

**Appendix C - Mason County Grant Budget (six worksheets)**  
**10/29/2008**

Worksheets are organized by Task, except 1st worksheet (summary) and last worksheet (TMDL information)

**Total Budget for O&M research, Carmody Update, TMDL stream monitoring and Sanitary Surveys and Dye Tests in the Hood Canal Area**

	Sums Year 1	Year 2	Year 3	Total Grant		
Task 1:	\$10,076	\$9,251	\$20,827	<b>\$40,154</b>		
Task 2:	\$88,491	\$60,606	\$60,606	<b>\$209,703</b>		
Task 3:	\$1,693	\$1,693	\$1,693	<b>\$5,080</b>		
Task 4:	\$35,661	\$5,673	\$18,359	<b>\$59,693</b>		
Task 5:	\$30,102	\$30,102	\$30,102	<b>\$90,307</b>		
				<b>\$404,937</b>	Eligible	Needed Match
				\$40,494	\$303,702	\$101,234
				\$340		
				\$404,937		
				\$40,493.66		

Salaries:	\$202,480	
Benefits:	\$69,229	
Indirect costs:	\$67,927	25% of S&B
Contracts:	\$0	
Materials, goods, and services (list major item):	\$0	
Equipment (list major items):	\$27,515	
Travel:	\$37,785	
Other (please outline):	\$0	
Total	\$404,937	
Difference	\$0	
Total time and equip/service	\$404,937	
Difference	\$0	

**Total Employee Hours**

	Hours	Costs
Task 1:	795	\$40,154
Task 2:	3,878	\$181,818
Task 3:	69	\$3,235
Task 4:	828	\$38,819
Task 5:	1613	\$75,610

	Hours	% FTE/grant
Admin	355	6%
O&M	3,947	63%
WQ	2881	46%
<b>Total:</b>	<b>7183</b>	<b>115%</b>

7183 Total Employee Hours  
 6240 Number of FTE Hours in 3 years  
 115.11% Of FTE over 3 years  
 \$339,636 Total hourly costs

Year One Scanning Grant

	Hours	Costs	FTE	Equip	Mailing	Apex	Tumwater Printing	Sample Analysis	Supplies	Ozark	
Admin	195	\$9,142	9%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
O&M	1293	\$60,606	62%	\$16,885	(this was the original full amount)			\$0	\$0	\$0	
O&M edu	23	\$1,078	1%	\$0	\$333	\$190	\$92	\$0	\$0	\$0	
WQ	440	\$20,629	21%	\$9,400	\$0	\$0	\$0	\$5,133	\$500	\$0	
SS	583	\$27,333	28%	\$0	\$189	\$0	\$0	\$0	\$0	\$3,210	<b>TOTAL</b>
<b>TOTALS</b>	<b>2534</b>	<b>\$118,788</b>	<b>122%</b>	<b>\$26,285</b>	<b>\$522.26</b>	<b>\$190</b>	<b>\$91.67</b>	<b>\$5,133</b>	<b>\$500</b>	<b>\$3,209.90</b>	\$154,720

Sample Analysis Include these costs and FC analysis costs

UW/sample costs	17.355
15% increase over \$15 for non-UW	2.355
Capitol Courier Transport	65/day
Number of samples	120

**Task 1 - Administration Budget**

Financial Management (\$55/hr)	Hours		
40 hr for 1st Q,	40	\$2,200	1st Q
	25	\$1,375	each Q
Final Reporting	40	\$2,200	Last Q
25hr each additional	250	\$13,750	10 additional Q
<b>Totals:</b>	<b>355</b>	<b>\$18,150</b>	

**Total Project Administration**

Finance Management Hourly Rate

\$44.00	Salary and Benefits
\$14.67	Benefits
\$29.33	Salary
\$11.00	Indirect (25%)
\$55.00	Total Hourly Rate

**Reporting Costs (46.88/hr)**

Hours/quarter	20	\$937.67
Hours/year (year 1 & 2)	80	\$3,750.67
Hours/year (year 3)	60	\$2,813.00
Final Reporting - year 3 only	220	\$10,314
Total Year 3	<b>280</b>	\$13,127
Total reporting	<b>440</b>	\$20,629

