

Why Stormwater is an Untapped Opportunity for Corporate Water Strategies

Understanding the strategic, financial, and environmental reasons to rethink stormwater management

2NDNATURE

www.2ndnaturewater.com



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Preface

Stormwater is often overlooked in corporate water strategies, yet it presents a significant opportunity. As companies face rising water costs, stricter regulations, and climate-related challenges, the reasons for incorporating stormwater management are clearer than ever. This guide explores why stormwater deserves a place at the forefront of your water planning. By understanding the financial, environmental, and strategic benefits, you'll see how stormwater can shift from being a costly challenge to a valuable asset that supports long-term business success.

I encourage you to read on as we explore why stormwater should be central to your corporate water strategy.



Nicole Beck, Ph.D.

Founder & CEO, 2NDNATURE



Introduction

Water management remains a critical focus in today's corporate sustainability landscape. Stormwater management demands serious consideration regardless of where your corporation is on its water stewardship journey. With rising costs and the potential for immediate positive impact, stormwater is an untapped solution to advance replenishment goals quickly. Integrating stormwater strategies into your corporate water program offers untapped opportunities to:

- Reduce operational and compliance costs
- Enhance resilience against climate change
- Lower environmental impact
- Accelerate progress toward net positive water goals

Effective stormwater management can transform runoff from a liability into a valuable resource, swiftly bridging gaps and achieving net positive water results. Proactive companies prioritize stormwater strategies to mitigate emerging financial risks and capitalize on new opportunities.

Cities and counties are enforcing stricter stormwater design standards in response to climate change, bringing more frequent and intense storms. Simultaneously, rising water and stormwater utility rates are elevating operational expenses.

These pressures necessitate greater owner investment in site development and operations to meet stormwater management requirements.

Addressing these challenges with robust stormwater solutions is essential for compliance and cost management—and it presents a significant opportunity. A strategic corporate stormwater program

strengthens a company's commitment to climate resilience and environmental sustainability. Now is the time for corporations to adapt and capitalize on these opportunities to ensure a sustainable and prosperous future.

Compelling Reasons to Act Now

- **Achieve Sustainability Goals:** Leverage stormwater to significantly advance net positive and replenishment targets, enhancing sustainability efforts.
- **Meet Stricter Regulations:** Ensure compliance with evolving municipal design standards and avoid costly penalties.
- **Enhance Resilience:** Protect corporate assets and infrastructure from the increasing frequency and severity of storms.
- **Reduce Operational Costs:** Mitigate the impact of rising water and stormwater utility fees through efficient stormwater management.
- **Support Community and Environmental Health:** Contribute to healthier ecosystems and communities by improving stormwater quality and management.

The Evolution

Over the past two decades, corporate water management has transformed from a narrow focus on compliance and operational efficiency to a broader commitment to holistic water stewardship. This evolution prioritizes replenishing water resources and aims for net positive water outcomes. Companies now take a more comprehensive approach to managing their water footprint, often partnering with NGOs, local communities, and governments to tackle shared water challenges and enhance watershed health.

However, despite these advancements, stormwater is still underutilized in corporate water strategies. Traditionally seen as a nuisance to be managed solely for regulatory compliance, stormwater presents significant opportunities for fostering local climate resilience and aligning with water stewardship goals when reimagined as a valuable resource.

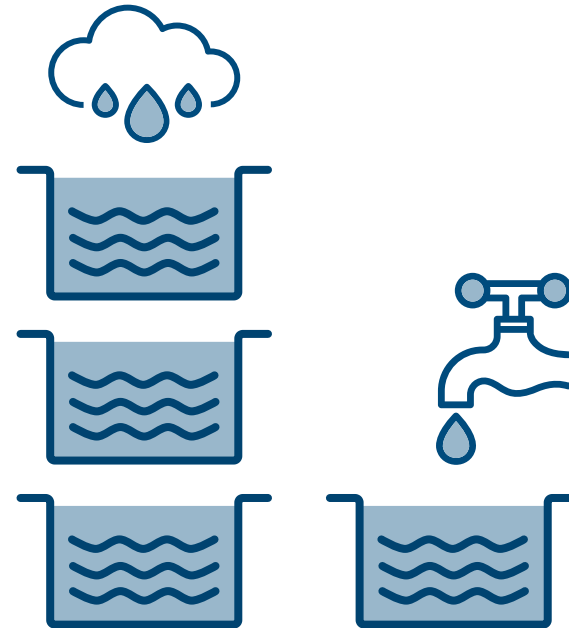
The Economics: Why Stormwater Matters

Stormwater, which comes from rain and snowmelt, is crucial in the freshwater cycle. With the challenges of urbanization and climate change increasing flood risk, water pollution, and water scarcity, the need for sustainable stormwater management practices has never been more apparent.

