

FOR IMMEDIATE RELEASE: September 1, 2016  
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**New Water Garden to Open at Brooklyn Botanic Garden in September 2016**  
***Shelby White and Leon Levy Water Garden***

**Designed by Michael Van Valkenburgh Associates**  
**Part of Garden-Wide Water Conservation Project**



View of Brooklyn Botanic Garden's new Shelby White and Leon Levy Water Garden. Courtesy BBG and MVVA.

**Brooklyn, NY—On September 15, 2016,** [\*\*Brooklyn Botanic Garden\*\*](#) (BBG) will open the **Shelby White and Leon Levy Water Garden**, a 1.5-acre wetland and riparian environment designed with a network of innovative sustainability features by award-winning landscape architecture firm **Michael Van Valkenburgh Associates, Inc.** (MVVA). The new garden will highlight the beauty of water elements at BBG with a restored and expanded pond and brook system and plantings. It will educate visitors on native plants and wildlife, water conservation, and the role water plays across ecosystems.

A signature feature in the south Garden landscape, the Shelby White and Leon Levy Water Garden will anchor BBG's **garden-wide Water Conservation Project, a multifaceted sustainable approach to water management—the first project of its scale and complexity in North America** and a model for reducing dependence on freshwater and lessening combined sewer overflow—making for a greener Garden and a greener city.

"The Shelby White and Leon Levy Water Garden is a remarkable new feature at Brooklyn Botanic Garden," says **Scot Medbury, president of Brooklyn Botanic Garden.** "When it opens, the south side of BBG will be transformed with an immersive, lush landscape where visitors can closely experience the plants and wildlife that thrive at water's edge. The garden-wide Water Conservation Project—taking place underground—is every bit as remarkable, with a water management system that will be a model for other institutions and civic organizations, and a platform from which to educate our community on water conservation in the city, at BBG, and in their own

homes. We are excited to unveil the Shelby White and Leon Levy Water Garden and launch the first phase of the BBG-wide Water Conservation Project in September."

"Growing up in Brooklyn, I didn't realize the Garden was special," says **Shelby White, trustee of the Leon Levy Foundation.** "Now, many years later, I understand that the Brooklyn Botanic Garden is one of the great gardens of the world. All of us at the Leon Levy Foundation are proud to support this beautiful paradise."

"While the new Shelby White and Leon Levy Water Garden at BBG engages visitors through lush riparian habitat and views that extend deep into the landscape, it is distinguished by technical elements that add ecological and infrastructural value to the Garden and surrounding communities," says **Michael Van Valkenburgh, president and CEO of Michael Van Valkenburgh Associates.** "Careful collaboration with engineers, hydrologists, and BBG leaders has enabled this project to simultaneously address issues of water management and ecological richness, the consequences of which reach far beyond the Garden's boundaries. By merging design sensibility with technical knowledge, the team managed to save 22 million gallons of freshwater annually through new infrastructure hidden amongst a beautiful and inviting new portion of the collection.

The Shelby White and Leon Levy Water Garden is part of BBG's continuing **Campaign for the Next Century, the most significant renewal effort since the Garden's founding over 100 years ago.** Through this renewal, BBG seeks to further its commitment to sustainable practices and environmental leadership.

### Design Features

Designed by Michael Van Valkenburgh Associates (MVVA), the new Shelby White and Leon Levy Water Garden landscape features thousands of new trees, shrubs, bulbs, ferns, and other plants surrounding the pond and Belle's Brook, a restored and expanded brook system that runs the length of BBG's Plant Family Collection. Many of the species selected are riparian, or "wet-feet," plants that can adapt to fluctuating water levels, thus ensuring visual interest and beauty at water's edge even as water levels rise and fall.

Large-leaf plantings in the design add scale, texture, and color, and irises and sedges create varied heights at the water's edge. Modeled on wetlands in the greater New York City region, the design incorporates many native plants, including rare and exotic riparian species. The new garden also provides improved habitat for wildlife year-round, particularly the many birds that frequent BBG.

