

A detailed architectural sketch of a waterfront development. In the foreground, a person with a backpack is seen from the side, looking out over a grassy park area with winding paths and small trees. In the middle ground, a body of water is filled with several colorful kayakers. A long, low building with a series of arches runs along the water's edge. In the background, a city skyline is visible, featuring a prominent skyscraper with a pointed top. The overall style is a soft, painterly sketch with muted colors.

**EAST BANK**

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**EAST BANK DEVELOPMENT  
AUTHORITY**

Board Meeting  
June 24, 2025



The background is a detailed illustration of a waterfront park. In the foreground, a person with blonde hair and a backpack is seen from the side, looking out over the scene. The park features a large grassy area with various trees, including some with yellow foliage. A paved path winds through the park, and several people are walking or standing. In the middle ground, a wide river flows, with several small boats and kayakers. A bridge is visible in the distance. The background is filled with a city skyline, including several tall buildings and skyscrapers. The overall style is a soft, painterly illustration with a focus on greenery and urban development.

# **EAST BANK**

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## **AGENDA ITEM IV CONSIDERATION OF EBDA CEO CONTRACT**

# EBDA CEO CONTRACT

- Metro, EBDA, and Ben York are all parties; Metro is a party because it will initially fund the EBDA operating budget
- Term of the agreement is two years
- Agreement automatically renews for additional two-year periods unless Mr. York or the Board give notice of non-renewal
- Mr. York will receive the same benefits as Metro employees
- Mr. York's duties are as contemplated by the private act creating the EBDA
- Agreement may be terminated for cause or without cause on 90 days' notice by the Board



The background is a stylized, hand-drawn illustration. It depicts a city skyline with various skyscrapers and buildings in the distance. In the foreground, there is a park area with green grass, trees, and several people walking or standing. A body of water, possibly a river or lake, is visible in the middle ground. The overall style is artistic and sketchy, with a muted color palette.

# **EAST BANK**

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## **AGENDA ITEM V**

### **CONSIDERATION OF KIMLEY HORN CONTRACT AMENDMENT**

# KIMLEY HORN CONTRACT AMENDMENT



- Initial contract awarded October 2023.
  - Contract is an Indefinite Delivery/ Indefinite Quantities (IDIQ) contract.
  - Contract term is 60 months.
  - Initial contract amount was for \$2,173,675.
  - For a line and grade plan, stormwater master plan, utility master plan, for the Metro-owned Central Waterfront District.
  - A contract amendment was approved by Metro Council, in Feb 2025, for additional survey work outside the original scope for an additional \$219,630.

# KIMLEY HORN CONTRACT AMENDMENT



- The total contract award to date for the KHA Civil Services contract is \$2,393,305.
- EBDA staff is requesting a contract amendment in the amount of \$606,695. To cover the following services:
  - Developing a survey plat for the new Nissan Stadium location and adjoining Parcel B and Parcel C within the Central Waterfront District.
  - Performing civil engineering tasks and progressing the preliminary (30%) design to final construction documents for various utility design projects located within the Central Waterfront District. Including surveying, roadway design, utility design, geotechnical services, and permitting.



# **EAST BANK**

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## **AGENDA ITEM VI INFORMATIONAL PRESENTATION FROM THE USACE AND MWS**



# US ARMY CORPS OF ENGINEERS NASHVILLE DISTRICT

## Nashville Flood Preparedness Phase 7 Cumberland River Cheatham Reservoir FIS Update

Presented by:  
Barry P. Moran, P.E.  
Senior Hydraulic Engineer

June 24, 2025



US Army Corps  
of Engineers





## Cumberland River Cheatham Reservoir FIS Update (Phase 7)

This work is performed for Metro Nashville utilizing the USACE Planning Assistance to States (PAS) Program. The Nashville Flood Preparedness (NFP) initiatives are a 50%/50% cost sharing “partnership” between USACE Nashville District and Metro.

### Task 1. Perform Flow Frequency Analysis

- “how often” and “how much” flooding occurs

### Task 2. Develop Hydraulic Models

- Historic Flood Calibrations (March 1975 and May 2010)
- Flood Frequency Water Surface Profiles (2-yr thru 500-yr)
- 100-yr Floodway Analysis

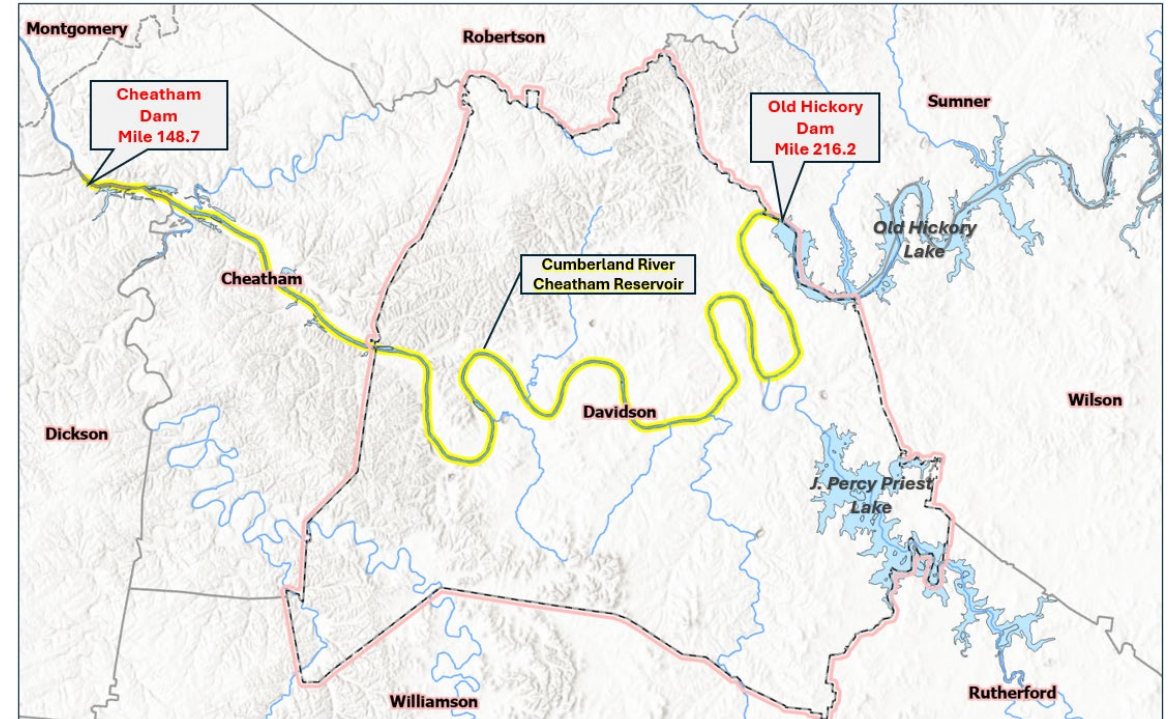
### Task 3. East Bank Hydraulic Analyses

