(Rates for services provided including Lab Analysis, Sampling, Flow Monitoring and Hydrolab services)

Date:	16 December 1999	Contact Name:	David Ball
Requesting Division (Org):	M12	Contact Phone:	823-7554
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-023	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

this column only REPORTING FY 2000-01 NO. OF FY 2000-01 **ANALYSIS MATRIX** LIMIT (MRL) UNITS **METHOD RATE TESTS** COST **General Chemistry and Nutrients** Water1 0.5 mg CaCO3/L SM 2320B \$ 17.50 \$ Alkalinity Ammonia-Nitrogen (high-level) Water1 1 mg/L SM4500-NH3 D \$ 18.70 \$ Water1 0.02 EPA 350.1 \$ 18.70 Ammonia-Nitrogen (low-level) mg/L \$ Water¹ 0.1 - 10EPA 300.0 \$ 90.70 Anions mg/L \$ Water¹ BOD, 5-day 2 mg/L SM 5210B \$ 38.30 \$ Water¹ 1 EPA 300.0 \$ 18.00 Chloride mg/L \$ Water1 0.01 Chlorine, Residual mg/L SM 4500-CL D \$ 18.00 \$ Chlorophyll a Water1 SM1002G \$ 42.50 \$ 1 mg/M3 Water COD 29.80 1 mg/L SM 5220 D \$ \$ Water 5 Color Units \$ Color SM 2120 B \$ 18.70 Water² Conductivity 1 umhos/cm SM 2510B \$ 12.00 \$ Cyanide, Amenable Water1 0.05 SM 4500CN-HK 42.80 \$ mg/L \$ Cyanide, Total Water1 0.01 SM 4500-CN C \$ 40.00 \$ ma/L Flash Point, Closed Cup Water1 NA Deg. F **ASTM D93-66** \$ 30.00 \$ \$ Fluoride \$ 18.00 Hardness Water1 1 mg/L as CaCO3 SM 2340 C \$ 18.00 \$ Nitrate-Nitrogen Water¹ 0.1 mg/L EPA 300.0 \$ 18.00 \$ Water1 \$ \$ Nitrite-Nitrogen 0.01 mg/L EPA 353.2 18.00 Oil & Grease, Total Water1 5 EPA 1664 \$ 46.80 \$ mg/L Water1 5 **EPA 1664** \$ \$ Oil & Grease, Polar mg/L 46.80 (includes Total and Non-Polar) Water1 0.1 pH units SM 4500-H+B \$ 12.00 \$ На Soil/Sludge EPA 9045B \$ 12.00 \$ рΗ 0.1 pH units Water1 EPA 365.2 Phosphorus, ortho-Phosphate 0.02 mg/L \$ 18.70 \$ Water1 0.03 EPA 365.1 \$ 29.80 Phosphorus, Total mg/L \$

Complete this

Complete

I. WATER POLLUTION CONTROL LAB SERVICES

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

							column only		
		REPORTING			F	Y 2000-01	NO. OF		000-01
ANALYSIS	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS		OST
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$	-
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$	-
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$	-
Solids, Mass Suspended	Water ¹	1	mg	EPA 160.1	\$	18.00		\$	-
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$	-
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$	-
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00		\$	-
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$	-
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$	-
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$	-
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$	-
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$	-
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$	-
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$	-
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$	-
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$	-
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$	-
Metals (Prices are on a per sample basis for 1-6 e	lements, plus \$10 for	each additional e	lement over 6. Prid	ces include digestic	n.)				
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)									
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$	-
up to 6 elements	groundwater				_			_	
per additional element					\$	10.00		\$	-
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$	-
for up to 6 elements	groundwater								
per additional element					\$	10.00		\$	-
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00		\$	_
for up to 6 elements						•			
per additional element					\$	10.00		\$	-
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$	-
for up to 6 elements									
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	Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$	-
for up to 6 elements									
per additional element					\$	10.00		\$	-
Dissolved Metals by ICP (low level), per sample	· Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$	-
for up to 6 elements			· ·			•			
per additional element	Water ¹		mg/L	EPA 200.7	\$	10.00		\$	-
Total Mercury	Water ¹	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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$	_
2.555irou moroury		5.000 <u>L</u>	9, =	/\ _ 10.1	Ψ	+0.00		7	

column only

Page 2 01 WPCL budget worksheet.xls

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) COST **ANALYSIS MATRIX** UNITS **METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ Water¹ E. coli 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water¹ 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ \$ Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 \$ Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ mg/L 0.025 - 1.0 2 175.00 Base/Neutrals only mg/L **EPA 625** \$ \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 \$ Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX 81.00 Water/Soil 0.001 mg/L NW TPH \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

II. OUTSIDE LAB SERVICES	this
Must Be Approved By Environmental Investigation Division and Lab Services Review Committee.	column only
	FY 2000-01
Description	COST
	-
	-
	<u> </u>
	<u> </u>
	_
	<u> </u>
	-
	-
	-
	- <u> </u>
	- <u> </u>
	-
	<u> </u>
	<u> </u>
	_
	<u> </u>
	-
II. TOTAL OUTSIDE LAB WORK	\$ -

Page 4 01 WPCL budget worksheet.xls

^{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

III. I ILLD OF LIVATIO	NO SLIVICES					
included in the basic rates for F	Flow Monitoring and Hydrolab requirements. Field ana field Operations. Contact the Investigation & Monitoring ext. 7758) for further assistance.				Complete this column only	
•	·		F	Y 2000-01	NO. OF	FY 2000-01
Sampling Matrix:				RATE	SAMPLES	COST
Surface Water			\$	52.00		\$ -
Groundwater			\$	182.00		\$ -
Level Readings			\$	47.00		\$ -
Wastewater Composite samp	oles		\$	115.00		\$ -
Wastewater Grab samples	5.00		\$	61.00		\$ -
Biosolids			\$	40.00		\$ -
Soils and Sediments			\$	156.00		\$ -
Gas				<u>=</u>		•
	water		\$	33.00		\$ -
Stormwater & Municipal Waste			_			_
	imple for up to 5 hrs of labor)		\$	272.00		\$ -
Grab samples (Per Sample	·		\$	155.00		\$ -
	water (per hour, for labor over 5 hours):		\$	29.00		\$ -
Enter additional labor ho	urs. (Contact IMS for assistance in estimating labor rec	quirements.)				
Flour and Hudrolah Manitario						
Flow and Hydrolab Monitorin	g:		_		Complete this	
			F	Y 2000-01	column only	FY 2000-01
Flow Monitoring				Rate	Number	COST
Installation	(specify number of site installations)		\$	445.00		\$ -
Removal	(specify number of site removals)		\$	230.00		\$ -
Data upload	(specify total number of data uploads)		\$	156.00		\$ -
Monthly charge	(specify number of monitoring months)		\$	300.00		\$ -
		D-4			4 - 5	
		Rate per	ш	of C!too	# of	FY 2000-01
Hydroloh Monitoring (Bata na	or Site nor Month	Month	_	of Sites	Months	COST
Hydrolab Monitoring (Rate per (specify number of sites and state)	the number of monitoring months for all sites combined	\$ 468.00)				\$ -
SUBTOTAL FIELD OPERATION	ONS SERVICES					\$ -
OTHER SAMPLING AND MON	NITOPING SERVICES					
Scope of work to be determined						
Contact Duane Linnertz ext. 77						
Contact Dualic Limiters Cxt. 11	30 for further assistance.					
Field Operations Services - Rat	te for First Hour/Per Employee		\$	39.00		
Rate for Each Additional Hour/F	Per Employee		\$	26.00		
Description (Calculate \$ amo	unt by adding first hour rate (\$39.00 and					Complete this
	\$26.00 times number of estimated additional hours	1				column only
each additional flour rate of v	20.00 times number of estimated additional nodes	1				Column Only
SUBTOTAL OTHER FIELD OF	PERATIONS SERVICES					\$ -
IOODIOIAL OINER FIELD OF	LIVATIONS SERVICES					φ -

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 5

\$

\$

 $^{1.\} Method\ is\ applicable\ to\ surface\ water,\ groundwater,\ and\ stormwater/municipal\ was tewater.$

^{2.} Reporting limits will vary depending on specific sample matrix.

(Rates for services provided including Lab Analysis, Sampling, Flow Monitoring and Hydrolab services)

Date:	16 December 1999	Contact Name:	David Ball
Requesting Division (Org):	M12	Contact Phone:	823-7554
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-023	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

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

Complete this

Complete this column only

I. WATER POLLUTION CONTROL LAB SERVICES

Page 6 01 WPCL budget worksheet.xls

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

ANALYSIS	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS	COST	
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$ -	
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$ -	
Solids, Mass Suspended	Water ¹	1	mg	EPA 160.1	\$	18.00		\$ -	
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00	12	\$ 21	16
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00	12	\$ 21	16
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$ -	
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$ -	
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$ -	
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$ -	
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$ -	
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$ -	
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$ -	
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$ -	
Matela (Prises ere en e per comple basis for 1.6 e	lomanta nivo ¢10 for	and additional a	ament over 6 Drie	aaa iaaluda digaatia	\				
Metals (Prices are on a per sample basis for 1-6 e (As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Aq, Zn)	lements, plus \$10 for	each additional e	ement over 6. Pric	es include digestio	11.)				
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -	
up to 6 elements	groundwater	0.0001 - 0.003	mg/L	LFA 200.0	Ψ	120.00		φ -	
per additional element	groundwater				\$	10.00		\$ -	
per additional element					Ψ	10.00		Ψ -	
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -	
for up to 6 elements	groundwater								
per additional element					\$	10.00		\$ -	
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00	12	\$ 1,27	'2
for up to 6 elements									
per additional element					\$	10.00		\$ -	
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements	co c.uugo		97.19		*			•	
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	Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements									
per additional element					\$	10.00		\$ -	
Dissolved Metals by ICP (low level), per sample	. Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements		0.000 0.1	y/ L	L. /\ 200.1	Ψ	100.00		· -	
per additional element	Water ¹		mg/L	EPA 200.7	\$	10.00		\$ -	
per additional element			mg/L	LI A 200.1	Ψ	10.00		Ψ -	
Total Mercury	Water ¹	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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$ -	

REPORTING

Complete

column only

NO. OF

FY 2000-01

FY 2000-01

Page 7 01 WPCL budget worksheet.xls

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) COST **ANALYSIS MATRIX** UNITS **METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ E. coli Water1 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water¹ 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ \$ Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 \$ Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ mg/L 0.025 - 1.0 2 175.00 Base/Neutrals only mg/L **EPA 625** \$ \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 \$ Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX 81.00 Water/Soil 0.001 mg/L NW TPH \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$ 2,767

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

II. OUTSIDE LAB SERVICES	this
Must Be Approved By Environmental Investigation Division and Lab Services Review Committee.	column only
	FY 2000-01
Description	COST
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
	_
II. TOTAL OUTSIDE LAB WORK	\$ -
	_

