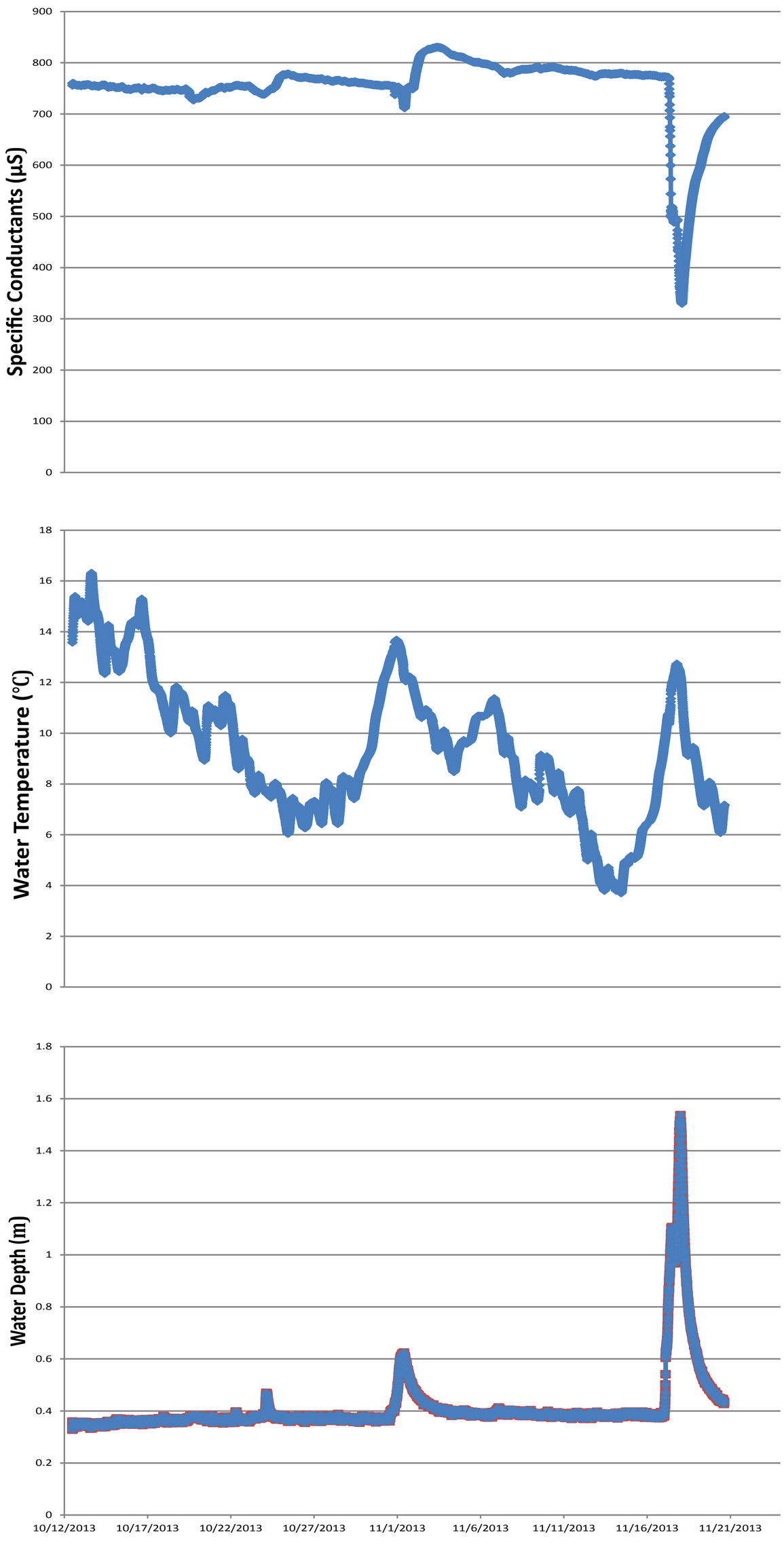
