## Sustainability Through Metric Development and Evaluation in Multijurisdictional Rural Environments Aryn Rivers,<sup>2,3</sup> Celia Darling,<sup>2</sup> Caroline Dodd,<sup>2</sup> Erik Backus,<sup>1,2</sup> and Stephen Bird<sup>2,4</sup>

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In order to adapt to and mitigate the climate crisis, cities and rural municipalities must have a clear understanding of their current sustainability practices, and develop comprehensive plans that incorporate environmentally responsible values. Sustainable holistic planning systems, such as Leadership in Energy and Environmental Design (LEED) for Communities, help communities with this process through the development and measurement of metrics. These metrics include both quantitative measurements as well as measures of community sustainability. The New York Olympic Region (NYOR), consisting of the Village of Lake Placid, the Town of North Elba, the Lake Placid Central School District, and the Olympic Regional Development Authority is seeking recertification with LEED for Communities in 2024, with the support of Clarkson University research. This summer's primary research goals are establishing best practices for community engagement, an essential part of the success and long term sustainability of a system such as LEED, and refining the metrics to better reflect and serve the community.

This refinement process includes developing a standard way to evaluate metrics, based on factors including the granularity of source data, the importance of the metric, the feasibility of continued measurement, etc. This evaluation process is essential to any metrics based planning system, as the value of a sustainability assessment is dependent on the quality of its component parts. Additionally, challenges inevitably occur in collecting metric data, be they physical, bureaucratic, financial or time constraints, and a way to evaluate these challenges is necessary in order to address them. Meetings with the NYOR steering communities have been conducted to better understand their needs, wants and priorities with respect to metrics and community engagement. A preliminary rubric to evaluate metrics was developed, with both qualitative and quantitative components to give the broadest picture of a metric and its potential use in a sustainable planning system. Further work would expand upon this rubric, and include a write-up detailing best practices for this process of metric evaluation, ideally with engagement from communities in order to identify priority metrics, unforeseen limitations, and key players in the sustainability planning process.