## FLOOD INSURANCE STUDY FEDERAL EMERGENCY MANAGEMENT AGENCY

## VOLUME 3 OF 3



## MADISON COUNTY, ILLINOIS AND INCORPORATED AREAS

| COMMUNITY NAME | NUMBER | COMMUNITY NAME |  |
| :--- | :--- | :--- | :--- |

*No Special Flood Hazard Areas Identified
Preliminary:
August 10, 2022

## EFFECTIVE:

## TBD

FLOOD INSURANCE STUDY NUMBER 17119CV003A
Version Number 2.6.5.0


## TABLE OF CONTENTS

## Volume 1

Page
SECTION 1.0 - INTRODUCTION ..... 1
1.1 The National Flood Insurance Program ..... 1
1.2 Purpose of this Flood Insurance Study Report ..... 2
1.3 Jurisdictions Included in the Flood Insurance Study Project ..... 2
1.4 Considerations for using this Flood Insurance Study Report ..... 8
SECTION 2.0 - FLOODPLAIN MANAGEMENT APPLICATIONS ..... 19
2.1 Floodplain Boundaries ..... 19
2.2 Floodways ..... 30
2.3 Base Flood Elevations ..... 31
2.4 Non-Encroachment Zones ..... 32
2.5 Coastal Flood Hazard Areas ..... 32
2.5.1 Water Elevations and the Effects of Waves ..... 32
2.5.2 Floodplain Boundaries and BFEs for Coastal Areas ..... 32
2.5.3 Coastal High Hazard Areas ..... 32
2.5.4 Limit of Moderate Wave Action ..... 32
SECTION 3.0 - INSURANCE APPLICATIONS ..... 33
3.1 National Flood Insurance Program Insurance Zones ..... 33
SECTION 4.0 - AREA STUDIED ..... 34
4.1 Basin Description ..... 34
4.2 Principal Flood Problems ..... 34
4.3 Dams and Other Flood Hazard Reduction Measures ..... 35
4.4 Levee Systems ..... 35
SECTION 5.0 - ENGINEERING METHODS ..... 39
5.1 Hydrologic Analyses ..... 39
5.2 Hydraulic Analyses ..... 53
5.3 Coastal Analyses ..... 64
5.3.1 Total Stillwater Elevations ..... 64
5.3.2 Waves ..... 64
5.3.3 Coastal Erosion ..... 64
5.3.4 Wave Hazard Analyses ..... 64
5.4 Alluvial Fan Analyses ..... 65
SECTION 6.0 - MAPPING METHODS ..... 65
6.1 Vertical and Horizontal Control ..... 65
6.2 Base Map ..... 69
6.3 Floodplain and Floodway Delineation ..... 70

## Volume 2

6.4 Coastal Flood Hazard Mapping ..... 122
6.5 FIRM Revisions ..... 122
6.5.1 Letters of Map Amendment ..... 122
6.5.2 Letters of Map Revision Based on Fill ..... 122
6.5.3 Letters of Map Revision ..... 123
6.5.4 Physical Map Revisions ..... 124
6.5.5 Contracted Restudies ..... 124
6.5.6 Community Map History ..... 124
SECTION 7.0 - CONTRACTED STUDIES AND COMMUNITY COORDINATION ..... 126
7.1 Contracted Studies ..... 126
7.2 Community Meetings ..... 134
SECTION 8.0 - ADDITIONAL INFORMATION ..... 145
SECTION 9.0 - BIBLIOGRAPHY AND REFERENCES ..... 148

## Volume 1

## Figures

Page
Figure 1: FIRM Index ..... 10
Figure 2: FIRM Notes to Users ..... 12
Figure 3: Map Legend for FIRM ..... 15
Figure 4: Floodway Schematic ..... 31
Figure 5: Wave Runup Transect Schematic ..... 32
Figure 6: Coastal Transect Schematic ..... 32
Figure 7: Frequency Discharge-Drainage Area Curves ..... 50
Figure 8: 1\% Annual Chance Total Stillwater Elevations for Coastal Areas ..... 64
Figure 9: Transect Location Map ..... 65
Tables
Page
Table 1: Listing of NFIP Jurisdictions ..... 3
Table 2: Flooding Sources Included in this FIS Report ..... 20
Table 3: Flood Zone Designations by Community ..... 33
Table 4: Basin Characteristics ..... 34
Table 5: Principal Flood Problems ..... 34
Table 6: Historic Flooding Elevations ..... 35
Table 7: Dams and Other Flood Hazard Reduction Measures ..... 35
Table 8: Levee Systems ..... 37
Table 9: Summary of Discharges ..... 41
Table 10: Summary of Non-Coastal Stillwater Elevations ..... 51
Table 11: Stream Gage Information used to Determine Discharges ..... 53
Table 12: Summary of Hydrologic and Hydraulic Analyses ..... 54
Table 13: Roughness Coefficients ..... 63
Table 14: Summary of Coastal Analyses ..... 64
Table 15: Tide Gage Analysis Specifics ..... 64
Table 16: Coastal Transect Parameters ..... 65
Table 17: Summary of Alluvial Fan Analyses ..... 65
Table 18: Results of Alluvial Fan Analyses ..... 65
Table 19: Countywide Vertical Datum Conversion ..... 66
Table 20: Stream-Based Vertical Datum Conversion ..... 66
Table 21: Base Map Sources ..... 69
Table 22: Summary of Topographic Elevation Data used in Mapping ..... 71

