



Winery Wastewater Update

Napa Sanitation District
Board of Directors Meeting
October 6, 2021



Strategic Plan – Goal 3D

NapaSan staff will continue to receive winery waste on a limited basis through alternative methods, such as directly into the day storage tank or digester, to study the impacts to treatment. Successful methods will be evaluated for applicability at a larger scale, while including analysis regarding service costs and the economic market. NapaSan staff will continue to monitor the need to accept winery waste beyond current levels.



Options for Wineries

- In NapaSan's service area, customers can connect to sewer system and discharge either untreated or pre-treated wastewater
- Truck wastewater to NapaSan
- Truck wastewater to EBMUD
- Truck wastewater to Napa Recycling



Wastewater Strengths

Waste Stream	Average BOD
Domestic Waste	300 mg/L
Winery Waste	7,000 mg/L
FOG	15,000+ mg/L

Winery waste is strong enough to overwhelm the aeration basins, but not as strong as FOG, which can be put in the digester to produce beneficial gas.



NapaSan Service Area

- Total wine facilities 51
- Discharging facilities 15 ~5m gal
- Hauling facilities 36 ~23m gal



Hauling Options

- NapaSan \$0.05 tipping fee
- Napa Recycling \$0.05 tipping fee
- East Bay MUD \$0.05 tipping fee

Hauling costs vary \$0.05 – 0.11

Assume \$0.07 to EBMUD



Truck to NapaSan

- Pilot program to test impacts/benefits of adding winery wastewater to NapaSan's day tank
- Pilot program transitioned to practice
 - 30,000 gal/wk (1.5m gal/yr)
 - \$0.05 per gal



Napa Recycling

- Napa Recycling is receiving
~300,000 gal/month (less in winter months)
 - ~ 3 million gal/year
- \$0.05 per gallon



Trucked Wastewater from NapaSan Service Area

	2021	Previous Est
Gal/year	23,000,000	10,000,000
Permitted facilities	36	25
Gal/working day	92,000	40,000
Trucks/working day	15	7



Discharge to NapaSan

- Pay capacity charges
- Pay SSC (cost of treatment)
- Sampling/testing costs
- pH adjustment system (local limits)



Case Study 1

- Small winery in corporate park in a leased space
- 250,000 gallons process wastewater (annually)
- <1 trucks/week
- \$32k per year NapaSan
- \$30k per year Hauling (\$0.12/gal)



Case Study 2

- Large winery in corporate park space with existing capacity
- 3,000,000 gallons process wastewater (annually)
- 10 trucks/week
- \$227k per year NapaSan
- \$360k per year Hauling (\$0.12/gal)



Winery WDR

- Existing wineries: 5 years to comply.
- Applicable to wineries with >10k gal process flow, that discharge to land.
- 4 requirement tiers with increasing requirements.
- Separation of domestic/process waste.



Future Steps

- Continue to monitor and evaluate winery waste volumes and coordinate with stakeholders.
- Haulers with existing capacity – encourage to discharge to collection system
- Evaluate in treatment capacity as part of Master Plan



Questions

- How many trucks is too many?
- How big does a solution need to be?
 - NapaSan service area only?
 - Napa County?
 - North Bay?
- Should NapaSan be part of the solution?
 - If so, how is the project funded?



Direction to Staff