



Winter 2014

TRENDS

INSIDE

Floating bulkheads prove to be efficient, reusable for clients

Unique training center puts firefighters up close and personal with flames

Florida city's treated wastewater irrigates cemeteries, ball fields, and more

AYRES
ASSOCIATES

BUYING IN BULK

Dam repairs made easier with hinged device

By Sarah Bestul

It's something few people think about: What happens when part of a dam holding back almost 100 feet of water needs repair? The bottom of a dam doesn't have a drain plug, and drawing down an entire reservoir is usually not an option, so cofferdams are often constructed to allow the water to be pumped out so that repair crews can get to work. But what happens when the size of your dam makes the cost of installing a cofferdam prohibitive, or

there are environmental concerns with the building and removal of a cofferdam?

There is a solution, and it's quick to install, portable, and best of all, reusable: a hinged floating bulkhead.

The Conowingo Dam, owned and operated by Exelon Generation Company, LLC, is on the Susquehanna River in Maryland. It was built in 1928 and was designed and constructed with the ability to pass high-water floods by opening gates in the dam. Because of the wide fluctuations of flow in the Susquehanna River, spaces for 50 spillway gates were included in the design. The design included additional maintenance gates that could be used to repair the spillway gates "in place." Over time, these service gate slots needed repair; however, in addition to the sheer number of gates, the dam was more than 100 feet high, and cofferdam methods of dewatering considered by Exelon would have been incredibly expensive. Exelon contracted with Crofton Diving Corporation, based in Portsmouth, Virginia, and Ayres Associates to provide a turn-key solution to the facility's dewatering and rehabilitation problem.

This solution was the sectional hinged floating bulkhead, which was installed to allow access and repair of the service gate slots. The bulkhead made possible the

simultaneous rehabilitation of both the service gate slots and the spillway gate slots. Since the delivery of Floating Bulkhead No. 1 to the Conowingo facility in 2008, Crofton has participated in ongoing rehabilitation efforts each year. When this first floating bulkhead proved successful, Crofton was tasked with the fabrication and delivery of an additional bulkhead in 2010, effectively doubling their rehabilitation production rates.

"We couldn't have provided a better method of dewatering these service and crest gates slots for rehabilitation," said Kurt Fairheller, Crofton Diving Corporation project manager for all Exelon Conowingo Dam contracts. Fairheller has overseen the successful installation of the Conowingo Dam floating bulkheads at over 25 crest gates to date and has performed nearly all of the diving portion of the installations from 2008 through 2011. "The method has proven itself time and again, and I would venture a guess that the savings to date has more than paid for the cost of the two sectional bulkheads."

FROM THE BEGINNING

Ayres Associates' engineers developed the first hinged floating bulkhead for Northern States Power Company, now Xcel Energy, in 1987. That bulkhead is still in use today; with proper care and maintenance, the floating bulkheads can last up to 50 years.

To create the bulkhead for Conowingo, Crofton called in Ayres Associates' water resources engineer Todd Rudolph, who has designed hinged floating bulkheads for clients around the country and Puerto Rico since 1997.

Creating a custom bulkhead is a collaborative process.

"Once the dam owner decides they want one, we discuss how they want it installed. We get parameters to zero in on the size," Rudolph said. "Usually the most important thing is what water levels they require. In the past, we worked with dams where the water levels wouldn't fluctuate, but now owners want a wider range (of usability). So we discuss water levels and performance levels upfront. Then we do a preliminary design, talk about how each caisson (a water-tight chamber) will be this long, this high, and this many, so we can get a better handle on cost. Then we may have a meeting to address comments and address any concerns, then a final meeting before creating final drawings and specifications."

The whole design process takes about three months to ensure that the floating bulkhead is designed to fit its dam and meet every need of its owner.

In addition to requiring a water level variation of up to 4 feet, the Conowingo project offered a challenge in that the upriver wall was not a vertical surface; it actually curves

Crews at the Conowingo Dam move the bulkhead into position.



inward at an angle of 30 degrees. Because each bulkhead is customized, this unusual geometry was not a problem; Ayres created a design that allowed one caisson in the bulkhead to flip up at an angle instead of staying vertical.

Another six months is typically necessary for the construction of the bulkhead, and then it’s ready for installation.

HOW DOES IT WORK?

Those who have seen the floating bulkhead installed often compare it to a garage door closing. Each bulkhead is made up of separate caissons with ballast tanks. To submerge it, the ballast tanks are sequentially filled with water until the whole bulkhead is floating in a vertical position. Once it is in this position, the bulkhead is either pushed or pulled into place at the gate opening for sealing. The bulkhead is then positioned and stabilized by powered hoists or other manual rigging devices. Typically, every bulkhead ultimately seals on each vertical side and along the bottom at the gate opening. The manner of sealing and bearing for the floating bulkhead can vary with each facility; some bear and seal against existing dam structures, while others require that side- or bottom-sealing surfaces be added as an integral part of the dewatering system. The

seal material varies as well and is selected based on the condition of existing or installed sealing surfaces on the facility. The Conowingo facility, for example, requires that Crofton fabricate a custom sealing surface on the floating bulkhead for each installation.

