

**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

**Date:** 16 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-023

**Contact Name:** David Ball  
**Contact Phone:** 823-7554  
**CIP Proj. #:**  
**CIP Proj. Title:**  
**OR**  
**Operating Program Title:**

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	Complete this column only	
						NO. OF TESTS	FY 2000-01 COST
<b>General Chemistry and Nutrients</b>							
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50		\$ -
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70		\$ -
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$ -
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$ -
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30		\$ -
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$ -
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50		\$ -
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80		\$ -
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$ -
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00		\$ -
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$ -
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00		\$ -
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00		\$ -
Fluoride					\$ 18.00		\$ -
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00		\$ -
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$ -
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$ -
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$ -
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$ -
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00		\$ -
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$ -
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$ -
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$ -

**Complete  
this**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00		\$ -	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00		\$ -
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING		METHOD	FY 2000-01	<i>this</i>	FY 2000-01
		LIMIT (MRL)	UNITS		RATE	NO. OF TESTS	COST
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00		\$ -
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							\$ -

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.



### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00		\$ -
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -
Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)			

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

##### Hydrolab Monitoring (Rate per Site per Month)

(specify number of sites and the number of monitoring months for all sites combined)

Rate per Month	# of Sites	# of Months	FY 2000-01 COST
\$ 468.00			\$ -

#### SUBTOTAL FIELD OPERATIONS SERVICES

\$ -

#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


#### SUBTOTAL OTHER FIELD OPERATIONS SERVICES

\$ -

#### III. TOTAL FIELD OPERATIONS SERVICES

\$ -

#### TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

\$ -

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
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**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

**Date:** 16 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-023

**Contact Name:** David Ball  
**Contact Phone:** 823-7554  
**CIP Proj. #:**  
**CIP Proj. Title:**  
**OR**  
**Operating Program Title:** Toxicity Loading Study

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automatically calculate and sum totals. For assistance in identifying project requirements, contact the Investigation and Monitoring Services Section (IMS -- Duane Linnertz, ext. 7758).

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING		METHOD	FY 2000-01 RATE	NO. OF TESTS	FY 2000-01 COST
		LIMIT (MRL)	UNITS				
<i>Complete this column only</i>							
<b>General Chemistry and Nutrients</b>							
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50		\$ -
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70		\$ -
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$ -
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$ -
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30		\$ -
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$ -
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50		\$ -
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80	12	\$ 358
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$ -
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00	12	\$ 144
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$ -
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00		\$ -
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00		\$ -
Fluoride					\$ 18.00		\$ -
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00		\$ -
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$ -
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$ -
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$ -
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80	12	\$ 562
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00		\$ -
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$ -
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$ -
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$ -

*Complete this*

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00	12	\$ 216	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00	12	\$ 216	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00	12	\$ 1,272
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00		\$ -
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING		METHOD	FY 2000-01	<i>this</i>	FY 2000-01
		LIMIT (MRL)	UNITS		RATE	NO. OF TESTS	COST
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00		\$ -
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							<b>\$ 2,767</b>

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.





### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00	2	\$ 230
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -
Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)			

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

Hydrolab Monitoring (Rate per Site per Month)	Rate per Month	# of Sites	# of Months	FY 2000-01 COST
(specify number of sites and the number of monitoring months for all sites combined)	\$ 468.00			\$ -

<b>SUBTOTAL FIELD OPERATIONS SERVICES</b>	\$ 230
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#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


<b>SUBTOTAL OTHER FIELD OPERATIONS SERVICES</b>	\$ -
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<b>III. TOTAL FIELD OPERATIONS SERVICES</b>	\$ 230
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<b>TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES</b>	\$ 2,997
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1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

**Date:** 20 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-023

**Contact Name:** David Ball  
**Contact Phone:** 823-7554  
**CIP Proj. #:**  
**CIP Proj. Title:**  
OR  
**Operating Program Title:** Batch Discharge Monitoring

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	Complete this column only	
						NO. OF TESTS	FY 2000-01 COST
<b>General Chemistry and Nutrients</b>							
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50		\$ -
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70		\$ -
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$ -
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$ -
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30	20	\$ 766
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$ -
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50		\$ -
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80	20	\$ 596
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$ -
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00		\$ -
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$ -
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00		\$ -
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00	10	\$ 300
Fluoride					\$ 18.00		\$ -
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00		\$ -
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$ -
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$ -
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80	40	\$ 1,872
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80	20	\$ 936
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00	20	\$ 240
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$ -
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$ -
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$ -

Complete  
this

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00	20	\$ 360	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00	10	\$ 1,060
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00	10	\$ 300
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			FY 2000-01 RATE	<i>this</i>	FY 2000-01 COST
		LIMIT (MRL)	UNITS	METHOD		NO. OF TESTS	
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00	10	\$ 3,500
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00	10	\$ 1,850
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							<b>\$ 11,780</b>

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.



### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00		\$ -
Wastewater -- Grab samples	\$ 61.00	40	\$ 2,440
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -

Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

##### Hydrolab Monitoring (Rate per Site per Month)

(specify number of sites and the number of monitoring months for all sites combined)

Rate per Month	# of Sites	# of Months	FY 2000-01 COST
\$ 468.00			\$ -

#### SUBTOTAL FIELD OPERATIONS SERVICES

\$ 2,440

#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


#### SUBTOTAL OTHER FIELD OPERATIONS SERVICES

\$ -

#### III. TOTAL FIELD OPERATIONS SERVICES

\$ 2,440

#### TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

\$ 14,220

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

**City of Portland, Bureau of Environmental Services  
 FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK  
 FY 2000-01 Budget Worksheet  
 (Rates for services provided including Lab Analysis, Sampling,  
 Flow Monitoring and Hydrolab services)**

**Date:** 20 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-023

**Contact Name:** David Ball  
**Contact Phone:** 823-7554  
**CIP Proj. #:**  
**CIP Proj. Title:**  
**OR**  
**Operating Program Title:** ESSC Monitoring - IPJS

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	NO. OF TESTS	Complete this column only	
							FY 2000-01 COST	
<b>General Chemistry and Nutrients</b>								
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO <sub>3</sub> /L	SM 2320B	\$ 17.50		\$	-
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH <sub>3</sub> D	\$ 18.70		\$	-
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$	-
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$	-
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30	100	\$	3,830
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$	-
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$	-
Chlorophyll a	Water <sup>1</sup>	1	mg/M <sup>3</sup>	SM1002G	\$ 42.50		\$	-
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80	100	\$	2,980
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$	-
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00		\$	-
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$	-
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00		\$	-
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00		\$	-
Fluoride					\$ 18.00		\$	-
Hardness	Water <sup>1</sup>	1	mg/L as CaCO <sub>3</sub>	SM 2340 C	\$ 18.00		\$	-
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$	-
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$	-
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00		\$	-
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$	-
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$	-
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$	-

**Complete  
this**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
 2. Reporting limits will vary depending on specific sample matrix.



ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00	100	\$ 1,800	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00		\$ -
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING		METHOD	FY 2000-01 RATE	<i>this column only</i>	FY 2000-01 COST
		LIMIT (MRL)	UNITS			NO. OF TESTS	
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00		\$ -
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							<b>\$ 8,610</b>

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.



### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00	100	\$ 11,500
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -
Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)			

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

Hydrolab Monitoring (Rate per Site per Month)	Rate per Month	# of Sites	# of Months	FY 2000-01 COST
(specify number of sites and the number of monitoring months for all sites combined)	\$ 468.00			\$ -

<b>SUBTOTAL FIELD OPERATIONS SERVICES</b>	\$ 11,500
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#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


<b>SUBTOTAL OTHER FIELD OPERATIONS SERVICES</b>	\$ -
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<b>III. TOTAL FIELD OPERATIONS SERVICES</b>	\$ 11,500
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<b>TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES</b>	\$ 20,110
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1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

**Date:** 20 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-023

**Contact Name:** David Ball  
**Contact Phone:** 823-7554  
**CIP Proj. #:**  
**CIP Proj. Title:**  
**OR**  
**Operating Program Title:** ESSC Monitoring - POTW

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	NO. OF TESTS	Complete this column only	
							FY 2000-01 COST	
<b>General Chemistry and Nutrients</b>								
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50		\$	-
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70		\$	-
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$	-
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$	-
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30		\$	-
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$	-
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$	-
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50		\$	-
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80	732	\$	21,814
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$	-
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00		\$	-
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$	-
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00		\$	-
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00		\$	-
Fluoride					\$ 18.00		\$	-
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00		\$	-
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$	-
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$	-
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00		\$	-
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$	-
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$	-
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$	-

Complete  
this

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00		\$ -	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00		\$ -
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING	UNITS	METHOD	FY 2000-01	<i>this</i>	FY 2000-01
		LIMIT (MRL)			RATE	NO. OF TESTS	COST
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00		\$ -
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							<b>\$ 21,814</b>

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.





### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00		\$ -
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -
Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)			

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

##### Hydrolab Monitoring (Rate per Site per Month)

(specify number of sites and the number of monitoring months for all sites combined)

Rate per Month	# of Sites	# of Months	FY 2000-01 COST
\$ 468.00			\$ -

#### SUBTOTAL FIELD OPERATIONS SERVICES

\$ -

#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


#### SUBTOTAL OTHER FIELD OPERATIONS SERVICES

\$ -

#### III. TOTAL FIELD OPERATIONS SERVICES

\$ -

#### TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

\$ 21,814

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

**Date:** 20 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-023

**Contact Name:** David Ball  
**Contact Phone:** 823-7554  
**CIP Proj. #:**  
**CIP Proj. Title:**  
**OR**  
**Operating Program Title:** ESSC Rate Appeals

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	NO. OF TESTS	Complete this column only	
							FY 2000-01 RATE	FY 2000-01 COST
<b>General Chemistry and Nutrients</b>								
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50		\$	-
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70		\$	-
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$	-
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$	-
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30	100	\$	3,830
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$	-
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$	-
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50		\$	-
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80	100	\$	2,980
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$	-
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00		\$	-
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$	-
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00		\$	-
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00		\$	-
Fluoride					\$ 18.00		\$	-
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00		\$	-
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$	-
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$	-
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00		\$	-
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$	-
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$	-
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$	-

*Complete  
this*

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00	100	\$ 1,800	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00		\$ -
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING	UNITS	METHOD	FY 2000-01	<i>this</i>	FY 2000-01
		LIMIT (MRL)			RATE	NO. OF TESTS	COST
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00		\$ -
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							<b>\$ 8,610</b>

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.



### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00	100	\$ 11,500
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -
Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)			

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

Hydrolab Monitoring (Rate per Site per Month)	Rate per Month	# of Sites	# of Months	FY 2000-01 COST
(specify number of sites and the number of monitoring months for all sites combined)	\$ 468.00			\$ -

<b>SUBTOTAL FIELD OPERATIONS SERVICES</b>	\$ 11,500
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#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


<b>SUBTOTAL OTHER FIELD OPERATIONS SERVICES</b>	\$ -
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<b>III. TOTAL FIELD OPERATIONS SERVICES</b>	\$ 11,500
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<b>TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES</b>	\$ 20,110
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1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

**Date:** 20 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-023

**Contact Name:** David Ball  
**Contact Phone:** 823-7554  
**CIP Proj. #:**  
**CIP Proj. Title:**  
OR  
**Operating Program Title:** ESSC Rate Investigations

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	NO. OF TESTS	Complete this column only	
							FY 2000-01 COST	FY 2000-01 COST
<b>General Chemistry and Nutrients</b>								
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50		\$	-
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70		\$	-
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$	-
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$	-
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30	56	\$	2,145
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$	-
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$	-
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50		\$	-
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80	56	\$	1,669
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$	-
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00		\$	-
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$	-
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00		\$	-
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00		\$	-
Fluoride					\$ 18.00		\$	-
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00		\$	-
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$	-
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$	-
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00		\$	-
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$	-
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$	-
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$	-

Complete  
this

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00	56	\$ 1,008	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00		\$ -
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.



ANALYSIS	MATRIX	REPORTING		METHOD	FY 2000-01	<i>this</i>	FY 2000-01
		LIMIT (MRL)	UNITS		RATE	NO. OF TESTS	COST
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00		\$ -
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							<b>\$ 4,822</b>

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.



### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00	56	\$ 6,440
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -

Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

Hydrolab Monitoring (Rate per Site per Month)	Rate per Month	# of Sites	# of Months	FY 2000-01 COST
(specify number of sites and the number of monitoring months for all sites combined)	\$ 468.00			\$ -

<b>SUBTOTAL FIELD OPERATIONS SERVICES</b>	\$ 6,440
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#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


<b>SUBTOTAL OTHER FIELD OPERATIONS SERVICES</b>	\$ -
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<b>III. TOTAL FIELD OPERATIONS SERVICES</b>	\$ 6,440
---------------------------------------------	----------

<b>TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES</b>	\$ 11,262
--------------------------------------------------------	-----------

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

**Date:** 20 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-023

**Contact Name:** David Ball  
**Contact Phone:** 823-7554  
**CIP Proj. #:**  
**CIP Proj. Title:**  
OR  
**Operating Program Title:** WPCL QA/QC Verification

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	Complete this column only	
						NO. OF TESTS	FY 2000-01 COST
<b>General Chemistry and Nutrients</b>							
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50		\$ -
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70		\$ -
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$ -
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$ -
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30		\$ -
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$ -
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50		\$ -
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80		\$ -
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$ -
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00		\$ -
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$ -
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00		\$ -
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00		\$ -
Fluoride					\$ 18.00		\$ -
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00		\$ -
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$ -
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$ -
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$ -
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$ -
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00		\$ -
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$ -
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$ -
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$ -

Complete  
this

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00		\$ -	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00	2	\$ 212
per additional element					\$ 10.00	12	\$ 120
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00		\$ -
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING		METHOD	FY 2000-01 RATE	<i>this</i> column only	FY 2000-01 COST
		LIMIT (MRL)	UNITS			NO. OF TESTS	
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00	2	\$ 700
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00	2	\$ 370
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00		\$ -
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							<b>\$ 1,402</b>

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.



### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00		\$ -
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -
Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)			

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

Hydrolab Monitoring (Rate per Site per Month)	Rate per Month	# of Sites	# of Months	FY 2000-01 COST
(specify number of sites and the number of monitoring months for all sites combined)	\$ 468.00			\$ -

<b>SUBTOTAL FIELD OPERATIONS SERVICES</b>	\$ -
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#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


<b>SUBTOTAL OTHER FIELD OPERATIONS SERVICES</b>	\$ -
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<b>III. TOTAL FIELD OPERATIONS SERVICES</b>	\$ -
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<b>TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES</b>	\$ 1,402
--------------------------------------------------------	----------

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.



**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

**Date:** 29 December 1999  
**Requesting Division (Org):** M12  
**Group:** Ind & Solid Waste  
**Center Code:** 145-12-022

**Contact Name:** Miguel Santana  
**Contact Phone:** 823-7568  
**CIP Proj. #:**  
**CIP Proj. Title:**  
OR  
**Operating Program Title:** Columbia Blvd. NPDES Monitoring

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	NO. OF TESTS	Complete this column only	
							FY 2000-01 COST	
<b>General Chemistry and Nutrients</b>								
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50		\$	-
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70		\$	-
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70		\$	-
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70		\$	-
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30		\$	-
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$	-
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00		\$	-
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50		\$	-
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80		\$	-
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70		\$	-
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00		\$	-
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80		\$	-
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00	124	\$	4,960
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00		\$	-
Fluoride					\$ 18.00		\$	-
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00		\$	-
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00		\$	-
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00		\$	-
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80		\$	-
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00		\$	-
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00		\$	-
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70		\$	-
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80		\$	-

Complete  
this

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00		\$ -	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00	12	\$ 1,272
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00	208	\$ 2,080
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00	112	\$ 11,872
per additional element					\$ 10.00	208	\$ 2,080
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00	112	\$ 3,360
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00	12	\$ 360
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING	UNITS	METHOD	FY 2000-01	<i>this</i>	FY 2000-01
		LIMIT (MRL)			RATE	NO. OF TESTS	COST
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00	28	\$ 9,800
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00	28	\$ 5,180
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							<b>\$ 40,964</b>

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

Complete  
this  
column only  
FY 2000-01  
COST

## II. OUTSIDE LAB SERVICES

Must Be Approved By Environmental Investigation Division and Lab Services Review Committee.

Description	
	\$ 13,612
<b>II. TOTAL OUTSIDE LAB WORK</b>	\$ 13,612

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00		\$ -
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -
Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)			

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

Hydrolab Monitoring (Rate per Site per Month)	Rate per Month	# of Sites	# of Months	FY 2000-01 COST
(specify number of sites and the number of monitoring months for all sites combined)	\$ 468.00			\$ -

<b>SUBTOTAL FIELD OPERATIONS SERVICES</b>	\$ -
-------------------------------------------	------

#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


<b>SUBTOTAL OTHER FIELD OPERATIONS SERVICES</b>	\$ -
-------------------------------------------------	------

<b>III. TOTAL FIELD OPERATIONS SERVICES</b>	\$ -
---------------------------------------------	------

<b>TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES</b>	\$ 54,576
--------------------------------------------------------	-----------

