Principle Investigator
M. Cooney (Hawaii Natural Energy Institute)

Collaborators

**Industry** – AECOM (Engineering Overview), Hawaii American Waters (Host WWTP), RealGreen Power (Technology Provider), Pacific Biodiesel (Produce Biodiesel from grease trap waste and fryer grease), Diacarbon Energy (Biochar producer)

**Academic** - Roger Babcock (UHM Civil Engineer with extensive expertise in operation of WWTP)
OBJECTIVE: To evaluate the application of anaerobic digestion on clarified primary sewage effluent to reduce the overall amount of energy required for sewage treatment.

SYSTEM: Hybrid anaerobic packed bed –trickling filter reactor

Goals: Effluent BOD$_5$ < 10, TSS < 20, NH$_4$ < 2, TN<17
Goal: To evaluate the application of anaerobic digestion to the treatment of wastewater separated from waste trap grease as a means to reduce concentration of pollutant discharge (i.e. chemical oxygen demand (COD) and total suspended solids (TSS)) and to produce methane gas for on-site energy use.

SYSTEM: Anaerobic packed bed reactor

GOALS: Reduction in pollutant levels by 90% and methane production that approaches theoretical maximum of 0.35 m³/Kg COD reduced.