Variations in the formwork used to construct the dam, coupled with the age of the concrete, require that the floating bulkheads be installed without seals at the beginning of every installation. Divers, using the bare steel sealing surfaces of the bulkhead as a template, measure the required thickness of the seals every foot. Following these measurements, the bulkhead is refloated, the seals are custom-fabricated from wood and soft foam rubber, and the bulkhead is reinstalled. The crest gate is then lifted, and the developing differential pressure compresses the soft rubber seals into the “nooks and crannies” of the concrete surfaces of the gate opening, creating an effective seal.

It doesn’t take long.

“Typically, the process at the Conowingo facility takes one week to complete. That includes removing the floating bulkhead from a rehabilitated gate opening, rehabilitating the floating bulkhead seals, and reinstalling it at a new

crest gate opening,” Feairheller said. “Every facility is different, and installation times can vary from a couple of days to a couple of weeks depending on the configuration of the upstream face of the gate opening.”

COST-EFFECTIVE SOLUTION

“At first when people are looking at the cost of a floating bulkhead, they say, ‘That much for design and fabrication? Can’t we do something else?’ ” Rudolph said. “But then they look at the labor and material costs for a cofferdam or other methods for their situation or realize they have a walkway bridge that won’t support heavy machinery, or find out there are environmental concerns for the construction of a cofferdam.”

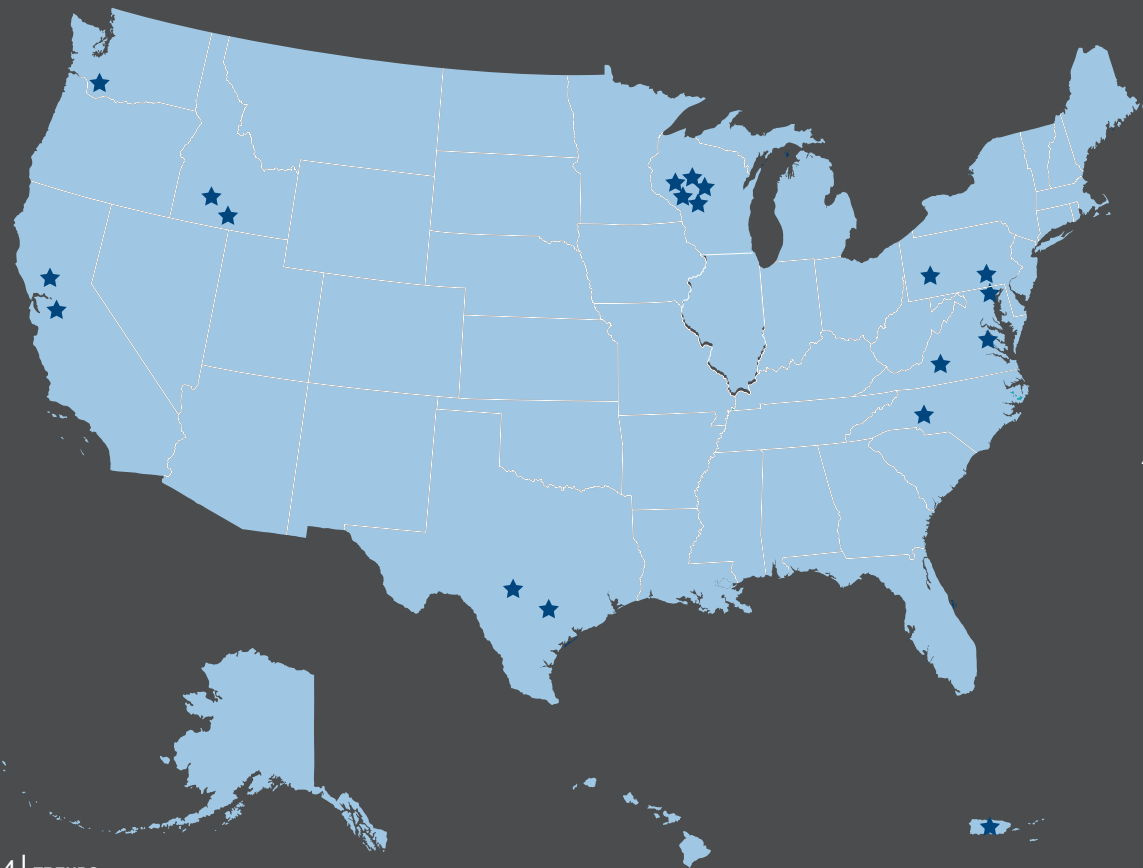
Besides the fast installation, another cost-saving benefit is the bulkheads’ reusability. Because the seals can be changed for each use, they can be customized to fit another dam if it’s similar enough in size and geometry. People have leased them out to other dams, Rudolph said, and Xcel Energy used its bulkhead at multiple sites in Wisconsin. He also recalls one owner in California that used the same bulkhead on 24 different structures that used eight different seal configurations in 1998 and 1999.

“The seals were variable, and during the design phase we actually made a cardboard model and would put it against all the structures to see if it would work,” he said.

Another collaborative effort between Ayres and Crofton in Puerto Rico resulted in the adaptation of one of the largest floating bulkheads for use on multiple water resources structures in the region, simply by modifying the bulkhead seals.

