NSPE-MS Member Helps Duck Hill, MS Residents Combat Flooding

In small, rural towns like Duck Hill, Mississippi, streets and open ditches often serve as conduits for runoff during heavy rains. Storm drains are rarely installed, or are in very poor condition. As a result, an African-American neighborhood along Duck Hill’s main street has regularly flooded, with water as high as 15 inches that stayed at that level for hours, if not days, seeping into homes and a former high school gym that now serves as a community center. The flooding has not only threatened buildings — it also has added regularly to the economic burden and a loss of hope that has plagued many of the town’s low-income residents.

However, efforts beginning in 2017 made by community organizer Romona Williams and her husband Bobby, a $300,000 contribution from the Southeast Sustainable Director's Network, and consulting help from local experts including NSPE-MS Member Joe Sutherland, P.E., vice president of Sutherland Engineering in nearby Grenada, MS, led to the formation of a steering committee to obtain broader community input, review empirical data sets, and ultimately identify four areas of focus: flood water mitigation and creek restoration, community engagement and empowerment, youth conservationist training, and creative place making.

From there, the team has been able to hire formerly chronically unemployed workers to install a series of bioswales, perforated pipes, biodegradable fabric, rock and gravel, and rain gardens that could absorb and filter thousands of gallons of rainwater before syphoning it into one of the larger paved drainage ditches for a more controlled flow out of town.

In February 2019, after the town received 16 inches of rain in 4 days, Sutherland was pleased to see the results of the team's efforts pay off.

“I was very skeptical of the whole idea at first, because what it does, initially, is slow down the rate of flow of the water,” said Sutherland. “But they seem to work very well. The system makes up for in volume what we needed to have in flow and velocity. So, I’ve been very well pleased, especially in these recent heavy rains.”

The Duck Hill community and surrounding areas are continuing to be involved, launching Achieving Sustainability through Education and Economic Development Solutions (ASEEDS), to oversee efforts to improve green infrastructure, engage in adaptation and resiliency planning and training, and examine the feasibility of restoring the high school into a community center using creative place making principles and techniques. More than 100 people turned up for the ASEEDS launch.

Read the full article here.
Complete the Engineering Team With NICET Certification

In the late 1950s, as the US came to rely more heavily on machines and automation, technically skilled workers who could support the work of engineers were in high demand. In 1961, NSPE rose to the challenge by forming an organization to certify technicians and technologists.

But even though technicians have been an integral part of the engineering team and NSPE since then, that organization—the National Institute for Certification in Engineering Technologies—is not always understood by PEs. A well-attended, NSPE-sponsored webinar on May 29 provided the full picture.

During the webinar, “Quality and Safety Through a Qualified Engineering Team,” NICET Communications Director Chip Hollis detailed the institute’s operations and the technician’s role on the team. NICET was founded to recognize the qualifications of technicians. Its focus, Hollis explained, helps ensure a qualified engineering workforce, certifying both engineering technicians and technologists in areas such as construction materials testing, transportation construction inspection, electrical power, fire protection, and security systems.

Don't Miss This Upcoming Webinar

Stay current with essential professional development opportunities through NSPE webinars. Members receive a special rate on the upcoming live webinar:

On June 26 at 2 p.m., the webinar The Saint Joseph Water Crisis – Lessons Learned in the Age of Deteriorating Water Infrastructure will focus on a water crisis in Saint Joseph, Louisiana, which lends many lessons related to the difficulties faced by small and large water systems in rural environments. In this session, David A. Martin, P.E., will present an overview of the state of the town’s water system prior to and after construction, as well as an overview of the new treatment process and applicability to other aquifer systems. Additionally, participants will be presented with the lessons learned during the crisis, including regulatory involvement, use of multiple funding sources, early owner procurement
of long lead time equipment, and alternate project delivery.

Don't Miss...

- **Exemptions to Engineering Licensure Laws.** NSPE has updated this report, with information current as of May 2019. It is free for members.

- **Take Action on Licensure Exemption Bills.** It’s imperative that lawmakers hear from their professional engineering constituents who support bills in the US House and Senate targeting licensure exemptions in public utility pipeline work.

- **PECON at a Glance.** Take a look at the lineup of activities and educational sessions taking place at the 2019 Professional Engineers Conference in Kansas City.