



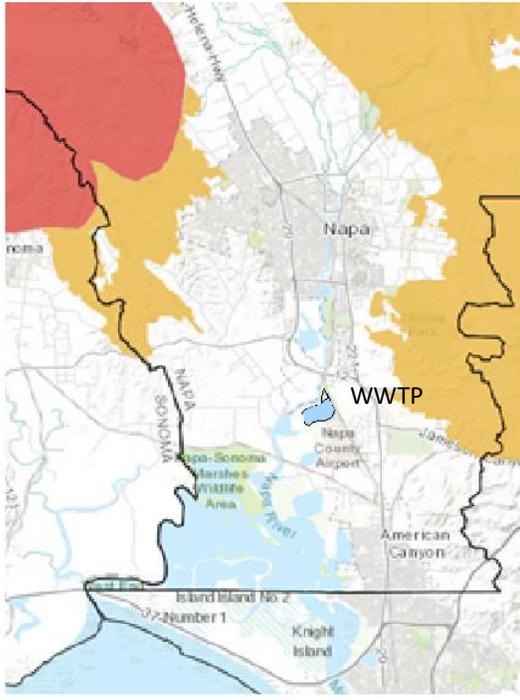
# PSPS Event Update

# Questions Answered

- 1) Who determines the Red Flag status?
  - The National Weather Service identifies red flag conditions.
  - PG&E determines where they will have power shutoffs.
  
- 2) Continue to request maintaining power for critical services.
  - PG&E Response 10/22

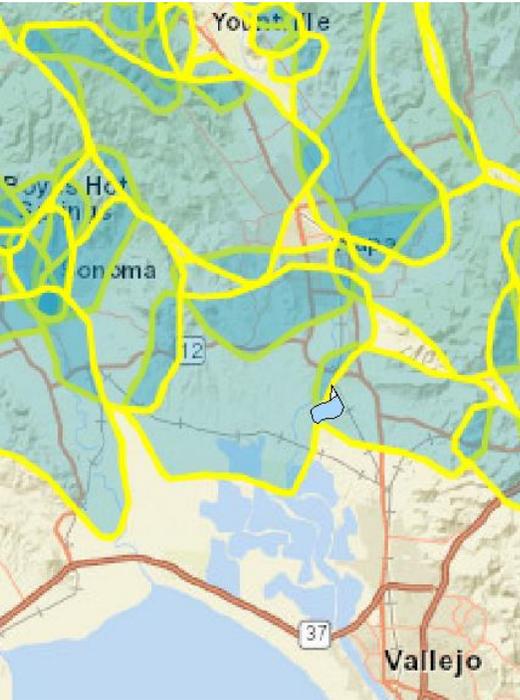
*“Unfortunately, no customer is exempt from PSPS; even hospitals, police and fire stations are affected by PSPS. We at PG&E do understand the critical nature of wastewater facilities and we will work with you to prioritize energization of your facilities after the PSPS event.”*

Original Potential PSPS Area Map



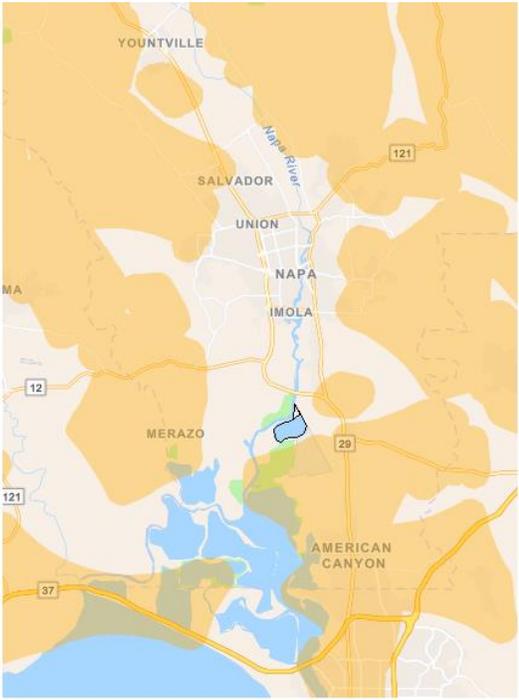
Powered	Facility	Stand-by Generator
Yes	Treatment Plant	Yes
Yes	W Napa PS	Yes
Yes	Silverado PS	Yes
Yes	Riverpark PS	Yes
Yes	Jameson Ranch Power	No
No	Jameson Booster PS	No
Yes	BPS-1	No
Yes	N Napa PS	No