Page 9 01 WPCL budget worksheet.xls

^{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

III. TILLD OF LIVATIO							
included in the basic rates for F Section (IMS Duane Linnertz	Flow Monitoring and Hydrolab requirements. Field and ield Operations. Contact the Investigation & Monitorin ext. 7758) for further assistance.		F	FY 2000-01	Complete this column only NO. OF	F	FY 2000-01
Sampling Matrix:				RATE	SAMPLES		COST
Surface Water			\$	52.00		\$	-
Groundwater			\$	182.00		\$	-
Level Readings			\$	47.00		\$	-
Wastewater Composite samp	oles		\$	115.00	2	\$	230
Wastewater Grab samples			\$	61.00		\$	-
Biosolids			\$	40.00		\$	-
Soils and Sediments			\$	156.00		\$	-
Gas			\$	33.00		\$	-
Stormwater & Municipal Waster	water		·			•	
	mple for up to 5 hrs of labor)		\$	272.00		\$	_
Grab samples (Per Sample			\$	155.00		\$	_
	water (per hour, for labor over 5 hours):		\$	29.00		\$	
	urs. (Contact IMS for assistance in estimating labor re	quiromonte)	Φ	29.00		Φ	-
Enter additional labor not	ars. (Correct two for assistance in estimating labor fer	quirements.)					
Flow and Hydrolab Monitorin	a.				Oamandata thia		
riow and nydrolab Monitorin	y.		_		Complete this		
Els Bassias de la companya del companya del companya de la company			-	Y 2000-01	column only	•	Y 2000-01
Flow Monitoring	Consider the Constant of the Constant of the Constant			Rate	Number	_	COST
Installation	(specify number of site installations)		\$	445.00		\$	-
Removal	(specify number of site removals)		\$	230.00		\$	-
Data upload	(specify total number of data uploads)		\$	156.00		\$	-
Monthly charge	(specify number of monitoring months)		\$	300.00		\$	-
		Rate per Month	#	of Sites	# of Months	F	Y 2000-01 COST
Hydrolab Monitoring (Rate pe	er Site per Month)	\$ 468.00		0. 0.000		\$	-
	the number of monitoring months for all sites combined	·				Ψ	
SUBTOTAL FIELD OPERATION	ONS SERVICES					\$	230
OTHER SAMPLING AND MON Scope of work to be determined Contact Duane Linnertz ext. 77	d in conjunction with IMS.						
Field Operations Services - Rat Rate for Each Additional Hour/F			\$ \$	39.00 26.00			
Description (Calculate \$ amo	unt by adding first hour rate (\$39.00 and					٠.	mplete this
	unt by adding first flour rate (३३५.00 and i26.00 times number of estimated additional hours	١					-
each additional nour rate of \$	20.00 times number of estimated additional flours	,				C	olumn only
SUBTOTAL OTHER FIELD OF	PERATIONS SERVICES					\$	-

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 10

\$

\$

230

2,997

 $^{1. \} Method \ is \ applicable \ to \ surface \ water, \ groundwater, \ and \ stormwater/municipal \ was tewater.$

^{2.} Reporting limits will vary depending on specific sample matrix.

(Rates for services provided including Lab Analysis, Sampling, Flow Monitoring and Hydrolab services)

Date:	20 December 1999	Contact Name:	David Ball
Requesting Division (Org):	M12	Contact Phone:	823-7554
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-023	CIP Proj. Title:	
		OR	
		Operating Program Title:	Ratch 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 Complete

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

Complete this

this column only

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

							column only	
		REPORTING			F	Y 2000-01	NO. OF	FY 2000-01
<u>ANALYSIS</u>	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS	COST
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$ -
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$ -
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$ -
Solids, Mass Suspended	Water ¹	1	mg	EPA 160.1	\$	18.00		\$ -
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$ -
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$ -
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00	20	\$ 360
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$ -
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$ -
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$ -
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$ -
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$ -
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$ -
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$ -
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$ -
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$ -
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$ -
Metals (Prices are on a per sample basis for 1-6 el	lements, plus \$10 for	each additional e	lement over 6. Prid	ces include digestic	n.)			
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)								
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -
up to 6 elements	groundwater							
per additional element					\$	10.00		\$ -
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -
for up to 6 elements	groundwater		3		·			•
per additional element	g				\$	10.00		\$ -
Total Matala by ICD (high lovel) per cample	Water ¹	0.02 0.7	ma/l	EDA 200 7	e	106.00	10	\$ 1,060
Total Metals by ICP (high level), per sample for up to 6 elements	water	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	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$ -
for up to 6 elements					•			Ť
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	Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -
for up to 6 elements		0.000	9. =		*	.00.00		•
per additional element					\$	10.00		\$ -
Dissolved Metals by ICP (low level), per sample	. Water ¹	0.003 - 0.1	ma/l	EDA 200 7	œ	106.00		Φ.
	vvaler	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -
for up to 6 elements	Water ¹			EDA 200 7	•	10.00		•
per additional element	vvalti		mg/L	EPA 200.7	\$	10.00		\$ -
Total Mercury	Water ¹	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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$ -
·			•					

column only

Page 12 01 WPCL budget worksheet.xls

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) UNITS COST **ANALYSIS MATRIX METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ Water¹ E. coli 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water¹ 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ \$ Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 \$ Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ 3,500 mg/L 0.025 - 1.0 2 175.00 Base/Neutrals only mg/L **EPA 625** \$ \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 \$ Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 10 \$ 1,850 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX NW TPH 81.00 Water/Soil 0.001 mg/L \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$ 11,780

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

II. OUTSIDE LAB SERVICESMust Be Approved By Environmental Investigation Division and Lab Services Review Committee.Description	this column only FY 2000-01 COST
·	
	<u> </u>
	- <u> </u>
	-
	-
	-
	<u> </u>
	<u> </u>
	- <u> </u>
	-
	-
	-
	_
	_
II. TOTAL OUTSIDE LAB WORK	\$ -

Page 14 01 WPCL budget worksheet.xls

^{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

	onitoring and Hydrolab requirements. Field analy erations. Contact the Investigation & Monitoring 58) for further assistance.		EV	/ 2000 04	Complete this column only NO. OF		EV 2000 04
Sampling Matrix:			FI	/ 2000-01 RATE	NO. OF SAMPLES		FY 2000-01 COST
Surface Water			\$	52.00		\$	C031
Groundwater			\$	182.00		\$	_
Level Readings			\$	47.00		\$	_
Wastewater Composite samples			\$	115.00		\$	_
Wastewater Grab samples			\$	61.00	40	\$	2,440
Biosolids			\$	40.00	40	\$	2,440
Soils and Sediments			φ \$	156.00		\$	-
Gas			φ \$	33.00		\$	-
Stormwater & Municipal Wastewater			Φ	33.00		φ	-
Composite samples (Per Sample	for up to 5 bre of labor)		æ	272.00		ď	
			\$	272.00		\$	-
Grab samples (Per Sample for up			\$	155.00		\$	-
Stormwater & Municipal Wastewater (p		iromonto \	\$	29.00		\$	-
Enter additional labor nours. (Co	ontact IMS for assistance in estimating labor requ	irements.)					
Flore and Headnelah Manifesian							
Flow and Hydrolab Monitoring:			_		Complete this		
			F١	/ 2000-01	column only		FY 2000-01
Flow Monitoring				Rate	Number		COST
Installation	(specify number of site installations)		\$	445.00		\$	-
Removal	(specify number of site removals)		\$	230.00		\$	-
Data upload	(specify total number of data uploads)		\$	156.00		\$	-
Monthly charge	(specify number of monitoring months)		\$	300.00		\$	-
		Rate per Month	# (of Sites	# of Months		FY 2000-01 COST
Hydrolab Monitoring (Rate per Site p	per Month)	\$ 468.00				\$	-
	ber of monitoring months for all sites combined)	,				•	
SUBTOTAL FIELD OPERATIONS SE	RVICES					\$	2,440
OTHER SAMPLING AND MONITORIN Scope of work to be determined in conj Contact Duane Linnertz ext. 7758 for fu	unction with IMS.						
Field Operations Services - Rate for Fin Rate for Each Additional Hour/Per Emp			\$ \$	39.00 26.00			
Description (Calculate \$ amount by a	adding first hour rate (\$30 00 and					_	omplete this
	imes number of estimated additional hours)						column only
SUBTOTAL OTHER FIELD OPERATI	ONS SERVICES					\$	-

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 15

\$

\$

2,440

14,220

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

(Rates for services provided including Lab Analysis, Sampling, Flow Monitoring and Hydrolab services)

Date:	20 December 1999	Contact Name:	David Ball
Requesting Division (Org):	M12	Contact Phone:	823-7554
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-023	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

column only REPORTING FY 2000-01 NO. OF FY 2000-01 **ANALYSIS MATRIX** LIMIT (MRL) UNITS **METHOD RATE TESTS** COST **General Chemistry and Nutrients** Water1 0.5 mg CaCO3/L SM 2320B \$ 17.50 \$ Alkalinity Ammonia-Nitrogen (high-level) Water1 1 mg/L SM4500-NH3 D \$ 18.70 \$ Water1 0.02 EPA 350.1 \$ 18.70 Ammonia-Nitrogen (low-level) mg/L \$ Water¹ 0.1 - 10EPA 300.0 \$ 90.70 Anions mg/L \$ Water¹ 100 BOD, 5-day 2 mg/L SM 5210B \$ 38.30 \$ 3,830 Water¹ 1 EPA 300.0 \$ 18.00 Chloride mg/L \$ Water1 0.01 Chlorine, Residual mg/L SM 4500-CL D \$ 18.00 \$ Chlorophyll a Water1 SM1002G \$ 42.50 1 mg/M3 \$ Water COD \$ 29.80 100 \$ 1 mg/L SM 5220 D 2,980 Water 5 Color Units Color SM 2120 B \$ 18.70 \$ Conductivity Water 2 1 umhos/cm SM 2510B \$ 12.00 \$ Cyanide, Amenable Water1 0.05 SM 4500CN-HK 42.80 \$ mg/L \$ Cyanide, Total Water1 0.01 SM 4500-CN C \$ 40.00 \$ ma/L Flash Point, Closed Cup Water1 NA Deg. F **ASTM D93-66** \$ 30.00 \$ \$ \$ Fluoride 18.00 Hardness Water1 1 mg/L as CaCO3 SM 2340 C \$ 18.00 \$ Nitrate-Nitrogen Water¹ 0.1 mg/L EPA 300.0 \$ 18.00 \$ Water1 \$ \$ Nitrite-Nitrogen 0.01 mg/L EPA 353.2 18.00 Oil & Grease, Total Water1 5 EPA 1664 \$ 46.80 \$ mg/L Water1 5 **EPA 1664** \$ \$ Oil & Grease, Polar mg/L 46.80 (includes Total and Non-Polar) Water1

