## Par for the Course



**By Daniel Nitzsche** 

Factors to consider for golf course ownership

ou love the game, so you buy a golf course at auction, expecting to reopen it the same year. As the new owner, you assess the course infrastructure and find it is substantially outdated and needs a complete overhaul. Your first course hazard.

You contract a well-known golf course architect. Your combined vision includes reconstruction of all 18 fairways, tees and greens, and construction of a new clubhouse and banquet facility. Without giving it much thought, you also fill "nuisance" wetlands and streams to improve play. "No need to get permits," you say. "Golf courses are exempt, right?" Your first bogey.

On Christmas Eve. 11 months after initiating reconstruction, reality sets in when a neighbor calls the state wetlands agency to report turbid discharges. Despite more than 60 acres of earth disturbance, the most problematic area is a 14-acre excavation project at the highest point of land without erosion or sedimentation protection. Did I mention no permits or specific development plans are in place? Penalty stroke: you involve an attorney and a wetland consultant who explain the new vision: enforcement, including a hefty fine and a consent order mandating restoration, mitigation and stabilization actions.

This is bad timing. It is January and you are ordered to stabilize frozen, snowcovered soil. The new focus becomes source control to the extent practicable, including using flocculant (polyachrylamide, or PAM) treatment systems to reduce turbid discharges. The steep slopes (10% to 30%), fine-textured soils and several months of above-average rain make stabilization a nightmare. After the snowmelt, large exposed soil areas get thousands of feet of straw wattles, tons of stone check dams and hydraulic mulch with armor-like protection, typically used in the landfill industry. Your first par for the course.

You implement a variety of BMPs during the reconstruction work, including rolled erosion control products, hydromulch with tackifier, PAM, soil tracking and the most effective BMP of all: more than 30 acres of sod. Not every project can afford large areas of sod for permanent stabilization, but it is a quick and invaluable means to prevent further erosion and sedimentation impacts. Your first birdie.

In addition to common BMPs, you experiment with homemade controls using onsite materials like bunker (sand trap) liner fabric and recycled wood mulch. Designed to retain sand but remain permeable, the fabric effectively eliminates moderate amounts of sediment from overland flow. Another valuable control is coined a "mulch burrito," which is jute netting wrapped around a coarse wood mulch core. With surprising success, the homemade BMPs provide effective check dams, sediment filters and inlet protection. You have moved to the leaderboard.

Three years have passed and the site is fully stable. The golf course and facilities are immaculate and the rapidly expanding membership is excited to play at a topnotch course. However, you paid dearly to realize not only your vision but also that of the regulatory community. The takeaway message: Get professionals involved early, phase earthwork appropriately and you always need permits. Fore! SWS

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