Potential PSPS Area Map Oct. 9 & 10 Event



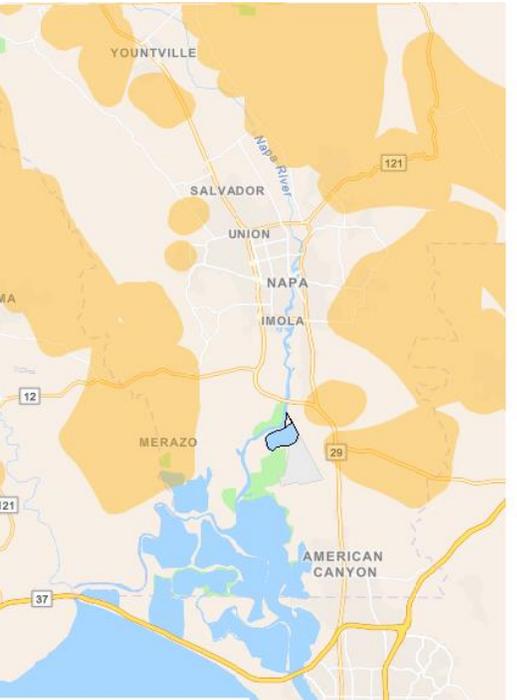
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No	Treatment Plant	Yes
No	W Napa PS	Yes
No	Silverado PS	Yes
No	Riverpark PS	Yes
No	Jameson Ranch Power	No
No	Jameson Booster PS	No
Yes	BPS-1	No
?	N Napa PS	No

Potential PSPS Area Map Oct. 26 & 27 Event



Powered	Facility	Stand-by Generator
Yes	Treatment Plant	Yes
Yes	W Napa PS	Yes
No	Silverado PS	Yes
Yes	Riverpark PS	Yes
Yes	Jameson Ranch Power	No
No	Jameson Booster PS	No
Yes	BPS-1	No
Yes	N Napa PS	No

Potential PSPS Area Map Oct. 29



Powered	Facility	Stand-by Generator
Yes	Treatment Plant	Yes
Yes	W Napa PS	Yes
Yes	Silverado PS	Yes
Yes	Riverpark PS	Yes
Yes	Jameson Ranch Power	No
No	Jameson Booster PS	No
Yes	BPS-1	No
Yes	N Napa PS	No

