FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 2 OF 4

DOUGLAS COUNTY, NEBRASKA

AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
BENNINGTON, CITY OF	310074
BOYS TOWN, VILLAGE OF	310353
DOUGLAS COUNTY, UNINCORPORATED AREAS	310073
OMAHA, CITY OF	315274
RALSTON, CITY OF	310077
VALLEY, CITY OF	310078
WATERLOO, VILLAGE OF	310079

REVISED:

FEMA

PRELIMINARY

2/17/2022

TO BE DETERMINED

FLOOD INSURANCE STUDY NUMBER
31055CV002E
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Published Separately

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Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1423	49	272	6.6	1050.3	1,039.1[2]	1039.1	0.0
B	1512	55	315	5.8	1050.3	1,040.2[2]	1040.2	0.0
C	1620	66	512	3.5	1050.3	1,041.2[2]	1041.2	0.0
D	1,648	52	384	4.7	1050.3	1,042.7[2]	1042.7	0.0
E	3,249	52	291	4.4	1050.3	1,047.3[2]	1047.3	0.0
F	3,307	59	329	3.9	1050.3	1,047.7[2]	1047.7	0.0
G	3,485	29	115	11.1	1050.3	1,048.2[2]	1048.3	0.1
H	3,725	49	315	4.0	1051.1	1051.1	1051.1	0.0
I	4,843	53	146	8.7	1,053.1	1,053.1	1,053.2	0.1
J	5,079	53	227	5.6	1,056.3	1,056.3	1,056.3	0.0
K	5,246	49	142	8.9	1,063.2	1,063.2	1,063.2	0.0
L	5,951	40	159	8.0	1,066.5	1,066.5	1,066.5	0.0
M	6,139	59	226	5.6	1,073.6	1,073.6	1,073.6	0.0
N	6,166	63	275	4.6	1,073.9	1,073.9	1,073.9	0.0
O	6,735	54	252	5.0	1,075.7	1,075.7	1,075.7	0.0
P	6,769	63	300	4.2	1,075.9	1,075.9	1,075.9	0.0
Q	7,143	52	252	5.1	1,076.7	1,076.7	1,076.7	0.0
R	7,163	48	251	5.1	1,076.7	1,076.7	1,076.7	0.0
S	7,378	34	143	8.9	1,077.2	1,077.2	1,077.2	0.0
T	7,514	26	197	6.4	1,078.9	1,078.9	1,078.9	0.0

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BIG PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: EAGLE RUN CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
U	7,533	85	387	3.3	1087.9	1087.9	1087.9	0.0
V	7,915	43	173	5.7	1090.1	1090.1	1090.1	0.0
W	7,944	58	171	5.7	1090.3	1090.3	1090.3	0.0
X	8,111	79	263	3.7	1092.3	1092.3	1092.3	0.0
Y	8,127	69	268	3.7	1093.4	1093.4	1093.4	0.0
Z	8,725	31	102	9.8	1094.8	1094.8	1094.8	0.0
AA	8,782	34	139	7.1	1097.3	1097.3	1097.3	0.0
AB	8,980	37	180	5.5	1098.6	1098.6	1098.6	0.0
AC	9,000	47	207	4.7	1099.7	1099.7	1099.7	0.0
AD	9,279	63	264	3.7	1100.6	1100.6	1100.6	0.0
AE	9,292	77	319	3.1	1101.3	1101.3	1101.3	0.0
AF	9,469	51	239	4.2	1101.5	1101.5	1101.5	0.0
AG	9,501	39	213	4.6	1101.7	1101.7	1101.8	0.1
AH	9,727	41	256	3.8	1102.2	1102.2	1102.2	0.0

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: EAGLE RUN CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	5,917	69	412	5.9	1,140.9	1,140.9	1,141.4	0.5
B	6,408	45	202	8.8	1,145.7	1,145.7	1,145.7	0.0
C	6,533	41	171	10.4	1,146.7	1,146.7	1,146.8	0.1

[1]FEET ABOVE CONFLUENCE WITH GLENN CUNNINGHAM RESERVOIR

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: EAST KNIGHT CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,040	4,586/680[2]	17,404	7.6	1,102.0[3]	1101.7[4]	1,101.7	0.0
B	3,900	4,819	21,621	6.1	1,104.1[3]	1104.1	1,104.2	0.1
C	9,050	3,800	14,900	5.9	1,108.5	1108.5	1,109.3	0.8
D	9,350	4,000	26,440	3.3	1,108.7	1108.7	1,109.7	1.0
E	9,700	4,030	40,180	2.2	1,112.1	1112.1	1,112.7	0.6
F	13,180	6,470	56,000	1.6	1,112.3	1112.3	1,113.2	0.9
G	16,930	5,630	52,920	1.7	1,112.7	1112.7	1,113.7	1.0
H	20,530	5,880	50,820	1.7	1,113.3	1,113.3	1,114.3	1.0
I	20,880	6,540	54,760	1.6	1,115.9	1,115.9	1,116.8	0.9
J	22,090	6,940	55,810	1.6	1,116.0	1,116.0	1,117.0	1.0
K	26,530	8,150	68,330	1.3	1,116.5	1,116.5	1,117.5	1.0
L	30,190	8,000	53,360	1.5	1,117.0	1,117.0	1,118.0	1.0
M	34,720	9,150	46,360	1.9	1,118.1	1,118.1	1,118.9	0.8
N	35,530	7,400	57,670	1.5	1,120.0	1,120.0	1,121.0	1.0
O	40,260	7,240	46,960	1.9	1,121.0	1,121.0	1,122.0	1.0
P	43,790	4,310	43,700	2.0	1,122.9	1,122.9	1,123.7	0.8
Q	45,230	2,360	12,500	7.1	1,127.9	1,127.9	1,128.0	0.1

[1]FEET ABOVE A POINT APPROXIMATELY 9,350 FEET DOWNSTREAM OF WEST Q ROAD
[2]TOTAL WIDTH/WIDTH WITHIN JURISDICTION
[3]ELEVATIONS COMPUTED WITH CONSIDERATION OF ICE JAM EFFECTS
[4]ELEVATIONS COMPUTED WITH CONSIDERATION OF FLOODING CONTROLLED BY PLATTE RIVER

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: ELKHORN RIVER

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
R	48,430	3,890	36,810	2.4	1,128.7	1,128.7	1,128.9	0.2
S	48,830	3,390	31,390	2.8	1,128.7	1,128.7	1,129.0	0.3
T	53,390	5,700	46,270	1.9	1,129.6	1,129.6	1,130.3	0.7
U	54,760	5,380	31,190	2.8	1,130.1	1,130.1	1,131.1	1.0
V	58,700	6,230	47,320	1.9	1,131.3	1,131.3	1,132.2	0.9
W	61,630	6,000	40,840	2.2	1,132.3	1,132.3	1,133.2	0.9
X	65,130	5,000	25,250	3.5	1,133.4	1,133.4	1,134.0	0.6
Y	68,930	5,500	34,300	2.6	1,134.8	1,134.8	1,135.8	1.0
Z	72,530	4,900	31,750	2.8	1,136.4	1,136.4	1,137.3	0.9
AA	77,330	5,400	34,580	2.6	1,138.1	1,138.1	1,139.0	0.9
AB	82,070	7,000	45,680	1.9	1,139.6	1,139.6	1,140.6	1.0
AC	85,220	7,070	38,070	2.3	1,140.8	1,140.8	1,141.7	0.9
AD	88,670	8,400	28,250	3.1	1,142.8	1,142.8	1,143.7	0.9
AE	89,620	8,540	64,200	1.4	1,146.0	1,146.0	1,147.0	1.0
AF	91,060	8,740	58,840	1.5	1,146.1	1,146.1	1,147.1	1.0
AG	95,960	8,200	65,040	1.4	1,146.7	1,146.7	1,147.7	1.0
AH	100,110	7,760/5,000[2]	38,480	2.3	1,147.2	1,147.2	1,148.2	1.0
AI	103,780	5,900/2,600[2]	33,460	2.6	1,148.3	1,148.3	1,149.3	1.0

[1]FEET ABOVE A POINT APPROXIMATELY 9,350 FEET DOWNSTREAM OF WEST Q ROAD
[2]TOTAL WIDTH/WIDTH WITHIN JURISDICTION

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: ELKHORN RIVER

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,927	444	2,641	0.8	1,044.0	1,044.0	1,044.3	0.3
B	2,177	217	1,561	1.3	1,044.0	1,044.0	1,044.3	0.3
C	2,538	113	772	2.6	1,044.1	1,044.1	1,044.3	0.2
D	2,810	191	2,138	0.9	1,049.0	1,049.0	1,049.1	0.1
E	3,554	119	1,094	1.8	1,049.1	1,049.1	1,049.2	0.1
F	4,363	96	726	2.8	1,049.3	1,049.3	1,049.5	0.2
G	4,798	88	570	3.5	1,049.6	1,049.6	1,049.8	0.2
H	5,074	80	485	4.2	1,050.0	1,050.0	1,050.1	0.1
I	5,629	82	808	2.8	1,058.6	1,058.6	1,058.6	0.0
J	5,901	106	1,088	2.7	1,058.7	1,058.7	1,058.7	0.0
K	6,077	207	2,415	1.4	1,068.8	1,068.8	1,068.8	0.0
L	6,849	168	1,826	1.1	1,068.8	1,068.8	1,068.8	0.0
M	7,674	119	1,400	1.0	1,068.9	1,068.9	1,068.9	0.0

[1]FEET ABOVE CONFLUENCE WITH LITTLE PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: ELMWOOD CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,076	87	130	6.5	1,041.3	1,041.3	1,041.3	0.0
B	2,192	62	128	6.6	1,043.2	1,043.2	1,043.2	0.0

[1] Feet above confluence with Little Papillion Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: ELMWOOD CREEK OVERLAND

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	310	43	243	7.8	1,012.1	1,000.3[2]	1,000.4	0.1
B	425	35	162	12.8	1,012.1	1,001.5[2]	1,001.5	0.0
C	533	46	352	6.1	1,012.1	1,005.6[2]	1,005.6	0.0
D	909	57	470	5.1	1,013.8	1,013.8	1,013.8	0.0
E	1,496	37	254	7.5	1,017.1	1,017.1	1,017.1	0.0
F	2,283	59	511	6.1	1,024.6	1,024.6	1,024.6	0.0
G	2,693	108	727	3.3	1,039.7	1,039.7	1,039.7	0.0
H	3,214	122	729	2.9	1,040.1	1,040.1	1,040.1	0.0
I	3,672	122	270	7.0	1,043.0	1,043.0	1,043.1	0.1

[1]FEET ABOVE CONFLUENCE WITH LITTLE PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM LITTLE PAPILLION CREEK

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,119	36	174	6.3	1,024.3	1,023.2[2]	1,023.2	0.0
B	1,650	42	197	5.5	1,026.3	1,026.3	1,026.3	0.0
C	1,780	36	143	7.6	1,026.7	1,026.7	1,026.7	0.0
D	1,884	50	189	5.8	1,030.8	1,030.8	1,030.8	0.0
E	1,944	40	143	7.6	1,030.9	1,030.9	1,030.9	0.0
F	2,137	46	209	5.2	1,032.6	1,032.6	1,032.6	0.0
G	2,280	38	156	7.0	1,032.9	1,032.9	1,032.9	0.0
H	2,419	36	160	6.8	1,033.7	1,033.7	1,033.7	0.0
I	2,512	51	262	4.2	1,034.8	1,034.8	1,034.8	0.0

[1] Feet above confluence with Big Papillion Creek
[2] Elevation computed without consideration of backwater effects from Big Papillion Creek

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	952	46	175	10.3	1,083.0	1,080.5[2]	1,080.5	0.0
B	1,068	37	152	11.2	1,083.0	1,082.3[2]	1,082.3	0.0
C	1,235	37	152	11.2	1,084.9	1,084.9	1,084.9	0.0
D	1,450	77	321	5.3	1,087.8	1,087.8	1,087.8	0.0
E	1,657	58	352	4.8	1,088.4	1,088.4	1,088.4	0.0
F	1,889	45	273	6.2	1,088.7	1,088.7	1,088.7	0.0
G	2,132	55	350	5.3	1,089.6	1,089.6	1,089.6	0.0
H	2,498	61	275	6.2	1,092.1	1,092.1	1,092.1	0.0
I	2,658	47	189	9.0	1,092.4	1,092.4	1,092.4	0.0
J	2,772	46	313	5.4	1,094.0	1,094.0	1,094.0	0.0

[1]FEET ABOVE CONFLUENCE WITH LITTLE PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM LITTLE PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: GLENBROOK CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	494	51	218	3.3	1,094.1	1,081.2[2]	1,081.2	0.0
B	980	28	92	7.7	1,094.1	1,085.9[2]	1,085.9	0.0
C	1,746	37	164	4.3	1,094.1	1,090.4[2]	1,090.4	0.0
D	2,139	49	219	3.2	1,094.1	1,091.4[2]	1,091.4	0.0
E	2,999	30	133	5.3	1,098.8	1,098.8	1,098.8	0.0
F	4,500	29	89	7.9	1,104.3	1,104.3	1,104.3	0.0
G	5,500	30	138	5.1	1,108.7	1,108.7	1,108.7	0.0
H	5,991	58	156	4.5	1,117.1	1,117.1	1,117.4	0.3
I	7,000	27	80	8.8	1,120.6	1,120.6	1,120.6	0.0
J	8,080	68	389	2.4	1,124.7	1,124.7	1,124.7	0.0
K	8,188	38	178	4.1	1,133.9	1,133.9	1,133.9	0.0
L	9,500	24	80	8.8	1,136.9	1,136.9	1,136.9	0.0
M	10,513	25	79	3.6	1,141.7	1,141.7	1,141.7	0.0

