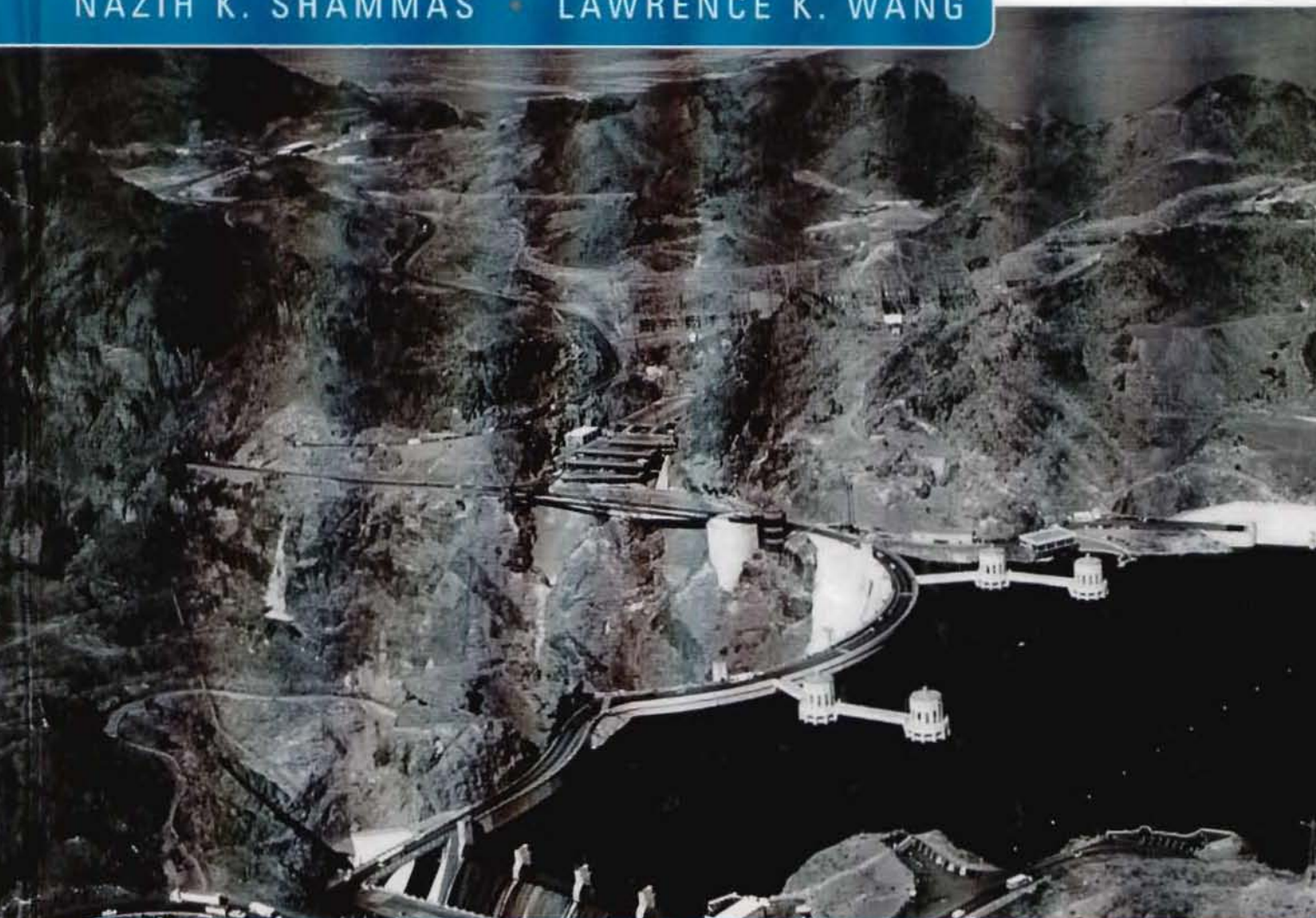


3rd Edition

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WATER SUPPLY and WASTEWATER REMOVAL

Fair, Geyer, and Okun's

Water and Wastewater Engineering

Preface

History of This Book

This text is a revision of the classic text *Water and Wastewater Engineering*, originally authored by Gordon M. Fair, John C. Geyer, and Daniel A. Okun. Just before beginning the preparation of this third edition of *Water and Wastewater Engineering: Water Supply and Wastewater Removal*, the last surviving member of the original authors, Professor Daniel A. Okun, died on December 10, 2007. In the normal course of events Professor Okun would have been with us in preparing this book. In his memory we are including his latest article on dual water systems, published in 2007 in *Water 21 Magazine*, as part of Chapter 8.

