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# STORM DAMAGE REPORT QUEEN CREEK AND EMF

Michael A. Meng  
January 20, 1993

On Monday January 11, 1993 crews from the Operations and Maintenance Branch were dispatched to all of the District's structures to determine the extent of damage caused by the weekend storms. The crew assigned to the East Maricopa Floodway reported that Queen Creek had breached its north levee at Queen Creek Road near the Recker Road alignment. The water from Queen Creek began flowing northwest through the farmland, entering the East Maricopa Floodway, (EMF) from the south bank, just east of the Higley Road bridge. Damage to this area includes:

1. Grouted riprap chute at station 716+60 washed out and will need to be replaced. Combined area of chute and bank damage is approximately 79'x50'x5'.
2. Blowout at station 716+00 approximately 50'x75'x8'.
3. Blowout at station 713+96 approximately 30'x30'x5'.
4. blowout at station 710+00 approximately 35'x55'x5'.

The Team Leader, Carlos Rivera, notified the O&M Branch of the situation and was instructed to repair the breach at Queen Creek. The equipment and manpower necessary to complete these repairs were routed to the EMF and assigned to Mr. Rivera. The repairs were completed on January 11 at 2300 hours. On January 12-14, FCD crews reinforced the area of the breach and two additional areas that were determined to be in jeopardy.

The total cost to the District for these repairs was \$12,569.46. This cost is broken down as follows:

1. Labor - 684.5 manhours at a cost of \$8,909.00
2. Equipment - FCD owned \$2,399.68, rental \$780.00 for a cost of \$3,179.68
3. Materials - \$480.78  
(see attached sheets for additional break down)

On January 13 crews from the Operations and Maintenance Branch began temporary repairs to this damaged area of the EMF. As of January 14, 45% of the temporary repairs have been completed. Based on the costs incurred thus far, (labor \$2,298.39 & equipment \$1,329.42), total cost for the temporary repairs is estimated to be \$8,100.00.

On January 20, 1993 a cost estimate of \$16,341.00 for the permanent repairs for EMF was made. It was estimated that a total of 7 work days would be needed to restore the damaged slope to its original condition. The temporarily repaired areas would be excavated and recompactd to FCD specifications and the grouted riprap chute would be reinstalled. The personnel needed for this task, their average hourly with benefits wage, hours needed and total cost are listed below.

PERSONNEL	WAGE	HOURS	COST
Maintenance Team Leader	\$18.18	70	\$1,272.60
Maintenance Technician II	\$15.28	70	1,069.60
Maintenance Technician I	\$11.92	70	834.40
Operator IV	\$17.69	80	1,415.20
Operator III	\$15.89	140	2,224.60
Operator II	\$13.58	70	950.60

Total Labor: \$7,767.00

Estimated equipment costs are based on average daily usage and mileage.

EQUIPMENT	DAYS	COST
Team truck	8	190.00
Dump truck	8	464.00
Rental dump truck	8	880.00
Loader	8	1,600.00
Backhoe	8	1,600.00
Sheepsfoot	6	1,200.00
Water truck	8	840.00
S-10 tankers	16	144.00

Total Equipment: \$6,918.00

MATERIAL	AMOUNT	COST
Grout	27 yards	\$1,431.00
Riprap	102 tons	225.00

Total Materials: \$1,656.00

LABOR COST REPORT  
FOR  
EMF (QUEEN CREEK)

01-19-93

WORK ORDER 92-5011	ASSIGNED TO RIVERA	COMPLETED BY	
01-11-93			11.50
01-11-93	ASPEN		25.50
01-12-93	ASPEN		64.00
01-12-93			10.00
01-13-93			10.00
01-14-93	ASPEN		40.00
<b>SUBTOTAL OF HOURS=</b>			<b>161.00</b>
01-11-93	AYERS	BRENT	8.50
01-12-93	AYERS	BRENT	6.00
<b>SUBTOTAL OF HOURS=</b>			<b>14.50</b>
01-11-93	BANDA	JOSE	12.00
01-12-93	BANDA	JOSE	10.00
01-13-93	BANDA	JOSE	10.00
01-14-93	BANDA	JOSE	10.00
<b>SUBTOTAL OF HOURS=</b>			<b>42.00</b>
01-13-93	BELTRAN	JAMES	10.00
<b>SUBTOTAL OF HOURS=</b>			<b>10.00</b>
01-11-93	BROWN	DARRY	17.00
01-12-93	BROWN	DARRY	10.00
<b>SUBTOTAL OF HOURS=</b>			<b>27.00</b>
01-11-93	BRYANT	IVAN	16.50
01-12-93	BRYANT	IVAN	4.00
01-13-93	BRYANT	IVAN	4.50
<b>SUBTOTAL OF HOURS=</b>			<b>25.00</b>
01-11-93	BURUATO	ALBERT	12.00
01-12-93	BURUATO	ALBERT	10.00
01-13-93	BURUATO	ALBERT	10.00
01-14-93	BURUATO	ALBERT	10.00
<b>SUBTOTAL OF HOURS=</b>			<b>42.00</b>
01-11-93	COLEMAN	LEONARD	9.50
01-13-93	COLEMAN	LEONARD	10.00
<b>SUBTOTAL OF HOURS=</b>			<b>19.50</b>
01-11-93	CRAWFORD	ROBERT	10.00
01-12-93	CRAWFORD	ROBERT	10.00
<b>SUBTOTAL OF HOURS=</b>			<b>20.00</b>
01-11-93	DAVIS	DANNY	13.50
01-12-93	DAVIS	DANNY	10.00
01-14-93	DAVIS	DANNY	7.50