Complete this

\$

\$

\$

\$

Complete this

Soil/Sludge

Water1

Water1

0.1

0.1

0.02

0.03

I. WATER POLLUTION CONTROL LAB SERVICES

На

рΗ

Phosphorus, ortho-Phosphate

Phosphorus, Total

Page 16 01 WPCL budget worksheet.xls

pH units

pH units

mg/L

mg/L

SM 4500-H+B

EPA 9045B

EPA 365.2

EPA 365.1

\$

\$

\$

\$

12.00

12.00

18.70

29.80

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

		REPORTING			r	Y 2000-01	NO. OF	FY 2000-01	
ANALYSIS	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS	COST	
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$ -	
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$ -	
Solids, Mass Suspended	Water ¹	1	mg	EPA 160.1	\$	18.00		\$ -	
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$ -	
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00	100	\$ 1,80	0
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$ -	
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$ -	
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$ -	
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$ -	
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$ -	
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$ -	
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$ -	
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$ -	
Metals (Prices are on a per sample basis for 1-6 e	lements, plus \$10 for	r each additional e	lement over 6. Prid	ces include diaesti	on.)				
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)				· ·	,				
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -	
up to 6 elements	groundwater		9-		•			•	
per additional element	groundwator				\$	10.00		\$ -	
por additional cionion					Ψ	10.00		Ψ	
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -	
for up to 6 elements	groundwater					_			
per additional element					\$	10.00		\$ -	
						_			
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements						_			
per additional element					\$	10.00		\$ -	
						_			
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements						_			
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,	So. 7n)								
Total Metals by ICP (low level), per sample	Water ¹	0.003 - 0.1	ma/l	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements	Water	0.003 - 0.1	mg/L	EFA 200.7	Φ	100.00		Φ -	
•					æ	10.00		¢	
per additional element					\$	10.00		\$ -	
Dissolved Metals by ICP (low level), per sample	e Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements			•			_			
per additional element	Water ¹		mg/L	EPA 200.7	\$	10.00		\$ -	
Total Maraun	Water ¹	0.0002	ma/l	EDA 245 4	•	20.00		c	
Total Mercury		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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$ -	

REPORTING

Complete

column only

NO. OF

FY 2000-01

FY 2000-01

Page 17 01 WPCL budget worksheet.xls

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

this column only

		REPORTING			FY	2000-01	NO. OF	FY	2000-01
<u>ANALYSIS</u>	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS	(COST
Microbiology									
Fecal Coliform Bacteria by MF	Water ¹	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 ¹	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 ¹	2	CFU/100 ml	EPA 1103	\$	25.50		\$	_
Total Coliform Bacteria	Water ¹	2	CFU/100 ml	SM 9222B	\$	25.50		\$	_
Enterococcus	Water ¹	2	CFU/100 ml	SM 9230C	\$	25.50		\$	-
Organics									
Semi-Volatile Organics by EPA 625	Surface water / g	roundwater							
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 /stori	mwater/municipal wa	iste			_		-	
Base/Neutrals/Acids		0.025 - 1.0 ²	mg/L	EPA 625	\$	350.00		\$	-
Base/Neutrals only		0.025 - 1.0 ²	mg/L	EPA 625	\$	175.00		\$	_
Acidics only		0.025 - 1.0 ²	mg/L	EPA 625	\$	175.00		\$	-
Volatile Organics by EPA 624	Surface water / g	roundwater							
		0.001 - 0.050	mg/L	EPA 624	\$	185.00		\$	-
	Wastewater /stori	mwater/municipal wa	ste			_		_	
		0.01 - 1.0 ²	mg/L	EPA 624	\$	185.00		\$	-
Pesticides by EPA 8080, semi-quantitative	Water ¹	0.1 - 50 ²	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		\$	-
I. TOTAL WPCL LAB WORK								\$	8,610

Page 18 01 WPCL budget worksheet.xls

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

II. OUTSIDE LAB SERVICES	this
Must Be Approved By Environmental Investigation Division and Lab Services Review Committee.	column only
	FY 2000-01
Description	COST
	-
	-
	<u> </u>
	<u> </u>
	_
	<u> </u>
	-
	-
	-
	- <u> </u>
	- <u> </u>
	-
	<u> </u>
	<u> </u>
	_
	<u> </u>
	-
II. TOTAL OUTSIDE LAB WORK	\$ -

Page 19 01 WPCL budget worksheet.xls

^{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

	lonitoring and Hydrolab requirements. Field ana				Complete					
included in the basic rates for Field Operations. Contact the Investigation & Monitoring Services Section (IMS Duane Linnertz ext. 7758) for further assistance.				this						
section (IMS Duane Linnertz ext. 7/58) for further assistance.				0000 04	column only					
Sampling Matrix:				2000-01	NO. OF					
Surface Water				RATE 52.00	SAMPLES		COST			
Groundwater			\$ \$	52.00 182.00		\$ \$	-			
Level Readings			\$	47.00		\$	-			
Wastewater Composite samples			\$	115.00	100	\$	11,500			
Wastewater Grab samples			\$	61.00	100	\$	-			
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 u			\$	155.00		\$	-			
Stormwater & Municipal Wastewater (per hour, for labor over 5 hours):		\$	29.00		\$	-			
Enter additional labor hours. (C	ontact IMS for assistance in estimating labor rec	uirements.)								
Flow and Hydrolab Monitoring:					Complete this					
			FY	2000-01	column only	FY	2000-01			
Flow Monitoring				Rate	Number	(COST			
Installation	(specify number of site installations)		\$	445.00		\$	-			
Removal	(specify number of site removals)		\$	230.00		\$	-			
Data upload	(specify total number of data uploads)		\$	156.00		\$	-			
Monthly charge	(specify number of monitoring months)		\$	300.00		\$	-			
		D								
		Rate per	щ.	£ 0!4	# of		2000-01			
Undralah Manitaring (Data nor Sita	nov Month)	Month		of Sites	Months		COST			
Hydrolab Monitoring (Rate per Site	per month) nber of monitoring months for all sites combined	\$ 468.0	0			\$	-			
(specify number of sites and the num	mber of monitoring months for all sites combined)								
SUBTOTAL FIELD OPERATIONS SE	RVICES				I	\$	11,500			
					I	Ψ	11,000			
OTHER SAMPLING AND MONITORI	NG SERVICES									
Scope of work to be determined in cor	njunction with IMS.									
Contact Duane Linnertz ext. 7758 for f	rurther assistance.									
Field Operations Services - Bate for F	irat Haur/Dar Employee		Φ.	20.00						
Field Operations Services - Rate for F Rate for Each Additional Hour/Per Em			\$ \$	39.00 26.00						
Nate for Each Additional Flodin et Em	pioyee		Φ	20.00						
Description (Calculate \$ amount by						Com	plete this			
each additional hour rate of \$26.00	times number of estimated additional hours)					colu	ımn only			
SUBTOTAL OTHER FIELD OPERAT	IONS SERVICES				1	¢.				
IJODIOIAL OINER FIELD OPERAL	IUNG SERVICES					\$	-			

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 20

\$

\$

11,500

20,110

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

(Rates for services provided including Lab Analysis, Sampling, Flow Monitoring and Hydrolab services)

Date:	20 December 1999	Contact Name:	David Ball
Requesting Division (Org):	M12	Contact Phone:	823-7554
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-023	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

REPORTING FY 2000-01 NO. OF FY 2000-01 **ANALYSIS MATRIX** LIMIT (MRL) UNITS **METHOD RATE TESTS** COST **General Chemistry and Nutrients** Water1 0.5 mg CaCO3/L SM 2320B \$ 17.50 \$ Alkalinity Ammonia-Nitrogen (high-level) Water1 1 mg/L SM4500-NH3 D \$ 18.70 \$ Ammonia-Nitrogen (low-level) Water1 0.02 EPA 350.1 \$ 18.70 mg/L \$ Water¹ 0.1 - 10EPA 300.0 \$ 90.70 Anions mg/L \$ Water¹ BOD, 5-day 2 mg/L SM 5210B \$ 38.30 \$ Water¹ 1 EPA 300.0 \$ 18.00 Chloride mg/L \$ Water1 0.01 Chlorine, Residual mg/L SM 4500-CL D \$ 18.00 \$ Chlorophyll a Water1 SM1002G \$ 42.50 1 mg/M3 \$ Water COD \$ 29.80 \$ 1 mg/L SM 5220 D 21,814 Water 5 Color Units 18.70 \$ Color SM 2120 B \$ Water² Conductivity 1 umhos/cm SM 2510B \$ 12.00 \$ Cyanide, Amenable Water1 0.05 SM 4500CN-HK 42.80 \$ mg/L \$ Cyanide, Total Water1 0.01 SM 4500-CN C \$ 40.00 \$ ma/L Flash Point, Closed Cup Water1 NA Deg. F **ASTM D93-66** \$ 30.00 \$ \$ \$ Fluoride 18.00 Hardness Water1 1 mg/L as CaCO3 SM 2340 C \$ 18.00 \$ Nitrate-Nitrogen Water¹ 0.1 mg/L EPA 300.0 \$ 18.00 \$ Water1 0.01 EPA 353.2 \$ \$ Nitrite-Nitrogen mg/L 18.00

mg/L

mg/L

pH units

pH units

mg/L

mg/L

EPA 1664

EPA 1664

SM 4500-H+B

EPA 9045B

EPA 365.2

EPA 365.1

\$

\$

\$

\$

\$

\$

46.80

46.80

12.00

12.00

18.70

29.80

Complete this \$

\$

\$

\$

\$

\$

Complete this column only

Water1

Water1

Water1

Water1

Water1

Soil/Sludge

5

5

0.1

0.1

0.02

0.03

I. WATER POLLUTION CONTROL LAB SERVICES

Oil & Grease, Total

Oil & Grease, Polar

Phosphorus, Total

На

рΗ

(includes Total and Non-Polar)

Phosphorus, ortho-Phosphate

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

					_		column only	
		REPORTING			F	Y 2000-01	NO. OF	FY 2000-01
ANALYSIS	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS	COST
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$ -
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$ -
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$ -
Solids, Mass Suspended	Water ¹	1	mg	EPA 160.1	\$	18.00		\$ -
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$ -
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$ -
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00		\$ -
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$ -
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$ -
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$ -
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$ -
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$ -
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$ -
TKN	Water¹	0.2	mg/L	EPA 351.2	\$	34.00		\$ -
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$ -
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$ -
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$ -
Matala (Drives our en a non comple basis for 4.0	-l		lamantauan C. Dui	:	\			
Metals (Prices are on a per sample basis for 1-6	elements, plus \$10 for	each additional e	iement over 6. Prid	ces include digesti	on.)			
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)	Confess water /	0.0004 0.005		EDA 200 0	•	400.00		Φ.
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -
up to 6 elements	groundwater				•	40.00		•
per additional element					\$	10.00		\$ -
Dissalved Metals by ICB MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -
Dissolved Metals by ICP-MS, per sample for up to 6 elements		0.0001 - 0.005	mg/L	EFA 200.6	Φ	120.00		Φ -
•	groundwater				¢.	10.00		\$ -
per additional element					\$	10.00		Φ -
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00		\$ -
for up to 6 elements	vvatci	0.02 - 0.7	IIIg/L	LFA 200.7	Ψ	100.00		φ -
per additional element					\$	10.00		\$ -
per additional element					φ	10.00		Φ -
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$ -
for up to 6 elements	comoladge	2.0 100	mg/rtg	LI 7 200.7	Ψ	100.00		Ψ
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$	10.00		\$ -
per additional clement	vvater/oom/ordage		mg/L or mg/rtg	LI 7 200.7	Ψ	10.00		Ψ
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, F	K. Se. Zn)							
Total Metals by ICP (low level), per sample	Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -
for up to 6 elements		0.000	9-=		•	.00.00		•
per additional element					\$	10.00		\$ -
per additional clotheric					Ψ	10.00		Ψ
Dissolved Metals by ICP (low level), per samp	le Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -
for up to 6 elements	.o .rato.	0.000 0.1	mg/L	2171200.7	Ψ	100.00		Ψ
per additional element	Water ¹		mg/L	EPA 200.7	\$	10.00		\$ -
por additional dioment				/00./	Ψ	10.00		*
Total Mercury	Water ¹	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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$ -
,			· 3 · –		Ψ.			•

column only

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) UNITS COST **ANALYSIS MATRIX METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ Water¹ E. coli 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water¹ 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ \$ Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 \$ Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ mg/L 0.025 - 1.0 2 175.00 Base/Neutrals only mg/L **EPA 625** \$ \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 \$ Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX NW TPH 81.00 Water/Soil 0.001 mg/L \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$ 21,814