### Task 4. Develop Final Products

- Inundation Mapping and GIS Data
- Technical Report

### Task 5. Submit Final Products to Metro and share with FEMA

- Data, models and results are provided to FEMA for use in their efforts to update floodplain mapping.



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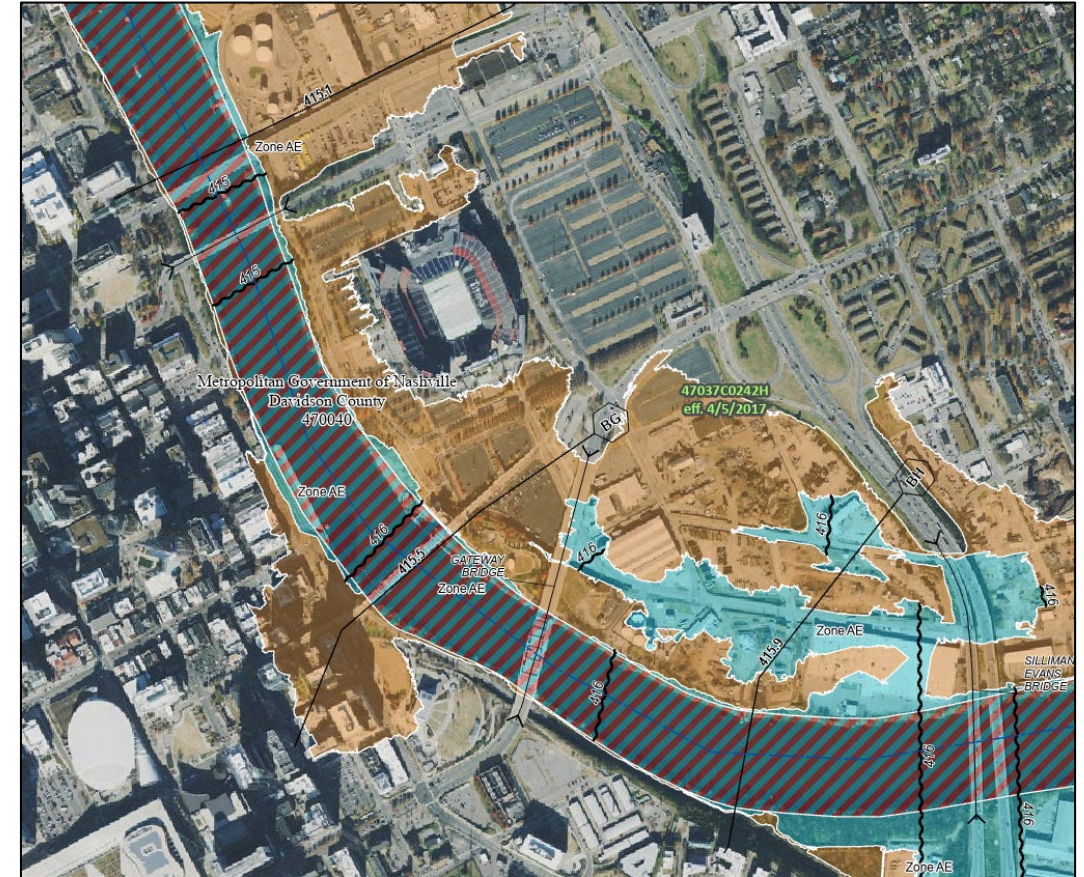


## Why Update?

- The Corps has conducted Flood Insurance Studies (FIS) for the Cheatham Reservoir in 1979, 1988, 1995, and 2012 (Current Effective FIS).

### Important Reasons to Update FIS:

- Improved Data and Technology
- Changes in Land Use and Infrastructure
- Updated Hydrology and Hydraulics (H&H)
- Public Safety and Planning
- Regulatory Compliance – FEMA recommends updates every five years



