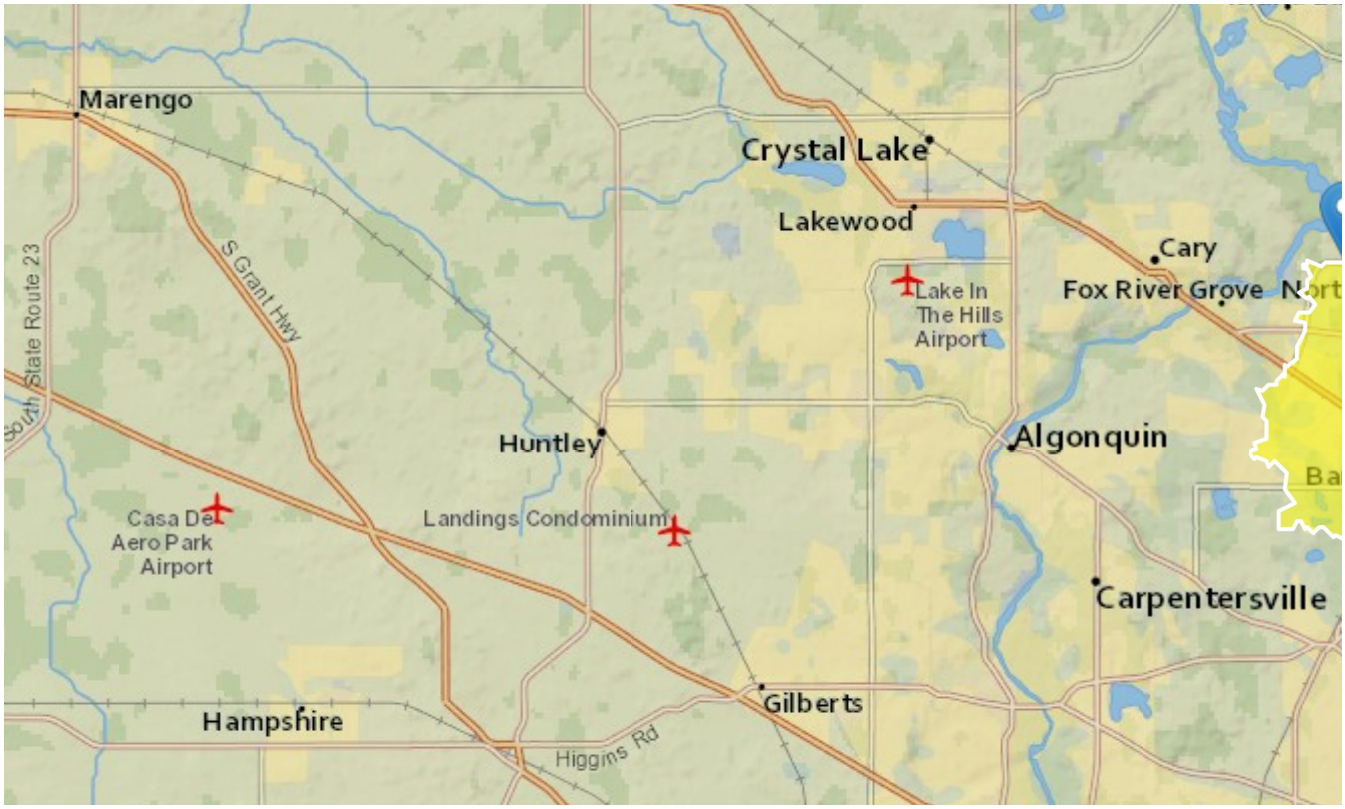
Flint Creek near Fox River Grove, IL

Region ID: IL
Workspace ID: IL20240322130056493000
Clicked Point (Latitude, Longitude): 42.21121, -88.17352
Time: 2024-03-22 08:01:21 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	35.675	square miles
FLC16DVLMH	Fraction of drainage area that is in low to high developed land use classes 22-24 from NLCD 2016	0.372	decimal fraction
FSSURGDC78	Fraction of land area that is in very poorly drained and unknown likely water drainage classes 7 and 8 from SSURGO	0.165	decimal fraction

