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Review

Conservation of Water Resources in a Botanic Garden

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Abstract: Water-resource challenges, encompassing both quality and quantity, pose significant threats to Florida's ecosystems, especially in the face of climate change, rising sea levels, and rapid urbanization. This paper explores the innovative stormwater-management system implemented at Naples Botanical Garden as a model for addressing these challenges. The Garden's approach, treating stormwater as a valuable resource, involves dry and wet retention areas, created lakes, and a unique River of Grass, mimicking natural ecosystems. This system not only mitigates flooding, but also effectively removes pollutants, recharges the aquifer, and provides a habitat for diverse wildlife. The paper emphasizes the economic, environmental, and social impacts of traditional stormwater-management practices in Florida. Naples Botanical Garden's case serves as a guide for botanical gardens and zoos globally, showcasing the pivotal role these institutions can play in sustainable water-resource management. The collaborative design process involving landscape architects, engineers, and horticulturists ensures a holistic and aesthetically pleasing approach to stormwater management. The paper underscores the role of botanical gardens in promoting nature-based solutions, educating the public, and offering tangible steps for implementing similar systems worldwide. It can help guide regional adaptation strategies to manage stormwater as a resource.

Keywords: botanic garden; stormwater; nutrient pollution; Florida; flooding; economy; nature-based solutions; water resources; conservation; education

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1. Introduction

One of the most challenging resource issues facing Florida in the 21st century is water. The problem is a complex one, involving both water quality and quantity and continues to grow as climate changes, sea levels rise, algal blooms become more frequent, and rapid urbanization of the landscape occurs. Existing stormwater-management practices across the state do not do enough to meet current and future water-resource management needs and can even be a driver of economic, environmental, and social challenges [1]. As plant experts and trusted sources of information, botanic gardens and zoos can serve as models for responsible water-resource management and be leaders of change.

During Florida's rainy summer months, plentiful rains fall on the landscape. Excess water is drained away through a complex network of stormwater ponds and canals designed to prevent flooding and damage to infrastructure by quickly directing water off the landscape and into the Gulf of Mexico. But as Florida's population continues to grow, urbanization increases the area of impervious surfaces. This expansion, coupled with rapidly rising sea levels, has led to increased surface runoff and flooding. Nutrient pollution present in stormwater from the landscape feeds blue–green algal blooms in freshwater and red tide in coastal waters [2,3]. These algal blooms produce potent neurotoxins and anoxic conditions in the water column that result in the death of marine life and negative impacts on human health. This combination causes a significant economic impact on both infrastructure and the region's tourism-based economy [1].

During the drier winter months, water scarcity becomes an issue as drought conditions result in the regulation of supplemental landscape irrigation across many communities and farms and a depleted groundwater table, the state's primary source of drinking water [4]. The challenge of not having enough water is exacerbated by increased development and

sprawling urbanization, which adds additional demand for irrigation from the already overdrawn water table.

The Naples Botanical Garden has taken a novel approach to water conservation that views stormwater as a resource to be conserved and managed sustainably, addressing multiple environmental, social, and economic crises. The Garden-wide effort addresses the critical need for the management of stormwater in times of abundance and scarcity, ensuring that the quality of water leaving the site is maintained downstream, with a goal of being a community-wide model for sustainable development.

Naples Botanical Garden's stormwater system balances the critical water-resource management needs for flood control and prevention, effective treatment of stormwater to remove pollutants, and recharge of the aquifer to ensure the long-term sustainability of the region. The system was designed to be one of the Garden's central features in the landscape, including many of the site's key viewsheds and multiple opportunities for engagement. Ensuring its effectiveness requires collaboration across the institution from multiple mission-facing departments to be successful. Using Naples Botanical Garden as a case study, this article will examine the most significant water-management challenges facing the Southeastern United States and provide examples of real-world solutions that can be implemented across the region and around much of the world. It will serve as a guide for zoos and botanic gardens managing water as a resource, highlighting the vital role our organizations play as environmental leaders and credible sources of information in engaging communities to foster change.

