Gwin, Dobson & Foreman was recently honored by the American Academy of Environmental Engineers and Scientists at the National Press Club in Washington, DC. **GD&F was awarded the Academy’s 2013 Grand Prize for Superior Achievement for the Biological Nutrient Removal Project at the Altoona Westerly Wastewater Treatment Facility. GD&F competed with 25 firms from across the county for this prestigious award.**

The Westerly facility upgrade is part of Altoona’s $65 million effort to comply with Chesapeake Bay nutrient limits. The project is a significant technological advancement in biological nutrient removal. “The project offered many challenges,” said Mark Glenn, President and Engineer-in-Charge. “Technically, few plants can achieve nutrient removal under combined sewer flow conditions, especially in cold weather. An innovative step-feed system solves this by effectively treating flow ten times in excess of normal conditions while still maintaining nutrient effluent levels.” It ranked highest for the following award criteria:

**Comprehensive And Integrated Approach**
GD&F adopted a fully comprehensive and integrated approach to the project. To minimize land disturbance and utilize available resources, existing tanks were modified and converted to bio-reactors. To maximize sustainability, energy efficiency was emphasized with the goal of reducing power consumption. Also, a hydraulic design using gravity flow eliminated the need for costly pumping.

To minimize untreated wet weather discharges, plant capacity was doubled by use of an

Continued on next page
innovative step-feed process. The plant was upgraded to biologically remove nutrients without the need for chemical addition. The production of waste solids has been reduced accordingly. That the plant is far surpassing nutrient standards with less energy and at a lower operating cost is a testimony to the effectiveness of the design.

Originality And Innovation
The project is unique since it is among the first in Pennsylvania to fully integrate nutrient removal with high pollutant loads from a combined sewer system during all seasonal conditions. The Westerly plant was designed with the Hybrid Bardenpho process, a combination of the 5-stage Bardenpho and the Virginia Initiative Plant (VIP). Like the 5-stage Bardenpho process, the Hybrid process also has 5 zones, but it utilizes mixed liquor recycle flow (a VIP feature) from the primary anoxic zone to the anaerobic zone.

Social And Economic Advancement
The use of technically advanced systems has several cost advantages. The BNR process relies on natural biological removal processes to reduce nutrients than expensive chemical addition systems. Reductions in chemical use, power consumption and sludge disposal are significant. Savings in capital and operating costs enabled Altoona to maintain affordable rates ($40/month, residential user). This project also has a built-in reserve capacity for future economic development.

Quality
System performance, reliability and user satisfaction are the best indicators of process success. The Altoona Water Authority removed 100,000 pounds of nutrients in excess of their permit standard during its first year of operation. This generated $215,000 of revenue on the PA nutrient credit market. With a capacity of 60 MGD, the Westerly plant has eliminated untreated, wet-weather bypasses while achieving optimal nutrient removal. Altoona has also realized an annual $75,000 reduction in operating costs through less chemical and power consumption.

Participants
Co-awardee, Bassett Engineers, Montoursville, PA, provided input on process design during preliminary engineering. Former Water Environment Federation, Jeanette Brown, PE, BCEE, provided value engineering and peer review services for the process and project. The Altoona Water Authority personnel including Mark Perry, General Manager, Mike Sinisi, P.E., Authority Engineer and Jim Farrell, Treatment Operations Manager offered guidance and direction throughout the project. Galway Bay Corp., Jeanette, PA and Biter Electric, Cresson, PA were the project contractors.

A companion project, the $35 million Easterly BNR upgrade, is scheduled for final completion this fall.

In reviewing the role of GD&F employees on the project, Glenn said, “They are the real winners of this award — the surveyors, design engineers, CADD personnel, administrative staff, construction managers and inspectors whose contributions large and small made this project a success. This award has validated their expertise and commitment to quality.”

Learn more about the Altoona BNR project and the AAEES award by scanning this code or visiting:  http://bit.ly/16ePgkT

IN MEMORIAM

Frank Damico, Longtime GD&F Employee

Frank “Butch” Damico died on June 16, 2013, after a long battle with cancer. He was the longest serving employee in GD&F history with over 40 years of service. His final assignment was as the senior inspector for the awarding winning Westerly Altoona Wastewater Treatment BNR Upgrade project.

Frank set the standard for GD&F’s construction operations by his professionalism, common sense and integrity. He had a strong sense of duty and loyalty and was a mentor to many younger inspectors who looked to him for help and guidance.

We extend our deepest sympathies to his widow, Carol, who did so much for Frank as a wife, caregiver and steadfast companion.
On July 21, 2012, the Brookville Municipal Authority dedicated its new $12.5 million North Fork Creek Water Treatment Facility. Representatives from Senator Joe Scarnati, Representative Sam Smith, Jefferson County, Borough Council and Pennvest were on hand. The ceremony was followed by an Open House for area residents. These events coincided with the week-long Laurel Festival.

