The Challenge of COVID-19 to the Water Utility Manager — Past, Present and Future PG 4

ALSO IN THIS ISSUE

RON STRONG UTILITIES FOR GENERATIONS

> Project Profiles

> Ask The Ditch Doctor



Contact Us: McWaneDuctile.com

Mike Dodge, VP Sales & Marketing Stuart Liddell, Sales Operations Manager Andrea Kubik, Marketing Manager

Inside

- 9 Ask The Ditch Doctor
- **10** Project Profiles
- 14 Ductile Iron Pipe Wordsearch

McWane Ductile has been an industry leader in the manufacture of water distribution and infrastructure products since 1921. With three U.S. foundries, McWane Ductile offers superior service while supplying Ductile iron pipe across North America and beyond, all while maintaining an unwavering commitment to safety and quality. Through continued innovation, it is our goal to meet the customer needs and industry demands of the future in order to Build Iron Strong Utilities for Generations.

CONNECT WITH US ON **f** 💆 in

The Challenge of COVID-19 to the Water Utility Manager — PG 4 Past, Present and Future

Welcome to Iron Strong Insights^{**}

Dear Readers,

Welcome to the Spring 2021 edition of Iron Strong Insights. Spring is the time of year where we look at fresh starts and new beginnings with hope for brighter and more fun days ahead. Although we had hoped COVID-19 would mostly be in our rearview mirror by now, unfortunately, it is still an issue we must contend with, still disrupting many of the everyday activities we look forward to each year.

One such disruption was the cancellation of the live, inperson trade show at ACE21 in San Diego. Although there will be a virtual show again this year, it is not the same as walking the trade show floor with friends and coworkers. I hope we will begin to resume live events and conferences in lieu of virtual venues soon.

Having said that, McWane Ductile has been very active in the first quarter with a variety of virtual training events. If you are interested in this opportunity, please visit the Training Opportunities page on our website. We would be glad to create an event to assist with your professional development and continuing education requirements.

As 2021 has moved along, McWane Ductile is getting closer to launching our newly designed website. In the meantime, we continue to build on our instructional content within the Learning Center and have a new video series that we will introduce soon. This series will focus on the various calculators located on the McWane Pocket Engineer and provide easy-to-follow tutorials on their use.

While it has been a bit of a tough start to 2021, we are excited for the things to come. At McWane Ductile, we continue to improve our products and services that provide value and help our customers Build Iron Strong Utilities for Generations.



Stuart Liddell Sales Operations Manager Sales Operations Department

EMPLOYEE SPOTLIGHT



McWane Ductile welcomes Bill Kleczka, Sales

Representative, responsible for sales and managing the Northern California territory. Bill has been a technical sales representative in California, providing resources for the construction market for the

past 17 years. Before joining McWane, he managed sales for a corrugated plastic pipe manufacturer in the storm sewer industry for almost 10 years.

Bill is a graduate of Kansas State University with a bachelor's degree in civil engineering with an emphasis on construction and business. He is a past member of ASCE and a graduate of the AMA.

"Customer satisfaction is a true motivator for me," says Bill. "I enjoy being the provider of the products I sell while helping create solutions for our customers within the construction world. It is humbling being able to provide a better experience to our customers than any competitor can."



McWane Ductile welcomes Shawn Smith, Utility Sales — WI,

MN, ND. Shawn brings more than a decade of experience in the water industry, primarily in the commercial pipe, valve and fittings market.

Shawn is a graduate of Purdue University with a bachelor's degree in selling and sales management. In 2015, he was named a Top 20 Under 40 Young Executive by Supply House Times.

"I love working with people to help them find the best solution to their problem," says Shawn. "It is gratifying and motivating to know that the products I sell today will provide quality water to my children, grandchildren and beyond."

THE CHALLENGE OF COVID-19 TO THE WATER UTILITY MANAGER

By Roy Mundy, P.E., ENV SP, Assoc. DBIA

Uring the decades in which I have managed large and small water utilities throughout the country, I have experienced several challenging scenarios. Whether it was a major oil spill in the river that provided our raw water supply, a winter with sub-zero temperatures and no snow cover where small water mains were frozen solid in the ground, or the total transitioning from a ground water source to a surface water source with all the different treatment methodology involved, I had never considered the terminology "the new normal."