2. Naples Botanical Garden

Naples Botanical Garden is located less than 2.5 km from Florida's Gulf Coast, in Collier County, FL, USA (Figure 1). The Garden is situated on 68 hectares, which includes approximately 36 hectares of managed natural lands, 7 hectares of manmade lakes, and 25 hectares of formal gardens, lawns, buildings, paved parking, and roadways.

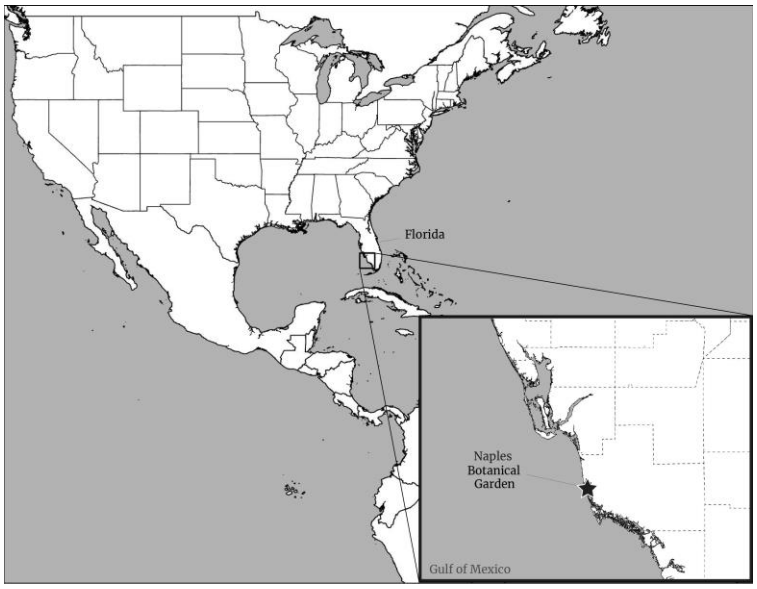

Figure 1. Location of Naples Botanical Garden in Naples, FL, USA.

The Garden, which first opened its doors to the public in 2009, was designed to incorporate created and natural native ecosystems across the property. These ecosystems include managed scrub habitat, forested wetlands, a restored coastal marsh, and a created stormwater system composed of lakes and associated littorals, wetlands, and dry detention areas. The Garden welcomes over 260,000 visitors through its doors each year and connects with many more through social media channels, blogs, and quarterly magazines focusing on garden news and conservation efforts. In the nearly 15 years since the Garden opened,

it has grown to become one of the region's most popular cultural attractions and serves as a leader in efforts to conserve the plants, ecosystems, and quality of life across Southwest Florida and the greater Caribbean.

3. Water and the Southwest Florida Economy

Water quality forms the basis for much of Southwest Florida's regional economy. Coastal ecosystems, including beaches, mangroves, marshes, and the open waters of the Gulf of Mexico, support the local economy and quality of life through tourism, fisheries, property values, and opportunities for access to outdoor recreation. During the region's typically warm winter months, tourists flock to the area to enjoy white sandy beaches, boating, fishing, and other types of outdoor recreation. In 2019, Collier County alone welcomed nearly two million visitors, who spent over $1.5 billion and supported over 40,500 jobs [5]. Moreover, the region has experienced significant population growth each year, with Collier County's population increasing by nearly 6% between 2020 and 2023, adding over 22,000 new residents [6]. Many more people come to the area each year as part-time residents during the winter months, often purchasing second homes or retirement properties.

4. Water Quality Challenges: Urbanization, Flooding, and Drought

The influx of part-time and full-time residents and tourists to Southwest Florida has resulted in rapid urbanization of the landscape as new roads, parking, housing, and other infrastructure are built to manage the number of people and land-use changes from undeveloped to developed. The increase in impervious surfaces from that infrastructure results in a greater volume of stormwater runoff on the landscape that must be both managed to prevent flooding, and treated to remove sediment, nutrients, and other pollutants before reaching the Gulf of Mexico. The increased volume of stormwater runoff due to increases in impervious surfaces is exacerbated by an increasing trend of less frequent but more intense extreme rainfall events across the state due to climate change [7].