Goals of This Book

Today, effective design and efficient operation of engineering works ask, above all, for a fuller understanding and application of scientific principles. Thus, the results of scientific research are being incorporated with remarkable success in new designs and new operating procedures. Like other fields of engineering, water and wastewater engineering has its science and its art. To reach the audience to which this book is addressed, the science of water and wastewater engineering is given principal emphasis. However, the art of water and wastewater engineering is not neglected. Enough elements of engineering practice, experience, common sense, and rules of thumb are included to keep the reader aware of the water environment and constructions that place water at the service of cities and towns, villages and homesteads.

Further Study in Addition to Classroom Education

The study of scientific principles is best accomplished in the classroom; the application of these principles follows as a matter of practice. To further bridge the way from principle to practice, we suggest that the study of this textbook be supplemented by (a) visits to water and wastewater works, (b) examination of plans and specifications of existing water and wastewater systems, (c) readings in the environmental science and engineering periodicals, (d) study of the data and handbook editions of trade journals, (e) examination of the catalogs and bulletins of equipment manufacturers, and (f) searching for the latest water and wastewater engineering developments from the internet.

Intended Audience

Like its forerunners, the new work is intended for students of civil and environmental engineering, regardless of whether they belong to the student body of a university or are already established in their profession. Specifically, the target audience is engineering students who have had introductory calculus, chemistry, and fluid mechanics, typically civil and environmental engineering majors. Several chapters of this book contain introductory material appropriate for juniors as well as more advanced material that might only be appropriate for upper-level undergraduate engineering students. Applied hydrology and hydraulics are reviewed and included in this book. The inclusion of this material makes this book important also to physical and investment planners of urban and regional developments.

Brief Contents

1.	Introduction to Water Systems	1
2.	Water Sources: Surface Water	29
3.	Water Sources: Groundwater	61
4.	Quantities of Water and Wastewater Flows	118
5.	Water Hydraulics, Transmission and Appurtenances	154
6.	Water Distribution Systems: Components, Design, and Operation	194
7.	Water Distribution Systems: Modeling and Computer Applications	230
8.	Pumping, Storage, and Dual Water Systems	265
9.	Cross-Connection Control	297
10.	Introduction to Wastewater Systems	333
11.	Hydrology: Rainfall and Runoff	357
12.	Urban Runoff and Combined Sewer Overflow Management	398
13.	Hydraulics of Sewer Systems	457
14.	Design of Sewer Systems	500
15.	Sewerage Systems: Modeling and Computer Applications	555
16.	Sewer Material, Appurtenances, and Maintenance	590
17.	Trenchless Technology and Sewer System Rehabilitation	641
18.	Alternative Wastewater Collection Systems	670
19.	Engineering Projects Management	712
20.	Prevention through Design and System Safety	731

APPENDIXES 779

INDEX 816

Contents

1. Introduction to Water Systems 1

1.1	Components of Water Systems	3
1.2	Required Capacity	4
1.3	Sources of Water Supply	5
1.4	Rainwater	6
1.5	Surface Water	7
1.5.1	Continuous Draft	7
1.5.2	Selective Draft	7
1.5.3	Impoundage	7
1.6	Groundwater	10
1.6.1	Springs	11
1.6.2	Wells	12
1.6.3	Infiltration Galleries	12
1.6.4	Recharging Devices	13
1.7	Purification Works	14
1.8	Transmission Works	17
1.9	Distribution Works	19
1.9.1	High and Low Services	21
1.9.2	Fire Supplies	21
1.9.3	Pressures	21
1.9.4	Capacity	22
1.9.5	Service to Premises	22
1.10	Water Systems Management	22
1.10.1	Municipal Supplies	22
1.10.2	Individual Small Supplies	24
1.11	Individual Water Systems	24