The pervasive effect the COVID-19 pandemic has had on all facets of life will go down as one of the most notable events in our world history. In discussions with both large and small utilities, this article is meant to capture water utility managers' perspectives during the onset of the pandemic, their present status and thoughts about the future. The financial impact of COVID-19 on drinking water utilities in the United States, as determined by the American Water Works Association in an April 2020 report, will likely be \$13.9 billion, a 16.9 percent financial increase on the drinking water sector. These numbers will likely be refined during the second year of the pandemic. Although the sector saw an increase in residential revenues because of stay-at-home policies, this was far overshadowed in decreased revenues in such areas as:

- non-shut offs
- increased delinquencies
- reduced commercial revenues
- increased personnel expenses
- reduced system development charges
- deferral of needed rate increases
- lower customer growth

Because of these financial impacts, drinking water utilities across the country anticipate delaying or reducing capital expenditures by as much as \$5 billion (annualized) to help manage

cash flows

through the crisis. More specifically to smaller utilities, the National Rural Water Association estimated small water and wastewater systems lost \$998 million in revenue by mid-July 2020, with these revenues not having the anticipation of recovery.

WERE WE PREPARED?

So, were drinking water utilities prepared for this pandemic? My water utility business experience has seen that water utilities have strategies for a multitude of crises, including terrorism, drought, water quality degradation, operational outages, labor disputes, etc. However, even though utilities often implemented procedures ahead of state guidelines in these scenarios, the pandemic led them to uncharted territory wherein the utility transitioned with all of society. While utilities consider the safety of the drinking water they provide first and foremost, they also had to manage mask wearing, social distancing, working from home and enhanced sanitation of facilities. They methodically followed protocols similar to most businesses, recognizing certain activities, such as repairing main breaks, were not optional.

Here is an example of a larger utility's actions implemented in 2020 by a proactive water utility manager to address the pandemic:

- March 12: Took proactive steps as we distributed gloves to our employees in public-facing roles. We also discontinued all meetings involving more than 50 people and removed all foods and coffee pots from communal break areas.
- March 16: Installed HEPA air purifiers in the buildings on our campus and expanded our daily cleaning contractors' services to include continuous cleaning of often-touched surfaces in all facilities. Purchased hand sanitizers, placed handwashing signage in bathrooms and bought extra tires and fuel for our fleet vehicles.



- March 17: Emailed internal communication to all employees/staff.
- March 19: Instituted daily temperature checks for all employees on arrival each morning. We also sent an email to ratepayers (roughly 24,000 inboxes) explaining our water supply's safety and providing resources to help families with school-aged children.
- March 26: Closed the lobby and restricted access to appointments only.
- March 30: Utility began splitting work shifts and encouraged employees and staff to work remotely on alternating weeks to reduce contact and support social distancing.
- March 31: Safety Director began writing our Continuity of Operations Plan.
- May 18: We received word of a COVID-19 exposure involving a member of our cleaning staff.
 Although no one in the gentleman's family exhibited symptoms, both he and his son immediately selfquarantined. We deployed 36 anti-bacterial/anti-viral foggers in our facilities and communicated this information to all employees and staff.

- May 20: Distributed an email that provided guidance and resources about resilience during the time of the pandemic.
- May 26: Sent an email to all employees and staff noting that we offer COVID-19 testing.
- The water treatment plant enacted preventive measures (level 2) even earlier to maintain protections for the county's water supply. No deliveries were allowed inside the main building, non-essential people were not allowed on the property and all workstations received more frequent and intensive cleaning.

A RENEWED EMPHASIS ON ROUTINE TASKS

This water utility manager also faced unique challenges concerning the utility, which included creating work from home schedules and ensuring connectivity for employees.

Smaller water utilities employed similar measures with a few different variables. Because of the more limited workforce in a small utility, protecting employees was even more paramount. Even rural water circuit riders' routine presence was disrupted, in many cases postponed indefinitely except for emergencies. Even though there was less work to be performed with no shutoffs, social distancing and fewer people being together created the need to cancel vacations and increase personnel costs through overtime requirements.

When asked how this has affected their budgets and planned expenses, responses from both large and small water utility managers correlate with the American Water Works and the National Rural Water Associations data. In addition to those areas noted in these reports, the utilities experienced unforeseen expenses with face masks, sanitizer, laptops and teleconferencing equipment, which add up, especially for smaller utilities.

