

Scientists co-author Edwards Aquifer memoir

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Three Southwest Research Institute scientists contributed their groundwater management expertise to a new book about the Edwards Aquifer. Credit: Edwards Aquifer Authority



Three Southwest Research Institute scientists contributed their groundwater management expertise to a new book about the Edwards Aquifer, the primary water source for the San Antonio area and surrounding communities. The 27-chapter memoir, titled "The Edwards Aquifer: The Past, Present and Future of a Vital Water Resource" and published by the Geological Society of America (GSA), compiles research spanning decades and addresses emerging challenges facing the aquifer.

"This first-of-its-kind, comprehensive memoir pulls together all of the information we have about the Edwards Aquifer to date in one place," said Dr. Ronald Green, an Institute scientist and groundwater hydrologist who co-edited the book and co-authored several chapters. "Researchers, regulators and water authorities can use this memoir to manage the aquifer and build upon the work that's already been done."

The book, dedicated to educating readers on the complex aquifer system, covers a range of topics including characterization of the aquifer components, the hydrogeologic structure of the aquifer and the effects of climate and urbanization on the aquifer system. Green says thoroughly understanding the demands on the aquifer, which provides water to millions of people, is key to preserving the resource for future Texans.

"Over time, the aquifer has been used and developed more," Green said. "Understanding the limitations of the aquifer will help guide the management of the resource to protect the availability and quality of the water. This book can provide policymakers with a roadmap of where to develop and at what levels."

All contributors to the book are recognized experts on the Edwards Aquifer System, including SwRI scientists Beth Fratesi and Rebecca Nunu, who co-authored chapters of the book. "The Edwards Aquifer:



The Past, Present and Future of a Vital Water Resource" is available for purchase from Geoscience World at pubs.geoscienceworld.org/books/book/2156 with eight open-access chapters offered at no cost. A print version will be available at a later date. Geoscience World is a nonprofit collaborative and comprehensive resource for research and communications in the Earth sciences. Proceeds from the sale of the book will go back to the publisher, GSA, a nonprofit, international scientific society that supports Earth science education.

Green will share his groundwater management expertise as a presenter at the Texas Groundwater Summit. The summit, which takes place August 20-22 in San Antonio, is hosted by the Texas Alliance of Groundwater Districts. SwRI's Nicholas Martin will also present at the summit. For presentation times and summit information, visit <u>texas</u>-groundwater-summit" target="_blank">www.swri.org/event/2018-6578ac ... egroundwater-summit.

For more information on SwRI's <u>groundwater</u> management capabilities, visit <u>www.swri.org/industries/water-resource-services</u>.

More information: The Edwards Aquifer: The Past, Present and Future of a Vital Water Resource: pubs.geoscienceworld.org/books/book/2156

Provided by Southwest Research Institute

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