FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 2 OF 3



SARPY COUNTY, NEBRASKA

AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
BELLEVUE, CITY OF	310191
GRETNA, CITY OF	310375
LA VISTA, CITY OF	310192
PAPILLION, CITY OF	315275
SARPY COUNTY, UNINCORPORATED AREAS	310190
SPRINGFIELD, CITY OF	310194



PRELIMINARY

02/17/2022

REVISED:

TO BE DETERMINED

FLOOD INSURANCE STUDY NUMBER 31153CV002C Version Number 2.5.3.6

TABLE OF CONTENTS

Volume 1

		<u>Page</u>
SEC	TION 1.0 – INTRODUCTION	1
1.1	The National Flood Insurance Program	1
1.2	· ··· · · · · · · · · · · · · · · · ·	2
1.3	, ,	2
1.4	Considerations for using this Flood Insurance Study Report	3
SEC	TION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS	14
2.1	Floodplain Boundaries	14
2.2	Floodways	22
2.3	Base Flood Elevations	23
	Non-Encroachment Zones	24
2.5	Coastal Flood Hazard Areas	24
	2.5.1 Water Elevations and the Effects of Waves	24
	2.5.2 Floodplain Boundaries and BFEs for Coastal Areas2.5.3 Coastal High Hazard Areas	24 24
	2.5.4 Limit of Moderate Wave Action	24
	2.5.4 Limit of Moderate Wave Action	24
_	TION 3.0 – INSURANCE APPLICATIONS	25
3.1	National Flood Insurance Program Insurance Zones	25
SEC	TION 4.0 – AREA STUDIED	25
4.1	Basin Description	25
4.2	Principal Flood Problems	26
4.3		28
4.4	Levee Systems	30
SEC	TION 5.0 – ENGINEERING METHODS	34
5.1	, ,	34
5.2	Hydraulic Analyses	49
5.3	Coastal Analyses	63
	5.3.1 Total Stillwater Elevations	64
	5.3.2 Waves	64
	5.3.3 Coastal Erosion	64
E 1	5.3.4 Wave Hazard Analyses	64
5.4	Alluvial Fan Analyses	64
_	TION 6.0 – MAPPING METHODS	65
6.1	Vertical and Horizontal Control	65
6.2	Base Map	66
6.3	Floodplain and Floodway Delineation	68

<u>Figures</u>

	<u>Page</u>
Figure 1: FIRM Index Figure 2: FIRM Notes to Users Figure 3: Map Legend for FIRM Figure 4: Floodway Schematic Figure 5: Wave Runup Transect Schematic Figure 6: Coastal Transect Schematic Figure 7: Frequency Discharge-Drainage Area Curves Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas Figure 9: Transect Location Map	6 7 10 23 24 24 47 64
<u>Tables</u>	Dogo
	<u>Page</u>
Table 1: Listing of NFIP Jurisdictions Table 2: Flooding Sources Included in this FIS Report Table 3: Flood Zone Designations by Community Table 4: Basin Characteristics Table 5: Principal Flood Problems Table 6: Historic Flooding Elevations Table 7: Dams and Other Flood Hazard Reduction Measures Table 8: Levee Systems Table 9: Summary of Discharges Table 10: Summary of Non-Coastal Stillwater Elevations Table 11: Stream Gage Information used to Determine Discharges Table 12: Summary of Hydrologic and Hydraulic Analyses Table 13: Roughness Coefficients Table 14: Summary of Coastal Analyses Table 15: Tide Gage Analysis Specifics Table 16: Coastal Transect Parameters Table 17: Summary of Alluvial Fan Analyses Table 18: Results of Alluvial Fan Analyses Table 19: Countywide Vertical Datum Conversion Table 20: Stream-Based Vertical Datum Conversion Table 21: Base Map Sources Table 22: Summary of Topographic Elevation Data used in Mapping Table 23: Floodway Data	2 15 25 26 28 29 32 35 48 49 50 62 63 64 64 64 65 66 66 67

Volume 2

		<u>Page</u>
SECTI (6.3 6.4 6.5	ON 6.0 – MAPPING METHODS (CONTINUED) Floodplain and Floodway Delineation (Continued) Coastal Flood Hazard Mapping FIRM Revisions 6.5.1 Letters of Map Amendment 6.5.2 Letters of Map Revision Based on Fill 6.5.3 Letters of Map Revision 6.5.4 Physical Map Revisions 6.5.5 Contracted Restudies 6.5.6 Community Map History	90 90 127 127 127 128 128 129 129
SECTI (7.1 7.2	ON 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION Contracted Studies Community Meetings	130 130 133
SECTI	ON 8.0 – ADDITIONAL INFORMATION	137
SECTI	ON 9.0 – BIBLIOGRAPHY AND REFERENCES	138
	<u>Tables</u>	
		<u>Page</u>
Table 2 Table 2 Table 2 Table 2 Table 2 Table 3 Table 3 Table 3	23: Floodway Data (Continued) 24: Flood Hazard and Non-Encroachment Data for Selected Streams 25: Summary of Coastal Transect Mapping Considerations 26: Incorporated Letters of Map Change 27: Community Map History 28: Summary of Contracted Studies Included in this FIS Report 29: Community Meetings 30: Map Repositories 31: Additional Information	90 127 127 128 130 131 134 137
i abie 3	32: Bibliography and References	139

Exhibits

Flood Profiles	<u>Panel</u>
Applewood Creek	001P
Beadle Creek	002-004P
Betz Road Ditch	005-006P
Big Elk Creek	007-009P
Big Papillion Creek	010-015P
Buffalo Creek	016-019P
Crystal Creek	020-022P
Elkhorn River	023-025P
Fairview Creek	026-027P
Fricke Creek	028P
Giles Creek	029P
Hell Creek	030P
Midland Creek	031-033P
Mission Creek	034P
Mission Creek Overland	035P

Volume 3

Exhibits

Flood Profiles	<u>Panel</u>
Missouri River	036-038P
Mud Creek	039-042P
North Wehrspann Creek	043P
Old Home Creek	044P
Platte River (with levee)	045-060P
Platte River (without Left Levee)	061-062P
Platte River (Levee Failure)	063-066P
Quail Creek	067-069P
South Midland Creek	070-071P
South Papillion Creek	072-080P
South Papillion Tributary	081-083P
South Wehrspann Creek	084P
Springfield Creek	085-087P
Thompson Creek	088-089P
Tiburon Creek	090P
Walnut Creek	091-093P
Wehrspann Creek	094-098P
West Midland Creek	099-100P

Flood Profiles	<u>Panel</u>
West Papillion Creek (With Levees)	102-104P
West Papillion Creek (Without Left Levee)	105-106P
West Papillion Creek (Without Right	
Levee)	107-108P
West Papillion Tributary	109-112P
West Quail Creek	113P
Whitted Creek (With Levee)	114P
Whitted Creek (Without Left Levee)	115P
Wolf Creek	116P

Published Separately

Flood Insurance Rate Map (FIRM)

Table 23: Floodway Data (continued)

LOCATIO	ON	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									
Α	594.50	3,019 / 1,094	45,504	3.9		969.3	969.3	970.3	1.0
В	594.90	2,994 / 1,027	48,956	3.6		969.7	969.7	970.6	0.9
С	595.31	2,995 / 995	44,802	3.9		969.8	969.8	970.7	0.9
D	595.71	2,950 / 949	43,127	4.1		970.1	970.1	970.9	0.9
E	596.11	3,301 / 1,324	46,676	3.7		970.4	970.4	971.2	0.9
F	596.51	3,101 / 1,303	44,055	4.0	6	970.6	970.6	971.4	0.8
G	596.92	3,183 / 1,595	48,638	3.6	6	970.9	970.9	971.7	0.8
Н	597.32	3,207 / 1,603	48,981	3.6	18	971.2	971.2	971.9	0.8
I	597.72	3,123 / 1,540	43,668	4.0	21	971.3	971.3	972.0	0.7
J	598.12	3,055 / 1,562	44,519	3.9	7	971.6	971.6	972.3	0.7
K	598.52	2,993 / 1,388	45,992	3.8	5	971.8	971.8	972.5	0.7
L	598.92	2,910 / 1,424	46,657	3.8	13	972.1	972.1	972.7	0.6
M	599.33	3,023 / 1,410	50,027	3.5	15	972.4	972.4	973.0	0.6
N	599.73	3,056 / 1,471	45,112	3.9	19	972.5	972.5	973.1	0.6
0	600.13	3,056 / 1,550	46,855	3.7	22	972.8	972.8	973.4	0.6
Р	600.43	3,036 / 1,765	44,954	3.9	18	972.9	972.9	973.5	0.6
Q	600.57	1,459 / 575	30,005	5.8		973.0	973.0	973.5	0.5
R	600.59	1,459 / 530	30,051	5.8		973.0	973.0	973.5	0.5
S	600.93	1,857 / 387	34,264	5.1		973.3	973.3	973.9	0.6
Т	601.33	2,027 / 357	33,528	5.2		973.5	973.5	974.1	0.6
U	601.73	2,262 / 488	35,776	4.9		973.9	973.9	974.4	0.5
V	602.14	2,428 / 878	37,917	4.6		974.3	974.3	974.7	0.4
W	602.54	2,568 / 1,065	39,351	4.4		974.5	974.5	974.9	0.4
X	602.96	4,625 / 3,036	60,502	2.9		974.8	974.8	975.4	0.6
Υ	603.38	8,051 / 6,485	91,861	1.9		975.0	975.0	975.7	0.7

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

ŢΑ	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA		
BL	SARPY COUNTY, NE	120051771		
_E 23	,	FLOODING SOURCE: MISSOURI RIVER		
ယ	AND INCORPORATED AREAS			

Table 23: Floodway Data (continued)

LOCATION	ON	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)									
Ž	603.79	10,260 / 8,831	104,988	1.7		975.1	975.1	975.8	0.8
AA	604.20	12,087 / 10,556	126,567	1.4	5	975.1	975.1	976.0	0.8
AB	604.62	12,301 / 10,963	129,728	1.3	5	975.2	975.2	976.1	0.8
AC	605.04	11,450 / 10,932	115,981	1.5	5	975.3	975.3	976.1	0.8
AD	605.45	10,828 / 10,286	108,754	1.6		975.4	975.4	976.2	0.8
AE	605.86	10,820 / 9,534	109,422	1.6		975.5	975.5	976.4	0.9
AF	606.27	9,782 / 8,551	100,592	1.7		975.6	975.6	976.5	0.9
AG	606.67	8,522 / 7,565	87,578	2.0		975.7	975.7	976.6	0.9
AH	606.97	7,579 / 6,722	77,421	2.3		975.8	975.8	976.6	0.9
Al	607.47	5,746 / 4,774	60,056	2.9		975.9	975.9	976.8	0.9
AJ	607.87	3,973 / 2,658	43,797	4.0		976.0	976.0	976.9	0.9
AK	608.27	2,883 / 1,205	35,809	4.9		976.2	976.2	977.1	0.9
AL	608.67	2,800 / 398	37,736	4.6		976.6	976.6	977.6	1.0
AM	609.07	3,343 / 414	39,417	4.4		977.0	977.0	977.9	0.9
AN	609.48	3,598 / 385	41,241	4.2		977.4	977.4	978.2	8.0
AO	609.88	3,141 / 373	40,076	4.4		977.7	977.7	978.5	8.0