Parameter Code	Parameter Description	Value	Unit
RELRELF	Basin relief divided by basin perimeter	3.66	feet per mi

Peak-Flow Statistics

Peak-Flow Statistics Parameters [IL Peakflow Region 2 ICT-23-014]

Parameter Code	Parameter Name	Value	Units	Min Limit	M L
DRNAREA	Drainage Area	35.675	square miles	0.07031	1
FLC16DVLMH	Frac_Lo_Med_Hi_Developed_from_NLCD2016	0.372	decimal fraction	0.002045	0
FSSURGDC78	Fraction_SSURGO_Drainage_Classes_7_and_8	0.165	decimal fraction	0	0
RELRELF	Relative Relief	3.66	feet per mi	0.8122	3

Peak-Flow Statistics Flow Report [IL Peakflow Region 2 ICT-23-014]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU	ASEp
50-percent AEP flood	537	ft^3/s	256	1130	46.9
20-percent AEP flood	765	ft^3/s	360	1630	47.9
10-percent AEP flood	927	ft^3/s	424	2030	49.9
4-percent AEP flood	1150	ft^3/s	505	2620	52.8
2-percent AEP flood	1310	ft^3/s	555	3090	55.6
1-percent AEP flood	1490	ft^3/s	611	3630	58
0.5-percent AEP flood	1670	ft^3/s	662	4210	60.5
0.2-percent AEP flood	1920	ft^3/s	734	5020	63.4

Peak-Flow Statistics Citations

Over, T.M., Marti, M.K., O'Shea, P.S., Sharpe, J.B.2023, Estimating peak-flow quantiles

for selected annual exceedance probabilities in Illinois (Report No. FHWA-ICT-23-014). Illinois Center for Transportation. (https://doi.org/10.36501/0197-9191/23-019)

Bankfull Statistics

Bankfull Statistics Parameters [Interior Plains D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	35.675	square miles	0.19305	59927.7393

Bankfull Statistics Parameters [Central Lowland P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	35.675	square miles	0.200772	59927.66594

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	35.675	square miles	0.07722	59927.7393

Bankfull Statistics Flow Report [Interior Plains D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	41.1	ft
Bieger_D_channel_depth	2.96	ft
Bieger_D_channel_cross_sectional_area	117	ft^2

Bankfull Statistics Flow Report [Central Lowland P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	45.6	ft
Bieger_P_channel_depth	3.4	ft
Bieger_P_channel_cross_sectional_area	108	ft^2

Bankfull Statistics Flow Report [USA Bieger 2015]

Statistic	Value	Unit

Statistic	Value	Unit
Bieger_USA_channel_width	43.6	ft
Bieger_USA_channel_depth	2.58	ft
Bieger_USA_channel_cross_sectional_area	118	ft^2

Bankfull Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
Bieger_D_channel_width	41.1	ft
Bieger_D_channel_depth	2.96	ft
Bieger_D_channel_cross_sectional_area	117	ft^2
Bieger_P_channel_width	45.6	ft
Bieger_P_channel_depth	3.4	ft
Bieger_P_channel_cross_sectional_area	108	ft^2
Bieger_USA_channel_width	43.6	ft
Bieger_USA_channel_depth	2.58	ft
Bieger_USA_channel_cross_sectional_area	118	ft^2

Bankfull Statistics Citations

Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. (https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_c

Maximum Probable Flood Statistics

Maximum Probable Flood Statistics Parameters [Crippen Bue Region 6]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	35.675	square miles	0.1	10000

Maximum Probable Flood Statistics Flow Report [Crippen Bue Region 6]

Statistic	Value	Unit

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	89800	ft^3/s

Maximum Probable Flood Statistics Citations

Crippen, J.R. and Bue, Conrad D.1977, Maximum Floodflows in the Conterminous United States, Geological Survey Water-Supply Paper 1887, 52p. (https://pubs.usgs.gov/wsp/1887/report.pdf)

Application Version: 4.19.4
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1