



GOVERNOR'S
OFFICE OF ENERGY POLICY

Wastewater Energy Use Survey

CONTACT INFORMATION

Facility Name: _____

Facility Address: _____

Utility Company: _____

Utility Account #(s) _____

Name of Person Completing Survey: _____

Phone: _____ Email: _____

Number of wastewater treatment plants in utility: _____

Year Facility Built: _____

Facility Grade (provided by ADEQ): _____

PLANT CHARACTERISTICS:

1. What is the design flow rate? (million gallons per day – MGD) _____
2. What is the average flow rate? (million gallons per day – MGD) _____
3. What percentage of flow is from industrial users? (%) _____
4. What is the treatment level (check one)?
 - a. Primary
 - b. Advanced Primary
 - c. Secondary
 - d. Secondary with Nutrient Removal

Please provide a short description of the treatment process (i.e., extended aeration, SBRs, MBRs, packaged WWTP, sewage lagoon, etc.)

5. Please mark [yes] or [no] for each treatment process used at your plant.

Headworks

Lift Station at WWTF	[yes] [no]	If YES approximate ft of lift: _____
Grit Removal	[yes] [no]	
Screening Machine	[yes] [no]	

Sewage Lagoon

Aerated	[yes] [no]
Non-aerated	[yes] [no]

Activated Sludge – Aeration Method

Mechanical	[yes] [no]
Coarse Bubble	[yes] [no]
Fine Bubble	[yes] [no]
Pure Oxygen	[yes] [no]

Disinfection

Chemical	[yes] [no]
Ultraviolet (UV)	[yes] [no]

Sludge Treatment

Thickening	[yes] [no]
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Is automated dissolved oxygen control use
to modulate air flow in aeration? [yes] [no]

Dewatering

[yes] [no]

Fixed Film

Rotating Biological Contractor [yes] [no]
Trickling Filter [yes] [no]

Sludge Digestion

Aerobic [yes] [no]
Anerobic [yes] [no]

Nutrient Removal

Biological Nitrification [yes] [no]
Biological Denitrification [yes] [no]
Biological Phosphorus Removal [yes] [no]

Sludge Use

Composting [yes] [no]
Land Application [yes] [no]
Incineration [yes] [no]
Land Fill [yes] [no]
Other Beneficial Use [yes] [no]

Tertiary Treatment

Sand Filters [yes] [no]
Advanced Filters [yes] [no] Please describe _____

Reclaimed Water

To recharge basins [yes] [no]
Pumped for beneficial use [yes] [no]
Gravity Flow for beneficial use [yes] [no]
 HVAC Systems [yes] [no]
 Irrigation [yes] [no]
 Other (please explain) _____

PLANT LOADING:

- 6a. What was the average daily biosolids production in 2012? (dry tons per day) _____
- 6b. Does the plant send biosolids to another plant for processing? [yes] [no]
- 6c. Does the plant process biosolids from another plant? [yes] [no]
- 7. What were the average concentrations levels of conventional pollutants in 2012?

Concentration (mg/l)	Influent	Effluent
a. Average BOD		
b. Average COD		
c. Average TSS		

Energy Use (Please complete the following or sign and return the Utility Release Agreement)

- 8. Please attach monthly electric bills for the treatment plant in 2012.
- 9. Please provide monthly natural gas bills for 2012.
- 10. Total floor area of enclosed buildings served by above utilities. (square feet) _____

- 11a. Are any engine driven pumps or blowers used regularly? [yes] [no]
- 11b. What is the total engine horsepower? (hp) _____
- 11c. What is the engine fuel? biogas, natural gas, diesel, other: _____
- 12a. Do you purchase other energy? [yes] [no]
- 12b. Type of energy source? (propane, oil, etc) (specify) _____
- 12c. Amount of energy used? (specify units: _____) _____
- 12d. Energy cost? _____
- 13a. Is digester gas recovered? [yes] [no]
- 13b. how much biogas is recovered biogas is flared? _____
- 14a. Any on-site energy production? (solar, other) _____
- 14b. What is the annual on-site electricity production in 2012? (kWh) _____
15. Does someone in operations regularly (monthly/quarterly) review the utility bills? [yes] [no]
16. Were there any extraordinary events in 2011 or 2012 that impacted the energy use? [yes] [no]

17. PLEASE feel free to make any additional comments on utility energy use, plant loading or system characteristics.