Stormwater Best Management Practices for Marinas

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ABSTRACT

In 2008, the Ohio EPA implemented the National Pollutant Discharge Elimination System (NPDES) General Permit for Industrial Activity from Marinas. The permit covers any marinas in Ohio that conduct industrial boat maintenance activities including rehabilitation, repair, painting and certain equipment cleaning operations. The Ohio Clean Marinas Program is a proactive partnership designed to encourage marinas to use simple, innovative solutions to keep Ohio's coastal and inland waterway resources clean. The basic goal of the program is environmental stewardship by making marina operators more aware of environmental laws, rules and jurisdictions. The Best Management Practices (BMP) Guidebook discusses specific practices that marinas should voluntarily implement to control impacts to water quality and habitat from marina operation and maintenance activities. A case study of Piedmont Marina in Freeport, Ohio was developed to highlight successful stormwater BMPs and provide guidance for retrofitting existing marinas to comply with NPDES requirements or to improve water quality.

The Ohio Clean Marinas Program Recognizes and Encourages the Following Stormwater Best Management Practices for Marinas in Ohio:
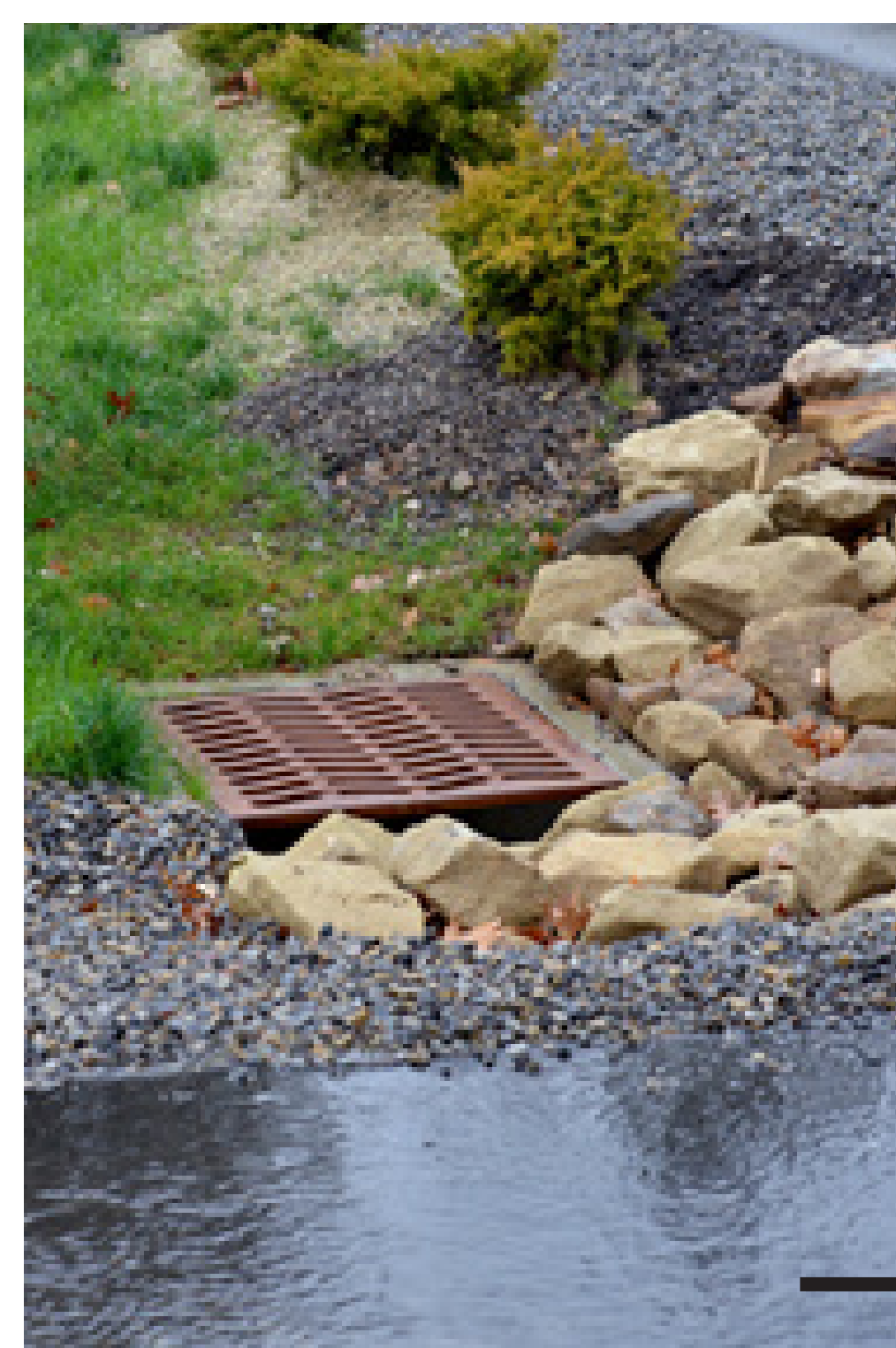
BMP #1. Minimize Impervious Area: Replace impervious parking lots, sidewalks, and edges with pervious surfaces.
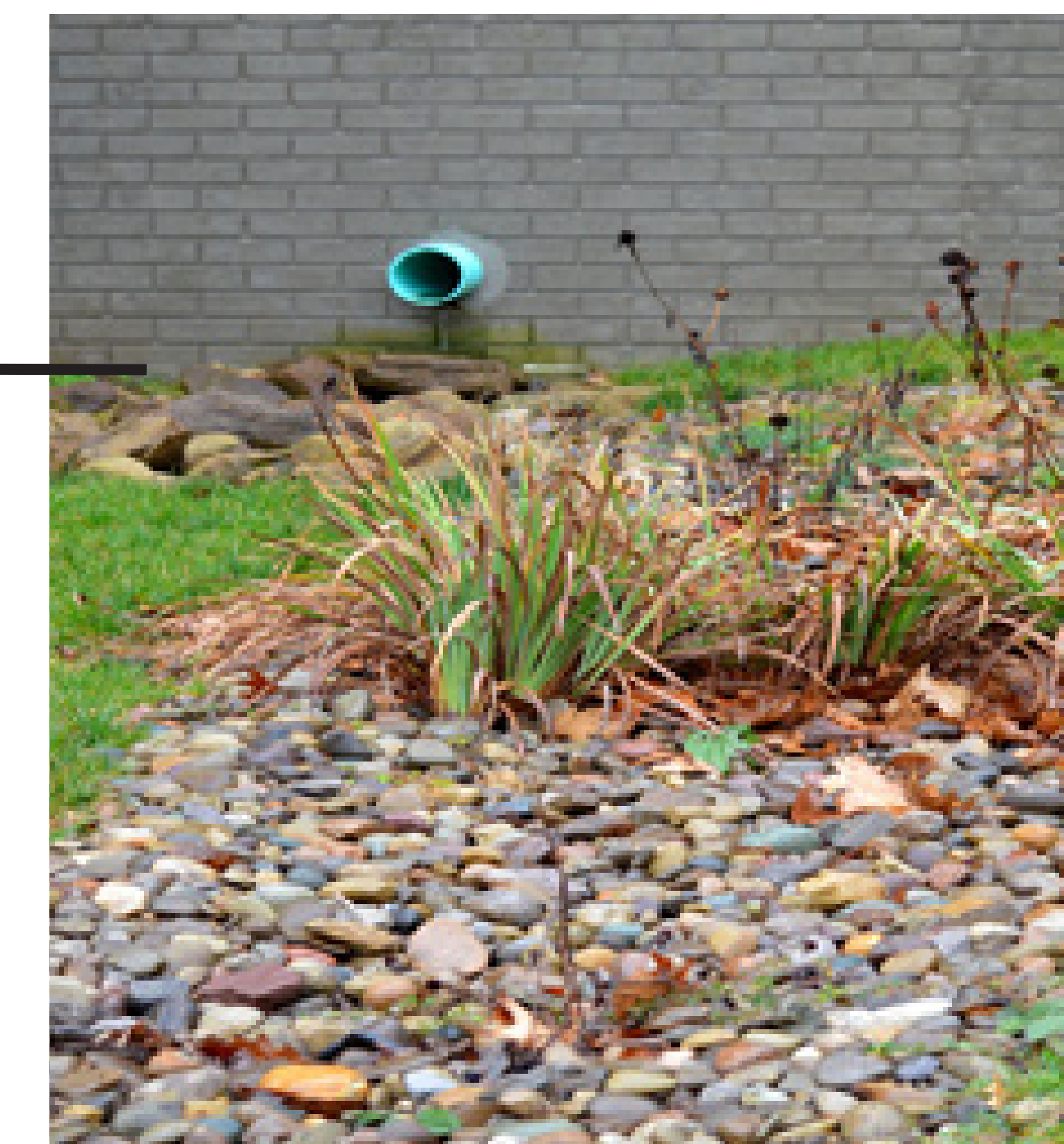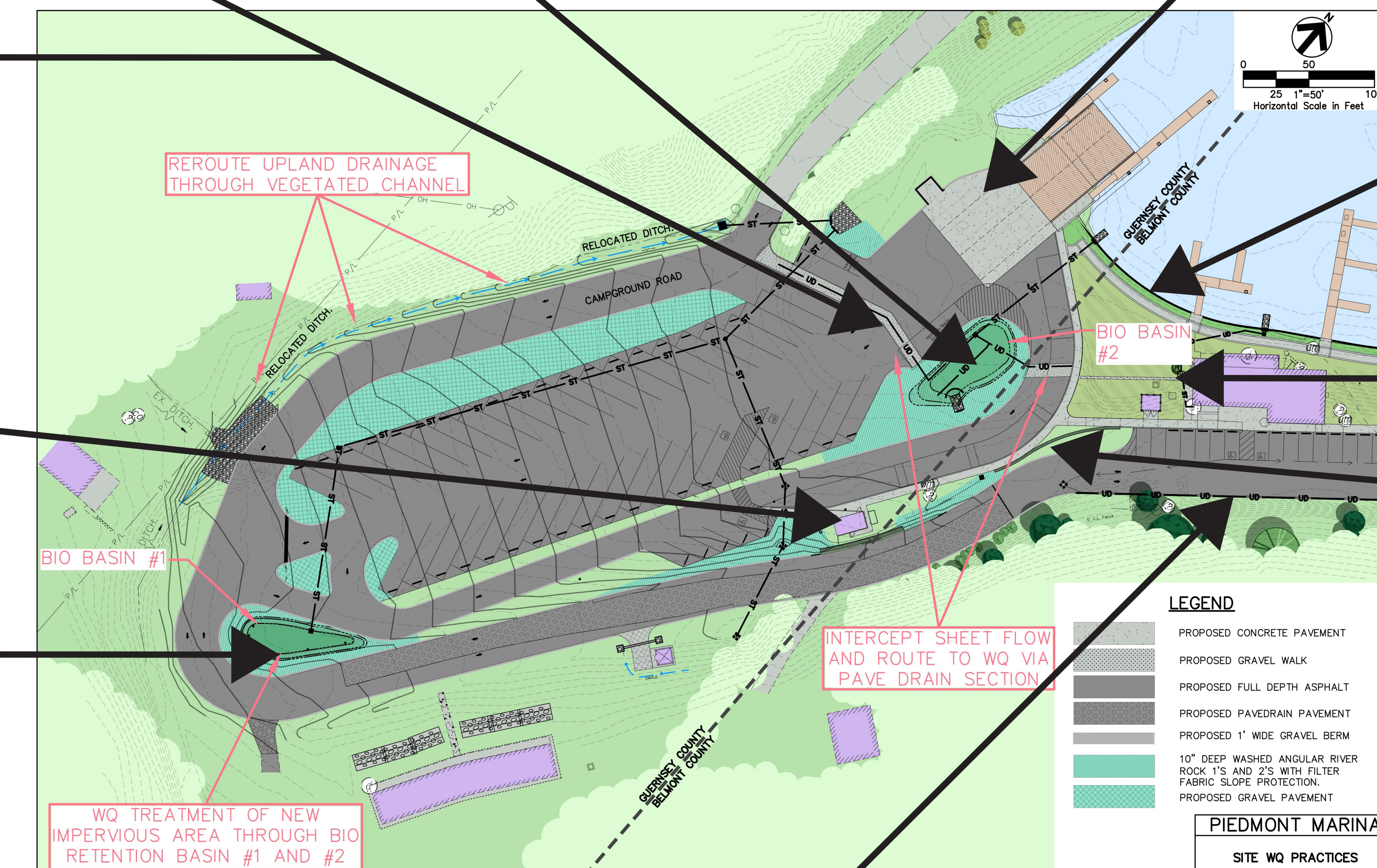
BMP #2. Cultivate Vegetated Areas: Use grassed swales to filter out particulates and promote infiltration.

BMP #3. Cultivate Vegetated Areas: Use vegetated filter strips to slow stormwater and remove pollutants.

BMP #4. Low Impact Development: Minimize offsite stormwater treatment by capturing and treating stormwater on site.

BMP #5. Maintenance: Stormwater management structures are inspected, cleaned, and maintained on schedule.

BMP #6. Cultivate Vegetated Areas: Position downspouts to drain to vegetated areas; avoid draining to concrete or asphalt.

BMP #7. Low Impact Development: Use existing natural features to control runoff without altering the natural hydrology.

Piedmont Marina
Operated by Muskingum Watershed Conservancy District

LEGEND
PROPOSED CONCRETE PAVEMENT
PROPOSED GRAVEL WALK
PROPOSED FULL DEPTH ASPHALT
PROPOSED PAVER/RAIN PAVEMENT
PROPOSED 1" WIDE GRAVEL BERM
10" DEEP WASHED ANGULAR RIVER ROCK 1'S AND 2'S WITH FILTER FABRIC SLOPE PROTECTION.
PROPOSED GRAVEL PAVEMENT

PIEDMONT MARINA
SITE WQ PRACTICES

REFERENCES
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GPD GROUP
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MUSKINGUM WATERSHED CONSERVANCY DISTRICT

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