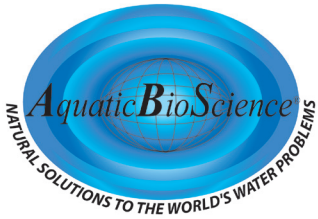


# Wastewater Treatment Fact Finder

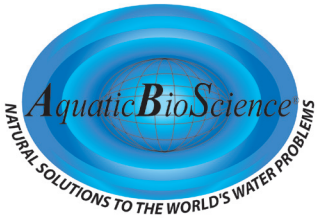
Facility Name: \_\_\_\_\_  
Facility Address: \_\_\_\_\_  
Contact Name: \_\_\_\_\_  
Contact Phone No: \_\_\_\_\_  
Contact email: \_\_\_\_\_

1. List all known materials that enter the waste stream or the source of the effluent:
2. If possible, ask for or create a flow diagram or sketch of the treatment facility: This may be one of the most important parts of the fact finder so please make as accurate as possible.
  - What are the lagoon, pond, basin or tank (LPBT) sizes or volumes at each step? Maximum and present value?
  - How many gallons of water per day flow into the system?
  - What is the retention time in each LPBT?
  - How are the sludge retention times determined and what are they? Are indicators used in this process?
3. Is there historical data from the facility that can be used to answer the following:
  - What is the BOD level in each LPBT?
  - What is the COD level in each LPBT?
  - What is the TSS and/or VSS level in LPBT?
  - What is the pH in each LPBT?
  - What are the Total Kjeldahl Nitrogen (TKN) and ammonia concentrations at each LPBT?
  - What is the total phosphorous and ortho-phosphate concentration at each LPBT?
  - Are any macronutrients (carbon, nitrogen, phosphorous) being added at any step in the process?



## Wastewater Treatment Fact Finder

- Are any micronutrients (vitamins, mineral, kelp, yeast) added at any step in the process? Are mineral analyses performed on waste samples?
  - Does the facility regularly test pH, BOD/COD, TKN, or other parameters? Is there any historical data that may be reviewed?
  - Does the facility perform regular biomass analyses (monitoring filamentous, rotifers, ciliates, etc;)? How do they determine sludge age, sludge volumes, and your Food/Mass ratios (F/M)? Are there any specific methods or formulas you are using?
  - Describe any flocculation analyses performed and areas of highest flocculation need.
4. Describe any biological or chemical product that is presently or was previously added to this process to reduce COD, BOD, pathogens or odors?
    - At what locations are these additions made, how often and dosage concentration?
  5. Are any biocides, disinfectants, algae control chemicals or sanitizers added at any step in the process upstream or within the process?
  6. Describe any odors that are coming from any step in the process?
  7. Does the facility use any method to numerically measure odors?
  8. Are the LPBT aerated? At which points in the process? (If anaerobic digesters or facultative lagoons please indicate).
  9. How are the LPBT aerated and what is the target O<sub>2</sub> in ppm?
  10. What is the normal temperature in each of the LPBT during the various seasons?



## Wastewater Treatment Fact Finder

11. Obtain the following information on the wastewater influent:

- BOD \_\_\_\_\_
- COD \_\_\_\_\_
- TSS \_\_\_\_\_
- pH \_\_\_\_\_
- NH<sub>3</sub> \_\_\_\_\_
- Phos \_\_\_\_\_

12. Obtain the following information on the wastewater effluent:

Current Levels

Target Levels

- |                   |       |       |
|-------------------|-------|-------|
| • BOD             | _____ | _____ |
| • COD             | _____ | _____ |
| • TSS             | _____ | _____ |
| • pH              | _____ | _____ |
| • NH <sub>3</sub> | _____ | _____ |
| • Phos            | _____ | _____ |
| • Other           | _____ | _____ |

13. Describe any fine/penalty or permit criteria the facility is dealing with. Examples include fines for over limit BOD, ammonia, nuisance odors or FOG. Describe how the fining system works (prorated or flat fine). What would you estimate the facility pays in fines per year due to overcapacity issues?

14. How much is this facility spending on methods to reduce fines or methods to solve other waste associated problems (i.e. fat removal): Does this amount include odor control equipment/chemicals, biocides/disinfectants? Please estimate labor costs related to the present methods of dealing with problems.

15. Are there problems with settling? Are flocculants used and at what locations?

16. What would you say are the top 3 problems the facility is dealing with? (What keeps you up at night?)