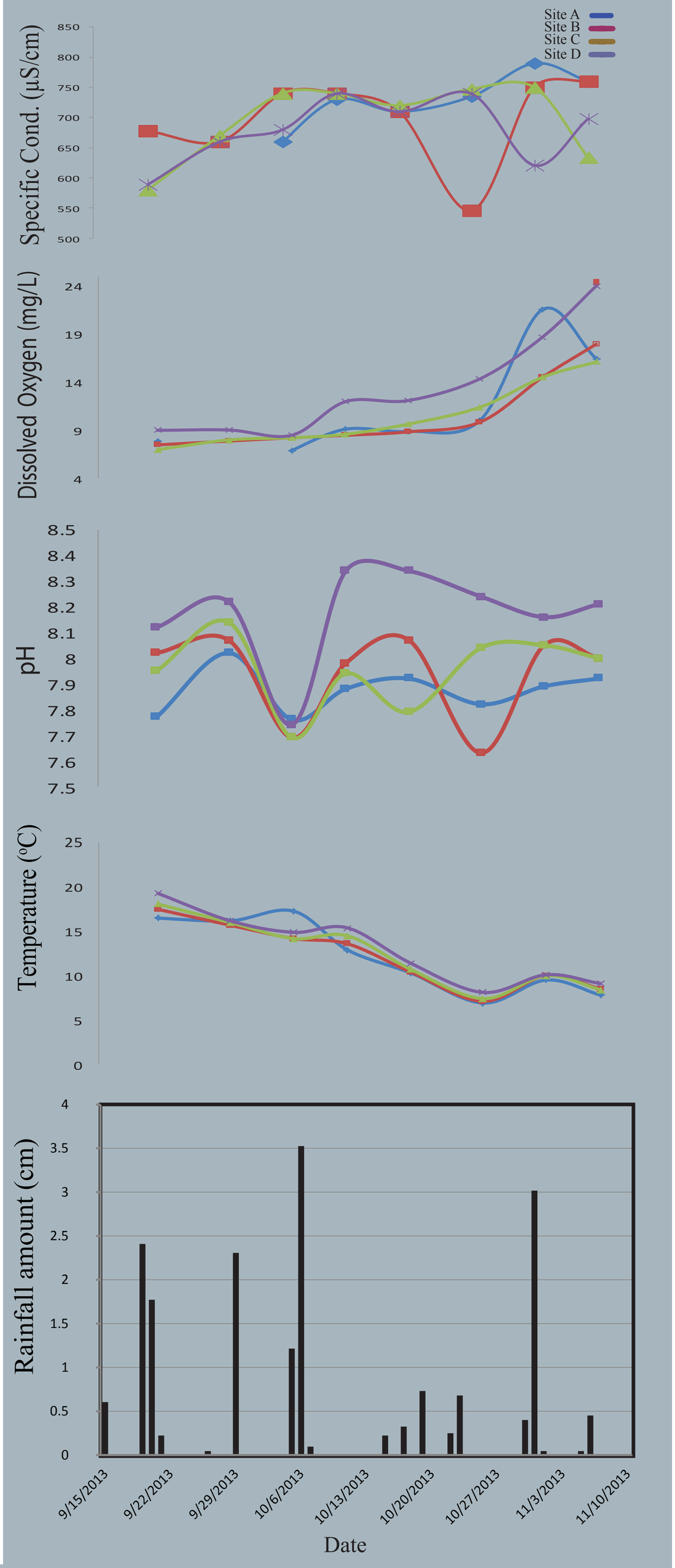
Water Quality - Field Chemistry