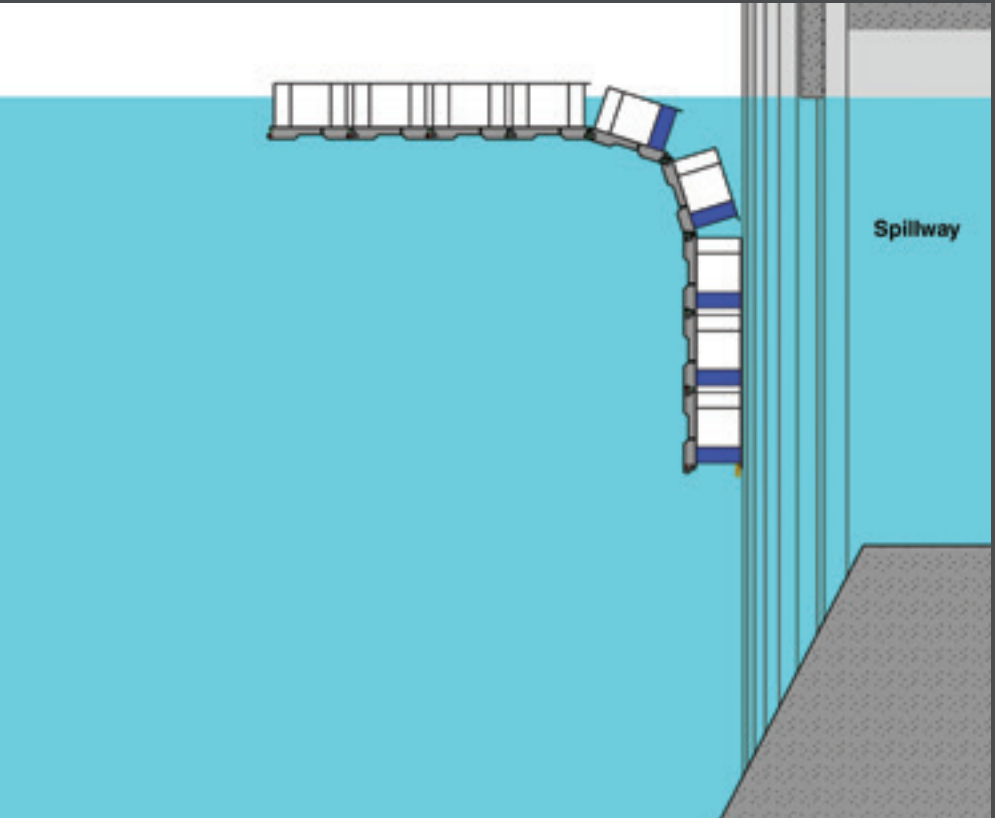
Other clients have used the floating bulkheads when they are required to perform a full-gate opening test by the Federal Energy Regulatory Commission. If the gates are open full blown, Rudolph said, it not only wastes water that could be used to generate power, it could also damage infrastructure downstream.

“Floating bulkheads are nice because they span the dam, they’re mobile, relatively easy to install, and reusable,” Rudolph said. “Five years down the road you might have something come up, and you have it there for you.” ■



Floating Bulkheads Across the Country Designed by Ayres Associates

A rendering shows the underwater view of a bulkhead being lowered to the dam face. To see a video rendering of an installation, visit <http://crofton-survey.com/vid1.html>.





HOT

Fast-track architectural project provides state-of-the-art training facility for firefighters

TOPIC

By Eric Widholm

A quick toss of a match into a pool of heptane instantly sparks flames nearly 30 feet high with temperatures approaching 2,000 degrees at the fire's peak.

Kim Nessel – dressed in heavy protective gear and flanked by two other firefighters – marches headfirst toward the angry inferno, fire extinguisher in hand. Onlookers watch safely from a protective window in an adjoining observation room. Nessel

begins spraying the chemical low and angled, intently pacing around the blaze and spraying upward until he methodically douses it. In less than two minutes only smoke remains.

This test, conducted regularly in controlled conditions by Nessel, coordinator of Chippewa Valley Technical College's L.E. Phillips Fire Safety Center in Eau Claire, Wisconsin, is the focal point of the new facility. The building is one of only a few

certified test sites in the world. Ayres Associates provided architecture (through its recent acquisition of Frisbie Architects) and site design services for the project, while subconsultants provided electrical, mechanical, and plumbing services.

FILLING A NEED

The facility is used for emergency services training and as a site for businesses to conduct research and development on products requiring



fire testing, such as fire extinguishers and doors, windows, and glass. The facility also is used as a third party certification site for products, such as Underwriters Laboratories (UL) 711 certification, which are standards set for fire extinguishers.

"The intensity of the fire is amazing," said Nessel, a retired City of Eau Claire fire department battalion chief. "It's like a huge fireplace. That heat, where you feel it right to the bone, it's like that. It just blows right through you."

From the outside, the Fire Safety Center is a modest concrete building. The design of the fire test room, however, was no easy feat: It needed to withstand the intense

What is UL 711 Testing?

