

New Tool for Stormwater Management: Nutrient Adsorbing Pellets and Foam

Regional Environmental Committee

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Poseidon

Technology for adsorbing nutrients using specially formulated pellets to adsorb phosphate, ammonia, and nitrates from the water.



**EXTERIOR FOAM
SEDIMENT FILTER**

6 FEET LONG
UV PROTECTION
BIOCIDE



**INTERIOR
PELLET BOOM**

5 FEET LONG
9" DIAMETER
20 LBS OF PELLETS

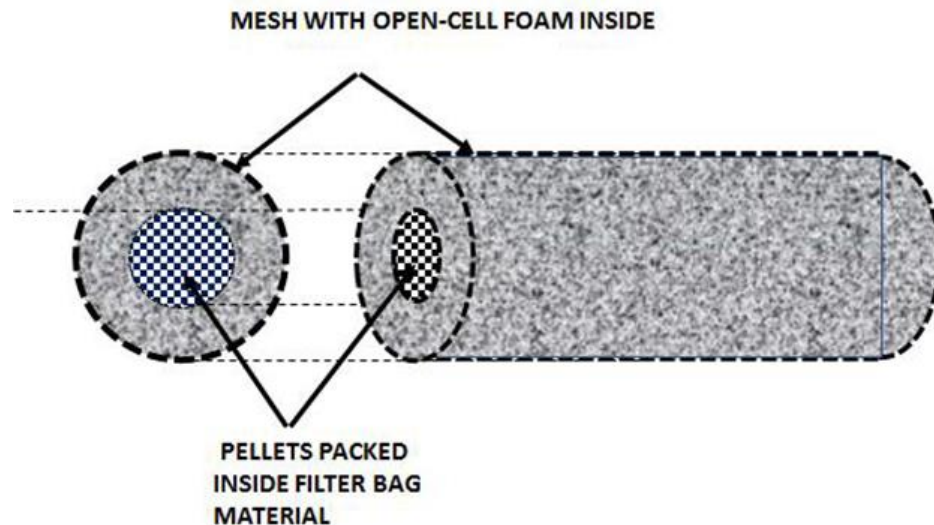
Technology - Poseidon™ Pellets

- Pellets contain Calcium, Magnesium and Lanthanum Carbonates held together with cellulose
- Removes P by sorption and precipitation of Ca and Mg phosphates
- Large surface area to promote adsorption



Technology - Foam

- Two types of open cell foam:
 - Nutrient sponge (Coated with Ferric Hydroxide)
 - Biomedia which grows biofilms and promotes denitrification and phosphate removal

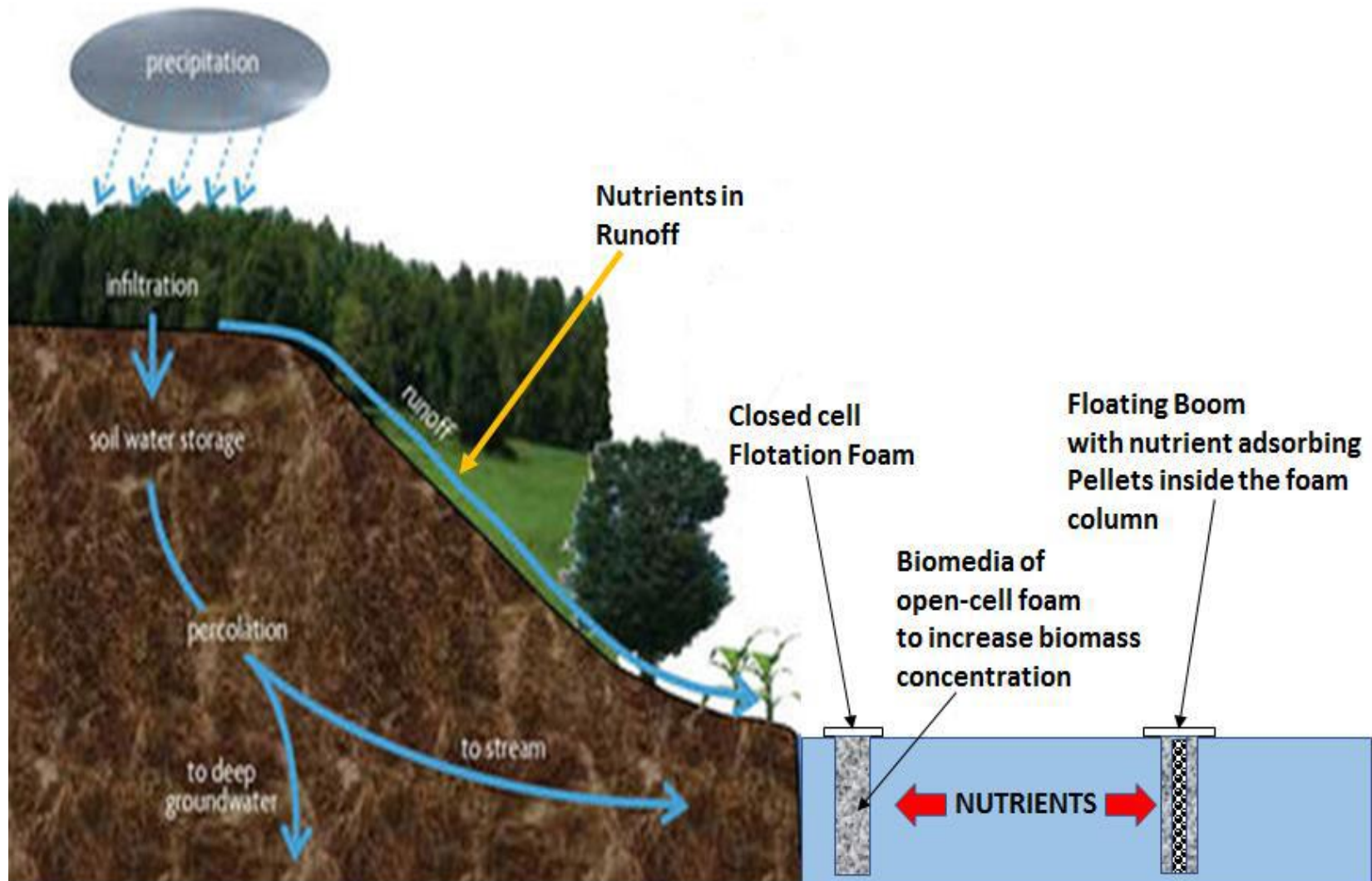


Example Application

- Need to remove 20 lbs/ac/yr phosphate
- 5 foot boom w/ pellets removes 2 lbs phosphate
- 10 booms per acre of land
- \$5,000 ac/yr
- Pellets can be recycled back to ag fields as fertilizer



Example Application



Additional Info

- Water Warriors has a Cooperative Research and Development Agreement (CRADA) with EPA for lab and field studies
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