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

II. OUTSIDE LAB SERVICESMust Be Approved By Environmental Investigation Division and Lab Services Review Committee.Description	this column only FY 2000-01 COST
	_
	-
	-
	-
	-
	_
	_
	-
	-
	-
	-
	•
	_
	_
II. TOTAL OUTSIDE LAB WORK	\$ -
	•

Page 24 01 WPCL budget worksheet.xls

^{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

	Monitoring and Hydrolab requirements. Field and Operations. Contact the Investigation & Monitorin				Complete this	
Section (IMS Duane Linnertz ext. 7758) for further assistance.					column only	
Compuling Matrice				2000-01	NO. OF	FY 2000-01
Sampling Matrix: Surface Water				52.00	SAMPLES	COST
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 Wastewate	r		•			Ť
Composite samples (Per Sample			\$	272.00		\$ -
Grab samples (Per Sample for			\$	155.00		\$ -
Stormwater & Municipal Wastewate	•		\$	29.00		\$ -
	(Contact IMS for assistance in estimating labor re-	quirements.)	•			
Flow and Hydrolab Monitoring:					Complete this	
Flow and Hydrolab Monitoring.			EV	2000-01	Complete this	FY 2000-01
Flow Monitoring				Rate	column only Number	COST
Installation	(specify number of site installations)		\$	445.00	Number	\$ -
Removal	(specify number of site removals)		\$	230.00		\$ -
Data upload	(specify total number of data uploads)		\$	156.00		\$ -
Monthly charge	(specify number of monitoring months)		\$	300.00		\$ -
	(specify number of monitoring months)		Ψ	300.00		Ψ -
		Rate per	# 0	f Sitos	# of Months	FY 2000-01
	e per Month)	Month	# o	f Sites	# of Months	COST
Hydrolab Monitoring (Rate per Sit	e per Month) umber of monitoring months for all sites combined	Month \$ 468.00	# o	f Sites		
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n	umber of monitoring months for all sites combined	Month \$ 468.00	# o	f Sites	Months	COST
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n	umber of monitoring months for all sites combined	Month \$ 468.00	# o	f Sites	Months	COST -
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO	umber of monitoring months for all sites combined SERVICES RING SERVICES	Month \$ 468.00	# 0	f Sites	Months	COST -
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in company to the second secon	umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS.	Month \$ 468.00	# 0	f Sites	Months	COST -
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO	umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS.	Month \$ 468.00	# o	f Sites	Months	COST -
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in company to the second secon	SERVICES RING SERVICES conjunction with IMS. or further assistance.	Month \$ 468.00	# o	f Sites	Months	COST -
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in c Contact Duane Linnertz ext. 7758 for	SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee	Month \$ 468.00			Months	COST -
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Ext.	SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee	Month \$ 468.00	\$	39.00	Months	COST -
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per E Description (Calculate \$ amount to the service of the	SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee	Month \$ 468.00	\$	39.00	Months	* - **
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per E Description (Calculate \$ amount to the service of the	SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee comp	Month \$ 468.00	\$	39.00	Months	COST \$ - \$ Complete this
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per E Description (Calculate \$ amount to the service of the	SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee comp	Month \$ 468.00	\$	39.00	Months	COST \$ - \$ Complete this
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the	SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee comp	Month \$ 468.00	\$	39.00	Months	COST \$ - \$ Complete this
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per E Description (Calculate \$ amount to the same per Sites of Sit	SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee comp	Month \$ 468.00	\$	39.00	Months	COST \$ - \$ Complete this
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the	SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee oy adding first hour rate (\$39.00 and 0 times number of estimated additional hours	Month \$ 468.00	\$	39.00	Months	COST \$ - \$ Complete this

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 25

\$

\$

21,814

 $^{1. \} Method \ is \ applicable \ to \ surface \ water, \ groundwater, \ and \ stormwater/municipal \ was tewater.$

^{2.} Reporting limits will vary depending on specific sample matrix.

(Rates for services provided including Lab Analysis, Sampling, Flow Monitoring and Hydrolab services)

Date:	20 December 1999	Contact Name:	David Ball
Requesting Division (Org):	M12	Contact Phone:	823-7554
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-023	CIP Proj. Title:	
		OR	
		Operating Program Title:	ESSC Rate Anneals

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

this column only REPORTING FY 2000-01 NO. OF FY 2000-01 RATE **ANALYSIS MATRIX** LIMIT (MRL) UNITS **METHOD TESTS** COST **General Chemistry and Nutrients** Water1 0.5 mg CaCO3/L SM 2320B \$ 17.50 \$ Alkalinity Ammonia-Nitrogen (high-level) Water1 1 mg/L SM4500-NH3 D \$ 18.70 \$ Water1 0.02 EPA 350.1 \$ 18.70 Ammonia-Nitrogen (low-level) mg/L \$ Water¹ 0.1 - 10EPA 300.0 \$ 90.70 Anions mg/L \$ Water¹ 100 BOD, 5-day 2 mg/L SM 5210B \$ 38.30 \$ 3,830 Water¹ 1 EPA 300.0 \$ 18.00 Chloride mg/L \$ Water1 0.01 Chlorine, Residual mg/L SM 4500-CL D \$ 18.00 \$ Chlorophyll a Water1 SM1002G \$ 42.50 1 mg/M3 \$ Water COD \$ 29.80 100 \$ 1 mg/L SM 5220 D 2,980 Water 5 Color Units Color SM 2120 B \$ 18.70 \$ Water² Conductivity 1 umhos/cm SM 2510B \$ 12.00 \$ Cyanide, Amenable Water1 0.05 SM 4500CN-HK 42.80 \$ mg/L \$ Cyanide, Total Water1 0.01 SM 4500-CN C \$ 40.00 \$ ma/L Flash Point, Closed Cup Water1 NA Deg. F **ASTM D93-66** \$ 30.00 \$ \$ \$ Fluoride 18.00 Hardness Water1 1 mg/L as CaCO3 SM 2340 C \$ 18.00 \$ Nitrate-Nitrogen Water¹ 0.1 mg/L EPA 300.0 \$ 18.00 \$ Water¹ \$ \$ Nitrite-Nitrogen 0.01 mg/L EPA 353.2 18.00 Oil & Grease, Total Water1 5 EPA 1664 \$ 46.80 \$ mg/L Water1 5 EPA 1664 \$ \$ Oil & Grease, Polar mg/L 46.80 (includes Total and Non-Polar) Water1 pH units 0.1 SM 4500-H+B \$ 12.00 \$ На Soil/Sludge EPA 9045B \$ 12.00 \$ рΗ 0.1 pH units Water1 EPA 365.2 Phosphorus, ortho-Phosphate 0.02 mg/L \$ 18.70 \$ Water1 0.03 EPA 365.1 \$ 29.80 Phosphorus, Total mg/L \$

Complete this

Complete

I. WATER POLLUTION CONTROL LAB SERVICES

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

					_		column only		
		REPORTING			F	Y 2000-01	NO. OF	F۱	Y 2000-01
ANALYSIS	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS		COST
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$	-
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$	-
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$	-
Solids, Mass Suspended	Water ¹	1	mg 	EPA 160.1	\$	18.00		\$	-
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$	-
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$	-
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00	100	\$	1,800
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$	-
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$	-
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$	-
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$	-
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$	-
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$	-
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$	-
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$	-
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$	-
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$	-
Metals (Prices are on a per sample basis for 1-6 e	lements inlus \$10 for	r each additional e	lement over 6. Prid	ces include digestic	on)				
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)	mornion, plao 4 to to	odon ddditional o	iomoni ovor o. i n	oco molado digocal	J11.)				
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$	
up to 6 elements	groundwater	0.0001 - 0.003	mg/L	LFA 200.0	Ψ	120.00		Ψ	-
•	groundwater				\$	10.00		\$	
per additional element					Φ	10.00		Φ	-
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$	_
for up to 6 elements	groundwater	0.000	9/ =		*	.20.00		*	
per additional element	groundwator				\$	10.00		\$	_
per additional element					Ψ	10.00		Ψ	
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00		\$	-
for up to 6 elements			Ü			•			
per additional element					\$	10.00		\$	-
·						•			
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$	-
for up to 6 elements						•			
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									
Total Metals by ICP (low level), per sample	Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$	-
for up to 6 elements					_				
per additional element					\$	10.00		\$	-
Dissolved Metals by ICP (low level), per sample	e Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$	_
for up to 6 elements			· ·			•			
per additional element	Water ¹		mg/L	EPA 200.7	\$	10.00		\$	-
	4					•			
Total Mercury	Water ¹	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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$	-

column only

Page 27 01 WPCL budget worksheet.xls

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) COST **ANALYSIS MATRIX** UNITS **METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ Water¹ E. coli 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water¹ 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ \$ Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 \$ Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ mg/L 0.025 - 1.0 2 175.00 Base/Neutrals only mg/L **EPA 625** \$ \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 \$ Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX 81.00 Water/Soil 0.001 mg/L NW TPH \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$ 8,610

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

II. OUTSIDE LAB SERVICESMust Be Approved By Environmental Investigation Division and Lab Services Review Committee.Description	this column only FY 2000-01 COST
II. TOTAL OUTSIDE LAB WORK	\$ -
	·