A collection of your corporate properties likely own and operate existing stormwater controls due to prior development requirements, and they contribute to environmental value. These investments are seldom reviewed or accounted for in corporate water stewardship plans. This oversight can result in missed opportunities to claim credit

for their benefits that collectively enhance community resilience, offset consumptive use, recharge local aquifers, reduce flood risk, and protect water quality.

3X Runoff vs. Water Use



Over 80% of commercial US properties larger than three acres produce more than three times the stormwater runoff than they use in operations each year.

Increasing Urgency for Stormwater Management

The urgency to incorporate stormwater management into corporate water strategies has never been greater. Two key trends are making it vital for corporations to take action now: stricter municipal design standards and increasing costs linked to water and stormwater utilities.

Stricter Municipal Design Standards

Many local governments are revising their stormwater design standards to accommodate larger and more frequent storms. This change is a response to the increasing effects of climate change and the necessity for infrastructure that can endure extreme weather events. Businesses need to adjust to these changing requirements to adhere to the rules and safeguard their investments. Incorporating cutting-edge stormwater management solutions in advance can assist companies in meeting these updated standards and preventing potential fines or expensive upgrades later on.

Rising Costs of Water and Stormwater Utility Fees

The average price of municipal water is continually rising due to factors such as scarcity, infrastructure maintenance, and

regulatory changes. Similarly, stormwater utility fees increase as municipalities upgrade their stormwater systems to manage runoff better and enhance water quality.

In 2023, around 2,000 communities imposed stormwater utility fees on property owners. These fees are expected to rise sharply over the next five years to fund compliance with stricter regulations, enhance infrastructure resilience, and address climate change impacts. Potable water costs are also expected to increase by 4.5% annually. For businesses, these rising costs can significantly impact operational expenses. Proactive strategies to manage stormwater make economic sense for property owners and managers.

Case Study: Chapel Hill, North Carolina

Chapel Hill North Carolina is a prime example of increasing the stormwater regulations on urban developers where the the City Council unanimously voted to tighten their stormwater retention standards.

- Prior to 2024, developers were required to manage stormwater flows up to the 25-year storm, equating to a rainfall depth of 6.11 inches.
- In 2024 the stormwater design standard was increased to 100-year storm and a rainfall depth of 7.62 inches.

This increase requires property owners to increase the treatment capacity of stormwater control measures by approximately 25% directly increasing the capital cost of these required investments.

Case Study: San Francisco, California

The San Francisco Public Utilities Commission (SFPUC) is a prime example of increasing water and stormwater fees. In 2023, a 28-acre commercial property with 22 acres of impervious area in San Francisco paid:

- \$22,700 in annual stormwater utility fees
- \$246,000 for annual water service

Over the next two years, these fees will surge:

- Stormwater fees: Increasing by 255% to \$80,970 annually in 2025
- Water service fees: Rising by 11% to \$274,600 annually in 2025

These examples highlight the evolving landscape of stormwater regulations, costs, and incentive programs.

Financial Incentives for Stormwater Management

To encourage stormwater capture, reuse, and green infrastructure, properties like the 28-acre commercial site in San Francisco can benefit from significant financial incentives offered by SFPUD:

- **Grants:** Up to \$2.5M for capital costs of green stormwater infrastructure, including a \$1M on-site water reuse grant for replacing 24M gallons of SFPUC water over ten years.
- **Utility Fee Credits:** Up to a 90% reduction in annual stormwater utility fees, translating to over \$700,000 in savings over ten years.
- **Water Bill Savings:** The 20% reduction in potable water use can save an additional \$500,000 over ten years.

It's Only A Matter of Time

Investing in stormwater management mitigates rising utility costs and secures substantial long-term financial benefits through grants and fee reductions. Proactive investment in stormwater infrastructure is an intelligent monetary decision, providing immediate and future savings while enhancing property value and doing your part to boost local climate resilience. We advise you to

consider both dimensions in any new build-outs and retrofits on your properties and consider investing now.