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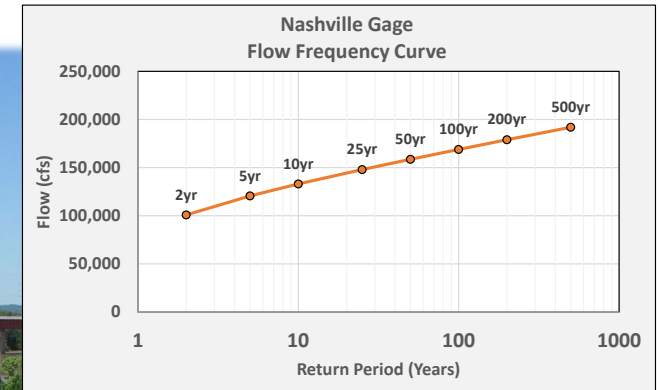
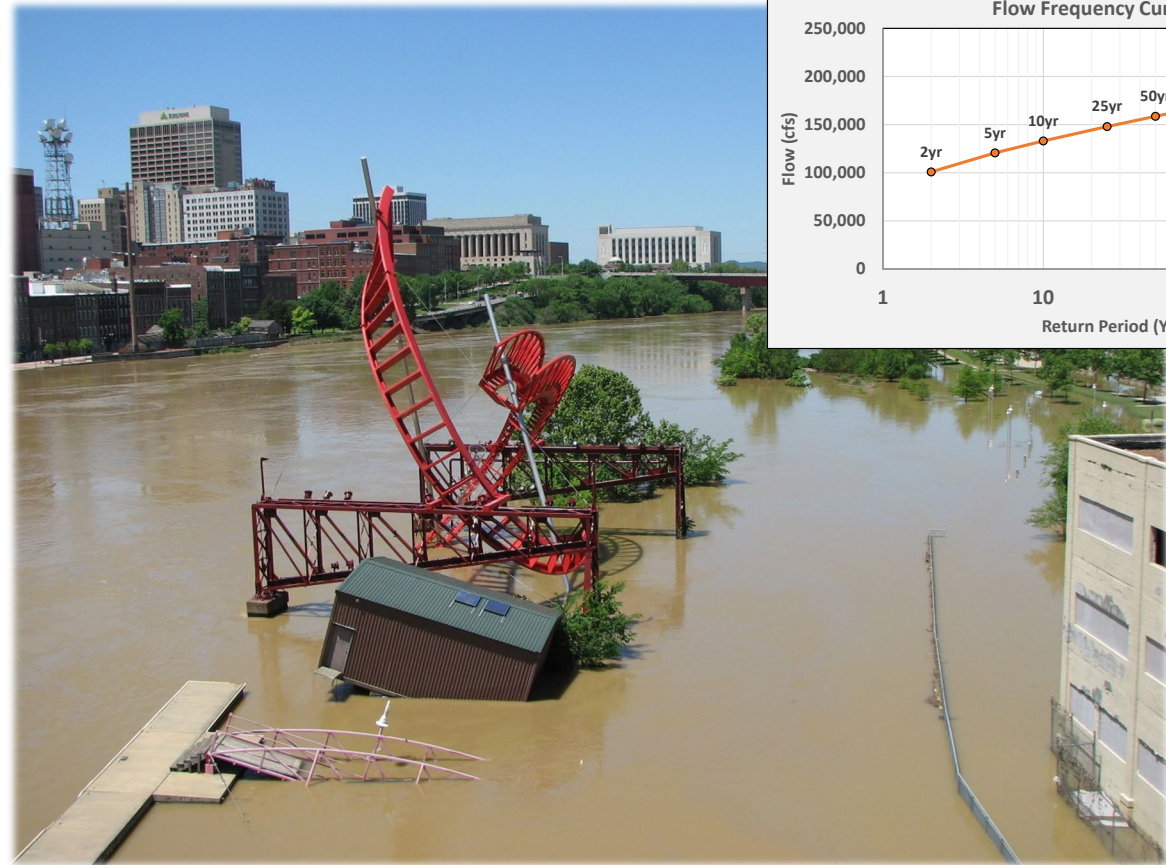
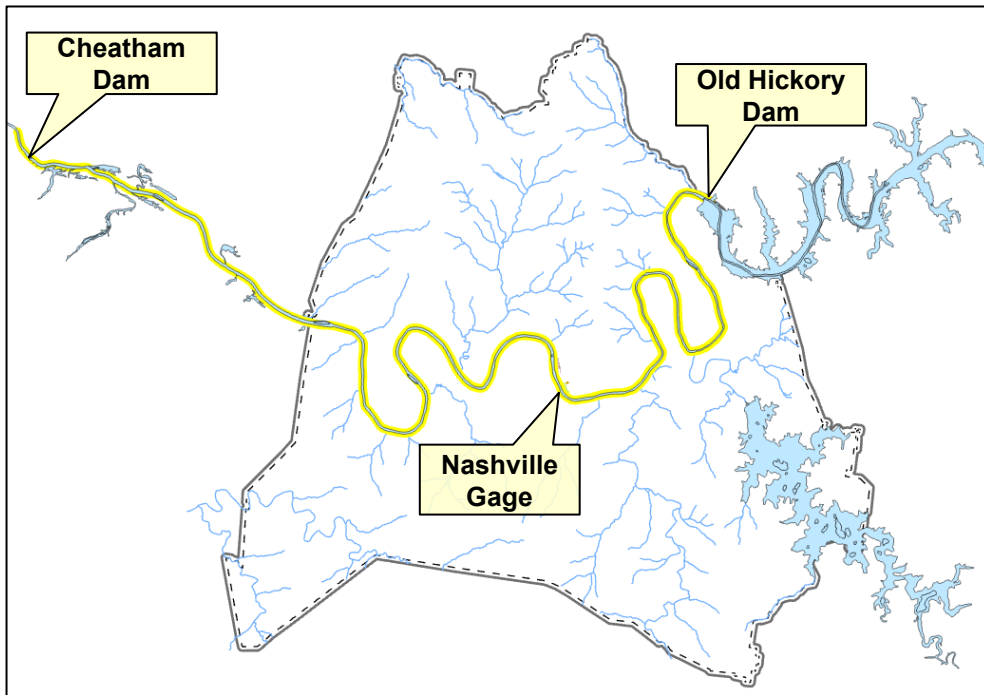




## Flow Frequency Analysis (FFA) – Cheatham Reservoir

- Develop 2-yr thru 500-yr frequency flows on the Cumberland River at 3 stream gage locations.