Water utility managers' perspective regarding their utilities' future operation having experienced (and still experiencing) COVID-19? One utility manager clearly expressed that COVID-19 "sharpened their focus" on certain



tasks they considered routine. Internal communications have renewed emphasis on safety and personal hygiene related to an individual's ability to work. Specific items that could be considered positive include:

- More robust IT networks to utilize in other emergencies, possibly changing how the utility uses athome responders.
- Necessary training for CEUs/PDHs being performed remotely, saving the utilities' cost of travel, lodging and meals.
- Identifying the need for more crosstraining as a result of downsized work units to provide minimum exposure levels.
- More proactive communication with customers.
- In Ohio, only 13 of 50 water systems responding to a Wright State University study regarding pandemic preparedness plans of water systems indicated the utility had one in place. Water systems will now initiate or update such plans.
- The pandemic has identified internet access deficiencies in many areas, and the result may be more focus and funding to improve these deficiencies.
- Additionally, utilities' IT policies and procedures have been updated as more employees work from home.

NEW QUESTIONS FOR THE "NEW NORM"

- What are some thoughts that utility managers have about others' perceptions as we go through and come out of the COVID-19 pandemic?
- Will customers now perceive that shutting the water off for nonpayment, which has been deferred, should now become the new normal, or at least an additional extended time to do so?
- Will customers perceive that delay in paying bills during the pandemic really should mean total forgiveness of the payment?
- Will customers understand the need for a water rate increase resulting from all the losses and additional expenses to the utility, when should that take place, could it possibly be absorbed, and how should it be communicated?
- Will employees now expect that accommodations made by the FFCRA regarding family and medical leave continue after the pandemic?
- What will be (if any) a good balance in the future for work at home and work in the office?

LESS FACE-TO-FACE CONTACT WITH CUSTOMERS

Another potential change in some utility customer service models might put forth the permanent diminishment of customer interaction. Some large utilities have emphasized that customers use online or dropbox payment centers, in many cases creating call centers and closing local offices for such activities. Because of the need for less customer interaction during the pandemic, many water utilities might move permanently in this direction.

CONSIDERATION AS FIRST RESPONDERS

Presently, water and wastewater employees have been designated as first responders for the most part because of the extreme importance of maintaining such a vital utility service. However, not all states have considered these employees as first responders to receive the vaccine. Perhaps this sector of employees will be more consistently identified in receiving vaccines in the future.

IN CONCLUSION

Only time will tell how the COVID-19 pandemic will change the future of water utilities and other businesses in our country. Clearly, the provision of safe, clean water and effective wastewater services not only places water and wastewater utility employees in the category of essential workers but also emphasizes their dedication and commitment to their profession.

ABOUT THE AUTHOR Roy Mundy, P.E., ENV SP, Assoc. DBIA

Roy is a Senior Regional Engineer for McWane Ductile, assisting utilities and engineering firms with value

engineering on pipeline projects, education in pipeline material selection and specification development and updating. He is a



member of AWWA. NSPE, KSPE, ASCE, DB/A and KYRWA. Roy is a Registered PE in six states.



IRON STRONG

Would you trust plastic on a bridge? *Didn't think so.*

There's one big reason why Ductile iron pipe is recommended over PVC for major infrastructure projects: Iron is stronger than plastic. McWane Ductile iron is cast in fire and proven under pressure to outperform PVC in nearly every category. It's extremely resilient and durable enough to last a lifetime, withstands harsh environmental conditions and even offers a pumping cost savings of up to 37 percent. And because it's made with more than 95 percent recycled materials, McWane Ductile iron pipe provides greater long-term cost efficiency and is better for the environment than any competing product.

McWane Ductile: Building Iron Strong Utilities for Generations.





POCKET ENGINEER Available for **iOS + Android** or online at **pe.mcwane.com**

McWaneDuctile.com

、、、、、、、、



DEAR DITCH DOCTOR,

I just called to release piping for a project next month and was conveniently informed the material price doubled from when I placed the order. The rep said something about force majeure. What in the world is that? I can barely pronounce it, let alone understand it. The force part sure sounds right because it's being forced right down my throat. How in the world can this happen without notice and after I placed the order? The original price is in writing. Doesn't this mean something? The order is for 10,000 feet of PVC. There is no way I will get the additional money from my customer, so how can my vendor do this? How in the world am I expected to run a business under these terms? To say I am frazzled would be an extreme understatement! Does this ever happen with Ductile iron pipe orders?

