

Understanding groundwater recharge is essential for successful management of water resources and modeling fluid and contaminant transport within the subsurface. This book provides a critical evaluation of the theory and assumptions that underlie methods for estimating rates of groundwater recharge. Detailed explanations of the methods are provided – allowing readers to apply many of the techniques themselves without needing to consult additional references. Numerous practical examples highlight benefits and limitations of each method and provide guidance on selection and application of methods under both ideal and less-than-ideal conditions. More than 800 references allow advanced practitioners to pursue additional information on any method.

For the first time, theoretical and practical considerations for selecting and applying methods for estimating groundwater recharge are covered in a single volume with uniform presentation. Hydrogeologists, water-resource specialists, civil and agricultural engineers, earth and environmental scientists, and agronomists will benefit from this informative and practical book, which is also a useful adjunct text for advanced courses in groundwater or hydrogeology.

For more than 30 years, **RICK HEALY** has been conducting research for the US Geological Survey on groundwater recharge, water budgets of natural and human-impacted hydrologic systems, and fluid and contaminant transport through soils. He has taught numerous short courses on unsaturated zone flow and transport, and groundwater flow modeling. He first presented a short course on methods for estimating recharge in 1994, and over the intervening 15 years the course has been presented to several hundred professionals and students. The material in that course has been expanded and refined over the years and forms the basis of *Estimating Groundwater Recharge*. Rick has authored more than 60 scientific publications and is developer of the VS2DI suite of models for simulating water, solute, and heat transport through variably saturated porous media. He is a member of the Soil Science Society of America, the American Geophysical Union, and the Geological Society of America.

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