Three Key Practices of Stormwater Management

Organizations commonly implement three essential practices to meet their net positive and replenishment goals.

1. Implementing designs that absorb rainwater and runoff reduces runoff volumes, helps replenish aquifers, and naturally cleans and purifies water.
2. Capturing and reusing rainwater and runoff on-site to decrease reliance on municipal water supplies. Treatment may be required, depending upon the end use of the captured water.
3. Incorporating native vegetation, shade cover, and green space into stormwater controls reduces runoff, lowers ambient air temperatures further, and safeguards local ecosystems.

Explore the Benefits

Incorporating stormwater management into corporate water strategies opens up numerous opportunities for organizations to enhance their sustainability initiatives. By effectively managing stormwater, companies can reduce flooding risks, improve water quality, and promote biodiversity in their local

environments. On the following page, we've categorized the most common benefits corporations, land developers, and large private landholders incorporate into their water strategy.



Technologies like 2NDNATURE's Rainsteward™ automatically quantify the opportunities available on any property. The benefits badge, pictured above, highlights the environmental and operational value of stormwater management, showcasing achievements in runoff reduction, pollution mitigation, and groundwater recharge. It provides a clear, data-driven summary to help communicate the impact of water stewardship efforts across properties.

Runoff as a Resource: The Multi-Faceted Benefits of Innovative Stormwater Management

Resource Efficiency and Cost Savings

- Reduces reliance on traditional water sources
- Provides alternative water sources for irrigation, cooling, and industrial processes
- Lowers operational costs through stormwater harvesting and reuse

Flood Mitigation and Infrastructure Protection

- Reduces risk of flooding
- Protects corporate assets and surrounding communities
- Enhances resilience to extreme weather events

Climate Change Mitigation and Adaptation

- Helps mitigate the impacts of climate change by managing runoff
- Supports adaptation strategies to cope with increased rainfall and extreme weather
- Reduces carbon footprint through green infrastructure

Urban Development and Property Value Enhancement

- Improves urban landscapes with green infrastructure
- Increases property values with enhanced aesthetic and environmental quality

- Supports sustainable urban development initiatives

Enhanced Data Collection and Decision-Making

- Utilizes technology for real-time monitoring and data analysis
- Informs better decision-making through predictive modeling and analytics
- Supports proactive management of stormwater systems

Regulatory Compliance and Reputation

- Helps meet regulatory requirements and avoid non-compliance fines
- Enhances company reputation among customers, investors, and stakeholders
- Demonstrates commitment to sustainable water practices

Water Quality Improvement

- Filters and cleans runoff before it reaches natural water bodies
- Reduces pollutants from urban surfaces entering waterways
- Benefits the environment and public health by reducing contamination and disease risk

Aquifer Recharge and Groundwater Sustainability

- Enhances groundwater recharge through infiltration practices

- Supports sustainable management of groundwater resources
- Reduces pressure on over-extracted aquifers and promotes long-term water availability

Biodiversity and Ecosystem Health

- Green infrastructure creates habitats for various species
- Promotes biodiversity by maintaining healthy ecosystems
- Increased greening reduces nearby temperatures and fights the urban heat island effect.

Job Creation and Economic Benefits

- Generates employment opportunities in stormwater infrastructure projects
- Boosts local economies through construction and maintenance activities
- Encourages innovation in green technology and infrastructure sectors

Operational Efficiency and Disruption Reduction

- Minimizes operational disruptions caused by flooding and water damage
- Improves reliability and efficiency of water management systems
- Ensures continuous operation even during adverse weather conditions

Innovative Technologies

Advancements in technology are transforming the way stormwater is managed, offering new tools and solutions to enhance efficiency and effectiveness. Here are some cutting-edge technologies that companies can integrate into their stormwater management strategies:

AI and Data Analytics

- Stormwater Accounting and Reporting: GIS and data analytics streamline the process of tracking and reporting stormwater volumes and quality, ensuring compliance with regulations and supporting corporate sustainability goals.
- Predictive Modeling: AI-powered predictive models can forecast stormwater runoff patterns and identify potential risks, allowing for proactive management and infrastructure planning.

