

ALL UNDER ONE ROOF

Kentucky utility takes a comprehensive approach to city infrastructure and serving the community's needs

By Giles Lambertson

When the Public Services Department in Florence, Kentucky, claims to provide full service to residents, it is not overstating its role in the community.

The department's responsibilities include parks and grounds maintenance, street sweeping, bike path maintenance, snow removal, urban forestry, and, yes, sewer and water services.

Sewer and water are the biggies, of course. They are the services most regulated for health and environmental reasons and often require the most man-hours and supervision. The city's wastewater collections system, for example, totals 132 miles of pipe with nearly 3,500 access points (manholes).

Shouldering so many responsibilities for a city of nearly 30,000 people is a challenge best summed up by the department's mission statement: "The department strives to enhance the quality of life in our community by serving others."

Eric Hall, Florence's public services director, says the statement accurately reflects what the department tries to do, day in, day out. "That truly is where every decision is rooted, enhancing the quality of life of our community," he says. "When our customers have problems, they don't have to go outside to a district office or over to another department. It is one stop and we are

able to serve them. We can answer them completely and not have to tell them they will have to walk or drive somewhere else to get an answer to another question."

Hall says this one-stop operating philosophy long has separated Florence from most other municipalities in Kentucky. "We are pretty unique in that fashion. Most don't have it all under one umbrella."

The department director says he doesn't worry that trying to be a jack-of-all-services means his crews are masters of none. Public services' 67 employees do not, as a rule, work across the spectrum of tasks, so they specialize in a designated area. "Not everybody is working with the water system, for example, so those who are can become experts in it."

Under inspection

Nine department employees constitute the wastewater work crew, one supervisor and eight maintenance personnel. They're able to handle it all because they are supported and guided by the tools and technologies that help them stay ahead of collections system problems instead of reacting to them.

Consider those 3,500 manholes. Some of them are inspected every day for evidence of infiltra-

tion, the presence of hydrogen sulfide gas, or ill-fitting covers. Urgent findings are addressed immediately, of course, but routine findings are documented, photographed, and entered into the department's Lucity software system. That record lets Adam Duncan, operations superintendent, and his staff filter the information, rank the condition of each manhole, and systematically service it.

To keep tabs on 132 miles of pipe, the Florence sewer division has a dedicated CCTV crew inspecting mainlines from 6 inches to 30 inches in diameter, along with the connecting lateral lines using a CUES LAMP system. Over a five-year cycle, the inspection crew documents infiltration problems, solids buildup, incursive roots, and the general condition of the entire system.

Hall says having a dedicated inspection crew is a fiscally responsible way to pre-emptively avoid costly pipe failures and to monitor what is happening underground. "The management software lets us go in and grade a pipe and put out a plan to fix or maintain it. Performance measurements drive the process and, at the end of the day, it is cost-effective."