Page 29 01 WPCL budget worksheet.xls

^{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 ncluded in the basic rates for Field Operations. Contact the Investigation & Monitoring Services				Complete this			
Section (IMS Duane Linnertz ext.	7758) for further assistance.				column only		
				2000-01	NO. OF		2000-01
Sampling Matrix:				RATE	SAMPLES		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 Wastewate							
Composite samples (Per Sample			\$	272.00		\$	-
Grab samples (Per Sample for			\$	155.00		\$	-
Stormwater & Municipal Wastewate			\$	29.00		\$	-
Enter additional labor hours.	(Contact IMS for assistance in estimating labor re-	quirements.)					
Claus and Hydralah Manitarings					0		
Flow and Hydrolab Monitoring:			EV.	2000 04	Complete this	ΓV	2000 04
Flow Monitovino				2000-01	column only		2000-01
Flow Monitoring	(anacify number of cita installations)			Rate	Number		COST
Installation	(specify number of site installations)		\$	445.00		\$	-
Removal	(specify number of site removals)		\$	230.00		\$	-
			\$	156.00		\$	-
Data upload	(specify total number of data uploads)						
Monthly charge	(specify number of monitoring months)		\$	300.00		\$	-
		Rate per			# of	\$	- 2000-01
		Rate per Month	\$		# of Months	\$	- 2000-01 COST
	(specify number of monitoring months)	-	\$	300.00		\$	
Monthly charge Hydrolab Monitoring (Rate per Sit	(specify number of monitoring months)	Month \$ 468.00	\$	300.00		\$ FY	
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n	(specify number of monitoring months) The per Month with the per Mont	Month \$ 468.00	\$	300.00		FY (COST
Monthly charge Hydrolab Monitoring (Rate per Sit	(specify number of monitoring months) The per Month with the per Mont	Month \$ 468.00	\$	300.00		\$ FY	
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n	(specify number of monitoring months) e per Month) umber of monitoring months for all sites combined SERVICES	Month \$ 468.00	\$	300.00		FY (COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO	(specify number of monitoring months) re per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES	Month \$ 468.00	\$	300.00		FY (COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in company to the second sec	(specify number of monitoring months) e per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES onjunction with IMS.	Month \$ 468.00	\$	300.00		FY (COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO	(specify number of monitoring months) e per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES onjunction with IMS.	Month \$ 468.00	\$	300.00		FY (COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in company to the second sec	(specify number of monitoring months) The per Month) The per Month) The per Month of the	Month \$ 468.00	\$	300.00		FY (COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in contact Duane Linnertz ext. 7758 for	(specify number of monitoring months) re per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee	Month \$ 468.00	\$ # o	300.00		FY (COST
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Ext.	(specify number of monitoring months) The per Month of t	Month \$ 468.00	\$ # o	300.00 f Sites 39.00		\$ \$ \$	- 11,500
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the service).	(specify number of monitoring months) The per Month of t	Month \$ 468.00	\$ # o	300.00 f Sites 39.00		\$ FY (11,500
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the service).	(specify number of monitoring months) The per Month of t	Month \$ 468.00	\$ # o	300.00 f Sites 39.00		\$ FY (- 11,500
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the service).	(specify number of monitoring months) The per Month of t	Month \$ 468.00	\$ # o	300.00 f Sites 39.00		\$ FY (11,500
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the service).	(specify number of monitoring months) The per Month of t	Month \$ 468.00	\$ # o	300.00 f Sites 39.00		\$ FY (11,500
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the service).	(specify number of monitoring months) The per Month of t	Month \$ 468.00	\$ # o	300.00 f Sites 39.00		\$ FY (11,500
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the service).	(specify number of monitoring months) The per Month of t	Month \$ 468.00	\$ # o	300.00 f Sites 39.00		\$ FY (11,500
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount to the service of the service).	(specify number of monitoring months) The per Month of t	Month \$ 468.00	\$ # o	300.00 f Sites 39.00	Months	\$ FY (11,500

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 30

\$

\$

11,500

20,110

 $^{1.\} Method\ is\ applicable\ to\ surface\ water,\ groundwater,\ and\ stormwater/municipal\ was tewater.$

^{2.} Reporting limits will vary depending on specific sample matrix.

(Rates for services provided including Lab Analysis, Sampling, Flow Monitoring and Hydrolab services)

Date:	20 December 1999	Contact Name:	David Ball
Requesting Division (Org):	M12	Contact Phone:	823-7554
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-023	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

this column only REPORTING FY 2000-01 NO. OF FY 2000-01 **ANALYSIS MATRIX** LIMIT (MRL) UNITS **METHOD RATE TESTS** COST **General Chemistry and Nutrients** Water1 0.5 mg CaCO3/L SM 2320B \$ 17.50 \$ Alkalinity Ammonia-Nitrogen (high-level) Water1 1 mg/L SM4500-NH3 D \$ 18.70 \$ Water1 0.02 EPA 350.1 \$ 18.70 Ammonia-Nitrogen (low-level) mg/L \$ Water¹ 0.1 - 10EPA 300.0 \$ 90.70 Anions mg/L \$ Water¹ 56 BOD, 5-day 2 mg/L SM 5210B \$ 38.30 \$ 2,145 Water¹ 1 EPA 300.0 \$ 18.00 Chloride mg/L \$ Water1 0.01 Chlorine, Residual mg/L SM 4500-CL D \$ 18.00 \$ Chlorophyll a Water1 SM1002G \$ 42.50 \$ 1 mg/M3 Water COD \$ 29.80 56 \$ 1 mg/L SM 5220 D 1,669 Water 5 Color Units 18.70 Color SM 2120 B \$ \$ Water² Conductivity 1 umhos/cm SM 2510B \$ 12.00 \$ Cyanide, Amenable Water1 0.05 SM 4500CN-HK 42.80 \$ mg/L \$ Cyanide, Total Water1 0.01 SM 4500-CN C \$ 40.00 \$ ma/L Flash Point, Closed Cup Water1 NA Deg. F **ASTM D93-66** \$ 30.00 \$ \$ \$ Fluoride 18.00 Hardness Water1 1 mg/L as CaCO3 SM 2340 C \$ 18.00 \$ Nitrate-Nitrogen Water¹ 0.1 mg/L EPA 300.0 \$ 18.00 \$ Water1 0.01 EPA 353.2 \$ \$ Nitrite-Nitrogen mg/L 18.00 Oil & Grease, Total Water1 5 EPA 1664 \$ 46.80 \$ mg/L Water1 5 **EPA 1664** \$ \$ Oil & Grease, Polar mg/L 46.80 (includes Total and Non-Polar) Water1 0.1 pH units SM 4500-H+B \$ 12.00 \$ На Soil/Sludge EPA 9045B \$ 12.00 \$ рΗ 0.1 pH units Water1 EPA 365.2 Phosphorus, ortho-Phosphate 0.02 mg/L \$ 18.70 \$ Water1 0.03 EPA 365.1 \$ 29.80 Phosphorus, Total mg/L \$

Complete this

Complete

I. WATER POLLUTION CONTROL LAB SERVICES

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

							column only		
		REPORTING			F	Y 2000-01	NO. OF	F١	Y 2000-01
ANALYSIS	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS		COST
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$	-
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$	-
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$	-
Solids, Mass Suspended	Water ¹	1	mg	EPA 160.1	\$	18.00		\$	-
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$	-
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$	-
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00	56	\$	1,008
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$	-
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$	-
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$	-
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$	-
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$	-
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$	-
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$	-
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$	-
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$	-
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$	-
						•			
Metals (Prices are on a per sample basis for 1-6	elements, plus \$10 fo	r each additional e	lement over 6. Pri	ces include digesti	on.)				
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)									
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$	-
up to 6 elements	groundwater					•			
per additional element					\$	10.00		\$	-
						•			
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$	-
for up to 6 elements	groundwater					•			
per additional element					\$	10.00		\$	-
						•			
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00		\$	-
for up to 6 elements						•			
per additional element					\$	10.00		\$	-
						•			
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$	-
for up to 6 elements						•			
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	Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$	-
for up to 6 elements						•			
per additional element					\$	10.00		\$	-
Dissolved Metals by ICP (low level), per samp	le Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$	-
for up to 6 elements									
per additional element	Water ¹		mg/L	EPA 200.7	\$	10.00		\$	-
			-			·			
Total Mercury	Water ¹	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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$	-
							_		

column only

Page 32 01 WPCL budget worksheet.xls

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) COST **ANALYSIS MATRIX** UNITS **METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ Water¹ E. coli 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water¹ 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ \$ Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 \$ Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ mg/L 0.025 - 1.0 2 175.00 Base/Neutrals only mg/L **EPA 625** \$ \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 \$ Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX 81.00 Water/Soil 0.001 mg/L NW TPH \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$ 4,822

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

II. OUTSIDE LAB SERVICESMust Be Approved By Environmental Investigation Division and Lab Services Review Committee.Description	this column only FY 2000-01 COST
II. TOTAL OUTSIDE LAB WORK	\$ -
	·

Page 34 01 WPCL budget worksheet.xls

^{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

	Monitoring and Hydrolab requirements. Field and perations. Contact the Investigation & Monitorin 758) for further assistance.				Complete this column only		
·	,		FY	2000-01	NO. OF	FY	2000-01
Sampling Matrix:				RATE	SAMPLES	C	OST
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 ι	up to 5 hrs of labor)		\$	155.00		\$	-
Stormwater & Municipal Wastewater			\$	29.00		\$	-
	Contact IMS for assistance in estimating labor rec	quirements.)	•				
	•	•					
Flow and Hydrolab Monitoring:					Complete this		
			FY	2000-01	column only	FY	2000-01
Flow Monitoring				Rate	Number	C	OST
Installation	(specify number of site installations)		\$	445.00		\$	-
Removal	(specify number of site removals)		\$	230.00		\$	-
Data upload	(specify total number of data uploads)		\$	156.00		\$	-
Monthly charge	(specify number of monitoring months)		\$	300.00		\$	-
Monthly charge	(specify number of monitoring months)		\$	300.00		\$	-
Monthly charge	(specify number of monitoring months)	Rate per	\$	300.00	# of	•	- 2000-01
Monthly charge	(specify number of monitoring months)	Rate per Month	·	300.00	# of Months	FY	2000-01 COST
Monthly charge Hydrolab Monitoring (Rate per Site		-	·		Months	FY	
Hydrolab Monitoring (Rate per Site		Month \$ 468.00	·		Months	FY:	
Hydrolab Monitoring (Rate per Site (specify number of sites and the nu	per Month) mber of monitoring months for all sites combined	Month \$ 468.00	·		Months	FY :	
Hydrolab Monitoring (Rate per Site	per Month) mber of monitoring months for all sites combined	Month \$ 468.00	·		Months	FY:	
Hydrolab Monitoring (Rate per Site (specify number of sites and the nu	per Month) mber of monitoring months for all sites combined ERVICES	Month \$ 468.00	·		Months	FY :	COST
Hydrolab Monitoring (Rate per Site (specify number of sites and the nu SUBTOTAL FIELD OPERATIONS S OTHER SAMPLING AND MONITOR	e per Month) mber of monitoring months for all sites combined ERVICES	Month \$ 468.00	·		Months	FY:	COST
Hydrolab Monitoring (Rate per Site (specify number of sites and the nu SUBTOTAL FIELD OPERATIONS S OTHER SAMPLING AND MONITOR Scope of work to be determined in co	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES Injunction with IMS.	Month \$ 468.00	·		Months	FY:	COST
Hydrolab Monitoring (Rate per Site (specify number of sites and the nu SUBTOTAL FIELD OPERATIONS S OTHER SAMPLING AND MONITOR	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES Injunction with IMS.	Month \$ 468.00	·		Months	FY:	COST
Hydrolab Monitoring (Rate per Site (specify number of sites and the nu SUBTOTAL FIELD OPERATIONS SOTHER SAMPLING AND MONITOR Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES Injunction with IMS. further assistance.	Month \$ 468.00	# o	f Sites	Months	FY:	COST
Hydrolab Monitoring (Rate per Site (specify number of sites and the nu SUBTOTAL FIELD OPERATIONS SOTHER SAMPLING AND MONITOR Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Field Operations	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES Enjunction with IMS. further assistance. First Hour/Per Employee	Month \$ 468.00	# 0	f Sites	Months	FY:	COST
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES Injunction with IMS. further assistance. First Hour/Per Employee Inployee	Month \$ 468.00	# o	f Sites	Months	FY: 0	6,440
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and	Month \$ 468.00)	# 0	f Sites	Months	FY:	6,440
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES Injunction with IMS. further assistance. First Hour/Per Employee Inployee	Month \$ 468.00)	# 0	f Sites	Months	FY:	6,440
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and	Month \$ 468.00)	# 0	f Sites	Months	FY:	6,440
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and	Month \$ 468.00)	# 0	f Sites	Months	FY:	6,440
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and	Month \$ 468.00)	# 0	f Sites	Months	FY:	6,440
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and	Month \$ 468.00)	# 0	f Sites	Months	FY:	6,440
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and	Month \$ 468.00)	# 0	f Sites	Months	FY:	6,440
Hydrolab Monitoring (Rate per Site (specify number of sites and the number of	e per Month) mber of monitoring months for all sites combined ERVICES EING SERVICES Injunction with IMS. further assistance. First Hour/Per Employee Inployee Inployee Inployee Indiana Adding first hour rate (\$39.00 and additional hours)	Month \$ 468.00)	# 0	f Sites	Months	FY:	6,440