METHODS

Students collected these data once weekly at four sites along Buck Creek (shown at right). Additionaly, they collected these same data remotely every ten minutes at Site B (below).



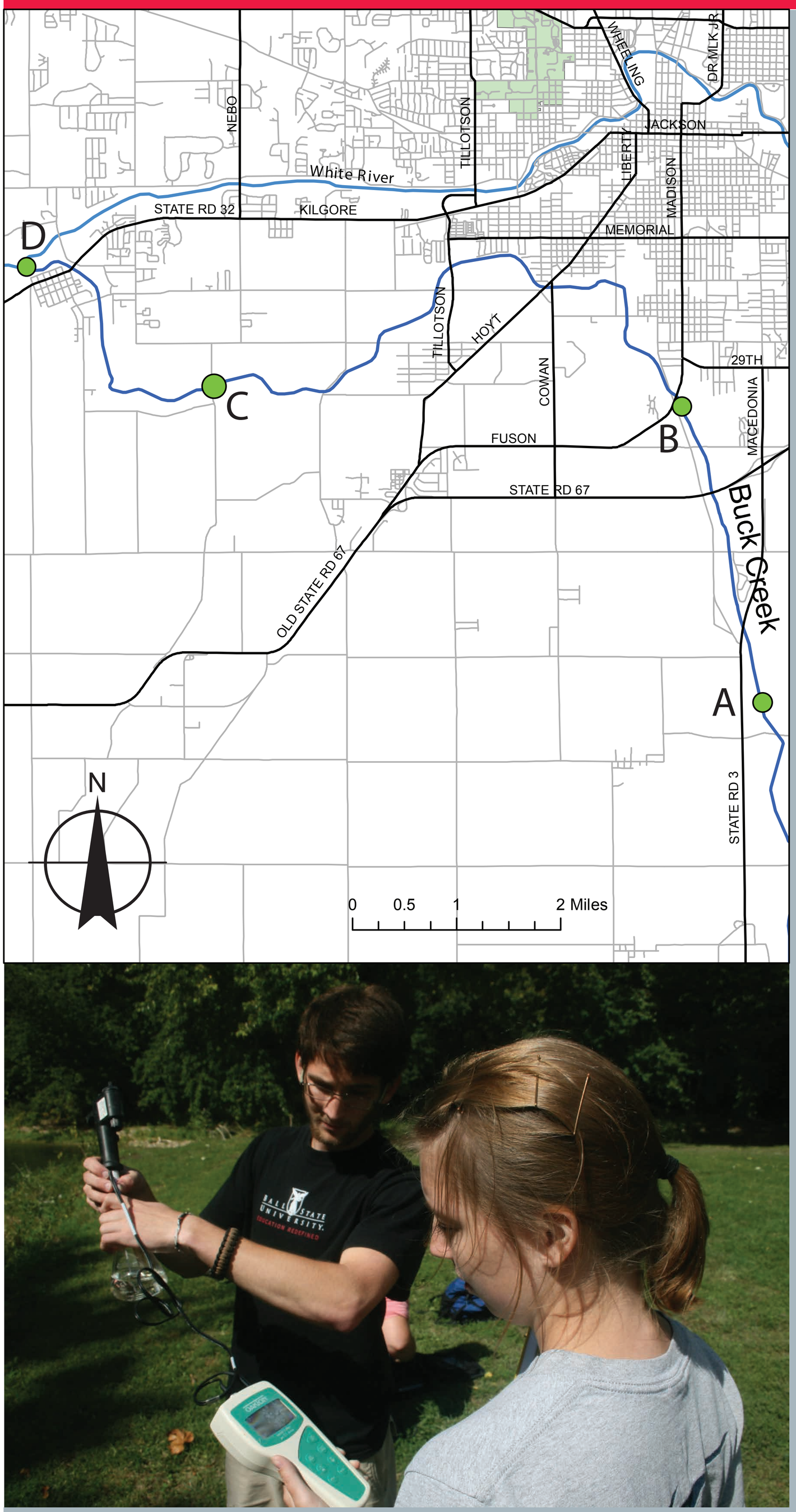


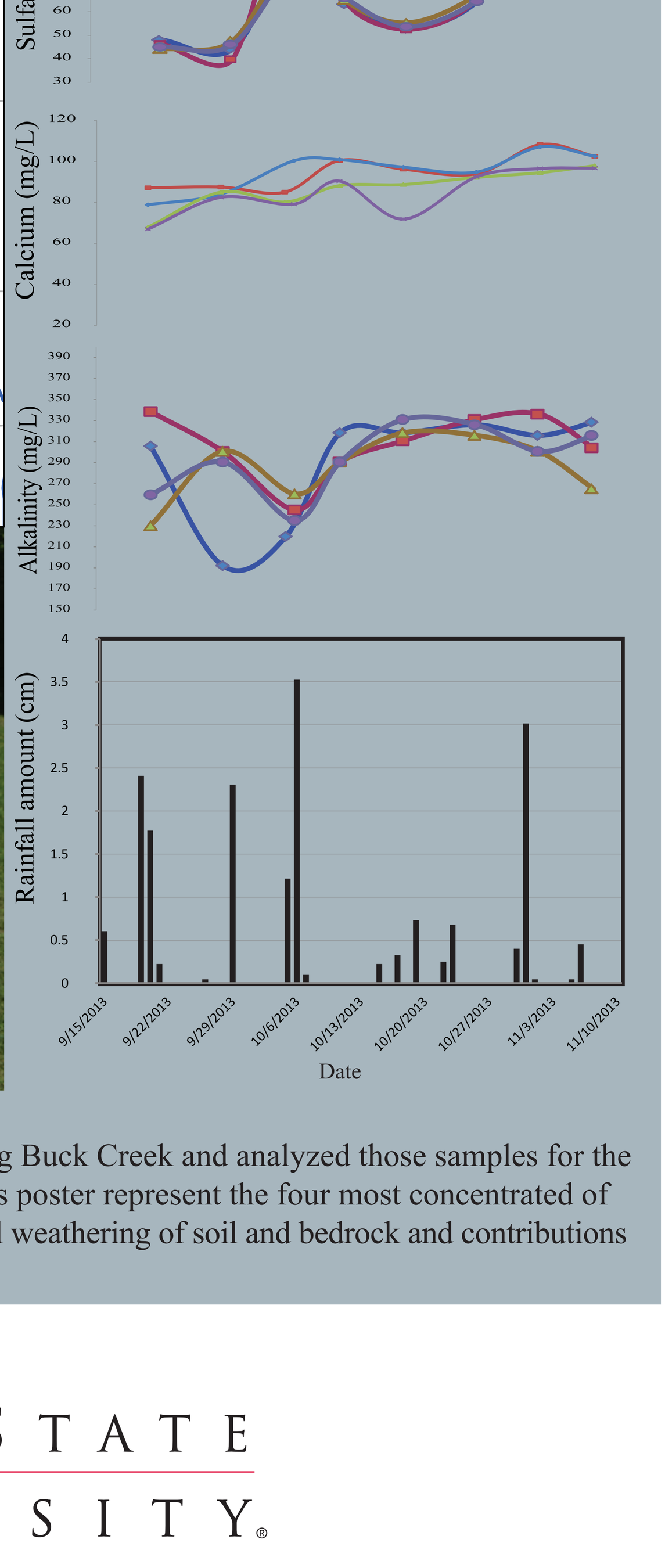
FIELD CHEMISTRY

This fall, students collected parameters of water quality on Buck Creek. These include the water temperature in degrees celcius, the water level (related to how much water is in the stream), water pH (a measure of the acid-base quality of the water), dissolved oxygen (related to biologic productivity), and specific conductance (related to how many chemicals are dissolved in water).

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Water Quality - Ion Chemistry





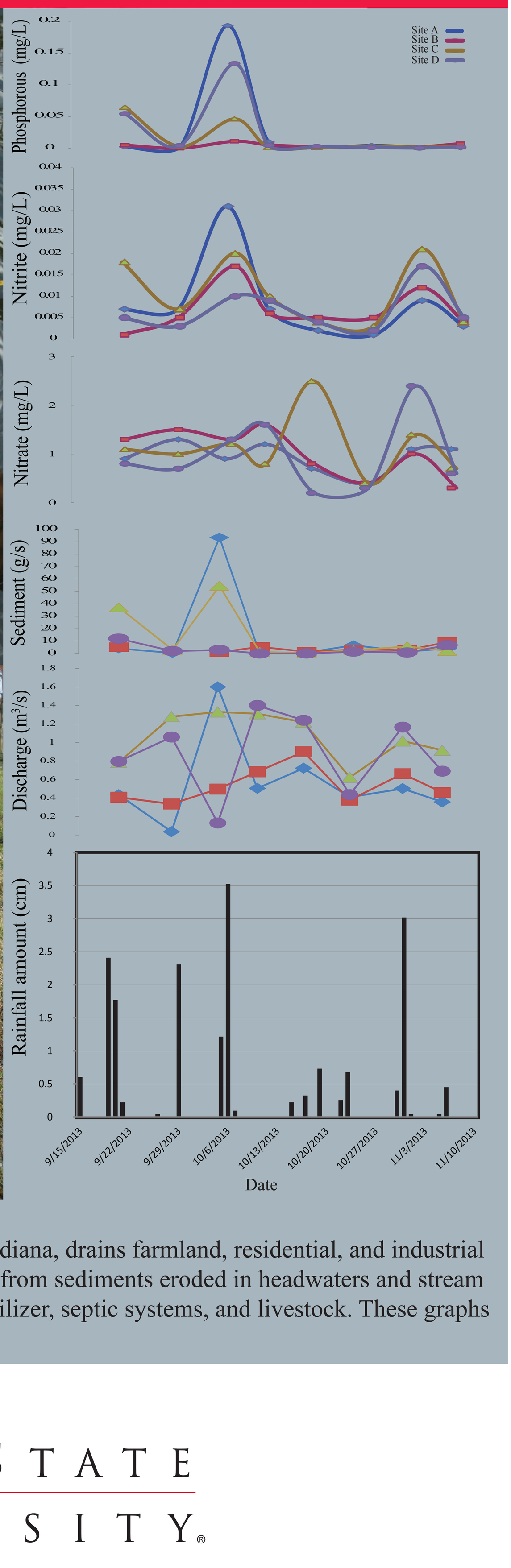
PRINCIPAL IONS

Students collected eight weekly samples from four sites along Buck Creek and analyzed those samples for the dissolved chemical constituants. The graphs presented on this poster represent the four most concentrated of those constituants and are primarily the result of the chemical weathering of soil and bedrock and contributions of deeper groundwater.

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Discharge, Sediment, Nutrients





DISCHARGE, SEDIMENT, NUTRIENTS

Buck Creek, a tributary of the White River in East Central Indiana, drains farmland, residential, and industrial land use. Major contributions to reduced water quality come from sediments eroded in headwaters and stream banks, and excess nutrients that enter the waterway from fertilizer, septic systems, and livestock. These graphs quantify sediment and nutrients in fall 2013.

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