style than I ever could. This introductory material certainly adds to the merits of these volumes.

Both volumes self-review their contents in the introductory first chapter. Volume 1 contains chapters on atmospheric models, marine models, ecological modeling, water quality modeling of rivers and lakes, multimedia modeling (defined as transport of a fate of chemicals in the atmosphere, surface water, soil, groundwater, and biota), environmental noise modeling, information management, and the future of environmental modeling. Volume 2 has chapters on modeling air spray drift, metropolitan airshed modeling, particle dispersion modeling, long-range transport models, rainfall–runoff modeling applied to catchment hydrology, and others to total 17 chapters between the two volumes. Volume 2 also contains “A Guide to the Reader of . . . Volumes 1 and 2,” which summarizes by subject matter the contents of both volumes.

Editor Zanetti states in Volume 2 that “Hopefully, the Environmental Modeling series will not be just black ink on white paper.” The intent is to include “computerized” chapters and user-friendly software in the series in the immediate future, with the hope that “. . . the inclusion of user-friendly versions of environmental models as part of the chapter material will allow readers to run environmental simulations to verify their understanding of modeling theories and numerical implementations.” While this software is not included with the first two volumes, the idea of producing such educational aids is a noble one, and I hope it comes to fruition. It is not clear whether this software would apply to chapters in Volume 1 or 2, or to new material in succeeding volumes (in fact, it is not clear whether there will even be further volumes with more models). Even so, the addition of appropriate educational and supplementary software would certainly distinguish this series.

Potential buyers of this two-volume series should realize that the subject matter treatments are fairly mathematical, as would be expected from the international community of scientists and engineers engaged in quantitative environmental modeling. However, the presentation and content of each chapter is quite strong and useful. Each chapter has extensive reference lists, and the editorial quality is excellent. The volumes are each fairly expensive, but even if only two or three chapters in each volume apply directly to your interests, it is quite educational to discover the application of mathematical techniques in model-building for other environmental systems. However, $150 to $200 per volume is a lot to pay for two or three chapters of information. The volumes are clearly priced for library purchase, and I would suggest your library obtain them for reference use. —R.J. WAGENET, Department of Soil, Crop and Atmospheric Sciences, Cornell University, Ithaca, NY 14853.

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BOOK REVIEWS

of wetlands have been expanded by 10 to 16 pages, literature references are more than twice that of the first edition, for a total in excess of 1400. Those who have bought the book as a text will be pleased that the authors have maintained the original format, grouping all 18 chapters within five parts titled Introduction, The Wetland Environment, Inland Ecosystems, Inland Wetland Ecosystems, and Management of Wetlands. What had been Summary sections of individual chapters have been made more effective by moving them to the opening chapter page as introductory material.

Further improvements on the first edition include re-drawn graphs and charts, more photographs, and a reduction of annoying data misprints in many of the figures illustrating wetland models. Only a few errors occur in the diagram of van der Valk’s general model of Gleaned Landscape succession still contains serious errors. In the chapter on hydrology, the authors could have had better illustrations of water and surface water relationships had they used original diagrams rather than re-drawing them. Overall, the illustrations are much more well done than in the first edition.

The second edition remains focused on wetlands in the USA, with only a modest addition of material on wetlands in Canada and other continents. For a more global perspective, readers should consult M. Williams (ed.) Wetland Architecture of the World (Basil Blackwell, Inc., 1992). The brevity of the text, with respect to geographic coverage, is that the vast scattered forested wetlands of northeastern USA, the Saint Lawrence basin, and northwest time region of Canada still receive little recognition. While by far the most common of the freshwater wetland regions, most occur on a mineral soil substrate, significantly from the systems treated in the chapter on northern peatlands. While the revisions of this edition are appreciated by professionals in the wetland field, the writing and the illustrations make this a valuable reference source to inform the growing body of citizens who want to appreciate the values of wetlands to human society. The authors made a major contribution with their first edition; this edition is a significant contribution in its own right.

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Multiobjective Decision Support for Environmental Management