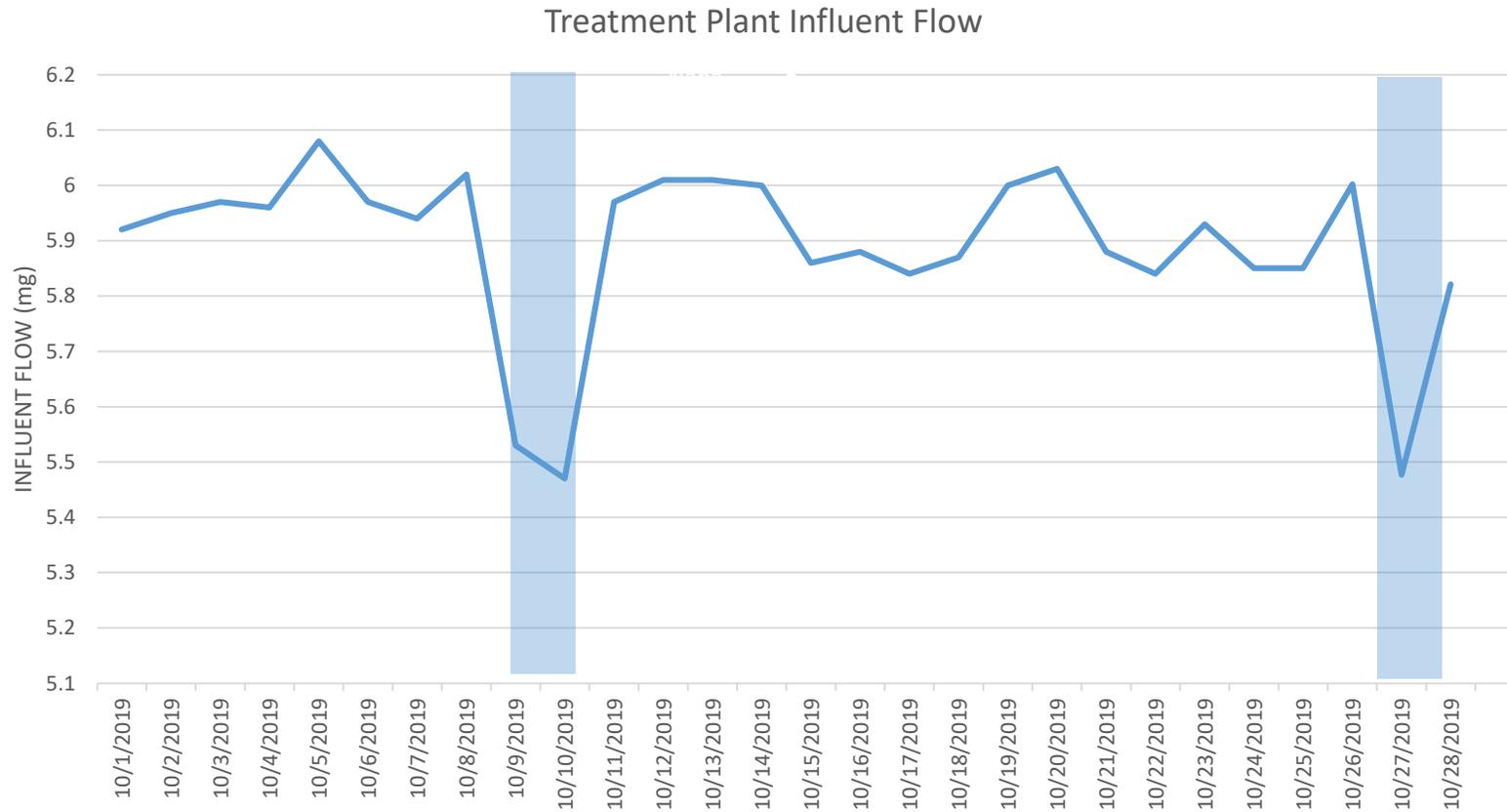
## PSPS Event Oct. 9 & 10

- Duration 42 Hours
- Impact on Service None
- Diesel Fuel Use 2,200 gallons
- Event Power Use 40,404 kW
- Emergency Generation 32,682 kW
- Cost to Purchase Power \$ 4,902 (\$0.15/kWh)
- Cost to Generate Power \$ 6,366 (\$0.20/kWh)

