

# WASTE QUESTIONNAIRE

Why a Questionnaire? Each waste water facility has its own variable characteristics. Therefore, we cannot establish a universal application for biological additives. This form was developed for your convenience to provide us with specific data.

**Accurate and Complete** information is essential for us to provide a custom recommendation for your use that will produce the positive results that justify the effort.

We wish to thank each of you that cooperate in providing us with this information. Please fill in each category on the form that applies to your facilities.

FACILITY NAME \_\_\_\_\_ DESIGN \_\_\_\_\_ M.G.D.

ADDRESS \_\_\_\_\_ CURRENT NORMAL FLOW \_\_\_\_\_

\_\_\_\_\_ PRESENT CONVERSION FACTOR \_\_\_\_\_

Phone No. \_\_\_\_\_

Preparer'(s) Name (Please Print) \_\_\_\_\_ Title \_\_\_\_\_

Preparer'(s) Signature \_\_\_\_\_

Preparer'(s) Name (Please Print) \_\_\_\_\_ Title \_\_\_\_\_

Preparer'(s) Signature \_\_\_\_\_

For what purpose is **Waste-Go** being considered? \_\_\_\_\_

## WASTE-WATER QUALITY

	Influent	Effluent		Influent	Effluent
			Suspended Solids*	_____ mg/L	_____ mg/L
pH	_____	_____	% volatile of SS	_____	_____
B O D	_____ mg/L	_____ mg/L	Grease, Oils & Fats	_____ mg/L	_____ mg/L
Turbidity	_____	_____	Conductivity Reading	_____	_____

If you have industrial or toxic waste, please list name(s) and amounts if known.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\*What % of influent is dissolved solids \_\_\_\_\_

What % of influent is particulate solids \_\_\_\_\_

## TYPE OF SYSTEM AND/OR COMPONENTS

If you have a plant drawing, please send a copy or hand drawn sketch showing the components and **flow pattern**.

- |   |                                |                             |
|---|--------------------------------|-----------------------------|
| _____ Activated Sludge                  | _____ Final Clarifier(s)       | _____ Primary Clarifiers(s) |
| _____ Aerobic Digester(s)               | _____ Force Main Relief Valves | _____ R B C Units           |
| _____ Air Flotation                     | _____ Imhoff Tank(s)           | _____ Spirogester           |
| _____ Anaerobic Bio-Film Reactor(s)     | _____ Inverted Siphon(s)       | _____ Thickener(s)          |
| _____ Anaerobic Digester                | _____ Lagoon(s)                | _____ Trickling Filter(s)   |
| _____ Bio-Tower Filter(s)               | _____ Oxidation Ditch(s)       | _____ Zimpro Process        |
| _____ Extended Aeration                 | _____ Package Plant(s)         |                             |
| _____ Other (please give details) _____ |                                |                             |



## AERATION BASINS

Volume 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_

	Excellent	Fair	Poor		Excellent	Fair	Poor
Mixed liquor settleability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operating consistency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface foam, scum bulking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Odor Level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D O Maintained \_\_\_\_\_ Sludge volume index \_\_\_\_\_

Mixed liquor suspended solids \_\_\_\_\_

If microscope is used, please list the approx. current % of microorganisms.

Amoeboids \_\_\_\_\_ Flagellates \_\_\_\_\_

Free Swimming Ciliates \_\_\_\_\_ Nematodes \_\_\_\_\_ Rotifers \_\_\_\_\_

Stalked Ciliates \_\_\_\_\_

## AEROBIC DIGESTERS

Volume 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_

Volume of Daily sludge feed to each 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_

% Volatile of sludge feed solids \_\_\_\_\_ % Total solids in sludge to digester \_\_\_\_\_

Where does supernatant go? \_\_\_\_\_

How often do you pump supernatant? \_\_\_\_\_

Foaming: Heavy \_\_\_\_\_ Light \_\_\_\_\_ None \_\_\_\_\_

If water is used to reduce surface foam, how many gals./day? \_\_\_\_\_

## AIR FLOTATION

Volume of basins 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_

Normal DO Reading \_\_\_\_\_

What % of solids are in influent? \_\_\_\_\_ effluent? \_\_\_\_\_

## ANAEROBIC DIGESTER(S)

Volume 1 \_\_\_\_\_ P or S 2 \_\_\_\_\_ P or S 3 \_\_\_\_\_ P or S 4 \_\_\_\_\_ P or S

Volume of daily sludge feed to each 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_

Retention time in Primary? \_\_\_\_\_ Secondary? \_\_\_\_\_

How many are Heated? \_\_\_\_\_ % Solids in sludge feed? \_\_\_\_\_

% Volatile of sludge feed solids \_\_\_\_\_ Temperature maintained \_\_\_\_\_ pH \_\_\_\_\_

Mixing: Mechanical \_\_\_\_\_ Gas \_\_\_\_\_ Both \_\_\_\_\_ Neither \_\_\_\_\_

What is used to adjust pH? \_\_\_\_\_ Alkalinity \_\_\_\_\_ Volatile Acids \_\_\_\_\_

