## **Toulon - Stark County** Flood Risk Review Meeting January 13, 2021

ILLINOIS Illinois State Water Survey PRAIRIE RESEARCH INSTITUTE



### **Toulon - Stark County** Flood Risk Review Meeting

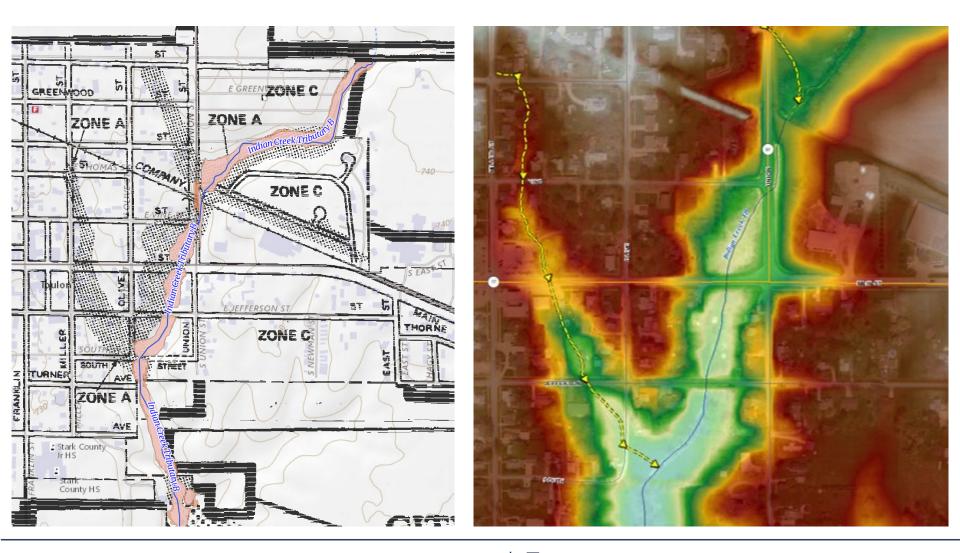
### Agenda

- Project milestones
- Toulon tributaries to Indian Creek Tributary B
- Draft models & floodplain delineations
- Open Discussion
- Additional community comment period
- Estimated schedule
- FEMA 621 letters

# **Project Milestones**

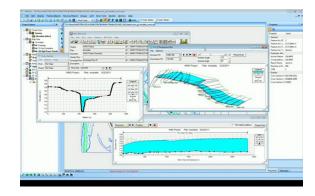
- ✓ Project Initiation meeting (July 2020)
- ✓ Develop new floodplain studies
- ✓ Develop draft floodplain delineations
- ✓ Countywide Flood Risk Review meeting (Sept 2021)
- ✓ Community review & comment (Sept/Oct 2021)
- ✓ ISWS comment review & additional modeling (Nov/Dec 2021)
- Toulon Flood Risk Review meeting Today
- Associated community review & comment (thru Feb 11, 2022)
- ISWS review & respond to comments (Feb/March)

### **Overview** Indian Creek Tributary B with contributing flow paths



# **Engineering Methods and Models**

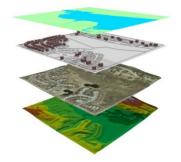
- Hydrology Determines 1% Annual Chance Stream Flows
  - USGS Regression Equations
- Hydraulics Determines 1% Annual Chance Flood Elevations
  - ➤USACE HEC-RAS Hydraulic Models
    - One-dimensional steady flow



# **Floodplain Mapping**

- Floodplain Mapping Determines 1% Annual Chance Flood Extents
  - ► Utilized a Digital Terrain Model derived from LiDAR.
  - ➢LiDAR data was acquired in 2012.
- Base Map Photo

>2014 Illinois Department of Transportation imagery.



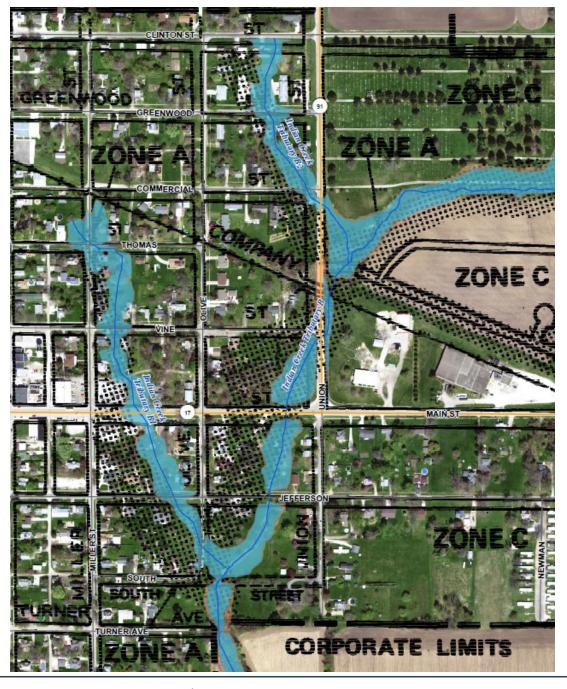
### FEMA Standard 645 Requirements to remove effective SFHA

