## **REAL TIME OPTIMIZATION (RTO)**

### smartPOND™ RTO - DESIGNING DETENTION EFFICIENTLY

The purpose of on-site detention is to store water for a certain period of time before it drains or overflows off-site to the stormwater conveyance system (e.g., stormdrain pipe, ditch, channel, etc.). Above and below ground detention basins are typically designed to remain dry in between storm events (Dry Detention) or maintain a permanent wet pool for aesthetics or recreation (Wet Detention).

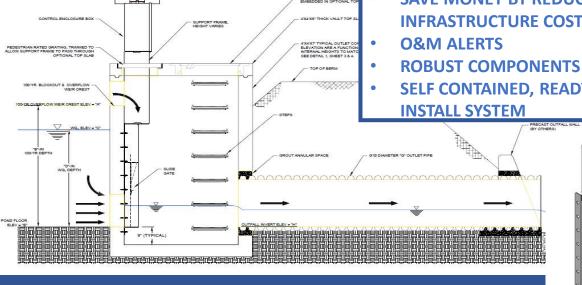
Generally, post developed runoff is detained so that no increase in peak discharge and no increase in erosive velocity downstream of the delineated project site for the 2, 10, 50 and 100-yr recurrence interval storm events.

With a real-time, dynamically adjustable slide gate valve, the smartPOND-RTO system delivers maximum allowable outflow rates, thereby reducing detention volume requirements by up to 50%, depending on site-specific hydrologic

characteristics and regulatory agency criteria.

**REDUCE DETENTION VOLUME BY 25-50%** 

- **MAXIMIZE DEVELOPABLE SPACE/LOT YIELD**
- **SAVE MONEY BY REDUCING INFRASTRUCTURE COSTS**
- **SELF CONTAINED, READY TO**



ELEVATION VIEW, OUTLET STRUCTURE WITH CON

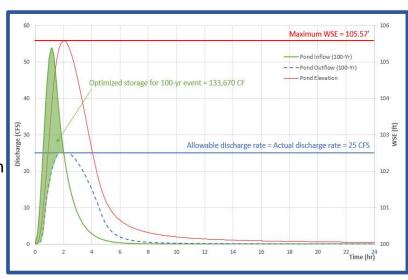
# REVOLUTIONIZING STORMWATER DETENTION



#### How does smartPOND work

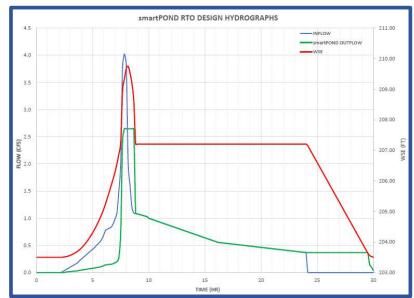
vs post peak discharge rates for selected design recurrence intervals and the stage versus storage relationship of the detention basin, the system measures water surface elevation (WSE) at given time increments and determines inflow rate.

Logic then controls the slide gate valve opening ensuring outflow always matches allowable discharge, thus optimizing detention volume requirements.



### **TECHNICAL SUPPORT:**

WE PROVIDE SYSTEM
DESIGN, ENGINEERING
SPECIFICATIONS, DRAWINGS
AND SUPPORT FOR YOUR
SITE PLAN AND PERMITTING
NEEDS





Distributed by CONVERGENT WATER TECHNOLOGIES, Convergent has decades of experience in developing and delivering problem solving stormwater innovations. Convergent believes that adopting new ideas quickly and integrating the process of innovation into stormwater regulation, product development and distribution is the best answer to our looming water crisis.

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