Among the notable plantings at the water's edge are *Nyssa sylvatica* (black tupelo), an unusual native wetland tree species with vivid fall foliage; large-leaved perennials with an exotic aesthetic, such as *Rheum palmatum* (Oriental rhubarb), *Darmera peltata* (umbrella plant), and *Ligularia stenocephala*, that harken back to classic English garden design; shrub willows (*Salix* species) with a range of interesting features such as bark color or texture, fall color, fragrance, and unique form.

Along Belle's Brook: Native and adapted perennials provide colorful blooms during the growing season, including *Caltha palustris* (marsh marigold), which has a bright yellow flowers in early spring, and *Lobelia cardinalis* (cardinal flower), which produces deep red flower spikes from mid- to late summer. Among the most dramatic brookside plants are *Silphium terebinthinaceum* (prairie dock) and *Vernonia gigantea* (giant ironweed), both of which grow seven to ten feet tall. Masses of shrubs noted for their fragrant flowers are also included to attract bees and butterflies.

Interpretive design around the garden will highlight the rich plant and animal life at the water's edge, illustrate the ways freshwater ecosystems are diverse and adaptive, and connect visitors to other areas of BBG—including the Native Flora Garden, the Discovery Garden, the Rain Garden, and the Rock Garden—that also demonstrate the interconnectivity of plants, wildlife, and water.



View of Belle's Brook in Brooklyn Botanic Garden's new Shelby White and Leon Levy Water Garden. Courtesy BBG and MVVA.

### Water Conservation Project

The multifaceted **Water Conservation Project** will significantly reduce BBG's impact on New York City's water systems. The project will also serve as a **model for urban water management**, utilizing—and educating visitors on the importance of—a sustainable approach to water cycle design.

When complete, BBG's Water Conservation Project will allow the Garden to recirculate rainwater collected throughout its 52-acre watershed and channel it through the new Shelby White and Leon Levy Water Garden pond, the Japanese Hill-and-Pond Garden pond, and the rest of BBG's brook system, **reducing freshwater consumption from an estimated 22 million to 900,000 gallons per year.**

As part of the Water Conservation Project, the Shelby White and Leon Levy Water Garden will play a major role in **retaining storm-water runoff**. Using satellite technology and computer modeling, BBG will be able to monitor weather and release water from the pond in the Shelby White and Leon Levy Water Garden prior to major storm events. This will **reduce the discharge during storm events to New York City's storm-water system from 8 million gallons to only 2.5 million gallons per year.**

When complete, the Shelby White and Leon Levy Water Garden will connect with **Belle's Brook**, a new brook system that runs the length of BBG's Plant Family Collection. In the design by MVVA, plantings along the brook will be augmented with thousands of new trees, shrubs, bulbs, ferns, and other plants. A **new interpretive strategy and enhanced educational programs** will use this project to **raise water-use awareness and teach conservation techniques**.

The Garden-wide Water Conservation Project is expected to be complete in 2018.

**Note to Press:** High-resolution images are available at [bbg.org/press](http://bbg.org/press). To arrange an interview or for further information, please contact [communications@bbg.org](mailto:communications@bbg.org) or 718-623-7241.

## **Support for the Shelby White and Leon Levy Water Garden and the Water Conservation Project**

Lead funding for the Shelby White and Leon Levy Water Garden and the Water Conservation Project has been provided by the Mayor of the City of New York and the New York City Department of Cultural Affairs, the New York City Council, the Brooklyn Borough President, Shelby White and The Leon Levy Foundation, and Robert Wilson Charitable Trust.

Additional support was provided by the New York City Department of Environmental Protection. We are also grateful for leadership support of the Campaign for the Next Century from the Garden's Board of Trustees and other close friends.

