



June 6th, 2022
Prepared by John Gibson

May 12th – June 6th 2022 Operations Report

Discharge to Atascadero Creek

During the discharge season from October 1st to May 14th the District is allowed to send tertiary treated water to Atascadero creek at a rate of 1% of the creek flow. The flow is calculated using a staff gauge located upstream of the plant under the Green Valley Rd. bridge. The depth of the creek is entered into a formula to find the flow of the creek in million gallons per day (MGD). Operators set the rate of discharge to 1% of the creek at CVS#2 by opening or closing the discharge valve until the effluent flow meter is reads 1% of the creek flow in gpm. Discharge to Atascadero Creek was shut down on May 12th.



Capstone Microturbine Update

Most of the 40,000-hour maintenance has been completed on the turbine. There are a few parts however that have been on order and should be received by Cal Microturbine in about a week or two. The remaining parts to be replaced are: 1) fuel metering valve 2) EMI filter 3) igniter 4) engine air filter 5) inline fuel filter. Once these parts are received Cal Microturbine will schedule a site visit to complete the 40k hour maintenance.

GRATON COMMUNITY SERVICES DISTRICT

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See below latest follow-up email with charts from Steve Marquez at Cal Microturbine.

After further investigation and follow up from Capstone, I discovered that the major parts associated with the overhaul were replaced less than 20,000 operating hours ago as part of unscheduled incidents.

Here is a summary of what was replaced:

See below for the 40,000-hour overhaul items and comments.

Date	Hours	Primary work
7/30/2018	20,486	Diagnosed failed RFC
8/31/2018	20,486	Replaced RFC
4/22/2019	23,644	Installed new DPC with 3 new IGBT's. Found signs of failed Powerhead
5/15/2019	23,644	Replaced Powerhead and Recuperator



Photo of the Capstone Microturbine

Maintenance Interval	Component	Maintenance Action	Comments
Every 40,000 hours	EMI Filter	Replace	Order acknowledged but still not received. Awaiting lead time update from Capstone.
	Frame PM	Replace	Order acknowledged but still not received. Awaiting lead time update from Capstone.
	TET Thermocouple	Replace	Supplied with replacement Recuperator on 5/15/2019. Not due for scheduled maintenance replacement until 63,644 system hours
	Powerhead	Replace ⁴	Replaced on 5/15/2019. Not due for scheduled maintenance replacement until 63,644 System hours
	FB RFC Pump	Replace	Replaced on 8/31/2018 at 20,486 hours. Not due for scheduled maintenance until 60,486 hours
	SPV	Replace	This unit doesn't have an SPV so upgrade is Not Applicable



Lift Station #1 Backup Generator

The Lift Station #1 natural gas generator has been wired back into service and the diesel backup generator disconnected and returned to Cal West rental agency. An extra set of cables were installed in case of an event that a rental generator was needed in the future. A two-day run test performed on the generator and showed that the generator leaks and burns oil at a rate of about 2.5 quarts in 35hrs. Operators will monitor and check the fluid levels daily when on duty.



Irrigation Fields & Plant Grounds

Firescape Mulching and Mowing completed mowing of the 20 acers of irrigation fields and plant grounds and roadways. Operators began inspecting and testing each section of the irrigation system and making repairs to any damaged irrigation pipes or sprinklers.

