The combination of geospatial data management and modeling tools within a cyber infrastructure has the prospect of supporting all researchers and stakeholders involved in the planning and responding to extreme events. The Geospatial Project Management Tool – GeoProMT is an internet-based interface that enables researchers, and stakeholders to systematically share and investigate representations of earth systems’ properties and processes at various scales. Scaling refers to the transformation of information from one spatial/temporal scale to another. GeoProMT is being implemented in a new virtual collaborative platform known as VHub that facilitates the integration of multidisciplinary computational thinking into volcanology research and risk mitigation. The VHub cyber infrastructure provides a mechanism for globally collaborative research and development of computational models of volcanic processes and GeoProMT will facilitate the communication of complex geospatial, observational, and experimental data. The Tungurahua Volcano case study was chosen because it integrates both the analysis and risk mitigation. This case study shows how GeoProMT helps researchers to keep track of the analysis and modeling done in order to help the communities that are located on the volcano’s flank and that are at high risk of lahars and pyroclastic flows. It also shows how stakeholders could benefit from this tool. VHub and GeoProMT will facilitate the creation of a more resilient community by using information and tools for response to and recovery from extreme events, as well as provide the ability to proactively manage extreme events through mitigation, risk reduction, prevention and preparedness of GeoHazards in volcanic landscapes.