Increases in rates of sea level rise are adding to Florida's growing issue of flooding. Rising sea levels have resulted in low levels of tidal flooding across coastal areas of the Eastern United States, including Florida [8]. This nuisance flooding occurs when sea-level rise and high-tide events push sea water above the height of the coastal topography. Because nuisance flooding is driven primarily by tidal events in combination with sea-level rise rather than rainfall events, it is often referred to as 'sunny day flooding'. Sunny-day flooding has become a regular occurrence in many areas of the state and is predicted to become an almost daily occurrence by 2065 under intermediate sea-level-rise scenarios [9].

Even though Florida faces the significant challenge of managing large volumes of surface water to prevent flooding on the landscape, access to freshwater for a growing population remains a significant challenge [10]. During the drier winter months, drought conditions lead to a reliance on groundwater for irrigation for agriculture and urban landscapes. In addition, most of the state's population, over 90% in 2005, rely on fresh groundwater from the aquifer for drinking water [4]. Cape Coral, a city located in Lee County, Florida, is one of those cities that pumps groundwater up to the surface for reverse-osmosis treatment to produce a supply of fresh water. A recent study indicates that this practice has likely resulted in measured surface subsidence rates as high as 25 mm per year in Cape Coral, an area that is already prone to flooding [11]. This reliance on groundwater as a necessary resource by nearly everyone who lives in the state highlights the importance of a water-management plan that includes a focus on both the surface and the aquifer.

5. Nutrient Pollution and Threats to Water Quality

Stormwater-management systems in Florida are often designed with a focus on hydrologic function, preventing flooding of the landscape and the associated economic impacts that it brings. Less effort has been invested in ensuring that these systems function effectively to remove pollutants [12]. The cumulative impacts of urbanization increase in intensity of rainfall events, and nuisance flooding threatens to overwhelm Florida's existing stormwater

infrastructure with even larger volumes of water over shorter periods of time. These increases in water volume moving through the system will further reduce any potential for pollution removal. Stormwater systems developed in the future will need to be designed to manage these increases to prevent costly flooding across the landscape while balancing an increasing need to ensure that stormwater runoff is sufficiently treated to remove pollutants.

This current lack of focus on stormwater systems designed to effectively remove pollutants has come at a significant cost to the region's water quality and quality of life. Stormwater discharges in Florida are responsible for between 50% and 100% of the pollutant load entering Florida's waters [13]. The primary pollutants that contribute to Florida's reduced water quality include excess nutrients, primarily nitrogen and phosphorus, heavy metals, sediment, and suspended solids.

The effects of degraded water quality on the region became apparent in 2018 when Southwest Florida faced a historically significant bloom of toxic algae in the Gulf of Mexico. The event, a harmful algal bloom (HAB), or red tide, was caused by *Karenia brevis*, a single-celled marine organism. During a HAB, populations of red-tide-causing algae grow rapidly, resulting in anoxic conditions and producing associated brevetoxins in quantities, which lead to massive die-offs of coastal fisheries. Red tide events have historically taken place in Florida's coastal waters but are thought to be occurring with greater frequency as development and climate change impact the area [14]. The drivers of increasingly larger and more persistent harmful algal blooms are complex and not completely understood, but known factors can be linked to climate change. Anthropogenic nitrogen present in runoff from urban landscapes and agricultural areas ends up in Gulf waters and has been shown to be one significant driver of the change [2,3].

