

Proposal Monitoring

Overview: To establish the Dad Miller Golf Course water and energy savings as a result of the comprehensive projects proposed herein, we will begin by developing a Project Monitoring Plan that will include baseline (pre-project) water use and energy use, proposed savings, brief discussion of how water and energy savings will be monitored, methodology of monitoring, frequency of monitoring, location of monitoring points, and performance targets. We expect the water and energy savings to be the same from year to year and therefore we anticipate submitting a single Post-Performance Report to the State within ninety (90) calendar days after the first operational year. The project will not affect surface water quality; therefore no activities are proposed to integrate data into the California Environmental Data Exchange Network.

Water Savings: Water use and post-construction conservation data will be determined by analyzing water use information obtained from the Orange County Water District (OCWD), the water supplier for the golf course. We pulled water use data for July 1, 2013 to June 30, 2014, to complete Attachment 2 and confirmed that the annual water use is approximately 125 million gallons. Based on industry research, we expect the irrigation project to save 25 million gallons per year (or a 20% reduction). We will pull water use data from OCWD invoices every four months and estimate water savings three times in year one (3 times x 4 months = 1 year; post-construction). Our performance target is a 20% reduction in water use. This project does not require monitoring at certain points or locations.

Energy Savings: Our proposed energy savings is derived from: 1) a reduction in water use and the associated reduction in energy use as a result of less pumping and transmission; and 2) lighting upgrades to more energy efficient fixtures. There are dedicated electric meters at the Dad Miller Golf Course that will allow staff to identify exactly where the energy savings are being derived (i.e. whether a water or lighting savings). For water pumping and transmission, the estimated energy intensity of the system associated with the project's water savings is 373.18 kWh/MG. This estimate was determined by calculating the energy intensity associated with pumping and transmitting 125 million gallons of water and reducing the energy intensity by 20% to match the estimated water use savings.

Our performance target for energy reduction for the lighting project is 56%. The Anaheim Public Utilities is the energy provider for the golf course and will provide energy use estimates every four months during the first year of monitoring (after all installations are complete). The project does not require monitoring at certain points or locations.

Greenhouse Gas Emission Reductions: We propose to utilize the State's Attachment 2 spreadsheet to calculate resultant GHG emission reductions.