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

	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	SARPY COUNTY, NE	1 200211/11 2/11/1
E 23	AND INCORPORATED AREAS	FLOODING SOURCE: MISSOURI RIVER

Table 23: Floodway Data (continued)

LOC	ATION 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
Α	2,478	144	829	4.4	989.6	983.7 ²	983.7	0.0
В	2,952	97	521	7.0	989.6	984.2 ²	984.2	0.0
С	3,349	93	516	7.1	989.6	985.4 ²	985.4	0.0
D	3,659	91	575	6.4	989.6	986.4 ²	986.4	0.0
E	3,786	95	532	6.1	989.6	986.7 ²	986.7	0.0
F	4,084	132	818	4.0	989.6	987.8 ²	987.8	0.0
G	5,012	51	319	10.3	989.6	988.9 ²	988.9	0.0
Н	5,064	75	380	8.7	989.6	989.6	989.6	0.0
1	5,700	42	238	13.7	992.3	992.3	992.3	0.0
J	6,000	71	412	7.9	995.8	995.8	995.8	0.0
K	6,979	38	211	13.6	999.3	999.3	999.3	0.0
L	7,252	54	371	7.7	1,004.1	1,004.1	1,004.1	0.0
M	7,500	94	451	6.4	1,004.9	1,004.9	1,004.9	0.0
N	8,523	39	233	12.3	1,006.7	1,006.7	1,006.7	0.0
0	8,849	51	362	7.9	1,009.8	1,009.8	1,009.8	0.0
Р	9,225	40	228	12.6	1,010.6	1,010.6	1,010.6	0.0
Q	9,314	44	286	10.0	1,012.9	1,012.9	1,012.9	0.0
R	9,456	154	734	3.9	1,015.0	1,015.0	1,015.0	0.0
S	10,000	237	844	3.4	1,016.7	1,016.7	1,017.3	0.6
Т	10,506	185	443	6.5	1,018.1	1,018.1	1,018.2	0.1
U	10,579	182	547	5.2	1,018.6	1,018.6	1,019.5	0.9

¹ Feet above confluence with Big Papillion Creek

AT	F
Œ	
⊏ ∣	
Ш	
23	
ω	

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MUD CREEK

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

Table 23: Floodway Data (continued)

LOC	ATION		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	10,835	114	473	6.1	1,019.4	1,019.4	1,020.0	0.6	
W	10,935	289	1,267	2.3	1,020.6	1,020.6	1,021.1	0.5	
X	11,052	249	992	2.9	1,020.7	1,020.7	1,021.1	0.4	
Υ	11,204	211	786	3.7	1,021.4	1,021.4	1,022.0	0.6	
Z	11,443	326	587	6.2	1,022.4	1,022.4	1,022.6	0.2	
AA	11,636	350	656	4.5	1,023.8	1,023.8	1,024.0	0.2	
AB	11,842	354	1,046	2.7	1,024.9	1,024.9	1,025.4	0.5	
AC	12,032	413	1,299	2.2	1,025.2	1,025.2	1,025.7	0.5	
AD	12,349	333	932	3.4	1,025.5	1,025.5	1,025.9	0.4	
AE	12,486	311	692	4.1	1,025.9	1,025.9	1,026.3	0.4	
AF	12,556	278	570	5.0	1,026.4	1,026.4	1,026.6	0.2	
AG	13,191	243	542	5.3	1,029.5	1,029.5	1,029.7	0.2	
AH	13,390	217	878	3.3	1,030.4	1,030.4	1,030.7	0.3	
Al	13,493	134	619	4.6	1,030.8	1,030.8	1,031.2	0.4	
AJ	13,687	212	866	3.3	1,031.5	1,031.5	1,031.8	0.3	
AK	14,500	155	495	5.1	1,032.3	1,032.3	1,032.6	0.3	
AL	15,000	154	584	4.3	1,033.5	1,033.5	1,033.7	0.2	
AM	15,500	165	535	4.7	1,034.4	1,034.4	1,034.5	0.1	
AN	15,678	155	491	5.5	1,035.9	1,035.9	1,036.7	0.8	
AO	15,770	206	861	3.2	1,036.8	1,036.8	1,037.5	0.7	
AP	15,930	299	839	3.3	1,036.9	1,036.9	1,037.5	0.6	

¹ Feet above confluence with Big Papillion Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MUD CREEK

Table 23: Floodway Data (continued)

LOC	ATION		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
AQ	16,113	134	645	3.9	1,037.0	1,037.0	1,037.9	0.9
AR	16,324	119	527	4.8	1,037.4	1,037.4	1,038.2	0.8
AS	16,638	103	439	5.7	1,038.6	1,038.6	1,039.1	0.5
AT	16,987	147	550	4.6	1,040.0	1,040.0	1,040.4	0.4
AU	17,140	197	1,047	2.4	1,041.2	1,041.2	1,041.6	0.4
AV	17,970	126	357	7.1	1,041.5	1,041.5	1,041.9	0.4
AW	18,067	143	646	3.9	1,044.4	1,044.4	1,044.9	0.5
AX	18,436	128	562	4.5	1,045.1	1,045.1	1,045.4	0.3
AY	18,969	151	468	5.4	1,046.4	1,046.4	1,046.5	0.1
AZ	20,053	99	274	7.2	1,051.5	1,051.5	1,051.6	0.1
ВА	20,207	133	523	3.8	1,053.8	1,053.8	1,054.2	0.4
BB	20,969	185	1,025	1.9	1,054.5	1,054.5	1,055.0	0.5
ВС	21,618	144	576	3.4	1,054.9	1,054.9	1,055.4	0.5
BD	21,987	79	220	9.0	1,056.2	1,056.2	1,056.2	0.0

¹ Feet above confluence with Big Papillion Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MUD CREEK

Table 23: Floodway Data (continued)

LOC	ATION		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
А	701	255	495	3.1	1,149.3	1,149.3	1,149.3	0.0
В	745	128	375	4.0	1,149.3	1,149.3	1,149.8	0.5
С	883	260	435	4.1	1,150.0	1,150.0	1,150.1	0.1
D	1,074	132	255	6.0	1,150.9	1,150.9	1,150.9	0.0
E	1,207	142	304	5.0	1,151.1	1,151.1	1,151.7	0.6
F	1,948	246	397	6.0	1,155.4	1,155.4	1,155.4	0.0
G	3,001	106	317	5.2	1,161.8	1,161.8	1,161.8	0.0
Н	3,772	97	164	9.3	1,165.6	1,165.6	1,165.6	0.0
1	4,904	56	196	7.6	1,171.0	1,171.0	1,171.0	0.0

¹ Feet above confluence with Wehrspann Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: NORTH WEHRSPANN CREEK

Table 23: Floodway Data (continued)

LOC	ATION		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
А	68	14	21	6.7	1,046.0	1,041.4 ²	1,041.5	0.1
В	117	19	37	3.7	1,046.0	1,042.6 ²	1,042.6	0.0
С	164	22	24	5.9	1,046.0	1,043.22	1,043.3	0.1
D	235	15	23	6.0	1,046.0	1,044.72	1,044.7	0.0
E	269	31	61	2.7	1,046.0	1,045.4 ²	1,045.4	0.0
F	421	19	50	2.7	1,048.4	1,048.4	1,048.4	0.0
G	495	16	31	4.5	1,048.4	1,048.4	1,048.4	0.0
Н	559	11	19	7.3	1,049.3	1,049.3	1,049.4	0.1
1	615	17	31	4.4	1,050.7	1,050.7	1,050.7	0.0
J	740	18	24	5.8	1,058.4	1,058.4	1,058.4	0.0

¹ Feet above confluence with Mud Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: OLD HOME CREEK

² Elevation computed without consideration of backwater effects from Mud Creek

Table 23: Floodway Data (continued)

FLOODING S	SOURCE	F	LOODWAY		1% ANNU		LOOD WATER S	SURFACE
CROSS SECTION	DISTANCE ¹	WIDTH ² (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
А	8,345	3,602/1,897	24,065	8.4	969.7	965.1 ³	965.1	0.0
	· ·	4,094/801						
В	16,575	· ·	47,433	6.0	975.9	975.7 ³	975.7	0.0
С	20,627	1,654/439	21,494	9.4	976.8	976.7 ³	976.7	0.0
D	23,191	3,097/944	34,152	5.9	978.5	978.4 ³	978.4	0.0
E	32,530	4,630/3,285	36,328	5.6	985.4	985.4	985.4	0.0
F	39,250	1,301/905	18,016	13.9	988.7	988.7	989.0	0.3
G	45,270	2,091/628	31,496	7.9	994.4	994.4	995.1	0.7
Н	54,970	2,644/1,600	22,117	11.3	998.2	998.2	998.7	0.5
1	60,510	2,560/1,550	30,082	8.3	1,004.9	1,004.9	1,005.3	0.4
J	69,950	2,460/1,700	26,117	9.6	1,010.5	1,010.5	1,010.7	0.2
K	79,530	3,091/2,500	24,563	10.2	1,016.1	1,016.1	1,016.3	0.2
L	83,470	2,579/1,660	25,835	9.7	1,019.5	1,019.5	1,019.7	0.2
M	88,670	2,475/1,300	38,362	6.5	1,027.1	1,027.1	1,027.7	0.6
N	92,245	2,410/1,380	27,446	9.1	1,027.7	1,027.7	1,028.1	0.4
0	97,370	1,812/1,040	20,251	12.3	1,029.8	1,029.8	1,030.3	0.5
Р	99,720	2,123/1,205	26,637	9.4	1,032.0	1,032.0	1,032.9	0.9
Q	102,720	2,286/1,400	23,831	10.5	1,033.9	1,033.9	1,034.4	0.5
R	105,845	2,277/1,500	20,304	12.3	1,035.7	1,035.7	1,036.3	0.6
S	110,420	1,593/605	20,306	12.3	1,041.2	1,041.2	1,041.3	0.1
Т	114,570	2,043/845	30,843	8.1	1,045.7	1,045.7	1,046.4	0.7
U	117,295	2,533/1,380	34,716	7.2	1,047.3	1,047.3	1,047.9	0.7
V	119,895	2,463/1,550	29,335	8.5	1,048.5	1,048.5	1,049.0	0.5
W	123,770	2,877/2,020	32,447	7.7	1,052.2	1,052.2	1,052.5	0.3
X	126,970	3,425/2,350	39,766	6.3	1,054.2	1,054.2	1,055.1	0.9
Y	133,170	3,886/2,795	44,607	5.6	1,059.3	1,059.3	1,059.6	0.3

