

Landscape Architects Design **Water Systems**



Access to clean, safe water is vital for every American community. But too much water in the wrong place can mean devastating floods, contaminated rivers, and polluted drinking water. As licensed professionals in the STEM field, landscape architects use science, technology, and design to create cost-effective water solutions that are both functional and safe for communities.

Working at every scale—from local parks to entire regions—landscape architects collaborate with agencies and communities to:

- **Prevent flooding** using bioswales, green roofs, permeable surfaces, and more.
- **Safeguard drinking water** by harnessing the power of nature to filter out pollutants and harmful bacteria.
- **Design green infrastructure** that costs 5% to 30% less to build—and up to 25% less to maintain—than conventional water management systems.
- **Recharge groundwater** by diverting stormwater back into the earth.
- **Revitalize communities** by designing green spaces that not only manage and clean water, but also serve as recreation and entertainment hubs, jumpstarting economic development.
- **Protect shorelines** and reduce erosion through natural solutions like living shorelines and oyster reefs.

Licensed in all 50 states and D.C., landscape architects complete rigorous education and training in the natural and physical sciences. They combine 21st-century technology with a keen understanding of good design and ecosystems to deliver practical, science-based solutions to some of our most urgent water challenges.

Landscape architecture water projects aren't just attractive landscapes—these solutions are critical infrastructure that safely manages water while also improving lives, protecting property, and building resilience.

Following a 500-year storm event in Westfield, IN, landscape architects designed Grand Junction Park as a stormwater solution that also continues to provide community recreation.

Image credit: ASLA 2023 Professional General Design Honor Award. Grand Junction Park and Plaza, Westfield, Indiana. DAVID RUBIN Land Collective / Alan Karchmer

About ASLA

Founded in 1899, the American Society of Landscape Architects (ASLA) is the professional association for landscape architects in the United States, representing more than 16,000 members.

ASLA Mission: Empowering our members to design a sustainable and equitable world through landscape architecture.

ASLA Fund Mission: Investing in global, social, and environmental change through the art and science of landscape architecture.

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**American Society of
Landscape Architects**

Landscape Architecture Projects:

MANAGE STORMWATER, NATURALLY

Landscape architects help communities, businesses, and homeowners prevent stormwater flooding by designing nature-based solutions that seamlessly blend into their surroundings. At Arizona State University, which gets only 7.7 inches annual rainfall on average, even mild storm events flooded buildings. Landscape architects devised a highly performing connected system of bioswales, scuppers, rain gardens, seat walls, and bioretention ponds that mitigates flooding and can manage stormwater volumes equivalent to a 25-year storm. The quality of the stormwater has also improved with a reduction in pollutants as it passes through the system.



Image credit: ASLA 2021 Professional General Design Honor Award. Orange Mall Green Infrastructure. Tempe, Arizona. COLWELL SHELOR LANDSCAPE ARCHITECTURE / Arizona State University

RESTORE WATERWAYS TO REVITALIZE COMMUNITIES

Landscape architects develop regional plans to improve water supplies and restore damaged ecosystems. As population growth threatened the creeks they rely on for clean water, a group of Utah communities partnered with landscape architects on a restoration plan that puts nature-based solutions front and center. Through the Seven Greenways plan, restored creeks that feed the Salt Lake region will not only provide clean water but will create new opportunities for recreation and tourism.



Image credit: ASLA 2024 Professional Analysis and Planning Honor Award. Seven Greenways: A Cooperative Vision for Water in the Arid West. Salt Lake County, Utah. Design Workshop, Inc. – Aspen

CLEAN WATER BODIES

At Washington D.C.'s Wharf development, landscape architects turned a heavily engineered shoreline into a cleaner, more vibrant waterfront. Using floating wetlands and other nature-based systems, they helped filter stormwater runoff, remove excess nutrients, and improve water quality in the Potomac River. These green infrastructure elements work continuously to clean the water and restore ecological balance along the urban shoreline. The result is a reimagined waterfront that improves water quality and also invites people to connect with the river in new and meaningful ways.



Image credit: ASLA 2024 Professional Urban Design Honor Award. The Wharf's 7th Street Park and Recreation Pier. Washington, District of Columbia. Michael Vergason Landscape Architects, Ltd.

PROTECT COASTLINES THAT PROTECT US

Landscape architects employ their knowledge of ecology and biology to keep coastal communities safe. Using innovative concepts like living shorelines, which use natural materials to protect people and wildlife near the ocean, landscape architects make coastal communities more resilient. When Staten Island's south shore was ripped apart by Superstorm Sandy in 2012, landscape architects designed the Living Breakwaters project using breakwaters and an oyster reef that slows the onrush of water, keeping residents and their homes safe and creating new opportunities for recreation and commerce.

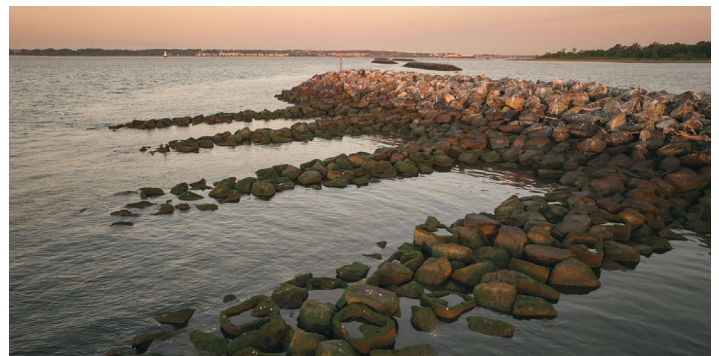


Image credit: Living Breakwaters, Staten Island, New York. SCAPE Landscape Architecture / Ty Cole, image courtesy of SCAPE