

1. Record Nr.	UNINA9910789108403321
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Titolo	Designing rainwater harvesting systems : integrating rainwater into building systems // Celeste Allen Novak, G. Edward Van Giesen, Kathy M. DeBusk ; cover design Michael Rutkowski
Pubbl/distr/stampa	Hoboken, New Jersey : , : John Wiley & Sons, , 2014 2014
ISBN	1-118-41786-0 1-118-42188-4
Descrizione fisica	1 online resource (330 pages)
Classificazione	517 614.3 628.1/42
Disciplina	628.1/42
Soggetti	Water harvesting Sustainable buildings - Design and construction Cisterns - Design and construction Sustainable architecture
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Designing Rainwater Harvesting Systems: Integrating Rainwater into Building Systems; Copyright; Contents; Access to Companion Site; Preface; G. Edward (Eddie) Van Giesen; Celeste Allen Novak; Acknowledgments; Chapter 1: The Importance of Rainwater Harvesting; Water Capital; A Brief History of Centralized Water Systems; New Approach to Centralization-Decentralized Rainwater Systems; Examples from Around the World; India; Germany; The United States; Policy Issues and Sustainability; Water and Energy Savings; Response to Drought Conditions; Privatization and Relocation; Valuing Water Resources History and Early Codes Source; Value and Water Rates; Return on Investment; Challenges, Education, and Paradigm Shifts; Stereotypes and Preconceptions; Rainwater Technical Standard; Water Quality; Paradigm Shift; Endnotes; Chapter 2: System Planning and Policies; Benefits That Drive Rainwater Harvesting Systems; Planning a System;

Step 1: Identifying System Goals; Step 2: Codes, Standards, and Guidelines; Step 3: Incentive Programs and Rating Systems; Step 4: Educating and Involving the Stakeholders in the Design Process; Step 5: Putting It All Together; Endnotes

Chapter 3: Water for Thirsty Buildings Rainwater: Calculating Collection and Use; Step 1: Creating a Water Audit; Step 2: Calculating Annual Rainwater Supply; Step 3: Calculating Demand; Building Sectors, Sizes, and Demands; Small Office; Schools in Different Climate Regions; Step 4: Cistern Sizing; Alternative Water Sources; Other Wastewater and Recirculated Water; Plumbing Design and the Myth of Unlimited Water Supply; Thoughtful Planning Brings Success; Endnotes; Chapter 4: System Elements; Integrated Approach; Opportunities for an Integrated Approach

1. Collection/Catchment Surface (Roof or Other)2. Conveyance (Gutters and Downspouts); Dry Conveyance versus Wet Conveyance; Sizing and Numbers; Aesthetics/Functions/Budget; Conveyance Functions; Conveyance Budget; 3. Prestorage Filtration and Debris Exclusion; Prestorage Filter Types and Applications; Downspout Filters; Basket Filter; Centrifugal Filters; Cascading Debris Excluders; Prestorage Filtration Devices; Filter Sizes; How Components Help Merge the Goals of Rainwater and Stormwater; 4. Storage; Aboveground Tanks; Belowground Tanks; Factors to Consider; 5. Distribution

1. Pressurization 2. Filtration; 3. Disinfection; 4. Controller; 5. Automatic Protected Bypass; 6. Makeup Supply; Integration, Thoughtful Planning, and Continuing Education Are the Keys to Success; Endnotes; Chapter 5: Maintenance and Safety; Water Quality of a Rainwater System; Sources of Pollutants; Fate and Transport of Pollutants in a Rainwater Harvesting System; Microbial Contamination; Addressing Water Quality for Various End Uses; First Flush; Water Testing Protocols; Using a Bypass/Backup Water Supply; Maintenance Considerations Case Studies-Cautionary Tales and Pilot Projects for Potable Water Systems

Sommario/riassunto

"Rainwater Harvesting the first comprehensive book on designing rainwater harvesting systems. It provides practical guidelines for developing a rainwater harvesting strategy, taking into account climate, public policies, environmental impact, and end uses. Case studies are included throughout, and a companion website houses worksheets, calculators, and other resources. Rainwater Harvesting is a valuable reference for architects, landscape architects, and site engineers"--