## PSPS Event Oct. 9 & 10

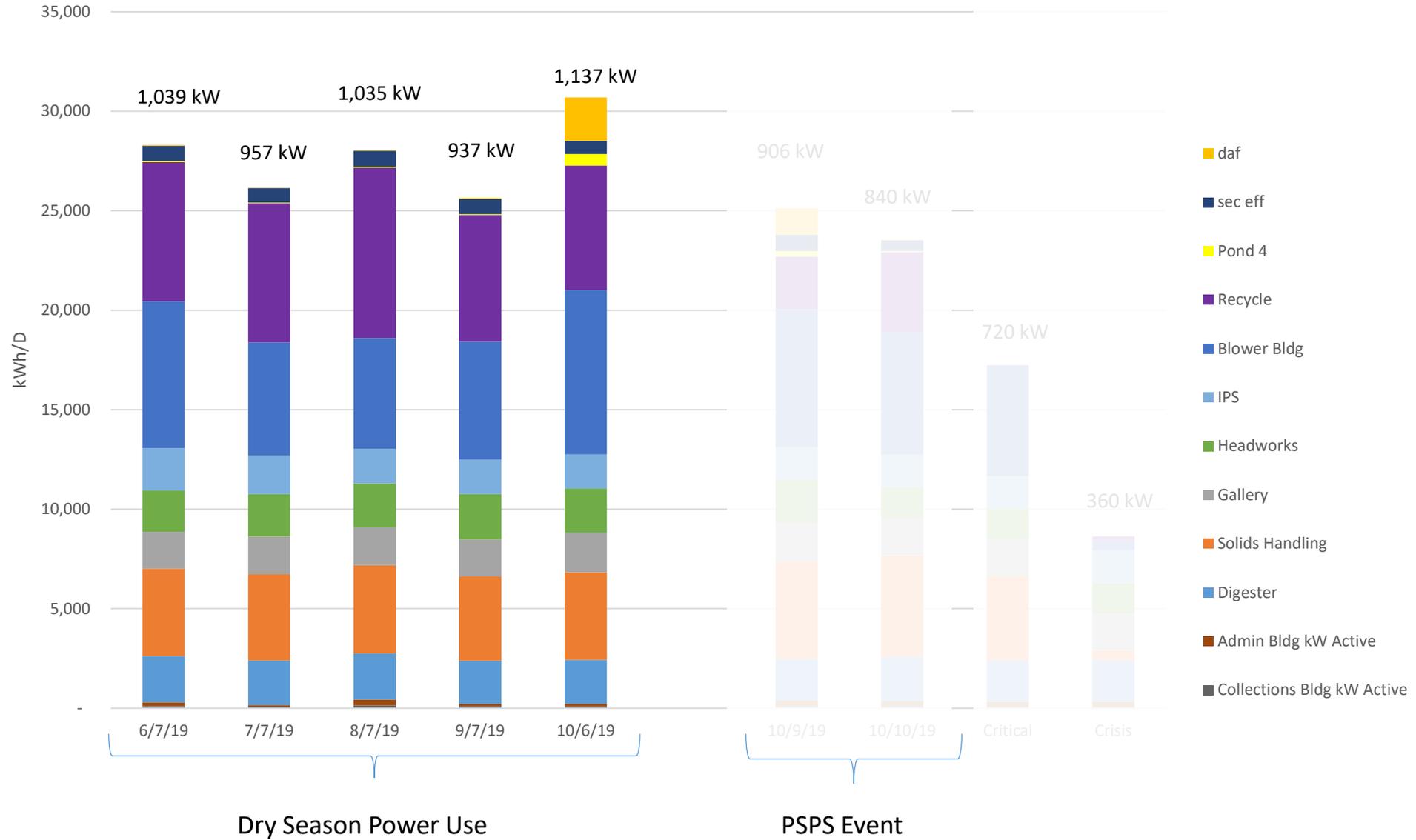
- District staff assembled status meetings at the start and end of each day (Jeff, Andrew, Jim, Stephanie and Bill).
- Bill would attend daily EOC meetings and share information at the status meetings.
- Status meetings would develop the District message that would be communicated by Stephanie.

