

## MIXING OF STREAM WATERS IN THE MOUNTAIN CREEK WATERSHED

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The Mountain Creek Watershed (31km<sup>2</sup>) drains an area of diverse land cover, ranging from forested to industrial. The northern half of the watershed (mostly rural/suburban) has a water chemistry with <100μmol/L H<sub>4</sub>SiO<sub>4</sub><sup>0</sup> and <120μmol/L Na<sup>+</sup>+K<sup>+</sup>. A tributary that drains the southern half of the watershed (industrial/suburban) has a water chemistry ≈135μmol/L H<sub>4</sub>SiO<sub>4</sub><sup>0</sup> and ≈230μmol/L Na<sup>+</sup>+K<sup>+</sup>. These two waters mix forming a water of intermediate composition that is subsequently diluted by a small tributary. The concentrations then continue to increase downstream. The results show that mixing is an important control over stream chemical composition.