Frazzled Friend in Fayetteville

DEAR FRAZZLED,

First, take a breath. Your frustration is shared by many these days and is definitely understood. "Force majeure," as described by Wikipedia, is unforeseen circumstances that prevent someone from fulfilling a contract — this essentially frees both parties from liability or obligation when an extraordinary event or circumstance beyond the control of the parties, such as an act of God or pandemic, prevents one or both parties from fulfilling their obligations under the contract. I know what you are thinking, "both parties" should mean what it says, but unfortunately, that is not how it works. The PVC industry declares force majeure, and you pay more for the same product. The current force majeure affecting the water industry resulted from the recent cold temperatures in the Texas region. The inability of resin plants to operate led to a lack of production across the plastics industry. So that is the "what it is." As far as how to handle it, well, we all have a choice. Plastics appear inexpensive initially, and there are countless reasons why plastics are not such a good bargain. Bottom line, in my short term of 33 years, I have yet to see the Ductile iron pipe industry declare a force majeure. McWane Ductile operates three plants across the United States, ready and able to ship pipe from any location across our great nation and beyond.

Ditch Doctor

Learn from the experts!

To ensure our water and wastewater infrastructure meets the needs of our nation, McWane Ductile is committed to building iron strong communities. One way we do this is by providing training sessions for water professionals.

- > Need Ductile 101?
- > How about info on material selection?
- > Want to know more on HDD?
- Concerned about corrosion?

Hosted by experts who have years of field, product, and specification knowledge, our presentations are tailored to your needs:

- In-person classroom training
- Job site training
- > Virtual webinars
- > One-hour Lunch & Learns
- > Day of Water sessions

Visit McWaneDuctile.com/learning-center/presentations/ to learn more or to arrange a session.









Northwest Earthmovers, Inc. (NEI) of Sherwood, Oregon, is the contractor installing the utilities for the Brynhill Phase 1 project in the City of North Plains, Oregon. The project is part of the northern Urban Growth Boundary expansion area and will involve three phases. Phase 1 includes 159 lots, and the combined three phases will total 508 lots, a significant increase for North Plains. The new development will include:

- Single-family homes
- A mixed-use area for future commercial and residential use
- Recreation areas featuring playgrounds and sports facilities, as well as significant pedestrian and vehicular improvements

NEI is installing Ductile iron Class 50 Tyton® pipe for the storm portion of the project and Ductile iron Class 52 Tyton® pipe for the waterline portion, utilizing McWane Ductile Sure Stop 350® Gaskets in areas requiring restrained joints. We greatly appreciate and value our longstanding working relationship with Core & Main and Northwest Earthmovers.





Sales Region: West

Sales Representative: Carrie Stephens Project Location: North Plains, Oregon Project Owner/Utility: Lennar Homes Project Engineer: Pacific Community Design, Inc. Project Contractor: Northwest Earthmovers, Inc. Project Distributor: Core & Main

Types of Ductile iron pipe used on the project:

DIAMETER	JOINT	CLASS	FOOTAGE
12″	Tyton®	52	2356
8"	Tyton®	52	5057
30"	Tyton®	50	290
12″	Tyton®	50	544

Louisville Water, located in Louisville, Kentucky, has a footprint that includes more than 1,000 square miles in the Louisville metro and surrounding counties. Louisville Water's two treatment plants are rated as two of the top 16 in North America and continue to earn bestin-class in water taste competitions.

To improve customer service and handle consumer growth, the utility is undertaking the LWC Prj 12080 Preston Hwy 24-inch transmission main project. This project will extend a 24-inch transmission through the City of Shepherdsville to provide needed hydraulic capacity along the I-65 corridor. The transmission main will tie-in to an existing 24-inch main in 2nd Street at Walnut Street. Twenty-year Project Superintendent Trampus Ford with Basham Construction said, "Working with Ductile iron pipe is 10 times easier than working with PVC. It is the most rugged pipe material in the market."

The project was bid in late July 2020 and was awarded to Basham Construction in September. The completion date is set for May 15, 2021. This very successful project was possible because of Ferguson Sales Representative Dylan Riley's hands-on project management coupled with his outstanding relationship with Basham Construction.



