

TY MANAGEMENT CORPORATION
Conservation Measures - Form SWUPA-E

Plantation Course

- In 2019 the Plantation Course was re-grassed with more drought tolerant Celebration Bermudagrass.
- In 2019 the total formal turf areas were reduced by 6 acres and converted to a more drought tolerant native grasses which can survive the summer dry season with minimal irrigation.
- In 2009/2010 The entire irrigation system was re-designed completely to include the following: new pressure reducing valves, gate valves, lateral isolation valves, control wires, communication wires, power wires, valve in head sprinkler heads, satellite controllers, weather stations, piping and layout.
- Multiple on-site weather stations collect the following data; rainfall, solar radiation, temperature, humidity, and wind speed. This data is collected minute by minute on a daily basis and is automatically placed into a modified penman equation to determine the turfgrass evapotranspiration rate (ET) or total water usage each day multiplied by a crop coefficient. The central control computer knows the area and precipitation rate of each sprinkler head and calculates the required sprinkler run-times by minute based upon the ET for the day. All sprinkler heads may be adjusted individually to compensate for wet and dry areas and improving overall irrigation uniformity. The computer will turn off irrigation and or pause the irrigation based on real-time rainfall. If rainfall is received the ET will be subtracted from the rainfall totals and irrigation will not commence until the rain bucket is empty.
- Irrigation audits are performed annually to maintain optimum system performance.
- Bi-annual servicing of all pressure reducing valves and pilots.
- 2023 Annual Irrigation Repair and Maintenance budget of \$76,000.
- Currently in the process of installing flow meters and SCADA equipment to monitor irrigation usage.
- Wetting agents are utilized to improve irrigation uniformity and plant uptake of water and nutrients. <https://blog.aquatrols.com/soil-surfactants-and-drought-a-piece-in-the-water-conservation-puzzle/>

Bay Course

- The installation of pressure and flow monitoring equipment at all points of connection are being considered.
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Bay Course Renovation

- The total formal turf areas will be reduced by 35 acres and converted to a more drought tolerant grasses which can survive the summer dry season with minimal irrigation. The entire irrigation system will be re-designed completely and will include the following: new pressure reducing valves, gate valves, lateral isolation valves, control wires, communication wires, power wires, sprinkler heads, satellite controllers, weather stations, piping and layout. The updated control system will allow individual sprinkler head run times to be calculated to the second vs. whole minutes improving overall efficiency of the system.
- All grasses will be changed to a new more drought tolerant Celebration Bermudagrass.
- At Shop 1: We will be installing a new equipment wash station which will be an ESD Waste2Water, recycled wash water system.