2. Water Sources: Surface Water 29

2.1	Sources of Surface Water	30
2.2	Safe Yield of Streams	34
2.3	Storage as a Function of Draft and Runoff	35
2.4	Design Storage	37
2.5	Loss by Evaporation, Seepage, and Silting	39
2.5.1	Water-Surface Response	39
2.5.2	Seepage	41
2.5.3	Silting	41
2.6	Area and Volume of Reservoirs	43
2.7	Management of Catchment Areas	44
2.7.1	Upland Areas	45
2.7.2	Lowland Areas	45

2.7.3	Quality Control	45
2.7.4	Swamp Drainage	45
2.8	Reservoir Siting	46
2.9	Reservoir Management	47
2.9.1	Quality Control	47
2.9.2	Evaporation Control	47
2.10	Dams and Dikes	48
2.10.1	Embankment Dams	48
2.10.2	Masonry Dams	50
2.11	Spillways	50
2.12	Intakes	52
2.12.1	River Intakes	53
2.12.2	Lake and Reservoir Intakes	53
2.12.3	Submerged and Exposed Intakes	54
2.12.4	Intake Velocities and Depths	54
2.12.5	Intake Conduits and Pumping Stations	55
2.13	Diversion Works	55
2.14	Collection of Rainwater	55

3. Water Sources: Groundwater 61

3.1	Porosity and Effective Porosity	63
3.2	Permeability	63
3.3	Groundwater Geology	64
3.4	Groundwater Situation in the United States	65
3.5	Types of Aquifers	65
3.6	Groundwater Movement	67
3.7	Darcy's Law	67
3.8	Aquifer Characteristics	68
3.9	Well Hydraulics	71
3.10	Nonsteady Radial Flow	72
3.10.1	Confined Aquifers	72
3.10.2	Semilogarithmic Approximation	76
3.10.3	Recovery Method	79
3.10.4	Unconfined Aquifers	80
3.10.5	Leaky Aquifers	81
3.11	Prediction of Drawdown	82
3.11.1	Constant Discharge	82
3.11.2	Variable Discharge	85
3.11.3	Intermittent Discharge	86
3.12	Multiple-Well Systems	87
3.13	Aquifer Boundaries	90
3.13.1	Recharge Boundaries	91
3.13.2	Location of Aquifer Boundaries	94
3.14	Characteristics of Wells	94
3.14.1	Specific Capacity of a Well	95
3.14.2	Partial Penetration	95

3.14.3	Effective Well Radius	95
3.14.4	Measurement of Well Characteristics	96
3.15	Yield of a Well	97
3.15.1	Maximum Available Drawdown	97
3.15.2	Specific Capacity–Drawdown Curve	97
3.15.3	Maximum Yield	98
3.16	Well Design	99
3.17	Well Construction	101
3.17.1	Dug Wells	102
3.17.2	Driven and Jetted Wells	102
3.17.3	Bored Wells	103
3.17.4	Drilled Wells	103
3.17.5	Collector Wells	103
3.17.6	Pumps	103
3.17.7	Development	104
3.17.8	Testing	104
3.17.9	Sanitary Protection of Wells	105
3.17.10	Maintenance	106
3.18	Evaluation of Aquifer Behavior	106
3.18.1	Hydrologic Equation	106
3.18.2	Safe Yield of an Aquifer	106
3.19	Groundwater Quality Management	107
3.19.1	Biological Contamination	107
3.19.2	Subsurface Disposal of Liquid Wastes	108
3.20	Groundwater under the Direct Influence of Surface Water	108
3.20.1	GWUDI Determination: Source Screening Phase	109
3.20.2	GWUDI Determination: Detailed Evaluation Phase	111
3.20.3	Hydrogeologic Assessment	112
3.20.4	Water Quality Assessment	114
3.20.5	Microscopic Particulate Analyses	115

4. Quantities of Water and Wastewater Flows 118

4.1	Design Period	119
4.2	Design Population	120
4.2.1	Population Data	120
4.2.2	Population Growth	120
4.2.3	Short-Term Population Estimates	123
4.2.4	Long-Range Population Forecasts	125
4.2.5	Simplified Method for Population Forecasts	126
4.2.6	Population Distribution and Area Density	126
4.3	Water Consumption	127
4.3.1	Domestic Consumption	128
4.3.2	General Urban Water Demands	129
4.3.3	Industrial Water Consumption	131
4.3.4	Rural Water Consumption	133

