PALM BEACH ZOO AND CONSERVATION SOCIETY

Palm Beach Zoo

West Palm Beach, Florida

Baker Lake

A popular coastal zoo with an extensive lake system establishes a holistic vision for sustainable water management that protects vulnerable water resources, improves water quality, and enhances its exhibits and visitor experience.

SERVICES
Engage
Assess
Plan

Animal-water interactions are a key component of the visitor experience at the Palm Beach Zoo and Conservation Society. The five-acre, watery landscape features exhibits throughout its seven interconnected lakes, ponds, and water features. To maintain proper water levels and quality for these features, the Zoo was relying upon groundwater withdrawal and a complex system of infrastructure. Stormwater discharge from this system ultimately flowed into Lake Worth Lagoon, an estuary that provides habitat for sea turtles, wading birds, and hundreds of other species. Seeking to improve water quality, reduce water use, improve stormwater management, and establish itself as a leader in the stewardship of regional water resources, the Zoo turned to Biohabitats.

Biohabitats began by reviewing available data, determining regional regulatory implications of water-related operations, and analyzing the lake's waterproofing, water quality and flow. Biohabitats then facilitated a two-day workshop with Zoo staff to establish a holistic vision for the sustainable use and stewardship of water and begin charting a new course for water management. The resulting vision, "to immerse and inspire people through a healthy zoo aquatic ecosystem," was coupled with a mission to create restorative, sustainable water solutions to enhance animal wellness and the guest experience.

Biohabitats developed a comprehensive Water Management Master Plan, which included strategies to reduce overall water withdrawals from groundwater and municipal potable sources to better protect the aquifer and regional water supplies; improve water quality and aquatic habitat; better manage stormwater on and offsite; and enhance water-related visitor experiences and educational opportunities. Recommended strategies, which emphasized ecological and green infrastructure solutions, included the addition of specific recirculating life-support systems, re-lining portions of water features, construction of biofiltration wetlands for water quality improvement at the lakes, expanded bottom aeration, and stormwater green infrastructure interventions.