



Engineering Project Case Study

GreenHunter Biofuels Houston Facility



GreenHunter Biofuels' Houston Facility is Texas' first bio-diesel facility turning agricultural waste into diesel fuel. Atkinson Engineers was hired to help them retrofit an abandoned petrochemical facility on the banks of the navigable southern end of Greens Bayou a quarter mile from the Houston ship channel. The 100-year flood plain was seven feet deep across the tract of land and the new facility needed 15 new storage tanks to be added to it. The proposed tanks created a mitigation problem, but most importantly a conveyance problem to Greens Bayou. This project was on a critical timetable due to a scheduled opening ceremony that included Rick Perry, Governor of Texas.

The GreenHunter project included a site plan, a paving and grading plan, a pumped bottom detention and mitigation pond, a hydrology study and impact analysis of the entire Greens Bayou watershed from The Houston Ship Channel to North and Northwest Harris County, flood plain mitigation calculations and plan, and a storm water pollution prevention plan.

With the tight time constraints and the severity of the impact this project was to have on the drainage of a significant part of Harris County, this project required engineering expertise and coordination, as well as teamwork with many regulatory authorities and the client. Atkinson Engineers' "no ties and no voicemail" philosophy was critical in clearing the many engineering and regulatory hurdles this project presented. Atkinson Engineers was originally brought into the project due to their surveying history with the tract of land and based on the recommendation of a long time engineering client on the neighboring tract of land. GreenHunter was out of town in Chicago and needed a strong and responsive engineering firm with expertise in navigating difficult projects through the complex Harris County regulatory process. No one in Harris County is more skilled or more tenacious than Atkinson Engineers at working on challenging projects. In fact, without any special effort to do so, Atkinson Engineers has developed a reputation among the Harris County Public Infrastructure Department as being especially good at the most challenging projects.

Atkinson Engineers tasked three engineers to complete the work and get the project approved, one hydrology specialist, one site development specialist, and an expert on navigating the applicable regulatory approval system. With this team working in tandem, the project plans were completed in 3 weeks and submitted to the applicable agencies. The approval process took four months and many meetings, but the permit was issued and the facility was able to open in time for the ceremony led by Governor Rick Perry.