	Year (1)	Year (2)	Year (3)
Financial	\$6,325	\$5,500	\$7,700
Reporting	\$3,751	\$3,751	\$13,127
<b>Total</b>	<b>\$10,076</b>	<b>\$9,251</b>	<b>\$20,827</b>

**Total  
\$40,154**

Hours in the 1st year:

195 9.38% FTE

Salaries:	\$22,790.53
Benefits:	\$9,332.40
Indirect costs:	\$8,030.73
Contracts:	\$0.00
Materials, goods, and	\$0.00
services (list major item):	\$0.00
Equipment (list major items):	\$0.00
Travel:	\$0.00
Other (please outline):	\$0.00
<b>Total:</b>	<b>\$40,153.67</b>

**Task 2 - Carmody O&M Database Enhancement and OSS Record Scanning Budget**

\$46.88 Salary, Benes + .25 indirect  
Hours

Number of OSS Records to obtain, research and scan	6500
1/3 of those records to be completed per year	2167
# of days (@ 15/day) it would take to complete/ year	144
<b>Cost for EHS III to perform this work/year</b>	<b>\$54,176</b>
<b>Total Cost for old records for 3 years</b>	<b>\$162,529</b>
# of New OSS for 3 years	1800
Number of NEW OSS Records to scan only/year	600
Number of NEW OSS Records scanned in a day	35
Number of Days to scan NEW OSS/year	17
<b>Cost for EHS III to perform this work/year</b>	<b>\$6,430</b>
<b>Total Cost for NEW records for 3 years</b>	<b>\$19,289</b>
<b>Total Cost per year for all research/scanning</b>	<b>\$60,606</b>
<b>Total Costs for 3 years</b>	<b>\$181,818</b>

1156  
3467  
  
137  
411.4286

Salaries:	\$109,091
Benefits:	\$36,364
Indirect costs:	\$36,364
Contracts:	\$0
Materials, goods, and services (list major item):	\$0
Equipment (list major items):	\$27,885
Travel:	\$0
Other (please outline):	\$0
<b>Total</b>	<b>\$209,703</b>

Hours year one

1293

62.15% FTE

16885 cost for scanner

Equipment Required for Scanning

Cost of Station	\$10,885
Cost of Scanner	\$6,000
Cost to make all scanned info avail online	\$11,000
<b>Total for Scanning Equipment</b>	<b>\$27,885</b>

<b>Total for year 1</b>	<b>\$88,491</b>
<b>Total for year 2</b>	<b>\$60,606</b>
<b>Total for year 3</b>	<b>\$60,606</b>
<b>otal for O&amp;M research, Carmody Update and scanning</b>	<b>\$209,703</b>
<b>Total Hours</b>	<b>3,878</b>

\$209,703

**Task 3 - O&M Education Budget**

Cost for sending out O&M reminders/year

	Costs	Hours
Number of O&M reminders/year (total ~2500)	833	
8hrs of data gathering/prep	\$375	24
Tumwater Printing	\$92	
Apex Mailing	\$190	
Postage	\$333	
<b>Total per year</b>	<b>\$990</b>	
<b>Total for entire grant</b>	<b>\$2,970</b>	

Community meeting prep hours and time for meeting (1 per year)	15	45
<b>Price for EHS III to perform/year</b>	<b>\$703</b>	
<b>Price for 3 presentations (over 3 years)</b>	<b>\$2,109.75</b>	

Total Year 1	\$1,693	23
Total Year 2	\$1,693	23
Total Year 3	\$1,693	23
<b>Total for entire grant</b>	<b>\$5,080</b>	<b>69</b>

Salaries:	\$1,941
Benefits:	\$647
Indirect costs:	\$647
Contracts:	\$0
Materials, goods, and services (list major item):	\$0
Equipment (list major items):	\$1,845
Travel:	\$0
Other (please outline):	\$0
<b>Total</b>	<b>\$5,080</b>