¹Feet above confluence with Missouri River

³Elevations without considering tailwater impacts from Missouri River

FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA			
SARPY COUNTY. NE	. 2002 117.11 27.117.			
,	PLATTE RIVER (WITH LEVEE)			
	SARPY COUNTY, NE AND INCORPORATED AREAS			

²Total width/Width within Sarpy County

Table 23: Floodway Data (continued)

FLOODING S	SOURCE	FLC	OODWAY		1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH ² (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Z AA AB AC AD AE AF AG AH AJ AK AL AM	139,370 143,170 148,570 152,620 158,720 161,820 167,570 170,620 173,970 179,595 182,670 186,870 190,270 193,720	8,066/4,140 9,100/5,700 14,100/ 10,600 13,700/ 11,950 12,550/ 12,005 12,106/ 11,198 10,400/6,900 11,300/5,905 10,890/5,650 10,800/ 5,200 9,300/4,170 5,237/4,290 5,807/4,300 9,061/7,300	61,338 60,079 74,005 91,680 63,720 62,293 56,687 53,407 49,506 56,963 53,761 30,219 34,714 41,086	3.0 3.1 2.5 2.0 2.9 3.0 3.3 3.5 3.8 3.5 6.2 5.4 4.6	1,061.5 1,062.7 1,067.4 1,069.9 1,074.2 1,078.0 1,081.4 1,085.2 1,087.1 1,091.1 1,093.8 1,096.3 1,098.1 1,100.7	1,061.5 1,062.7 1,067.4 ⁴ 1,068.8 ⁴ 1,071.4 ⁴ 1,074.3 ⁴ 1,078.1 ⁴ 1,080.6 ⁴ 1,083.1 ⁴ 1,087.7 ⁴ 1,090.3 ⁴ 1,094.0 ⁴ 1,096.9 ⁴ 1,099.9 ⁴	1,061.9 1,063.2 1,068.2 ⁴ 1,069.5 ⁴ 1,072.4 ⁴ 1,075.3 ⁴ 1,081.6 ⁴ 1,084.1 ⁴ 1,088.6 ⁴ 1,091.3 ⁴ 1,097.4 ⁴ 1,100.2 ⁴	0.4 0.5 0.8 0.7 1.0 1.0 0.8 1.0 1.0 0.9 1.0 0.6 0.5 0.3

¹Feet above confluence with Missouri River

⁴Elevations computed including ice jam effects

	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
BLE	SARPY COUNTY, NE	. 2002117(1 27(1))(
23	AND INCORPORATED AREAS	PLATTE RIVER (WITH LEVEE)

²Total width/Width within Sarpy County

Table 23: Floodway Data (continued)

LOCA	ATION		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
А	1,872	67	344	6.4	993.6	986.9 ²	986.9	0.0
В	2,042	63	359	6.2	993.6	988.8²	988.8	0.0
С	2,205	41	246	9.0	993.6	989.3²	989.3	0.0
D	2,498	83	428	5.2	993.6	992.1 ²	992.1	0.0
E	3,316	88	392	5.5	994.7	994.7	994.9	0.2
F	3,574	67	357	3.2	995.7	995.7	996.0	0.3
G	4,201	35	141	8.1	996.1	996.1	996.6	0.5
Н	4,501	31	163	7.0	999.2	999.2	999.3	0.1
1	5,499	60	277	5.4	1,003.0	1,003.0	1,003.1	0.1
J	5,820	31	144	8.0	1,005.8	1,005.8	1,005.8	0.0
K	6,681	50	204	5.6	1,010.8	1,010.8	1,010.8	0.0
L	8,032	37	124	9.3	1,017.5	1,017.5	1,017.5	0.0
M	8,300	34	146	7.9	1,020.6	1,020.6	1,020.7	0.1
N	8,789	41	189	6.1	1,023.6	1,023.6	1,023.6	0.0
0	9,500	42	201	5.7	1,025.5	1,025.5	1,025.5	0.0
Р	10,067	35	135	8.5	1,028.1	1,028.1	1,028.1	0.0
Q	10,488	43	222	5.2	1,030.8	1,030.8	1,030.8	0.0
R	12,416	42	159	7.2	1,037.5	1,037.5	1,037.6	0.1
S	12,978	35	179	6.4	1,040.9	1,040.9	1,040.9	0.0
Т	13,845	112	197	3.8	1,044.5	1,044.5	1,044.5	0.0

¹ Feet above confluence with West Papillion Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: QUAIL CREEK

² Elevation computed without consideration of backwater effects from West Papillion Creek

Table 23: Floodway Data (continued)

LOC	ATION		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
А	1,720	93	414	0.8	1,054.9	1,054.9	1,054.9	0.0
В	1,845	73	403	0.9	1,055.0	1,055.0	1,055.0	0.0
С	2,497	43	124	2.8	1,055.0	1,055.0	1,055.0	0.0
D	2,915	64	133	2.6	1,055.4	1,055.4	1,055.4	0.0

¹ Feet above confluence with Shadow Lake

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODING SOURCE: SOUTH MIDLAND CREEK

Table 23: Floodway Data (continued)

LOC	ATION		FLOODWAY		1% AN		FLOOD WATER SI (FEET NAVD88)	JRFACE
CROSS SECTION	DISTANCE 1	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
А	2,679	107	1,695	9.9	1,033.6	1,033.6	1,033.6	0.0
В	3,913	171	2,313	7.1	1,036.5	1,036.5	1,036.5	0.0
С	4,054	168	2,371	6.9	1,038.5	1,038.5	1,038.5	0.0
D	5,722	186	1,558	10.9	1,040.5	1,040.5	1,040.5	0.0
E	6,763	238	2,979	5.7	1,043.8	1,043.8	1,043.8	0.0
F	6,869	274	3,062	5.6	1,046.1	1,046.1	1,046.1	0.0
G	8,393	349	1,996	8.3	1,048.3	1,048.3	1,048.2	0.0
Н	9,011	242	1,465	11.9	1,049.1	1,049.1	1,049.2	0.1
I	9,410	243	2,686	6.1	1,052.1	1,052.1	1,052.1	0.0
J	9,501	272	2,947	5.6	1,053.2	1,053.2	1,053.5	0.3
K	10,055	262	2,481	7.0	1,053.4	1,053.4	1,053.9	0.5
L	10,516	217	1,898	9.1	1,053.7	1,053.7	1,054.1	0.4
М	11,260	233	2,634	6.6	1,055.7	1,055.7	1,056.0	0.3
N	13,226	229	1,901	9.1	1,058.5	1,058.5	1,058.7	0.2
0	13,637	281	2,198	7.9	1,059.7	1,059.7	1,059.9	0.2
Р	14,162	265	1,600	11.0	1,060.0	1,060.0	1,060.3	0.3
Q	15,086	290	2,749	6.1	1,064.2	1,064.2	1,064.4	0.2
R	15,409	350	2,873	5.7	1,065.1	1,065.1	1,065.1	0.0
S	16,362	483	2,463	6.7	1,066.0	1,066.0	1,066.0	0.0
Т	18,756	89	1,409	10.4	1,068.5	1,068.5	1,068.8	0.3
U	19,369	113	1,872	8.0	1,070.5	1,070.5	1,070.8	0.3

¹ Feet above confluence with West Papillion Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SOUTH PAPILLION CREEK

Table 23: Floodway Data (continued)

LOC	ATION		FLOODWAY		1% AN		FLOOD WATER SI (FEET NAVD88)	JRFACE
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
V	20,653	123	1,590	9.9	1,072.3	1,072.3	1,072.4	0.1
W	20,703	430	2,972	7.0	1,080.3	1,080.3	1,081.3	1.0
X	21,215	250	2,300	6.5	1,082.4	1,082.4	1,082.6	0.2
Υ	21,756	553	4,737	3.5	1,083.8	1,083.8	1,084.8	1.0
Z	23,462	462	3,281	4.6	1,086.1	1,086.1	1,086.7	0.6
AA	24,685	268	2,456	6.1	1,087.4	1,087.4	1,088.0	0.6
AB	25,698	301	3,693	6.3	1,089.8	1,089.8	1,090.1	0.3
AC	26,681	228	1,360	10.3	1,090.8	1,090.8	1,091.2	0.4
AD	27,660	167	2,218	6.3	1,094.3	1,094.3	1,094.7	0.4
AE	29,230	282	1,957	7.2	1,096.2	1,096.2	1,096.7	0.5
AF	29,698	194	2,488	5.7	1,097.9	1,097.9	1,098.3	0.4
AG	30,302	176	2,203	5.9	1,101.0	1,101.0	1,101.2	0.2
AH	30,922	149	1,917	6.8	1,101.6	1,101.6	1,101.9	0.3
Al	32,160	143	1,880	6.9	1,104.6	1,104.6	1,104.7	0.1
AJ	32,219	246	2,306	5.8	1,107.2	1,107.2	1,107.2	0.0
AK	33,037	219	1,887	7.1	1,108.0	1,108.0	1,108.0	0.0
AL	33,129	198	1,915	7.2	1,109.4	1,109.4	1,109.4	0.0
AM	34,511	171	2,017	5.9	1,111.4	1,111.4	1,111.5	0.1
AN	35,973	107	1,601	6.7	1,112.5	1,112.5	1,112.6	0.1
AO	36,045	147	1,655	6.5	1,115.2	1,115.2	1,115.2	0.0
AP	36,638	132	1,246	8.6	1,116.4	1,116.4	1,116.4	0.0

¹ Feet above confluence with West Papillion Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SOUTH PAPILLION CREEK

Table 23: Floodway Data (continued)