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

**City of Portland, Bureau of Environmental Services**  
**FY 2000-01 WPCL LAB AND FIELD OPERATIONS BODY OF WORK**  
**FY 2000-01 Budget Worksheet**  
(Rates for services provided including Lab Analysis, Sampling,  
Flow Monitoring and Hydrolab services)

<b>Date:</b>	<input type="text"/>	<b>Contact Name:</b>	<input type="text"/>
<b>Requesting Division (Org):</b>	<input type="text"/>	<b>Contact Phone:</b>	<input type="text"/>
<b>Group:</b>	<input type="text"/>	<b>CIP Proj. #:</b>	<input type="text"/>
<b>Center Code:</b>	<input type="text"/>	<b>CIP Proj. Title:</b>	<input type="text"/>
		<b>OR</b>	<input type="text"/>
		<b>Operating Program Title:</b>	<input type="text"/>

Use this worksheet to calculate FY 2000-01 budget costs for Lab and Field Operations services. Field analyses are included in the basic rates for Field Operations. Enter workload needs in column for number of tests or services. Worksheet will automati

**DO NOT ALTER THIS SHEET BY ADDING OR DELETING COLUMNS OR ROWS**

**I. WATER POLLUTION CONTROL LAB SERVICES**

ANALYSIS	MATRIX	REPORTING LIMIT (MRL)	UNITS	METHOD	FY 2000-01 RATE	Complete this column only	
						NO. OF TESTS	FY 2000-01 COST
<b>General Chemistry and Nutrients</b>							
Alkalinity	Water <sup>1</sup>	0.5	mg CaCO3/L	SM 2320B	\$ 17.50	<input type="text"/>	\$ -
Ammonia-Nitrogen (high-level)	Water <sup>1</sup>	1	mg/L	SM4500-NH3 D	\$ 18.70	<input type="text"/>	\$ -
Ammonia-Nitrogen (low-level)	Water <sup>1</sup>	0.02	mg/L	EPA 350.1	\$ 18.70	<input type="text"/>	\$ -
Anions	Water <sup>1</sup>	0.1 - 10	mg/L	EPA 300.0	\$ 90.70	<input type="text"/>	\$ -
BOD, 5-day	Water <sup>1</sup>	2	mg/L	SM 5210B	\$ 38.30	<input type="text"/>	\$ -
Chloride	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00	<input type="text"/>	\$ -
Chlorine, Residual	Water <sup>1</sup>	0.01	mg/L	SM 4500-CL D	\$ 18.00	<input type="text"/>	\$ -
Chlorophyll a	Water <sup>1</sup>	1	mg/M3	SM1002G	\$ 42.50	<input type="text"/>	\$ -
COD	Water <sup>1</sup>	1	mg/L	SM 5220 D	\$ 29.80	<input type="text"/>	\$ -
Color	Water <sup>1</sup>	5	Color Units	SM 2120 B	\$ 18.70	<input type="text"/>	\$ -
Conductivity	Water <sup>1</sup>	1	umhos/cm	SM 2510B	\$ 12.00	<input type="text"/>	\$ -
Cyanide, Amenable	Water <sup>1</sup>	0.05	mg/L	SM 4500CN-HK	\$ 42.80	<input type="text"/>	\$ -
Cyanide, Total	Water <sup>1</sup>	0.01	mg/L	SM 4500-CN C	\$ 40.00	<input type="text"/>	\$ -
Flash Point, Closed Cup	Water <sup>1</sup>	NA	Deg. F	ASTM D93-66	\$ 30.00	<input type="text"/>	\$ -
Fluoride					\$ 18.00	<input type="text"/>	\$ -
Hardness	Water <sup>1</sup>	1	mg/L as CaCO3	SM 2340 C	\$ 18.00	<input type="text"/>	\$ -
Nitrate-Nitrogen	Water <sup>1</sup>	0.1	mg/L	EPA 300.0	\$ 18.00	<input type="text"/>	\$ -
Nitrite-Nitrogen	Water <sup>1</sup>	0.01	mg/L	EPA 353.2	\$ 18.00	<input type="text"/>	\$ -
Oil & Grease, Total	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 46.80	<input type="text"/>	\$ -
Oil & Grease, Polar (includes Total and Non-Polar)	Water <sup>1</sup>	5	mg/L	EPA 1664	\$ 55.00	<input type="text"/>	\$ -
pH	Water <sup>1</sup>	0.1	pH units	SM 4500-H+B	\$ 12.00	<input type="text"/>	\$ -
pH	Soil/Sludge	0.1	pH units	EPA 9045B	\$ 12.00	<input type="text"/>	\$ -
Phosphorus, ortho-Phosphate	Water <sup>1</sup>	0.02	mg/L	EPA 365.2	\$ 18.70	<input type="text"/>	\$ -
Phosphorus, Total	Water <sup>1</sup>	0.03	mg/L	EPA 365.1	\$ 29.80	<input type="text"/>	\$ -