Sales Region: Midwest Sales Representative: Scott Frank Project Location: Louisville, KY Project Owner/Utility: Louisville Water Company Project Engineer: Michael Meyer Project Contractor: Basham Construction & Rental Co. Project Distributor: Ferguson Waterworks

Types of Ductile iron pipe used on the project:

DIAMETER	JOINT	CLASS	FOOTAGE
24"	TR Flex®	250	2,000
24"	Tyton®	250	410
24″	TR Flex®	fittings	20 pcs.
24"	TR Flex®	53	(4pcs) TR pipe with 4″ flange weld on bosses

Nidwest









This rehabilitation project was outlined in the Hendersonville Utility District's Capital Improvements Plan, where various projects are categorized into 5-, 10- and 15-year projects. The project entailed replacing lines that were installed 35 years ago or more, were of old cast iron pipe and needed replaced because of age and maintenance issues such as line breaks. Some of the lines were 4-inch in diameter, and the district upgraded to larger lines to improve pressure and fire protection. As part of the long-range planning, a 16-inch water main is being installed to provide additional water transmission from

the water plant located in the western part of the district's service area to the eastern part of the water system.

This improvement project has been needed for several years. With the replacement of the lines in this area, it became an opportune time to install the transmission main. The district has traditionally preferred Ductile iron for its water system as it is more durable and easier to locate, especially in growing areas. It also aids in distinguishing between the water and sewer system, which is predominately PVC material.



"I want to thank Cumberland Pipeline for doing a fantastic job! Cumberland has had to work around several other services and has had great success! David also noted that more than 90 percent of the 16-inch Ductile iron water line was in roadways. Some areas are as deep as 8 feet under the roads, making Ductile iron the product of choice." — David Brigance, Hendersonville Utility District Inspector

"We would like to thank Roger Boyers and the Team at Water Management Services for a great job in designing this project. Water Management Services has been a trusted source for many years and continues to be a valuable source for the Utility. Water management Service has been great at finding the issues and getting them resolved quickly!" — Joe Rewa, General Manager Hendersonville Utility District, and Juan Roman, Distribution Manager Hendersonville Utility District

"Hendersonville Utility District has been great to work with! McWane has provided a quality product which has helped keep the project moving smoothly." — *Freddie Corbin, Cumberland Pipeline Foreman*

Sales Region: South	Types of Ductile iron pipe used on the project:				
Sales Representative: Josh Baker					
Project Location: Hendersonville, TN	DIAMETER	JOINT	CLASS	FOOTAGE	
Project Owner/Utility: Hendersonville Utility District	20"	Tyton®	52	1,368	
Project Engineer: Water Management Service LLC —	16″	Tyton®	52	4 6 4 4	
Roger Boyers	10		52	1,011	
Project Contractor: Cumberland Pipeline LLC	8"	Tyton®	52	612	
Project Distributor: Core & Main Bowling Green	6"	Tyton®	52	15,340	

Sales Region: Northeast	Types of Ductile iron pipe used on the project:						
Sales Representative: Jeff Houser	DIAMETER	JOINT	CLASS	FOOTAGE			
Project Location: Town of Saugus, MA Project Owner/Litility: Town of Saugus, MA	6"	Tyton®	52	234			
Project Engineer: CDM Smith, Boston, MA	8"	Tyton®	52	5,700			
Project Contractor: Five Oaks Construction, Groton, MA	10″	Tyton®	52	36			
Project Distributor: Direct Customer	12″	Tyton®	52	200			

Five Oaks Construction of Groton. Massachusetts, was a successful low bidder and awarded a Saugus, Massachusetts, project to remove and replace cast iron water mains in several neighboring areas. Project areas included Western Avenue, Oceanview Avenue, Summit Avenue, Prospect Avenue, Basswood Avenue, Sapphire Road and Hurd Avenue. As directed by the consulting engineer CDM Smith, Five Oaks was required first to lay, test and put into service temporary water lines to keep residential water flowing. Once house services were connected and put into service, Five

Oaks began removing the existing cast iron and replacing the water main in the same trench with McWane Ductile iron pipe. Site conditions made digging challenging with narrow streets and a number of existing utilities to avoid. Five Oaks crew took all field conditions in stride and upgraded several neighborhoods in the process. McWane Ductile is proud to partner with longtime customer Five Oaks owner Mike Chace in another successful water main project.