1. Old Hickory Dam Tailwater
2. At Nashville (USGS Gage)
3. Cheatham Dam Headwater



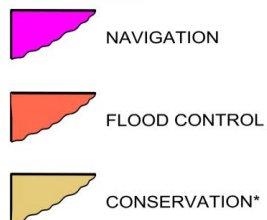
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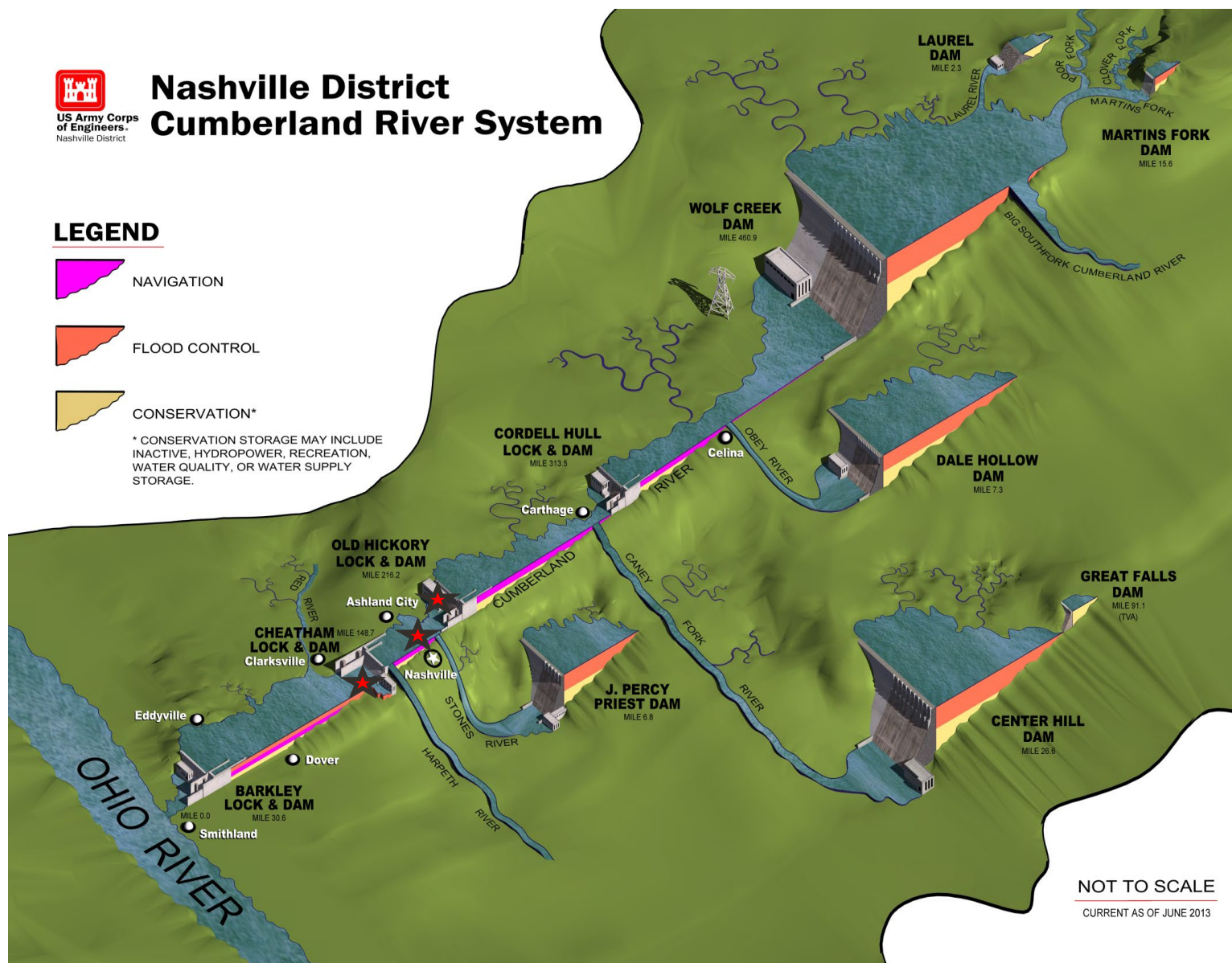


## Nashville District Cumberland River System

### LEGEND



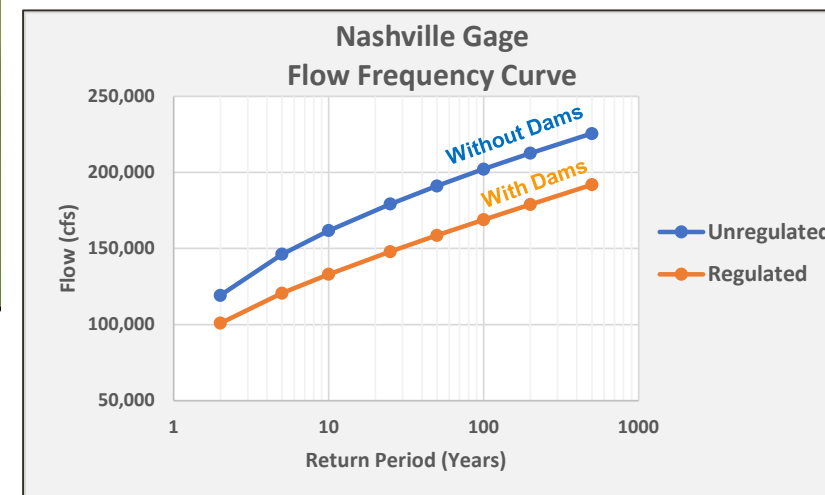
\* CONSERVATION STORAGE MAY INCLUDE INACTIVE, HYDROPOWER, RECREATION, WATER QUALITY, OR WATER SUPPLY STORAGE.