*Complete  
this*

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING			METHOD	FY 2000-01	column only	FY 2000-01
		LIMIT (MRL)	UNITS	RATE		NO. OF TESTS	COST	
Solids, Dissolved	Water <sup>1</sup>	1	mg/L	SM 2540C	\$ 18.00		\$ -	
Solids, Fixed	Water <sup>1</sup>	1	mg/L	SM 2540 E	\$ 18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$ 18.00		\$ -	
Solids, Mass Suspended	Water <sup>1</sup>	1	mg	EPA 160.1	\$ 18.00		\$ -	
Solids, Total	Water <sup>1</sup>	1	mg/L	SM 2540B	\$ 18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$ 18.00		\$ -	
Solids, Total Suspended	Water <sup>1</sup>	1	mg/L	SM 2540D	\$ 18.00		\$ -	
Solids, Volatile	Water <sup>1</sup>	1	mg/L	SM 2540E	\$ 18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$ 18.00		\$ -	
Solids, Volatile Suspended	Water <sup>1</sup>	10	mg/L	SM 2540 E	\$ 18.00		\$ -	
Sulfate	Water <sup>1</sup>	1	mg/L	EPA 300.0	\$ 18.00		\$ -	
Sulfide	Water <sup>1</sup>	0.1	mg/L	SM 4500-S D	\$ 21.30		\$ -	
Surfactants, MBAS	Water <sup>1</sup>	0.01	mg/L	SM 5540 C	\$ 44.20		\$ -	
TKN	Water <sup>1</sup>	0.2	mg/L	EPA 351.2	\$ 34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$ 34.00		\$ -	
Turbidity	Water <sup>1</sup>	1	NTU	SM 2130 B	\$ 18.00		\$ -	
Volatile Acids	Water <sup>1</sup>	1	mg/L as acetate	SM 5560	\$ 36.40		\$ -	

**Metals** (Prices are on a per sample basis for 1-6 elements, plus \$10 for each additional element over 6. Prices include digestion.)

(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)

Total Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements	Surface water / groundwater	0.0001 - 0.005	mg/L	EPA 200.8	\$ 128.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Water <sup>1</sup>	0.02 - 0.7	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Total Metals by ICP (high level), per sample for up to 6 elements	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$ 106.00		\$ -
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$ 10.00		\$ -
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Zn)							
Total Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element					\$ 10.00		\$ -
Dissolved Metals by ICP (low level), per sample for up to 6 elements	Water <sup>1</sup>	0.003 - 0.1	mg/L	EPA 200.7	\$ 106.00		\$ -
per additional element	Water <sup>1</sup>		mg/L	EPA 200.7	\$ 10.00		\$ -
Total Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 30.00		\$ -
Total Mercury	Soil/Sludge	0.1	mg/Kg	SW 846 7471A	\$ 30.00		\$ -
Dissolved Mercury	Water <sup>1</sup>	0.0002	mg/L	EPA 245.1	\$ 40.00		\$ -