# LABOR COST REPORT FOR EMF (QUEEN CREEK)

01-19-93

WORK ORDER  
92-5011

ASSIGNED TO  
RIVERA

COMPLETED BY

**SUBTOTAL OF HOURS= 31.00**

01-11-93	DELAMARE	RICHARD	15.50
01-13-93	DELAMARE	RICHARD	10.00

**SUBTOTAL OF HOURS= 25.50**

01-12-93	DUBOIS	ARTHUR	6.00
01-13-93	DUBOIS	ARTHUR	10.00

**SUBTOTAL OF HOURS= 16.00**

01-13-93	LUERA	ROBERT	5.00
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**SUBTOTAL OF HOURS= 5.00**

01-11-93	NAUD, III	ROBERT	11.00
01-12-93	NAUD, III	ROBERT	6.00

**SUBTOTAL OF HOURS= 17.00**

01-11-93	NELL	JACK	11.00
01-12-93	NELL	JACK	10.00

**SUBTOTAL OF HOURS= 21.00**

01-11-93	PHILIPPIN	LAURENT	4.00
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**SUBTOTAL OF HOURS= 4.00**

01-12-93	PLUMB	RON	10.00
01-13-93	PLUMB	RON	6.50
01-14-93	PLUMB	RON	10.00

**SUBTOTAL OF HOURS= 26.50**

01-11-93	REYNOLDS	STEVE	13.50
01-12-93	REYNOLDS	STEVE	10.00

**SUBTOTAL OF HOURS= 23.50**

01-11-93	RIVERA	CARLOS	17.00
01-12-93	RIVERA	CARLOS	10.00

**SUBTOTAL OF HOURS= 27.00**

01-13-93	ROSIEWICZ	MICHAEL	5.00
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**SUBTOTAL OF HOURS= 5.00**

01-12-93	SCHWARTZ	GARY	6.00
01-13-93	SCHWARTZ	GARY	10.00

**SUBTOTAL OF HOURS= 16.00**

01-11-93	SPENCER, JR	RALPH	11.00
01-12-93	SPENCER, JR	RALPH	10.00
01-14-93	SPENCER, JR	RALPH	10.00

**SUBTOTAL OF HOURS= 31.00**

# LABOR COST REPORT

FOR

EMF (QUEEN CREEK)

01-19-93

WORK ORDER  
92-5011

ASSIGNED TO  
RIVERA

COMPLETED BY

01-11-93	SUTTON	JAMES	17.00
01-12-93	SUTTON	JAMES	10.00

**SUBTOTAL OF HOURS= 27.00**

01-13-93	UPSHAW	DANNY	5.00
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**SUBTOTAL OF HOURS= 5.00**

01-11-93	WATTS	GREG	11.50
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**SUBTOTAL OF HOURS= 11.50**

01-11-93	WILLIAMS	MARK	11.50
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01-12-93	WILLIAMS	MARK	10.00
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01-13-93	WILLIAMS	MARK	10.00
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**SUBTOTAL OF HOURS= 31.50**

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**TOTAL HOURS WORKED = 684.50**