Northeast

DUCTILE IRON PIPE WORDSEARCH

С	Ι	Т	А	Т	S	0	R	D	Y	Н	0	K	D
L	Ρ	С	Y	F	L	А	Ν	G	Е	0	В	А	Е
S	R	R	С	А	Т	н	0	D	I	С	Ν	S	S
S	I	Е	0	В	Е	Z	Ι	Ν	С	Ρ	D	Ρ	т
Е	S	D	S	Т	Е	S	Е	С	0		R	K	R
Ν	т	L	Т	Т	Е	D	Y	U	А	Ρ	Е	Ρ	Е
K	Е	S	D	А	R	С	D	S	Т	Е	S	Ν	Ν
С	K	G	U	I	Ρ	А	Т	I	Ι	Ρ	Т	А	С
Ι	S	Ρ	С	R	А	Ρ	Ι	0	Ν	0	L	Ρ	н
Н	А	R	Т	G	Е	М	T	Ν	G	G	I	S	н
Т	G	Е	Ι	L	L	S	Е	Ν	Т	Ρ	Е	G	Е
G	С	т	L	А	R	0	Т	т	G	S	Ν	Ν	Т
А	U	А	Е	S	Ρ	Е	I	0	Е	Ι	С	0	L
А	Е	W	Т	S	L	L	Е	В	Ρ	R	Y	L	L

CATHODIC RESILIENCY GLASS GASKET PROTECTO BELL TAPPING FLANGE HYDROSTATIC LONGSPAN TRENCH

WATER BEDDING PIPE DIAMETER RESTRAINT THICKNESS ZINC SURESTOP COATING DUCTILE

MIKE DODGE, VP SALES & MARKETING

SAI FS REPRESENTATIVES

EAST SALES TEAM

GENERAL SALES

Craig Spitzer, General Sales Manager Cell: 908-878-0822 craig.spitzer@mcwaneductile.com

Larry Jones, Inside Sales Manager Office: 908-878-0823 larry.jones@mcwaneductile.com

NEW JERSEY, DELAWARE, NEW YORK CITY

Gary Kurtz, Senior Sales Representative Cell: 908-235-6001 gary.kurtz@mcwaneductile.com

NEW ENGLAND

Jeff Houser, Senior Sales Representative Cell: 518-275-1780 jeff.houser@mcwaneductile.com

NEW YORK

Mike Palermo, Senior Sales Representative Cell: 585-737-0456 mike.palermo@mcwaneductile.com

CENTRAL & EASTERN PENNSYLVANIA

Bob Hartzel, Senior Sales Representative Cell: 717-571-5683 bob.hartzel@mcwaneductile.com

MARYLAND & WESTERN PENNSYLVANIA

Ben Leonard, Sales Representative Cell: 908-442-5241 beniamin.leonard@mcwaneductile.com

NORTH CAROLINA

Dwayne Shelton, Senior Sales Representative Cell: 336-682-6187 dwayne.shelton@mcwaneductile.com

VIRGINIA

Todd Soady, Sales Representative Office: 757-262-6174 todd.soady@mcwaneductile.com

MIDWEST SALES TEAM

GENERAL SALES

Scott Frank, General Sales Manager Office: 740-622-6651 Cell: 740-202-3094 scott.frank@mcwaneductile.com

Dave Bursh, Inside Sales Manager Office: 740-291-1064 dave.bursh@mcwaneductile.com

ILLINOIS

٦

Dan Flaig, Senior Sales Representative Cell: 815-353-4607 dan.flaig@mcwaneductile.com

KENTUCKY, SOUTHERN INDIANA & SOUTHWESTERN OHIO

Scott Frank, General Sales Manager Office: 740-622-6651 Cell: 740-202-3094 scott.frank@mcwaneductile.com

MICHIGAN, NORTHERN INDIANA & NORTHWESTERN OHIO

Kevin Christian, Sales Representative Cell: 734-223-5632 kevin.christian@mcwaneductile.com NEBRASKA, KANSAS, MISSOURI,

IOWA, SOUTHERN ILLINOIS & SOUTH DAKOTA

Scott Frank, General Sales Manager Office: 740-622-6651 Cell: 740-202-3094 scott.frank@mcwaneductile.com

CENTRAL & NORTHEAST OHIO

& WEST VIRGINIA Clinton (CJ) Fowler, Sales Representative Cell: 330-260-9292 clinton.fowler@mcwaneductile.com