LOC	ATION		FLOODWAY		1% AN	_	FLOOD WATER SI (FEET NAVD88)	JRFACE
CROSS SECTION	DISTANCE 1	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AQ	37,904	105	1,254	8.6	1,118.6	1,118.6	1,118.6	0.0
AR	38,267	123	1,726	6.2	1,122.1	1,122.1	1,122.1	0.0
AS	38,912	152	1,266	8.5	1,122.4	1,122.4	1,122.4	0.0
AT	39,242	532	4,314	3.6	1,128.7	1,128.7	1,129.7	1.0
AU	40,132	258	1,983	5.4	1,130.1	1,130.1	1,130.6	0.5
AV	41,347	136	1,569	6.9	1,131.5	1,131.5	1,132.2	0.7
AW	41,541	87	1,271	6.3	1,131.8	1,131.8	1,132.5	0.7
AX	42,535	68	769	10.5	1,132.8	1,132.8	1,133.3	0.5
AY	44,069	303	734	11.2	1,140.0	1,140.0	1,140.0	0.0
AZ	44,255	442	1,576	5.1	1,143.2	1,143.2	1,143.2	0.0
BA	44,556	162	1,762	4.7	1,144.5	1,144.5	1,144.5	0.0
BB	45,163	36	408	11.7	1,145.2	1,145.2	1,145.2	0.0
BC	45,573	150	501	11.4	1,148.3	1,148.3	1,148.3	0.0
BD	46,760	298	1,240	3.9	1,155.0	1,155.0	1,155.0	0.0
BE	47,671	277	842	5.7	1,160.0	1,160.0	1,160.0	0.0
BF	48,684	338	1,170	4.1	1,162.4	1,162.4	1,162.5	0.1
BG	49,869	194	647	8.1	1,168.1	1,168.1	1,168.1	0.0
ВН	50,172	186	974	5.5	1,170.2	1,170.2	1,170.2	0.0
BI	50,844	155	1,293	4.9	1,172.0	1,172.0	1,172.2	0.2
BJ	51,084	180	1,368	5.0	1,176.9	1,176.9	1,177.7	0.8
BK	51,203	346	2,356	1.2	1,177.8	1,177.8	1,178.5	0.7

¹ Feet above confluence with West Papillion Creek

FEDERAL E
SAI
SAI
23

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SOUTH PAPILLION CREEK

Table 23: Floodway Data (continued)

LOC	ATION		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
BL	52,275	173	659	4.4	1,178.1	1,178.1	1,178.9	0.8

¹ Feet above confluence with West Papillion Creek

TAI	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA			
BLE	SARPY COUNTY, NE				
23	AND INCORPORATED AREAS	FLOODING SOURCE: SOUTH PAPILLION CREEK			

Table 23: Floodway Data (continued)

LOCA	ATION		FLOODWAY		1% AN		FLOOD WATER SU (FEET NAVD88)	JRFACE
CROSS SECTION	DISTANCE 1	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Α	639	27	112	3.3	1,039.4	1,024.8 ²	1,024.8	0.0
В	1,623	30	141	2.6	1,039.4	1,028.1 ²	1,028.1	0.0
С	2,613	20	57	6.5	1,039.4	1,029.7 ²	1,029.7	0.0
D	10,981	67	524	3.7	1,081.6	1,077.4 ³	1,077.6	0.2
E	12,335	72	526	3.6	1,081.6	1,080.1 ³	1,080.4	0.3
F	13,161	32	176	10.9	1,081.7	1,081.7	1,082.0	0.3
G	13,411	116	748	2.6	1,096.0	1,096.0	1,096.0	0.0
Н	14,058	230	795	2.4	1,096.4	1,096.4	1,096.4	0.0
1	14,563	61	284	6.8	1,098.7	1,098.7	1,099.0	0.3
J	15,103	37	267	7.2	1,101.2	1,101.2	1,101.6	0.4
K	16,207	84	408	4.7	1,105.7	1,105.7	1,106.0	0.3

¹ Feet above confluence with South Papillion Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODING SOURCE: SOUTH PAPILLION TRIBUTARY

² Elevation computed without consideration of backwater effects from South Papillion Creek

³ Elevation computed without consideration of backwater effects from Prairie Queen Lake

Table 23: Floodway Data (continued)

LOC	ATION		FLOODWAY		1% AN		FLOOD WATER SI (FEET NAVD88)	JRFACE
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
А	709	51	205	8.1	1,126.9	1,126.9	1,126.9	0.0
В	1,001	39	151	10.9	1,128.1	1,128.1	1,128.1	0.0
С	1,591	90	201	8.4	1,133.1	1,133.1	1,133.2	0.1
D	2,014	433	513	3.2	1,137.4	1,137.4	1,137.5	0.1
E	2,215	200	917	1.8	1,140.8	1,140.8	1,141.4	0.6
F	2,657	82	953	3.2	1,147.4	1,147.4	1,148.1	0.7
G	3,362	180	915	1.8	1,147.6	1,147.6	1,148.2	0.6
Н	4,173	84	155	5.3	1,148.5	1,148.5	1,148.8	0.3
1	5,022	59	159	5.1	1,154.3	1,154.3	1,154.4	0.1
J	5,585	49	110	7.4	1,157.9	1,157.9	1,158.6	0.7
K	6,261	65	164	5.0	1,162.8	1,162.8	1,162.8	0.0

¹ Feet above confluence with Wehrspann Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SOUTH WEHRSPANN CREEK

Table 23: Floodway Data (continued)

FLOODING SOL	JRCE		FLOODWAY	,	1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SPRINGFIELD CREEK								
А	9,300	225	1,923	8.8	1,027.6	1,027.6	1,028.4	0.8
В	9,730	223	1,717	9.9	1,028.8	1,028.8	1,029.6	8.0
С	10,160	237	2,202	7.7	1,031.3	1,031.3	1,031.9	0.6
D	10,760	248	2,115	6.6	1,032.5	1,032.5	1,033.5	1.0
E	11,020	242	1,927	7.2	1,033.0	1,033.0	1,033.9	0.9
F	11,330	194	1,562	8.8	1,033.7	1,033.7	1,034.5	0.8
G	11,595	363	2,477	5.5	1,034.8	1,034.8	1,035.8	1.0
Н	11,895	348	2,043	6.7	1,035.4	1,035.4	1,036.3	0.9
I	12,550	375	2,326	5.8	1,037.5	1,037.5	1,038.4	0.9
J	12,855	364	2,571	5.2	1,038.7	1,038.7	1,039.6	0.9
K	13,150	309	2,593	5.1	1,039.3	1,039.3	1,040.2	0.9
L	13,230	341	3,019	4.4	1,039.7	1,039.7	1,040.6	0.9
M	13,515	505	3,139	4.2	1,040.0	1,040.0	1,040.9	0.9
N	13,705	310	2,045	6.5	1,040.3	1,040.3	1,041.2	0.9
0	13,935	210	1,908	6.9	1,041.6	1,041.6	1,042.6	1.0
P	14,283	352	3,092	4.4	1,042.9	1,042.9	1,043.7	8.0
Q	14,423	340	2,546	5.4	1,043.9	1,043.9	1,044.3	0.4

¹Feet above confluence with Platte River

23

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

Table 23: Floodway Data (continued)

FLOODING SOL	JRCE		FLOODWAY	,	1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SPRINGFIELD CREEK (Continued)								
R	14,590	277	2,329	5.9	1,044.1	1,044.1	1,044.5	0.4
S	14,743	278	2,092	6.6	1,044.3	1,044.3	1,044.8	0.5
Т	15,031	286	2,141	6.4	1,045.1	1,045.1	1,045.7	0.6
U	15,351	318	2,431	5.6	1,046.1	1,046.1	1,046.7	0.6
V	15,733	242	1,996	6.5	1,046.8	1,046.8	1,047.4	0.6
W	15,859	250	1,727	7.5	1,047.1	1,047.1	1,047.6	0.5
X	16,073	250	1,848	7.0	1,048.2	1,048.2	1,048.6	0.4
Υ	16,255	200	1,774	7.3	1,048.5	1,048.5	1,049.3	0.8
Z	16,447	190	1,614	8.1	1,049.0	1,049.0	1,049.8	0.8
AA	16,587	310	2,243	5.8	1,050.4	1,050.4	1,051.0	0.6
AB	16,932	523	3,461	3.8	1,051.5	1,051.5	1,052.3	0.8
AC	17,085	339	2,321	5.6	1,051.9	1,051.9	1,052.4	0.5
AD	17,534	261	1,862	6.9	1,053.0	1,053.0	1,053.5	0.5
AE	17,947	213	1,581	8.1	1,054.7	1,054.7	1,054.9	0.2
AF	17,984	189	1,721	7.4	1,055.1	1,055.1	1,055.3	0.2
AG	18,107	230	2,187	5.9	1,055.5	1,055.5	1,056.1	0.6
AH	18,210	201	1,906	6.7	1,055.6	1,055.6	1,056.2	0.6

¹Feet above confluence with Platte River

Table 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE AND INCORPORATED AREAS

FLOODWAY DATA

Table 23: Floodway Data (continued)

FLOODING SOL	IRCE	FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SPRINGFIELD CREEK (Continued)								
Al	18,275	181	1,805	7.1	1,055.6	1,055.6	1,056.3	0.7
AJ	18,462	265	2,507	5.1	1,056.4	1,056.4	1,057.1	0.7
AK	18,637	228	2,482	5.2	1,056.7	1,056.7	1,057.4	0.7
AL	18,849	220	2,367	5.4	1,057.0	1,057.0	1,057.6	0.6
AM	19,063	372	3,564	3.5	1,057.3	1,057.3	1,058.0	0.7
AN	19,120	390	4,082	3.1	1,057.4	1,057.4	1,058.1	0.7
AO	19,308	339	2,320	5.4	1,057.5	1,057.5	1,058.1	0.6
AP	19,587	225	1,540	8.2	1,057.5	1,057.5	1,058.3	0.8
AQ	19,721	274	2,099	5.7	1,060.2	1,060.2	1,060.2	0.0
AR	19,971	274	1,977	6.1	1,060.4	1,060.4	1,060.5	0.1
AS	20,506	130	1,382	5.1	1,061.2	1,061.2	1,061.8	0.6
AT	20,671	115	1,288	5.5	1,061.5	1,061.5	1,062.1	0.6
AU	21,411	89	1,014	7.1	1,062.3	1,062.3	1,062.8	0.5
AV	21,721	86	942	7.6	1,062.7	1,062.7	1,063.2	0.5
AW	21,921	106	884	8.3	1,063.4	1,063.4	1,063.9	0.5
AX	22,421	136	969	7.6	1,064.9	1,064.9	1,065.5	0.6
AY	22,571	150	874	8.5	1,065.6	1,065.6	1,066.0	0.4

¹Feet above confluence with Platte River

SARPY COUNTY, NE
AND INCORPORATED AREAS

FLOODWAY DATA

Table 23: Floodway Data (continued)