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BIG PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	5,791	160	926	4.6	1,053.0	1,053.0	1,053.1	0.1
B	7,159	193	798	5.4	1,056.3	1,056.3	1,056.3	0.0
C	8,353	112	992	4.3	1,059.1	1,059.1	1,059.1	0.0
D	8,537	147	1,003	4.2	1,061.4	1,061.4	1,061.4	0.0
E	9,573	88	906	4.7	1,063.2	1,063.2	1,063.2	0.0
F	10,168	87	701	6.0	1,064.8	1,064.8	1,064.8	0.0
G	11,020	126	1,285	3.4	1,081.5	1,081.5	1,081.5	0.0
H	11,524	352	1,812	4.9	1,081.8	1,081.8	1,081.8	0.0
I	11,878	517	3,452	2.2	1,086.9	1,086.9	1,087.6	0.7
J	12,603	198	1,428	3.0	1,087.2	1,087.2	1,087.9	0.7
K	13,667	128	1,118	3.8	1,087.6	1,087.6	1,088.4	0.8
L	13,876	133	967	4.4	1,088.0	1,088.0	1,088.9	0.9
M	14,431	119	1,379	5.5	1,098.2	1,098.2	1,098.2	0.0
N	15,576	74	629	2.7	1,099.5	1,099.5	1,099.6	0.1
O	16,770	49	296	5.7	1,100.1	1,100.1	1,100.2	0.1
P	17,343	50	303	5.5	1,102.0	1,102.0	1,102.0	0.0
Q	18,504	88	380	4.7	1,106.8	1,106.8	1,106.8	0.0
R	18,820	107	399	4.2	1,108.8	1,108.8	1,109.0	0.2
S	19,476	60	289	6.0	1,110.5	1,110.5	1,110.5	0.0
T	19,559	82	442	3.8	1,112.2	1,112.2	1,112.5	0.3
U	20,355	71	366	4.6	1,113.7	1,113.7	1,113.8	0.1
V	20,428	111	459	3.7	1,115.0	1,115.0	1,115.2	0.2
W	21,135	62	294	5.8	1,116.3	1,116.3	1,116.3	0.0
X	21,739	56	321	5.6	1,119.0	1,119.0	1,119.0	0.0
Y	21,805	112	554	3.0	1,123.9	1,123.9	1,124.4	0.5
Z	22,322	100	591	2.8	1,124.6	1,124.6	1,125.0	0.4

[1]FEET ABOVE CONFLUENCE WITH WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	23,009	70	300	5.6	1,125.6	1,125.6	1,125.8	0.2
AB	23,690	71	281	6.0	1,127.2	1,127.2	1,127.4	0.2
AC	24,025	43	240	2.6	1,128.3	1,128.3	1,128.4	0.1
AD	24,365	46	118	5.3	1,133.3	1,133.3	1,133.3	0.0
AE	24,442	74	227	2.7	1,134.3	1,134.3	1,134.3	0.0
AF	25,476	52	110	5.6	1,138.6	1,138.6	1,138.7	0.1
AG	26,634	61	179	4.0	1,145.4	1,145.4	1,145.5	0.1
AH	27,522	56	197	3.6	1,145.7	1,145.7	1,145.9	0.2
AI	28,287	111	564	1.3	1,155.0	1,155.0	1,155.1	0.1
AJ	28,834	94	718	1.0	1,160.3	1,160.3	1,160.3	0.0
AK	30,199	68	142	5.7	1,160.5	1,160.5	1,160.6	0.1
AL	30,396	100	828	0.9	1,166.8	1,166.8	1,167.2	0.4
AM	31,178	80	328	2.2	1,166.8	1,166.8	1,167.4	0.6
AN	31,545	62	162	4.4	1167.0	1,167.0	1,167.8	0.8
AO	32,597	41	92	7.8	1,174.5	1,174.5	1,175.3	0.8

[1]FEET ABOVE CONFLUENCE WITH WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	407	40	254	6.3	1,116.0	1,109.5[2]	1,109.5	0.0
B	864	58	369	4.3	1,116.0	1,115.7[2]	1,115.7	0.0
C	1,304	39	260	6.1	1,116.4	1,116.4	1,116.4	0.0
D	2,043	45	266	6.0	1,121.1	1,121.1	1,121.1	0.0
E	2,372	44	180	8.8	1,122.4	1,122.4	1,122.4	0.0

[1] Feet above confluence with North Branch West Papillion Creek

[2] Elevation computed without consideration of effects from flooding with North Branch West Papillion Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: HUNTINGTON CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,392	70	495	4.3	1,146.7	1,138.2[2]	1,138.2	0.0
B	1,668	42	190	11.2	1,146.7	1,138.0[2]	1,138.1	0.1
C	2,295	44	258	8.2	1,146.7	1,142.1[2]	1,142.1	0.0
D	2,652	62	271	7.8	1,146.7	1,143.5[2]	1,143.5	0.0
E	3,019	64	352	6.0	1,146.7	1,145.1[2]	1,145.1	0.0
F	4,076	46	249	8.5	1,147.8	1,147.8	1,147.8	0.0
G	5,181	45	251	8.5	1,154.1	1,154.1	1,154.1	0.0
H	6,195	45	209	9.4	1,158.3	1,158.3	1,158.3	0.0
I	6,476	71	370	5.3	1,166.9	1,166.9	1,166.9	0.0
J	6,631	44	259	7.6	1,167.1	1,167.1	1,167.1	0.0
K	7,172	58	302	6.5	1,168.9	1,168.9	1,168.9	0.0
L	7,381	49	254	7.7	1,169.6	1,169.6	1,169.6	0.0
M	8,148	51	283	6.9	1,173.6	1,173.6	1,173.6	0.0
N	8,477	41	189	10.4	1,174.5	1,174.5	1,174.5	0.0
O	8,534	37	208	9.4	1,175.6	1,175.6	1,175.6	0.0
P	9,194	49	205	9.6	1,178.3	1,178.3	1,178.3	0.0
Q	9,254	68	387	5.1	1,180.1	1,180.1	1,180.1	0.0
R	9,663	280	1,848	1.6	1,194.3	1,194.3	1,194.4	0.1
S	10,734	160	741	1.4	1,194.4	1,194.4	1,194.5	0.1
T	11,292	73	248	4.4	1,195.2	1,195.2	1,195.3	0.1
U	11,462	102	444	2.4	1,200.3	1,200.3	1,200.4	0.1
V	11,851	154	374	2.8	1,200.5	1,200.5	1,200.6	0.1
W	11,946	72	181	5.8	1,206.2	1,206.2	1,206.2	0.0
X	12,260	218	1,052	1.1	1,207.2	1,207.2	1,207.2	0.0
Y	12,706	84	282	3.7	1,208.6	1,208.6	1,208.6	0.0
Z	12,776	78	216	4.9	1,208.7	1,208.7	1,208.8	0.1

[1]FEET ABOVE CONFLUENCE WITH WEST PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (Feet)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET / SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	3,000	189	2,485	9.0	1,010.2	1,009.7[2]	1,009.7	0.0
B	3,500	167	2,094	10.7	1,010.2	1,009.9[2]	1,009.9	0.0
C	5,237	207	3,030	8.0	1,012.2	1,012.2	1,012.2	0.0
D	6,257	249	2,687	9.0	1,015.5	1,015.5	1,015.6	0.1
E	7,292	236	2,622	9.2	1,016.9	1,016.9	1,016.9	0.0
F	7,985	221	2,466	9.8	1,017.8	1,017.8	1,017.9	0.1
G	10,376	267	3,402	7.1	1,021.3	1,021.3	1,021.3	0.0
H	11,605	209	2,463	8.2	1,022.1	1,022.1	1,022.1	0.0
I	12,026	140	1,763	11.5	1,023.2	1,023.2	1,023.2	0.0
J	12,427	234	2,492	8.1	1,028.9	1,028.9	1,029.0	0.1
K	12,903	280	2,966	6.8	1,030.1	1,030.1	1,030.3	0.2
L	13,997	317	3,436	5.9	1,031.1	1,031.1	1,031.6	0.5
M	14,228	336	3,411	5.9	1,031.5	1,031.5	1,032.0	0.5
N	14,681	263	3,162	6.4	1,032.1	1,032.1	1,032.5	0.4
O	15,073	192	2,583	7.6	1,032.3	1,032.3	1,032.9	0.6
P	15,830	286	3,679	5.3	1,034.4	1,034.4	1,034.6	0.2
Q	16,815	238	3,050	6.3	1,035.8	1,035.8	1,036.0	0.2
R	17,928	298	2,985	6.4	1,037.0	1,037.0	1,037.8	0.8
S	18,987	244	3,859	4.8	1,038.1	1,038.1	1,038.8	0.7
T	20,575	206	2,662	7.0	1,038.8	1,038.8	1,039.3	0.5
U	21,481	311	2,834	6.6	1,039.9	1,039.9	1,040.4	0.5
V	22,500	225	2,314	8.1	1,042.2	1,042.2	1,042.4	0.2
W	24,001	248	1,998	7.2	1,043.9	1,043.9	1,044.9	1.0
X	26,001	177	2,006	7.2	1,046.4	1,046.4	1,047.1	0.7
Y	26,784	164	1,751	8.2	1,047.3	1,047.3	1,048.1	0.8
Z	29,498	158	1,354	10.2	1,051.0	1,051.0	1,051.2	0.2

[1] Feet Above Confluence With Big Papillion Creek

[2] Computed Without Consideration of Backwater Effects from Big Papillion Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: LITTLE PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (Feet)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET / SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	30,206[1]	163	1,476	9.4	1,052.6	1,052.6	1,053.1	0.5
AB	31,998[1]	120	1,341	10.3	1,055.1	1,055.1	1,055.3	0.2
AC	33,633[1]	215	2,431	6.0	1,061.9	1,061.9	1,062.4	0.5
AD	35,501[1]	204	1,620	7.1	1,063.0	1,063.0	1,063.4	0.4
AE	38,002[1]	111	1,240	9.3	1,065.7	1,065.7	1,065.9	0.2
AF	39,001[1]	182	1,382	8.8	1,068.8	1,068.8	1,069.0	0.2
AG	40,501[1]	189	1,154	10.0	1,071.6	1,071.6	1,071.6	0.0
AH	42,971[1]	348	2,556	4.5	1,080.4	1,080.4	1,080.8	0.4
AI	44,192[1]	147	1,248	2.6	1,081.5	1,081.5	1,082.1	0.6
AJ	46,076[1]	181	1,137	2.9	1,082.0	1,082.0	1,082.6	0.6
AK	47,918[1]	178	676	4.8	1,083.1	1,083.1	1,083.5	0.4
AL	48,640[1]	105	531	6.1	1,084.5	1,084.5	1,084.8	0.3
AM	49,438[1]	94	633	2.3	1,085.8	1,085.8	1,086.0	0.2
AN	51,815[1]	79	448	3.2	1,087.0	1,087.0	1,087.1	0.1
AO	52,522[1]	59	248	5.8	1,087.4	1,087.4	1,087.5	0.1
AP	53,523[1]	159	747	1.9	1,092.6	1,092.6	1,092.6	0.0
AQ	54,907[1]	73	337	4.2	1,093.3	1,093.3	1,093.4	0.1
AR	126[2]	*	*	*	1,128.6	*	*	*
AS	2,726[2]	*	*	*	1,134.9	*	*	*
AT	5,226[2]	*	*	*	1,135.2	*	*	*
AU	7,226[2]	*	*	*	1,140.5	*	*	*
AV	9,723[2]	*	*	*	1,141.4	*	*	*
AW	12,080[2]	*	*	*	1,146.5	*	*	*

[1] Feet Above Confluence With Big Papillion Creek

[2] Feet Above Confluence With Glenn Cunngingham Reservoir

* Not Computed as a part of this Flood Risk Project

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: LITTLE PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,500	26	77	5.6	1,080.0	1,068.6[2]	1,068.6	0.0
B	2,000	27	81	5.4	1,080.0	1,070.6[2]	1,070.6	0.0
C	2,500	27	69	6.2	1,080.0	1,072.8[2]	1,072.8	0.0
D	3,371	27	89	4.9	1,080.0	1,077.8[2]	1,077.8	0.0
E	3,631	21	66	6.6	1,080.9	1,080.9	1,080.9	0.0
F	4,088	27	81	5.3	1,083.2	1,083.2	1,083.2	0.0
G	4,204	30	83	5.2	1,083.8	1,083.8	1,083.8	0.0
H	4,500	23	51	8.5	1,084.8	1,084.8	1,084.8	0.0
I	4,899	28	89	4.8	1,087.6	1,087.6	1,087.6	0.0
J	5,253	33	132	3.3	1,088.4	1,088.4	1,088.4	0.0
K	5,500	25	84	5.1	1,088.6	1,088.6	1,088.6	0.0
L	6,000	24	54	6.9	1,090.4	1,090.4	1,090.4	0.0
M	6,500	30	85	4.4	1,092.9	1,092.9	1,092.9	0.0
N	7,000	27	57	6.5	1,094.6	1,094.6	1,094.6	0.0
O	7,470	35	93	4.0	1,096.7	1,096.7	1,096.7	0.0
P	8,027	17	42	8.9	1,098.9	1,098.9	1,098.9	0.0
Q	8,513	24	58	6.4	1,104.2	1,104.2	1,104.2	0.0
R	9,000	23	47	7.9	1,108.3	1,108.3	1,108.3	0.0