4.4	Variations or Patterns of Water Demand	133
4.4.1	Domestic Variations	134
4.4.2	Fire Demands	135
4.5	Demand and Drainage Loads of Buildings	140
4.6	Wastewater Flows	142
4.6.1	Spent Water or Domestic Wastewater	142
4.6.2	Groundwater Seepage	142
4.6.3	Stormwater	143
4.6.4	Industrial, Commercial, and Institutional Wastewaters	144
4.7	Variations in Wastewater Flows	144
4.8	Design Flows for Wastewater Infrastructure Development	150
4.9	Design Flows for Water Infrastructure Development	151

5. Water Hydraulics, Transmission and Appurtenances 154

5.1	Fluid Mechanics, Hydraulics, and Water Transmission	154
5.1.1	Fluid Mechanics and Hydraulics	154
5.1.2	Transmission Systems	157
5.2	Fluid Transport	159
5.2.1	Rational Equation for Surface Resistance	159
5.2.2	Exponential Equation for Surface Resistance	163
5.2.3	Form Resistance	171
5.2.4	Hydraulic Transients	172
5.3	Capacity and Size of Conduits	173
5.4	Multiple Lines	176
5.5	Cross-Sections	177
5.6	Structural Requirements	177
5.7	Location	179
5.7.1	Line and Grade	179
5.7.2	Vertical and Horizontal Curves	179
5.7.3	Depth of Cover	180
5.8	Materials of Construction	183
5.8.1	Carrying Capacity	183
5.8.2	Strength	184
5.8.3	Durability	184
5.8.4	Transportation	184
5.8.5	Safety	184
5.8.6	Maintenance	184
5.8.7	Leakage	185
5.9	Appurtenances	185
5.9.1	Gate Valves	187
5.9.2	Blowoffs	187
5.9.3	Air Valves	187
5.9.4	Check Valves	188
5.9.5	Pressure-Reducing Valves	188
5.9.6	Pressure-Sustaining Valves	188
5.9.7	Pressure Breaker Valves	188

5.9.8	Flow Control Valves	188
5.9.9	Throttle Control Valves	189
5.9.10	Manholes	189
5.9.11	Insulation Joints	189
5.9.12	Expansion Joints	189
5.9.13	Anchorage	189
5.9.14	Other Appurtenances	190

6. Water Distribution Systems: Components, Design, and Operation 194

6.1	Distribution Systems	194
6.1.1	One- and Two-Directional Flow	194
6.1.2	Distribution Patterns	194
6.1.3	Pipe Grids	195
6.1.4	High and Low Services	196
6.1.5	Service to Premises	196
6.2	System Components	197
6.3	System Capacity	200
6.4	System Pressure	201
6.5	Field Performance of Existing Systems	202
6.6	Office Studies of Pipe Networks	204
6.6.1	Sectioning	205
6.6.2	Relaxation (Hardy Cross)	207
6.6.3	Pipe Equivalence	213
6.6.4	Computer Programming	215
6.7	Industrial Water Systems	216
6.8	Management, Operation, and Maintenance of Distribution Systems	217
6.8.1	General Maintenance Person Asphyxiated While Attempting to Repair Water Leak	219
6.8.2	Plumber Repairing a Water Line Killed When Struck by a Backhoe Bucket	219
6.8.3	Welder Killed Following a 100-Ft Fall from a Water Tower	222

7. Water Distribution Systems: Modeling and Computer Applications 230

7.1	WaterGems Software	230
7.2	Water Demand Patterns	231
7.3	Energy Losses and Gains	232
7.4	Pipe Networks	234
7.4.1	Conservation of Mass	234
7.4.2	Conservation of Energy	234
7.5	Network Analysis	235
7.5.1	Steady-State Network Hydraulics	235
7.5.2	Extended-Period Simulation	235
7.6	Water Quality Modeling	236
7.6.1	Age Modeling	236
7.6.2	Trace Modeling	237