The HAB that occurred in the Gulf waters off the coast of Florida in 2018 left a devastating impact on the region's environment and primary economic drivers. For several months during 2018, coastal beaches were littered with dead marine life, ranging from millions of fish to dolphins and manatees. Marine-life deaths attributable to red tide continue to be an issue each year, even in years when blooms are not as significant. Between the Fall of 2022 and the Summer of 2023, nearly 130 manatee deaths suspected to be related to red tide were reported along the southwest coast of Florida from Pinellas County to Collier County [15,16]. Harmful algal blooms have also been shown to have significant negative impacts on human health as well. Brevetoxins can bioaccumulate in fish and mollusks, moving up the food chain with devastating impacts on recreational and commercial fisheries. The toxins also act as severe respiratory irritants in humans, making living or visiting anywhere near the coast very difficult during a bloom [17].

A recent region-wide analysis indicates that a bloom of the scale and prolonged duration of the 2018 bloom would result in the loss of over $460 million annually in the commercial and recreational fishing industry and a loss of over 43,000 jobs across a three-county area (Collier, Lee, and Charlotte counties). Even more significant are the potential losses in terms of regional property values ($17.8 billion) and quality of life through the value of outdoor recreation ($8.1 billion) across the three counties [1].

6. The Role of Botanic Gardens in Conservation of Water Resources

For botanical gardens, plants and plant collections are typically at the core of the mission. Many times, those collections include plants for both display and ex situ conservation, or conservation outside of their natural habitats. Increasingly, gardens are playing a role in the conservation of plants in their natural habitats, or in situ conservation, through the management of natural lands. Stormwater systems can offer a third opportunity for public gardens and zoos to conserve plant diversity in an inter situ setting, meaning a semi-wild setting in a restored, created, or novel ecosystem. This use of collections acts as a type of insurance policy to keep collections alive along with other forms of conservation in the garden and natural lands. As experts in the field of plants and trusted sources of scientific information, botanic gardens can play a vital role as champions of the use of natural features in the built

environment to promote adaptation and resilience. These nature-based solutions are key to addressing our most pressing environmental, economic, and social challenges.

Plants play a vital role in many aspects of best management practices for stormwater. Planted wetlands and open-water littoral edges slow the flow of water across the landscape, allowing for the removal of pollutants by sedimentation and reducing soil erosion from overland flow and internal wave action. Plants accumulate nutrients and other pollutants through uptake, storing them over periods of time in plant tissues. When planted as an upland buffer around a stormwater system, plants serve as a physical and visual barrier, delineating treatment boundaries from upland-managed landscapes like lawns. This can help to reduce the chance of anthropogenic fertilization applications making it into the system and reduce inputs of organic pollution in the form of grass clippings from mowing [18].

A wide diversity of native taxa planted in a stormwater treatment system may support long-term resiliency to the system in the face of climate change [19]. These changes can be in the form of shifts to brackish or fresh water, changes in the depth of flooding, and changes in the duration of flooding. Diverse plant communities can often shift and adapt over time as conditions change. An added benefit of the function provided by planted stormwater systems is the opportunity to create valuable habitat for wildlife.

7. Stormwater Design for Water Conservation

The design of the stormwater system at Naples Botanical Garden was a collaborative effort that brought together multiple disciplines. The design team consisted of a landscape architect, an engineer, and garden staff, including horticulturists and a restoration ecologist from the natural resource management team. Garden staff members of this design team were responsible for not only the design and implementation of the system but also the continued maintenance of the system once built. This inclusion of the management team has been a key driver of the long-term success of the system. The diverse group worked together to ensure that the design integrated expertise from each of the respective fields and exceeded basic regulatory requirements. The intention of the design team was to treat stormwater as a feature on the landscape in the same way that a designed garden is a feature, with goals that included aesthetics, a sense of place, and ecological function. The overarching goal was to create a functional system that balances the critical water-resource management needs for flood control and prevention, treatment of stormwater to remove pollutants, and recharge of the aquifer to ensure the long-term sustainability of the region (Figure 2). To meet each of these goals, the system was designed using established best practices in Florida for stormwater systems. Water, after all, is one of the primary natural resources that plays a vital role in shaping Florda's past and future. In a garden setting, it could be used to carry that story throughout the gardens as a part of the visitor experience and serve as a model for living with nature rather than attempting to control it while addressing the region's most pressing resource issues.