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 35

\$

\$

6,440

11,262

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

(Rates for services provided including Lab Analysis, Sampling, Flow Monitoring and Hydrolab services)

Date:	20 December 1999	Contact Name:	David Ball
Requesting Division (Org):	M12	Contact Phone:	823-7554
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-023	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

this column only REPORTING FY 2000-01 NO. OF FY 2000-01 RATE **ANALYSIS MATRIX** LIMIT (MRL) UNITS **METHOD TESTS** COST **General Chemistry and Nutrients** Water1 0.5 mg CaCO3/L SM 2320B \$ 17.50 \$ Alkalinity Ammonia-Nitrogen (high-level) Water1 1 mg/L SM4500-NH3 D \$ 18.70 \$ Water1 0.02 EPA 350.1 \$ 18.70 Ammonia-Nitrogen (low-level) mg/L \$ Water¹ 0.1 - 10EPA 300.0 \$ 90.70 Anions mg/L \$ Water¹ BOD, 5-day 2 mg/L SM 5210B \$ 38.30 \$ Water¹ 1 EPA 300.0 \$ 18.00 Chloride mg/L \$ Water1 0.01 Chlorine, Residual mg/L SM 4500-CL D \$ 18.00 \$ Chlorophyll a Water1 SM1002G \$ 42.50 \$ 1 mg/M3 COD Water \$ 29.80 1 mg/L SM 5220 D \$ Water 5 Color Units \$ Color SM 2120 B \$ 18.70 Conductivity Water 2 1 umhos/cm SM 2510B \$ 12.00 \$ Cyanide, Amenable Water1 0.05 42.80 \$ mg/L SM 4500CN-HK \$ Cyanide, Total Water1 0.01 SM 4500-CN C \$ 40.00 \$ ma/L Flash Point, Closed Cup Water1 NA Deg. F **ASTM D93-66** \$ 30.00 \$ \$ \$ Fluoride 18.00 Hardness Water1 1 mg/L as CaCO3 SM 2340 C \$ 18.00 \$ Nitrate-Nitrogen Water¹ 0.1 mg/L EPA 300.0 \$ 18.00 \$ Water1 \$ \$ Nitrite-Nitrogen 0.01 mg/L EPA 353.2 18.00 Oil & Grease, Total Water1 5 EPA 1664 \$ 46.80 \$ mg/L Water1 5 **EPA 1664** \$ \$ Oil & Grease, Polar mg/L 46.80 (includes Total and Non-Polar) Water1 0.1 pH units SM 4500-H+B \$ 12.00 \$ На Soil/Sludge EPA 9045B \$ 12.00 \$ рΗ 0.1 pH units Water1 EPA 365.2 Phosphorus, ortho-Phosphate 0.02 mg/L \$ 18.70 \$

Complete this \$

Complete

0.03

Water1

Phosphorus, Total

I. WATER POLLUTION CONTROL LAB SERVICES

01 WPCL budget worksheet.xls Page 36

mg/L

EPA 365.1

\$

29.80

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

		REPORTING			r	Y 2000-01	NO. OF	FY 2000-01	
<u>ANALYSIS</u>	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS	COST	
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$ -	
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$ -	
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$ -	
Solids, Mass Suspended	Water ¹	1	mg	EPA 160.1	\$	18.00		\$ -	
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$ -	
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$ -	
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00		\$ -	
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$ -	
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$ -	
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$ -	
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$ -	
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$ -	
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$ -	
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$ -	
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$ -	
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$ -	
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$ -	
Metals (Prices are on a per sample basis for 1-6 ϵ	elements, plus \$10 for	each additional e	lement over 6. Pri	ces include digestion	on.)				
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)									
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -	
up to 6 elements	groundwater		-			_			
per additional element	· ·				\$	10.00		\$ -	
						_			
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -	
for up to 6 elements	groundwater					_			
per additional element					\$	10.00		\$ -	
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00	2	\$ 2	12
for up to 6 elements									
per additional element					\$	10.00	12	\$ 12	20
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements									
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									
Total Metals by ICP (low level), per sample	Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements									
per additional element					\$	10.00		\$ -	
Dissolved Metals by ICP (low level), per sample	e Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$ -	
for up to 6 elements						_			
per additional element	Water ¹		mg/L	EPA 200.7	\$	10.00		\$ -	
						_			
Total Mercury	Water ¹	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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$ -	

REPORTING

Complete

column only

NO. OF

FY 2000-01

FY 2000-01

Page 37 01 WPCL budget worksheet.xls

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) COST **ANALYSIS MATRIX** UNITS **METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ Water¹ E. coli 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water¹ 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ 700 mg/L 0.025 - 1.0 2 \$ 175.00 Base/Neutrals only mg/L **EPA 625** \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 370 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX 81.00 Water/Soil 0.001 mg/L NW TPH \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$ 1,402

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

	II. OUTSIDE LAB SERVICES Must Be Approved By Environmental Investigation Division and Lab Services Review Committee. Description	this column only FY 2000-01 COST
II. TOTAL OUTSIDE LAB WORK	·	
II. TOTAL OUTSIDE LAB WORK		
III. TOTAL OUTSIDE LAB WORK		_
III. TOTAL OUTSIDE LAB WORK		_
III. TOTAL OUTSIDE LAB WORK		- <u> </u>
III. TOTAL OUTSIDE LAB WORK		-
III. TOTAL OUTSIDE LAB WORK		-
III. TOTAL OUTSIDE LAB WORK		-
III. TOTAL OUTSIDE LAB WORK		-
II. TOTAL OUTSIDE LAB WORK		
III. TOTAL OUTSIDE LAB WORK		
II. TOTAL OUTSIDE LAB WORK		<u> </u>
II. TOTAL OUTSIDE LAB WORK		
II. TOTAL OUTSIDE LAB WORK		_
II. TOTAL OUTSIDE LAB WORK		- <u> </u>
II. TOTAL OUTSIDE LAB WORK		-
III. TOTAL OUTSIDE LAB WORK		-
III. TOTAL OUTSIDE LAB WORK		-
II. TOTAL OUTSIDE LAB WORK		-
II. TOTAL OUTSIDE LAB WORK		-
II. TOTAL OUTSIDE LAB WORK		
II. TOTAL OUTSIDE LAB WORK		
III. TOTAL OUTSIDE LAB WORK		_
<u>·</u>	II. TOTAL OUTSIDE LAB WORK	\$ -

Page 39 01 WPCL budget worksheet.xls

^{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

	onitoring and Hydrolab requirements. Field ana				Complete		
	perations. Contact the Investigation & Monitoring	Services			this		
Section (IMS Duane Linnertz ext. 77	58) for further assistance.		5 \(0000 04	column only	EV 0000	. 0.4
Sampling Matrix:				2000-01	NO. OF	FY 2000	
Surface Water				RATE 52.00	SAMPLES	COST	
Groundwater			\$ \$	52.00 182.00		\$ \$	-
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			\$	155.00		\$	-
Stormwater & Municipal Wastewater (p	per hour, for labor over 5 hours):		\$	29.00		\$	-
Enter additional labor hours. (C	ontact IMS for assistance in estimating labor rec	uirements.)	_				
Flow and Hydrolab Monitoring:					Complete this		
			FY	2000-01	column only	FY 2000	-01
Flow Monitoring				Rate	Number	COST	<u>г</u>
Installation	(specify number of site installations)		\$	445.00		\$	-
Removal	(specify number of site removals)		\$	230.00		\$	-
Data upload	(specify total number of data uploads)		\$	156.00		\$	-
Monthly charge	(specify number of monitoring months)		\$	300.00		\$	-
		5.4.					
		Rate per	ш.	£ 0:4	# of	FY 2000	
Hydrolah Monitoring (Pato nor Sito)	nor Month)	Month		of Sites	Months	COST	<u> </u>
Hydrolab Monitoring (Rate per Site	per month) ber of monitoring months for all sites combined	\$ 468.00				\$	-
(specify number of sites and the num	iber of morntoning morntris for all sites combined)					
SUBTOTAL FIELD OPERATIONS SE	RVICES					\$	-
0021017(2112220121011010002						Ψ	
OTHER SAMPLING AND MONITORII	NG SERVICES						
Scope of work to be determined in con	ijunction with IMS.						
Contact Duane Linnertz ext. 7758 for f	urther assistance.						
Field Operations Services - Bate for Fi	irat Haur/Dar Employee		æ	20.00			
Field Operations Services - Rate for Fi Rate for Each Additional Hour/Per Em			\$ \$	39.00 26.00			
Trate for Each Additional Flodi/Fer Emp	ployee		φ	20.00			
Description (Calculate \$ amount by						Complete	this
each additional hour rate of \$26.00 t	times number of estimated additional hours)					column d	only
					_		
SUBTOTAL OTHER FIELD OPERAT	10110 0551/1050					\$	

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 40

\$

\$

1,402

 $^{1. \} Method \ is \ applicable \ to \ surface \ water, \ groundwater, \ and \ stormwater/municipal \ was tewater.$

^{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	Contact Name:	Miguel Santana
Requesting Division (Org):	M12	Contact Phone:	823-7568
Group:	Ind & Solid Waste	CIP Proj. #:	
Center Code:	145-12-022	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

this column only REPORTING FY 2000-01 NO. OF FY 2000-01 **ANALYSIS MATRIX** LIMIT (MRL) UNITS **METHOD RATE TESTS** COST **General Chemistry and Nutrients** Water1 0.5 mg CaCO3/L SM 2320B \$ 17.50 \$ Alkalinity Ammonia-Nitrogen (high-level) Water1 1 mg/L SM4500-NH3 D \$ 18.70 \$ Water1 0.02 EPA 350.1 \$ 18.70 Ammonia-Nitrogen (low-level) mg/L \$ Water¹ 0.1 - 10EPA 300.0 \$ 90.70 Anions mg/L \$ Water¹ BOD, 5-day 2 mg/L SM 5210B \$ 38.30 \$ Water¹ 1 EPA 300.0 \$ 18.00 Chloride mg/L \$ Water1 0.01 Chlorine, Residual mg/L SM 4500-CL D \$ 18.00 \$ Chlorophyll a Water1 SM1002G \$ 42.50 \$ 1 ma/M3 Water COD \$ 29.80 \$ 1 mg/L SM 5220 D Water 5 Color Units 18.70 \$ Color SM 2120 B \$ Water² Conductivity 1 umhos/cm SM 2510B \$ 12.00 \$ Cyanide, Amenable Water1 0.05 SM 4500CN-HK 42.80 mg/L \$ \$ Cyanide, Total Water1 0.01 SM 4500-CN C \$ 40.00 124 \$ 4,960 ma/L Flash Point, Closed Cup Water1 NA Deg. F **ASTM D93-66** \$ 30.00 \$ \$ \$ Fluoride 18.00 Hardness Water1 1 mg/L as CaCO3 SM 2340 C \$ 18.00 \$ Nitrate-Nitrogen Water¹ 0.1 mg/L EPA 300.0 \$ 18.00 \$ Water1 0.01 EPA 353.2 \$ \$ Nitrite-Nitrogen mg/L 18.00 Oil & Grease, Total Water1 5 EPA 1664 \$ 46.80 \$ mg/L Water1 5 **EPA 1664** \$ \$ Oil & Grease, Polar mg/L 46.80 (includes Total and Non-Polar) Water1 0.1 pH units SM 4500-H+B \$ 12.00 \$ На Soil/Sludge EPA 9045B \$ 12.00 \$ рΗ 0.1 pH units Water1 EPA 365.2 Phosphorus, ortho-Phosphate 0.02 mg/L \$ 18.70 \$

