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## Regional and Urban GIS

### A Decision Support Approach

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#### CRITICAL ACCLAIM

"This is not another 'how to use GIS' book. It goes far beyond traditional descriptions of GIS concepts and techniques to demonstrate clearly and concretely the role that GIS can—and should—play in informing and improving public decision making. It provides case studies and fully worked-out examples illustrating the use of GIS in supporting sustainability planning, capital improvements programming, and project implementation in a wide range of policy areas. I recommend this book highly for anyone interested in using GIS as a decision support tool, and for use as a text in advanced GIS courses."—Richard E. Klosterman, President, What if?, Inc.; Department of Geography and Planning (Emeritus Professor), University of Akron

"This book fills a void. It weaves theory and practice together, presenting an integrated view of the concepts, tools, and techniques involved in using GIS for public decision support within an urban-regional context. Including strong pedagogical features, the value of the content is very high for students, academics, and practitioners. The text takes complex subject areas and puts them into a form that students can understand, grasp, and master. No course in applied GIS and participatory planning should be without this book."

—Jacek Malczewski, Department of Geography, University of Western Ontario, Canada

#### DESCRIPTION

This unique text shows students and professionals how geographic information systems (GIS) can guide decision making about complex community

and environmental problems. The authors' step-by-step introduction to GIS-based decision analysis methods and techniques covers important urban and regional issues (land, transportation, and water resource management) and decision processes (planning, improvement programming, and implementation). Real-world case studies demonstrate how GIS-based decision support works in a variety of contexts, with a special focus on community and regional sustainability management. Ideal for course use, the book reinforces key concepts with end-of-chapter review questions; illustrations include 18 color plates.

#### KEY POINTS

- > An intermediate to advanced text offering a unique perspective on the role of GIS in urban and regional decision making.
- > Practical and user friendly: focuses on real-world contexts and includes 18 color plates.
- > GIS is a growing field; this book presents cutting-edge applications in land, transportation, and water resource management.

#### AUDIENCE

Students and professors; professionals who work with geographic information in government agencies, industry, and nongovernmental organizations.

#### COURSE USE

Serves as a text in advanced undergraduate- and graduate-level GIS courses in geography, planning, engineering, environmental studies, and related disciplines.

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