To best take advantage of the ecological function of natural wetlands, each of the individual components of the treatment system was modeled on native ecosystems and their plant communities. Dry retention areas were based on seasonally flooded habitats, like mesic flatwoods, including a plant palette that can survive periods of inundation in the rainy season and significant drought during the drier winter months. Wet retention areas were designed based on ecosystems that remain inundated or flooded throughout the year, including marsh wetlands and the associated plant communities that make up portions of the Everglades. This intentional design not only serves to mimic the natural functions of these systems, including nutrient and pollution removal, groundwater recharge, and habitat, it also reduces the need for additional inputs of irrigation during the drier times of the year as the appropriate plants are adapted to drought conditions.

Historically Florida's stormwater systems were designed with the intention of moving water off the landscape as quickly as possible to minimize the potential for damage from flooding [12]. The unintended consequences of this design flaw result in a lack of vital groundwater recharge and an increase in pollutants reaching the waters of the Gulf. Each of

the components of the Garden's stormwater-management system was designed to include significantly greater storage and treatment capacity than required by current regulations. This design feature is key in that it ensures that water treatment efficiencies remain at their highest, any potential flooding is mitigated, and that recharge of the subsurface aquifer is assured.

Figure 2. Overall stormwater system and individual components at Naples Botanical Garden in Naples, FL, USA.

During the charrettes, iconic landscape photographs of each of these ecosystems, taken by prominent South Florida landscape photographer Clyde Butcher, were used as inspiration for the design. The team's restoration ecologist ensured that the plants that form the building blocks of each of the appropriate ecosystems were included in each stormwater treatment area, while the landscape architect ensured that they were assembled with an eye toward beauty. Together, the team created a stormwater system that has become a central feature of the Garden's landscape, including a sense of place, function, and conservation.

8. Components of the System

When guests first arrive at the Garden's main entryway drive, they are greeted by the Rain Garden, a lush landscape recognizable as an iconic Florida cypress dome (Figure 3). The Rain Garden, dominated by an overstory of architectural cypress trees and an understory of marsh grasses, sets the stage for a sense of place upon arrival to the Garden. This dry retention wetland is an essential part of the pre-treatment of stormwater at the head of the system. It is fed by bioswales in the main visitor parking area, helping to buffer potential flooding during heavy rain events, recharge groundwater, and remove first-flush pollutants before the water flows to the Garden's lake system.

Figure 3. Rain Garden dry retention wetland at the entrance of Naples Botanical Garden, Naples, FL, USA.

Guests who arrive by their own vehicle first park in the Garden's main visitor parking area, where bioswales are incorporated into the landscape to accept the large volume of water from the surrounding impervious surface (Figure 4). When appropriately sized to retain runoff volume, dry retention systems like the Rain Garden and bioswales have been shown to be the most effective treatment in meeting goals for the reduction of pollution loading [12]. The Garden's parking lot bioswales and plantings have the added benefit of providing diverse wetland and upland habitats for birds, where they would otherwise be absent. The area has become a well-known birding hotspot.

Figure 4. Bioswale dry retention wetland in the public parking area at Naples Botanical Garden, Naples, FL, USA.

The Garden's nearly seven hectares of created lakes receive water from dry and wet retention areas across the site (Figure 5). Each of the deep lakes was designed to hold large volumes of water for extended periods of time. The period of time that stormwater remains within a treatment of the system, or residence time, is highly correlated with nutrient-removal efficiencies for nitrogen and phosphorous. Longer residence times result in greater removal of nutrients, reducing the potential for harmful algal blooms downstream [20]. The large storage capacity of the open-water lakes supports the primary water-resource management goals of flood protection; removal of nutrients, sediments, and other pollutants; and recharge of the groundwater table. One of the Garden's future goals is to quantify the efficiencies of the system in meeting these goals through regular monitoring of water quality and the hydrologic budget. The planted littoral edges of the lakes serve to enhance the uptake of excess nutrients while preventing surface erosion and providing habitats for fish, wading birds, and other wildlife [18]. The Garden's stormwater lakes offer stunning waterfront views of the sunset and have become the most popular venues for open evening visitor hours.