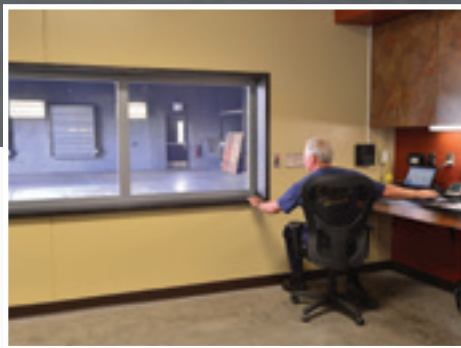
Underwriters Laboratory 711 requirements cover rating and performance during fire tests of fire extinguishers intended for use in attacking Class A, B, C, D, and K fires. These requirements also cover performance during fire tests of fire extinguishing agents for application on Class D fires. The ultimate rating of an extinguisher or the prescribed use of an extinguisher or fire extinguishing agent is based on its fire extinguishing potential, as determined by fire tests, and presupposes installation and use in accordance in the United States with the Standard for Portable Fire Extinguishers, NFPA 10, and with the National Fire Code of Canada.

Source: Underwriters Laboratory

heat and flames while also ensuring genuine conditions required for fire testing. The project, completed on an accelerated schedule, required substantial research by architects and engineers – working with CVTC

and construction manager, Market & Johnson – to select appropriate materials and apply appropriate design standards.

The 50-by-50-foot test room has



30-foot ceilings and 1-foot-thick prestressed concrete walls and roof with fire insulation panels in the ceiling. The room has a computer-controlled ventilation system with two large adjustable fans and adjustable vents and overhead doors to control environmental and fire behavior conditions. A viewing window allows onlookers to safely view the tests from the adjoining observation room/classroom. The building includes a staging and preparation room to assemble or refill extinguishers or other equipment before or after tests, as well as restrooms and storage areas. Because a

ACQUISITION OFFERS CLIENTS ADDED EXPERTISE

Ayres Associates recently added a fifth Wisconsin office by acquiring Frisbie Architects of River Falls, Wisconsin. The acquisition in September more than doubled Ayres' architectural staff, and Frisbie's River Falls office became Ayres' 12th office nationwide.

The relationship between the firms had been blossoming for some time, providing successful projects together to clients – including Chippewa Valley Technical College. During the design of the Fire Safety Center, Ayres, as a subconsultant to Frisbie, was responsible for site civil engineering services, while Frisbie provided architectural design for the project through an on-call master contract with the college.

The River Falls office staff members bring a portfolio of more than 800 projects, including many that integrate sustainable design features, and our new staff members offer our clients a new depth and diversity of architectural expertise that will enhance the services Ayres can provide. For more information, please visit www.AyresAssociates.com.



conventional fire suppression system would routinely extinguish test fires, the preparation room contains a foam emergency fire suppression system that feeds into the test room. The Fire Safety Center also has an outdoor fire testing area and a secure outdoor storage area for the heptane, a highly flammable chemical.

INNOVATIVE CONCEPTS INCORPORATED

"This was a very unique project," said Rod Bagley, CVTC's facilities director. "There were no existing facilities to study or model in the development of our design. We knew what the end result needed to be, but the challenge was figuring out how to get there."



Stephen Pederson, project manager and lead architect for Ayres Associates, said designing the building took innovation. Because of the expected heat and volume of the flames in the test room, most of the components – including thermostats, electrical wiring, plumbing, and lighting – were installed into the protective concrete or provided with a protective covering. Designers had to get variances from certain fire codes, such as those requiring installation of sprinklers and smoke detectors. The design also minimized exposed metal to limit heat reflectance and conductivity, which affects fire behavior.

"From a size perspective we had to meet UL requirements for volume, while providing the dimensions to



facilitate larger test assemblies and ultimately protect the building from the heat and flame," Pederson said. "Within our design parameters – and fixed budget – we also used the most robust finishes and equipment we could find on the market, from electrical fixtures to researching exhaust systems and containment of the heat."

Robert Stone, principal at JDR Engineering, Inc., which provided mechanical and electrical design as a subconsultant, said the design was a balance of providing safety and durability for the facility and required conditions for UL fire testing. Two fans on the roof each can move up to 15,000 cubic feet per minute of air with adjustable air intake vents on the walls. A computer-controlled system

Use PASS Method to Extinguish Fires

To operate a fire extinguisher, remember the word PASS:

- **P**ull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.
- **A**im low. Point the extinguisher at the base of the fire.
- **S**queeze the lever slowly and evenly.
- **S**weep the nozzle from side-to-side.

Source: National Fire Protection Association



monitors indoor and outdoor temperatures, wind speeds, and other atmospheric conditions.

“There aren’t a lot of projects like this out there, where you can go back and look and see how things were done. There was no baseline,” Stone said. “We really relied on information from the campus and on Kim Nessel’s experience.”

COLLABORATION KEY

Nessel said working side by side with the consultants and watching the facility come together as he had envisioned was a great experience. He said he was appreciative of the relationship he had with the consultants to discuss his ideas and then apply their facility design expertise to meet his needs.

“It was a great team process of working together to make this happen,” Nessel said. “I learned some things from them, and I hope they learned some things from me through this process.”

