

## **EXISTING CONDITIONS**

A 6-inch diameter natural gas pipeline crosses a canal in Miami, Florida. Sheet flow from the adjacent street and high flow events had exposed the pipeline. 3-in-1 concrete bags had been placed atop the pipeline in an effort to protect it, but the sheet flow and high flow events had removed cover behind the bags. If left unprotected, the pipeline risked further exposure and possible damage.



## SOLUTION

Submar proposed reinstalling 3-1 concrete bags on the banks with additional erosion control measures. Prior to construction, a silt curtain was installed to control sediment in the canal and contain it a few feet away from the water surface. The toe of the bank was then excavated to allow the installation of geotextile fabric beneath the new 3-1 bags to minimize settlement, and the existing concrete bags were hauled off the site.

The project area was backfilled with granular fill and covered with a non-woven geotextile fabric liner. The new 3-1 concrete bags were placed on the bank and conformed to the existing bank slopes before and beyond the installation areas to avoid causing eddies. Rebar was driven through the sand-cement riprap to secure the bags. The silt curtain was removed after construction, and curlex and seed were placed on the final grade.

## THE Exposed Pipeline Remediation Experts



**(800) 978-2627** 

www.submar.com