Figure 5. Stormwater lakes at Naples Botanical Garden, Naples, FL, USA.

Most visitors to the Garden do not realize that, when they attend a concert on the Water Garden stage, that the grand view that frames the performance area is the backbone of the site's stormwater treatment system (Figure 6). Rather than hide stormwater from view, it becomes the primary featured viewshed and venue of the site. The River of Grass is a long, slow flowing wet retention area modeled on the nearby Everglades. River of Grass was the name given to Everglades by author and conservationist Marjorie Stoneman Douglas to describe the slow flow of water across the iconic sawgrass marsh. The Garden's River of Grass is crossed by two bridges, connecting adjacent gardens across the site, and is the primary viewshed at the Water Garden Stage. These low bridges with open sides allow for opportunities for garden guests to engage directly with the landscape rather than just view it from a distance. Water discharging from one of the stormwater system's lakes flows slowly through the long shallow wetland, allowing sediments and other pollutants to settle out while providing contact with plants to allow for nutrient uptake. On-line wet retention systems like this in Florida have shown significant capacity to remove total suspended solids and moderate capacity to remove total nitrogen and phosphorus [12]. In the future, more research is needed to better quantify their effectiveness in overall pollutant removal.

Figure 6. Water Garden Stage at the head of the River of Grass, a wet detention wetland at Naples Botanical Garden, Naples, FL, USA.

9. Stormwater Management in the Garden

Like any designed garden feature or natural landscape, stormwater systems require continued maintenance at some level to ensure that they continue to function as designed and maintain their plant community. The Garden system's design and plant palette are modeled on natural systems that face seasonal drought and flooding. This eliminates the need for supplemental irrigation during the dry winter months like other created landscapes in Florida. The entire system is managed by the Conservation and Natural Resources team, which treats stormwater in the same way that they manage the Garden's other natural resources. Exotic invasive species are removed by hand pulling or herbicides and plant communities are allowed to change over time as the water quality and levels change in the system. Overall, the day-to-day management needs of the system are minimal and provide significant returns for the functions it provides.

A greater portion of the management of the system comes in the form of reducing or eliminating opportunities for nutrients and other pollutants to make it into stormwater. This requires cross-departmental collaborations between the horticulture and conservation teams to identify sensitive areas around drainageways and pervious surfaces where landscape fertilization should be limited. It is the role of the Garden's Integrated Pest Manager to ensure that soil tests are done to identify areas in need of supplemental fertilization and prescribe treatment for remediation. Limiting the input of phosphorous and nitrogen into the system is vital to ensuring its long-term health.

10. Water Conservation and Education

Many visitors to public gardens and zoos come to be immersed in a landscape where they can learn, connect with nature, and experience a moment of respite. Like any designed or natural landscape feature in a Garden, a well-designed and publicly accessible stormwater system can offer visitors those same benefits. Naples Botanical Garden's River of Grass and expansive lakes offer some of the best viewshed opportunities on site. Benches, boardwalks, shaded pavilions, and other stopping points allow visitors to slow down and engage

with nature. These moments offer opportunities for education along the way, including signage, guided tours, and self-guided tours, which are available to garden visitors.