Lisa Schuetz, a firefighter with the Chippewa Fire District in Chippewa County, Wisconsin, said the facility gives firefighters a unique opportunity to train on a variety of situations they may face in real-world conditions. Schuetz, an adjunct instructor at CVTC, assists Nessel with running the center and on the fire extinguisher tests.

“The first test was indescribable,” she said. “It’s nothing that I knew from my experience as a firefighter. The heat is different. The flame is different. Each time we conduct a test I learn a little bit more.”

Nessel said he had high expectations for the design of the facility, and so far everything is working as planned. CVTC has invited multiple groups to watch demonstrations, fire departments are conducting training, and businesses are using the facility for product development. CVTC has conducted more than 125 test burns so far and multiple training sessions.

“It was a fun project,” Nessel said. “The fire behavior that’s in here is even better than I thought it would be. This facility is just working absolutely flawlessly.” ■

An FYI on Fire Extinguisher Groups

A **Class A** extinguishers are for ordinary combustible materials such as paper, wood, cardboard, and most plastics. The numerical rating on these types of extinguishers indicates the amount of water it holds and the amount of fire it can extinguish. Geometric symbol (green triangle)

B **Class B** fires involve flammable or combustible liquids such as gasoline, kerosene, grease, and oil. The numerical rating for class B extinguishers indicates the approximate number of square feet of fire it can extinguish. Geometric symbol (red square)

C **Class C** fires involve energized electrical equipment, such as appliances, wiring, circuit breakers, and outlets. Never use water to extinguish class C fires – the risk of electrical shock is far too great. Class C extinguishers do not have a numerical rating. The C classification means the extinguishing agent is non-conductive. Geometric symbol (blue circle)

D **Class D** fire extinguishers are commonly found in a chemical laboratory and industrial settings. They are for fires that involve combustible metals, such as magnesium, titanium, potassium, and sodium. These types of extinguishers also have no numerical rating, nor are they given a multipurpose rating – they are designed for class D fires only. Geometric symbol (yellow decagon)

K **Class K** fire extinguishers are for fires that involve cooking oils, trans-fats, or fats in cooking appliances and are typically found in restaurant and cafeteria kitchens. Geometric symbol (black hexagon)

Source: fire-extinguisher101.com

A CLOSER LOOK

For more information about the Fire Safety Center, please visit:

<http://www.youtube.com/watch?v=bC2AH37PmeA>
<http://www.cvtc.edu/fire-safety-center/Pages/default.aspx>



BENEFITS TO NEW CENTER EXTEND BEYOND CHIPPEWA VALLEY

Chippewa Valley Technical College’s Fire Safety Center offers a variety of opportunities for real-world training and tests that will help improve fire safety locally and nationwide, says Kim Nessel, coordinator of the center.

Area firefighters already have been training on methods to extinguish blazes caused by highly flammable chemicals and types of wood materials under varying conditions. The City of Eau Claire Fire Department recently held an arson detection class at the site. And CVTC has held numerous demonstrations for campus staff and community members and is working on incorporating the site into its curriculum.

Businesses are using the site for Underwriters Laboratories (UL) 711 certifications on their fire extinguishers, Nessel said. Other similar facilities are in Canada and near Chicago, although each of those facilities has testing

limitations, he said. The most comparable test site to CVTC’s facility is under construction in Dubai.

CVTC also is hoping the building can be used as a venue for business and industry to rent for product demonstrations and service-related classes, Nessel said.

“For example, if a company is marketing a new tool or fire extinguisher, they can invite prospective distributors to see the product in use, and they have a classroom to present the information in a comfortable setting,” he said. “Additionally, companies often are looking for a location to hold in-service training and mechanical updates for service technicians. This facility would be fantastic for either of those settings.”

– Eric Widholm

Shoulder to Shoulder

Through ups, downs, and more than a dozen projects, Ayres and one small Florida community maintain a positive partnership that's stood the test of time

By Jennifer Schmidt

On the surface, the City of Palatka, Florida, may come across as an average small community, offering visitors a network of parks, a quaint downtown business district, and a host of historic sites. But a closer look into the City's inner workings suggests otherwise. Just ask wastewater treatment plant superintendent Brian McCann.

A City employee of 22 years, McCann said Palatka has always aspired to be forward-thinking and innovative – case in point being its inventive water reuse project.

A rarity at the time

All wastewater treatment plants are designed to remove waste products from water, but the City of Palatka's system takes the process to the next level. The City's wastewater treatment plant includes an additional filtration and disinfection process that allows the City to irrigate the local golf course, airport, cemeteries, and ball fields with the treated wastewater – also known as reclaimed or reuse water. This way, the water is used for beneficial purposes rather than released into the nearby St. Johns River.

An early goal was to see Palatka discharging 100 percent of final effluent – or discharge water – as reuse by 2015, and the City is nearly there.