## **About the Campaign for the Next Century**

BBG's Campaign for the Next Century supports a suite of new and enhanced gardens, facilities, and programs created in response to increased attendance at the Garden, ongoing revitalization in Brooklyn, and growing interest in urban horticulture and sustainability. Other notable projects include the extension of the Native Flora Garden (2013); the new Visitor Center (2012); and the new Herb Garden (2010). The new Shelby White and Leon Levy Water Garden is part of the South Garden Project, an ambitious series of renovations at the southern end of BBG that will improve the visitor experience and enable the institution to operate in a more environmentally sustainable fashion. They include the relocated and expanded Discovery Garden (2015); an expanded and redesigned public entrance at Flatbush Avenue by Architecture Research Office (2015); a new Early Spring Garden (2015); renewal of the historic McKim, Mead & White brick archway (2015); a relocated and expanded indoor café (2017) and outdoor food kiosk (2016); the new Shelby White and Leon Levy Water Garden (2016); and completion of a larger water conservation project (2018).

## **About Michael Van Valkenburgh Associates**

Michael Van Valkenburgh Associates is a landscape architecture firm that creates environmentally sustainable and experientially rich places across a wide range of landscape scales, from city to campus to garden. Founded in 1982, MVVA maintains offices in Brooklyn, New York, and Cambridge, Massachusetts. Its earliest works, primarily gardens, plazas, and other smaller institutional projects, were critically celebrated for their groundbreaking achievements. In the next decade, MVVA's commissions expanded to a scale in which it was possible for landscape to drive urban form, with projects such as the master plans for Waller Creek and Princeton University and built work like Brooklyn Bridge Park and the Wellesley College Alumnae Valley Landscape Restoration. MVVA continues to design small-scale landscapes such as the recently completed Monk's Garden at Boston's Isabella Stewart Gardner Museum.

Working closely with urban planners, architects, engineers, and ecologists, MVVA has emerged as an innovative leader of multidisciplinary urban design teams. The firm's collaborative approach ensures that the experience of MVVA's built landscapes grows from, and is supported by, outstanding environmental performance, financial resourcefulness, technical innovation, and material expression.

## **About Brooklyn Botanic Garden**

Founded in 1910, Brooklyn Botanic Garden (BBG) is an urban botanic garden that connects people to the world of plants, fostering delight and curiosity while inspiring an appreciation and sense of stewardship of the environment. Situated on 52 acres in the heart of Brooklyn, the Garden is home to over 18,000 kinds of plants and hosts more than 850,000 visitors annually.

Learn what's happening at Brooklyn Botanic Garden at [bbg.org/visit/calendar](http://bbg.org/visit/calendar); read the Garden's blog at [bbg.org/news](http://bbg.org/news); and find out what's in bloom at [bbg.org/bloom](http://bbg.org/bloom). Visitor entrances are at 990 Washington Avenue, 150 Eastern Parkway, and 455 Flatbush Avenue. For hours, directions, and admission information, please visit [bbg.org/visit](http://bbg.org/visit). Follow BBG on [Facebook](#), [Twitter](#), and [Instagram](#), and join the conversation using the hashtag #brooklynbotanic.

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## Shelby White and Leon Levy Water Garden and Water Conservation Project Fact Sheet

### Project Summary

Brooklyn Botanic Garden's Shelby White and Leon Levy Water Garden is a new 1.5-acre wetland and riparian environment designed with a network of innovative sustainability features by award-winning landscape architecture firm Michael Van Valkenburgh Associates, Inc. (MVVA). The garden highlights the beauty of water elements at BBG with a restored and expanded pond and brook system and plantings. It educates visitors on native plants and wildlife, water conservation, and the role water plays across ecosystems. A new interpretive strategy and enhanced educational programs raises water-use awareness and teach conservation techniques.

A signature feature in the south Garden landscape, the Shelby White and Leon Levy Water Garden anchors BBG's garden-wide Water Conservation Project, a multifaceted sustainable approach to water management—the first project of its scale and complexity in North America and a model for reducing dependence on freshwater and lessening combined sewer overflow—making for a greener Garden and a greener city.

### MAJOR FEATURES

#### Design

Designed by Michael Van Valkenburgh Associates (MVVA), the new Shelby White and Leon Levy Water Garden landscape features thousands of new trees, shrubs, bulbs, ferns, and other plants surrounding the pond and Belle's Brook, a restored and expanded brook system that runs the length of BBG's Plant Family Collection.

