

Seven-Mile Bypass System Supplies 32,000 People With Water



PROJECT SCOPE

A city's water source needed to be diverted 7 miles, maintaining an average 12 MGD, through multiple elevation changes over forested hills

CLIENT

Municipality and General Contractor

INDUSTRY SEGMENT

Municipal

EQUIPMENT

- 7 miles HDPE pipe, 20"-36"
- HDPE Fusion Machine
- 4 HH225c pumps
- Radar gauge
- AnDRU box
- 6000' wire
- PipeStax®
- PipeStax® XL

BACKGROUND

The water source for the City of Rome, NY was at risk because of a disintegrating 48" concrete pipeline. To repair the century-old line, the nearby creek that supplied the water needed to be diverted. Simultaneously, the water had to continue flowing into the city's treatment plant, which was the main source of potable water for more than 32,000 customers. In order to repair the pipe, the contractor planned to set up a bypass system that would average 12 MGD, with the route from suction to discharge traversing seven miles of densely wooded hills.

OUTCOME

Rain for Rent provided a bypass system that handled 7 to 17 MGD for the six months required to rehabilitate the 48" concrete pipe.

HIGHLIGHTS

- Rain for Rent installed a 36" common suction line, which fed four HH225c pumps, three primary and one backup, under flooded suction.
- The suction line passed through a hole in the dam's five-foot thick wall that was created when the reservoir was free of water. The suction line passed through this hole, secured in place with a leak-proof seal.
- Four hundred feet of 24" pipe overcame an almost-vertical 100' elevation change.
- Pump automation enabled the system to run almost-unmanned. Pump watch was not required on site. Six thousand feet of wire connected each of the four pumps to a radar gauge and an AnDRU box that ensured each pump worked within specific parameters.

CUSTOMER FEEDBACK

The contractor was very impressed by how flawlessly the system ran, and further impressed by Rain for Rent's ability to partner with their teams on site to work hand in hand in close quarters on a multifaceted project. Jeff Lantiegne, VP of Wesson Group, said "This was our first time to use Rain for Rent for a pumping job. They worked with us, and together we drew up a quote that addressed each specification of this large project. They provided a very professional and knowledgeable crew that got the system up and running without issue. The bypass was a success and the City of Rome never went without water.



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