[1] Feet above confluence with Big Papillion Creek

[2] Elevation computed without consideration of backwater effects from Big Papillion Creek

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,905	85	591	2.0	1,137.4	1,137.4	1,137.8	0.4
B	4,001	68	184	6.6	1,139.5	1,139.5	1,139.5	0.0
C	5,099	52	196	6.2	1,144.1	1,144.1	1,144.1	0.0

[1]FEET ABOVE CONFLUENCE WITH GLENN CUNNINGHAM RESERVOIR

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	327	14	109	11.3	1,061.9	1,048.1[2]	1,048.1	0.0
B	906	36	220	5.6	1,061.9	1,061.5[2]	1,061.5	0.0
C	1,039	33	119	10.3	1,064.1	1,064.1	1,064.2	0.1
D	1,205	29	112	11	1,067.6	1,067.6	1,067.6	0.0
E	1,525	52	422	2.9	1,072.3	1,072.3	1,072.3	0.0
F	1,836	59	483	2.5	1,073.8	1,073.8	1,073.8	0.0
G	2,499	85	463	2.7	1,074.5	1,074.5	1,074.5	0.0
H	3,505	42	160	7.7	1,076.8	1,076.8	1,076.8	0.0
I	4,195	70	359	3.4	1,078.9	1,078.9	1,078.9	0.0
J	4,371	94	575	2.1	1,087.3	1,087.3	1,087.3	0.0
K	5,012	79	544	2.3	1,087.5	1,087.5	1,087.5	0.0
L	5,764	103	492	2.5	1,098.7	1,098.7	1,098.7	0.0
M	6,191	69	396	3.1	1,098.9	1,098.9	1,099.0	0.1
N	6,999	44	223	5.5	1,099.6	1,099.6	1,099.6	0.0

[1] Feet above confluence with Little Papillion Creek

[2] Elevation computed without consideration of backwater effects from Little Papillion Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MAPLE VILLAGE CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	361	26	73	6.9	1,038.9	1,022.2[2]	1,022.2	0.0
B	996	31	68	7.3	1,038.9	1,024.9[2]	1,024.9	0.0
C	1,185	33	64	7.8	1,038.9	1,027.8[2]	1,027.8	0.0
D	1,506	41	116	4.2	1,038.9	1,030.1[2]	1,030.1	0.0
E	1,632	17	49	9.9	1,038.9	1,031.1[2]	1,031.1	0.0
F	1,792	24	80	6.1	1,038.9	1,032.8[2]	1,032.8	0.0
G	2,503	22	55	8.9	1,038.9	1,036.9[2]	1,037.0	0.1
H	2,574	33	127	3.8	1,038.9	1,038.9	1,038.9	0.0
I	3,004	26	63	7.7	1,041.4	1,041.4	1,041.4	0.0
J	3,373	31	62	7.9	1,043.4	1,043.4	1,043.4	0.0
K	3,451	24	56	8.8	1,046.7	1,046.7	1,046.8	0.1
L	3,685	50	249	2.0	1,054.8	1,054.8	1,055.2	0.4

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BIG PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MEADOW LANE CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	4,719	74	317	5.4	1,113.9	1,113.9	1,114.0	0.1
B	5,053	106	502	3.4	1,116.2	1,116.2	1,116.3	0.1
C	5,494	101	279	6.1	1,116.9	1,116.9	1,117.1	0.2

[1]FEET ABOVE CONFLUENCE WITH SOUTH PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MISSION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE[3]
MISSOURI RIVER									
A	610.28	2,680 / 372	40,288	4.3		978.0	978.0	978.8	0.8
B	610.69	2,846 / 370	40,393	4.3		978.4	978.4	979.1	0.7
C	611.09	3,302 / 587	43,389	4.0		978.7	978.7	979.4	0.7
D	611.19	3,354 / 561	41,987	4.2		978.8	978.8	979.4	0.7
E	611.34	3,104 / 692	39,479	4.4	11	978.9	978.9	979.6	0.7
F	611.34	3,104 / 679	39,583	4.4	26	979.0	979.0	979.6	0.7
G	611.49	3,745 / 778	51,389	3.4	10	979.2	979.2	979.9	0.6
H	611.89	3,495 / 622	47,783	3.7		979.4	979.4	980.0	0.6
I	612.29	3,124 / 713	44,496	3.9	33	979.8	979.8	980.3	0.6
J	612.69	3,109 / 661	41,471	4.2	11	979.9	979.9	980.5	0.6
K	613.00	1,521 / 682	25,227	6.9	6	980.3	980.3	980.8	0.5
L	613.01	1,522 / 690	25,315	6.9	29	980.3	980.3	980.9	0.5
M	613.09	1,178 / 718	28,081	6.2	17	980.8	980.8	981.3	0.5
N	613.49	1,316 / 932	24,879	7.0	20	980.9	980.9	981.4	0.5
O	613.89	1,982 / 891	31,607	5.5	19	981.6	981.6	982.1	0.4
P	614.19	1,250 / 470	24,923	7.0	9	981.8	981.8	982.3	0.4
Q	614.32	1,118 / 476	23,588	7.4		982.0	982.0	982.4	0.4
R	614.33	1,119 / 482	23,661	7.4		982.0	982.0	982.4	0.4
S	614.59	1,118 / 380	23,251	7.5		982.3	982.3	982.7	0.4
T	614.69	1,053 / 418	22,218	7.9		982.4	982.4	982.8	0.4
U	615.05	1,461 / 397	25,978	6.7	60	982.9	982.9	983.3	0.4
V	615.07	1,373 / 361	25,731	6.8	37	983.0	983.0	983.4	0.4
W	615.09	1,356 / 373	25,052	7.0	21	983.0	983.0	983.3	0.4
X	615.49	2,055 / 381	31,077	5.6	136	983.7	983.7	984.0	0.3
Y	615.90	1,622 / 335	27,785	6.3		984.0	984.0	984.4	0.3

[1] Miles above confluence with Mississippi River
[2] Total floodway width (USACE 2007 model) / width within county
[3] Increase computed from non-rounded model water surface elevations

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MISSOURI RIVER

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE[3]
MISSOURI RIVER (CONTINUED)									
Z	616.31	2,084 / 0	37,460	4.7		984.7	984.7	985.0	0.3
AA	616.71	2,199 / 1,120	35,772	4.9		985.0	985.0	985.3	0.3
AB	617.11	2,008 / 1,193	36,172	4.8		985.5	985.5	985.8	0.3
AC	617.40	1,613 / 943	28,784	6.1		985.5	985.5	985.8	0.3
AD	617.40	1,613 / 962	28,841	6.1		985.6	985.6	985.8	0.3
AE	617.50	1,568 / 1,040	28,262	6.2		985.6	985.6	985.9	0.3
AF	617.90	1,512 / 1,099	26,349	6.6		985.9	985.9	986.2	0.3
AG	618.30	1,963 / 1,063	33,094	5.3		986.5	986.5	986.8	0.2
AH	618.70	1,797 / 1,226	31,806	5.5		986.9	986.9	987.1	0.2
AI	619.11	1,758 / 1,350	34,751	5.0	14	987.3	987.3	987.6	0.2
AJ	619.51	1,750 / 1,367	34,208	5.1	90	987.7	987.7	987.8	0.2
AK	619.91	1,754 / 1,344	32,686	5.3	59	987.9	987.9	988.1	0.2
AL	620.30	1,915 / 1,339	35,053	5.0	43	988.4	988.4	988.6	0.2
AM	620.70	2,017 / 1,347	36,212	4.8	31	988.8	988.8	989.0	0.2
AN	621.11	2,094 / 1,243	36,310	4.8	30	989.0	989.0	989.2	0.2
AO	621.51	2,104 / 1,227	37,838	4.6	29	989.4	989.4	989.6	0.2
AP	621.92	2,159 / 1,191	37,228	4.7	24	989.7	989.7	989.8	0.1
AQ	622.32	2,492 / 1,102	41,982	4.1	29	989.9	989.9	990.2	0.2
AR	622.72	2,329 / 741	36,745	4.7	95	990.1	990.1	990.4	0.3
AS	623.12	1,886 / 382	33,591	5.2	26	990.3	990.3	990.6	0.4
AT	623.52	1,707 / 488	30,532	5.7	13	990.4	990.4	990.8	0.4
AU	623.92	1,570 / 413	28,945	6.0	20	990.7	990.7	991.1	0.5
AV	624.33	1,358 / 379	26,458	6.6	64	990.8	990.8	991.4	0.6
AW	624.72	947 / 373	24,052	7.2		991.0	991.0	991.7	0.7

[1] Miles above confluence with Mississippi River
[2] Total floodway width (USACE 2007 model) / width within county
[3] Increase computed from non-rounded model water surface elevations

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MISSOURI RIVER

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE[3]
MISSOURI RIVER (CONTINUED)									
AX	625.12	952 / 385	24,045	7.2		991.3	991.3	992.1	0.7
AY	625.46	1,036 / 358	27,855	6.2		991.9	991.9	992.6	0.7
AZ	625.49	1,036 / 340	27,908	6.2		992.0	992.0	992.7	0.7
BA	625.50	1,070 / 342	25,317	6.8		992.0	992.0	992.6	0.6
BB	625.92	1,951 / 400	39,542	4.4		992.5	992.5	993.3	0.8
BC	626.32	2,641 / 1,232	43,273	4.0		992.7	992.7	993.5	0.7
BD	626.72	3,978 / 2,644	52,251	3.3		993.0	993.0	993.8	0.8
BE	627.13	5,139 / 3,488	66,047	2.6		993.4	993.4	994.1	0.8
BF	627.53	5,801 / 3,898	78,909	2.2		993.6	993.6	994.4	0.9
BG	627.93	5,295 / 3,618	70,788	2.4		993.7	993.7	994.5	0.8
BH	628.33	4,650 / 3,035	56,648	3.1		993.9	993.9	994.7	0.8
BI	628.72	3,800 / 1,711	49,795	3.5		994.1	994.1	994.9	0.8
BJ	629.13	2,924 / 409	44,438	3.9		994.3	994.3	995.1	0.9
BK	629.53	2,812 / 314	40,368	4.3		994.5	994.5	995.3	0.9

[1] Miles above confluence with Mississippi River
[2] Total floodway width (USACE 2007 model) / width within county
[3] Increase computed from non-rounded model water surface elevations

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MISSOURI RIVER

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,006	33	149	9.0	1,017.0	1,013.2[2]	1,013.2	0.0
B	1,745	37	129	10.4	1,017.0	1,014.7[2]	1,014.8	0.1
C	1,818	62	324	4.1	1,017.1	1,017.1	1,017.1	0.0
D	2,179	64	378	3.6	1,017.6	1,017.6	1,017.6	0.0
E	2,338	53	335	4.0	1,018.6	1,018.6	1,018.6	0.0
F	2,621	39	221	6.1	1,018.7	1,018.7	1,018.7	0.0
G	2,856	51	293	4.7	1,019.5	1,019.5	1,019.5	0.0
H	3,033	43	242	5.5	1,022.4	1,022.4	1,022.4	0.0
I	3,949	44	236	5.7	1,026.2	1,026.2	1,026.2	0.0
J	4,761	62	380	3.5	1,032.0	1,032.0	1,032.0	0.0
K	5,991	51	168	6.9	1,034.0	1,034.0	1,034.0	0.0
L	6,439	49	270	4.3	1,040.7	1,040.7	1,040.7	0.0
M	6,950	47	246	2.6	1,041.5	1,041.5	1,041.5	0.0
N	7,245	39	178	3.7	1,043.7	1,043.7	1,043.7	0.0

[1] Feet above confluence with Big Papillion Creek

[2] Elevation computed without consideration of backwater effects from Big Papillion Creek

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	564	61	148	5.0	1,086.0	1,086.0	1,086.0	0.0
B	616	47	126	5.9	1,086.1	1,086.1	1,086.1	0.0
C	690	39	107	7.0	1,086.9	1,086.9	1,087.0	0.1

