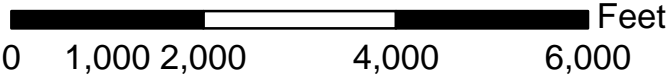


\* Travel time is measured from the initiation of breach formation to the time the breach wave arrives at the section.

The inundation area was developed based on a breach with the water surface at the higher of the auxiliary spillway elevation or 100-year, 6-hour storm event. Cross sections were developed using 2-meter LIDAR data.

1:24,000



Attachment 1:  
Inundation Area  
Boundary Map

REVISIONS		
DATE	APPROVED	TITLE

Section	HECRAS Station	Distance Downstream of Dam, ft	Max. Elev of Breach Flood	Elevation of Stream bed	Travel Time, hrs	Flow at Section @ Peak Elev	Flow Top Width at Section @ Peak Elev	Avg. Velocity at Section, ft/sec
18	Wakarusa River_3_49315	24,056	820.1	807.8	3.1	9,090	2,985	1.3
18_TRIB	DDG- 0102_1_1947	26,003	820.1	817.9	3.1	10	18	0.5
17	Wakarusa River_3_45717	27,654	816.8	803.1	3.8	7,625	2,645	1.9
16	Wakarusa River_3_42901	30,470	814.9	799.3	4.7	5,937	3,590	0.9
15	Wakarusa River_3_40476	32,895	814.5	797.0	5.1	5,235	5,058	0.7
14	Wakarusa River_3_37535	35,836	812.5	795.1	5.7	4,833	231	3.1
13	Wakarusa River_3_33038	40,332	809.3	789.3	6.3	4,504	125	2.8
12	Wakarusa River_3_29500	43,870	807.9	788.1	6.6	4,348	181	2.4
11	Wakarusa River_3_24213	49,158	805.5	785.7	7.1	4,086	196	2.3
10	Wakarusa River_3_21497	51,873	804.2	786.6	7.4	3,958	172	2.4
9	Wakarusa River_3_20079	53,291	803.6	786.4	7.6	3,897	191	2.1
8	Wakarusa River_2_18855	54,515	803.2	786.1	7.6	3,863	139	2.7
8_TRIB	DDG- 0055_1_538	55,053	803.2	798.6	7.6	9	40	0.1
7	Wakarusa River_2_17014	56,356	802.4	785.6	7.9	3,798	194	1.9
6	Wakarusa River_2_14509	58,861	801.2	785.2	8.0	3,758	166	2.8
5	Wakarusa River_2_12617	60,754	799.9	784.7	8.0	3,729	241	2.0
4	Wakarusa River_1_9192	64,178	798.8	783.9	8.0	3,539	213	2.1
4_TRIB	Little Wakarusa_1_1981	66,159	798.8	786.3	8.0	- 52	77	- 0.1
3	Wakarusa River_1_6053	67,317	797.3	782.3	8.0	3,423	160	2.2
2	Wakarusa River_1_3394	69,976	795.4	782.3	8.0	3,325	105	3.2
1	Wakarusa River_1_1939	71,432	793.7	782.3	8.0	3,277	105	3.3

Designed	EWR	Date	06/2009
Drawn	DMM	Date	07/06/2009
Checked	JW	Date	06/2009
Approved	AGB	Date	06/2009

DDG-0247 FRD30 NID-KS04097  
DOUGLAS COUNTY, KANSAS



File Name
Drawing Name
07/06/2009
Sheet 2 of 2