FLOODING SOL	JRCE		FLOODWAY		1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SPRINGFIELD CREEK (Continued)								
AZ	23,111	150	1,026	6.8	1,067.8	1,067.8	1,068.4	0.6
BA	23,421	166	895	7.6	1,068.6	1,068.6	1,069.2	0.6
BB	23,771	150	799	8.3	1,070.4	1,070.4	1,071.0	0.6
BC	24,011	169	1,786	3.5	1,072.5	1,072.5	1,073.1	0.6
BD	24,541	120	1,223	4.7	1,072.7	1,072.7	1,073.3	0.6
BE	24,996	98	928	5.6	1,073.4	1,073.4	1,074.0	0.6
BF	25,420	150	606	8.7	1,073.9	1,073.9	1,074.4	0.5
BG	25,690	150	784	6.8	1,075.5	1,075.5	1,075.6	0.1
BH	26,010	88	580	9.3	1,076.6	1,076.6	1,076.7	0.1
BI	26,480	172	890	6.1	1,079.2	1,079.2	1,079.2	0.0
BJ	26,760	150	972	5.8	1,081.4	1,081.4	1,081.4	0.0
BK	27,400	150	745	7.6	1,082.5	1,082.5	1,082.7	0.2
BL	27,770	151	1,089	5.3	1,083.5	1,083.5	1,084.1	0.6
BM	28,380	150	756	7.8	1,084.7	1,084.7	1,085.1	0.4
BN	28,810	243	1,888	2.8	1,086.5	1,086.5	1,086.7	0.2
BN	28,810	243	1,888	2.8	1,086.5	1,086.5	1,086.7	

¹Feet above confluence with Platte River

SARPY COUNTY, NE
AND INCORPORATED AREAS

FLOODWAY DATA

Table 23: Floodway Data (continued)

LOC	ATION		FLOODWAY		1% AN	_	FLOOD WATER S (FEET NAVD88)	URFACE
CROSS SECTION	DISTANCE 1	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
А	2,496	28	92	6.5	1,000.3	993.6 ²	993.6	0.0
В	3,043	24	65	8.9	1,000.3	996.0 ²	996.0	0.0
С	3,121	38	191	3.0	1,000.3	997.8 ²	997.8	0.0
D	3,207	29	67	8.7	1,000.3	1,000.3	1,000.3	0.0
Е	3,522	45	193	3.0	1,002.1	1,002.1	1,002.1	0.0
F	4,486	26	65	8.9	1,003.5	1,003.5	1,003.6	0.1
G	5,215	43	77	7.5	1,013.0	1,013.0	1,013.0	0.0
Н	5,505	47	147	4.0	1,014.8	1,014.8	1,014.8	0.0
1	5,828	50	169	3.5	1,015.7	1,015.7	1,015.7	0.0
J	5,997	54	267	2.3	1,029.4	1,029.4	1,029.4	0.0
K	6,746	15	54	10.8	1,034.3	1,034.3	1,034.4	0.1
L	6,833	38	189	3.1	1,038.5	1,038.5	1,038.5	0.0
М	7,087	39	92	6.3	1,041.0	1,041.0	1,041.0	0.0
N	7,500	39	154	3.8	1,042.4	1,042.4	1,042.4	0.0
0	7,772	29	67	8.6	1,042.8	1,042.8	1,042.8	0.0
Р	8,000	33	126	4.6	1,044.6	1,044.6	1,044.6	0.0
Q	8,254	24	63	9.1	1,045.5	1,045.5	1,045.5	0.0
R	8,500	26	65	9.0	1,049.9	1,049.9	1,049.9	0.0
S	8,707	47	205	2.8	1,051.6	1,051.6	1,051.6	0.0
Т	8,939	82	252	2.3	1,058.8	1,058.8	1,058.9	0.1
U	9,162	51	133	4.4	1,059.6	1,059.6	1,059.6	0.0

¹ Feet above confluence with Big Papillion Creek

_	
▶	
ᇤ	
듀ᅵ	
m.	
23	

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: THOMPSON 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
V	9,499	39	98	5.9	1,060.9	1,060.9	1,060.9	0.0
W	9,677	144	115	5.1	1,064.1	1,064.1	1,064.1	0.0

¹ Feet above confluence with Big Papillion Creek

TAI	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA				
BLE	SARPY COUNTY, NE					
23	AND INCORPORATED AREAS	FLOODING SOURCE: THOMPSON 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 B C D E F G	434 782 1,662 1,856 2,519 3,500 3,869	40 36 33 48 31 27 71	180 182 180 242 166 166 357	7.5 7.6 5.6 8.2 8.2 3.8	1,110.2 1,110.2 1,110.2 1,111.1 1,116.4 1,118.5	1,096.2 ² 1,099.7 ² 1,105.8 ² 1,107.2 ² 1,111.1 1,116.4 1,118.5	1,096.2 1,099.7 1,105.8 1,107.2 1,111.1 1,116.4 1,118.5	0.0 0.0 0.0 0.0 0.0 0.0	

¹ Feet above confluence with South Papillion Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: TIBURON CREEK

 $^{^{2}}$ Elevation computed without considering the backwater effects from South Papillion Creek $\,$

Table 23: Floodway Data (continued)

LOC	ATION		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	
А	4,203	38	295	4.7	1,018.0	1,018.0	1,018.4	0.4	
В	4,633	33	256	5.4	1,019.0	1,019.0	1,019.5	0.5	
С	5,458	41	320	4.3	1,021.1	1,021.1	1,021.6	0.5	
D	5,779	31	213	6.5	1,021.8	1,021.8	1,022.2	0.4	
E	6,039	41	260	5.4	1,022.9	1,022.9	1,023.4	0.5	
F	6,293	59	330	4.2	1,024.3	1,024.3	1,024.5	0.2	
G	6,529	52	230	6.2	1,024.6	1,024.6	1,024.8	0.2	
Н	6,706	54	215	6.9	1,026.2	1,026.2	1,026.2	0.0	
1	8,447	34	247	5.6	1,031.9	1,031.9	1,032.2	0.3	
J	9,450	32	259	5.4	1,039.0	1,039.0	1,039.1	0.1	
K	9,766	28	209	6.6	1,039.7	1,039.7	1,040.0	0.3	
L	10,360	44	234	5.9	1,042.9	1,042.9	1,043.3	0.4	
M	10,691	46	310	0.4	1,043.6	1,043.6	1,043.8	0.2	
N	10,914	28	200	0.6	1,043.6	1,043.6	1,043.8	0.2	
0	16,941	92	254	4.3	1,082.5	1,082.3 ²	1,083.1	0.8	
Р	17,388	79	360	4.4	1,083.5	1,083.5	1,084.2	0.7	
Q	17,567	77	339	4.0	1,087.0	1,087.0	1,087.0	0.0	
R	18,032	83	203	5.4	1,087.5	1,087.5	1,087.5	0.0	
S	18,337	62	227	4.8	1,088.9	1,088.9	1,089.0	0.1	
Т	18,708	52	165	6.6	1,089.9	1,089.9	1,089.9	0.0	
U	19,162	51	214	5.1	1,092.9	1,092.9	1,092.9	0.0	

¹ Feet above confluence with West Papillion Creek

┪	
≥	
ᄪ	
ᇤ	
Ш	
23	

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WALNUT CREEK

 $^{^{2}}$ Elevation computed without consideration of backwater effects from Walnut Creek Lake

Table 23: Floodway Data (continued)

LOC	ATION		FLOODWAY		1% AN		FLOOD WATER SU (FEET NAVD88)	IRFACE
CROSS SECTION	DISTANCE 1	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
V	19,356	34	106	10.2	1,093.0	1,093.0	1,093.0	0.0

¹ Feet above confluence with West Papillion Creek

TAI	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA				
BLE	SARPY COUNTY, NE					
23	AND INCORPORATED AREAS	FLOODING SOURCE: WALNUT CREEK				

Table 23: Floodway Data (continued)

LOCATION			FLOODWAY		1% ANNU		LOOD WATER (FEET NAVD88)	SURFACE
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
А	4,854	187	928	6.2	1,127.2	1,127.2	1,127.5	0.3
В	6,854	81	797	6.7	1,130.6	1,130.6	1,130.7	0.1
С	8,354	339	1,286	4.2	1,138.7	1,138.7	1,139.4	0.7
D	11,354	361	629	4.5	1,151.8	1,151.8	1,151.8	0.0
E	12,249	320	607	4.7	1,154.4	1,154.4	1,154.4	0.0
F	12,832	440	782	3.6	1,156.5	1,156.5	1,156.7	0.2
G	13,013	175	846	5.1	1,158.9	1,158.9	1,158.9	0.0
Н	13,894	222	800	3.5	1,162.5	1,162.5	1,162.6	0.1
ı	14,298	237	884	3.2	1,162.9	1,162.9	1,163.4	0.5
J	15,596	179	679	4.2	1,166.2	1,166.2	1,166.4	0.2
K	16,783	252	490	5.8	1,171.5	1,171.5	1,171.5	0.0
L	18,179	179	576	4.9	1,176.9	1,176.9	1,177.3	0.4
М	19,355	158	597	4.7	1,181.3	1,181.3	1,181.4	0.1
N	20,169	144	703	2.6	1,188.0	1,188.0	1,188.3	0.3
0	20,530	150	417	4.3	1,188.5	1,188.5	1,189.1	0.6
Р	20,751	178	545	3.3	1,190.6	1,190.6	1,191.2	0.6
Q	21,602	154	480	3.8	1,192.5	1,192.5	1,192.7	0.2
R	22,885	142	420	4.3	1,198.5	1,198.5	1,198.9	0.4
S	23,224	210	767	2.3	1,202.7	1,202.7	1,203.6	0.9

¹Feet above Wehrspann Lake

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WEHRSPANN CREEK

Table 23: Floodway Data (continued)

LOCA	LOCATION		FLOODWAY		1% ANNU		FLOOD WATER (FEET NAVD88)	SURFACE
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Т	23,537	105	440	4.1	1,202.9	1,202.9	1,203.7	0.8
U	23,654	145	774	2.3	1,205.2	1,205.2	1,205.9	0.7
V	24,064	145	634	1.4	1,205.4	1,205.4	1,206.1	0.7
W	24,320	136	541	1.6	1,209.4	1,209.4	1,209.5	0.1
X	24,728	154	788	1.1	1,209.5	1,209.5	1,209.6	0.1

¹Feet above Wehrspann Lake

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WEHRSPANN 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
Α	405	28	119	4.7	1,039.5	1,039.5	1,039.5	0.0
В	525	39	74	7.6	1,043.7	1,043.7	1,043.7	0.0
С	993	28	81	6.7	1,054.6	1,054.6	1,054.6	0.0
D	1,600	34	118	4.6	1,057.9	1,057.9	1,057.9	0.0
E	1,972	72	243	2.3	1,058.7	1,058.7	1,058.7	0.0
F	2,257	42	139	3.9	1,059.3	1,059.3	1,059.3	0.0
G	2,606	17	54	10.0	1,063.2	1,063.2	1,063.2	0.0
Н	3,041	20	62	8.7	1,072.8	1,072.8	1,072.9	0.1

¹ Feet above confluence with Midland Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODING SOURCE: WEST MIDLAND CREEK

Table 23: Floodway Data (continued)