[1] Feet above confluence with West Papillion Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MORTON CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	388	87	418	5.6	1,159.5	1156.2[2]	1,156.2	0.0
B	615	98	673	3.5	1,159.6	1,159.6	1,159.6	0.0
C	940	106	535	4.6	1,159.8	1,159.8	1,159.8	0.0
D	1,110	78	645	3.6	1,161.6	1,161.6	1,161.6	0.0
E	1,282	97	644	3.6	1,161.7	1,161.7	1,161.7	0.0
F	1,656	196	1,538	1.5	1,163.8	1,163.8	1,163.8	0.0
G	4,278	265	3,388	0.7	1,167.0	1,167.0	1,167.0	0.0
H	4,562	91	330	7.9	1,172.1	1,172.1	1,172.1	0.0
I	4,691	89	381	6.5	1,172.6	1,172.6	1,172.7	0.1
J	5,219	186	351	6.5	1,174.3	1,174.3	1,174.3	0.0
K	5,501	95	291	7.9	1,175.8	1,175.8	1,175.9	0.1
L	5,673	82	462	5.0	1,177.7	1,177.7	1,178.0	0.3
M	5,930	113	430	5.3	1,179.4	1,179.4	1,179.4	0.0
N	6,081	97	464	5.0	1,180.2	1,180.2	1,180.2	0.0
O	6,340	99	406	2.9	1,180.6	1,180.6	1,180.8	0.2
P	6,865	60	231	5.1	1,181.0	1,181.0	1,181.2	0.2
Q	7,196	55	196	6.7	1,182.0	1,182.0	1,182.1	0.1
R	7,237	37	173	6.8	1,182.3	1,182.3	1,182.3	0.0
S	7,492	39	195	6.1	1,185.4	1,185.4	1,185.4	0.0
T	7,522	48	212	5.6	1,185.6	1,185.6	1,185.6	0.0
U	7,655	50	129	10.0	1,186.1	1,186.1	1,186.1	0.0

[1] Feet above confluence with Boxelder Creek

[2] Elevation computed without consideration of backwater effects from Boxelder Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: NORTH BOXELDER CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
V	7,830	60	187	6.3	1,188.5	1,188.5	1,188.5	0.0
W	8,001	56	120	10.1	1,189.0	1,189.0	1,189.0	0.0
X	8,138	70	312	3.8	1,192.4	1,192.4	1,192.4	0.0

[1] Feet above confluence with Boxelder Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: NORTH BOXELDER CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (Feet)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET / SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	661	83	772	6.6	1,107.9	1,097.3[2]	1,097.3	0.0
B	1,236	111	1,050	4.8	1,107.9	1,099.8[2]	1,099.8	0.0
C	2,135	67	601	8.6	1,107.9	1,101.2[2]	1,101.2	0.0
D	4,828	73	662	7.6	1,109.4	1,109.4	1,109.4	0.0
E	5,962	83	968	5.4	1,113.2	1,113.2	1,113.2	0.0
F	6,109	107	873	6.1	1,113.7	1,113.7	1,113.7	0.0
G	7,375	104	790	3.8	1,116.8	1,116.8	1,116.8	0.0
H	9,233	83	908	3.6	1,118.9	1,118.9	1,118.9	0.0
I	10,637	71	418	7.3	1,119.4	1,119.4	1,119.4	0.0
J	13,512	79	516	5.7	1,128.2	1,128.2	1,128.4	0.2
K	13,825	92	778	4.4	1,129.8	1,129.8	1,129.9	0.1
L	14,917	79	837	4.6	1,132.2	1,132.2	1,132.2	0.0
M	15,858	127	700	4.8	1,133.9	1,133.9	1,133.9	0.0
N	16,343	98	685	4.2	1,134.5	1,134.5	1,134.5	0.0
O	16,660	129	762	2.4	1,135.5	1,135.5	1,135.5	0.0
P	17,469	76	413	4.0	1,135.8	1,135.8	1,135.9	0.1
Q	19,092	52	313	5.1	1,138.2	1,138.2	1,138.2	0.0
R	20,378	112	1,061	1.6	1,140.8	1,140.8	1,140.9	0.1
S	20,519	112	932	1.9	1,141.9	1,141.9	1,141.9	0.0
T	21,423	28	310	5.6	1,143.0	1,143.0	1,143.0	0.0
U	22,223	33	269	6.0	1,144.9	1,144.9	1,144.9	0.0
V	22,388	86	478	3.9	1,145.7	1,145.7	1,145.7	0.0
W	33,072	*	*	*	1,174.6	*	*	*
X	34,661	*	*	*	1,176.6	*	*	*
Y	35,815	*	*	*	1,180.7	*	*	*
Z	37,980	*	*	*	1,184.5	*	*	*

[1] Feet Above Confluence With West Papillion Creek

[2] Computed Without Consideration of Backwater Effects from West Papillion Creek

* Not Computed as a part of this Flood Risk Project

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: NORTH BRANCH WEST PAPILLION

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (Feet)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET / SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	39,035.0	*	*	*	1,187.2	*	*	*
AB	39,746.0	259	908	6.0	1,189.2	1,189.2	1,189.9	0.7
AC	39,803.0	278	1,066	6.3	1,191.7	1,191.7	1,192.0	0.3
AD	40,644.0	317	1,897	2.3	1,192.8	1,192.8	1,193.4	0.6
AE	41,868.0	262	1,295	4.1	1,193.9	1,193.9	1,194.6	0.7
AF	43,198.0	238	1,138	4.2	1,198.8	1,198.8	1,199.4	0.6
AG	44,161.0	166	825	6.3	1,201.0	1,201.0	1,201.4	0.4

[1] Feet Above Confluence With West Papillion Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
DOUGLAS COUNTY, NE
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: NORTH BRANCH WEST PAPILLION

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,099	101	861	1.2	1,112.5	1,112.5	1,112.5	0.0
B	3,000	136	511	2.1	1,112.5	1,112.5	1,112.5	0.0
C	3,995	128	884	1.4	1,113.0	1,113.0	1,113.0	0.0
D	4,192	131	422	3.5	1,113.5	1,113.5	1,113.5	0.0
E	4,239	117	690	1.6	1,113.7	1,113.7	1,113.7	0.0
F	4,314	106	639	1.7	1,113.7	1,113.7	1,113.7	0.0

[1] Feet above confluence with Standing Bear Lake

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	110	38	150	6.1	1,146.2	1,141.7[2]	1,141.7	0.0
B	425	37	150	6.1	1,146.2	1,145.8[2]	1,145.8	0.0
C	745	44	134	6.8	1,148.1	1,148.1	1,148.1	0.0
D	1,029	49	197	4.6	1,150.2	1,150.2	1,150.2	0.0
E	1,110	33	126	7.3	1,150.3	1,150.3	1,150.3	0.0
F	1,242	44	231	3.9	1,151.4	1,151.4	1,151.4	0.0
G	1,338	35	98	9.5	1,152.4	1,152.4	1,152.4	0.0
H	1,447	64	178	5.7	1,154.5	1,154.5	1,154.5	0.0
I	1,667	68	134	6.9	1,155.5	1,155.5	1,155.5	0.0
J	1,964	68	213	4.5	1,158.3	1,158.3	1,158.3	0.0
K	2,352	68	209	4.4	1,159.5	1,159.5	1,159.5	0.0

[1] Feet above confluence with Washington Creek

[2] Elevation computed without consideration of backwater effects from Washington Creek

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	570	73	624	2.2	1,071.4	1071.4	1,072.2	0.8
B	817	118	573	2.2	1,074.5	1074.5	1,074.8	0.3
C	912	71	289	4.3	1,074.5	1,074.5	1,074.7	0.2
D	1,379	57	347	4.7	1,075.0	1,075.0	1,075.2	0.2
E	1,639	147	1,059	1.8	1,088.0	1,088.0	1,088.0	0.0
F	2,019	193	2,869	0.4	1,091.5	1,091.5	1,091.5	0.0
G	2,170	180	2,210	0.6	1,091.5	1,091.5	1,091.5	0.0
H	2,487	115	1,005	1.2	1,091.5	1,091.5	1,091.5	0.0

[1]FEET ABOVE CONFLUENCE WITH WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,175	124	462	4.7	1,147.0	1,147.0	1,147.7	0.7
B	1,378	115	447	4.9	1,147.4	1,147.4	1,148.2	0.8
C	1,553	115	319	6.8	1,149.1	1,149.1	1,149.3	0.2
D	1,740	155	868	2.5	1,152.8	1,152.8	1,153.5	0.7
E	2,175	251	771	2.8	1,153.1	1,153.1	1,153.9	0.8
F	2,349	82	328	6.7	1,153.3	1,153.3	1,153.8	0.5
G	2,547	63	275	8.0	1,154.4	1,154.4	1,154.6	0.2

[1]FEET ABOVE CONFLUENCE WITH LITTLE PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,171	84	484	4.7	1,117.0	1,113.0[2]	1,113.0	0.0
B	2,034	76	275	7.7	1,117.0	1,114.6[2]	1,114.6	0.0
C	2,570	69	380	5.6	1,118.3	1,118.3	1,118.3	0.0
D	2,949	80	229	9.3	1,119.0	1,119.0	1,119.1	0.1
E	3,333	99	364	6.1	1,122.0	1,122.0	1,122.5	0.5
F	3,767	77	421	5.5	1,124.0	1,124.0	1,124.5	0.5
G	4,445	66	418	2.8	1,129.2	1,129.2	1,129.3	0.1
H	4,893	50	260	4.5	1,130.0	1,130.0	1,130.1	0.1
I	5,397	30	111	10.5	1,132.4	1,132.4	1,132.5	0.1
J	5,803	65	367	3.2	1,137.1	1,137.1	1,137.1	0.0
K	6,112	71	401	2.9	1,137.7	1,137.7	1,137.7	0.0
L	6,588	38	119	9.9	1,140.7	1,140.7	1,140.7	0.0
M	7,032	102	720	1.7	1,150.3	1,150.3	1,150.3	0.0
N	7,411	64	439	2.7	1,150.3	1,150.3	1,150.3	0.0
O	8,133	54	270	4.3	1,150.8	1,150.8	1,150.9	0.1

[1]FEET ABOVE CONFLUENCE WITH WEST PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	279	37	123	9.8	1,082.3	1,069.1[2]	1,069.1	0.0
B	329	31	215	5.6	1,082.3	1,078.5[2]	1,078.5	0.0
C	419	25	195	6.2	1,082.3	1,078.6[2]	1,078.6	0.0
D	635	33	170	7.1	1,082.3	1,080.4[2]	1,080.4	0.0
E	820	61	241	5.3	1,082.3	1,081.5[2]	1,081.5	0.0
F	1,250	30	114	10.6	1,083.5	1,083.5	1,083.5	0.0
G	1,755	44	132	9.2	1,090.1	1,090.1	1,090.1	0.0
H	2,131	61	264	5.1	1,094.6	1,094.6	1,094.6	0.0
I	2,375	46	191	6.3	1,096.7	1,096.7	1,096.7	0.0

[1]FEET ABOVE CONFLUENCE WITH WEST PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	198,700	4,007/2,400	24,511	5.4	1,107.5	1,106.2	1,106.6	0.4
B	201,450	3,689/2,940	27,713	4.8	1,108.7	1,108.2	1,108.8	0.6
C	204,925	5,048/4,240	33,050	4.0	1,111.4[3]	1,111.4	1,112.1	0.7
D	208,475	5,617/4,400	41,795	3.2	1,113.7[3]	1,113.7	1,114.6	0.9
E	211,825	5,150/3,380	25,233	5.2	1,115.7[3]	1,115.7	1,116.7	1.0
F	214,225	3,200/1,920	28,617	4.6	1,120.1[3]	1,120.1	1,120.2	0.1
G	217,200	2,600/1,340	14,583	9.1	1,122.2[3]	1,122.2	1,122.3	0.1
H	218,300	3,433/1,620	30,996	4.3	1,125.9	1,125.0	1,125.5	0.5
I	222,725	4,389/1,420	26,645	5.0	1,128.7	1,126.9	1,127.1	0.2
J	226,200	3,121/260	22,157	6.0	1,131.2	1,129.6	1,130.0	0.4
K	229,600	3,027/1,560	19,647	6.7	1,135.9	1,133.3	1,133.5	0.2
L	233,475	3,846/3,160	28,918	4.6	1,138.8	1,137.1	1,137.2	0.1
M	237,100	3,274/2,480	21,675	6.1	1,141.3	1,139.1	1,139.1	0.0
N	241,500	2,610/2,000	18,353	7.2	1,146.0	1,143.3	1,143.3	0.0
O	244,325	2,784/2,120	18,559	7.1	1,148.7	1,146.3	1,146.3	0.0
P	245,575	2,681/2,020	24,417	5.4	1,150.6	1,148.4	1,148.4	0.0
Q	248,500	3,197/2,360	28,175	4.7	1,152.6	1,150.7	1,150.7	0.0
R	251,875	3,100/2,320	23,329	5.7	1,155.4	1,152.7	1,152.7	0.0
S	255,500	2,930/2,600	19,496	6.8	1,158.1	1,156.6	1,156.6	0.0
T	256,675	2,982/2,120	27,021	4.9	1,159.2	1,158.2	1,158.2	0.0

[1]FEET ABOVE CONFLUENCE WITH MISSOURI RIVER
[2]TOTAL WIDTH/WIDTH WITHIN JURISDICTION
[3]ELEVATIONS COMPUTED WITH CONSIDERATION OF ICE JAM EFFECTS

