Southwest Decision Resources Technical Presentation on Verde MIKE SHE Models

Please join us for a technical presentation on the Verde Regional and Verde Valley-Oak Creek MIKE SHE Models on Monday March 3, 2-4pm on Zoom (**Register here**).

This multiscale modeling effort has integrated climate, surface water, and groundwater systems to simulate hydrologic responses to stressors and inform decision making on land use and water management in the Verde Valley. The two-hour webinar will include:

- Introductory remarks *(Chairwoman Tanya Lewis, Yavapai-Apache Nation)*
- Detailed technical presentation: The models, stakeholder-driven scenario results, and future applications of the model *(Laurel Lacher, PhD, RG, Lacher Hydrological Consulting and Robert Prucha, PhD, PE, Integrated Hydro Systems, LLC)*
- Q&A and discussion

Since 2021, The Nature Conservancy and the Yavapai-Apache Nation have co-funded the development of this integrated, multi-scale model. The 1-kilometer-grid Verde Regional MIKE SHE Model domain covers the entire Verde River Basin above the Verde River near Camp Verde streamgaging station. The higher-resolution (100-meter grid) VV-OC Model domain covers much of the Verde Valley and tributaries from Clarkdale, downstream. This high-resolution model includes detailed irrigation features and a new, highly complex subsurface configuration based on a 3-D lithologic model developed from over 2100 well logs.

A year-long stakeholder engagement process, funded by a Bureau of Reclamation Applied Science grant, began with a public virtual presentation on the integrated models in September 2023 and continued with several workshops in 2024 to identify and refine simulations chosen to represent stakeholders' water-related interests and concerns and to review and discuss the simulation results. For more details on modeling outcomes, click here.

This presentation will also cover the latest updates on the next-generation Regional Verde Basin MIKE SHE model, including the replacement of the 3-layer NARGFM-based subsurface with 9 layers based on a recently developed 3-D geologic model of the Verde Basin.

Please click here to register for the information session, and feel free to distribute this announcement widely.