



Applied Polymer Systems, Inc.

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Innovations

Stormwater Pond Clean-out

The City of Orlando has over 93 lakes and hundreds of stormwater detention ponds. Periodically, the accumulated sediments must be removed from them. This used to be a very messy, time-consuming job. The sediments often contain a high percentage of organic mucky material. This muck behaves more like a fluid than a soil and is difficult to work with. During past clean-out efforts, water around and discharging from the work site would become very cloudy with turbidity.

Excavating equipment had to work longer time periods to remove this soupy material, because it was impossible to get full bucket loads. Completed projects often received citizen and/or agency complaints about aesthetics and visual water impairment.

Spoil materials were often placed on desolate sites to allow for drying or were disposed of in landfills at a high cost. These were considered as waste or problematic soils.

Kevin McCann, City of Orlando Stormwater Division Manager, decided to try some Applied Polymer System (APS) blended polyacrylamide (PAM) to address these problems. He had learned of PAM's ability to thicken soil from a local erosion control training seminar.

First, a soil specific test was performed by the APS testing lab to match the PAM blend to the site. Kevin decided to use a backpack leaf blower to disperse the powdered PAM blend across the muck. This technique allowed for continuous application on the work site as needed.



Once applied, the PAM generally reacted with the muck within 10-20 minutes untouched. Having the equipment operator blend the PAM and muck back and forth with the machine's bucket until it began to set-up speeded up this process. Once thickened, the muck could be removed like any other soil.



Full bucket loads were easily achieved resulting in quicker removal time. Dump trucks could now be loaded full with no fear of sloshing. Water leaving the work area was cleaner as turbidity was controlled with this application. PAM treated muck is a tremendous topsoil amendment or soil stabilizer for landscape/turf grass applications. The City of Orlando conducted several turf grass application tests with the Florida Department of Transportation along Interstate 4 with this PAM treated soil. Accelerated grass germination results along with very lush growth were achieved in record time during this test.



The City of Orlando routinely uses blended PAM during muck removal on its ponds and lakes. This material is reused as a topsoil amendment whenever possible to reduce disposal and transportation costs and improve vegetation establishment, especially in sandy soils.



What was once considered a junk and problematic soil is now treated as a resource. Just another example of how APS products can be used to protect water resources and improve job efficiency.



For information on this or other Applied Polymer System designs or materials contact your local distributor or APS directly at 678-494-5998 or www.siltstop.com