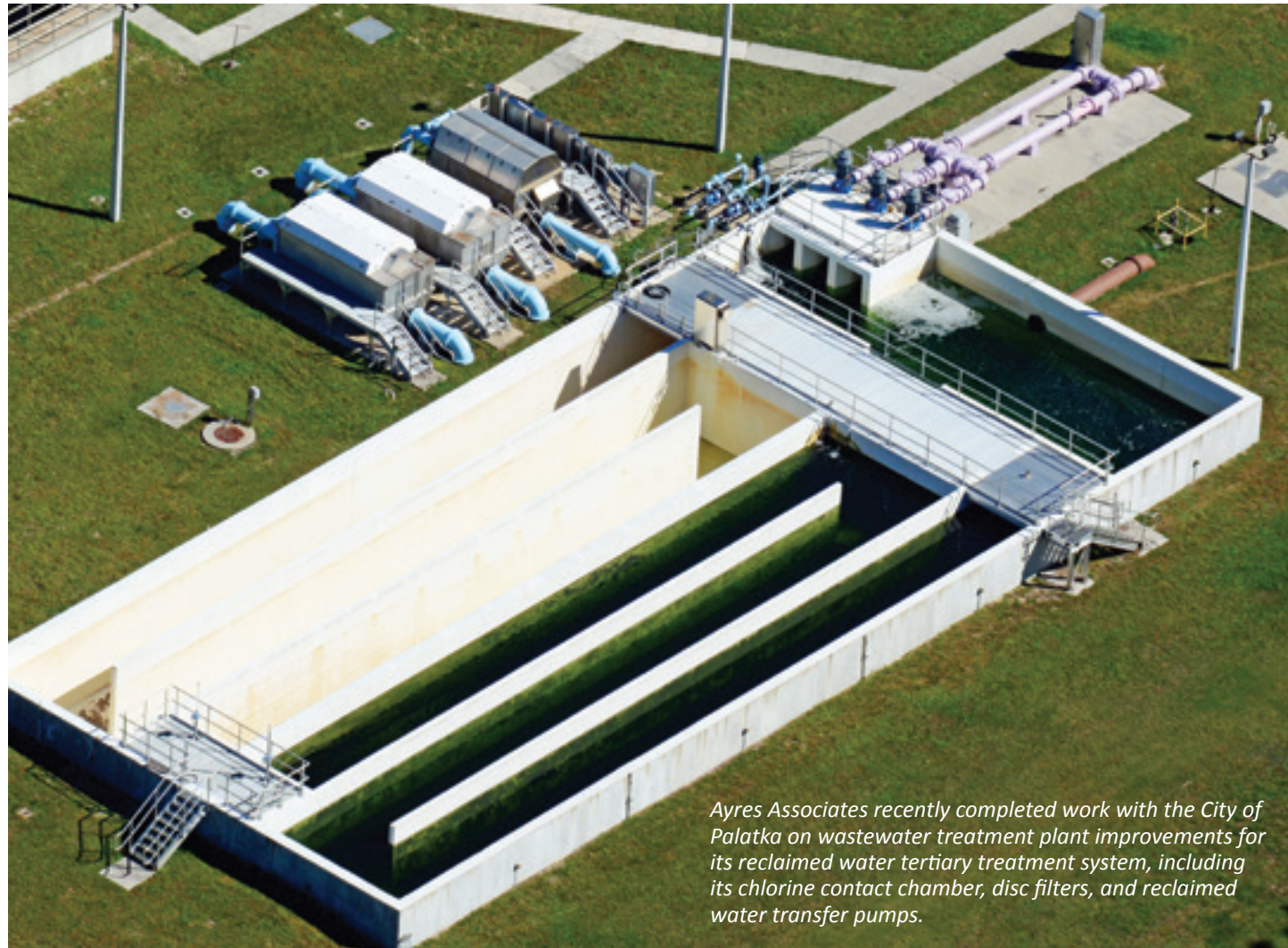
"We have sampling events twice a year that require us to discharge water to the river, so I hate to say 100 percent when I know we have these sampling events coming. But we're going to be 99.999 percent discharge for reuse," McCann said.

Part of the team

Elwin "Woody" Boynton Jr. works as director of the Division of Administrative and Operational Services for the St Johns River Water Management District but served as the City of Palatka's public works director from 2005 to 2007 and as its city manager from 2008-2012 – a time when Ayres was the primary consultant to the City regarding its wastewater treatment plant operations.



Shown here is an aerial view of the Wastewater Treatment Plant in Palatka, Florida.



Ayres Associates recently completed work with the City of Palatka on wastewater treatment plant improvements for its reclaimed water tertiary treatment system, including its chlorine contact chamber, disc filters, and reclaimed water transfer pumps.

One of the reasons for the success of the reclaimed water project was Ayres' timeliness in providing the conceptual design and cost estimation. In addition, through value engineering of the different design components and detailed inspection oversight, Ayres was also able to react quickly to contractors' questions and concerns and adjust the scope accordingly, Boynton said.

"In the end, I think it was this open and honest communication and collaboration that Ayres developed with the City and individual contractors that made this project successful and the City's goal of zero discharge realized," he said. "Their ability to adapt to changing field conditions kept the project moving without delays. We would work cooperatively to ensure that permits

were issued prior to and sometimes concurrent with the construction project commencing."

Staying ahead of the curve

While reclaimed water systems are gaining popularity now, Palatka was an early leader when it instituted the practice in 2005 and then expanded it in 2007.