NOT TO SCALE  
CURRENT AS OF JUNE 2013

## Flow Frequency Analysis:

- Evaluate Historic Flood Data for:
- Period of Record (PoR) – 230 yrs
  - 1793 to 1947 unregulated - 154 yrs
  - 1949 to 2023 regulated - 74 yrs
- Develop flow frequency relationship between unregulated and regulated Cumberland River System for entire 230 years of record at 3 gage locations.



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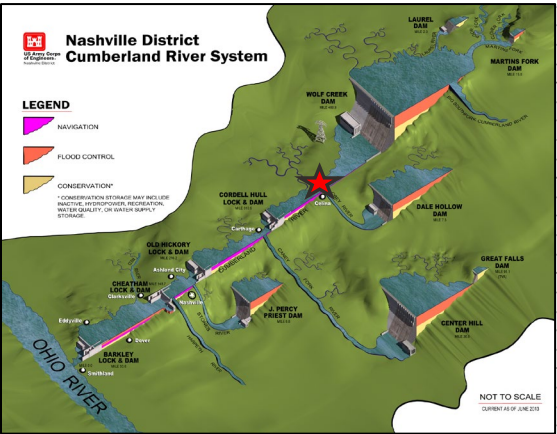
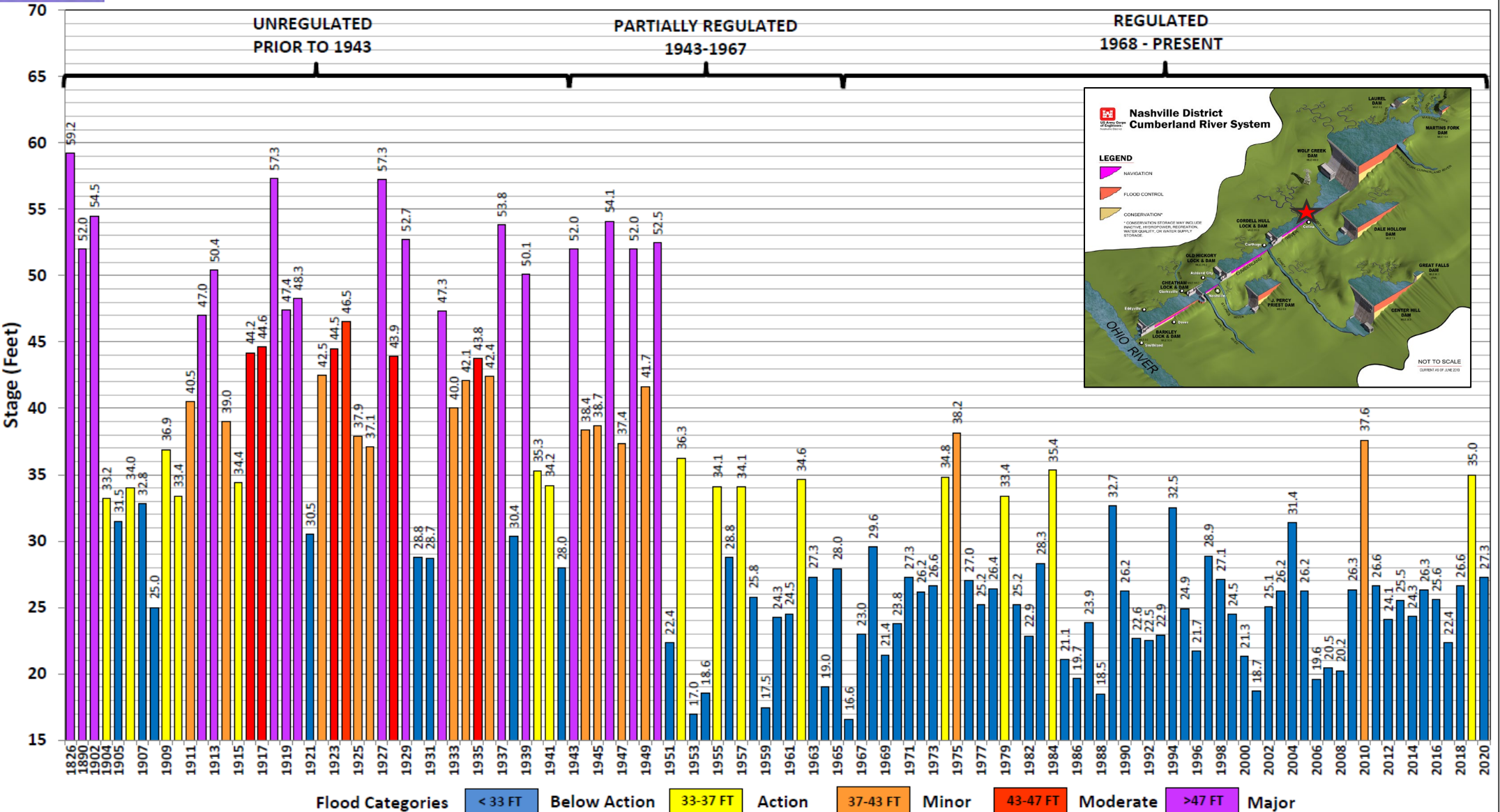


# Celina Gage - Annual Peak Stages

"Gage 0" Datum: 488.95' (NAVD 88)



