# Flygt 2201 Pumps Conquer Constant Inflow of Ground Water

California, KY

**Issue**
The construction of a Hydroelectric Power Plant on the shores of the Ohio River required a pumping solution to keep work areas from flooding. More than 100 feet below the surface, the constant inflow of ground water presented a flooding risk to the job site. Xylem worked with Alberici Baker Joint Venture LLC (ABJV), to develop a pumping solution to support an electric pumping solution with diesel backup to move between 850 and 1,700 GPM of ground water from the construction site.

> "More than 100 feet below the surface, the constant inflow of ground water presented a flooding risk to the job site."

**Solution**
Xylem developed a solution of two Flygt 2201 pumps with a VFD and transducer, auto control panels, and a Godwin Dri-Prime HL5M diesel-drive pump as a backup pump. The primary 2201 pump runs on a VFD to match the flow entering the channel up to 850 GPM at 150' total dynamic head. When flow requirements are over 850 GPM, the auto control panel on the secondary 2201 pump automatically starts the pump to increase capacity another 850 GPM at 150' total dynamic head. The diesel HL5M Dri-Prime pump, with a standard float system, will activate in times of power outages.

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Each Flygt pump includes independent six-inch HDPE discharge pipe to maximize flow capacities. One pump system is fitted with a


**CUSTOMER:** Alberici Baker Joint Venture LLC
**ORDER DATE:** MARCH 2012
**COMPLETION:** Phase 1 installed; Phase 2 ongoing
**XYLEM'S ROLE:** Pumping equipment solutions provider
**XYLEM'S SCOPE:**

- Two Flygt 2201 pumps
- One Godwin Dri-Prime HL5M
- VFD, transducer, and manual controls

wye and gate valve to support the backup diesel system during power outages. Each system contains check valves to prevent water hammer and recirculation.

**Result**
After four months of running, ABJV has not experienced any downtime or equipment damage resulting from the inflow of ground waters. ABJV is currently working with Xylem on a similar system for the east side of their construction project. This project is expected to continue for one or two years.

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