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State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF WILDLIFE RESOURCES

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RECEIVED  
SEP 23 1995  
UTAH DIV. OF NATURAL RESOURCES  
SOUTHEASTERN REGION

September 20, 1995

Don Ostler, Director  
Division of Water Quality  
288 North 1460 West  
Salt Lake City, UT 84140-4870

ACT/1007/005  
#2

Dear Don:

We have completed our investigation of the fish kill on September 6, 1995, at Mud Creek and Eccles Creek caused by the discharge of emulsifier from Skyline Mine. The following is a breakdown of cost to the resource and to the Division of Wildlife Resources:

<u>Investigation and Reporting:</u>	
15 man days @ \$176.00/day	
Vehicle costs (500 miles @ \$0.25/mile)	\$2,765.00
<u>Lost Fish:</u>	
2419 cutthroat trout (see attached cost breakdown)	2,053.67
<u>Lost Recreation:</u>	
20 angler days @ \$22/day	440.00
<u>Fish Transplant from Electric Lake:</u>	
Transportation (600 miles @ \$0.25/mile)	
10 man days @ \$176.00/day	<u>1,910.00</u>
<b>Total</b>	<b><u>\$7,166.67</u></b>

By transplanting adult cutthroat from Electric Lake to the impacted streams, the population will quickly be restored and the loss to recreational fishing minimized. The transplant will occur next spring after the aquatic invertebrate population has recovered. Without the transplant several years of recreational fishing, valued at over \$10,000, would be lost.



Don Ostler, Director  
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September 20, 1995

Representatives of the Skyline Mine have been very cooperative with the Division and have responded quickly to our requests and concerns. This cooperation has allowed us to assess the damage to the fishery and develop creative mitigation proposals.

Sincerely,

  
Robert G. Valentine  
Director

RGV/gd

attachment

cc: Ralph Miles  
~~Miles Moretti~~  
Randy Radant

## ATTACHMENT

The cost of the cutthroat trout killed in Eccles and Mud Creeks was calculated in the following manner:

A) number of fish killed in each stream was estimated using a two pass depletion method.

B) Dead fish from each stream were measured, to find the size distribution of the affected fish.

The size distribution measured was then applied to the estimated number of fish killed to reach an estimate of the number of each size of fish killed.

C) Finally, the dollar value of the dead fish was calculated using values approved by the American Fisheries Society in 1989. The total value was increased by 18% (3% per year) to account for inflation.

Mud Creek & Eccles Creek Fish Kill Cost Calculation					
Size (Inches)	Eccles Crk.	Mud Crk.	Total Fish Killed	1989 Cost Per Fish	Total Cost
1	0	0	0	\$0.13	\$0.00
2	7	0	7	\$0.18	\$1.26
3	0	0	0	\$0.25	\$0.00
4	0	0	0	\$0.34	\$0.00
5	0	162	162	\$0.39	\$63.18
6	15	974	989	\$0.51	\$504.39
7	29	365	394	\$0.57	\$224.58
8	7	162	169	\$0.67	\$113.23
9	23	123	146	\$0.83	\$121.18
10	88	162	250	\$1.06	\$265.00
11	29	162	191	\$1.33	\$254.03
12	15	41	56	\$1.60	\$89.60
13	7	41	48	\$1.89	\$90.72
14	0	0	0	\$1.89	\$0.00
15	0	0	0	\$1.89	\$0.00
16	7	0	7	\$1.89	\$13.23
	227	2192	2419	\$1,740.40 x 18% = \$2,053.67	

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