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: PLATTE RIVER (WITH LEVEE)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
U	260,100	3,511/800	28,156	4.7	1,164.1	1,161.2	1,161.2	0.0
V	263,700	3,993/720	25,603	5.2	1,166.4	1,163.2	1,164.1	0.9
W	267,250	2,993/440	25,844	5.1	1,170.0	1,167.7	1,168.0	0.3
X	270,850	3,362/400	25,765	5.1	1,173.2	1,170.8	1,170.9	0.1
Y	274,700	4,067/1,460	31,746	4.2	1,176.9	1,174.4	1,174.4	0.0
Z	278,675	3,654/2,920	23,393	5.6	1,179.4	1,177.0	1,177.0	0.0
AA	282,300	3,944/2,420	30,727	4.3	1,182.2	1,180.5	1,180.5	0.0
AB	286,250	4,185/820	26,169	5.0	1,185.6	1,183.7	1,183.9	0.2
AC	288,425	3,340/400	21,517	6.1	1,189.3	1,186.5	1,186.5	0.0
AD	290,350	2,291/260	20,062	6.6	1,191.8	1,188.6	1,188.6	0.0

[1]FEET ABOVE CONFLUENCE WITH MISSOURI RIVER
[2]TOTAL WIDTH/WIDTH WITHIN JURISDICTION

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: PLATTE RIVER (WITH LEVEE)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	7,155	76	652	10.9	1007.2	1007.2	1008.1	0.9
B	8,000	110	1,130	6.3	1011.4	1011.4	1012.3	0.9
C	8,355	106	929	7.6	1012.1	1012.1	1012.8	0.7
D	8,810	103	1,007	5.9	1013.8	1013.8	1014.7	0.9
E	9,330	115	967	6.1	1014.8	1014.8	1015.6	0.8
F	9,880	91	906	6.5	1016.0	1016.0	1016.6	0.6
G	11,040	94	866	6.6	1019.4	1019.4	1019.7	0.3
H	11,260	108	389	14.7	1022.2	1022.2	1022.2	0.0
I	11,370	205	2,427	2.3	1032.5	1032.5	1033.5	1.0
J	12,300	145	2,330	2.2	1032.7	1032.7	1033.7	1.0
K	13,000	151	1,898	2.7	1032.8	1032.8	1033.8	1.0
L	13,250	100	1,301	4.0	1033.4	1033.4	1034.4	1.0
M	13,705	90	781	6.7	1033.6	1033.6	1034.6	1.0
N	14,140	60	582	8.9	1035.0	1035.0	1035.7	0.7
O	15,010	95	873	3.9	1037.7	1037.7	1038.6	0.9
P	15,700	81	592	5.7	1038.4	1038.4	1039.3	0.9
Q	16,615	47	520	6.5	1045.2	1045.2	1045.7	0.5
R	17,140	47	482	6.6	1046.3	1046.3	1047.0	0.7
S	17,980	98	672	4.8	1049.3	1049.3	1049.6	0.3
T	18,650	66	326	9.8	1051.4	1051.4	1051.5	0.1
U	19,265	59	678	4.7	1061.5	1061.5	1062.5	1.0
V	19,970	79	657	4.9	1062.4	1062.4	1063.4	1.0

[1]FEET ABOVE CONFLUENCE WITH MISSOURI RIVER

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: PONCA CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,468	26	84	7.4	1,009.1	1,001.3[2]	1,001.3	0.0
B	2,651	27	68	9.1	1,009.1	1,003.4[2]	1,003.4	0.0
C	3,303	44	190	5.3	1,009.5	1,009.5	1,009.5	0.0
D	3,423	31	142	4.4	1,016.8	1,016.8	1,016.8	0.0
E	3,612	40	156	4.0	1,017.2	1,017.2	1,017.2	0.0
F	3,812	64	222	2.8	1,017.7	1,017.7	1,017.7	0.0
G	4,049	49	162	3.9	1,017.9	1,017.9	1,017.9	0.0
H	4,175	44	176	3.5	1,018.1	1,018.1	1,018.1	0.0
I	4,294	36	154	4.1	1,019.1	1,019.1	1,019.1	0.0
J	4,654	34	108	5.7	1,019.9	1,019.9	1,019.9	0.0
K	4,760	70	260	2.4	1,020.5	1,020.5	1,020.5	0.0
L	4,877	67	207	3.0	1,020.6	1,020.6	1,020.6	0.0
M	5,042	35	100	6.2	1,020.7	1,020.7	1,020.7	0.0
N	5,423	45	150	4.3	1,023.3	1,023.3	1,023.3	0.0
O	5,665	30	145	4.3	1,028.3	1,028.3	1,028.3	0.0
P	5,791	56	204	3.0	1,028.6	1,028.6	1,028.6	0.0
Q	6,246	24	66	9.5	1,028.6	1,028.6	1,028.6	0.0
R	7,161	27	69	9.1	1,041.0	1,041.0	1,041.0	0.0

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BIG PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: RALSTON CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,000	38	169	11.9	1,083.7	1,079.2[2]	1,079.3	0.1
B	2,553	43	276	7.2	1,083.7	1,083.4[2]	1,083.4	0.0
C	4,000	41	233	8.5	1,087.2	1,087.2	1,087.2	0.0
D	4,137	43	195	10.1	1,087.3	1,087.3	1,087.3	0.0
E	4,440	178	983	2.6	1,102.7	1,102.7	1,102.7	0.0
F	5,500	156	552	3.6	1,102.9	1,102.9	1,102.9	0.0
G	7,255	43	284	7.0	1,105.6	1,105.6	1,105.6	0.0
H	7,512	102	732	2.7	1,114.2	1,114.2	1,114.2	0.0
I	9,558	46	235	8.4	1,115.1	1,115.1	1,115.1	0.0
J	10,215	69	412	5.1	1,118.4	1,118.4	1,118.4	0.0
K	10,405	92	358	5.5	1,133.7	1,133.7	1,133.7	0.0
L	10,626	47	181	10.9	1,134.1	1,134.1	1,134.1	0.0
M	11,973	127	316	6.3	1,144.9	1,144.9	1,145.0	0.1
N	12,973	104	174	10.0	1,150.4	1,150.4	1,150.4	0.0
O	13,913	68	246	7.3	1,154.8	1,154.8	1,154.9	0.1

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BIG PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,019	51	235	7.4	1,028.1	1,022.7[2]	1,022.7	0.0
B	1,045	57	366	4.8	1,028.1	1,026.0[2]	1,026.0	0.0
C	1,110	44	273	6.4	1,028.1	1,026.2[2]	1,026.2	0.0
D	1,499	47	268	6.5	1,028.1	1,027.3[2]	1,027.3	0.0
E	1,519	44	285	6.1	1,028.1	1,027.5[2]	1,027.5	0.0
F	2,013	54	291	6.0	1,029.8	1,029.8	1,029.8	0.0
G	2,055	42	279	6.2	1,030.0	1,030.0	1,030.0	0.0
H	3,162	51	332	5.8	1,038.9	1,038.9	1,038.9	0.0
I	3,310	36	156	11.2	1,041.0	1,041.0	1,041.0	0.0
J	3,622	58	288	6.0	1,044.3	1,044.3	1,044.3	0.0
K	3,638	60	305	5.7	1,044.6	1,044.6	1,044.6	0.0
L	4,500	49	187	9.3	1,050.0	1,050.0	1,050.0	0.0
M	5,102	50	215	6.4	1,054.6	1,054.6	1,054.6	0.0
N	5,326	38	132	10.1	1,058.6	1,058.6	1,058.6	0.0
O	6,218	77	182	7.3	1,063.2	1,063.2	1,063.2	0.0

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BIG PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,358	149	396	9.2	1,026.1	1,026.1	1,026.1	0.0
B	1,686	257	394	9.2	1,031.1	1,031.1	1,031.6	0.5
C	2,734	360	1,797	4.4	1,040.4	1,040.4	1,040.9	0.5
D	3,471	173	543	6.9	1,044.3	1,044.3	1,044.8	0.5
E	4,706	138	363	9.1	1,048.2	1,048.2	1,048.7	0.5
F	5,865	110	299	9.1	1,054.1	1,054.1	1,054.2	0.1
G	6,928	117	778	3.6	1,060.3	1,060.3	1,060.4	0.1
H	8,329	229	180	7.4	1,070.1	1,070.1	1,070.4	0.3
I	9,597	126	324	3.8	1,074.4	1,074.4	1,074.4	0.0
J	10,471	69	156	7.8	1,077.6	1,077.6	1,077.7	0.1
K	11,453	92	165	7.4	1,086.2	1,086.2	1,086.5	0.3
L	12,244	103	172	2.7	1,090.5	1,090.5	1,090.6	0.1
M	13,201	51	72	6.6	1,097.7	1,097.7	1,097.9	0.2
N	14,469	64	319	1.2	1,104.6	1,104.6	1,104.8	0.2
O	14,631	67	276	1.4	1,104.6	1,104.6	1,104.8	0.2
P	15,194	105	215	1.8	1,105.4	1,105.4	1,105.5	0.1
Q	15,806	62	70	5.7	1,107.7	1,107.7	1,107.8	0.1
R	16,728	102	129	3.1	1,113.0	1,113.0	1,113.7	0.7
S	17,168	81	76	5.2	1,116.8	1,116.8	1,116.8	0.0
T	17,967	60	54	4.5	1,130.5	1,130.5	1,130.6	0.1
U	18,685	51	50	4.9	1,133.7	1,133.7	1,134.0	0.3
V	19,719	60	49	4.9	1,140.0	1,140.0	1,140.0	0.0
W	20,877	67	56	4.3	1,160.7	1,160.7	1,160.7	0.0

[1] Feet above confluence with Little Papillion Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SADDLE CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,651	126	526	2.0	1,111.8	1,109.7[2]	1,109.7	0.0
B	2,384	165	386	2.7	1,111.8	1,110.0[2]	1,110.0	0.0
C	2,863	78	282	3.7	1,111.8	1,110.9[2]	1,111.0	0.1
D	3,305	124	419	2.6	1,111.9	1,111.9	1,112.1	0.2
E	3,540	123	305	3.5	1,112.2	1,112.2	1,112.4	0.2
F	4,038	64	243	4.3	1,113.5	1,113.5	1,113.6	0.1
G	4,229	89	585	2.9	1,116.6	1,116.6	1,116.6	0.0
H	4,775	76	485	2.2	1,117.1	1,117.1	1,117.1	0.0
I	7,890	34	140	4.6	1,142.8	1,142.8	1,142.9	0.1
J	8,389	21	69	9.4	1,145.8	1,145.8	1,145.8	0.0
K	8,784	98	178	3.9	1,153.3	1,153.3	1,153.3	0.0
L	8,847	105	130	5.0	1,153.3	1,153.3	1,153.3	0.0
M	9,010	87	130	5.0	1,154.8	1,154.8	1,155.3	0.5

[1] Feet above confluence with Standing Bear Lake
[2] Elevation computed without consideration of backwater effects from Standing Bear Lake

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SOUTH STANDING BEAR CREEK

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	168	46	163	4.0	1,173.0	1,170.5[2]	1,170.5	0.0
B	227	38	79	8.3	1,173.0	1,170.5[2]	1,170.5	0.0
C	372	39	103	6.3	1,173.2	1,173.2	1,173.2	0.0
D	698	78	139	4.7	1,175.2	1,175.2	1,175.5	0.3
E	876	81	186	3.5	1,175.7	1,175.7	1,176.3	0.6
F	1,500	71	175	3.7	1,179.8	1,179.8	1,180.6	0.8
G	2,036	41	168	3.9	1,182.9	1,182.9	1,183.5	0.6

[1] Feet above confluence with Washington Creek

[2] Elevation computed without consideration of backwater effects from Washington Creek

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,491	46	233	5.1	1,060.8	1,052.6[2]	1,052.6	0.0
B	3,104	21	99	12.1	1,060.8	1,058.7[2]	1,058.7	0.0
C	4,099	69	378	3.2	1,064.5	1,064.5	1,064.5	0.0
D	4,325	151	2,182	0.6	1,079.0	1,079.0	1,079.2	0.2

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BIG PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,600	176	1,218	6.8	1086.1	1086.1	1086.1	0.0
B	1,861	208	1,416	5.8	1086.6	1086.6	1086.6	0.0
C	2,500	261	1,668	5.0	1087.4	1087.4	1087.7	0.3
D	4,665	269	1,354	6.1	1089.9	1089.9	1090.1	0.2
E	5,607	272	1,493	5.5	1095.5	1095.5	1095.5	0.0
F	8,115	158	827	10.0	1098.6	1098.6	1099.0	0.4
G	8,622	133	1,474	5.5	1102.0	1102.0	1102.4	0.4
H	8,855	272	2,002	4.0	1102.7	1102.7	1103.1	0.4
I	10,117	179	1,329	6.1	1105.2	1105.2	1105.4	0.2
J	13,560	183	1,273	6.3	1113.6	1113.6	1113.8	0.2
K	13,922	271	2,394	3.7	1118.3	1118.3	1119.1	0.8
L	15,392	155	1,942	4.4	1119.9	1119.9	1120.5	0.6
M	15,769	129	1,967	4.4	1121.5	1121.5	1122.1	0.6
N	16,501	201	1,532	5.6	1122.9	1122.9	1123.2	0.3
O	18,255	231	1,129	7.6	1125.8	1125.8	1126.1	0.3
P	20,475	94	925	7.6	1132.9	1132.9	1132.9	0.0
Q	20,994	163	904	7.8	1134.2	1134.2	1134.2	0.0
R	23,287	194	1,218	5.8	1140.7	1140.7	1140.7	0.0
S	26,254	187	1,574	4.5	1155.4	1155.4	1155.4	0.0
T	27,170	114	904	7.8	1158.4	1158.4	1158.7	0.3
U	29,500	269	1,000	5.4	1164.2	1164.2	1164.2	0.0
V	30,998	230	1,064	5.1	1168.7	1168.7	1169.4	0.7
W	32,869	78	524	10.3	1175.0	1175.0	1175.5	0.5
X	33,185	449	2,612	2.1	1180.0	1180.0	1180.0	0.0
Y	33,785	238	1,378	3.4	1180.2	1180.2	1180.2	0.0
Z	34,465	171	1,035	4.5	1182.3	1182.3	1182.8	0.5