Many of the species selected are riparian, or “wet-feet,” plants that can adapt to fluctuating water levels, thus ensuring visual interest and beauty at the water’s edge even as water levels rise and fall. Large-leaf plantings in the design add scale, texture, and color, and irises and sedges create varied heights at the water’s edge.

#### Notable Plants

Water's Edge: *Nyssa sylvatica* (black tupelo), an unusual native wetland tree species with vivid fall foliage; large-leaved perennials with an exotic aesthetic, such as *Rheum palmatum* (Oriental rhubarb), *Darmera peltata* (umbrella plant), and *Ligularia stenocephala*, that harken back to classic English garden design; shrub willows (*Salix* species) with a range of interesting features such as bark color or texture, fall color, fragrance, and unique form.

Belle's Brook: Native and adapted perennials provide colorful blooms during the growing season, including *Caltha palustris* (marsh marigold), which has a bright yellow flowers in early spring, and *Lobelia cardinalis* (cardinal flower), which produces deep red flower spikes from mid- to late summer. Among the most dramatic brookside plants are *Silphium terebinthinaceum* (prairie dock) and *Vernonia gigantea* (giant ironweed), both of which

grow seven to ten feet tall. Masses of shrubs noted for their fragrant flowers are also included to attract bees and butterflies.

### New Plantings

More than 18,000 new plants will be added to the Shelby White and Levy Water Garden and Belle's Brook, including more than 25 deciduous and evergreen trees; more than 1,400 shrubs; and more than 16,000 herbaceous perennials, including 100 ferns, 4,500 wet meadow plants, and 4,000 bulbs.

<b>Interpretative Design</b>	Interpretive design around the garden will highlight the rich plant and animal life at the water's edge, illustrate the ways freshwater ecosystems are diverse and adaptive, and connect visitors to other areas of BBG—including the Native Flora Garden, the Discovery Garden, the Rain Garden, and the Rock Garden—that also demonstrate the interconnectivity of plants, wildlife, and water.
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<b>Water Recirculation</b>	BBG's Water Conservation Project (expected completion in 2018) allows BBG to recirculate rainwater collected throughout its 52-acre watershed and channel it through the new Shelby White and Leon Levy Water Garden pond, the Japanese Hill-and-Pond Garden pond, and catchment sites along the rest of BBG's brook system.
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The system will also utilize biofilters in two points along the recirculation route to improve the water quality in the Japanese Hill-and-Pond Garden pond and Shelby White and Leon Levy Water Garden pond. A forebay pond adjacent to the Water Garden pond also reduces sediment buildup in the main pond.

The Water Conservation Project will allow BBG to reduce its freshwater consumption from an estimated 22 million gallons to 900,000 gallons per year.

<b>Storm-Water Management</b>	BBG's Water Conservation Project will play a major role in detaining water runoff in major storm events, and significantly lessens the garden's burden on New York City's storm water system.  Using such innovations as satellite technology and cloud-based computer modeling, data management, and controls, BBG will be able to monitor weather and release water from the pond in the Shelby White and Leon Levy Water Garden prior to major storm events. This will reduce the discharge during storm events to New York City's storm-water system from 8 million gallons to only 2.5 million gallons annually.
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<b>Location</b>	Southern section of Brooklyn Botanic Garden
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<b>Opening</b>	Shelby White and Leon Levy Water Garden: Opening in September 2016 Water Conservation Project: Due for completion in 2018
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<b>Dimensions</b>	Brooklyn Botanic Garden: 52 acres Shelby White and Leon Levy Water Garden: 1.5 acres (65,000 square feet) Belle's Brook: 1.85 acres Water Conservation Project: Garden-wide
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## DESIGN AND CONSTRUCTION TEAM