Recurring and persistent red-tide blooms have created significant community interest in implementing the Garden's best management practices across the region. In fact, one of the Garden's most regularly requested tours is for the stormwater treatment system. Audiences range from individual homeowners looking to influence their community into making change, to homeowner's associations that manage large-scale communities and their associated stormwater systems. There are approximately 10,000 created stormwater-management ponds in Collier and Lee counties [21]. Most of those ponds serve primarily as flood mitigation but do very little to remove nutrient pollution from stormwater. The majority of them include turfgrass right to the water's edge with no littoral plantings or upland buffers to serve as barriers between fertilized and managed lawn and stormwater. They lack native plantings that prevent surface and internal erosion leading to the suspension of solids and nutrients into the water column. To help meet the demand for stormwater-management education, the Garden has developed a self-guided audio tour ([22], Supplementary Materials) and a Nature-Based Solutions handout focusing on the stormwater treatment system ([23], Supplementary Materials).

11. Recommendations

Botanic Gardens and zoos play a vital role as sources of trusted, science-based information in their communities. Each year, millions of people visit public gardens and zoos in the U.S. alone. This, combined with our core mission revolving around plants, provides great opportunities for gardens to implement and promote nature-based solutions that address our most pressing environmental, economic, and social challenges. For many around the globe, water as a resource is one of those challenges.

The initial design, or adaptation of an existing stormwater system to manage water as a natural resource is a foundational step in the process. The design charrettes should include a multidisciplinary team with expertise from a wide range of disciplines, including natural resource management, restoration ecology, landscape architecture, engineering, and horticulture where possible. The teams responsible for the long-term maintenance of both the system and the surrounding upland landscape should be at the table to ensure that the design is both manageable within organizational resource limits, and the system goals are in keeping with the use of the rest of the property. This includes identifying and reducing the potential for pollutants like fertilizer, grass clippings, and herbicides entering the system through adjacent land-management activities. Prevention is a key component to the success of managing stormwater appropriately as a natural resource.

The design team should identify clear goals and priorities for the functions of the system and design accordingly using accepted best practices to meet or exceed those goals. These goals and priorities should address the current regional water resource needs and challenges, with a look at how those challenges will change over time. The volume of water and residence time of the system are important components to ensuring that a system is designed to address flooding, water quality, and groundwater recharge. The larger the volume of water and the longer the residence time of that water in the system, the greater the capacity for reducing flooding, improving water quality, and recharging the groundwater table. In the context of Florida's increasing issues with rain intensity, impervious surfaces, and depleted groundwater, a larger designed treatment volume can be an important component in ensuring that the system is able to successfully manage current runoff and potential increased runoff in the future.

Stormwater systems designed using nature-based solutions offer gardens and zoos the opportunity to use plant collections in a novel way. This type of system has the potential to increase the number of native plant taxa in a collection or act as an inter situ form of conservation between formally designed gardens and natural areas. It can provide significant habitat for birds and other wildlife, helping to conserve more than just plants.

Well-designed wetlands, ponds, bioswales, and dry detention areas provide significant opportunities for engagement, education, and respite for visitors to the Garden. Rather than moving water quickly from a site using pipes and storm drains, naturalistic designed stormwater features placed in visible locations can provide the added benefit of becoming an aesthetic feature on the landscape, while providing quality habitat for wildlife and educational opportunities for visitors.

Local water-resource challenges differ greatly across the globe; however, nearly everyone everywhere faces the issue of either too much, not enough, limited access, or poor quality. These challenges currently affect the quality of life for nearly everyone on Earth and threaten to impact our lives even more as climate changes in the future. The role that gardens and zoos can play in addressing these issues in a real and meaningful way is significant and should be a growing priority for our organizations.

Supplementary Materials: The following supporting information can be downloaded at: https://www.naplesgarden.org/visit/plan-your-visit/tour-options/, Journal of a Raindrop Audio Tour. https://www.naplesgarden.org/wp-content/uploads/2023/12/Stormwater-map-updated-April-2022-1.pdf (accessed on 2 April 2024), Nature-Based Solutions: Stormwater Treatment System, Naples Botanical Garden. https://www.naplesgarden.org/discover-the-gardens-solution-to-dirty-runoff-water-plants/ (accessed on 2 April 2024), Discover the Garden's Solution to Dirty Runoff Water: Plants!

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