## Volume 2

Table 23: Floodway Data ..... 72
Table 24: Flood Hazard and Non-Encroachment Data for Selected Streams ..... 122
Table 25: Summary of Coastal Transect Mapping Considerations ..... 122
Table 26: Incorporated Letters of Map Change ..... 123
Table 27: Community Map History ..... 125
Table 28: Summary of Contracted Studies Included in this FIS Report ..... 127
Table 29: Community Meetings ..... 135
Table 30: Map Repositories ..... 146
Table 31: Additional Information ..... 148
Table 32: Bibliography and References ..... 149

## Volume 3

## Exhibits

| Flood Profiles | Panel |
| :--- | :--- |
| Belt Line Creek | 01 P |
| Black Creek | $02-03 \mathrm{P}$ |
| Cahokia Creek | $04-11 \mathrm{P}$ |
| Canteen Creek | $12-14 \mathrm{P}$ |
| East Alton Ditch | 15 P |
| East Fork Silver Creek | $16-17 \mathrm{P}$ |
| East Fork Wood River | $18-20 \mathrm{P}$ |
| Honeycut Branch | $21 \quad \mathrm{P}$ |
| Indian Creek | $22-24 \mathrm{P}$ |
| Joulters Creek | $25-27 \mathrm{P}$ |


| Flood Profiles | Panel |  |
| :--- | :--- | :--- |
|  | $28-32 \mathrm{P}$ |  |
| Judys Branch | 33 | P |
| Judys Branch Tributary 5 | 34 | P |
| Judys Branch Tributary 5A | $35-36 \mathrm{P}$ |  |
| Judys Branch Tributary 5B | 37 | P |
| Judys Branch Tributary 9 | 38 | P |
| Judys Branch Tributary 9A | 39 | P |
| Judys Branch Tributary 9B | 40 | P |
| Judys Branch Tributary 10 | $41-43 \mathrm{P}$ |  |
| Judys Creek | 44 | P |
| Judys Creek Tributary B | $45-46 \mathrm{P}$ |  |
| Laurel Branch | 47 | P |
| Laurel Branch Tributary 1 | $48-49 \mathrm{P}$ |  |
| Lindenthal Creek | $50-51 \mathrm{P}$ |  |
| Lindenthal Creek Tributary 1 | 52 | P |
| Lindenthal Creek Tributary 2 | 53 | P |
| Lindenthal Creek Tributary 3 | 54 | P |
| Lindenthal Creek Tributary 4 | $55-57 \mathrm{P}$ |  |
| Mississippi River | $58-61 \mathrm{P}$ |  |
| Mooney Creek | 62 | P |
| Mooney Creek Tributary 1 | 63 | P |
| Mooney Creek Tributary 2 | $64-66 \mathrm{P}$ |  |
| Paddock Creek | 67 | P |
| Sherry Creek - East Fork Sherry Creek | $68-69 \mathrm{P}$ |  |
| Silver Creek | 70 | P |
| Silver Creek Tributary No. 1 | $71-72 \mathrm{P}$ |  |
| Silver Creek Tributary No. 2 | 73 | P |
| Smith Lake Tributary | 74 | P |
| Smith Lake Tributary No. 2 | 75 | P |
| Stanley Creek | 76 | P |
| Sugar Fork | 77 | P |
| Tributary E | 78 | P |
| Tributary F | 79 | P |
| Tributary G | 80 | P |
| Tributary X | 81 | P |
| Tributary Z | $82-84 \mathrm{P}$ |  |
| West Fork Wood River | 85 | P |
| Wood River |  |  |

Published Separately

Flood Insurance Rate Map (FIRM)
















































