[1]FEET ABOVE CONFLUENCE WITH LITTLE PAPILLION CREEK

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	35,230	203	976	4.7	1183.7	1183.7	1184.5	0.8
AB	35,269	146	831	5.6	1185.3	1185.3	1185.3	0.0
AC	35,816	222	1,039	4.5	1186.9	1186.9	1187.6	0.7
AD	36,592	214	818	5.7	1189.2	1189.2	1189.8	0.6
AE	37,996	192	864	5.4	1194.1	1194.1	1194.3	0.2

[1]FEET ABOVE CONFLUENCE WITH LITTLE PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: THOMAS CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	10,940	91	756	5.4	1,138.3	1,138.3	1,138.3	0.0
B	13,260	61	506	8.0	1,145.3	1,145.3	1,145.3	0.0
C	13,805	46	358	8.9	1,147.4	1,147.4	1,147.4	0.0
D	13,936	65	468	6.8	1,149.5	1,149.5	1,149.5	0.0
E	14,984	43	379	6.0	1,151.7	1,151.7	1,151.7	0.0
F	15,014	45	385	5.9	1,151.9	1,151.9	1,151.9	0.0
G	16,593	45	308	8.7	1,156.6	1,156.6	1,156.6	0.0
H	16,689	232	1,226	1.9	1,163.0	1,163.0	1,163.8	0.8
I	18,128	337	589	3.9	1,165.0	1,165.0	1,165.0	0.0
J	18,893	412	2,737	0.8	1,172.1	1,172.1	1,172.1	0.0
K	21,884	84	110	8.5	1,179.6	1,179.6	1,179.6	0.0
L	22,662	106	215	4.2	1,185.1	1,185.1	1,185.4	0.3
M	23,177	78	275	3.9	1,190.4	1,190.4	1,190.4	0.0
N	23,266	36	139	6.5	1,190.5	1,190.5	1,190.5	0.0
O	23,542	121	197	4.6	1,192.4	1,192.4	1,192.5	0.1

[1] Feet above confluence with Big Papillion Creek

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	45,509	510	3,570	3.9	1,044.1	1044.1	1,044.6	0.5
B	46,817	334	2,905	4.8	1,045.3	1045.3	1,046.0	0.7
C	47,748	510	4,035	3.7	1,046.2	1046.2	1,046.9	0.7
D	48,623	557	4,506	3.3	1,046.9	1046.9	1,047.4	0.5
E	49,139	623	4,255	3.7	1,047.1	1047.1	1,047.7	0.6
F	50,255	423	3,277	4.8	1,048.1	1048.1	1,048.5	0.4
G	51,597	578	3,417	4.7	1,052.1	1052.1	1,052.3	0.2
H	52,533	453	2,614	6.0	1,053.5	1,053.5	1,053.6	0.1
I	53,430	418	2,761	5.9	1,055.2	1,055.2	1,055.3	0.1
J	54,387	930	4,726	3.8	1,059.9	1,059.9	1,059.9	0.0
K	55,052	397	3,357	4.9	1,060.5	1,060.5	1,060.5	0.0
L	56,359	362	2,374	6.9	1,061.9	1,061.9	1,061.9	0.0
M	57,139	575	3,745	4.5	1,063.5	1,063.5	1,063.5	0.0
N	58,214	362	3,343	5.1	1,064.4	1,064.4	1,064.4	0.0
O	59,586	275	2,310	7.4	1,065.2	1,065.2	1,065.2	0.0
P	60,964	299	3,399	5.0	1,067.7	1,067.7	1,067.9	0.2
Q	62,225	426	3,300	5.4	1,068.3	1,068.3	1,068.4	0.1
R	63,347	240	3,389	5.2	1,069.1	1,069.1	1,070.0	0.9
S	64,056	178	2,361	7.5	1,069.6	1,069.6	1,070.4	0.8
T	65,159	354	2,914	6.5	1,071.5	1,071.5	1,072.0	0.5

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WEST PAPILLION CREEK

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
U	66,054	202	2,540	7.4	1,072.5	1,072.5	1,073.0	0.5
V	66,879	384	2,800	6.7	1,073.9	1,073.9	1,074.2	0.3
W	68,209	170	2,361	8.0	1,077.3	1,077.3	1,077.4	0.1
X	68,877	286	3,582	5.3	1,078.8	1,078.8	1,078.9	0.1
Y	69,618	320	3,497	5.4	1,079.2	1,079.2	1,079.3	0.1
Z	70,523	247	2,423	7.8	1,079.9	1,079.9	1,080.0	0.1
AA	71,854	110	1,812	10.2	1,083.2	1,083.2	1,083.2	0.0
AB	72,772	189	2,062	8.8	1,085.6	1,085.6	1,085.6	0.0
AC	73,780	188	2,624	6.9	1,087.8	1,087.8	1,087.8	0.0
AD	75,141	380	3,635	5.0	1,094.9	1,094.9	1,095.0	0.1
AE	75,629	273	2,869	6.3	1,095.2	1,095.2	1,095.3	0.1
AF	76,769	289	2,953	5.8	1,096.6	1,096.6	1,096.6	0.0
AG	77,367	290	2,397	7.2	1,097.2	1,097.2	1,097.3	0.1
AH	78,378	263	2,954	6.9	1,101.4	1,101.4	1,101.6	0.2
AI	79,306	282	3,348	4.9	1,102.7	1,102.7	1,102.8	0.1
AJ	80,162	430	3,465	4.8	1,103.7	1,103.7	1,103.8	0.1
AK	80,938	349	2,748	6.0	1,105.3	1,105.3	1,105.3	0.0
AL	82,283	463	3,986	4.2	1,107.3	1,107.3	1,107.4	0.1
AM	84,096	239	1,806	7.6	1,113.9	1,113.9	1,113.9	0.0
AN	84,988	284	2,464	5.8	1,115.4	1,115.4	1,116.0	0.6
AO	86,193	319	3,107	3.8	1,117.3	1,117.3	1,117.9	0.6

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AP	87,320	310	2,047	5.8	1,118.9	1,118.9	1,119.3	0.4
AQ	88,431	280	2,089	5.6	1,120.9	1,120.9	1,121.5	0.6
AR	89,488	320	2,022	5.3	1,123.2	1,123.2	1,123.7	0.5
AS	90,555	478	2,565	4.0	1,124.5	1,124.5	1,124.9	0.4
AT	91,249	520	2,015	4.2	1,125.1	1,125.1	1,125.5	0.4
AU	92,033	256	1,577	5.4	1,125.9	1,125.9	1,126.2	0.3
AV	92,536	209	1,709	5.0	1,129.3	1,129.3	1,129.5	0.2
AW	93,656	242	1,552	5.4	1,132.1	1,132.1	1,132.3	0.2
AX	95,061	339	1,739	4.9	1,133.7	1,133.7	1,134.4	0.7
AY	96,253	240	1,505	5.2	1,136.2	1,136.2	1,136.6	0.4
AZ	97,136	220	2,055	4.1	1,139.3	1,139.3	1,139.7	0.4
BA	97,534	228	1,814	4.2	1,139.7	1,139.7	1,140.0	0.3
BB	98,730	302	2,645	3.2	1,146.1	1,146.1	1,146.1	0.0
BC	99,932	298	1,590	4.2	1,146.9	1,146.9	1,147.1	0.2
BD	101,254	143	741	9.1	1,148.2	1,148.2	1,148.3	0.1
BE	102,642	217	1,168	5.7	1,154.0	1,154.0	1,154.2	0.2
BF	103,664	195	1,015	4.8	1,160.1	1,160.1	1,160.3	0.2
BG	104,169	207	1,026	4.8	1,162.2	1,162.2	1,162.5	0.3
BH	105,203	204	1,091	4.5	1,165.6	1,165.6	1,166.0	0.4
BI	105,996	247	1,464	3.3	1,170.6	1,170.6	1,170.6	0.0
BJ	107,195	253	1,165	4.2	1,172.0	1,172.0	1,172.5	0.5

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BK	107,754	259	1,125	4.3	1,173.5	1,173.5	1,174.0	0.5
BL	108,967	281	1,192	4.1	1,178.3	1,178.3	1,178.5	0.2
BM	109,602	277	1,253	3.9	1,179.4	1,179.4	1,180.1	0.7
BN	110,261	245	1,100	4.4	1,180.7	1,180.7	1,181.4	0.7
BO	111,195	281	552	5.6	1,183.8	1,183.8	1,183.9	0.1
BP	112,042	256	619	5.0	1,188.9	1,188.9	1,189.0	0.1
BQ	113,133	171	562	5.8	1,191.4	1,191.4	1,191.9	0.5
BR	113,914	162	537	5.8	1,194.1	1,194.1	1,194.7	0.6
BS	114,587	313	969	2.4	1,196.6	1,196.6	1,196.8	0.2
BT	115,635	130	132	6.3	1,198.4	1,198.4	1,198.5	0.1
BU	116,773	99	165	5.0	1,205.2	1,205.2	1,205.2	0.0

[1]FEET ABOVE CONFLUENCE WITH BIG PAPILLION CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	3,227	51	334	7.3	1,124.40	1,119.2[2]	1,119.20	0.0
B	3,503	63	421	5.8	1,124.40	1,120.3[2]	1,120.30	0.0
C	4,204	51	328	7.5	1,124.40	1,121.8[2]	1,121.80	0.0
D	4,500	86	508	4.8	1,124.40	1,123.1[2]	1,123.10	0.0
E	7,271	68	473	5.2	1,137.50	1,137.5	1,137.50	0.0
F	7,721	51	315	7.8	1,138.60	1,138.6	1,138.60	0.0
G	9,375	37	234	9	1,146.20	1,146.2	1,146.20	0.0
H	11,002	34	181	11.5	1,158.80	1,158.8	1,158.90	0.1
I	14,519	152	461	4.5	1,183.10	1,183.1	1,184.00	0.9

[1]FEET ABOVE CONFLUENCE WITH WEST PAPILLION CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM WEST PAPILLION CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,268	38	277	8.1	1,140.9	1,136.2[2]	1,136.2	0.0
B	1,604	34	250	8.9	1,140.9	1,137.5[2]	1,137.5	0.0
C	2,143	37	320	7.0	1,141.6	1,141.6	1,141.6	0.0
D	2,707	105	480	4.9	1,143.1	1,143.1	1,143.1	0.0
E	2,817	121	671	3.6	1,146.1	1,146.1	1,146.1	0.0
F	3,167	251	1,181	1.9	1,146.4	1,146.4	1,146.5	0.0
G	6,146	212	1,482	1.5	1,163.5	1,163.5	1,163.5	0.0
H	8,000	84	455	4.8	1,164.0	1,164.0	1,164.1	0.1
I	9,237	110	539	4.0	1,165.6	1,165.6	1,166.0	0.4
J	9,358	134	669	3.2	1,167.5	1,167.5	1,167.6	0.1
K	10,244	77	415	5.2	1,170.0	1,170.0	1,170.0	0.0
L	10,605	99	428	5.1	1,171.5	1,171.5	1,171.6	0.1
M	10,714	96	451	4.8	1,172.5	1,172.5	1,172.5	0.0
N	11,333	193	769	2.8	1,174.3	1,174.3	1,174.3	0.0
O	11,718	63	276	6.0	1,174.7	1,174.7	1,174.7	0.0
P	11,828	97	603	2.8	1,178.1	1,178.1	1,178.3	0.2
Q	12,499	88	426	3.9	1,178.4	1,178.4	1,178.6	0.2
R	12,715	144	1,225	1.4	1,184.6	1,184.6	1,185.3	0.7
S	14,236	59	423	3.9	1,185.0	1,185.0	1,185.7	0.7
T	15,743	46	215	7.7	1,188.1	1,188.1	1,188.1	0.0
U	16,798	43	363	3.4	1,192.4	1,192.4	1,192.4	0.0
V	17,209	87	1,193	1.0	1,208.0	1,208.0	1,208.0	0.0
W	17,771	95	540	2.5	1,208.0	1,208.0	1,208.0	0.0
X	17,998	123	1,751	0.7	1,218.8	1,218.8	1,218.8	0.0
Y	18,560	150	1,512	0.8	1,218.8	1,218.8	1,218.8	0.0
Z	18,746	150	1,448	0.8	1,219.40	1,219.4	1,219.8	0.4

[1]FEET ABOVE CONFLUENCE WITH BOXELDER CREEK

[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BOXELDER CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WHITEHAWK CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	19,264.00	129	675	1.8	1,219.4	1,219.4	1,219.8	0.4

[1]FEET ABOVE CONFLUENCE WITH BOXELDER CREEK
[2]ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM BOXELDER CREEK

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

DOUGLAS COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WHITEHAWK CREEK

Table 24: Flood Hazard and Non-Encroachment Data for Selected Streams

[Not applicable to this Flood Risk Project.]

