Contents

Illustrations xiii

Acknowledgments xix

Introduction xx

Edna Tusak Loehman and Ariel Dinar

SECTION I: INSTITUTIONS AND PROCESSES: CONCEPTS AND CASE STUDIES

Part I: Management of Water Problems Through Laws and Governmental Organizations

1. Evaluation of Two Institutional Arrangements for Resolving Interstate Water Disputes
   William B. Lord and Douglas S. Kenney 5

2. The Role of the U.S. Government in Water Quality and Quantity Issues
   Cynthia Dyballa 21

3. The Federal Clean Water Act and Its Application to the San Francisco Bay Estuary
   Gregory A. Thomas 31

4. Institutions for Managing Groundwater Basins in Southern California
   William Blomquist 43
5. Water Use and Transfer in Taiwan  
   Ching-Kai Hsiao  
   61

6. Water Dispute Resolution Mechanisms in India  
   Shashikant Raghunath Sahasrabudhe,  
   Ved Prakash Vohra, and Mukesh Kumar  
   71

7. Conflict Resolution in Ontario Water Resources Policy  
   Isobel W. Heathcote  
   81

8. Interstate Water Management: The Case of the Murray-Darling Basin in Australia  
   Warren Musgrave  
   93

Part II: Design of Markets and Other Institutions

9. The Design of Institutional Arrangements for Water Allocation  
   K. William Easter and Yacov Tsur  
   107

10. Resolving Water Transfer Conflicts Through Changes in the Water Market Process  
    Charles W. Howe and David J. Goodman  
    119

11. Alienable Privatization Policies: The Choice Between Inefficiency and Injustice  
    Norman Frohlich and Joe Oppenheimer  
    131

12. Integrating Equity, Efficiency, and Orderly Development in Groundwater Allocation  
    Arthur H. Chan  
    143

13. Integration of Quantity and Quality in a Water Market  
    Asghar Sabbaghi and Nicolas Spulber  
    155

Part III: Conflict Resolution Through Bargaining, Negotiation, and Mediation

14. Toward a New Nile Waters Agreement  
    Dale Whittington, John Waterbury, and Elizabeth McClelland  
    167
15. Resolving Conflicts over Water Disputes in the Jordan River Basin  
   *Aaron Wolf and Stephen Lonergan*  
   179

16. Conflict over Eastern U.S. Water Transfers: Toward a New Era of Negotiation?  
   *Leonard A. Shabman and William E. Cox*  
   189

17. Western U.S. Indian Water Conflicts: A Discussion of Economic Issues  
   *Bonnie G. Colby*  
   203

18. Resolving Intergovernmental Water Disputes Through Negotiation  
   *Jeffrey L. Jordan*  
   219

19. Lessons in Conflict Resolution: The Case of the Denver Water Department  
   *Kathleen Anderson and Tim Holeman*  
   233

20. Resolving Environmental Conflicts Through Mediation  
   *An Painter*  
   249

21. Bargaining and Water Disputes: A Perspective on the Coming Decade  
   *Leonard A. Shabman*  
   259

**Part IV: Coalitions, Collective Action, and Cooperation**

22. Competing Demands for California's Scarce Water  
   *Richard E. Howitt and Henry Vaux*  
   271

23. Collective Action in Irrigation  
   *Raouf F. Khouzam*  
   289

24. Cooperative Solutions for Problems of Water Supply  
   *Edna Tusak Loehman*  
   301

25. Cooperative and Noncooperative Water Diversion in the Great Lakes Basin  
   *Nir Becker and K. William Easter*  
   321
   Luther P. Gerlach

SECTION II: METHODS OF ECONOMIC ANALYSIS

Part V: Designing Institutional Rules

   Frank Scrimgeour

28. Political Economy of the Transition from Water Rights to Water Markets
   Farhed A. Shah and David Zilberman

   R. Maria Saleth and John B. Braden

30. A Bargaining Model for Water Transfers Including Water Quality
   George B. Frisvold and Margriet F. Caswell

31. Common Pool Resources: The Relevance of Laboratory Experimental Research
   Steven C. Hackett and James M. Walker

Part VI: Evaluation of Alternatives and Interest Group Analysis

32. Positional Analysis Applied to Water Pollution Problems in Developing Countries
   Dugushilu Mafunda and Ståle Navrud

33. Political Power Measures for Water Management Interest Groups
   C. Robert Stark, Jr., David S. Bullock, and Wesley D. Seitz

34. Analyzing Interest Group Preferences: An Application of the Analytic Hierarchy Process
   Keith Willett and Ramesh Sharda
35. Contingent Valuation in Resolving Local Public Water Problems
   Wesley N. Musser, Lynn M. Musser, Andrew S. Laughland, and James S. Shortle 469

36. Economic and Political Analysis of Dredging Ohio’s State Park Lakes
   Fred J. Hitzhusen, Somskaow Bejranonda, Timothy Lehman, and Robert Macgregor 485

Subject Index 501

Name Index 511