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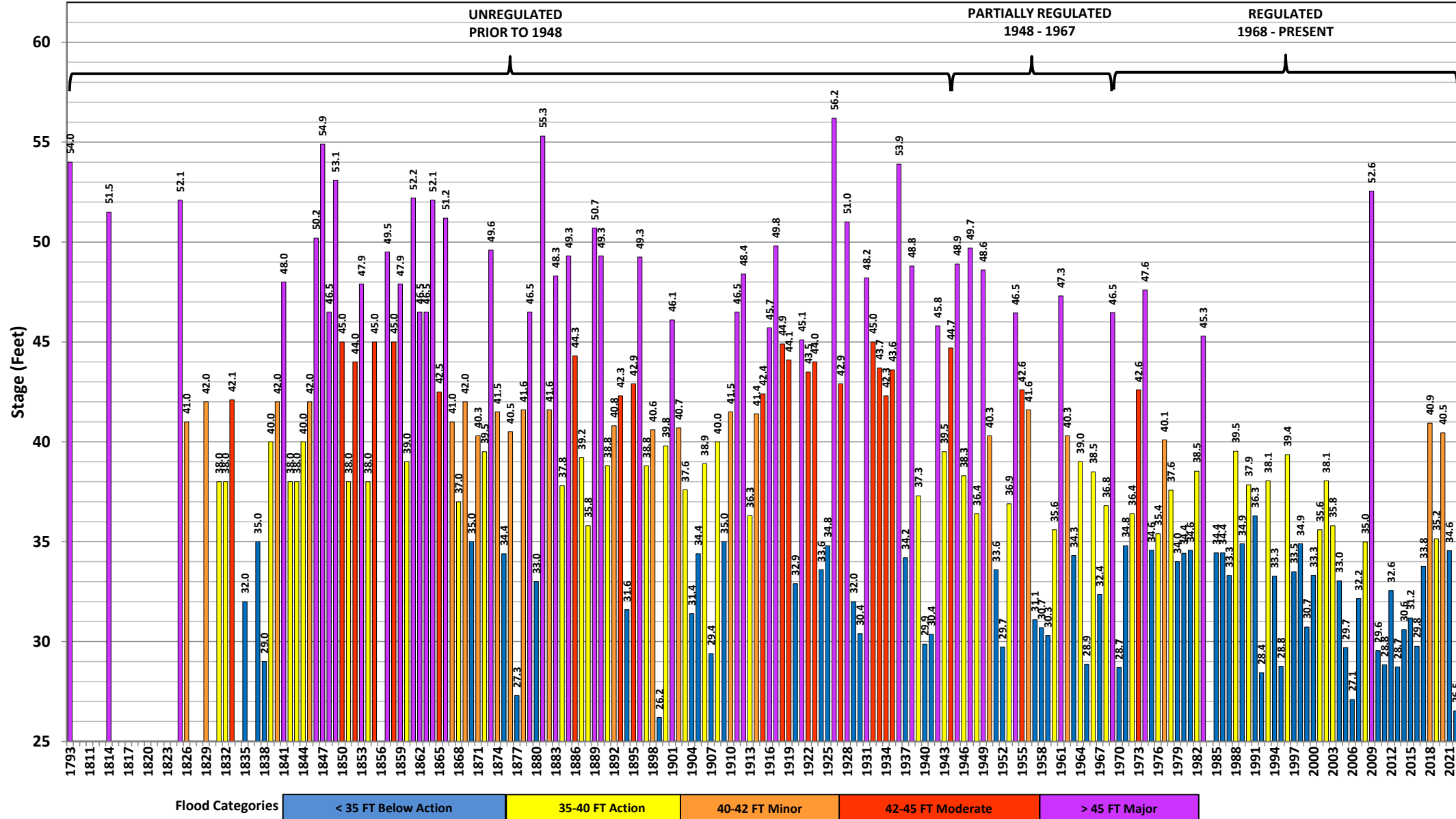


# Nashville Gage - Annual Peak Stages

"Gage 0" Datum: 367.45' (NAVD 88)