Cost for mailing year o employee hours year one

\$92
\$190
\$333

23

1% FTE

**Task 4 - Water Quality Monitoring Budget**

Money for SS/DT

Total Costs Year 1	\$35,661	\$14,339
Total Costs Year 2	\$5,673	\$44,327
Total Costs Year 3	\$18,359	\$31,641

\$90,307 total for sanitary surveys

Total # of proposed river locations-year one	12	10	<b>samples/year rivers</b>
Total # of proposed samples year 2	6	6	<b>samples/year rivers</b>
Total # of proposed samples year 3	12	8	<b>samples/year rivers</b>

Salaries:	\$23,291.64
Benefits:	\$7,763.88
Indirect costs:	\$7,763.88
Contracts:	\$0.00
Materials, goods, and services (list major item):	\$10,973.46
Equipment (list major items):	\$9,900
Travel:	
Other (please outline):	0
<b>Total</b>	<b>\$59,692.86</b>

Personnel Costs at EHCIII level:

Salary (includes 3% raise for 2009)	\$28.13
Benefits	\$9.38
Indirect 25% (Ecology will make us pro	\$9.38
<b>Total</b>	<b>\$46.88</b>

Color Coding  
top chart only

West Side
South Shore
North Shore

**Table 1: Sampling Locations and proposed monitoring type**

	Waterbody Name/Seg	Baseline Monitoring	FC Cost	Nutrient Costs	Flow Monitoring	Time to Measure	303(d) Listing	County	ArcMap WC_LLID_NR
1	Lilliwaup Creek	Y	20	17.355	Flow?	0.5	Y	Mason	1231128474634
2	Big Bend	Y	20	17.355	Flow?	0.5	Y	Mason	1230723473482
3	Twanoh	Y	20	17.355	Flow	0.5	Y	Mason	1229731473786
4	Twanoh Falls	Y	20	17.355	Flow	0.5	Y	Mason	1229471473825
5	Mulberg	Y	20	17.355	Flow?	0.5	Y	Mason	1229260473878
	Happy Hollow Creek	Y	20	17.355	Flow	0.5	Y	Mason	
6	Holyoak Creek	Y	20	17.355	Flow?	0.5	Y	Mason	1228862474068
7	Trails End Creek	Y	20	17.355	Flow?	0.5	Y	Mason	1228772474089
8	Deveraux Creek	Y	20	17.355	Flow?	0.5	Y	Mason	1228464474319
9	Little Mission Creek	Y	20	17.355	Flow?	0.5	Y	Mason	1228767474286
10	Stimson Creek	Y	20	17.355	Flow?	0.5	Y	Mason	1229062474157
11	Shoofly Creek	Y	20	17.355	Flow?	0.5	Y	Mason	1229839473898

12) Sampling costs are only for analytical work, personnel hours are calculated separately

Sampling costs are based on FC samples @ \$20/sample and Nutrient samples to UW @ 17.355/sample, in addition there is a \$65/day courier charge (calculated below)

Monitoring sampling costs are per time

? = Unsure of gauge status at the site

Color Coding:

Ambient	Data Manage
QAPP	
Finance/admin	
Equipment	

WQ Monitoring Total by year:

1	2	3
\$35,661	\$5,673	\$18,359

Total Costs per year:

Total cost for grant: **\$59,693**

**Analytical Costs**

Year	Baseline Monitoring Costs (FC)	\$240 /month	\$2,400 /year
1	Nutrient Monitoring Costs	\$208 /month	\$2,083 /year
1	Transport of Nutrient Samples	\$65 /month	\$650 /year
1	Baseline Monitoring Costs (FC)	\$120 /month	\$720 /year
2	Nutrient Monitoring Costs	\$104 /month	\$624.78 /year