"We like to stay ahead of the game," McCann explained. "The City's always tried to be proactive. We don't like to sit around waiting for the world to fall apart and then try to fix that. We like to recognize problems in advance and see what we can do to offset those problems from occurring."

Daryl Myers, an environmental engineer at Ayres who's played a

key role in developing the reuse water system, isn't aware of another community in the area implementing a reclaimed water use system like Palatka's.

"In a community of 10,000, I would be hard-pressed to think of another community in northeast Florida that has a reclaimed system of this magnitude," Myers said. "It's been a very positive thing, and they have a head start over a lot of other communities that would probably like to be doing this."

Myers, who served as the engineer of record on the reclaimed water system plant expansion, was responsible for designing a reclaimed water piping system, determining reclaimed water irrigation sites, and creating the route across the City to reach those



sites. He designed a new reclaimed water pumping station and nearly 33,000 feet of pipe across the City to supply reclaimed water to several irrigation sites, which include the City cemeteries, Palatka High School, St. Johns River State College, Ravine Gardens State Park, and the St. Johns River Water Management District Headquarters Office.

Myers also helped coordinate acceptance of the reclaimed water at several of these sites and designed improvements at the wastewater treatment plant to facilitate the treatment of effluent to reclaimed water standards.

Above: The City of Palatka's plant supplies reclaimed water to multiple venues, including the municipal golf course, airport, cemeteries, and ball fields. A holding pond is located at the City's municipal golf course as a strategic location for distribution to area reclaimed water users.

Truly creative problem solving

Ayres, one of the City's continuing services providers, has also been responsive to the special challenges or problems that have occasionally presented themselves, McCann added.

The most recent issue involved a new chlorine contact chamber the City installed about two years ago. The outfall from the chamber, a critical component in properly disinfecting the wastewater and transferring reclaimed water to the golf course holding pond, was modified due to

Reusing and Preserving

According to the Florida Department of Environmental Protection, the state's population has increased by more than 20 percent over the past 10 years, putting fresh water in higher demand and leaving the state vulnerable to water shortages. In response, Florida's five water management districts have designated "water resource caution areas" and encourage the use of reclaimed water whenever possible.

From Wastewater to Reclaimed Water

1

After use in washing, cleaning, and flushing, wastewater travels to treatment facilities.



2

The wastewater is first put through primary treatment, consisting of screening and de-gritting to remove inert material and then follows to primary sedimentation for initial biological solids reduction.

3

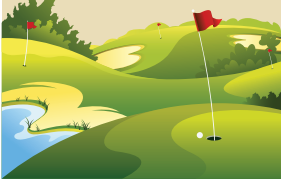
Secondary treatment includes aeration, secondary sedimentation, and disinfection.

4

To facilitate the ability to reclaim or reuse the secondary treated wastewater, a tertiary treatment process (typically filtration or other treatment process) is included after secondary sedimentation and prior to final disinfection and final distribution.

5

Recycled water is conveyed to landscape/green area users, typically as primary/supplemental irrigation. This saves potable water for other priority intended use by the rest of the community.



outfall control valve automation taken out of the original design to achieve grant funding budget constraints. This, in turn, didn't allow the most optimal operation of the reclaimed water transfer pumps, as originally intended. Collaboration by Ayres and the City yielded a solution to raise the chamber outfall pipe to effectively maintain required water elevation for efficient pump operation; all in a cost-effective manner that integrated both common-sense operational and cost considerations.

“We had to do some quick engineering on this and figure out how to fix this problem,” McCann said. “With Ayres’ help, we came up with a solution that used some old parts that we had on the plant site. We were able to correct the issue with a minimal charge, and that for me was a big, big help. We could’ve had a major problem and got it taken care of relatively quickly.”

Understanding limited budgets
Being mindful of the City’s limited budget has been a godsend to the economically disadvantaged community, where the median household income is approximately \$21,000 and about 40 percent of the population lives below the poverty level, according to U.S. Census Bureau statistics. City leaders say engineer David Kemp, manager of Ayres’ Jacksonville office, visits Palatka one to two times per week and makes repeated concerted efforts to make the most out of every dollar spent.

City Manager Michael Czymbor said Palatka’s fiscal constraints place it in a unique position.

“It’s kind of the double-edged sword,” Czymbor said. “We’re eligible for a lot of grants and financial assistance because of the economic conditions, but obviously then you have to come up with, a lot of the times, the local match.”

In addition, the City was hit hard with the economic recession, exacerbated by budgetary and other financial quandaries in the mid- to late 2000s – all of which resulted in “very low fund balance levels,” he said.

“There aren’t a lot of capital reserves to repair and replace the infrastructure system,” he said, noting that the City maintains more than 120 miles of pipes for the water system, many of them quite dated.

“We’re a full-service community, and we have some constraints, but we’re looking at every creative possible solution to try to address those,” Czymbor said.

A long-term relationship at its best
Jonathan Griffith, project manager for the City of Palatka, said he’s been pleased with the work that Ayres has done for the City through the years. The relationship goes back nearly 20 years now.