Complete this \$

Complete

0.03

Water1

Phosphorus, Total

I. WATER POLLUTION CONTROL LAB SERVICES

01 WPCL budget worksheet.xls Page 41

mg/L

EPA 365.1

\$

29.80

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

		DEDODENIO			_	V 0000 04	COIUIIIII OIIIY	EV 0000 04
ANALYOIO	MATRIX	REPORTING	LINUTO	METHOD	r	Y 2000-01	NO. OF	FY 2000-01
ANALYSIS Solida Dispolyad	MATRIX Water ¹	LIMIT (MRL)	UNITS	METHOD SM 2540C	\$	18.00	TESTS	COST
Solids, Dissolved Solids, Fixed	Water ¹	1	mg/L	SM 2540C SM 2540 E	\$ \$	18.00		\$ - \$ -
Solids, Fixed	Soil/Sludge	1	mg/L % W/W	SM 2540 E	\$ \$	18.00		\$ -
Solids, Mass Suspended	Water ¹	1		EPA 160.1	\$ \$	18.00		\$ -
Solids, Total	Water ¹	1	mg mg/L	SM 2540B	\$	18.00		\$ -
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$ -
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00		\$ -
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$ -
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$ -
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$ -
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$ -
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$ -
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$ -
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$ -
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$ -
	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$ -
Turbidity Volatile Acids	Water ¹	1	mg/L as acetate		Ф \$	36.40		\$ - \$ -
Volatile Acids	Water	'	mg/L as acetate	31VI 3300	Ψ	30.40		φ -
Metals (Prices are on a per sample basis for 1-6 e	lements plus \$10 for	each additional e	lement over 6 Prid	ces include digestic	on)			
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)	iemento, piao y ro ioi	caci additional c	iement over o. i ne	oco molade digeotic	JII.)			
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -
up to 6 elements	groundwater	0.0001 - 0.003	mg/L	LI A 200.0	Ψ	120.00		Ψ -
per additional element	groundwater				\$	10.00		\$ -
per additional element					Ψ	10.00		Ψ -
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$ -
for up to 6 elements	groundwater	0.0001 - 0.003	mg/L	LI A 200.0	Ψ	120.00		Ψ -
per additional element	groundwater				\$	10.00		\$ -
per additional element					Ψ	10.00		φ -
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00		\$ -
for up to 6 elements	Water	0.02 - 0.7	mg/L	LFA 200.1	Ψ	100.00		φ -
per additional element					\$	10.00		\$ -
per additional element					Ψ	10.00		φ -
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00	12	\$ 1,272
for up to 6 elements	3011/3luuge	2.5 - 100	mg/Kg	LFA 200.1	Ψ	100.00	12	Ψ 1,272
per additional element	Water/Soil/Sludge		mg/L or mg/Kg	EPA 200.7	\$	10.00	208	\$ 2,080
per additional element	water/soll/sludge		mg/L or mg/Rg	LFA 200.1	Ψ	10.00	200	φ 2,000
(Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K,	So. 7n)							
Total Metals by ICP (low level), per sample	Water ¹	0.003 - 0.1	ma/l	EPA 200.7	\$	106.00	112	\$ 11,872
	Water	0.003 - 0.1	mg/L	EFA 200.7	Φ	100.00	112	Φ 11,072
for up to 6 elements					ď	10.00	208	\$ 2,080
per additional element					\$	10.00	200	\$ 2,000
Dissolved Metals by ICP (low level), per sample	\Mater ¹	0.003 - 0.1	ma/l	EPA 200.7	ď	106.00		¢
	: vvalei	0.003 - 0.1	mg/L	EPA 200.7	\$	100.00		\$ -
for up to 6 elements	Water ¹		/I	EDA 200 7	•	40.00		•
per additional element	Water ¹		mg/L	EPA 200.7	\$	10.00		\$ -
Total Maroupy	Water ¹	0.0003	ma/l	EDA 245 1	æ	20.00	110	¢ 2260
Total Mercury		0.0002	mg/L	EPA 245.1	\$	30.00		\$ 3,360
Total Mercury	Soil/Sludge Water ¹	0.1	mg/Kg	SW 846 7471A	\$	30.00	12	\$ 360
Dissolved Mercury	vvalei	0.0002	mg/L	EPA 245.1	\$	40.00		\$ -

column only

Page 42 01 WPCL budget worksheet.xls

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) UNITS COST **ANALYSIS MATRIX METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ Water¹ E. coli 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water¹ 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ \$ 9,800 Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 \$ Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ mg/L 0.025 - 1.0 2 175.00 Base/Neutrals only mg/L **EPA 625** \$ \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 \$ Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 28 \$ 5,180 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX NW TPH 81.00 Water/Soil 0.001 mg/L \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$ 40,964

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

II. OUTSIDE LAB SERVICES Must Be Approved By Environmental Investigation Division and Lab Services Review Description	v Committee. colum FY 20	nis on only 000-01 DST
	<u> </u>	13,612
		
		
		
	 -	
II. TOTAL OUTSIDE LAB WORK	\$	13,612

Page 44 01 WPCL budget worksheet.xls

^{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

	Monitoring and Hydrolab requirements. Field and Operations. Contact the Investigation & Monitorin				Complete this	
Section (IMS Duane Linnertz ext.	7758) for further assistance.				column only	
Committee Material				2000-01	NO. OF	FY 2000-01
Sampling Matrix: Surface Water				52.00	SAMPLES	COST
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 Wastewate	r		•			•
Composite samples (Per Sample			\$	272.00		\$ -
Grab samples (Per Sample for			\$	155.00		\$ -
Stormwater & Municipal Wastewate	•		\$	29.00		\$ -
	(Contact IMS for assistance in estimating labor re-	quirements.)	•			
Flow and Hydrolab Monitoring:					Complete this	
riow and riyurolab Monitoring.			FV ·	2000-01	column only	FY 2000-01
Flow Monitoring				Rate	Number	COST
Installation	(specify number of site installations)		\$	445.00	Italiiboi	\$ -
Removal	(specify number of site removals)		\$	230.00		\$ -
Data upload	(specify total number of data uploads)		\$	156.00		\$ -
			*			
	(specify number of monitoring months)		\$	300.00		\$ -
Monthly charge	(specify number of monitoring months)		\$	300.00		\$ -
	(specify number of monitoring months)	Rate per Month			# of Months	FY 2000-01
Monthly charge		Rate per Month \$ 468.00		300.00	# of Months	
Monthly charge Hydrolab Monitoring (Rate per Sit		Month \$ 468.00				FY 2000-01 COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n	te per Month) umber of monitoring months for all sites combined	Month \$ 468.00			Months	FY 2000-01 COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n	ee per Month) umber of monitoring months for all sites combined	Month \$ 468.00			Months	FY 2000-01 COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO	ee per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES	Month \$ 468.00			Months	FY 2000-01 COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in company to the second sec	ce per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS.	Month \$ 468.00			Months	FY 2000-01 COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO	ce per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS.	Month \$ 468.00			Months	FY 2000-01 COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the night of sites) SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in contact Duane Linnertz ext. 7758 for	re per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance.	Month \$ 468.00			Months	FY 2000-01 COST
Monthly charge Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in company to the second sec	re per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee	Month \$ 468.00	# 0	f Sites	Months	FY 2000-01 COST
Hydrolab Monitoring (Rate per Sit (specify number of sites and the nit (SUBTOTAL FIELD OPERATIONS) OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Ext.	te per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee	Month \$ 468.00	# o	f Sites	Months	FY 2000-01 COST
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Education (Calculate \$ amount is specified or the same per service).	re per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee	Month \$ 468.00	# o	f Sites	Months	FY 2000-01 COST \$ -
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Education (Calculate \$ amount is specified or the same per service).	te per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee comployee compadding first hour rate (\$39.00 and	Month \$ 468.00	# o	f Sites	Months	FY 2000-01 COST \$
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Education (Calculate \$ amount is specified or the same per service).	te per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee comployee compadding first hour rate (\$39.00 and	Month \$ 468.00	# o	f Sites	Months	FY 2000-01 COST \$
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount its contact of the services in the	te per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee comployee compadding first hour rate (\$39.00 and	Month \$ 468.00	# o	f Sites	Months	FY 2000-01 COST \$
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Education (Calculate \$ amount is specified or the same per service).	te per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee comployee compadding first hour rate (\$39.00 and	Month \$ 468.00	# o	f Sites	Months	FY 2000-01 COST \$
Hydrolab Monitoring (Rate per Sit (specify number of sites and the n SUBTOTAL FIELD OPERATIONS OTHER SAMPLING AND MONITO Scope of work to be determined in a Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per Edescription (Calculate \$ amount its contact of the services in the	re per Month) umber of monitoring months for all sites combined SERVICES RING SERVICES conjunction with IMS. or further assistance. First Hour/Per Employee comployee copy adding first hour rate (\$39.00 and 0 times number of estimated additional hours	Month \$ 468.00	# o	f Sites	Months	FY 2000-01 COST \$

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 45

\$

\$

54,576

 $^{1. \} Method \ is \ applicable \ to \ surface \ water, \ groundwater, \ and \ stormwater/municipal \ was tewater.$

^{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:	Contact Name:	
Requesting Division (Org):	Contact Phone:	
Group:	CIP Proj. #:	
Center Code:	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

this column only REPORTING FY 2000-01 NO. OF FY 2000-01 **ANALYSIS MATRIX** LIMIT (MRL) UNITS **METHOD RATE TESTS** COST **General Chemistry and Nutrients** Water1 0.5 mg CaCO3/L SM 2320B \$ 17.50 \$ Alkalinity Ammonia-Nitrogen (high-level) Water1 1 mg/L SM4500-NH3 D \$ 18.70 \$ Water1 0.02 EPA 350.1 \$ 18.70 Ammonia-Nitrogen (low-level) mg/L \$ Water¹ 0.1 - 10EPA 300.0 \$ 90.70 Anions mg/L \$ Water¹ BOD, 5-day 2 mg/L SM 5210B \$ 38.30 \$ Water¹ 1 EPA 300.0 \$ 18.00 Chloride mg/L \$ Water1 0.01 Chlorine, Residual mg/L SM 4500-CL D \$ 18.00 \$ Chlorophyll a Water1 SM1002G \$ 42.50 \$ 1 mg/M3 Water COD 29.80 1 mg/L SM 5220 D \$ \$ Water 5 Color Units \$ Color SM 2120 B \$ 18.70 Water² Conductivity 1 umhos/cm SM 2510B \$ 12.00 \$ Cyanide, Amenable Water1 0.05 SM 4500CN-HK 42.80 \$ mg/L \$ Cyanide, Total Water1 0.01 SM 4500-CN C \$ 40.00 \$ ma/L Flash Point, Closed Cup Water1 NA Deg. F **ASTM D93-66** \$ 30.00 \$ \$ Fluoride \$ 18.00 Hardness Water1 1 mg/L as CaCO3 SM 2340 C \$ 18.00 \$ Nitrate-Nitrogen Water¹ 0.1 mg/L EPA 300.0 \$ 18.00 \$ Water1 \$ \$ Nitrite-Nitrogen 0.01 mg/L EPA 353.2 18.00 Oil & Grease, Total Water1 5 EPA 1664 \$ 46.80 \$ mg/L Water1 5 EPA 1664 \$ \$ Oil & Grease, Polar mg/L 55.00 (includes Total and Non-Polar) Water1 0.1 pH units SM 4500-H+B \$ 12.00 \$ На Soil/Sludge EPA 9045B \$ 12.00 \$ рΗ 0.1 pH units Water1 EPA 365.2 Phosphorus, ortho-Phosphate 0.02 mg/L \$ 18.70 \$ Water1 0.03 EPA 365.1 \$ 29.80 Phosphorus, Total mg/L \$