**Year Totals for Analytical Costs**

**Year One Totals:**  
**\$5,133**

**Year Two Totals:**  
**\$1,735**

2	Transport of Nutrient Samples	\$65 /month	\$390 /year	<b>Year Three Totals: \$4,106</b>
2	Baseline Monitoring Costs (FC)	\$240 /month	\$1,920 /year	
3	Nutrient Monitoring Costs	\$208 /month	\$1,666.08 /year	
3	Transport of Nutrient Samples	\$65 /month	\$520 /year	
3	Total Mason County Lab Analytical C	\$600 Total Costs	\$10,973	

<b>Personnel Costs</b>				<b>Year Totals for Personnel Costs</b>
Year	MCPH Personnel Hours Monitoring*	8 / event*	80 / year	<b>Year One Totals: \$13,127</b>
1	Dollars associated	\$375	\$3,751	
1	MCPH River Flow Person Hours	6 /flow event	60 / year	
1	Dollars associated	\$281	\$2,813	<b>Year Two Totals: \$3,938</b>
1	Database management	14.0 /month	140 / year	
1	Dollars associated	\$656	\$6,564	
1	MCPH Personnel Hours Monitoring*	4 / event*	24 / year	84
2	Dollars associated	\$188	\$1,125	
2	MCPH River Flow Person Hours	3 /flow event	18 / year	
2	Dollars associated	\$141	\$844	<b>Year Three Totals: \$14,253</b>
2	Database management	7.0 /month	42 / year	
2	Dollars associated	\$328	\$1,969	
2	MCPH Personnel Hours Monitoring*	7 / event*	56 / year	<b>Year Three Totals: \$14,253</b>
3	Dollars associated	\$328	\$2,625	
3	MCPH River Flow Person Hours	6 /flow event	48 / year	
3	Dollars associated	\$281	\$2,250	<b>Year Three Totals: \$14,253</b>
3	Database management	15.0 /month	120 / year	
3	Dollars associated	\$703	\$5,626	
3	EIM Entry and final data manager	80 hrs/ event		<b>Year Three Totals: \$14,253</b>
3	Dollars associated	\$3,751		

\$31,318 Total Personnel Costs

\* Monitoring Hours are based on average amount of time that it would take to perform part of the HCDOP sampling run (which included several of these sites)

**QAPP Development - year one only**

<b>160 Hours</b>
160 hrs @ \$46.88/hr <b>\$7,501</b>

**Equipment: Year one only**

Multiprobe	\$7,500	conductivity, pH, DO, Specific Conductance, Temp
GPS unit	\$1,200	
Flow Stick	\$700	
Small Misc. Equip.	\$500	Gloves, Coolers, Ice, Pipettes, stakes, flagging,
<b>Total Equipment</b>	<b>\$9,900</b>	

**Total Cost for 3 year grant**

Baseline Monitoring Total Costs	\$18,475	<b>\$24,382 Sum baseline + Flows</b>
Flow Costs	\$5,907	
QAPP Development	\$7,501	
Data Management	\$17,909	

<b>Total Costs:</b>	<b>\$49,793</b>	<u>Eligible</u>	Needed Match
<b>Total with Equipment</b>	<b>\$59,693</b>	\$44,770	\$14,923.21

	Year 1	Year 2	Year 3	Totals
MC EHSIII Hours/year	440	84	304	828
Percent FTE	21%	4%	15%	40%
1 FTE Hours	2080			

includes field, reporting, QAPP, and data management

UW/sample costs	17.355
15% increase over \$15 for non-UW	2.355
Capitol Courier Transport	65/day



**Task 5 - Sanitary Surveys Budget**

<b>Sanitary Survey Calculator</b>		
Total money after WQ monitoring	\$90,307	
# of Samples for Investigative and segmenting	25	
Price for those samples (*\$20/sample for FC)	\$500	
Remainder of money	\$89,807	
Hours for septic parcel research and area delineation	120	
Cost	\$5,626.00	
Remainder of money	<b>\$84,181.14</b>	
Total amount of money to perform survey work	\$84,181	
Sanitary Surveys	\$33,672.46	40%
Dye Test	\$50,508.68	60%
1/2 dye test we elute and 1/2 have to go to OUL	\$25,254	50%
Sanitary Surveys only	151	50
Sanitary Surveys and Dye Tests we elute	20	50%
Sanitary Surveys and Dye Tests MC&OUL elute	11	50%
Total number of Sanitary Surveys	182	61
Maximum # of Dye Test/SS (none go to OUL)	39	190
Minimum # of Dye Tests/SS (all go to OUL)	22	173