Green Infrastructure

- Bioretention and Rain Gardens: Distributed small vegetated detention features that collect and infiltrate runoff from adjacent impervious surfaces.
- Permeable Pavements: Reduce runoff volumes by allowing water to infiltrate the pavement, reducing runoff and promoting groundwater recharge.
- Green Roofs and Walls: Vegetated roofs and walls absorb rainwater, reducing runoff and providing building insulation benefits.
- Dry Wells: Small vertical wells filled with gravel that collect stormwater and slowly recharge it into the ground.

- Constructed Ponds and Wetlands: These engineered systems mimic natural systems treating stormwater through physical, chemical, and biological processes.

Water Harvesting and Reuse

- Rainwater Harvesting Systems: Collecting and storing rainwater for non-potable needs reduces demand for freshwater supplies and provides a sustainable water source for various applications.

Rainsteward™ by 2NDNATURE

L10138
 Property Name: 14647 Northam Street
 E.J. Community: No
 Address: 14647 Northam Street, La Mirada, California
 Focus Tenant: Enduro Bicycles

Cost Estimates

\$0.58M	Total cost = capital cost - cost recovery	26%	Percent cost recovery estimate from identified incentive programs
\$0.79M	Capital cost estimate for stormwater management project	\$0.22	Cost per gallon

Stormwater Impact

2.60M gal/yr	Stormwater Managed: The annual volume of property stormwater to be better managed as a resource.	19.07 acres	Impervious area: Amount of property impervious area producing stormwater runoff and pollution.
2.23 100k/yr	Stormwater pollution mitigated: Stormwater pollution each year to be eliminated through effective stormwater management.	20.58 acres	Property Size

Water and Geography Facts

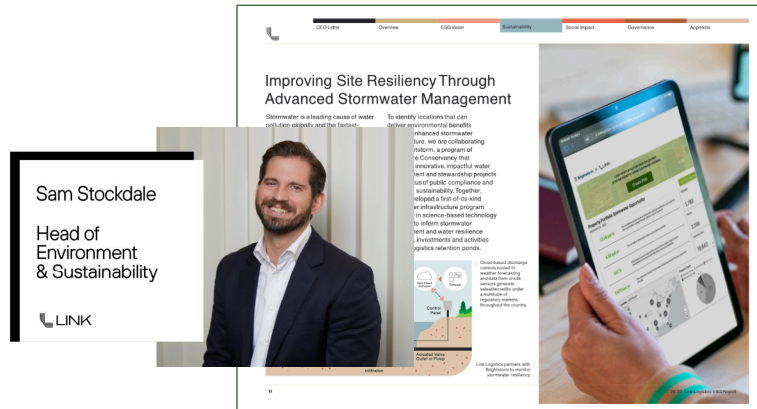
Basin Watershed	Ventura-San Gabriel Coastal	Soil Group	C
Subbasin Watershed	San Gabriel	FEMA Flood Zone	-
AVG. Annual Rainfall	11.92 Inches	Atop Aquifer?	Yes
85th Percentile Rain Depth (Historic/2050)	0.60/0.62 Inches	Aquifer Name	California Coastal Basin Aquifers
Stormwater Runoff	3.99M gal/yr	Slope %	2%
Stormwater Pollution	2.79 ton/yr	Aspect	Southwest

Rainsteward™ is a SaaS solution that provides everything needed to understand your current stormwater footprint, water quality impact, and opportunities to realize your goals.

Case Studies: Leading by Example

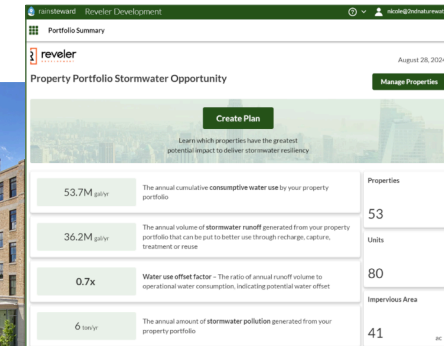
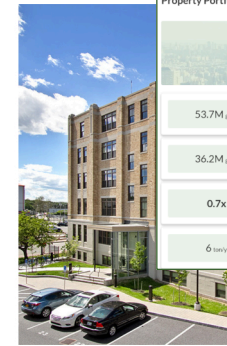
Join other forward-thinking companies that have already begun incorporating stormwater management into their corporate water strategies, reaping significant benefits.