Removal of an effective base level (i.e., Zone A) special flood hazard area (SFHA) may be considered by FEMA if these two criteria are met:

- 1. an engineering analysis is performed that shows there is no flood hazard where the effective Zone A is located;
- 2. the impacted community and FEMA Regional Project Monitor both concur about the removal on the same correspondence (e.g., email, letter, etc.). If the engineering analysis shows there is still flood hazard, but the depth is less than 1 foot, the SFHA may be considered for change to a shaded Zone X; however, this will still require the impacted community and FEMA Regional Project Monitor to concur about the change on the same correspondence (e.g., email, letter, etc.)

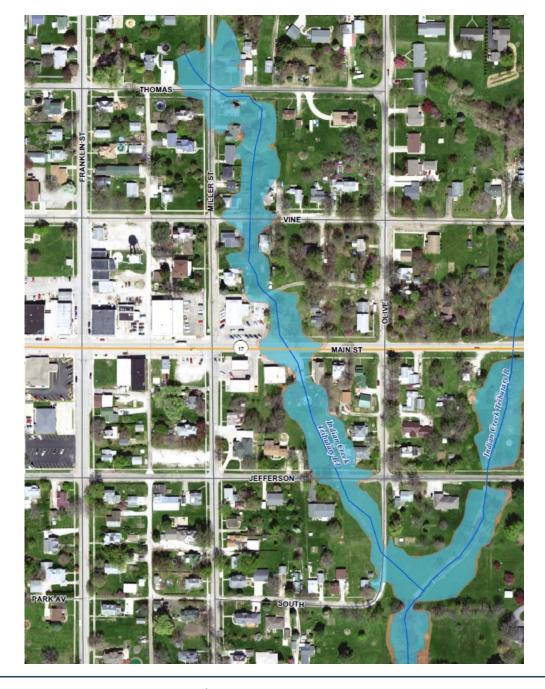
#### Floodplain Delineations

Indian Creek Tributary B1 & Indian Creek Tributary B2



#### Floodplain Delineations

Indian Creek Tributary B1

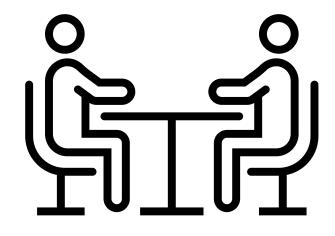


#### Floodplain Delineations

Indian Creek Tributary B2

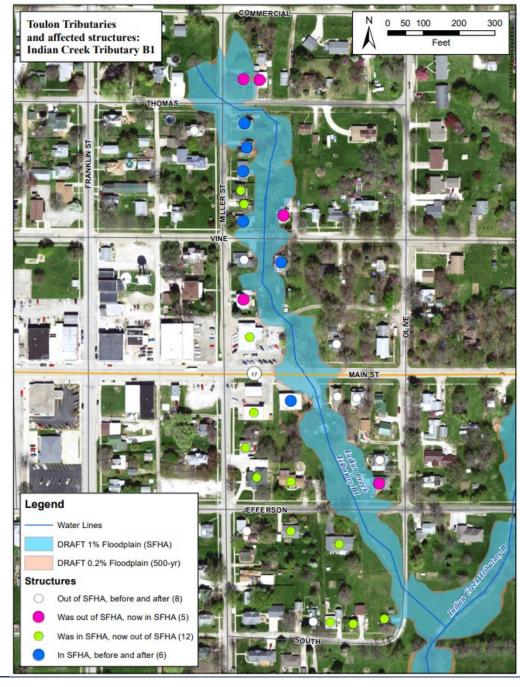


### Discussion



#### **Indian Creek Tributary B1**

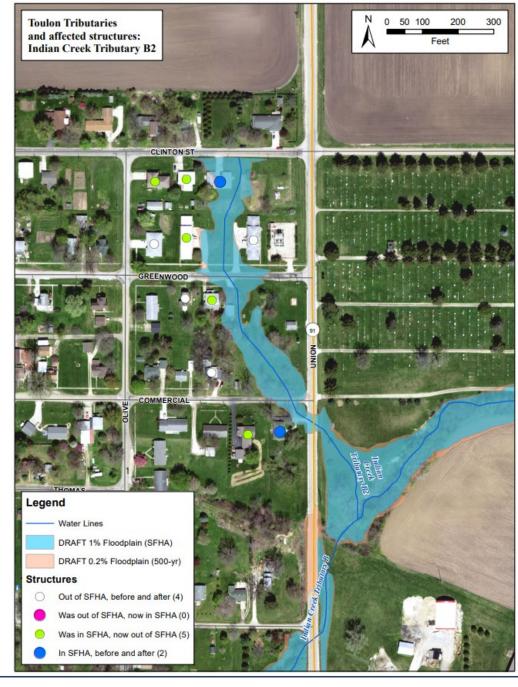
- Estimated structure count
- Effective map does not align well over photo
- Which structures are currently regulated as within the SFHA?