WISCONSIN, MINNESOTA, NORTH DAKOTA

Shawn Smith, Sales Representative Cell: 608-440-0667 shawn.smith@mcwaneductile.com

CANADA SALES TEAM

GENERAL SALES

Greg Eisnor, General Sales Manager Office: 905-974-3005 Cell: 902-449-2685 greg.eisnor@canadapipe.com

ONTARIO

Greg Principi, National Product Engineer Office: 905-974-3026 Cell: 289-244-6415

ATLANTIC

Martin Phinney, National Product Engineer Cell: 506-961-9229 martin.phinney@canadapipe.com

QUEBEC

T M Ξ A

David Rouleau, Sales Representative Cell: 413-223-6882 David.rouleau@canadapipe.com

WESTERN CANADA

Brent Williamson, Sales Representative Office: 604-737-1279 Cell: 604-360-0960 brent.williamson@canadapipe.com

SOUTH SALES TEAM

GENERAL SALES

Dusty Henderson, Senior Sales Representative Cell: 615-418-0741 dustin.henderson@mcwaneductile.com

WESTERN CAROLINA & GEORGIA

Dusty Henderson, Senior Sales Representative Cell: 615-418-0741 dustin.henderson@mcwaneductile.com

ARKANSAS, OKLAHOMA & NORTH & WEST TEXAS

Dusty Henderson, Senior Sales Representative Cell: 615-418-0741 dustin henderson@mcwaneductile.com

FLORIDA (Except Panhandle) & EASTERN SOUTH CAROLINA

Gary Gula, Sales Representative Cell: 239-989-6298 gary.gula@mcwaneductile.com

ALABAMA, LOUISIANA, FLORIDA (Panhandle only) & TENNESSEE (Memphis only)

Doug Clark, Sales Representative Cell: 662-341-0205 doug.clark@mcwaneductile.com

TENNESSEE & NORTH GEORGIA

Josh Baker, Sales Representative Cell: 615-975-0806 josh.baker@mcwaneductile.com **TEXAS (Except El Paso)**

Scott Rhorick, Sales Representative Cell: 254-317-8455 scott.rhorick@mcwaneductile.com

WEST SALES TEAM

GENERAL SALES

Nick Koncar, General Sales Manager Office: 801-623-4256 Cell: 801-864-5544 nick.koncar@mcwaneductile.com

Kim Christensen, Inside Sales Manager Office: 801-623-4254 kim.christensen@mcwaneductile.com

ARIZONA, NEW MEXICO & TEXAS (El Paso only)

Wes Cassiere, Senior Sales Representative Cell: 480-280-5424 wes.cassiere@mcwaneductile.com

SOUTHERN CALIFORNIA

Carolyn Lopez, Senior Sales Representative Cell: 951-310-6444 carolyn.lopez@mcwaneductile.com

NORTHERN CALIFORNIA & NEVADA

Bil Kleczka, Sales Representative Cell: 559-401-9006 bill kleczka@mcwaneductile.com

UTAH & COLORADO

Aaron Loosli, Sales Representative Cell: 385-208-7352 aaron.loosli@mcwaneductile.com

WEST WASHINGTON, ALASKA & HAWAII

Jason Harrison, Senior Sales Representative Cell: 425-681-1394 jason.harrison@mcwaneductile.com

OREGON

Carrie Stephens, Sales Representative Cell: 503-577-4177 carrie.stephens@mcwaneductile.com

WASHINGTON, IDAHO, WYOMING, MONTANA

David Bridge, Sales Representative Cell: 951-520-6416 david.bridge@mcwaneductile.com

SALES OPERATIONS

Stuart Liddell, Sales Operations Manager Cell: 352-208-5709 stuart.liddell@mcwaneductile.com

Jeff Henderson, National Account Manager Cell: 614-404-4909 jeff.henderson@mcwaneductile.com

Jerry Regula, National Product Engineer Cell: 740-294-7899 jerry.regula@mcwaneductile.com

Ken Rickvalsky, National Product Engineer Cell: 609-290-7701 ken.rickvalsky@mcwaneductile.com

Roy Mundy, Senior Regional Engineer Cell: 859-361-8585 Fax: 859-273-4799 roy.mundy@mcwaneductile.com

