LOCATION:
Storm Pond 53, Waterloo, Ontario, Canada

CLIENT NEEDS:
The municipal client was searching for an innovative method to safely dewater and transport sediment sludge from a stormwater management facility SMWF (storm pond). One of the proper objectives was to remove many years of accumulated sediment from the storm pond (approx. 3,000 m³) to reinstate the original design capacity and functional effectiveness.

CHALLENGE:
Provide an environmentally safe, effective and efficient operational treatment methodology to dewater, and bind the sludge to reduce transportation costs.

SOLUTION:
The City of Waterloo required an integrated design & solution team, and engaged both Greenland Engineering and Clearflow Group to develop the optimum solution. The storm pond was dewatered and treated for safe release using Clearflow’s Patented Water Lynx™ flocculation treatment system. The Water Lynx™ Reactors were strategically located to treat the sediment laden water (high TSS – Total Suspended Solids) to accelerate colloidal sedimentation. The flow then passively travelled over Clearflow’s Treated GeoJute™ for final water polishing, capturing and removing the TSS for fish safe water release to the environment. This innovative process significantly highlighted the effectiveness and benefits using Water Lynx™ and Lynx Ultrabind™ for SWMF retrofits/cleanouts.

EQUIPMENT:
- Soil Lynx™ – stabilization and erosion control
- Lynx Ultrabind™ – sediment binding
- Water Lynx™ Pipe Reactor - dewatering

TSS REDUCTION
STORM POND SEDIMENTATION
DEWATERING AND TSS CAPTURE
SEDIMENT BINDING
NOTES:

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