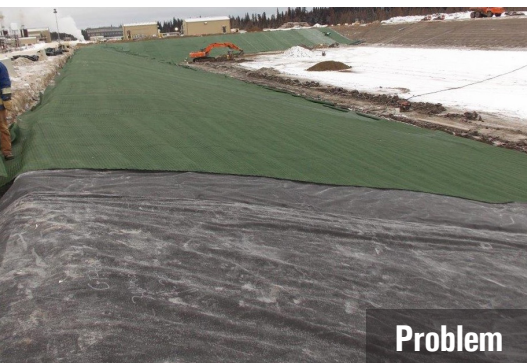


STORMWATER POND PROJECT CHRISTINA LAKE, AB



Problem



Solution



Result

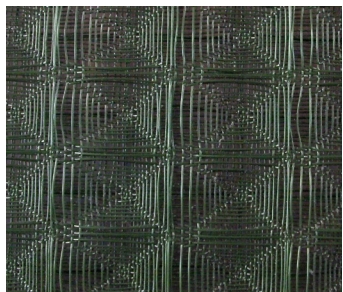
Application: Commercial Plant Pond
Product: PP5-Xtreme + Anchors

Site Issues: Steep basin slopes • Hard armor alternative •
Unvegetated solution • Frozen soils

Problem: A commercial project was in search of an alternative to hard armor for the protection of a storm water pond. The site solution needed to be strong while protecting the steep basin slopes. The project planners turned to Xtreme Armor System (XAS), a combination of high-performance mattings plus permanent anchors for a solution that provided stability and confidence. With exceedingly steep banks, the strength of the system was key.

Solution: PP5-Xtreme, a high-performance turf reinforcement mat (HPTRM), was installed over a geotextile underlayment. Stainless steel percussion driven anchors (PDAs) were installed to a three foot (1 m) depth and used to secure the HPTRM, restraining the basin side walls and adding surficial structural slope support. The anchors selected ensured the highest level of performance, and were able to be installed in frozen soils. In addition, the XAS system had the strength and porosity to handle submerged and fluctuating conditions. As the storm water pond would not be vegetated, the permanency of the XAS system was vital in its ability to replace the hard armor alternative, a cellular confinement system with rock. The XAS installation was used in conjunction with a rock layer that protected the toe of slope and basin floor.

Result: Even given the adverse weather conditions during installation, the Xtreme Armor System performed as design. The 3500 square meter (4200 Sqyd) geosynthetic alternative to the originally designed cellular confinement system resulted in over \$100,000 in project cost savings.



PRODUCT HIGHLIGHTS

- PP5-Xtreme was installed along the basin slopes and secured with percussion driven anchors.
- PP5-Xtreme HPTRM is optimized for steep slopes, with its UV stability and woven synthetic construction.
- The extended longevity of the product allows for permanent erosion protection and support of vegetation.