John Johnson, Regional Engineer Cell: 951-813-9589 iohn.iohnson@mcwaneductile.com

John Simpson, Regional Engineer Cell: 865-256-2541 john.simpson@mcwaneductile.com

Andrea Kubik, Marketing Manager Office: 740-202-7352 andrea.kubik@mcwaneductile.com

Marty Kurtz, Media Specialist Office: 740-291-1012 marty.kurtz@mcwaneductile.com

EIOE d Е ٦ 0 С Т S A Π A 1 N Ν s 🧿 коц A П Ŧ С ຄ ٦ Э Э ื่อ Э L N E N Ъ 1 ื่อ T Ь S Ð Э N М Э Ð T н ï Я A н ٦ с Г A A с в н Ь 0 Ν 0 d S Т С A d ï T A A сÈ Ð К С 1 s Т SDYBCD F Ν Ν Э S к A <u>ττε</u> σ χ η Э Э Ь ٦ Ь T. Ν К 0 DZLEZEC Я Я 1 S Э E O B E Z I N C b Т d Δ 1 s САТНОРІСИ S S Я Я s F A I D C Y F L A N G E O B

A B B B B K A



++ *+e, * *G, 7000 SIMPLIFY YOUR JOB SITE

Put decades of field experience in your pocket with the McWane Pocket Engineer™. By quickly solving complex drill-op calculations, the Pocket Engineer makes planning for tasks like Horizontal Direction Drilling as simple as pushing a button.

Building Iron Strong Utilities for Generations.

Watch online this spring! Calculator tutorials will soon be viewable at mcwaneductile.com/ learningcenter/pocket-engineer.







POCKET ENGINEER Available for iOS + Android or online at **pe.mcwane.com**

				/
	HDD Geometry C Variable Profile Calculator	alculator		
And Payle Description Table Theread Networks and Length Across 30 Table Theread Networks and Length Across and Length Across 30 Table Theread Networks and Length Across and Lengt	iser input		& Print Page	
202 203 203 203 204 204 205 203 205 203 206 203 207 203 208 203 209 203 209 203 200 203 200 203 201 203 202 203 203 203 204 203 205 203	ominal Pipe Diameter (n) 15	Total Planned Herizontal L Surface (%) 300.0 Entry Bore: Depth of Bore	ength Across	
Column two efference/Product Data Type range of a sector former and a sector former a	it Bere: Jaint Deflection Used (%)	Exit Bore: Depth of Bore (1 20.0	0	
Million Control And Control Maint Delevation (and and and and and and and and and and	Calculare R	eset.		
NEW DIF NEW DIF Algo detection (1-0) 1-0) Algo detection (1-0) 1-0) Model of the optimized opt	Pipe Length (P) 12,54 Entry Central Angle (Hog) 551	Rated Definition (# 3.25 Exit Control Angle (0.51	ng	
NATE D/F D/F MO200704. 402400 40240 Compared regin 45-1000 402400 40240 Compared regin 12-1000 402400 402400 Compared regin 12-1000 402400 402400 Compared regin 12-1000 402400 402400 Compared regin 12-1000 402400 Compared regin 12-1000 Compared regin 402400 Compared regin 12-1000 Compared regin 402400 Compared regin 12-10000 Compared regin 402400 Compared regin Compared regin 12-10000 402400 Compared regin Compared regin 12-100000000000000000000000000000000000	iomputed Results			
es Ag Sedesta Loat 1.0. 1.0. Es Ag Sedesta Loat 1.0. 1.0. Es Association Service Construction Service Construction Service S	ENTRY DUT		HORIZONTAL	
No. Stadue of Stare lands. COLO S freet. CoL	Aug Definition Listed 1.63 1.63 depress degrees	Computed length	-14.7 feet	
Min. Number of Pipe Statel In 3 30 peces Min. Sumber of Pipe Statel In 3 30 peces might might	In Reduced Services 125.5 feet 125.0 feet	ungth		
	werage Offset per Pipe 6.1 inches ength	Min, Number of type Used in Central Section	0.00 peeces	

IRON STRONG INSIGHTS

CONNECT WITH US ON





MCWANE DUCTILE 2266 South 6th Street Coshocton, Ohio 43812

> [FIRST NAME] [LAST NAME] [ADDRESS1] [ADDRESS2] [CITY], [STATE] [ZIP]