

TABLE 1

EI Dorado County Department of Transportation
Cost Effectiveness of Emission Benefits

Exhibit D - Amendment IV - Project Budget (Revised 08-31-2010)

No.	Equip #	Description	Life	D			E		Year Completed	F		G		H		I		J		K		L		M		N		O	
				VMT	Total Cost	Matching Funds	DMV Funding Request ²	ROG		NOx	PM10	NOx	PM10	D x (H-I)/454 = lbs/yr reduced	D x (J-K)/454 = lbs/yr reduced	Capital Recovery Factor	(Nx E)/(NOx+PM) = Cost Effectiveness of Funding \$ PER POUND												
	25-04	1990 International Dump Truck	12	0	\$ -	\$ -	\$ -	Eliminated		Baseline	Reduced to:	Baseline ³	Reduced to: ⁴	Baseline ³	Reduced to: ⁴	D x (H-I)/454 = lbs/yr reduced	D x (J-K)/454 = lbs/yr reduced	Capital Recovery Factor	(Nx E)/(NOx+PM) = Cost Effectiveness of Funding \$ PER POUND										
	25-05	1990 International Dump Truck	12	0	\$ -	\$ -	\$ -	Eliminated		N/A	N/A	0	0	1.6	0.24	0.000	0.00	0.100	\$ -										
	33-02	1990 Peterbuilt Tractor	12	0	\$ -	\$ -	\$ -	Eliminated		N/A	N/A	0	0	1.6	0.24	0.000	0.00	0.100	\$ -										
	25-06	1991 International Dump Truck	12	0	\$ -	\$ -	\$ -	Eliminated		N/A	N/A	0	0	0.7	0.105	0.000	0.00	0.100	\$ -										
	25-07	1992 International Dump Truck	12	0	\$ -	\$ -	\$ -	Eliminated		N/A	N/A	0	0	0.7	0.105	0.000	0.00	0.100	\$ -										
1	34-06	1991 International Water Truck	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	2008	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$ 105.58										
2	23-17	1992 International Dump Truck	12	30000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	2008	N/A	N/A	N/A	N/A	0.7	0.007	0.000	45.79	0.100	\$ 35.19										
3	23-18	1992 International Dump Truck	12	30000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	2008	N/A	N/A	N/A	N/A	0.7	0.007	0.000	45.79	0.100	\$ 35.19										
4	34-07	1992 International Water Truck	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	2008	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$ 105.58										
5	89-03	1993 Ford Paint Striper	12	5000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	2008	N/A	N/A	N/A	N/A	0.7	0.007	0.000	7.63	0.100	\$ 211.17										
6	39-02	1993 International PB Patcher	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	2008	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$ 105.58										
7	39-03	1993 International PB Patcher	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	2008	N/A	N/A	N/A	N/A	0.3	0.003	0.000	6.54	0.100	\$ 246.36										
8	25-09	1996 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	214.758	16.85	0.100	\$ 6.19										
9	24-04	1996 International Dump Truck 4x4	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	214.758	16.85	0.100	\$ 6.19										
10	38-03	1996 International Herbicide Sprayer Truck	12	2520	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2007	N/A	N/A	13	9.75	0.3	0.045	18.040	1.42	0.100	\$ 73.64										
11	23-19	1997 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$ 18.56										
12	23-20	1997 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$ 18.56										
13	24-05	2000 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$ 18.56										
14	23-22	2001 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$ 18.56										
15	23-21	2001 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$ 18.56										
16	71-04	2001 Schwarze Sweeper	12	20000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	143.172	11.23	0.100	\$ 9.28										
17	71-05	2001 Schwarze Sweeper	12	20000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	13	9.75	0.3	0.045	143.172	11.23	0.100	\$ 9.28										
18	25-10	2002 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	11.7	5.2	0.2	0.06	143.172	3.08	0.100	\$ 9.80										
19	21-06	2003 Ford F550 Dump Truck	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.06	0.000	11.63	0.100	\$ 96.37										
20	21-07	2003 Ford F550 Dump Truck	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.06	0.000	11.63	0.100	\$ 96.37										
21	21-08	2003 Ford F550 Dump Truck 4x4	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.06	0.000	11.63	0.100	\$ 96.37										
22	28-08	2003 International Shop Service Truck	12	7000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	2006	N/A	N/A	0	0	0.3	0.06	0.000	3.70	0.100	\$ 387.14										
23	28-10	2004 Ford F550	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.06	0.000	11.63	0.100	\$ 96.37										
24	28-11	2004 Ford F550	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.06	0.000	11.63	0.100	\$ 96.37										
25	28-09	2004 Ford F550 Truck	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.06	0.000	11.63	0.100	\$ 96.37										
26	25-11	2004 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	TBD		N/A	N/A	TBD	TBD	0.3	0.06	0.000	15.86	0.100	\$ 90.33										
27	25-12	2004 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	TBD		N/A	N/A	TBD	TBD	0.3	0.06	0.000	15.86	0.100	\$ 90.33										
28	39-04	2004 International PB Patcher	12	10000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.06	0.000	5.29	0.100	\$ 212.02										
29	79-02	2004 Vactor Truck	12	20000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.06	0.000	10.57	0.100	\$ 106.01										
30	35-01	1987 Ford Water Truck	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	2008	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$ 105.58										
31	21-09	2006 Ford	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.045	0.000	12.36	0.100	\$ 90.70										
32	32-04	2006 Ford	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	2008	N/A	N/A	N/A	N/A	0.3	0.045	0.000	12.36	0.100	\$ 90.70										
		Horizon device cleaning unit/spar filters			\$ 60,667	\$ 15,168	\$ 45,499																						
		Project Total Calculation¹		550520	\$ 649,434	\$ 162,358	\$ 487,076									1,235.00	376.62	0.10	\$ 30.22										

- Eliminated based on lack of technology available
- Huss Device
- Longview Device
- Horizon Device
- Level 3 Device TBD

Notes

Calculation of cost effectiveness based on total project cost and total emissions reduction
(.10 x \$487,076)/(1235 + 376.62) = \$32.00 cost per pound reduced

² Cost of retrofit system less 25% County match

³ Baseline emission factors provided by Jeff Weir, Transportation Strategies Group, Air Resources Board (916) 445-0098

⁴ Reduction factors for the Claire Longview retrofit system - 25% NOx reduction, 85% PM reduction per manufacturer's specifications
Reduction factors for the Claire Horizon 85% PM reduction per manufacturer's specifications