- Community input needed to refine exhibit



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#### **Indian Creek Tributary B2**

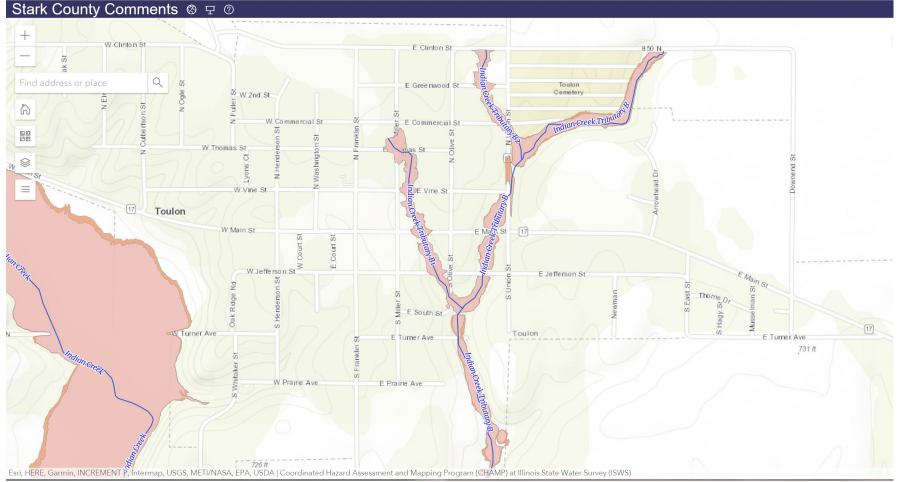
- Estimated structure count
- Effective map does not align well over photo
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### **Draft Map Review and Comment**



## Web Map



#### https://www.illinoisfloodmaps.org/commentmap/stark.htm

Login: watershed

Password: illinoisfloods!123

# **Estimated Schedule**



- Community review & comment (thru Feb 11, 2022)
- ISWS Comment Review & Response (March/April)
- FEMA 621 Letters and comment period (late Spring)
- Prepare regulatory products (2022)
- FEMA quality review (early 2023)
- Estimated Preliminary products release (Mid 2023)

### Data Submission Notification FEMA Standard ID 621 letter

Mailed to community CEOs



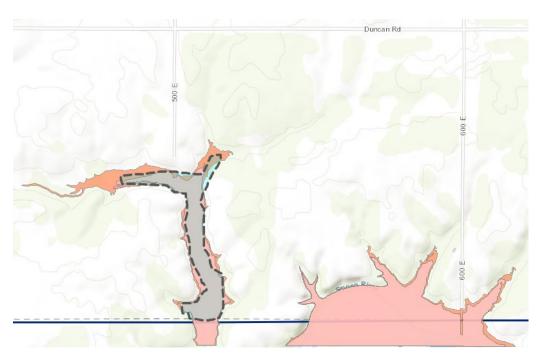
- Makes community aware the data collection and analysis phase of the project is concluding, and the Flood Insurance Rate Map (FIRM) database is being validated by FEMA
- Gives communities 30 days to comment on the data in the FIRM database

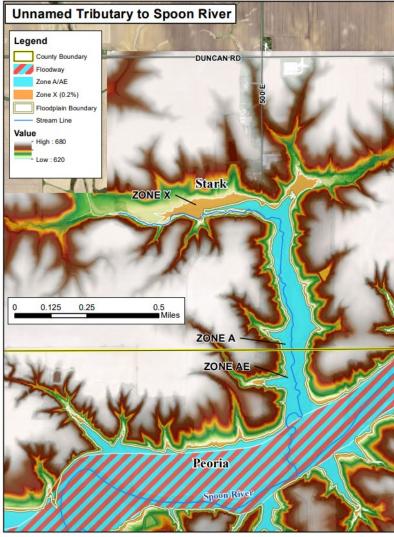
# **Previous Comments**





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### Questions





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