

Interactive Web Maps: Enhancing the Versatility and Accessibility of Vermont's Traditional Geologic Maps

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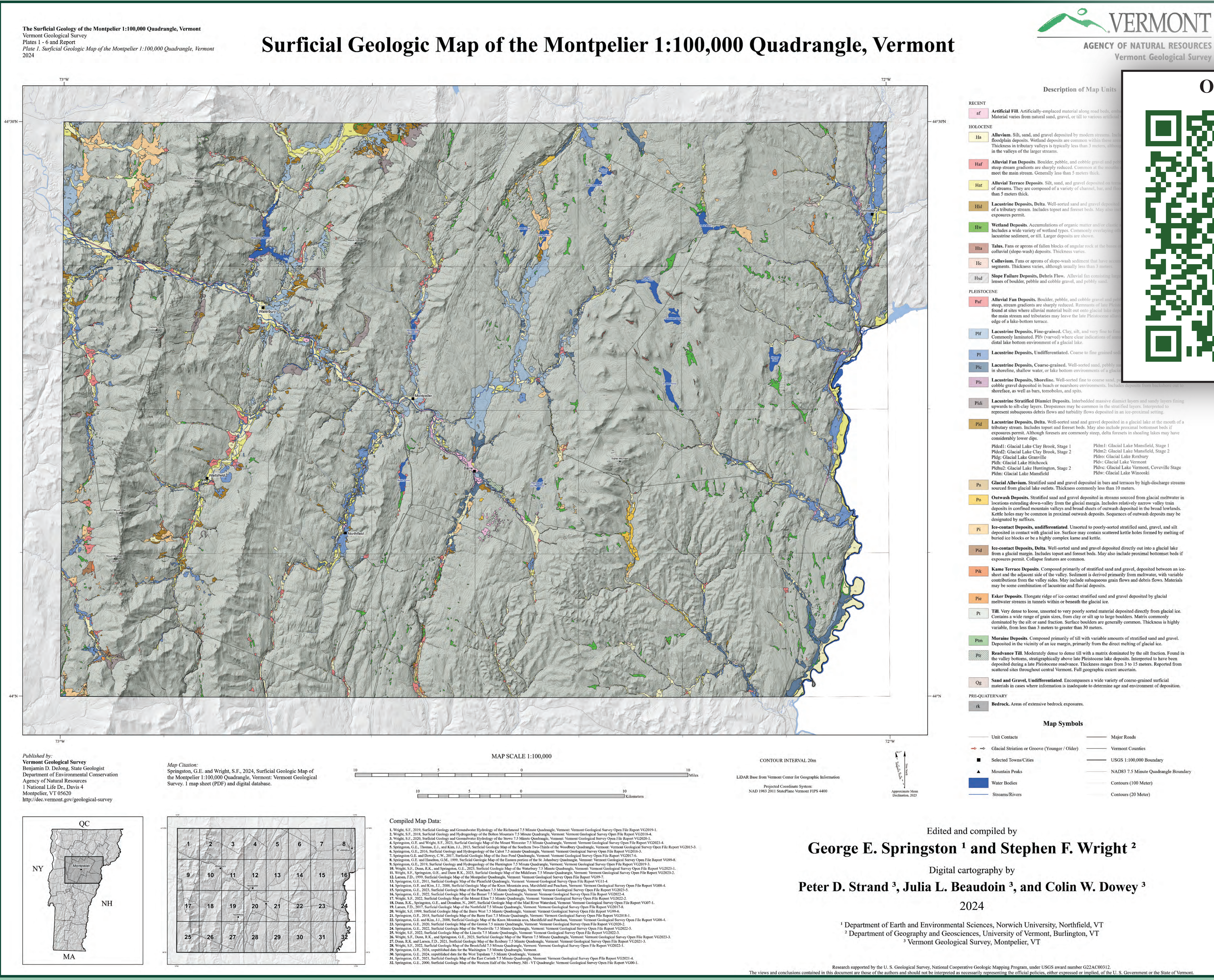
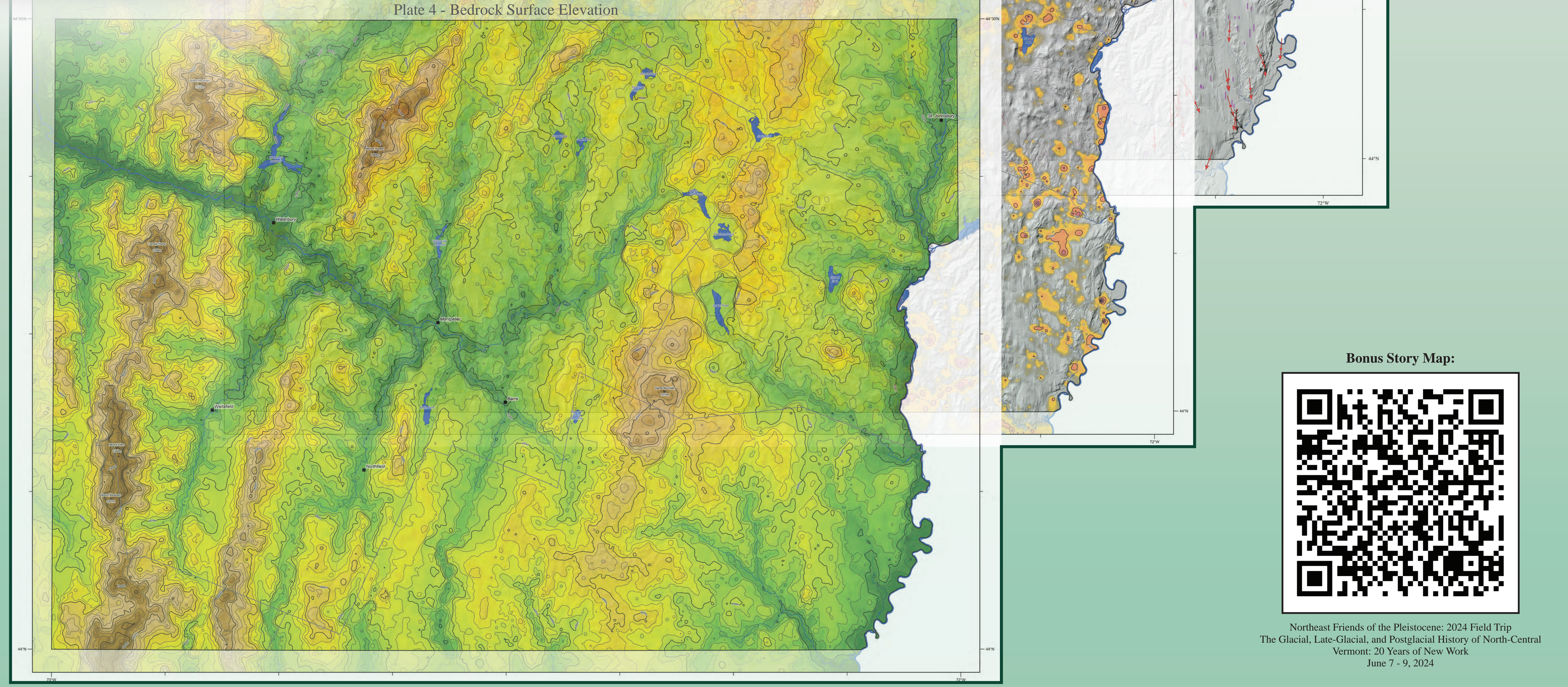
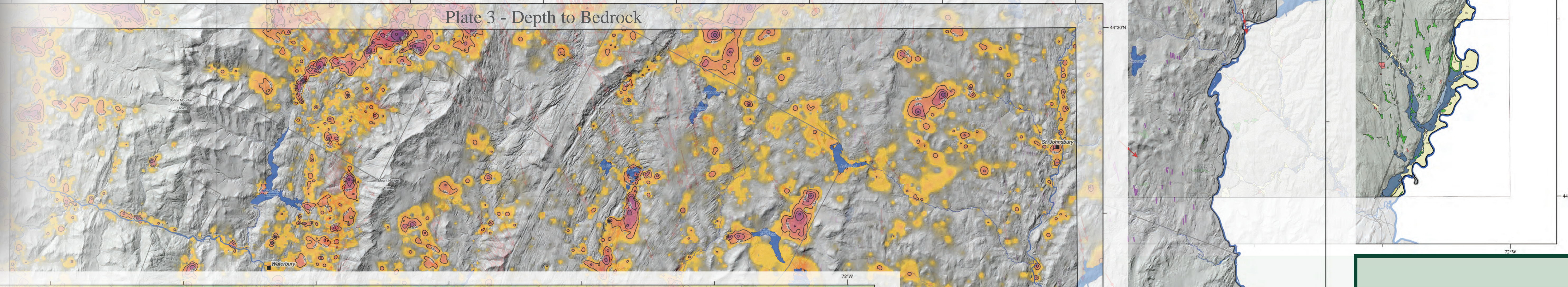
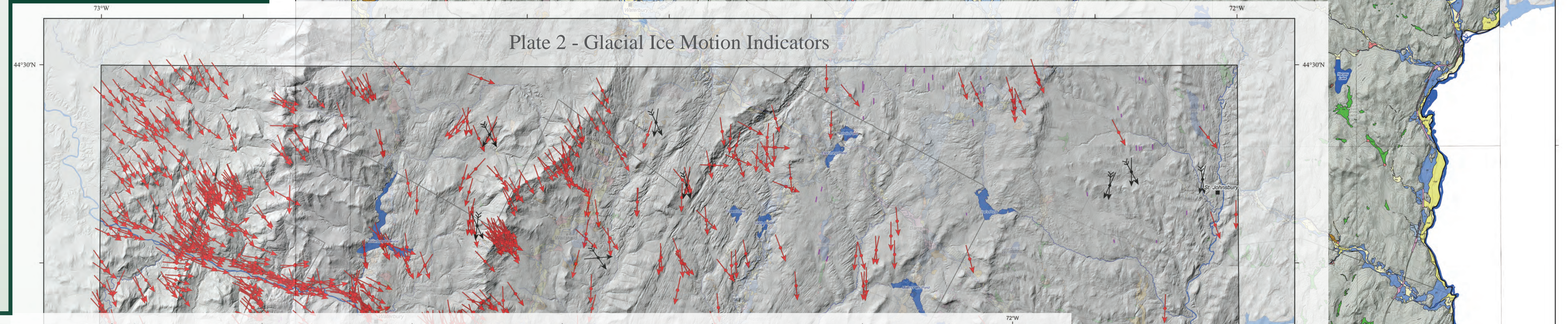
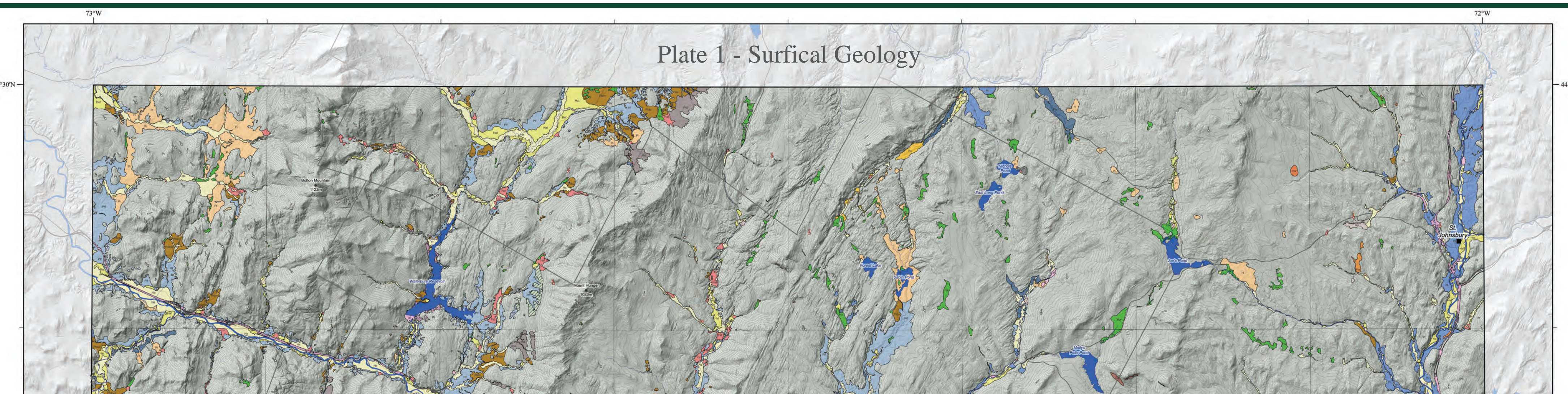
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Abstract: We showcase an interactive web map developed by the Vermont Geological Survey (VGS) to visualize the recently published *Surficial Geology of the Montpelier 1:100,000 Quadrangle, Vermont* map series. Unlike traditional static PDF maps, this web-based platform allows users to filter, zoom, and explore multiple map plate layers interactively. Over the past decades, VGS and its partners progressively mapped the surficial geology of the Montpelier, Vermont 1:100,000 Quadrangle through the USGS STATEMAP cooperative program. Over that time, surficial geologic investigations in central Vermont evolved from paper-based mapping to digital GIS software applications with LiDAR basemaps. The final quadrangles were published in 2024, and all thirty-two 7.5-minute quadrangles were digitally compiled into one seamless map series. These new mapping efforts offer greater insights into Vermont's surficial geology, particularly the deposits that characterize the region's post-glacial history, and provide higher-resolution data for applications by our end-users.

We view the conversion to interactive web maps as the next step in our digital map evolution as a state geological survey. Web map applications offer increased customizability, allowing for on-demand updates, dynamic zoom scales, and integration of diverse data sources and data types. In addition, web maps are accessible on any internet-enabled device, which broadens public access to Vermont's geologic information. The tailored map features enhance user interaction and allow for diverse field applications such as environmental assessments, geological research, land-use planning, and education. At the conference, attendees can scan a QR code at the poster display to explore the new *Surficial Geology of the Montpelier 1:100,000 Quadrangle, Vermont* web map directly, experience its functionality firsthand, and offer feedback for potential improvements. Planned future updates aim to incorporate additional datasets, further increasing the platform's utility for exploration and decision-making.



Online Web Map:



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