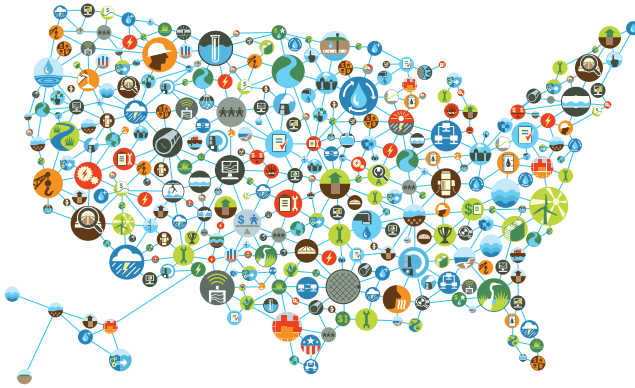


# BCToday

PROCESS:  
Collaboration



Collaboration: the Formula for Success



# Award-Winning Collaboration

At Brown and Caldwell, collaboration is more than a word—it's part of our cultural DNA. Every aspect of our business activities—from project delivery and technical practices to professional development programs and investment in tools and technology—is framed in the simple terms in one of our core values: “Leverage the strength of teamwork.”

The result? Award winning projects. In Fulton County, Ga., the Johns Creek Environmental Campus, a \$135 million, 15 mgd treatment plant that uses membrane bioreactor technology to treat wastewater for non-potable reuse, won the National award from the Design-Build Institute of America. In Oregon, the \$100 million Lake Oswego Interceptor Sewer, a buoyant gravity sewer pipeline built under the lake's surface, was named Municipal Project of the Year by the Plastics Pipe Institute.

Both projects, due to their close proximity to sensitive environments and residential communities, required intensive public scrutiny that demanded strategic outreach, which included listening to and responding to neighbors' concerns.

*What other lessons about collaboration can be learned from these award-winning examples?* That's the question Craig Goehring, BC's Chief Executive Officer, posed to the project leaders.



Craig Goehring | Walnut Creek, CA

**“BROWN AND CALDWELL’S MISSION STATEMENT SAYS, ‘...COLLABORATING WITH CLIENTS, ADDING VALUE THROUGH INNOVATION AND BUILDING RELATIONSHIPS THAT LAST.’ THESE FUNDAMENTAL TENETS ARE PRESENTLY ON DISPLAY IN OUR INTERCEPTOR UPGRADE PROJECT.”**

*Joel B. Komarek, P.E., City of Lake Oswego*



## Jon Holland | [Portland, OR](#)

The City of Lake Oswego needed to replace its undersized, corroding and seismically vulnerable interceptor. The pipeline runs 15 to 20 feet underwater for two miles. The fix was expected to be costly, complex, and controversial. Our multi-discipline BC team, working closely with City staff, developed an unprecedented buoyant gravity sewer constructed of HDPE pipe. It's a flexible, lower-cost, low-impact solution designed to last 100 years. With a project of this sensitivity, there was no room for miscommunication. Using BC's WorkSmart project management system, our team was in constant contact, providing a real-time picture of design elements and technical review and QA. When construction began, the BC team moved into City offices to streamline collaboration. All along, we worked with officials to keep the public informed. As our client said, on a project this critical, "you can't over communicate!"

**“THE JCEC DESIGN IS JUST SUPERB. THE CREATIVE WAY THE BC TEAM RESTRICTIONS HELPED TO MAKE THIS FAR MORE THAN A WASTEWATER**

*Paul Williams, Fulton County Public Works*



**Rod Pope** | Atlanta, GA

In a design-build project on an accelerated schedule, the challenge is dealing with the different agendas—balancing the contractor’s commitment to a fixed price with the owner’s desire to achieve high performance goals at the lowest cost. This creative tension provides motivation to find solutions, but in a fast-track project, it also places a premium on collaboration. We addressed this through a regular schedule aimed at continuous communication and through tiered decision-making procedures that empowered team members to keep the project moving, while ensuring appropriate project control. To satisfy the community, we incorporated low-impact design elements with extensive noise and odor abatement technologies and the exterior of the plant is designed to look like a historic mill on the Chattahoochee River. As a result, the JCEC—the largest MBR plant in the country—is barely noticeable...just the way we designed it.



M ADDRESSED OUR ENVIRONMENTAL, COMMUNITY AND FINANCIAL  
FACILITY. IT'S A COMMUNITY ASSET."