LOCA	LOCATION		FLOODWA	Y	1% ANNUAL CHAP	NCE FLOOD WA		ELEVATION
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY ^{5,6}	WITH FLOODWAY ^{5,6}	INCREASE ⁷
Α	4,226	223 ⁸	2,775	10.5	994.0 ³ / 994.0 ⁴	992.9	993.2	0.3
В	4,872	290 ⁸	3,906	7.5	994.9 ³ / 994.9 ⁴	994.9	995.0	0.2
С	5,480	1,374	9,855	3.0	995.5 ² / 995.1 ³ / 995.1 ⁴	996.4	996.4	0.0
D	6,440	1,102	10,067	2.8	995.7 ² / 996.0 ³ / 995.9 ⁴	996.4	996.6	0.2
Е	7,468	1,242	8,924	3.2	996.0 ² / 997.4 ³ / 997.3 ⁴	997.3	997.5	0.2
F	8,049	1,237	6,907	4.1	996.1 ² / 997.8 ³ / 997.7 ⁴	997.5	997.5	0.0
G	8,704	727 ⁸	5,447	5.2	996.1 ² / 998.1 ³ / 998.0 ⁴	997.3	997.6	0.3
Н	9,003	247 ⁸	3,431	8.2	996.2 ² / 998.6 ³ / 998.6 ⁴	996.6	997.4	0.8
I	9,323	590	5,135	5.5	996.2 ² / 998.8 ³ / 998.8 ⁴	998.3	998.3	0.0
J	10,922	763 ⁸	6,051	4.6	996.4 ² / 1,000.0 ³ / 1,000.1 ⁴	999.7	1000.0	0.3
K	12,352	374	3,541	7.9	999.6 ² / 1,001.5 ³ / 1,001.6 ⁴	1000.3	1000.7	0.4
L	13,809	702	4,367	6.4	1,001.6 ² / 1,002.5 ³ / 1,002.6 ⁴	1002.0	1002.1	0.1

¹Feet above confluence with Big Papilion Creek

⁷Elevation increase calculated from non-rounded with and without floodway elevations

Ę	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA		
֓֞֝֟֝֟֝֟֝ ֚	FI SARPY COUNTY, NE			
23		FLOODING SOURCE: WEST PAPILLION CREEK		

⁸Width reported is width of shaded floodway region on FIRM ⁹Total floodway width / width within jurisdiction

²Elevation landward of left bank levee system ³Elevation riverward of levee systems

⁴Elevation landward of right bank levee system

⁵Elevation computed without consideration of levees

⁶Elevation computed without consideration of flooding controlled by or backwater effects from Big Papillion Creek

Table 23: Floodway Data (continued)

LOCAT	ΓΙΟΝ		FLOODWA	Y	1% ANNUAL CHAP	NCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY ^{5,6}	WITH FLOODWAY ^{5,6}	INCREASE ⁷	
М	15,575	933	6,896	4.2	1,005.7 ² / 1,006.3 ³ / 1,006.2 ⁴	1006.3	1006.5	0.1	
N	16,733	1,476 ⁸	11,065	3.0	1,006.0 ² / 1,006.8 ³ / 1,006.8 ⁴	1006.3	1007.1	0.8	
0	18,147	1,2238	7,205	3.8	1,007.8 ² / 1,008.0 ³ / 1,007.9 ⁴	1008.2	1008.1	0.0	
Р	19,228	1,041 ⁸	7,628	4.0	1,008.2 ² / 1,008.6 ³ / 1,008.6 ⁴	1008.5	1008.5	0.0	
Q	20,522	966	4,962	5.7	1,008.6 ² / 1,009.3 ³ / 1,009.2 ⁴	1008.5	1008.7	0.2	
R	21,826	460 ⁸	3,136	8.8	1,009.7 ² / 1,010.3 ³ / 1,009.7 ⁴	1009.3	1009.4	0.1	
S	23,035	175 ⁸	2,303	12.0	1,011.4 ² / 1,011.7 ³ / 1,011.1 ⁴	1010.9	1011.1	0.2	
Т	24,393	741	4,387	6.3	$1,014.3^3 / 1,014.3^4$	1014.4	1014.3	0.0	
U	25,302	661	3,793	7.3	$1,015.5^3 / 1,015.2^4$	1015.1	1015.1	0.0	
V	26,618	529	3,647	7.6	$1,016.4^3 / 1,015.9^4$	1015.8	1016.0	0.2	
W	28,135	282	3,474	7.9	1017.6	1017.1	1017.4	0.3	
X	29,500	289	3,723	7.4	1019.3	1018.9	1018.9	0.0	
Υ	30,020	301	3,583	7.6	1019.5	1019.1	1019.2	0.1	
Z	30,950	268	3,537	7.8	1019.9	1019.6	1019.7	0.1	
AA	32,989	254 ⁸	3,375	7.9	1021.1	1020.9	1021.1	0.2	

¹Feet above confluence with Big Papilion Creek

⁷Elevation increase calculated from non-rounded with and without floodway elevations

TΑ	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
BLE	SARPY COUNTY, NE	
23	AND INCORPORATED AREAS	FLOODING SOURCE: WEST PAPILLION CREEK

⁸Width reported is width of shaded floodway region on FIRM

²Elevation landward of left bank levee system ⁹Total floodway width / width within jurisdiction

³Elevation riverward of levee systems

⁴Elevation landward of right bank levee system

⁵Elevation computed without consideration of levees

⁶Elevation computed without consideration of flooding controlled by or backwater effects from Big Papillion Creek

Table 23: Floodway Data (continued)

LOCA	TION	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 ^{5,6}	WITH FLOODWAY ^{5,6}	INCREASE
AB AC AD AE AF AG AH AI AJ AK	34,014 35,668 36,898 37,387 38,301 39,898 41,253 42,171 43,572 44,520	258 ⁸ 244 ⁸ 216 ⁸ 215 ⁸ 165 ⁸ 418 ⁸ 1,276 1,038 317 302 / 190 ⁹	3,246 3,321 3,038 3,739 2,811 3,236 7,540 5,621 2,437 2,488	8.2 8.0 8.8 7.1 9.5 4.3 1.8 2.5 5.7 5.6	1021.7 1023.4 1024.9 1027.7 1028.6 1031.4 1038.5 1038.7 1041.6 1042.8	1021.6 1023.3 1024.8 1027.7 1028.5 1031.4 1038.5 1038.7 1041.6 1042.8	1021.7 1023.4 1024.9 1027.7 1028.6 1031.4 1038.8 1039.0 1042.0 1043.3	0.2 0.1 0.0 0.0 0.0 0.3 0.3 0.3 0.6

¹Feet above confluence with Big Papilion Creek

⁷Elevation increase calculated from non-rounded with and without floodway elevations

Ţ.,	۸Ţ	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	BLE	SARPY COUNTY, NE	
	23	AND INCORPORATED AREAS	FLOODING SOURCE: WEST PAPILLION CREEK

⁸Width reported is width of shaded floodway region on FIRM ⁹Total floodway width / width within jurisdiction

²Elevation landward of left bank levee system ³Elevation riverward of levee systems

⁴Elevation landward of right bank levee system

⁵Elevation computed without consideration of levees

⁶Elevation computed without consideration of flooding controlled by or backwater effects from Big Papillion Creek

Table 23: Floodway Data (continued)

LOCA	ATION		FLOODWAY		1% AN	_	FLOOD WATER SI (FEET NAVD88)	JRFACE
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Α	1,757	50	326	5.3	1,020.3	1,018.2 ²	1,018.2	0.0
В	2,581	46	231	7.0	1,020.5	1,020.5	1,020.5	0.0
С	2,800	36	185	8.7	1,021.6	1,021.6	1,021.6	0.0
D	3,433	63	325	5.0	1,025.8	1,025.8	1,025.8	0.0
E	3,821	36	267	6.0	1,031.2	1,031.2	1,031.2	0.0
F	4,612	54	406	4.0	1,033.2	1,033.2	1,033.2	0.0
G	5,687	33	170	9.5	1,036.3	1,036.3	1,036.3	0.0
Н	6,092	54	340	4.8	1,039.9	1,039.9	1,039.9	0.0
I	7,098	32	170	9.5	1,045.7	1,045.7	1,045.7	0.0
J	8,228	48	363	4.4	1,051.1	1,051.1	1,051.1	0.0
K	9,111	45	243	7.2	1,053.5	1,053.5	1,053.5	0.0
L	9,265	161	2,269	1.9	1,070.7	1,070.7	1,071.1	0.4
М	9,808	197	1,147	1.4	1,070.8	1,070.8	1,071.2	0.4
N	11,451	58	389	4.1	1,071.2	1,071.2	1,071.6	0.4
0	12,559	73	388	4.8	1,075.4	1,075.4	1,075.4	0.0
Р	13,345	49	271	6.3	1,078.7	1,078.7	1,078.7	0.0
Q	13,548	130	1,161	1.4	1,100.7	1,100.7	1,101.5	0.8
R	14,953	67	274	4.6	1,101.9	1,101.9	1,102.6	0.7
S	15,271	102	708	3.2	1,115.0	1,115.0	1,115.0	0.0
Т	16,872	35	123	7.1	1,117.9	1,117.9	1,117.9	0.0
U	17,087	341	1,595	0.7	1,131.9	1,131.9	1,131.9	0.0

¹ Feet above confluence with West Papillion Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WEST PAPILLION TRIBUTARY

² Elevation computed without consideration of backwater effects from West Papillion Creek

Table 23: Floodway Data (continued)

LOC	ATION	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	17,993	39	113	7.7	1,132.7	1,132.7	1,132.7	0.0
W	18,930	90	174	5.0	1,143.6	1,143.6	1,144.0	0.4
X	19,702	93	154	5.6	1,152.5	1,152.5	1,152.9	0.4
Υ	20,608	61	115	7.6	1,160.7	1,160.7	1,161.3	0.6

¹ Feet above confluence with West Papillion Creek

TAI	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA				
BLE	SARPY COUNTY, NE					
23	AND INCORPORATED AREAS	FLOODING SOURCE: WEST PAPILLION TRIBUTARY				

Table 23: Floodway Data (continued)

LOC	ATION		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
Α	63	40	115	8.8	996.0	994.9 ²	995.0	0.1
В	266	32	105	9.6	1,000.0	1,000.0	1,000.1	0.1
С	464	41	169	6.0	1,002.5	1,002.5	1,002.5	0.0
D	689	59	136	7.4	1,004.5	1,004.5	1,004.5	0.0
Е	770	38	113	9.8	1,005.4	1,005.4	1,005.4	0.0
F	838	88	375	2.7	1,012.4	1,012.4	1,012.4	0.0
G	1,245	30	116	8.7	1,012.6	1,012.6	1,012.6	0.0
Н	1,391	28	100	5.6	1,014.3	1,014.3	1,014.3	0.0
1	1,503	35	120	4.7	1,014.8	1,014.8	1,014.8	0.0
J	1,685	125	263	4.0	1,019.1	1,019.1	1,019.1	0.0
K	1,729	61	102	5.5	1,019.2	1,019.2	1,019.3	0.1
L	1,749	40	177	3.2	1,020.5	1,020.5	1,020.5	0.0
M	1,855	102	474	1.2	1,020.7	1,020.7	1,020.7	0.0
N	1,870	187	701	0.8	1,029.1	1,029.1	1,029.2	0.1
0	1,900	347	2,314	0.2	1,029.1	1,029.1	1,029.2	0.1