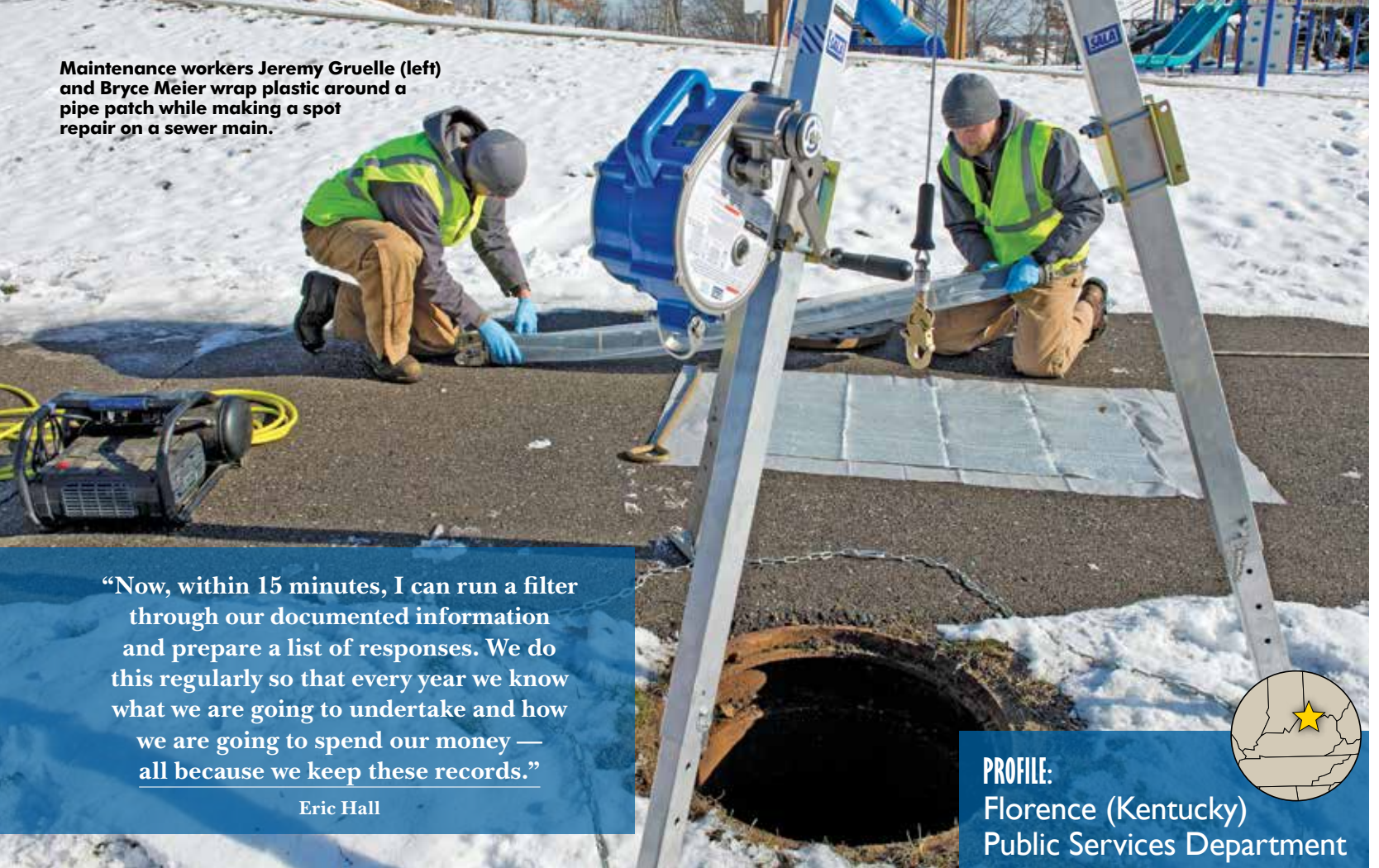
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Eric Hall

The Florence (Kentucky) Public Service Department maintenance workers Brandon Black (left) and Jacob Carpenter use a Vactor 2100 Plus to vacuum debris from a catch basin in the Fowler Basin area of the Orleans Subdivision. The department is one of only three Northern Kentucky counties that continues to maintain its own water, sanitary sewer and storm sewer systems. (Photography by) David Sorcher

EAST JORDAN IRON WORKS
EAST JORDAN MICHIGAN
MADE IN USA

Maintenance workers Jeremy Gruelle (left) and Bryce Meier wrap plastic around a pipe patch while making a spot repair on a sewer main.



“Now, within 15 minutes, I can run a filter through our documented information and prepare a list of responses. We do this regularly so that every year we know what we are going to undertake and how we are going to spend our money — all because we keep these records.”

Eric Hall



PROFILE:

Florence (Kentucky)
Public Services Department

EMPLOYEES:

67 (9 on wastewater crew)

INFRASTRUCTURE:

132 miles of pipe in collections system;
3,500 manholes

BUDGET:

\$17 million

WEBSITE:

www.florence-ky.gov

Ahead of problems

Fifteen years ago, the department started a flow monitoring program to keep tabs on inflow and infiltration in the sewer system. The program has accumulated information over the years that serve as benchmarks for normal and abnormal flow rates. With assistance from an engineering consultant service, the city constantly monitors data looking for elevated levels of infiltration. Duncan says the filtered data guides pipe relining decisions — with up to 3 miles of pipe relined each year.

Yet another program helps Duncan’s crews keep an eye on obstructions caused by the unholy trinity of fat, oil and grease. Monitoring the presence of those semisolid and viscous liquids after they have congealed inside pipes is a prelude to trying to regulate commercial dumping into the system. “We do have commercial areas and have developed a list of critical areas in our system where buildup



A member of the crew lowers a pipe patch to maintenance worker Bryce Meier for a sewer main repair.

occurs,” Duncan says. “We monitor those areas much more closely and ask people to clean up their grease dumping.”

The city’s wastewater pump stations are not state-of-the-art facilities, Hall says, but nor are they problematic. The stations are monitored 24/7 using telemetry units. Six of the pumping facilities have been able to keep wastewater moving toward a sanitation district treatment center, but, in March, a seventh unit came online after an area of the city reached a critical mass of new development. “The stations are well-maintained and have no major issues.”

So software and associated hardware are keys to Florence staying on top of its underground

responsibilities. Hall traces the city’s reliance on new technologies and better asset management practices back to 2005 when, he says, “we really got into problem management. Now, within 15 minutes, I can run a filter through our documented information and prepare a list of responses. We do this regularly so that every year we know what we are going to undertake and how we are going to spend our money — all because we keep these records.”