6.4 Coastal Flood Hazard Mapping

This section is not applicable to this Flood Risk Project.

Table 25: Summary of Coastal Transect Mapping Considerations

[Not applicable to this Flood Risk Project.]

6.5 FIRM Revisions

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 30, “Map Repositories”).

6.5.1 Letters of Map Amendment

A LOMA is an official revision by letter to an effective NFIP map. A LOMA results from an administrative process that involves the review of scientific or technical data submitted by the owner or lessee of property who believes the property has incorrectly been included in a designated SFHA. A LOMA amends the currently effective FEMA map and establishes that a specific property is not located in a SFHA.

To obtain an application for a LOMA, visit www.fema.gov/letter-map-amendment-loma and download the form “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill”. Visit the “Flood Map-Related Fees” section to determine the cost, if any, of applying for a LOMA.

FEMA offers a tutorial on how to apply for a LOMA. The LOMA Tutorial Series can be accessed at www.fema.gov/online-tutorials.

For more information about how to apply for a LOMA, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627).

6.5.2 Letters of Map Revision Based on Fill

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA’s determination concerning whether a structure or parcel has been elevated on fill

above the base flood elevation and is, therefore, excluded from the SFHA.

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting www.fema.gov/letter-map-amendment-loma for the "MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill" or by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the "Flood Map-Related Fees" section.

A tutorial for LOMR-F is available at www.fema.gov/online-tutorials.

6.5.3 Letters of Map Revision

A LOMR is an official revision to the currently effective FEMA map. It is used to change flood zones, floodplain and floodway delineations, flood elevations and planimetric features. All requests for LOMRs should be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map. If the request for a LOMR is not submitted through the chief executive officer of the community, evidence must be submitted that the community has been notified of the request.

To obtain an application for a LOMR, visit www.fema.gov/media-library/assets/documents/1343 and download the form "MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision". Visit the "Flood Map-Related Fees" section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Douglas County FIRM are listed in Table 26. Please note that this table only includes LOMCs that have been issued on the FIRM panels updated by this map revision. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.

Table 26: Incorporated Letters of Map Change

Case Number	Effective Date	Flooding Source	FIRM Panel(s)
07-07-0850P	04-09-2007	Elkhorn River	31055C0285H

6.5.4 Physical Map Revisions

A Physical Map Revisions (PMR) is an official republication of a community's NFIP map to effect changes to base flood elevations, floodplain boundary delineations, regulatory floodways and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas or correction to base flood elevations or SFHAs.

The community's chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if warranted. The community is provided with copies of the revised information and is

afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

For more information about the PMR process, please visit www.fema.gov and visit the "Flood Map Revision Processes" section.

6.5.5 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy, known as the Coordinated Needs Management Strategy (CNMS). The CNMS is used by FEMA to assign priorities and allocate funding for new flood hazard analyses used to update the FIS Report and FIRM. The goal of CNMS is to define the validity of the engineering study data within a mapped inventory. The CNMS is used to track the assessment process, document engineering gaps and their resolution, and aid in prioritization for using flood risk as a key factor for areas identified for flood map updates. Visit www.fema.gov to learn more about the CNMS or contact the FEMA Regional Office listed in Section 8 of this FIS Report.

6.5.6 Community Map History

The current FIRM presents flooding information for the entire geographic area of Douglas County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBMs) and/or Flood Boundary and Floodway Maps (FBFMs) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 27, "Community Map History." A description of each of the column headings and the source of the date is also listed below.

- *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.

- *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or "pending" (for Preliminary FIS Reports) is shown. If the community is listed in Table 27 but not identified on the map, the community is treated as if it were unmapped.

- *Initial FHBM Effective Date* is the effective date of the first FHBM. This date may be the same date as the Initial NFIP Map Date.

- *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.

- *Initial FIRM Effective Date* is the date of the first effective FIRM for the community.

- *FIRM Revision Date(s)* is the date(s) the FIRM was revised, if applicable. This is the revised date that is shown on the FIRM panel, if applicable. As countywide studies are completed or revised, each community listed should have its FIRM dates updated accordingly to reflect the date of the countywide study. Once the FIRMs exist in countywide format, as PMRs of FIRM panels within the county are completed, the FIRM Revision Dates in the table for each community affected by the PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

The initial effective date for the Douglas County FIRMs in countywide format was 12/02/2005.

Table 27: Community Map History

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Bennington, City of	2/1/1974	2/1/1974	N/A	12/4/1979	TBD 5/3/2010 12/2/2005
Boys Town, Village of[1]	12/2/2005	N/A	N/A	12/2/2005	TBD 5/3/2010 3/19/2007
Douglas County, Unincorporated Areas	1/16/1981	N/A	N/A	1/16/1981	TBD 5/19/2014 5/3/2010 12/2/2005 1/16/1981
Omaha, City of[2]	5/7/1971	N/A	N/A	5/7/1971	TBD 5/19/2014 5/3/2010 3/19/2007 12/2/2005 9/17/1997 2/6/1991 10/15/1987 1/16/1987 10/15/1982 10/7/1980 5/21/1976 7/1/1974
Ralston, City of	1/23/1974	1/23/1974	12/26/1975	5/15/1980	TBD 12/2/2005
Valley, City of	5/17/1974	5/17/1974	12/26/1975	3/18/1980	TBD 5/19/2014 12/2/2005

[1] This community did not have a FIRM prior to the first countywide FIRM for Douglas County.
[2] City of Elkhorn was incorporated into City of Omaha in 2007.

Table 27: Community Map History (continued)

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Waterloo, Village of	9/6/1974	9/6/1974	12/19/1975	1/14/1977	TBD 5/19/2014 5/3/2010 12/2/2005 2/19/1987

[1] This community did not have a FIRM prior to the first countywide FIRM for Douglas County.
[2] City of Elkhorn was incorporated into City of Omaha in 2007.

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

Table 28 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

Table 28: Summary of Contracted Studies Included in this FIS Report

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
90th Street Drain	4/15/1982	USACE-Omaha	IAA-H-10-77	March 1980	Omaha, City of
90th Street Drain	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Beadle Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Bennington Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Bennington, City of; Douglas County, Unincorporated Areas
Big Papillion Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Bennington, City of; Douglas County, Unincorporated Areas; Omaha, City of; Ralston, City of
Blood Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Boettger Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Boxelder Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Butterflat Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Bennington, City of; Douglas County, Unincorporated Areas
Cemetery Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Champions Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Cole Creek	4/15/1982	USACE-Omaha	IAA-H-10-77	March 1980	Omaha, City of
Cole Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Eagle Run Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
East Knight Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Elkhorn River	7/16/1980	Henningson, Durham, and Richardson	H-4000	June 1978	Douglas County, Unincorporated Areas
Elkhorn River	5/19/2014	JEO Consulting Group, Inc.; STARR	HSFEHQ-09-D-0370	5/19/2014	Douglas County, Unincorporated Areas; Omaha, City of; Waterloo, Village of

Table 28: Summary of Contracted Studies Included in this FIS Report (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Elkhorn River	7/16/1980	Henningson, Durham, and Richardson	H-4000	June 1978	Douglas County, Unincorporated Areas; Omaha, City of
Elmwood Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Elmwood Creek Overland	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
F Street Drain	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Frederic Street Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Glenbrook Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Hanover Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Bennington, City of; Omaha, City of
Hell Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Boys Town, Village of; Omaha, City of
Huntington Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Indian Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Little Papillion Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Lockwood Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Lonergan Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Maple Village Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Meadow Lane Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Mill Creek	4/15/1982	USACE-Omaha	IAA-H-10-77	March 1980	Omaha, City of
Mission Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Mission Creek Overland	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Missouri River	TBD	USACE-Omaha	HSFE07-06-X-0012	November 2003	Omaha, City of
Mockingbird Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Morton Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
North Boxelder Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
North Branch West Papillion	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Douglas County, Unincorporated Areas; Omaha, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
North Standing Bear Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
North Washington Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Douglas County, Unincorporated Areas
Oak View Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Old Bones Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Old Lincoln Highway Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Pacific Hollow Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Platte River	12/2/2005	USACE-Omaha	EMW-97-IA-1040, Project Order No. 3	12/2/2005	Douglas County, Unincorporated Areas; Valley, City of
Ponca Creek	9/17/1997	USACE-Omaha	Not Provided	January 1987	Omaha, City of
Ralston Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of; Ralston, City of
Ridgewood Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Bennington, City of; Douglas County, Unincorporated Areas
Rockbrook Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Saddle Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
South Standing Bear Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
South Standing Bear Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
South Washington Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Douglas County, Unincorporated Areas
Standing Bear Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Thomas Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Tributary to Big Papillion Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0006	9/15/2018	Omaha, City of
Tributary to Cole Creek	4/15/1982	USACE-Omaha	IAA-H-10-77	March 1980	Omaha, City of
Tributary to West Papillion Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0006	9/15/2018	Omaha, City of
Unnamed Tributary to Missouri River	4/15/1982	USACE-Omaha	IAA-H-10-77	March 1980	Omaha, City of
Washington Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Bennington, City of; Douglas County, Unincorporated Areas
West Papillion Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Whispering Ridge Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of
Whitehawk Creek	TBD	Stantec; Papio-Missouri River NRD	HSFE-60-D-0005	9/15/2018	Omaha, City of

7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and previous Flood Risk Projects are shown in Table 29. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

Table 29: Community Meetings

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Bennington, City of	TBD	TBD	Final CCO	TBD
Boys Town, Village of	TBD	TBD	Final CCO	TBD
Douglas County, Unincorporated Areas	TBD	1/17/2018	Platte River Flood Risk Review Meeting	Representatives of Stantec, Nebraska Department of Natural Resources, FEMA, Village of Cedar Creek Officials, Papio-Missouri River NRD, City of Plattsmouth Officials, Cass County
		1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue Officials, City of Papillion Officials, City of Ralston Officials, FEMA, Mills County, Iowa Officials, City of Omaha Officials, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, NE Officials, STARR, United States Army Corps of Engineers
		TBD	Final CCO	TBD
Omaha, City of	TBD	1/17/2018	Platte River Flood Risk Review Meeting	Representatives of Stantec, Nebraska Department of Natural Resources, FEMA, Village of Cedar Creek Officials, Papio-Missouri River NRD, City of Plattsmouth Officials, Cass County
		1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue Officials, City of Papillion Officials, City of Ralston Officials, FEMA, Mills County, Iowa Officials, City of Omaha Officials, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, NE Officials, STARR, United States Army Corps of Engineers
		TBD	Final CCO	TBD

Table 29: Community Meetings (continued)

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Ralston, City of	TBD	1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue Officials, City of Papillion Officials, City of Ralston Officials, FEMA, Mills County, Iowa Officials, City of Omaha Officials, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, NE Officials, STARR, United States Army Corps of Engineers
		TBD	Final CCO	TBD
Valley, City of	TBD	1/17/2018	Platte River Flood Risk Review Meeting	Representatives of Stantec, Nebraska Department of Natural Resources, FEMA, Village of Cedar Creek Officials, Papio-Missouri River NRD, City of Plattsmouth Officials, Cass County
		TBD	Final CCO	TBD
Waterloo, Village of	TBD	1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue Officials, City of Papillion Officials, City of Ralston Officials, FEMA, Mills County, Iowa Officials, City of Omaha Officials, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, NE Officials, STARR, United States Army Corps of Engineers
		TBD	Final CCO	TBD

SECTION 8.0 – ADDITIONAL INFORMATION

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see www.fema.gov.

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for Douglas County (FEMA 2014).

Table 30 is a list of the locations where FIRMs for Douglas County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

Table 30: Map Repositories

Community	Address	City	State	Zip Code
Bennington, City of	City Hall 15514 Warehouse Street	Bennington	NE	68007
Boys Town, Village of	Village Clerk 14100 Crawford Street	Boys Town	NE	68010
Douglas County, Unincorporated Areas	Douglas County Environmental Services 3015 Menke Circle	Omaha	NE	68134
Omaha, City of	Omaha-Douglas Civic Center 1819 Farnam Street	Omaha	NE	68183
Ralston, City of	City Hall 5500 South 77th Street	Ralston	NE	68127
Valley, City of	City Hall 203 North Spruce Street	Valley	NE	68064
Waterloo, Village of	Village Office 509 South Front Street	Waterloo	NE	68069

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM Databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 31.

Table 31 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the State NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of State or territorial government to coordinate that State's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of State and local GIS data in their state.

Table 31: Additional Information

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library
NFIP website	www.fema.gov/national-flood-insurance-program
NFHL Dataset	msc.fema.gov
FEMA Region VII	11224 Holmes Road Kansas City, MO 64131-3262 (816) 283-7061
Other Federal Agencies	
USGS website	www.usgs.gov
Hydraulic Engineering Center website	www.hec.usace.army.mil
State Agencies and Organizations	
State NFIP Coordinator	Katie Ringland, PE, CFM Nebraska Department of Natural Resources 301 Centennial Mall South Lincoln, Nebraska 68509 (402) 471-2094 katie.ringland@nebraska.gov
State GIS Coordinator	John Watermolen State GIS Coordinator Nebraska Office of the CIO 501 South 14th Street Lincoln, Nebraska 68508 (402) 471-9816 john.watermolen@nebraska.gov

SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

Table 32 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.