The new plant uses the latest technologies for particle removal, natural organic matter (NOM) control and pathogen deactivation as regulated under the Stage 2 Disinfection Byproducts Rule and LT2 Enhanced Surface Water Treatment Rule. Additional treatment systems control iron and manganese, taste, odor, color, pH, organic compounds, coliform bacteria and algae.

Major process components include enhanced coagulation, membrane filtration and UV disinfection. The project also included a new reservoir intake and raw water pumping system, new supplemental groundwater sources, flocculation and sedimentation basins, chemical feed and storage systems, microfiltration system, waste holding tanks, sludge drying beds, constructed wetlands for backwash water, UV disinfection system, garage and offices and laboratory.

Mark Glenn, P.E., was the Engineer-in-Charge, Chris Eckenrode, P.E. was the Project Engineer and Thom Miller was the Resident Project Representative.

By virtue of this project and customer service tradition, the Brookville Municipal Authority was designated the 2012 Water System of the Year by the Pennsylvania Rural Water Association.
**NEW PROJECTS**

**Mountaintop Regional Water Authority**
Consulting Engineer for Centre County Water System near Snowshoe

**Johnsonburg Municipal Authority**
Consulting Engineer for Elk County Water and Wastewater System

**Alliant Techsystems Inc. (ATK)**
New South Branch Potomac River Intake, Water Treatment Plant Upgrade and New Steam Plant Water Treatment Facility at Rocket Center (WV)

**State College Borough**
Fraser Street Streetscape Project—Construction Inspection Services

**STV Corporation**
Construction Stakeout for CSX railroad projects in Albany (NY) and Toledo (OH)

**Pennsylvania-American Water Co.**
Waterline Projects for PAWC Central Region

**Norfolk Southern Railway Corporation**
Construction Engineering for Pottstown (PA), Baltimore (MD), South Fork (PA), Roanoke (VA), Harrisburg (PA), Elizabeth (NJ), Charlestown (WV), Toledo (OH), Berryville/Rippon (VA), New Castle (DE) and Brownsville (PA) railroad projects

**State College Borough Water Authority**
College Avenue Waterline Replacement

**Toby Township Supervisors**
Route 68 (N) Sanitary Sewer Extension Project near Rimersburg

**Altoona City Authority**
Phase II Westerly Interceptor Sewer Replacement and Pump Station

**Town of Moorefield (WV) Water Works**
Water System Improvement Project including New 8.0 MGD Membrane Filtration Water Treatment Facility

**Clearfield Municipal Authority**
Water System Improvement Project (tanks, mains, pump station)

**Borough of Shippenville**
Wastewater Treatment Facility Upgrades near Clarion

**PennDOT District 3-0**
Athens Township Road “C” Supplementary Construction Inspection Services

**PennDOT District 9-0**
Coalport Streetscape Improvements Supplementary Construction Inspection

**Bassett Engineering, Inc.**
Design Consultant for Lackawanna River Basin Sewer Authority—Archbald Wastewater Treatment Facility Headworks Replacement, Luzerne County

**NS Corporation Real Estate Division**
Property and Boundary Surveys for Vandergrift, Sidman, Lancaster and Altoona (PA) properties

**Jefferson County (WV) Public Service District**
Cavaland & Glen Haven Water System Improvements near Shepherdstown (WV)

**Harrell, Saltrick & Hopper, Architects (Charlotte NC)**
Site/Civil Services for Veterans Hospital Projects in Altoona, Butler and Martinsburg (WV)

**Harpers Ferry (WV) Water Works**
Water System Improvements

**Central Hampshire (WV) Public Service District**
Wastewater Treatment Facility Upgrade and Expansion, near Romney

**Harmony Area School District**
High School Renovations & Additions, Clearfield Co. (Pathline)

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**New Brochure Explains Project Capabilities**
GD&F’s new Water Solutions brochure includes information about recently completed water projects and an updated and expanded description of our scope of services.

Check out the new section on membrane filtration which highlights many of these plants designed by GD&F over the last decade.

GD&F is one of the leading designers of municipal membrane filtration systems in the mid-Atlantic region.

See a PDF of the Water Solutions brochure by scanning this code
Smithfield SCI New Boiler House
A $1.5 million boiler house was completed for the State Correctional Institute at Huntingdon and PA Department of General Services. Andy Arnold, P.E., provided project management duties. The general contractor was L.S. Fiore & Sons, Inc., Altoona, PA.

Lake Mokoma Dam Improvements
This $2.75 million project provides additional spillway capacity and overtopping protection for Lake Mokoma near Laporte, PA. The downstream embankment is protected with a cellular-precast concrete revetment for overtopping protection. Chris Eckenrode, P.E., provided project engineering duties and Randy Long was the resident inspector. Glenn O. Hawbaker, Inc., State College, PA, was the construction contractor.