Getting to the point

The department’s repair and rehabilitation work requires a small fleet of heavy equipment besides service trucks. These include four backhoes, a skid-steer loader, a crane truck, a new Vactor hydroexcavation unit, and two water jetters. The jetters are routinely scheduled to clean out areas

“It doesn’t seem to matter what crew — concrete or sanitary or parks maintenance — it seems like people know our trucks, feel comfortable with our guys, and appreciate the things we do.”

Adam Duncan

where FOG, roots or some other impediments are recurring problems. The rated severity of each area, which is tabulated through inspections and monitoring, determines how often an area is cleaned.

The department recently began doing point repairs of lines using a CIPP patching system from Source One Environmental. “We can do repairs on anything from a 6-inch line to a 26-inch pipe and do it all without having to dig up and then

restore a site,” Duncan says. More than 20 point repair patches were made in 2017.

However, significant rehabilitation or replacement projects are contracted. Mainlines and manholes that need structural relining and pipes or manholes that have deteriorated beyond a point of feasible repair are bid out.

“We are trying to stay in our lane, to be really, really good at what we do,” Hall says. “At this point, getting into the relining business or full replacement business just doesn’t make sense and would not be cost-effective.”

Hall says wastewater employees don’t encounter a lot of sewer pipe needing replacement. “We try to get to pipelines before they collapse. We try to stay in front of it. We feel like our system is



The Florence Public Service Department’s sewer maintenance crew includes Jacob Carpenter, Jeremy Gruelle, Mark Teremi, Brandon Black, Pete Biggs, Bryce Meier, supervisor Greg Ferguson, senior maintenance worker George Caldwell, and Brent Scudder.



PRESENT AND FUTURE LEADERSHIP

The Public Services Department in Florence, Kentucky, is forward-looking, even in respect to planning the transition of leadership in future years. The department director has instituted a program of growing tomorrow’s leaders at the same time it harvests the experience of those who are retiring today.

The department is deeply involved in what is called succession planning, and Eric Hall, director, says the initiative is a common-sense response. “We are just making sure we are prepared for the future.”

To that end, the department tracks which employees are nearing retirement, as well as those who are apt to leave for career reasons. With that information, department leaders plan mentoring relationships to capture knowledge for sharing with successors and schedule timely leadership training. It is a cross-generational approach to ensure that

handoffs of responsibility occur smoothly. “We had at least 10 people retire over the last few years and already a couple more this year,” Hall says. “We are going through a transition.”

What is remarkable about the program is that it is being fostered by people who are decades from retirement themselves. Hall is 37 years old, and his operations superintendent, Adam Duncan, is 33.

While people their age aren’t typically focused on succession plans, Hall and Duncan understand the concept of legacies. Duncan has only been with the city department for 4 1/2 years, but he is a northern Kentucky native. Hall not only is a native son, when he became a Florence employee as a maintenance worker 19 years ago, his father was general manager of the Water and Sewer Commission. That commission was merged into the Public Services Department in 2003, and Hall became director a decade later.



Maintenance worker Pete Biggs checks thermal overload circuits at the Houston Road Pump Station in Florence.

in really great shape.” The wastewater system includes 64 miles of clay pipe laid in the 1960s and another 68 miles of PVC pipe dating from the 1990s and early 2000s. The balance is concrete piping.

Better as a team

Top department staffers are constantly looking for emerging technologies to keep them ahead of wastewater system failure. Duncan says not all the department’s good ideas come from the top, citing a staff member who came back from a continuing education seminar with information about a system the city subsequently adopted. “Inspiration really comes from various places in our organization. We think we function better as a team.”

This team concept comes across when Duncan talks about the after-hours system the department utilizes. Water and sewer employees share on-call duties in four-week rotations. Each employee is on call for seven days to respond when a city resident telephones that a water main has broken, a sewer line is clogged and overflowing, or something less urgent has occurred. “Whatever it is, we take pride in always responding within an hour. Responding quickly is our pride and joy. We know issues are going to come up, and we want to be able to serve.”

Duncan says about the on-call system: “It is those employees’ chance to shine. They know we are counting on them to deliver.” He adds that complaints also are a fact of life in city services but that Florence public services employees generally are warmly accepted by fellow community members. “It doesn’t seem to matter what crew — concrete or sanitary or parks maintenance —

it seems like people know our trucks, feel comfortable with our guys, and appreciate the things we do.”

Hall gives lots of credit to City Hall leaders for the success his department has achieved. Everyone is on the same page, he says. “There is no way we are able to make all this happen without the support of the leadership of the city, the mayor and the council. Our mayor — Diane E. Whalen — has been mayor for nearly 20 years. The mayor and council know the department and help guide and support it.” ♦

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