¹ Feet above confluence with Quail Creek

ΑT
Œ
Ш
23

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WEST QUAIL CREEK

² Elevation computed without consideration of backwater effects from Quail Creek

Table 23: Floodway Data (continued)

LOCA	TION	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 ⁵
Α	346	55	185	9.9	982.7 ² / 982.6 ³	969.5 ⁴	969.6	0.0
В	1,599	64	227	8.0	982.7 ² / 983.4 ³	983.4	983.4	0.0
С	2,124	57	189	9.7	984.5 ² / 987.9 ³	987.9	987.9	0.0
D	2,244	64	290	6.3	984.5 ² / 988.6 ³	988.6	989.3	0.7
E F	2,327	65	270	6.8	986.6 ² / 988.8 ³	988.8	989.5	0.7
F	2,953	65	233	7.9	991.3 ² / 992.2 ³	992.2	992.1	0.0
G	3,202	69	228	8.6	994.5	994.5	994.5	0.0
Н	3,313	92	616	3.4	998.8	998.8	998.8	0.0
I	4,136	42	193	9.5	999.7	999.7	999.7	0.0
J	4,641	49	326	6.1	1,004.5	1,004.5	1,004.5	0.0
K	4,806	71	524	4.3	1,009.3	1,009.3	1,009.3	0.0
L	5,427	59	197	9.4	1,016.7	1,016.7	1,016.7	0.0
M	5,567	66	338	5.4	1,022.3	1,022.3	1,023.0	0.7
N	5,716	79	243	7.5	1,024.6	1,024.6	1,024.8	0.2
0	6,078	86	295	6.2	1,026.3	1,026.3	1,027.2	0.9

¹Feet above confluence with Big Papilion Creek

⁵Elevation increase calculated from non-rounded with and without floodway elevations

ΤA	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
BLE	SARPY COUNTY, NE	7. 7
23	AND INCORPORATED AREAS	FLOODING SOURCE: WHITTED CREEK

²Elevation landward of left bank levee system

³Elevation riverward of levee systems

⁴Elevation computed without consideration of backwater effects from Big Papillion Creek

Table 23: Floodway Data (continued)

LOCA	ATION	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
Α	2,792	39	66	7.3	1,018.4	1,018.4	1,018.4	0.0
В	2,901	51	72	6.6	1,022.1	1,022.1	1,022.1	0.0

¹ Feet above confluence with Mud Creek

FEDERAL EMERGENCY MANAGEMENT AGENCY

SARPY COUNTY, NE

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WOLF 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/flood-maps/change-your-flood-zone 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/flood-maps/tutorials.

For more information about how to apply for a LOMA, call the FEMA Mapping and Insurance 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/flood-maps/change-your-flood-zone 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 Mapping and Insurance 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/flood-maps/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/flood-maps/change-your-flood-zone 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 Mapping and Insurance 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 Sarpy 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

[Not Applicable to this Flood Risk Project]

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 Floods & Maps "Change Your Flood Zone Designation" 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 Sarpy 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 Sarpy County FIRMs in countywide format was 01/19/1995.

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)
Bellevue, City of	12/07/1973	12/07/1973	02/27/1976	01/16/1980	TBD 05/03/2010 12/02/2005 01/19/1995 06/04/1987
Gretna, City of ¹	01/19/1995	N/A	N/A	01/19/1995	TBD 05/03/2010 12/02/2005
La Vista, City of	06/21/1974	06/21/1974	12/19/1975	01/16/1980	TBD 05/03/2010 12/02/2005 01/19/1995
Papillion, City of	08/18/1972	08/18/1972	10/10/1975 04/11/1975 07/01/1974	01/16/1981	TBD 05/03/2010 12/02/2005 01/19/1995 12/08/1981
Sarpy County, Unincorporated Areas	04/22/1977	04/22/1977	N/A	01/16/1981	TBD 05/03/2010 12/02/2005 01/19/1995 06/04/1987
Springfield, City of	05/03/1974	05/03/1974	11/28/1975	02/15/1978	TBD 12/02/2005 01/19/1995 10/13/1981

 $^{^{\}mbox{\scriptsize 1}}$ This community did not have a FIRM prior to the first countywide FIRM for Sarpy County

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
Applewood Creek, Beadle Creek, Betz Road Ditch, Crystal Creek, Fairview Creek, Fricke Creek, Giles Creek, Hell Creek, Midland Creek, Mission Creek, Mission Creek Overland, Mud Creek, North Wehrspann Creek, Old Home Creek, Quail Creek, South Midland Creek, South Papillion Creek, South Papillion Creek Tributary, South Wehrspann Creek, Thompson Creek, Tiburon Creek, Walnut Creek, Wehrspann Creek, West Midland Creek, West Papillion Creek, West Papillion Tributary, West Quail Creek, Whitted Creek, Wolf Creek	TBD	Papio NRD	Not Applicable	9/15/2018	Bellevue, City of; Gretna, City of; La Vista, City of; Papillion, City of; Sarpy County, Unincorporated Areas
Big Papillion Creek ¹	TBD	Papio NRD; STARRII	Not Applicable; HSFE60-15-D-0005	9/15/2018	Bellevue, City of; Sarpy County, Unincorporated Areas
Big Papillion Creek	TBD	Papio NRD	Not Applicable	9/15/2018	Bellevue, City of; La Vista, City of; Sarpy County, Unincorporated Areas
Buffalo Creek	*	USACE - Omaha District	IAA-H-10-77 Project Order No. 1	March 1978	Sarpy County, Unincorporated Areas
Elkhorn River	12/2/2005	USACE – Omaha District	EMW-97-IA-0140, Project Order No. 3	November 2001	Sarpy County, Unincorporated Areas
Missouri River	TBD	USACE & STARR II	Not Applicable & HSFE60-15-D-0005	11/25/2003	Bellevue, City of; Sarpy County, Unincorporated Areas

^{*} Data not available

¹ Papio NRD performed the 1-D multiple profile and floodway analysis and STARR II and STARR II performed the 2-D natural valley analysis for the area behind the levee

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Platte River	TBD	STARRII	HSFE60-15-D-005	11/9/2019	Sarpy County, Unincorporated Areas
Platte River	12/2/2005	USACE – Omaha District	EMW-97-IA-0140, Project Order No. 3	November 2001	Sarpy County, Unincorporated Areas
Springfield Creek (Zone AE)	*	USGS	IAA-H-17-75 Project Order No. 12	December 1976	Sarpy County, Unincorporated Areas; Springfield, City of
Springfield Creek (Zone A), Thompson Creek (Zone A), Unnamed Pond on Fricke Creek, Unnamed Tributary 1 to Little Papillion Creek, Unnamed Tributary 2 to Little Papillion Creek, Unnamed Tributary to South Papillion Tributary, Unnamed Tributary to Springfield Creek	*	Unknown	Unknown	1981	Bellevue, City of; La Vista, City of ; Sarpy County, Unincorporated Areas

^{*} Data not available

¹ Papio NRD performed the 1-D multiple profile and floodway analysis and STARR II and STARR II performed the 2-D natural valley analysis for the area behind the levee

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

	FIS Report			
Community	Dated	Date of Meeting	Meeting Type	Attended By
Bellevue, City of	TBD	1/16/2018	(Big Papillion watershed) Flood Risk Review	Representatives of Nebraska NRD, FEMA, and Stantec
		1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue, City of Papillion, City of Ralston, FEMA, Mills County, State of Iowa, City of Omaha, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, STARR II, United States Army Corps of Engineers
		1/17/2018	(Platte) Flood Risk Review Meeting	Representatives of STARR II, Nebraska Department of Natural Resources, FEMA, Village of Cedar Creek, Papio-Missouri River NRD, City of Plattsmouth, Cass County, Sarpy County
		TBD	Final CCO	Representatives of TBD
	TBD	1/16/2018	(Big Papillion watershed) Flood Risk Review	Representatives of Nebraska NRD, FEMA, and Stantec
Gretna, City of		1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue, City of Papillion, City of Ralston, FEMA, Mills County, State of Iowa, City of Omaha, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, STARR II, United States Army Corps of Engineers
		TBD	Final CCO	Representatives of TBD

Table 29: Community Meetings (Continued)

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
La Vista, City of		1/16/2018	(Big Papillion watershed) Flood Risk Review	Representatives of Nebraska NRD, FEMA, and Stantec
	TBD	1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue, City of Papillion, City of Ralston, FEMA, Mills County, State of Iowa, City of Omaha, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, STARR II, United States Army Corps of Engineers
		TBD	Final CCO	Representatives of TBD
	TBD	1/16/2018	(Big Papillion watershed) Flood Risk Review	Representatives of Nebraska NRD, FEMA, and Stantec
Papillion, City of		1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue, City of Papillion, City of Ralston, FEMA, Mills County, State of Iowa, City of Omaha, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, STARR II, United States Army Corps of Engineers
		TBD	Final CCO	Representatives of TBD

Table 29: Community Meetings (Continued)

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Sarpy County, Unincorporated Areas		1/16/2018	(Big Papillion watershed) Flood Risk Review	Representatives of Nebraska NRD, FEMA, and Stantec
	TBD	1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue, City of Papillion, City of Ralston, FEMA, Mills County, State of Iowa, City of Omaha, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, STARR II, United States Army Corps of Engineers
		1/17/2018	(Platte) Flood Risk Review Meeting	Representatives of STARR II, Nebraska Department of Natural Resources, FEMA, Village of Cedar Creek, Papio-Missouri River NRD, City of Plattsmouth, Cass County, Sarpy County
		TBD	Final CCO	Representatives of TBD
	TBD	1/16/2018	(Big Papillion watershed) Flood Risk Review	Representatives of Nebraska NRD, FEMA, and Stantec
Springfield, City of		1/17/2018	Levee Evaluation Meeting	Representatives of City of Bellevue, City of Papillion, City of Ralston, FEMA, Mills County, State of Iowa, City of Omaha, Nebraska Department of Natural Resources, Papio-Missouri River NRD, Sarpy County, STARR II, United States Army Corps of Engineers
		TBD	Final CCO	Representatives of 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.