<b>Lead Designer and Landscape Architect</b>	Michael Van Valkenburgh Associates, Inc.
<b>Project Team</b>	Civil and Structural Engineer: Weidlinger Associates Civil Engineer: Geosyntec Consultants; Beech and Bonaparte Engineering, PC Ecologist: eDesign Dynamics Soil Scientist: Cral Land Scientists, Inc. MEP Engineer: Altieri Sebor Wieber LLC Lighting Designer: Tillotson Design Associates Code Consultant: Design 2147 Limited
	President, Brooklyn Botanic Garden: Scot Medbury Vice President, Planning, Design, and Construction: Tracey Faireland Vice President, Horticulture: Melanie Sifton Vice President, Education and Interpretation: Sonal Bhatt Director of Conservatories and Horticulture: Mark Fisher Director of Gardens and Grounds: Ronnit Bendavid-Val Director, Interpretation and Exhibitions: Kate Fermoile
<b>Construction Team</b>	Owner's Representative: Gardiner & Theobald General Contractor, Site and Landscape: Kelco Landscaping and Construction
<b>About the Campaign</b>	The Shelby White and Leon Levy Water Garden is part of BBG's continuing Campaign for the Next Century, the most significant renewal effort since the Garden's founding over 100 years ago. Through this renewal, BBG seeks to further its commitment to sustainable practices and environmental leadership.  BBG's Campaign for the Next Century supports a suite of new and enhanced gardens, facilities, and programs created in response to increased attendance at the Garden, ongoing revitalization in Brooklyn, and growing interest in urban horticulture and sustainability. Other notable projects include the extension of the Native Flora Garden (2013); the Diane H. and Joseph S. Steinberg Visitor Center (2012); and the new Herb Garden (2010). The new Shelby White and Leon Levy Water Garden is part of the South Garden Project, an ambitious series of renovations at the southern end of BBG that will improve the visitor experience and enable the institution to operate in a more environmentally sustainable fashion. They include the relocated and expanded Discovery Garden (2015); an expanded and redesigned public entrance at Flatbush Avenue by Architecture Research Office (2015); a new Early Spring Garden (2015); renewal of the historic McKim, Mead & White brick archway (2015); a relocated and expanded indoor café (2017) and outdoor food kiosk (2016); the Shelby White and Leon Levy Water Garden (2016); and completion of a larger water conservation project (2018).
<b>Support</b>	Lead funding for the Shelby White and Leon Levy Water Garden and the Water Conservation Project has been provided by the Mayor of the City of New York and the New York City Department of Cultural Affairs, the New York City Council, the Brooklyn Borough President, Shelby White and The Leon Levy Foundation, and Robert Wilson Charitable Trust.

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# Image Sheet



## Image 1

Rendering of Belle's Brook, a feature of the Shelby White and Leon Levy Water Garden at BBG.

Image: Michael Van Valkenburgh Associates. Courtesy of BBG.



## Image 2

Rendering of the forebay, or pond reservoir, in BBG's Shelby White and Leon Levy Water Garden.

Image: Michael Van Valkenburgh Associates. Courtesy of BBG.



## Image 3

Rendering of the pond in BBG's Shelby White and Leon Levy Water Garden.

Image: Michael Van Valkenburgh Associates. Courtesy of BBG.



## Image 4

Marsh marigold, one of the many wetland plants that will be featured in the Shelby White and Leon Levy Water Garden.

Image: Rebecca Bullene. Courtesy of BBG.

# Image Sheet



**Image 5**

Cardinal flower, one of the many wetland plants that will be featured in the Shelby White and Leon Levy Water Garden.  
Image: Dave Allen. Courtesy of BBG.



**Image 6**

A mallard and ducklings at Brooklyn Botanic Garden.  
Image: Sarah Tew. Courtesy of BBG.



**Image 7**

New England aster, one of the many wetland plants that will be featured in the Shelby White and Leon Levy Water Garden.  
Image: Sarah Schmidt. Courtesy of BBG.



**Image 8**

Northern blue flag iris, one of the many wetland plants that will be featured in the Shelby White and Leon Levy Water Garden. Image: Blanca Begert. Courtesy of BBG.