# Outage Impact on Flow



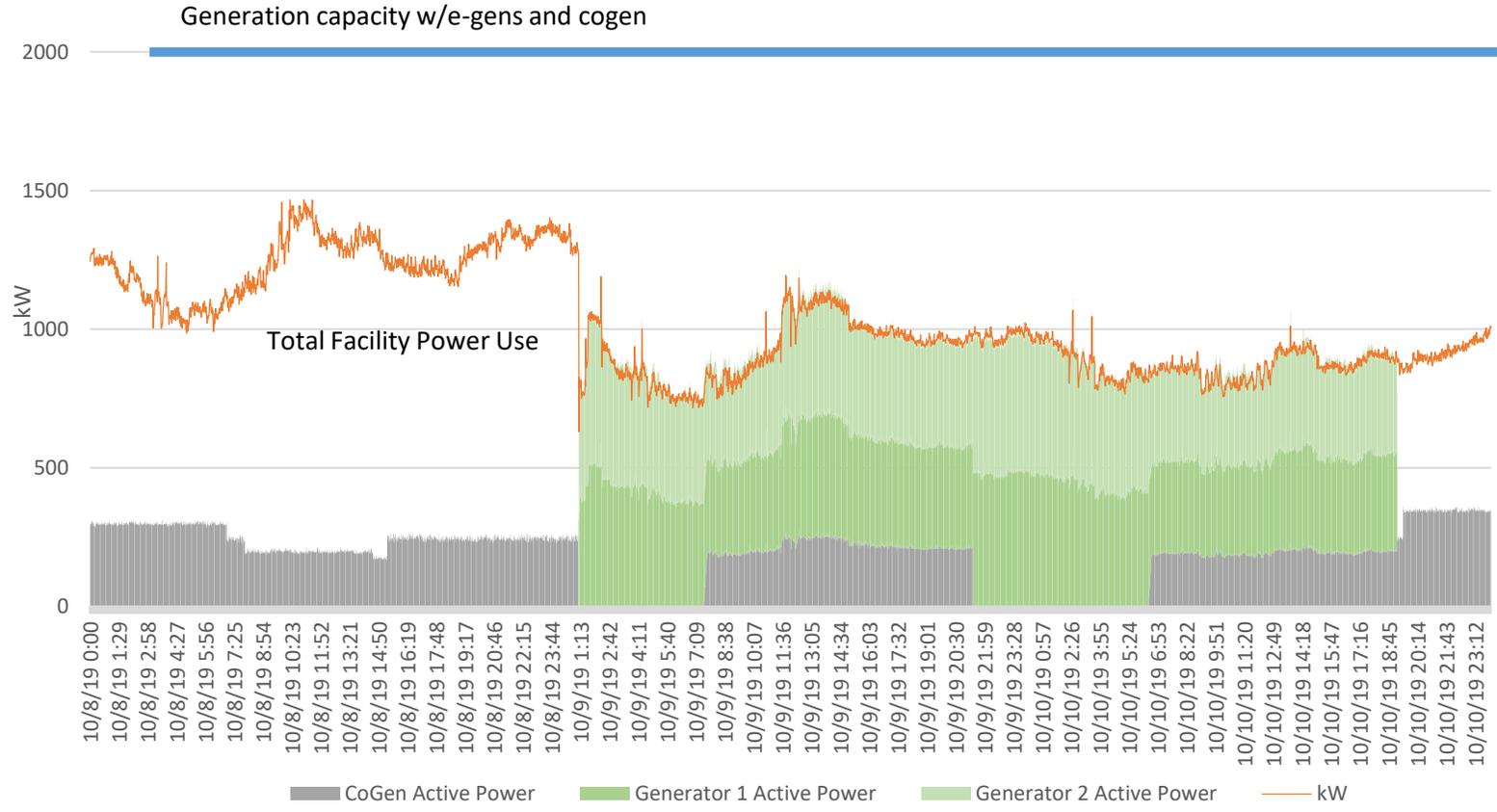


# Treatment Plant Power Distribution





# PSPS Event Generation



# Things Learned

- Always be prepared – Plans Change.
- Our level of service can be maintained when PG&E curtails theirs.
- NapaSan can maintain service levels using around 900kW of electricity. Critical services can be maintained around 720 kW.
- Total Generation capacity is 2,000 kW.
- Generating electricity with diesel fuel is more costly than purchasing from PG&E.
- Diesel fuel may be limited (rationed) while there is increased demand for it.
- Cogeneration can be operated in parallel with emergency generators reducing diesel fuel use.
- NapaSan's public communication should be done through one voice.
- Identify one individual for refueling diesel supply.

# Future Considerations

Look into running the cogeneration engine output at a constant rate using all available biogas (Load following with the emergency generators does not allow this).

Continue to evaluate means to increase biogas production (algae to digester, high strength waste markets)

Look into the practicality and cost to use a portion of the solar array and battery to provide supplemental power to reduce emergency generator use.

Continue to investigate new technologies that reduce electric generating cost and increase reliability in the event utility cannot provide power.



# Questions