**Complete**

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	REPORTING	UNITS	METHOD	FY 2000-01	<i>this</i>	FY 2000-01
		LIMIT (MRL)			RATE	NO. OF TESTS	COST
<b>Microbiology</b>							
Fecal Coliform Bacteria by MF	Water <sup>1</sup>	2	CFU/100 ml	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MF	Soil/Sludge	20	CFU/gram	SM 9222D	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Water <sup>1</sup>	2	MPN/100 ml	SM 9221E	\$ 25.50		\$ -
Fecal Coliform Bacteria by MPN	Soil/Sludge	200	MPN/gram	SM 9221E	\$ 25.50		\$ -
E. coli	Water <sup>1</sup>	2	CFU/100 ml	EPA 1103	\$ 25.50		\$ -
Total Coliform Bacteria	Water <sup>1</sup>	2	CFU/100 ml	SM 9222B	\$ 25.50		\$ -
Enterococcus	Water <sup>1</sup>	2	CFU/100 ml	SM 9230C	\$ 25.50		\$ -
<b>Organics</b>							
Semi-Volatile Organics by EPA 625	Surface water / groundwater						
Base/Neutrals/Acids		0.005 - 0.050	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.005 - 0.050	mg/L	EPA 625	\$ 175.00		\$ -
Semi-Volatile Organics by EPA 625	Wastewater /stormwater/municipal waste						
Base/Neutrals/Acids		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 350.00		\$ -
Base/Neutrals only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Acidics only		0.025 - 1.0 <sup>2</sup>	mg/L	EPA 625	\$ 175.00		\$ -
Volatile Organics by EPA 624	Surface water / groundwater						
		0.001 - 0.050	mg/L	EPA 624	\$ 185.00		\$ -
	Wastewater /stormwater/municipal waste						
		0.01 - 1.0 <sup>2</sup>	mg/L	EPA 624	\$ 185.00		\$ -
Pesticides by EPA 8080, semi-quantitative	Water <sup>1</sup>	0.1 - 50 <sup>2</sup>	ug/L	EPA 8080	\$ 135.00		\$ -
NWTPH-HCID	Water/Soil	0.001	mg/L	NW TPH	\$ 51.00		\$ -
NWTPH-DX	Water/Soil	0.001	mg/L	NW TPH	\$ 81.00		\$ -
NWTPH-GX	Water/Soil	0.001	mg/L	NW TPH	\$ 64.00		\$ -
Quant. Hits					\$ 38.00		\$ -
<b>I. TOTAL WPCL LAB WORK</b>							\$ -

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.  
2. Reporting limits will vary depending on specific sample matrix.





### III. FIELD OPERATIONS SERVICES

Specify FY 2000-01 Sampling, Flow Monitoring and Hydrolab requirements. Field analyses are included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS -- Duane Linnertz ext. 7758) for further assistance.

Complete this column only

#### Sampling Matrix:

	FY 2000-01 RATE	NO. OF SAMPLES	FY 2000-01 COST
Surface Water	\$ 52.00		\$ -
Groundwater	\$ 182.00		\$ -
Level Readings	\$ 47.00		\$ -
Wastewater -- Composite samples	\$ 115.00	-	\$ -
Wastewater -- Grab samples	\$ 61.00		\$ -
Biosolids	\$ 40.00		\$ -
Soils and Sediments	\$ 156.00		\$ -
Gas	\$ 33.00		\$ -
Stormwater & Municipal Wastewater			
Composite samples (Per Sample -- for up to 5 hrs of labor)	\$ 272.00		\$ -
Grab samples (Per Sample -- for up to 5 hrs of labor)	\$ 155.00		\$ -
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):	\$ 29.00		\$ -
Enter additional labor hours. (Contact IMS for assistance in estimating labor requirements.)			

#### Flow and Hydrolab Monitoring:

##### Flow Monitoring

	(specify number of site installations)	FY 2000-01 Rate	Complete this column only Number	FY 2000-01 COST
Installation		\$ 445.00		\$ -
Removal		\$ 230.00		\$ -
Data upload		\$ 156.00		\$ -
Monthly charge		\$ 300.00		\$ -

##### Hydrolab Monitoring (Rate per Site per Month)

(specify number of sites and the number of monitoring months for all sites combined)

Rate per Month	# of Sites	# of Months	FY 2000-01 COST
\$ 468.00			\$ -

#### SUBTOTAL FIELD OPERATIONS SERVICES

\$ -

#### OTHER SAMPLING AND MONITORING SERVICES

Scope of work to be determined in conjunction with IMS. Contact Duane Linnertz ext. 7758 for further assistance.

Field Operations Services - Rate for First Hour/Per Employee	\$ 39.00
Rate for Each Additional Hour/Per Employee	\$ 26.00

Description (Calculate \$ amount by adding first hour rate (\$39.00 and each additional hour rate of \$26.00 times number of estimated additional hours)

Complete this column only


#### SUBTOTAL OTHER FIELD OPERATIONS SERVICES

\$ -

#### III. TOTAL FIELD OPERATIONS SERVICES

\$ -

#### TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

\$ -

1. Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.
2. Reporting limits will vary depending on specific sample matrix.