

BEEMATS

FLOATING WETLANDS DISTRIBUTED BY FERGUSON WATERWORKS



IMPROVE THE WATER QUALITY OF SURFACE WATERBODIES BY REMOVING NITROGEN AND PHOSPHORUS THROUGH PLANTS

Beemats are floating islands planted with native plants in patented pots that allow the roots to grow into the water column. The roots uptake nutrients from the waterbody and store them in the plant tissue.



RESTORING NATURE WITH NATURE

Beemats use a variety of native plants, including grasses, flowering plants and edible plants in certain cases. These plants are carefully selected to match the environmental conditions of the corresponding region. It's common to see birds, turtles and other wildlife utilizing a floating island, adding more ecological value and an additional amenity for the community.

INTENTIONALLY AND INNOVATIVELY DESIGNED

The floating wetlands are sized relative to the target pond. Unlike littoral shelves which can be affected by fluctuating water levels, Beemats float on top of the waterbody allowing them to adapt to changing conditions. The mats are double-tethered and anchored to the bottom to keep them from moving around with water flow or inclement weather.

Beemats use a unique, patented pot design that allows for the harvesting and replacement of plants without replacing the mat.

BENEFITS

- · Removes the dissolved forms of nitrogen and phosphorus from the water column
- Approved by all Water Management Districts in Florida along with the Florida Department of Environmental Protection to meet TMDLs and ERP requirements
- · Functions in both fresh and brackish water
- · Provides additional ecological benefits for wildlife in the pond
- Mats are made from high density polyethylene (HDPE) to provide a long product lifespan; available with polypropylene or patented biodegradable pots

MAINTENANCE

MAINTENANCE CONTRACTS

Through an initial annual contract, the manufacturer maintains the systems for the first year after installation. This includes harvesting the roots and shoots, removing any foreign plant material and ensuring the mats are in good condition.

The manufacturer also provides an annual report to the owner to document the nutrient removal of the floating wetlands as part of the annual maintenance contract.

The owner can initiate subsequent contracts if desired.

ROUTINE CARE

Maintenance is recommended several times per year to remove the nutrients that have been pulled out of the water and stored in the plant tissue. Routine care includes taking the mat out of the waterbody, inspecting for and removing any foreign plant material, removing any dead plant material, trimming the roots and the shoots of the healthy plants and replacing any plants that died.

The patented pots allow for the replacement of plant material. This is important because as the plants die, they can be removed and replaced instead of decomposing and leaching nutrients back into the water column.

The mat can then be redeployed into the pond where it is anchored in place. The harvested vegetation is sent to a third-party laboratory where it is analyzed to quantify the amount of nutrients removed from the waterbody.

APPLICATIONS:

- Agricultural ponds
- Creeks and streams
- Drainage canals
- Drinking water reservoirs

- Retail centers
- Municipal stormwater ponds

Homeowner's associations

· Multifamily communities

Wastewater treatment ponds





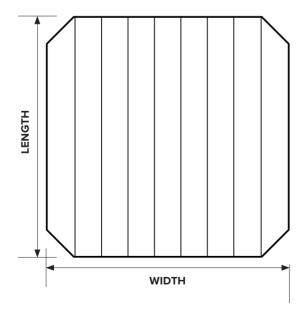
Golf courses

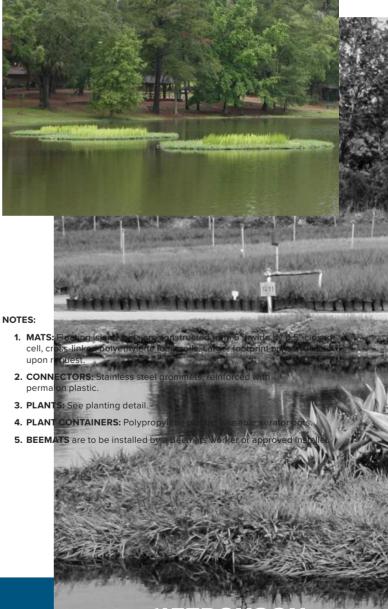
ABOVE AND BEYOND THE LITTORAL SHELF

- Beemats add an amenity for the community to enjoy.
- Maintenance is managed by the manufacturer.*
- Beemats do not take storage capacity away from a stormwater pond.
- Beemats float in the waterbody, so they don't accumulate trash and debris along the water's edge.
- Local wildlife spends less time on the bank and more time in the water.
- Beemats rise and fall with the water level in the pond.

*On a contractual basis.







For more information, ask a Ferguson Geo & Stormwater Specialist or visit us online at <u>fergusongss.com/beemats</u>

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