United States Department of the Interior

BUREAU OF RECLAMATION
Great Plains Region
Nebraska-Kansas Area Office
P.O. Box 1607
Grand Island, Nebraska 68802-1607

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
NK-100
RES-3.10

JUL 06 2006

BUREAU OF RECLAMATION NEBRASKA-KANSAS PROJECTS McCook, Nebraska		
7-10-06 Date Received		
Code	Initials	Action
400	MRCS	
410		
Action Completed By:		
Initials	Date	

Director, Nebraska Department of
Natural Resources
PO Box 94676
Lincoln, NE 68509-4676

Chief Engineer, Division of Water Resources
Kansas Department of Agriculture
901 S. Kansas Avenue, 2nd Floor
Topeka, KS 66612-1283

State Engineer, State of Colorado
Division of Water Resources
1313 Sherman Street, Room 818
Denver, CO 80203-2277

Subject: 2006 Harlan County Lake (HCL) Final Water Supply Calculation

Dear Sirs:

As identified in the Final Settlement Stipulation, the Bureau of Reclamation computed the available irrigation supply from HCL for the 2006 irrigation season to be 14,400 acre-feet (AF) using the actual storage available on June 30, 2006. This would indicate "Water-Short Year Administration" would be in effect with the irrigation supply being less than 119,000 AF.

If you have any questions, please contact Marv Swanda at 308-345-1027.

Sincerely,

Stephen F. Ronshaugen
Acting For Alice E. Johns
Area Manager

cc: District Engineer, Corps of Engineers, Room 845, 601 East 12th Street, Room 845, Kansas City, KS 64106
Regional Director, Billings, MT, Attention: GP-4500 (Gordon Aycock)

bc: NK-400 Marv
NK-410 Bill

WBR:CScott:treichert:7-06-06:308-345-1030
HCL-Trigger-Final-June.doc RES-3.10

Trigger Calculation - End of June

Units-1000 Acre-feet

Trigger Target 119.0

Year	End of May HCL Irrigation Release Estimate	June HCL River Release	June HCL Franklin Release	June HCL Naponee Release	June HCL Inflow	June HCL Evaporation Loss	HCL End of June Irrigation Supply	HCL Expected Total Irrigation Supply	Trigger Year (Yes/No)
2006	15.7	4.4	0.0	0.0	3.1	4.4	10.0	14.4	**YES**

1														
2	**Trigger Calculations**			Irrigation Target	119.0									
3	**Based on Harlan County Lake**			Bottom Irrigation	164.1									
4	**Irrigation Supply**			Evaporation Adjust	20.0									
5		**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Total**
6	1993 Level AVE inflow	6.3	5	4.7	4.5	8.8	14.1	13.0	17.2	30.6	11.0	6.2	5.4	126.8
7	1993 Level AVE evap	2.2	1.3	0.5	0.6	0.8	1.5	2.7	3.2	3.9	5.2	4.1	2.7	28.7
8	(1931-93)													
9														
10	Avg. Inflow Last 5 Years	3.4	3.1	2.5	3.6	6.1	11.0	11.1	10.3	8.3	4.5	3.3	3.4	70.6
11														
12	**Year 2005-2006**													
13	**Trigger Calculation**													
14	Calculation Month	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	
15	Previous EOM Content	131.8	129.7	128.1	128.1	130.1	131.4	136.0						
16	Inflow to May 31	73.6	67.3	62.3	57.6	53.1	44.3	30.2	17.2	0.0				
17	Last 5 Yrs Avg Inflow to May 31	51.2	47.8	44.7	42.6	38.5	32.5	21.5	10.3	0.0				
18	Evap to May 31	12.8	10.6	9.3	8.8	8.2	7.4	5.9	3.2	0.0				
19	Est. Cont May 31	170.2	166.9	163.5	161.9	160.4	156.5	151.6	7.1	0.0				
20	Est. Elevation May 31	1933.15	1932.80	1932.43	1932.26	1932.11	1931.67	1931.12	#N/A	#N/A				
21	Max. Irrigation Available	26.1	22.8	19.4	17.8	16.3	12.4	7.5	-137.0	-144.1				
22	Irrigation Release Est.	23.0	20.1	17.1	15.7	15.7	15.7	15.7	15.7	15.7				
23	Administration Yes/No	YES	YES	YES	YES	YES	YES	YES	YES	YES				

Harlan County Lake Inflows

Data from COE Reservoir Operations Reports

5-Yr Avg Jan-May Inflows

	Jan	Feb	Mar	Apr	May	
2001	9154	13557	32231	23980	26469	105391
2002	6555	8529	9600	9342	10334	44360
2003	280	1974	3729	8073	8499	22555
2004	833	819	2489	2638	2638	9417
2005	992	5474	7002	11673	6040	31181
	3563	6071	11010	11141	10796	**42581**

MONTHLY RESERVOIR OPERATION JUN 2006

RESERVOIR HARLAN COUNTY | RIVER REPUBLICAN | DISTRICT KANSAS CITY

MISSOURI RIVER REGION | U.S. ARMY CORPS OF ENGINEERS

	ELEV. MSL	STORAGE AC-FT	PAN INCH	EVAP. CFS	MEAN DISCHARGE IN CFS OUTFLOW RIVER	FRCAL	NAP	INFLOW RIVER
1	1929.50	137,717	0.35	73	0-	0+	0+	40
2	1929.49	137,634	0.36	75	0	0	0	25
3	1929.46	137,385	0.39	81	0	0	0	10
4	1929.43	137,137	0.35	73	0	0	0	7
5	1929.43	137,137	0.38	79	0	0	0	5
6	1929.46	137,385	0.20	42	0	0	0	25
7	1929.41	136,971	0.36	75	0	0	0	10
8	1929.41	136,971	0.49	102	0	0	0	7
9	1929.37	136,640	0.55	114	0	0	0	5
10	1929.31	136,392	0.46	95	0	0	0	5
11	1929.33	136,309	0.42	87	0	0	0	80
12	1929.31	136,143	0.17-	35-	0	0	0	5
13	1929.30	136,060	0.34	70	0	0	0	5
14	1929.28	135,895	0.33	68	0	0	0	5
15	1929.25	135,646	0.82+	169+	0	0	0	5
16	1929.27	135,812	0.46	95	0	0	0	150
17	1929.51+	137,799	0.27	56	0	0	0	700+
18	1929.51	137,799	0.24	50	0	0	0	55
19	1929.50	137,717	0.39	81	0	0	0	35
20	1929.48	137,551	0.34	71	0	0	0	15
21	1929.51	137,799	0.44	92	0	0	0	200
22	1929.48	137,551	0.29	60	0	0	0	20
23	1929.43	137,137	0.23	48	92	0	0	15
24	1929.41	136,971	0.33	68	192	0	0	100
25	1929.33	136,309	0.26	54	291	0	0	15
26	1929.20	135,232	0.33	68	383	0	0	7
27	1929.09	134,321	0.25	51	400+	0	0	5
28	1928.99	133,497	0.30	61	299	0	0	3-
29	1928.89	132,705	0.31	63	300	0	0	3
30	1928.80-	131,992	0.31	63	278	0	0	3
TOT	(DSF)		10.72	2215	2,235	0	0	1,565
TOT	(AC-FT)			4394	4,433	0	0	3,104
MN	1929.34		0.36	74	74	0	0	52

REMARKS - RESERVOIR STORAGE EOM = 131,992 CHNG = -5725
+ MAX. MONTHLY MAX = 137,799 (17) MIN = 131,992 (30)
- MIN. MONTHLY PRECIP. = 5.16 INCHES

DwB
7/6/06