Table 30 is a list of the locations where FIRMs for Sarpy 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
Bellevue, City of	1510 Wall Street Planning Department	Bellevue	NE	68005
Gretna, City of	City Hall 204 North McKenna Avenue	Gretna	NE	68028
La Vista, City of	Community Development 8116 Parkview Boulevard	La Vista	NE	68128
Papillion, City of	City Hall 122 East 3rd Street	Papillion	NE	68046
Sarpy County, Unincorporated Areas	Sarpy County Administration Building Planning and Building Department 1210 Golden Gate Drive	Papillion	NE	68046
Springfield, City of	City Hall 170 North 3rd Street	Springfield	NE	68059

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/flood-maps/products-tools/know-your-risk/engineers-surveyors-architects
NFIP website	www.fema.gov/flood-insurance
NFHL Dataset	msc.fema.gov
FEMA Region VII	11224 Holmes Road Kansas City, MO 64131 (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	Bill Jones, CFM Floodplain Management Specialist Nebraska Department of Natural Resources 301 Centennial Mall South P.O. Box 94676 Lincoln, NE 68509-4676 Phone: (402) 471-3932 Fax: (402) 471-2900 bill.jones@nebraska.gov http://www.dnr.nebraska.gov
State GIS Coordinator	John Watermolen State GIS Coordinator Office of the Chief Information Officer State of Nebraska GIS Council/NITC (402) 471-9816 john.watermolen@nebraska.gov http://nitc.nebraska.gov/gisc http://www.NebraskaMAP.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
Earthdata 1998	Earthdata International of Maryland, LLC	Mississippi River DEM/DTM Project	Earthdata International of Maryland, LLC	Gaithersburg, MD	1998	
FEMA 1981	Federal Emergency Management Agency (FEMA)	General Structures	Federal Emergency Management Agency (FEMA)	Washington, D.C.	11/6/1981	
FEMA 2005	Federal Emergency Management Agency (FEMA)	Base Flood Elevations	Federal Emergency Management Agency (FEMA)	Washington, D.C.	12/2/2005	
FEMA 2010	Federal Emergency Management Agency (FEMA)	Flood Insurance Study, Sarpy County, Nebraska and Incorporated Areas	FEMA	Washington, D.C.	5/3/2010	
FYRA 2018	FYRA Engineering	Platte River Hydrology and Flood Frequency Analysis Report for Federal Levee System R-613	FYRA Engineering	Omaha, NE	11/21/2018	
HDR 2007	Federal Emergency Management Agency (FEMA)	New Submitted Flooding	HDR Engineering, Inc.	Omaha, NE	9/21/2007	
Hoskins 1973	Hoskins-Western- Sonderegger, Inc.	Aerial Photography, Missouri River	Hoskins- Western- Sonderegger, Inc	Lincoln, NE	1973	

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
IDNR 2010	lowa Deparment of Natural Resources (IDNR)	Iowa Terrain\Bare_Earth	IDNR	Iowa City, IA	2010	ftp://ftp.igsb.uiowa.edu/g is_library/counties
MAPA 2001	Omaha-Council Bluffs Metropolitan Area Planning Agency (MAPA)	Aerial Photo Index	Metropolitan Area Planning Agency (MAPA)	Sarpy County, NE	4/11/2001	
Merrick 2011	Merrick & Co	Nebraska Terrain\Bare_Earth	Merrick and Co	Aurora, CO	2011	http://dnr.nebraska.gov/li dar-2-meter-2009-2012
NDNR 2002	Nebraska Department of Natural Resources	Political Boundaries	Nebraska Department of Natural Resources	Lincoln, NE	4/15/2002	
NDNR 2010	Federal Emergency Management Agency (FEMA)	Digital Flood Insurance Rate Map Database, Cass County, NE	FEMA	Washington, D.C.	11/26/2010	
NDNR 2015	Nebraska DNR	Imagery	Nebraska DNR	Salt Lake City, UT	3/21/2015	ftp://dnrftp.dnr.ne.gov/pu b/data/CoqArea/FSA201 4_SP/Sarpy/
NGS 1985	National Geodetic Survey	NGS Benchmarks	National Geodetic Survey	Silver Spring, MD	1985	
PMRNRD 2010	Papio-Missouri River Natural Resources Distict	Papio-Missouri River Natural Resources Distict Master Plan	Papio- Missouri River Natural Resources Distict	Omaha, NE	June 2010	

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
SARPY 2004	Sarpy County, NE	Streets	Sarpy County, NE	Omaha, NE	2/4/2004	
SGIS 2014	Sarpy County GIS	County Boundaries, PLSS, and Transportation	Sarpy County GIS	Papillion, NE	7/22/2014	https://geodata.sarpy.co m/arcgis/rest/services/C adastral/LandRecordsD ynamic/MapServer/40
SGIS 2015a	Sarpy County GIS	Municipal Limits	Sarpy County GIS	Papillion, NE	9/8/2015	https://geodata.sarpy.co m/arcgis/rest/services/C adastral/LandRecordsD ynamic/MapServer/40
SGIS 2015b	Sarpy County GIS	Waterbodies and Waterlines	Sarpy County GIS	Papillion, NE	11/16/2015	https://geodata.sarpy.co m/arcgis/rest/services/C adastral/LandRecordsD ynamic/MapServer/40
Stantec 2018	Papio NRD	Hydraulic Analysis of Big Papillion Creek Watershed	Stantec	Overland Park, KS	9/28/2018	https://hazards.fema.gov
STARR II 2015	STARR II	Hydraulics for Big Papillion- Mosquito Watershed	STARR II	6800 College Boulevard, Suite 380 Overland Park, Kansas, 66211	11/30/2015	
STARR II 2017	STARR II	FIRM Panels	STARR II	Louisville, KY	11/30/2017	
STARR II 2017a	STARR II	Detailed Riverine Study of the Platte River, Sarpy County, NE	STARR II	Washington, D.C.	10/20/2017	
USACE 1967	USACE, Omaha District	Review Report for Papillion Creek and Tributaries, Nebraska	USACE	Omaha, NE	Febuary 1967	

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 1972	USACE, Hydrologic Engineering Center	HEC-2 Water Surface Profiles Computer Program	USACE	Davis, CA	February 1972	
USACE 1976	U.S. Army Corps of Engineers	Topographic Mapping, Scale 1:2,400, Contour Interval four feet: Platte River, Elkhorn River, Buffalo Creek, Springfield Creek, Sarpy County, Nebraska	USACE		1976	
USACE 1978	U.S. Army Corps of Engineers, Omaha District	Topographic Mapping, Scale 1:4,800, Contour Interval four feet	USACE		1978	
USACE 1990	USACE, Hydrologic Engineering Center	HEC-2 Water Surface Profiles Computer Program	USACE	Davis, CA	May 1990	
USACE 1992	USACE, Hydrologic Engineering Center	HEC-FFA, Flood Frequency Analysis Program, Version 3.0	USACE	Davis, CA	July 1992	
USACE 1997	USACE, Hydrologic Engineering Center	UNET, One-Dimensional Unsteady Flow Through a Full Network of Open Channels, User's Manual	USACE	Davis, California	1997	

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 2003	United States Army Corps of Engineers (USACE)	New Submitted Flooding	United States Army Corps 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		2004	https://www.mvr.usace.a rmy.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, CA	May 2005	
USACE 2010	USACE, Hydrologic Engineering Center	HEC-RAS, Version 4.1.0, River Analysis System	USACE	Davis, CA	January 2010	
USACE 2016	USACE, Hydrologic Engineering Center	HEC-RAS, Version 5.0.3, River Analysis System	USACE	Davis, CA	September 2016	
USACE 2018	USACE, Hydrologic Engineering Center	HEC-RAS, Version 5.0.6, River Analysis System	USACE	Davis, CA	November 2018	
USACE 2020	United States Army Corps of Engineers	National Levee Dataset - Levee Centerlines	United States Army Corps of Engineers	Washington, D.C.	2020	https://levees.sec.usace. army.mil/#/

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 ND1	USACE, Hydrologic Engineering Center	HEC-HMS, Hydrologic Modeling System, Unknown version ID	US Army Corps of Enginners	Davis, CA	Unknown	
USACE ND2	US Army Corps of Enginners, Hydrologic Engineering Center	HEC Statistical Software Package (HEC-SSP), Unknown Version ID	US Army Corps of Enginners	Davis, CA	Unknown	
USDC 1961	U.S. Department of Commerce (USDC), Weather Bureau	Technical Paper No. 40, Rainfall Frequency Atlas of the United States, for Durations from 1 to 100 Years	USDC		May 1961	
USEPA 1971	United States Environmental Protection Agency (USEPA)	Storm Water Management Model Compuer Program	USEPA		1971	
USGS 2001a	United States Geographic Survey (USGS)	FIRM Panel Layout	United States Geographic Survey (USGS)	Reston, VA	7/1/2001	
USGS 2001b	United States Geographic Survey (USGS)	Public Land Survey System	United States Geographic Survey (USGS)	Reston, VA	11/2/2001	
USGS 2019	USGS	8 Digit Watershed Boundary Dataset	USGS		7/11/2019	

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 Various1	U.S. Geological Survey	7.5 Minute Series Quadrangle Maps, Scale 1:24,000, Contour Interval 10 feet: Omaha South, Nebraska-Iowa; Ralston, Nebraska; Missouri River, Gavins Point Dam to Rulo, Nebraska, River Mile 595.5 to 601.9; Council Bluffs South, Iowa-Nebraska; Pacific Junction, Iowa- Nebraska; Plattsmouth, Nebraska	USGS		1956 (revised 1969), 1956 (revised 1969), April 1973, 1956 (revised 1964), 1956 (revised 1969), and 1956 (revised 1969), respectively	
USGS Various2	U.S. Geological Survey	7.5 Minute Series Quadrangle Maps, Scale 1:24,000, Contour Interval 10 feet: Council Bluffs South, Iowa-Nebraska; Pacific Junction, Iowa- Nebraska; Omaha South, Nebraska-Iowa; Plattsmouth, Nebraska; Ralston, Nebraska; Cedar Creek, Nebraska; Gretna, Nebraska; Springfield, Nebraska; Mann, Nebraska; Ashland East, Nebraska	USGS		1956 (revised 1964), 1956 (revised 1969), 1956 (revised 1969), 1956 (revised 1969), 1956 (revised 1969), 1956 (revised 1969), 1956 (revised 1959), 1956 (revised 1959), 1968, and 1968, respectively	

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 Various3	U.S. Geological Survey	7.5 Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 10 feet: Plattsmouth, Nebraska-Iowa; Cedar Creek, Nebraska; Springfield, Nebraska; Manley, Nebraska; Ashland East, Nebraska; Wann, Nebraska	USGS		1994, 1956, 1969, 1966, 1968, and 1968, respectively	





































































