JEN-HILL
INFRASTRUCTURE SOLUTIONS DELIVERED
A Nexterra Company

PROJECT PARTNERS

Land Innovations
RAWSO Constructors
Convergent Water Technologies

NOLENSVILLE TOWN CENTER

AUTOMATION | DETENTION POND | STORMWATER MANAGEMENT

BALANCING DENSITY WITH STORMWATER LIMITS

THE CHALLENGE

The Nolensville Town Center in Nolensville, Tennessee, is a 25-acre mixed-use development designed to become the heart of the community, combining residential units, retail, restaurants, and public spaces. Developers from Land Innovations, known for forward-thinking, land-efficient designs, faced a critical challenge: meeting strict stormwater regulations while preserving space for amenities and high-value development. With a limited footprint and steep topography, traditional detention basins threatened to consume valuable real estate and reduce the project's economic and functional potential.

Early plans relied on a conventional detention pond with steep side slopes that would have taken up critical land and provided little community benefit during dry periods. The design team needed a solution that could meet regulatory requirements while freeing space for parks, pedestrian areas, and the central town square without sacrificing system performance.

SMARTPOND TURNS DETENTION INTO AMENITY

THE SOLUTION

Jen-Hill, a Nexterra company, worked with Land Innovations and RAWSO Constructors to implement the smartPOND RTO system from Convergent Water Technologies. By incorporating real-time stormwater automation into the design, the system adapts to changing weather conditions, optimizes release rates, and reduces required detention volume through proprietary control software. This approach allowed the team to replace a steep-sided detention basin with an amenity pond that functions as usable park space during dry weather.

SmartPOND's Real-Time Optimization application delivered approximately a 20 percent reduction in total detention volume, freeing additional land for public amenities and development. Jen-Hill provided technical guidance from the earliest stages, ensuring the system met regulatory requirements, reduced maintenance needs, and supported long-term site performance.

THE RESULTS

The finished development integrates automated stormwater infrastructure with a vibrant, walkable town center. The amenity pond and expanded park space preserve buildable land, enhance public use, and maintain efficient, resilient stormwater performance. The Nolensville Town Center demonstrates how smart detention technology and strategic planning can transform regulatory constraints into high-value, multifunctional infrastructure.

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Jen-Hill Construction Materials is family owned and operated. Since 1991, Jen-Hill has worked with contractors, engineers, and government agencies to solve problems with innovative products and services.

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