**TOTAL COST = \$8,909.00**

1/19/93

## EQUIPMENT COST REPORT

92-5011

*QUEEN CREEK*

01-13-93	00061	CAT GRADER 140 G	\$22.27	4.00	HOUR
			\$89.08		
01-12-93	00400	1991 580K CASE BACKHOE	\$19.95	3.00	HOUR
			\$59.85		
01-13-93	00410	1987 D7 DOZER	\$20.14	6.00	HOUR
01-12-93	00410	1987 D7 DOZER	\$20.14	6.00	HOUR
			\$241.68		
01-13-93	00495	FRONT END LOADER, 3 YD, 150 H.P. 936	\$19.92	6.00	HOUR
01-12-93	00495	FRONT END LOADER, 3 YD, 150 H.P. 936	\$19.92	5.00	HOUR
01-11-93	00495	FRONT END LOADER, 3 YD, 150 H.P. 936	\$19.92	10.00	HOUR
			\$418.32		
01-12-93	32268	1992 CHEVY 3/4 TON 4X4 P/U UTILITY	\$0.43	173.00	MILE
01-13-93	32268	1992 CHEVY 3/4 TON 4X4 P/U UTILITY	\$0.43	84.00	MILE
			\$110.51		
01-11-93	32275	1992 CHEVY 3/4 TON 4X4 TANKER	\$0.43	171.00	MILE
01-13-93	32275	1992 CHEVY 3/4 TON 4X4 TANKER	\$0.43	102.00	MILE
			\$117.39		
01-13-93	32601	1986 CHEVY 3/4 TON 4X4 P/U - UTILITY	\$0.34	105.00	MILE
			\$35.70		
01-13-93	32603	1986 CHEVY 3/4 TON 4X4 TANKER	\$0.38	71.00	MILE
01-12-93	32603	1986 CHEVY 3/4 TON 4X4 TANKER	\$0.38	104.00	MILE
			\$66.50		
01-12-93	32743	1987 CHEVY 3/4 TON 4X4 TANKER	\$0.38	105.00	MILE
01-11-93	32743	1987 CHEVY 3/4 TON 4X4 TANKER	\$0.38	93.00	MILE
01-13-93	32743	1987 CHEVY 3/4 TON 4X4 TANKER	\$0.38	128.00	MILE
			\$123.88		
01-12-93	32807	1988 CHEVY 1 TON 4X4 CREW CAB	\$0.39	84.00	MILE
01-11-93	32807	1988 CHEVY 1 TON 4X4 CREW CAB	\$0.39	176.00	MILE
			\$101.40		
01-12-93	32817	1988 CHEVY 3/4 TON 4X4 P/U - UTILITY	\$0.38	103.00	MILE
01-11-93	32817	1988 CHEVY 3/4 TON 4X4 P/U - UTILITY	\$0.38	133.00	MILE
			\$89.68		
01-12-93	32917	1989 CHEVY 1 TON 4X4 CREW CAB	\$0.39	36.00	MILE
01-11-93	32917	1989 CHEVY 1 TON 4X4 CREW CAB	\$0.39	94.00	MILE
			\$50.70		
01-12-93	47103	1991 PETERBILT 10YD SELF-LOADER DUMP TRK	\$0.60	200.00	MILE
			\$120.00		
01-11-93	48108	1991 IHC 10 YD DUMP TRUCK	\$0.58	219.00	MILE
01-12-93	48108	1991 IHC 10 YD DUMP TRUCK	\$0.58	80.00	MILE
			\$173.42		

1/19/93

EQUIPMENT COST REPORT

92-5011

QUEEN CREEK

01-12-93	48111	1991 IHC 3,500 GAL WATER TRUCK	\$1.31	91.00	MILE
				\$119.21	
01-11-93	49007	1990 MACK 2 1/2 TON TRASH DUMP TRUCK	\$0.52	134.00	MILE
				\$69.68	
01-13-93	49702	1987 MACK 10 YD DUMP TRUCK	\$0.58	103.00	MILE
01-12-93	49702	1987 MACK 10 YD DUMP TRUCK	\$0.58	156.00	MILE
01-11-93	49702	1987 MACK 10 YD DUMP TRUCK	\$0.58	122.00	MILE
				\$220.98	
01-11-93	72132	1991 CHEVY S-10 4X4 TANKER	\$0.30	125.00	MILE
01-12-93	72132	1991 CHEVY S-10 4X4 TANKER	\$0.30	96.00	MILE
				\$66.30	
01-13-93	72702	1987 CHEVY S-10 4X4 TANKER	\$0.30	73.00	MILE
01-12-93	72702	1987 CHEVY S-10 4X4 TANKER	\$0.30	80.00	MILE
				\$45.90	
01-11-93	72801	1988 CHEVY S-10 4X4 TANKER	\$0.30	183.00	MILE
01-13-93	72801	1988 CHEVY S-10 4X4 TANKER	\$0.30	82.00	MILE
				\$79.50	
01-13-93	R2145	DUMP TRUCK	\$140.00	1.00	DAY
01-12-93	R2145	DUMP TRUCK	\$140.00	1.00	DAY
				\$280.00	
01-13-93	R2148	DUMP TRUCK - 7 YARD	\$140.00	1.00	DAY
01-12-93	R2148	DUMP TRUCK - 7 YARD	\$140.00	1.00	DAY
				\$280.00	
01-12-93	R2149	DUMP TRUCK - 5 YARD	\$110.00	1.00	DAY
01-13-93	R2149	DUMP TRUCK - 5 YARD	\$110.00	1.00	DAY
				\$220.00	