Complete this

Complete

I. WATER POLLUTION CONTROL LAB SERVICES

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

							column only		
		REPORTING			F	Y 2000-01	NO. OF	FY 2000	
<u>ANALYSIS</u>	MATRIX	LIMIT (MRL)	UNITS	METHOD		RATE	TESTS	cos	Γ
Solids, Dissolved	Water ¹	1	mg/L	SM 2540C	\$	18.00		\$	-
Solids, Fixed	Water ¹	1	mg/L	SM 2540 E	\$	18.00		\$	-
Solids, Fixed	Soil/Sludge	1	% W/W	SM 2540 G	\$	18.00		\$	-
Solids, Mass Suspended	Water ¹	1	mg	EPA 160.1	\$	18.00		\$	-
Solids, Total	Water ¹	1	mg/L	SM 2540B	\$	18.00		\$	-
Solids, Total	Soil/Sludge	1	% W/W	SM 2540B	\$	18.00		\$	-
Solids, Total Suspended	Water ¹	1	mg/L	SM 2540D	\$	18.00		\$	-
Solids, Volatile	Water ¹	1	mg/L	SM 2540E	\$	18.00		\$	-
Solids, Volatile	Soil/Sludge	1	% W/W	SM 2540G	\$	18.00		\$	-
Solids, Volatile Suspended	Water ¹	10	mg/L	SM 2540 E	\$	18.00		\$	-
Sulfate	Water ¹	1	mg/L	EPA 300.0	\$	18.00		\$	-
Sulfide	Water ¹	0.1	mg/L	SM 4500-S D	\$	21.30		\$	-
Surfactants, MBAS	Water ¹	0.01	mg/L	SM 5540 C	\$	44.20		\$	-
TKN	Water ¹	0.2	mg/L	EPA 351.2	\$	34.00		\$	-
TKN	Soil/Sludge	0.2	mg/Kg	EPA 351.2	\$	34.00		\$	-
Turbidity	Water ¹	1	NTU	SM 2130 B	\$	18.00		\$	-
Volatile Acids	Water ¹	1	mg/L as acetate	SM 5560	\$	36.40		\$	-
Metals (Prices are on a per sample basis for 1-6 el	lements, plus \$10 for	each additional e	lement over 6. Pric	ces include digestic	n.)				
(As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)				· ·	•				
Total Metals by ICP-MS, per sample for	Surface water /	0.0001 - 0.005	mg/L	EPA 200.8	\$	128.00		\$	_
up to 6 elements	groundwater		· ·		•	•			
per additional element	J				\$	10.00		\$	-
Dissolved Metals by ICP-MS, per sample	Surface water /	0.0001 - 0.005	ma/l	EPA 200.8	\$	128.00		\$	
for up to 6 elements		0.0001 - 0.003	mg/L	EFA 200.6	Φ	120.00		φ	-
	groundwater				æ	10.00		Φ.	
per additional element					\$	10.00		\$	-
Total Metals by ICP (high level), per sample	Water ¹	0.02 - 0.7	mg/L	EPA 200.7	\$	106.00		\$	-
for up to 6 elements									
per additional element					\$	10.00		\$	-
Total Metals by ICP (high level), per sample	Soil/Sludge	2.5 - 100	mg/Kg	EPA 200.7	\$	106.00		\$	_
for up to 6 elements						•			
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	Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$	_
for up to 6 elements			3		·			•	
per additional element					\$	10.00		\$	-
Dissolved Metals by ICP (low level), per sample	. Water ¹	0.003 - 0.1	mg/L	EPA 200.7	\$	106.00		\$	
for up to 6 elements	vvator	0.003 - 0.1	mg/L	LI A 200.1	Ψ	100.00		Ψ	
per additional element	Water ¹		ma/l	EPA 200.7	\$	10.00		\$	_
per auditional element	**alGi		mg/L	Li-A 200.1	Φ	10.00		Ψ	-
Total Mercury	Water ¹	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 ¹	0.0002	mg/L	EPA 245.1	\$	40.00		\$	-

column only

Page 47 01 WPCL budget worksheet.xls

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

this column only

REPORTING FY 2000-01 NO. OF FY 2000-01 LIMIT (MRL) UNITS COST **ANALYSIS MATRIX METHOD RATE TESTS** Microbiology Fecal Coliform Bacteria by MF Water1 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 Water1 2 MPN/100 ml SM 9221E \$ 25.50 \$ Fecal Coliform Bacteria by MPN Soil/Sludge 200 MPN/gram SM 9221E \$ 25.50 \$ Water¹ E. coli 2 CFU/100 ml EPA 1103 \$ 25.50 \$ Water¹ Total Coliform Bacteria 2 CFU/100 ml SM 9222B \$ 25.50 \$ Enterococcus Water1 2 CFU/100 ml SM 9230C \$ 25.50 Organics Semi-Volatile Organics by EPA 625 Surface water / groundwater 350.00 Base/Neutrals/Acids 0.005 - 0.050 mg/L **EPA 625** \$ \$ Base/Neutrals only 0.005 - 0.050 mg/L **EPA 625** \$ 175.00 \$ 0.005 - 0.050 EPA 625 \$ 175.00 \$ Acidics only mg/L Semi-Volatile Organics by EPA 625 Wastewater /stormwater/municipal waste Base/Neutrals/Acids $0.025 - 1.0^{2}$ **EPA 625** \$ 350.00 \$ mg/L 0.025 - 1.0 2 175.00 Base/Neutrals only mg/L **EPA 625** \$ \$ $0.025 - 1.0^{2}$ Acidics only mg/L EPA 625 \$ 175.00 \$ Volatile Organics by EPA 624 Surface water / groundwater 0.001 - 0.050 EPA 624 \$ 185.00 mg/L Wastewater /stormwater/municipal waste $0.01 - 1.0^{2}$ mg/L EPA 624 \$ 185.00 $0.1 - 50^{2}$ Pesticides by EPA 8080, semi-quantitative Water¹ EPA 8080 \$ 135.00 ug/L NWTPH-HCID NW TPH Water/Soil 0.001 \$ 51.00 \$ mg/L NWTPH-DX NW TPH 81.00 Water/Soil 0.001 mg/L \$ \$ **NWTPH-GX** Water/Soil 0.001 mg/L NW TPH \$ 64.00 \$ Quant. Hits \$ 38.00 \$ I. TOTAL WPCL LAB WORK \$

^{1.} Method is applicable to surface water, groundwater, and stormwater/municipal wastewater.

^{2.} Reporting limits will vary depending on specific sample matrix.

II. OUTSIDE LAB SERVICES	this
Must Be Approved By Environmental Investigation Division and Lab Services Review Committee.	column only
Description	FY 2000-01 COST
	_
	- <u> </u>
	-
	-
	-
	-
	<u>.</u>
	-
	-
	-
	- <u> </u>
	-
	•
	•
	<u> </u>
II. TOTAL OUTSIDE LAB WORK	\$ -

Page 49 01 WPCL budget worksheet.xls

^{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

	Monitoring and Hydrolab requirements. Field analy perations. Contact the Investigation & Monitoring				Complete this	
Section (IMS Duane Linnertz ext. 7		CCIVICCS			column only	
			FY	2000-01	NO. OF	FY 2000-01
Sampling Matrix:				RATE	SAMPLES	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 ι			\$	155.00		\$ -
Stormwater & Municipal Wastewater			\$	29.00		\$ -
	Contact IMS for assistance in estimating labor requ	uirements.)				•
	pointage mile ioi accidianico in communig iacon requ					
Flow and Hydrolab Monitoring:					Complete this	
- · · · · · · · · · · · · · · · · · · ·			FY	2000-01	column only	FY 2000-01
Flow Monitoring				Rate	Number	COST
Installation	(specify number of site installations)		\$	445.00		\$ -
Removal	(specify number of site removals)		\$	230.00		\$ -
Data upload	(specify total number of data uploads)		\$	156.00		\$ -
Monthly charge	(specify number of monitoring months)		\$	300.00		\$ -
montally onlings	(opeony namber of monitoring months)		Ψ	000.00		Ψ
		Rate per			# of	FY 2000-01
		Month	# 0	of Sites	Months	COST
Hydrolab Monitoring (Rate per Site	per Month)	\$ 468.00		or Citae		\$ -
	mber of monitoring months for all sites combined)	Ψ 100.00				•
(0000.)						
SUBTOTAL FIELD OPERATIONS S	ERVICES					\$ -
						Ψ
OTHER SAMPLING AND MONITOR	ING SERVICES					Ψ
OTHER SAMPLING AND MONITOR Scope of work to be determined in co						Ψ
OTHER SAMPLING AND MONITOR Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for	onjunction with IMS.					V
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for	onjunction with IMS. further assistance.					•
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for I	onjunction with IMS. further assistance. First Hour/Per Employee		\$	39.00		•
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for	onjunction with IMS. further assistance. First Hour/Per Employee		\$	39.00 26.00		•
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per En	onjunction with IMS. further assistance. First Hour/Per Employee nployee					
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for I Rate for Each Additional Hour/Per En Description (Calculate \$ amount by	onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and					Complete this
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for I Rate for Each Additional Hour/Per En Description (Calculate \$ amount by	onjunction with IMS. further assistance. First Hour/Per Employee nployee					
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for I Rate for Each Additional Hour/Per En Description (Calculate \$ amount by	onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and					Complete this
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for I Rate for Each Additional Hour/Per En Description (Calculate \$ amount by	onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and					Complete this
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per En Description (Calculate \$ amount by	onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and					Complete this
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per En Description (Calculate \$ amount by	onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and					Complete this
Scope of work to be determined in co Contact Duane Linnertz ext. 7758 for Field Operations Services - Rate for Rate for Each Additional Hour/Per En Description (Calculate \$ amount by	onjunction with IMS. further assistance. First Hour/Per Employee nployee y adding first hour rate (\$39.00 and					Complete this

TOTAL WPCL, OUTSIDE LAB AND FIELD OPS. SERVICES

III. TOTAL FIELD OPERATIONS SERVICES

01 WPCL budget worksheet.xls Page 50

\$

\$

 $^{1.\} Method\ is\ applicable\ to\ surface\ water,\ groundwater,\ and\ stormwater/municipal\ was tewater.$

^{2.} Reporting limits will vary depending on specific sample matrix.