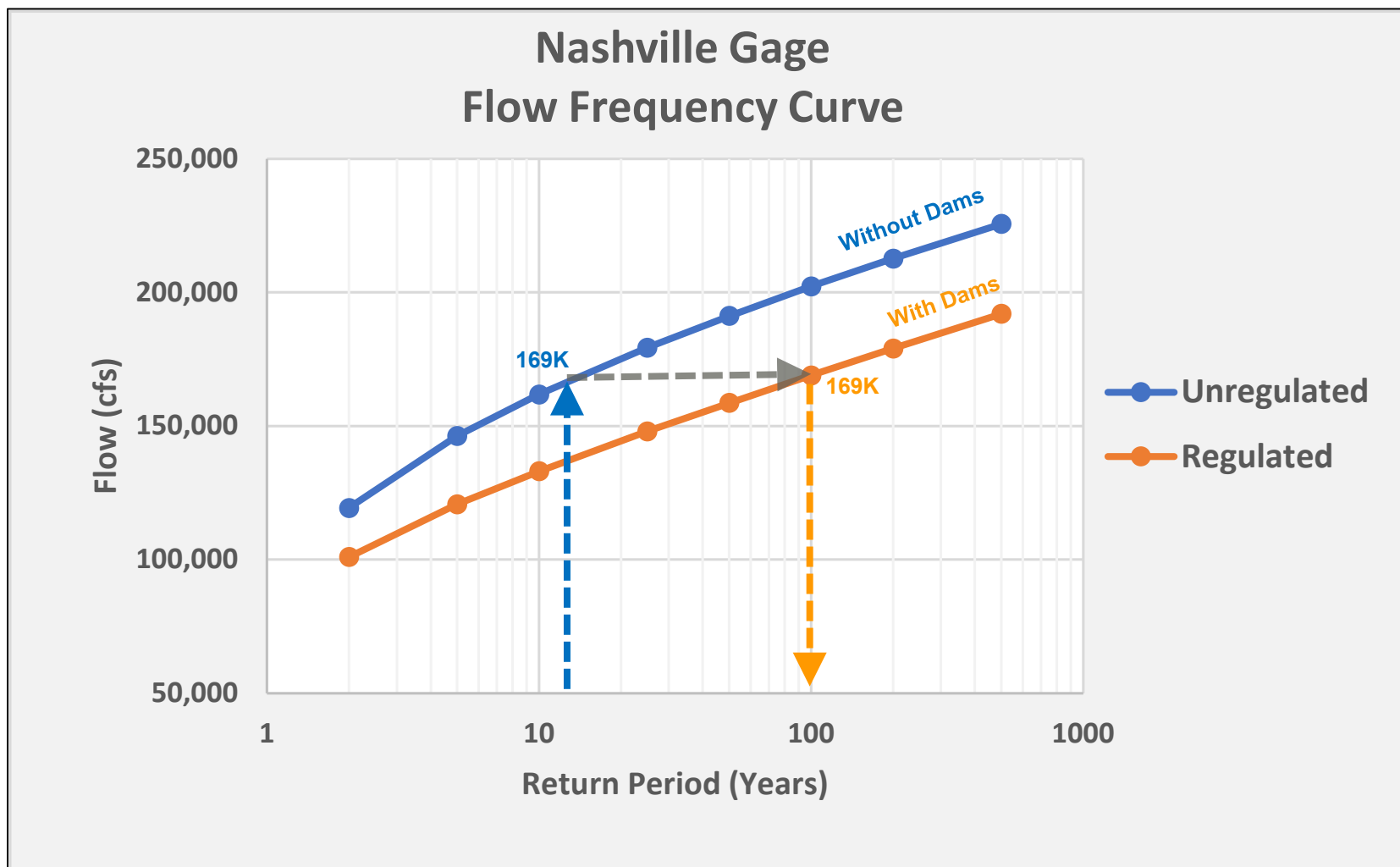


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## Unregulated vs. Regulated Flow Frequency Curves







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## Cumberland River Updated Flow Frequency Discharges (Regulated)

16





### Old Hickory Tailwater

Flood Scenario	Effective Flood Study (2012)	2025 Flood Study
10-Year (0.1 AEP)	115,000 cfs	131,000 cfs  <b>&gt; 10%</b>
50-Year (0.02 AEP)	173,000 cfs	156,000 cfs  <b>&lt; 10%</b>
100-Year (0.01 AEP)	198,000 cfs	166,000 cfs  <b>&lt; 15%</b>
500-Year (0.002 AEP)	255,000 cfs	188,000 cfs  <b>&lt; 25%</b>

### Nashville Gage (Titans Stadium)

Flood Scenario	Effective Flood Study (2012)	2025 Flood Study
10-Year (0.1 AEP)	115,000 cfs	133,000 cfs  <b>&gt; 15%</b>
50-Year (0.02 AEP)	140,000 cfs	159,000 cfs  <b>&gt; 15%</b>
100-Year (0.01 AEP)	155,000 cfs	169,000 cfs  <b>&gt; 10%</b>
500-Year (0.002 AEP)	190,000 cfs	192,000 cfs  <b>&gt; 1%</b>

### Cheatham Dam

Flood Scenario	Effective Flood Study (2012)	2025 Flood Study
10-Year (0.1 AEP)	140,000 cfs	166,000 cfs  <b>&gt; 15%</b>
50-Year (0.02 AEP)	188,000 cfs	194,000 cfs  <b>&gt; 5%</b>
100-Year (0.01 AEP)	208,000 cfs	205,000 cfs  <b>&lt; 1%</b>
500-Year (0.002 AEP)	255,000 cfs	229,000 cfs  <b>&lt; 10%</b>



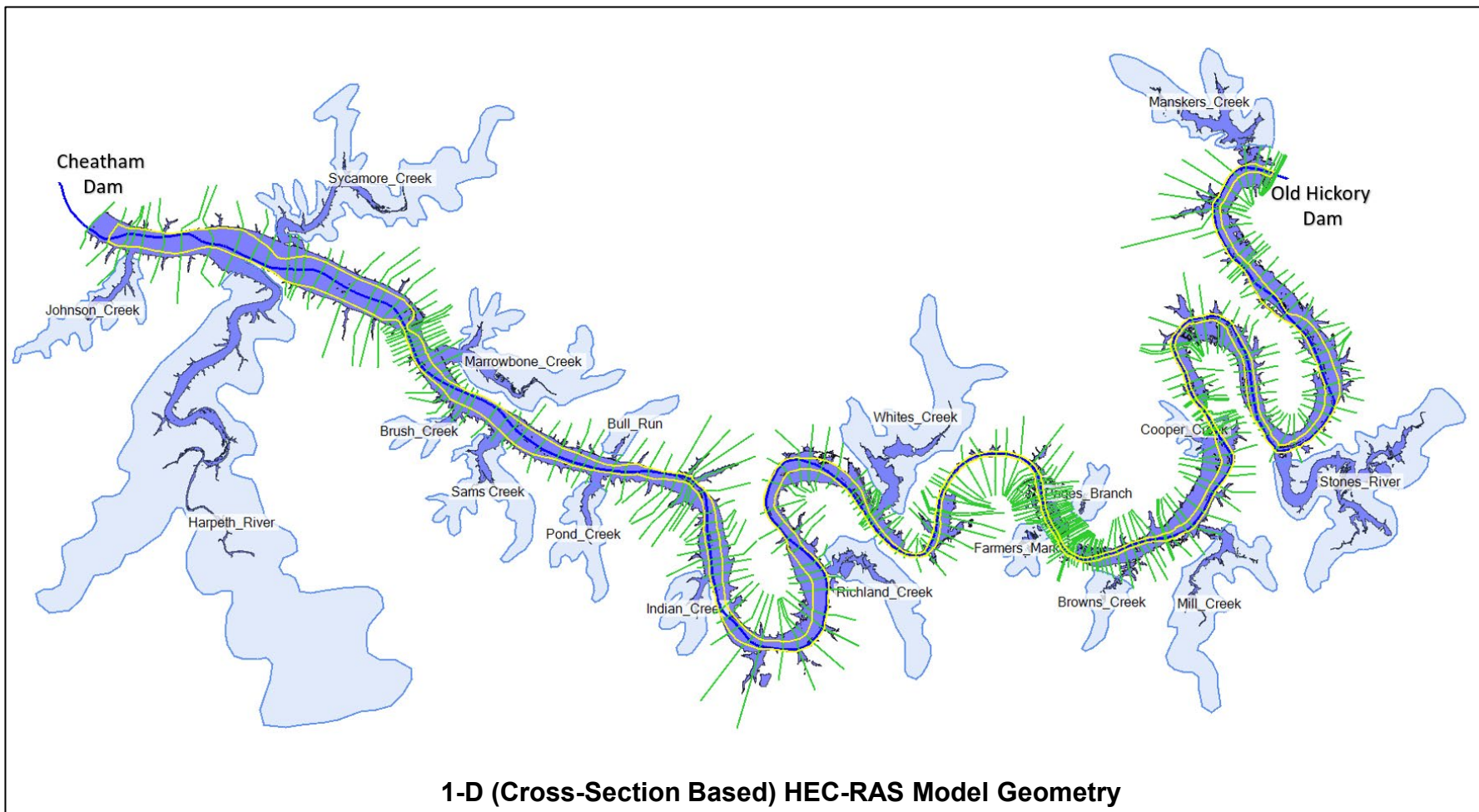
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# Cumberland River Hydraulic Model (HEC-RAS)