Kelly Comstock | Atlanta, GA

A key to the success of this project was having access to BC's network of specialty experts around the country to help solve design challenges. During the project, we had a dozen people from six BC offices working with our core team and subconsultants. To complete the project in 40 months, we developed 14 different construction packages to allow the design to be completed in parallel with the construction of this small-footprint facility; for example, completing the foundation package at the same time the facility plan was being developed. The requirements of local permitting agencies, plus the owner's extensive review and approval process, further challenged the design-build team in tracking decisions and coordinating changes. Heavy use of technology was essential to coordinate among the various drawing sets and team members, enabling us to meet the aggressive schedule.

# Collaboration Fuels World-Class



## **Critical Water Supply Program** *Oregon*

BC is leading a \$200 million water supply program involving six critical projects to be completed in an aggressive timeframe by 2015.



## **Major Secondary Treatment Expansion** *California*

BC is leading a \$180 million expansion, using innovative TF/SC design, at this 60 mgd plant.



## **ACEC Award-Winning Nutrient Removal** *Colorado*

BC led this \$114 million upgrade with a first of its kind denitrification design that cut the cost of compliance and phased renewal of aging facilities.



Municipal, private and federal clients nationwide count on Brown and Cal

# ass Solutions

## World's Largest MBR

### *Washington*

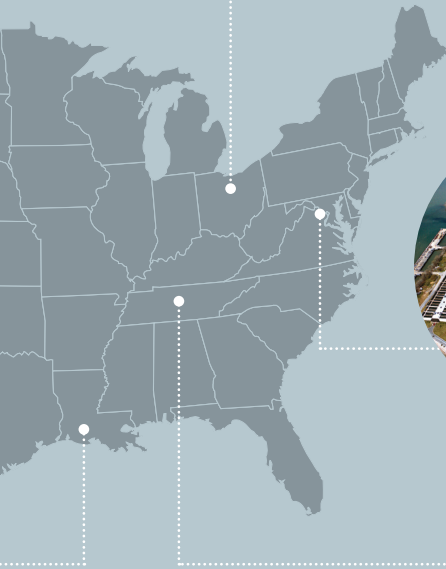
BC is one of the lead design firms for a \$600 million greenfield MBR plant.



## 80% Wet Weather Flow Reduction

### *Ohio*

BC led development of the 40-year \$2.5 billion Wet Weather program and provides continued support to achieve SSO/CSO reduction.



## Biosolids Management at World's Largest Advanced WWTP

### *Washington, D.C.*

BC is leading a \$400 million program to provide beneficial biosolids reuse and renewable energy.

## Integrated Ecosystem Restoration

### *La. Gulf Coast*

BC is providing program and project management support for the multi-billion dollar Louisiana coastal protection/restoration.



## Cost-Saving Site Closure

### *Tennessee*

BC earned early regulatory negotiation and buy-in for the most critical project elements, saving millions in this cleanup and closure project.

dwell teams to manage large, complex programs like these.

# “Faster Answers & Better Service”



**WorkSmart** is Brown and Caldwell's custom-built information and communications network that enables client service and project managers to connect with their teams and resources throughout the country. "WorkSmart puts all my projects at my fingertips 24/7," says project manager Barb Goodrich-Welk. "That means faster answers and better service for our clients."





## advancing\*innovation™

Brown and Caldwell is the largest 100% environmental engineering, consulting and design firm based in the United States. Since 1947, we've built our success in the water sector by planning for the long term, investing in our employees and in the systems that support them, and bringing the best people and the right solutions to our clients.

## Values Driven

*Our drive is to be the environmental company of choice anchored by these core values:*

- Always Make Health and Safety a Priority
- Exceed Client Expectations
- Act with Honesty and Integrity
- Leverage the Strength of Teamwork
- Take Initiative – Be Accountable and Make Things Better

## Top Talent

Brown and Caldwell attracts and retains talented professionals with the ingenuity and passion to solve complex engineering and environmental problems. We provide a culture of innovation and collaboration, and give employees a place where they can do their best work, reach new levels of expertise, and expand their personal and career horizons.

## Recognition

Brown and Caldwell is consistently ranked in Engineering News-Record as a Top Firm in multiple design and engineering categories. Our projects and people are recognized for innovation and service, including recent awards and honors from national and international organizations:

- American Council of Engineering Companies
- American Society of Civil Engineers
- Design-Build Institute of America
- International Water Association
- National Safety Council
- United States Department of the Interior

## Employee owned | 100% Environmental

Water Resources | Water Supply | Conveyance Systems | Wastewater/Reclamation  
Environmental Compliance | Sustainable Development | Business Consulting

advancing\*innovation™



**Brown** AND  
**Caldwell**