<b>Totals:</b>	
Salaries:	\$45,366
Benefits:	\$15,122
Indirect costs:	\$15,122
Contracts:	\$0
Materials, goods, and services (list major item):	\$14,697
Equipment (list major items):	\$0
Travel:	\$0
Other (please outline):	\$0
Total	\$90,307

	Y1	Y2	Y3
Sanitary Surveys only	35	70	47
Surveys and Dye Tests we elute	5	9	6
Dye Tests MC&OUL elute	3	5	3
Number of Sanitary Surveys	42	84	56
Total # of DT	7	14	10

Cost of MC supplies year one	Ozark	Shipping
	\$828.86	
	\$504.56	\$3,209.90 \$188.93

Hourly Rate (includes indirect costs)  
\$46.88

Since each Sanitary Survey/Dye Test is site specific, these costs are all averages, estimated  
All sites are based on an average of 5 sites for 5 weeks with 2 packets per site

<b>Color Coding:</b>		
<b>Packets</b>	<b>Weeks</b>	Labor costs
5	5	Supply Cost
		Sum Cost part
		Total Costs

**Sanitary Survey and Dye Test Field Work**

		HRS:	Cost
Average Time for 1 EHC			
Sanitary Survey:		2.5	\$117.21
Travel Time to HC roundtrip for SS:		1.5	\$70.32
GIS Layer creation and updating		0.75	\$35.16
Total Time for Sanitary Survey		4.75	\$222.70
Dye Test:	Week 1	1.5	\$70.32
	Week 2	2.5	\$117.21
	Week 3	1	\$46.88
	Week 4	1	\$46.88
	Week 5	1	\$46.88
Travel time to HC roundtrip 1.5hr/5weeks	5 times	7.5	\$351.62
GIS layer creations and updating		0.75	\$35.16
Data Entry and Homeowner Notification		1.50	\$70.32
Total for Dye Test with supplies(without Sanitary Survey)		16.75	\$903.84
Fecal Coliform Samples (5 samples/site, \$20/sample)		5	\$100.00
Dye	16	\$227.21	\$14.20
Florescein	1	\$14.20	\$14.20
Rhodamine	0.5		\$7.10
Eosine	1.50		\$21.30
Whirlpaks	500	\$43.45	\$0.09
Whirlpaks per dye test	50	\$0.09	\$4.35
Total Costs for DT & SS Labor:		21.5	\$1,007.99
Total Costs for DT Supplies			\$118.55
Total Costs for field work for SS and DT			\$1,126.54

	Hours/grant	Hours/Y1 equal's per Y1 esti	hours Y2	Hours Y3
Total SS	864	288	199	397
Total MC DT	613	204	141	282
Total OUL DT	17	6	4	8
Total Parcel research	120	40	40	40
Total hours	1613	538	383	726

Total Material Cost per MC Dy SS/year	
\$118.55	40 0.229885057
	80 0.459770115
	54 0.310344828
	174

/bottle (227.21 case with tax price, all colors same price)

(Time for Survey, repeat visits for dye test and travel time)  
(FC samples, Dye, Whirlpaks)

**Sanitary Survey/Dye Test Office Work/Supplies**

Average Equipment Costs Associated with Dye tests:

