arsenic and lead.

Toxic Remediation