Hickory Grove Elementary School Alterations
The Brookville Area School District held an open house on September 13, 2012 for recently completed renovations to the Hickory Grove Elementary School. Pathline provided project management services through Thom Miller, Project Manager and Joel Popma, Construction Operations Director.

Southern Columbia Middle and High School Alterations And Additions
Pathline provided project management services for the Southern Columbia Area School District. Larry Bowers, Project Manager, was the on-site representative.

Mansfield University
The $5.5 million membrane filtration water treatment facility was completed in the spring of 2013. This new plant replaces a 1930’s-era facility that provides drinking water to the Mansfield University campus. The GD&F Project Manager was Travis Long, CEP, and construction oversight was provided by Randy Long. Construction was completed by C.O. Failer, Syracuse, NY, and Tra Electric, Watsontown, PA.
Administrative services encompass a broad area of duties and responsibilities at GD&F — bookkeeping, accounting, clerical, secretarial, and communications, among others. GD&F is fortunate to have a staff of experienced professionals whose performance is critical to its day-to-day operation. In fact, things go so smoothly that many people do not realize the extent and complexity of their work.

The administrative staff is composed of Joyce Lingenfelter, Administrative Manager; Barb Wilt, Bookkeeper; Mary Alice Kauffman, Office Services Coordinator; Angie Kordish Administrative Secretary and Amy Hinton, Receptionist. Together, they average 17 years of service tenure at GD&F, which is unique for an administrative department. Each person brings a particular talent to her position while excelling in a team environment.

Joyce Lingenfelter as Administrative Manager is in overall charge of the department. She has spent over two decades at GD&F and has excelled in bookkeeping and financial accounting. Her corporate activities involve coordination with accountants, tax authorities and auditors. Joyce is responsible for payroll, corporate tax return data, accounts receivable/accounts payable and monthly balance sheets. She also oversees the preparation of project cost reports and invoicing. Her most important function is the effective management of the department.

Barb Wilt, another longtime employee, has served many functions at GD&F. She has managed our 401-K/pension plan since its inception in addition to other duties as bookkeeper and payroll clerk. She is involved in accounts payable/accounts receivable activities. She works closely with Joyce Lingenfelter. Together, they are responsible for the orderly and effective management of the firm’s bookkeeping and accounting system.

Mary Alice Kauffman originally performed secretarial duties and quickly advanced to the head of the secretarial department as Office Services Coordinator. She oversees the Administrative Secretaries and Receptionist. Her duties include word processing and production of all reports, correspondence, studies, specifications and contract documents for the firm. Mary Alice is also in charge of the copying, reproduction and binding of documents.

Angie Kordish performs a wide range of duties for the company in addition to her work as Senior Administrative Secretary. She is responsible for cataloging past projects and placing them in the archive system. Angie also coordinates many special events for the company such as company golf outing, company picnic, Christmas party, food drives, and trade shows.

As Receptionist and Administrative Secretary, Amy Hinton serves a critical function as the first person who often interacts with clients and the general public. Amy is also responsible for coordinating the project bid process. She has also been assigned to prepare master lists for contractors, bidding information and projects. She has the longest service tenure of any GD&F receptionist.

This small, but dedicated staff has set high standards for efficiency and teamwork and the results speak for themselves.
Did You Know...

Travis Long was credentialed as a Certified Environmental Professional by the Academy of Board Certified Professionals?

Irina Hott passed the Fundamentals of Engineering (FE) exam and is now an Engineer-in-Training?

Adam Luko was promoted to IT coordinator?

GD&F serves in an advisory capacity for the UPJ Civil Engineering Technology Division and the Department of Environmental Engineering at St. Francis University?

Maggie Weitzel and her husband Chris organize an annual Raystown Branch Float for Charity event to raise money for charitable groups (donations total over $55,000)?

Jim Balliet and Andy Johnson participated in Community Restoration construction projects sponsored by local Methodist churches?

Barb Wilt received the 2011 Distinguished Citizen Award from Woodbury Area Community Center Board of Directors?

Matt Harper attended the Rusty Wallace Racing Experience and did 15 laps in a NASCAR stock car?

GD&F will receive the Blair County Chamber of Commerce 2013 Technology Award in recognition of the Altoona BNR treatment plant project?

Each Christmas, GD&F’s administrative staff purchases and wraps clothing and toys for three needy families through Blair County Children, Youth & Families.

Barb Wilt, Angie Kordish and Amy Hinton coordinated GD&F’s participation in the Engineer’s Fight to CAN Hunger to support the American Rescue Workers. In the photo above, Jerry and Troy Brunner helped load the 2,164 lbs. of canned food GD&F employees donated.

Ravi Bhardwaj returned to India to enroll in a Master of Business Administration program. He also passed his PA Professional Engineer examination in April.
COVER STORY

2013 SUPERIOR ACHIEVEMENT AWARD

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