Do these readings fluctuate or remain steady? \_\_\_\_\_

Does digester(s) have scum blanket \_\_\_\_\_ foaming \_\_\_\_\_

Digester Waste sludge odor: Offensive \_\_\_\_\_ some \_\_\_\_\_ none \_\_\_\_\_

How often do you supernate? \_\_\_\_\_ where does it go? \_\_\_\_\_

Is gas used \_\_\_\_\_ If yes, how \_\_\_\_\_

**ANAEROBIC DIGESTER(s) — continued**

Quality % Methane \_\_\_\_\_ % CO<sub>2</sub> \_\_\_\_\_ % Sulfide \_\_\_\_\_

Quantity \_\_\_\_\_ cf or m<sup>3</sup>/day; Steady \_\_\_\_\_

Would higher gas production be used? \_\_\_\_\_

**CLARIFIER(s) PRIMARY**

Volume 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_

Skimmed grease and scum: Disposed of off site \_\_\_\_\_ Pumped to digester \_\_\_\_\_

incinerated \_\_\_\_\_ other (please describe)? \_\_\_\_\_

**CLARIFIERS, FINAL**

Volume 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_

D O \_\_\_\_\_ SVI of return sludge \_\_\_\_\_ Scum and Grease present? \_\_\_\_\_

**EXTENDED AERATION**

Volume of basin(s) 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_

% Volatile of influent solids \_\_\_\_\_

D O Maintained \_\_\_\_\_

SVI \_\_\_\_\_

**IMHOFF TANK(s)**

Volume 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_

How often is sludge wasted? \_\_\_\_\_ What is pH of Wasted sludge? \_\_\_\_\_

**LAGOON(s)**

How many cells \_\_\_\_\_

If more than one, are cells in series or parallel \_\_\_\_\_

	CELL 1	CELL 2	CELL 3	CELL 4
Dimensions or surface acres	_____	_____	_____	_____
Depth	_____	_____	_____	_____
Aerated?	_____	_____	_____	_____
D O Level	_____	_____	_____	_____
Odor Level	_____	_____	_____	_____

If floating solids, please describe type, quantity and location. \_\_\_\_\_

Is there a sub-surface build up of solids? \_\_\_\_\_

**OXIDATION DITCH(s)**

\_\_\_\_\_ Single Cell Volume \_\_\_\_\_

\_\_\_\_\_ Double Cell Volume 1 \_\_\_\_\_ 2 \_\_\_\_\_

\_\_\_\_\_ Triple Cell Volume 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_

\_\_\_\_\_ Paddle aerators \_\_\_\_\_ perforated discs \_\_\_\_\_ other, describe \_\_\_\_\_

**OXIDATION DITCH (s) – continued**

	CELL 1	CELL 2	CELL 3		CELL 1	CELL 2	CELL 3
pH	_____	_____	_____	MLSS	_____	_____	_____
D O	_____	_____	_____	SVI	_____	_____	_____

How often is sludge wasted?

NOTE: Please fill in sections on clarifier and Digester if a part of system.

**PACKAGE PLANT(s)**

Mfgr. \_\_\_\_\_

Please fill in known data on the sections headed aeration basins, Final Clarifier and Digester if part of system.

Alternative: Describe system, size, whatever data is known, and list problems incurred.

**RBC UNITS**

Mfgr. \_\_\_\_\_ Age \_\_\_\_\_

\_\_\_\_\_ Electrically Driven \_\_\_\_\_ Gas Driven

Is design for BOD removal only, or also for nitrification? \_\_\_\_\_

How many cell basins? \_\_\_\_\_

Volume of each \_\_\_\_\_

Are all cells used simultaneously? \_\_\_\_\_

Number of stages per cell \_\_\_\_\_ water temp \_\_\_\_\_

Hydraulic loading rate \_\_\_\_\_ g pd/sq. ft.

When shaft weight approaches maximum, how is stripping accomplished \_\_\_\_\_

Do you have development of white bio-mass \_\_\_\_\_

If yes, is it on first stage only? \_\_\_\_\_

If designed for nitrification:

First stage D O \_\_\_\_\_ Last stage D O \_\_\_\_\_

Alkalinity in nitrifying stages \_\_\_\_\_ pH in nitrifying stages \_\_\_\_\_

What is SVI of clarifier influent \_\_\_\_\_

**SLUDGE DISPOSAL**

% Total solids in Waste Sludge \_\_\_\_\_

% Volatile \_\_\_\_\_

\_\_\_\_\_ Agri-land applications \_\_\_\_\_ Belt press \_\_\_\_\_ Centrifuge \_\_\_\_\_ Filter press \_\_\_\_\_ Incenerator

\_\_\_\_\_ Sludge drying beds \_\_\_\_\_ Sludge lagoon \_\_\_\_\_ Vacuum filter drying bed

\_\_\_\_\_ Other; please describe \_\_\_\_\_

No. of wet/dry loads of sludge transported \_\_\_\_\_ per \_\_\_\_\_ mth. qtr. yr.

Cost per load \$ \_\_\_\_\_

**SPIROGESTER(s)**

Please send what data is known, and desired improvement. How often is sludge wasted? \_\_\_\_\_

pH of wasted sludge \_\_\_\_\_ SVI of return sludge \_\_\_\_\_

**TRICKLING FILTER(s)/Bio-Tower Filters**

If more than one, are filters parallel  series

If there is recirculation show pattern, \_\_\_\_\_

**THICKENER(s)**

Volume; 1 \_\_\_\_\_ 2 \_\_\_\_\_

% Solids going in \_\_\_\_\_ % Solids Out \_\_\_\_\_

Thickened sludge goes to \_\_\_\_\_

SVI \_\_\_\_\_

Is air or fresh water added? \_\_\_\_\_

If yes, quantity \_\_\_\_\_ Method \_\_\_\_\_

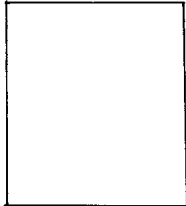
**ZIMPRO PROCESSOR**

BOD of processor decant \_\_\_\_\_

Please list desired change(s) and applicable information. \_\_\_\_\_

\_\_\_\_\_

**Any problem areas not covered in survey, please describe on separate sheet and attach.**



**Organic Waste Eliminator**



**WasteGo.ca | 866.286.5931**

