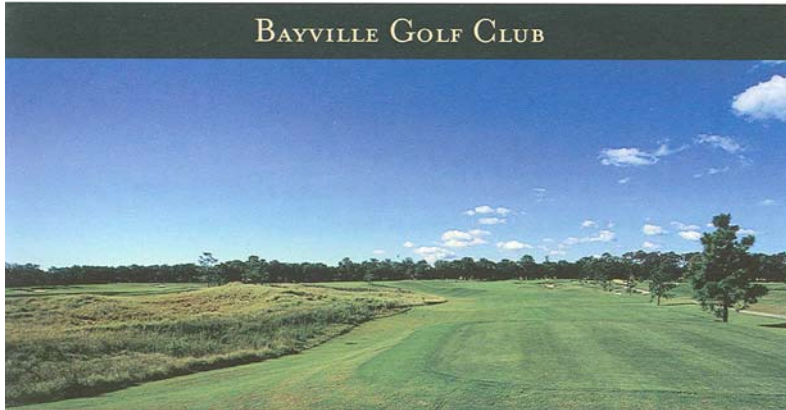


Protecting Water Quality

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VIRGINIA BEACH, VIRGINIA

Bayville Golf Club represents a combined effort of the Norfolk area business community to create a world-class golf experience, in a private club setting, with an open, non-discriminating membership policy. Several options for finding a site were reviewed. The Virginia Beach land selected for the course was a dairy cattle and row crop farm, adjacent to the Lynnhaven Sound and the Chesapeake Bay area. The land is roughly 250 acres, has sandy soil with gentle grades, and is ideally suited for an 18-hole golf course and extensive practice area. The perimeter edges of the site are tree lined, with the center sections open for farming. A portion of Bayville Farms borders directly on the Lynnhaven Sound, with dramatic, long-range marsh and open water views. This windswept setting is similar to Scottish and British links land and allowed for the course to be created with a natural feel that seamlessly blends into the existing environment.

To begin the design efforts and obtain required permits, a local environmental consultant and engineering firm were hired. The design team met with local, state and federal agencies to outline a logical approach. The owners of the land set the tone by instructing the team to ensure environmental sensitivity. This goal quickly evolved into a process that allowed Bayville Golf Club to become a model project that enhanced, protected and preserved the shoreline habitat.

The major permit issues for this project were:

- Surface water quality - containment of runoff
- Chesapeake Bay preservation guidelines
- Reclamation of existing farm waste
- Wetland preservation
- Shoreline edge protection
- Archeological preservation

The golf course was routed to ensure that all the permit issues could be addressed. Mandatory buffer areas were set aside along the coastal shoreline holes. Additional space was designed into these holes to allow for native revegetation that would further buffer and protect the shoreline. Linear sand bunkers were placed along the shoreline edges of holes No.1, 2, 15, 16 and 18 to act as further separation of maintained turf from the sensitive Chesapeake Bay

Storm water runoff was a key concern. **The goal here was to ensure that all surface water runoff from the course would be collected and directed away from wetlands and marsh.** This was accomplished with a series of interconnected lakes that act as a contained collection system. These lakes also serve as the irrigation source for the course.

Each hole was shaped to create water catchment areas. These catch basins were piped back to the lake system. All direct runoff from the course was captured and piped to the lakes. Also, during the construction of holes No. 17 and 18, several cattle waste ponds were drained, excavated and moved away from the shoreline. This improved the environment in this area and ensured that no remnants from the land's previous use would impact the marsh.

The project archeologists identified Indian artifacts on the 15th hole. These important artifact areas were mapped and reviewed with the state. It was decided to leave these areas intact, fill the ground over these sites and preserve them for future restoration.

To complete the construction and grass the course, extensive sodding was installed along the buffer edges to reduce the grow-in period and stabilize the soil. **Native grasses were planted throughout the course to create habitat areas for nesting birds and further protect marsh.**

SUMMARY - Once the grow-in was underway, the golf course superintendent established an extensive integrated pest management program to ensure protective alternative methods to maintain the course.

The golf course greens are seeded with the new A-4 Bentgrass, which requires far less chemical use than older varieties and helps protect the environment.

The course, opened for play in the fall of 1995, has hosted several regional golf events and is highly regarded among area players. A local environmental group, Friends of the Chesapeake, has identified this project as a model and has conducted tours of the site to show potential developers how to pursue projects of this kind.

Bayville Golf Club is an excellent example of the innovative design processes that are employed by ASGCA members to protect and preserve the environment, while meeting the client's objectives of quality golf.