# #FERGUSON WATERWORKS





### ENHANCE REMOVAL OF NITROGEN, PHOSPHORUS AND PATHOGENS IN COMMON STORMWATER BEST MANAGEMENT PRACTICES

BOLD & GOLD® Filtration Media is a biosorption activated media (BAM) patented at The University of Central Florida's Stormwater Management Academy. It can be applied to a wide variety of stormwater, wastewater and agricultural best management practices (BMPs) to enhance pollutant removal discharges to groundwater and surface waterbodies.



#### **GREEN COMPONENTS FOR A GREENER WORLD**

Ferguson honors its commitment to the environment and simplifying our customers' sustainability journey by providing efficient, adaptable and resilient products. In addition to natural components including sand and clay, BOLD & GOLD filtration media contains iron filings or 99.9% metal free recycled crumb rubber.

#### **BENEFITS**

- Used for nutrient removal for TMDLs and ERPs
- Approved by Water Management Management Districts and Florida Department of Environmental Protection
- Improves water quality with average annual removal rates up to 95% of phosphorus, 80% of nitrogen and 90% of bacteria in runoff
- Laboratory studies show removal of PFAS
- Service life up to 50 years for nitrogen and bacteria removal
- Contains no organics—will not decompose

- Optimizes developable space by reducing the reliance on traditional BMPs to meet pollutant requirements
- Manufactured under strict quality control practices to ensure consistent performance
- · Fast and easy installation
- Used in conjunction with common Green Infrastructure practices
- Low operation and maintenance costs

### **BOLD & GOLD**

### **ENHANCED POLLUTANT REMOVAL SYSTEMS**

When combined with traditional stormwater best management practices, Bold and Gold media can reduce nutrient discharges to groundwater or surface water.



#### RAIN GARDEN AND BIOSWALE

BOLD & GOLD filtration media is used in place of the native soil installed in these systems. The filtration media is capped with a growth media to promote vegetation growth and protect the media below. These systems remove up to 90% of phosphorus, 60% of nitrogen and 90% of bacteria.<sup>1</sup>



#### PERMEABLE AND POROUS SURFACE

The BOLD & GOLD filtration media is installed and compacted under the stone reservoir of the permeable system. These systems remove up to 90% of phosphorus, 60% of nitrogen and 90% of bacteria.<sup>1</sup>



#### **VEGETATED FILTER STRIP**

BOLD & GOLD filtration media is installed in the green space adjacent to a roadway or parking area. Sheet flow is directed to the system where the runoff is processed through the filter. These systems remove up to 90% of phosphorus, 60% of nitrogen and 90% of bacteria.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>Performance based upon utilization of Bold and Gold CTS12 media.

#### **BOLD & GOLD**

## POLISHING FILTERS FOR ENHANCED POLLUTANT REMOVAL IN WET PONDS



#### LITTORAL SHELF FILTER

BOLD & GOLD filtration media is installed on a shelf, at the permanent pool elevation of the bank of the pond at the permanent pool level. The filter must be a minimum of two feet wide and can span the entire circumference of the pond, if needed. The system size is based on the pollutant reduction requirements needed for the project. The filter will remove up to 95% of the phosphorus, 80% of the nitrogen and 90% of the bacteria from processed water. Treated water is collected in an underdrain pipe that is connected to the control structure of the pond.



#### SIDE-BANK FILTER

BOLD & GOLD filtration media is installed in the bank of the pond at the permanent pool level. The system can span the entire circumference of the pond and is based on the pollutant reduction requirements for the project. The filter will remove up to 95% of the phosphorus, 80% of the nitrogen, and 90% of the bacteria from processed water. Treated water is collected in an underdrain pipe that is typically connected to the control structure of the pond.



#### NUTRIENT REMOVAL FILTRATION SYSTEM

BOLD & GOLD filtration media is housed in a concrete structure. When downstream of a wet pond, water leaving the pond is processed through the filter to remove 25% of the nitrogen and phosphorus. The system includes a built-in bypass for larger storm events.