Supplies per dye test:	Units	Price per Unit	Total Cost	Additional notes/options
Screen (100' x 3'):	1800	\$149.00	\$0.08	149.00 per 100'x3'
Screen price per 4"x6" packet	50	\$0.08	\$4.00	
Charcoal price per packet: (1Tbsp/packet)2.79/lb	50	\$0.02	\$0.85	7.7 g/Tbsp
Charcoal price		\$0.05	\$2.36	
Time Per Packet price to make		0.04	\$1.88	
Avg. Total time to make 50 packets (5 weeks, 5 sites 2	50	2	\$93.77	
<b>Total Cost for 50 Dye Packets Supplies:</b>			<b>\$6.36</b>	
<b>Total Cost for 50 Dye Packets Labor:</b>			<b>\$93.77</b>	
<b>Total Cost for 50 Dye Packets Labor hours and Supplies</b>			<b>\$100.13</b>	
Hours to Elute		0.75	\$35.16	
Hours to Read and record		0.50	\$23.44	
1 Liter 70% Isopropyl Alcohol	1	\$2.90	\$0.06	\$2.90/1 L (does not include S&H)
KOH	1	\$0.74	\$0.01	\$8.75/500g (42.5g/1L of solution) (Does not include S&H)
<b>Total Costs Elution Supplies</b>	25	\$0.07	<b>\$1.82</b>	
<b>Total Costs Elution Labor</b>			<b>\$58.60</b>	
<b>Total Costs to Elute 25 packets Labor and Supplies</b>		1.25	<b>\$60.42</b>	
Elutions at OUL				
<b>Elutions at OUL (\$35/packet)</b>	25	\$35.00	<b>\$875.00</b>	
Transport Cost to OUL			\$51.50	(15 packets, 3 ice packets) ~2lbs, 12x8x8
Ice packets for OUL (Hard Pack)	2	\$1.28	\$2.56	Wallymart
Or Ice Packets for OUL (Soft Pack)	2	\$2.00	\$4.00	
Decontamination	1	\$12.00	\$12.00	\$31.00
Transport Cost from OUL	1	\$19.00	\$19.00	Total cost to have cooler decontaminated and returned
Or New Cooler	1	\$8.25	\$8.25	From Fisher Scientific (set of 8 for \$66)
<b>Total Cost for OUL to Elute with cooler Decontamination</b>			<b>\$960.06</b>	<b>\$22.75</b>
<b>Total Cost for OUL to Elute (with new cooler each time and hard packs)</b>			<b>\$937.31</b>	amount saved by using a new cooler each time
Hours to pack and ship packets for OUL		1.50	\$70.32	
<b>Total Cost for OUL Elution</b>			<b>\$1,007.63</b>	
<b>Total Costs for Dye Test without sending to OUL</b>			<b>\$1,287.09</b>	
<b>Total Cost for Dye Test elute here and OUL</b>			<b>\$2,294.73</b>	

Total Cost Supplies:	\$126.73	Total cost Ozark Supplies:	\$10.81
Total Cost Labor:	\$1,160.36	Total Cost Ozark Labor:	\$70.32
Total Cost Ozark:	\$937.31	Total Cost Shipping:	\$51.50

**WRIA 16, 14 subbasin and 15 303(d) listings**

	<b>Listing ID</b>	<b>Category</b>	<b>WRIA</b>	<b>Water Body Name</b>	<b>Parameter</b>	<b>Medium</b>	<b>Water type</b>	<b>Sampling</b>
1	9889	5	16	LILLIWAUP CREEK	Fecal Coliform	Water	9889	y
2	6964	5	14	TWANOH FALLS CREEK	Fecal Coliform	Water	6964	y
3	6959	5	15	STIMSON CREEK	Fecal Coliform	Water	6959	y
4	6966	5	14	TRAILS END CREEK	Fecal Coliform	Water	6966	y
5	6961	5	14	TWANOH CREEK	Fecal Coliform	Water	6961	y
6	6962	5	15	LITTLE MISSION CREEK	Fecal Coliform	Water	6962	y
7	6965	5	14	HOLYOKE CREEK	Fecal Coliform	Water	6965	y
8	6960	5	15	SHOOFLY CREEK	Fecal Coliform	Water	6960	y
9	45567	5	14	DEVERAUX CREEK	Fecal Coliform	Water	45567	y
10	45568	5	14	BIG BEND CREEK	Fecal Coliform	Water	45568	y
11	45581	5	14	MULBERG CREEK	Fecal Coliform	Water	45581	y
		5	14	Happy Hollow Creek	Fecal Coliform	Water		y