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FCD EQUIPMENT COST = \$ 2,399.68  
 RENTAL EQUIPMENT COST = \$ 780.00  
 TOTAL EQUIPMENT COST = \$ 3,179.68

MATERIAL COST

QUEEN CREEK

01-19-93

WORK ORDER NUMBER 92-5011

01-11-93	033	RIPRAP	36.72	TON	\$	2.20
01-12-93	116	SAND BAG	1,000.00	EACH	\$	0.40

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TOTAL COST OF MATERIALS \$ 480.78

# LABOR COST REPORT FOR EMF

01-20-93

WORK ORDER  
92-5015

ASSIGNED TO  
RIVERA

COMPLETED BY

01-14-93  
SUBTOTAL OF HOURS= 10.00

01-14-93 BELTRAN JAMES 10.00  
SUBTOTAL OF HOURS= 10.00

01-13-93 BROWN DARRY 10.00  
SUBTOTAL OF HOURS= 10.00

01-14-93 COLEMAN LEONARD 10.00  
SUBTOTAL OF HOURS= 10.00

01-13-93 DAVIS DANNY 10.00  
SUBTOTAL OF HOURS= 10.00

01-14-93 DELAMARE RICHARD 10.00  
SUBTOTAL OF HOURS= 10.00

01-14-93 DUBOIS ARTHUR 10.00  
SUBTOTAL OF HOURS= 10.00

01-14-93 NAUD, III ROBERT 10.00  
SUBTOTAL OF HOURS= 10.00

01-14-93 NELL JACK 10.00  
SUBTOTAL OF HOURS= 10.00

01-13-93 REYNOLDS STEVE 10.00  
01-14-93 REYNOLDS STEVE 10.00  
SUBTOTAL OF HOURS= 20.00

01-14-93 RICHARDS LEOBORN 0.00  
SUBTOTAL OF HOURS= 0.00

01-14-93 SCHWARTZ GARY 10.00  
SUBTOTAL OF HOURS= 10.00

01-13-93 SUTTON JAMES 10.00  
SUBTOTAL OF HOURS= 10.00

01-14-93 WILLIAMS MARK 10.00  
SUBTOTAL OF HOURS= 10.00

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TOTAL HOURS WORKED = 140.00  
TOTAL COST = \$2,298.39

1/20/93

EQUIPMENT COST REPORT  
92-5015

01-14-93	00061	CAT GRADER 140 G	\$22.27	4.00	HOUR
				\$89.08	
01-13-93	00494	FRONT END LOADER, 3 YD, 150 H.P. 936	\$19.92	7.00	HOUR
01-14-93	00494	FRONT END LOADER, 3 YD, 150 H.P. 936	\$19.92	5.00	HOUR
				\$239.04	
01-14-93	00495	FRONT END LOADER, 3 YD, 150 H.P. 936	\$19.92	5.40	HOUR
				\$107.57	
01-14-93	32152	1991 CHEVY 1 TON 4X4 CREW CAB	\$0.45	76.00	MILE
				\$34.20	
01-14-93	32268	1992 CHEVY 3/4 TON 4X4 P/U UTILITY	\$0.43	108.00	MILE
				\$46.44	
01-14-93	32275	1992 CHEVY 3/4 TON 4X4 TANKER	\$0.43	141.00	MILE
				\$60.63	
01-14-93	32743	1987 CHEVY 3/4 TON 4X4 TANKER	\$0.38	107.00	MILE
				\$40.66	
01-13-93	32817	1988 CHEVY 3/4 TON 4X4 P/U - UTILITY	\$0.38	66.00	MILE
				\$25.08	
01-13-93	48108	1991 IHC 10 YD DUMP TRUCK	\$0.58	194.00	MILE
				\$112.52	
01-13-93	72132	1991 CHEVY S-10 4X4 TANKER	\$0.30	73.00	MILE
				\$21.90	
01-14-93	72240	1992 CHEVY S-10 4X4 TANKER	\$0.30	88.00	MILE
				\$26.40	
01-14-93	72801	1988 CHEVY S-10 4X4 TANKER	\$0.30	103.00	MILE
				\$30.90	
01-13-93	H9202	10 YD DUMP & OPERATOR	\$245.00	1.00	DAY
				\$245.00	
01-14-93	R2148	DUMP TRUCK - 7 YARD	\$140.00	1.00	DAY
				\$140.00	
01-14-93	R2149	DUMP TRUCK - 5 YARD	\$110.00	1.00	DAY
				\$110.00	

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FCD EQUIPMENT COST =	\$ 834.42
RENTAL EQUIPMENT COST =	\$ 495.00
TOTAL EQUIPMENT COST =	\$ 1,329.42