LINK Logistics



[Link Logistics](#) is a top operator of last-mile logistics real estate. It serves around 9,000 customers and owns, manages, or has under development logistics facilities totaling 526 million square feet across key U.S. distribution markets. Link Logistics and Nature Conservancy's Brightstorm Program implemented Rainsteward to enhance water stewardship across its property portfolio, tackling challenges like increasing stormwater costs and compliance requirements. The software allowed Link Logistics to quantify stormwater impact, access rebates, and set actionable water management goals. Rainsteward's climate-adjusted forecasts and analytics enabled the company to optimize its strategy, improve transparency, and demonstrate sustainability leadership to investors and communities.

Reveler Development



[Reveler](#) partnered with 2NDNATURE to optimize stormwater management using Rainsteward across its properties in Portland. The collaboration addressed rising stormwater costs, complex regulations, and sustainability goals by integrating data, streamlining compliance, and setting clear water replenishment targets. Rainsteward enabled Reveler to unlock financial incentives, boost operational efficiency, and enhance transparency in sustainability reporting, strengthening community relations and investor confidence. For more, [read the case study](#).

Integrating Stormwater Management

To effectively integrate stormwater management into a corporate water strategy, consider these streamlined steps that focus on leveraging advanced technology and efficient practices:

Conduct a Stormwater Assessment

- Evaluate Stormwater Footprint: Assess company's water usage and identify areas where stormwater management can mitigate risks and enhance resilience.
- Property-Specific Analysis: Utilize advanced tools to evaluate the potential benefits for each property in your portfolio, considering specific needs and existing conditions.

Set Clear Goals and Targets

- Measurable Objectives: Establish specific, measurable goals for stormwater management, such as reducing runoff volumes, improving water quality, or increasing water reuse.
- Tailored Strategies: Customize goals based on insights regarding each property's unique characteristics and existing stormwater controls.

Invest in Green Infrastructure

- Multiple Benefits: Prioritize investments in reuse, recharge and green infrastructure solutions that provide environmental, social, and economic benefits, such as cisterns, permeable pavement, green roofs, and constructed wetlands.

- Evaluate Existing Controls: Consider the benefits already delivered by current stormwater controls and infrastructure and identify areas for enhancement.

Leverage Technology

- Predictive Modeling: AI-powered predictive models can forecast stormwater runoff patterns and identify potential risks, allowing for proactive management and infrastructure planning.
- Stormwater Accounting and Reporting: GIS and data analytics streamline the process of tracking and reporting stormwater volumes and quality, ensuring compliance with regulations and supporting corporate sustainability goals.

Collaborate with Stakeholders

- Engage Communities: Involve local communities, governments, NGOs, and other stakeholders in developing and implementing stormwater management initiatives.
- Partnerships for Success: Form partnerships with external organizations to leverage expertise, resources, and support.

Monitor and Report Progress

- Systematic Accounting: Implement thoughtful and systematic accounting processes to generate transparent and accurate reporting on stormwater management efforts.
- Transparent Reporting: Regularly report progress to stakeholders, demonstrating accountability and commitment to continuous improvement.

Seize The Opportunity



Forward-thinking companies know they need a corporate sustainability practice. But most organizations don't have a Rainwater Management Strategy and unknowingly watch a hugely valuable resource rush down the drain every time it rains.

At 2NDNATURE, we believe building a resilient rainwater management program shouldn't be an insurmountable task. We know how much pressure you're under to deliver environmental wins for your organization.

We've worked with some of the brightest minds in rainwater management and corporate sustainability to deliver a software solution to help organizations identify opportunities and realize their rainwater's full value and potential.

Equip your company with science and data-backed methods to power better environmental decision-making with Rainsteward. With features enabling clear environmental accounting and defensible reporting, you can manage your rainwater resiliently like never before.

2NDNATURE leverages the power of applied science and innovative technology to empower urban land managers like your organization to harness the untapped potential of runoff as a valuable resource. By putting this water to better use, we take a substantial stride toward achieving water resiliency.



Learn more about Rainsteward, the innovative SaaS solution that will help you turn runoff into a resource.

www.2ndnaturewater.com/2ndnature-software/product-rainsteward/