“Most importantly, we’re satisfied with the follow-up after closeout of a project,” Griffith said. “They’ve been very helpful in assisting with any conflicts or disputes with contractors. They’re also very, very proactive in helping us seek funding for our priority projects, and they’re on point when it comes to construction administration and inspection.”

Even though Ayres’ Jacksonville office is based some 60 miles north of Palatka, “it’s almost as if they’re here working in our hometown.”

“They’re here if not daily at least weekly on these larger projects,” Griffith said.

Griffith, who also serves as grants administrator for the City, brought up an instance in which Kemp helped the City prepare a U.S. Environmental Protection Agency application under its highly competitive brownfields planning and assessment grant program.

Extra efforts appreciated
“Even though we weren’t successful (during the most recent grant cycle),

David (Kemp) put in a lot of late nights helping us to pull together some of the necessary information and really took the lead on packaging the application – and we’re very thankful,” he said.

Likewise, Kemp has enjoyed working with the City.

“It’s fun to work there because the people are really nice, and they want to make things better for the community,” Kemp said. “It’s just been a very enjoyable client for me to work with over the years.” ■

Above: Reclaimed water transfer pumps, control panel, filters, and effluent piping allow the treated wastewater to move from the treatment plant to the holding pond at the City’s municipal golf course.



The St. Johns River, an iconic northeast Florida waterway with economic and historical significance for Palatka, is shown in the background.

FINDING FUNDING

With its high unemployment rate and low median income, the City of Palatka, Florida, has relied on grants and financial assistance to help fund key projects.

“Every time he meets with us, we’re in the same place,” longtime City Commissioner Mary Lawson Brown said, referring to engineer David Kemp, manager of Ayres Associates’ Jacksonville office. “I’m not being funny. Every time he meets with us, if we’ve got a project going we never have the money.”

As such, she said Kemp has had to be “innovative in his thinking on how to get us from Point A to Point B.”

“It’s not always a straight line,” she said. “He understands that so when we talk to him, he realizes that it may be just a little bit more than doing the engineering part. He partners with us.”

As such, the City and Ayres have worked collaboratively to secure millions of dollars in grants, including the following:

YEAR AWARDED	GRANT AGENCY	AMOUNT OF AWARD	USE
2006	Florida Department of Environmental Protection	\$1 million	WWTP upgrades
2007-2012	St. Johns River Water Management District	\$3.7 million	Reclaimed water and distribution system
2009	Community Development Block Grant	\$690,000	Dunham Street water main extension/improvements
2010	Florida Energy and Climate Commission	\$1.24 million	WWTP aeration system improvements
2010	Hazard Mitigation Grant (FEMA)	\$400,000	St. Johns Avenue/15th Street drainage improvements

PERSPECTIVES

NEW VPs ANNOUNCED



Disa Wahlstrand, manager of the municipal services group in our Eau Claire office since 2005, was named vice president of Engineering Services Wisconsin. Starting January 1, she will supervise 40 professionals located in our Eau Claire, Madison, Waukesha, and Green Bay offices. Disa joined Ayres in 1995 as a project engineer and has steadily taken on more responsibilities in project, client, and staff management.



Matt Frisbie has been named Ayres’ vice president for architecture. [Please see the Page 8 article for more information on the acquisition of Frisbie Architects]. Frisbie joined Ayres Associates as part of Ayres’ recent acquisition of Frisbie Architects, and he manages architectural staff in the former Frisbie office in River Falls as well as in the Eau Claire office. He has more than 20 years of professional experience and helps clients in the commercial, government, K-12, senior housing, church, and higher education segments and many other private and public sector clients.

PROMOTIONS EARNED



Chris Pletcher has been promoted to manager of the municipal engineering group in the Fort Collins office. He will supervise a group for which he has provided leadership as a project manager since joining Ayres Associates in 2006. Pletcher said he looks forward to delivering the infrastructure and municipal engineering that expected growth in the northern Colorado region will demand.



On January 1, **Lisa Fleming** will become manager of the Eau Claire municipal services group. Fleming joined Ayres Associates in 2003 and has 33 years of experience in municipal and transportation engineering and construction supervision. She has provided a range of planning and design engineering services to municipal, county, and state clients.

The Perspectives segment provides summaries of key new hires and staff achievements at Ayres Associates. Find more company news at www.AyresAssociates.com.



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3433 Oakwood Hills Parkway
Eau Claire, WI 54701
715.834.3161

www.AyresAssociates.com

Editorial Staff: Jennifer Schmidt,
Eric Widholm, Wendy Kinderman,
and Tawny Quast

Graphic Designer: Sarah
Howe-Halvorson

Manager – Marketing: Susan Leith

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Phoenix, Arizona
602.275.2655

Denver, Colorado
303.938.8874

Fort Collins, Colorado
970.223.5556

Jacksonville, Florida
904.260.6288

Sarasota, Florida
941.343.0532

Tampa, Florida
813.978.8688

Green Bay, Wisconsin
920.498.1200

Madison, Wisconsin
608.443.1200

River Falls, Wisconsin
715.426.4908

Waukesha, Wisconsin
262.523.4488

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307.634.9888

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Eau Claire, WI 54701-7698

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