Table 32: Bibliography and References

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
DCGIS 2016	DC (Douglas County) GIS	*Waterlines*	DC (Douglas County) GIS	Omaha, NE	8/16/2016	http://data-dogis.opendata.arcgis.com/
DCGIS 2017a	DC (Douglas County) GIS	*Political Boundaries*	DC (Douglas County) GIS	Omaha, NE	1/12/2017	http://data-dogis.opendata.arcgis.com/
DCGIS 2017b	DC (Douglas County) GIS	*Railroads*	DC (Douglas County) GIS	Omaha, NE	7/20/2017	http://data-dogis.opendata.arcgis.com/
DCGIS 2017c	DC (Douglas County) GIS	*Water Bodies*	DC (Douglas County) GIS	Omaha, NE	7/20/2017	http://data-dogis.opendata.arcgis.com/
DCGIS 2018	DC (Douglas County) GIS	*Street Centerlines*	DC (Douglas County) GIS	Omaha. NE	11/20/2018	http://data-dogis.opendata.arcgis.com/
Earthdata 1998	Earthdata International of Maryland, LLC	*Mississippi River DEM/DTM Project*	Earthdata International of Maryland, LLC	Gaithersburg, MD	1998	
FEMA 1974a	Federal Emergency Management Agency (FEMA)	*Base Flood Elevations*	Federal Emergency Management Agency (FEMA)	Washington, DC	7/26/1974	https://msc.fema.gov/
FEMA 1974b	Federal Emergency Management Agency (FEMA)	*General Structures*	Federal Emergency Management Agency (FEMA)	Washington, DC	7/26/1974	https://msc.fema.gov/

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA 1980	Federal Emergency Management Agency (FEMA)	*Flood Insurance Study, County of Douglas, Nebraska, Unincorporated Areas*	Federal Emergency Management Agency (FEMA)	Washington, DC	7/16/1980	https://msc.fema.gov/
FEMA 1982	Federal Emergency Management Agency (FEMA)	*Flood Insurance Study, City of Omaha, Nebraska, Douglas County*	Federal Emergency Management Agency (FEMA)	Washington, DC	4/15/1982	https://msc.fema.gov/
FEMA 1997	Federal Emergency Management Agency (FEMA)	*Flood Insurance Study, City of Omaha, Nebraska, Douglas County*	Federal Emergency Management Agency (FEMA)	Washington, DC	8/17/1997	https://msc.fema.gov/
FEMA 2005	Federal Emergency Management Agency (FEMA)	*Effective Digital Flood Insurance Rate Map Database*	Federal Emergency Management Agency (FEMA)	Omaha, NE	12/2/2005	https://msc.fema.gov/
FYRA, 2018	FYRA Engineering	*Papillion Creek Watershed Hydrology*	FYRA Engineering	Omaha, NE	11/21/2018	
Hardin ND	Hardin Company	*Aerial Photography*	Hardin Company	Kansas City, MO	Not Dated	
HDR 2007	HDR Engineering, Inc.	*New Submitted Flooding*	Federal Emergency Management Agency (FEMA)	Omaha, NE	9/21/2007	
Horizon 2005	Horizon	*Douglas County LiDAR*	Horizon	Kansas City, MO	5/12/2005	
IDNR 2010	IDNR	*Iowa Terrain\Bare_Earth*	IDNR	Iowa City, IA	9/9/2010	ftp://ftp.igsb.uiowa.edu/

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
LOMR 2007	Federal Emergency Management Agency (FEMA)	*LOMR 07-07-0850P*	Federal Emergency Management Agency (FEMA)	Washington, DC	4/9/2007	https://msc.fema.gov/
MAPA 2001	Metropolitan Area Planning Agency (MAPA)	*Aerial Photo Index*	Metropolitan Area Planning Agency (MAPA)	Douglas County, NE	4/15/2001	
Merrick 2011	Merrick & Co	*Nebraska Terrain\Bare_Earth*	Merrick and Co	Aurora, Co	9/9/2011	http://dnr.nebraska.gov
MRBC 1975	Missouri River Basin Commission	*Hydrology and Hydraulics Technical Paper: Platte River Basin, Nebraska, Level B Study*	Missouri River Basin Commission	Omaha, NE	November 1975	
NDNR 1995	Nebraska DNR	*Townships*	Nebraska DNR	Lincoln, NE	11/1/1995	https://dnr.nebraska.gov/data
NDNR 2002	Nebraska Department of Natural Resources	*Political Boundaries*	Nebraska Department of Natural Resources	Lincoln, NE	4/15/2002	
NDNR 2014	Nebraska DNR	*Imagery*	Nebraska DNR	Lincoln, NE	10/25/2014	https://dnr.nebraska.gov/data
NGS 1985	National Geodetic Survey	*NGS Benchmarks*	National Geodetic Survey	Silver Spring, MD	January 1985	
OMH 2010	Omaha World-Herald	*Lowlands awash from Elkhorn River*	Cole, Kevin and Szalewski, Susan	Omaha, NE	6/14/2010	http://www.omaha.com/article/20100614/NEWS01/706149915
Stantec 2018	Papio-Missouri River NRD	*Hydraulic Analysis of Big Papillion Creek Watershed*	Stantec	Overland Park, KS	9/28/2018	http://hazards.fema.gov

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Stantec 2018a	Stantec Consulting Inc	*Submittal Layout*	Stantec Consulting Inc	Overland Park, KS	11/21/2018	
STARR 2015	STARR	*Hydraulics for Big Papillion-Mosquito Watershed*	STARR	6800 College Boulevard, Suite 380 Overland Park, Kansas, 66211	11/30/2015	
STARRII 2019	STARR II	*Flood Insurance Study, Douglas County, Nebraska*	STARR II	Lexington, KY	TBD	
USACE 1954	USACE, Omaha District	*Omaha, Nebraska-Missouri River Flood Protection Project*	USACE	Omaha, NE	June 1954	
USACE 1962	USACE, Omaha District	*Missouri River Agriculture Levee Restudy Program*	USACE	Omaha, NE	March 1962	
USACE 1967a	USACE, Omaha District	*Review Report for Papillion Creek and Tributaries, Nebraska*	USACE	Omaha, NE	February 1967	
USACE 1967b	USACE, Omaha District	*Flood Plain Information, Papillion, Big Papillion, and West Papillion Creeks, Volume I, Omaha Metropolitan Region, Nebraska*	USACE	Omaha, NE	November 1967	
USACE 1968	USACE, Omaha District	*Flood Plain Information, Little Papillion Creek and South Branch, Volume II, Omaha Metropolitan Region, Nebraska*	USACE	Omaha, NE	April 1968	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 1969	USACE, Omaha District	*Flood Plain Information, Thomas Creek, Cole Creek, Hell Creek, West Papillion Creek Extension, and Big Papillion Creek Extension, Volume III, Omaha-Metropolitan Region, Nebraska*	USACE	Omaha, NE	May 1969	
USACE 1971a	USACE, Omaha District	*Review Report, Platte River and Tributaries, Nebraska, Volume 1*	USACE	Omaha, NE	March 1971	
USACE 1971b	USACE, Omaha District	*Papillion Creek and Tributaries, Nebraska Design Memorandum No. MPC-14, Site 16*	USACE	Omaha, NE	March 1971	
USACE 1971c	USACE, Omaha District	*Papillion Creek and Tributaries, Nebraska Design Memorandum No. MPC-37, Site 20*	USACE	Omaha, NE	March 1971	
USACE 1971d	USACE, Omaha District	*Papillion Creek and Tributaries, Nebraska Design Memorandum No. MPC-39, Site 18*	USACE	Omaha, NE	March 1971	
USACE 1972	USACE, Omaha District	*Papillion Creek and Tributaries, Nebraska Design Memorandum No. MPC-15, Site 11*	USACE	Omaha, NE	March 1972	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 1973	USACE, Omaha District	*Little Papillion Creek Channel Improvement Project*	USACE	Omaha, NE	1973	
USACE 1976	USACE, Hydrologic Engineering Center	*HEC-2, Water Surface Profiles, Generalized Computer Program*	USACE	Davis, California	November 1976	
USACE 1977	United States Army Corps of Engineers (USACE)	*Special Flood Hazard Information Report, Missouri River Gavins Point Dam to Rulo, Nebraska, Volume I River Mile 659.4 to 581.3*	USACE		October 1977	
USACE 1991a	USACE, Hydrologic Engineering Center	*HEC-1 Flood Hydrograph Package, Computer Program Version 4.0.1.E*	USACE	Davis, California	May 1991	
USACE 1991b	USACE, Hydrologic Engineering Center	*HEC-2, Water Surface Profiles, Generalized Computer Program*	USACE	Davis, California	May 1991	
USACE 1992	USACE, Hydrologic Engineering Center	*HEC-FFA, Flood Frequency Analysis Program, Version 3.0*	USACE	Davis, California	July 1992	
USACE 1994	USACE, Cold Regions Research and Engineering Laboratory and Omaha District	*Lower Platte River Ice Jam Flooding*	USACE	Omaha, NE	July 1994	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 1996	USACE, Omaha District	*Reconnaissance Report, Lower Platte River and Tributaries, Nebraska*	USACE	Omaha, NE	April 1996	
USCAE 1997	USACE, Hydrologic Engineering Center	*UNET, One-Dimensional Unsteady Flow Through a Full Network of Open Channels, User's Manual*	USACE	Davis, California	1997	
USACE 2003	United States Army Corp of Engineers (USACE)	*River Marks*	United States Army Corp of Engineers (USACE)	Omaha, NE	11/25/2003	
USACE 2004	United States Army Corps of Engineers (USACE)	*Upper Mississippi River System Flow Frequency Study*	USACE	NP	January 2004	https://www.mvr.usace.army.mil/Missions/Flood-Risk-Management/Upper-Mississippi-Flow-Frequency-Study/
USACE 2005	USACE, Hydrologic Engineering Center	*HEC-RAS, Version 3.1.3, River Analysis System*	USACE	Davis, California	May 2005	
USACE 2008	USACE, Hydrologic Engineering Center	*HEC-RAS, Version 4.0.0, River Analysis System*	USACE	Davis, California	March 2008	
USACE 2009	CENWO-ED-HB, USACE Omaha	*Memorandum - Floodway Calculations for the Papillion Creek Watershed DFIRM*	CENWO-ED-HB, USACE Omaha	Omaha, NE	2/11/2009	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 2010	USACE, Hydrologic Engineering Center	*HEC-RAS, Version 4.1.0, River Analysis System*	USACE	Davis, California	January 2010	
USACE 2016	USACE, Hydrologic Engineering Center	*HEC-RAS, Version 5.0.3, River Analysis System*	USACE	Davis, California	September 2016	
USACE Multiple	United States Army Corps of Engineers (USACE)	*Aerial Photography*	USACE		Multiple	
USACE ND1	United States Army Corps of Engineers (USACE)	*National Levee Dataset - Levee Centerlines*	United States Army Corps of Engineers	Washington, DC	Not Dated	https://levees.sec.usace.army.mil/#/
USACE ND2	USACE, Hydrologic Engineering Center	*HEC-HMS, Hydrologic Modeling System, Unknown version ID*	United States Army Corps of Engineers	Davis, California	Unknown	
USDA 1968	United States Department of Agriculture, Soil Conservation Service	*Technical Release No. 39, Hydraulics of Broad-Crested Spillways*	USACE		1968	
USDA 1985	United States Department of Agriculture, Soil Conservation Service	*Technical Release No. 60, Earth Dams and Reservoirs*	USDA		October 1985	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USDC 1977	United States Department of Commerce	*National Oceanic and Atmospheric Administration Technical Memorandum National Weather Service Hydro-35*	USDC		June 1977	
USEPA 1971	United States Environmental Protection Agency (USEPA)	*Storm Water Management Model Computer Program*	USEPA		1971	
USEPA 1982	United States Environmental Protection Agency (USEPA)	*Storm Water Management Model*	USEPA		May 1982	
USGS 1968	United States Geological Survey (USGS)	*7.5 Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 10 feet: Arlington, Elkhorn, Fremont East, Gretna, Kennard, Nebraska*	United States Geological Survey	Reston, VA	1968	
USGS 1975	United States Geological Survey (USGS)	*7.5 Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 10 feet: Gretna, Nebraska, 1956, photorevised 1969 and 1975; Elkhorn, Nebraska, 1968, photorevised 1975*	United States Geological Survey	Reston, VA	1975	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS 2001	United States Geological Survey (USGS)	*Public Land Survey System Polygons, FIRM Panel Index based on USGS Quads*	United States Geological Survey	Reston, VA	July 2001	
USGS 2019	United States Geological Survey (USGS)	*Watershed Boundary Dataset*	United States Geological Survey	Reston, VA	5/29/2019	https://viewer.nationalmap.gov/
USGS ND	United States Geological Survey (USGS)	*Water Resources Data for Nebraska Part 1 Surface Water Records*	USGS	Reston, VA	Not Dated	
USWB 1961	United States Weather Bureau	*Rainfall Frequency Atlas of the United States, Technical Paper No. 40*	USWB		1961	