## Hydrologic Engineering Center - River Analysis System (HEC-RAS) Model



### REVISED HEC-RAS MODEL

2022 LiDAR

Updated Bathymetry

300 Cross-Sections (35% More)

15 Bridges

3 Opryland Levees (1 New)

Metro Center Levee

AO Smith Levee (New)

20 Storage Areas (backwater)

### MODEL SIMULATIONS

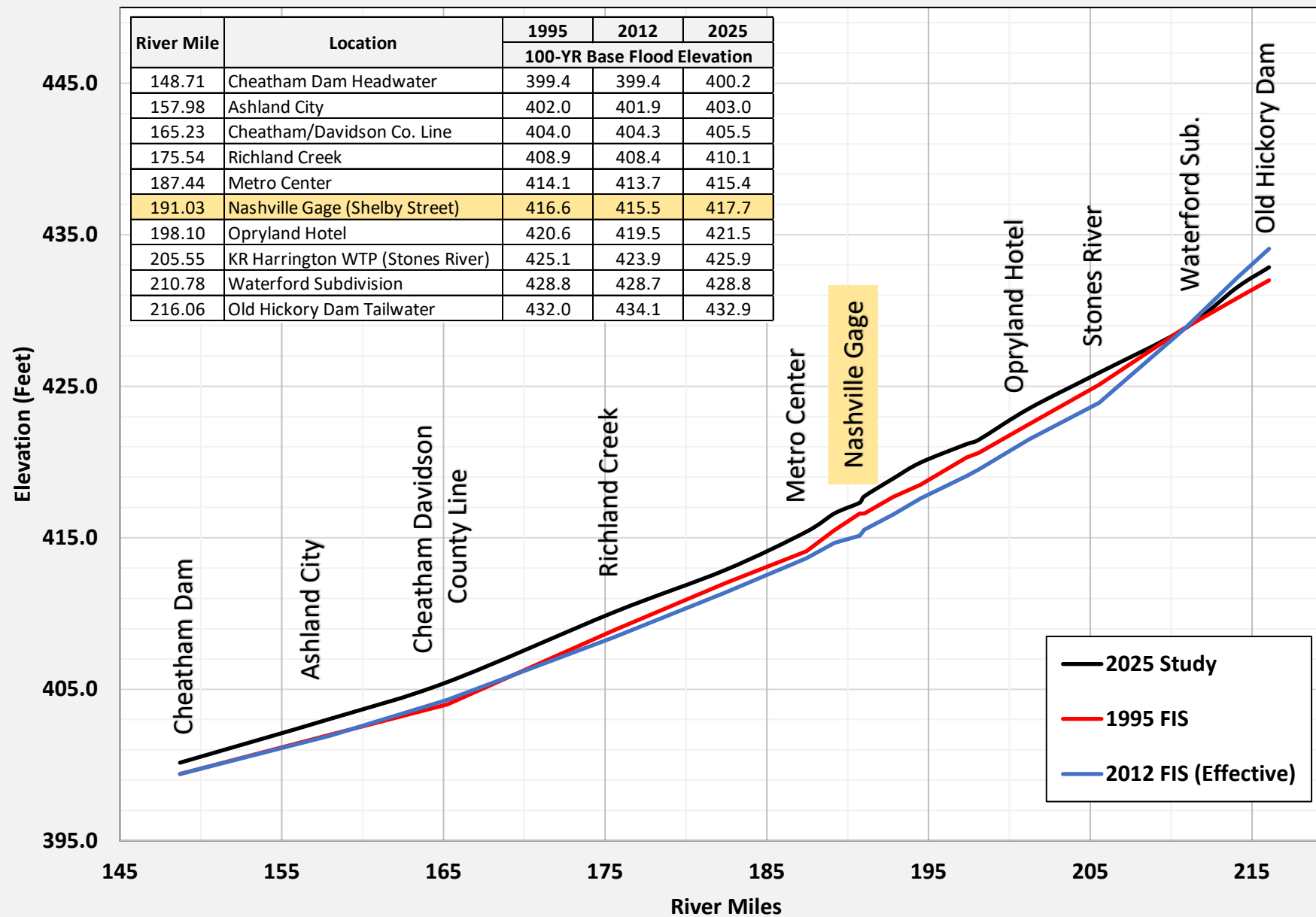
- Historic Flood Calibrations.
- Flood Frequency Events.
- 100-yr Floodway Analysis.



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### 100-Year Base Flood Elevation (BFE) Comparison





## 2025 Study - Comparison to Effective FIS (2012)

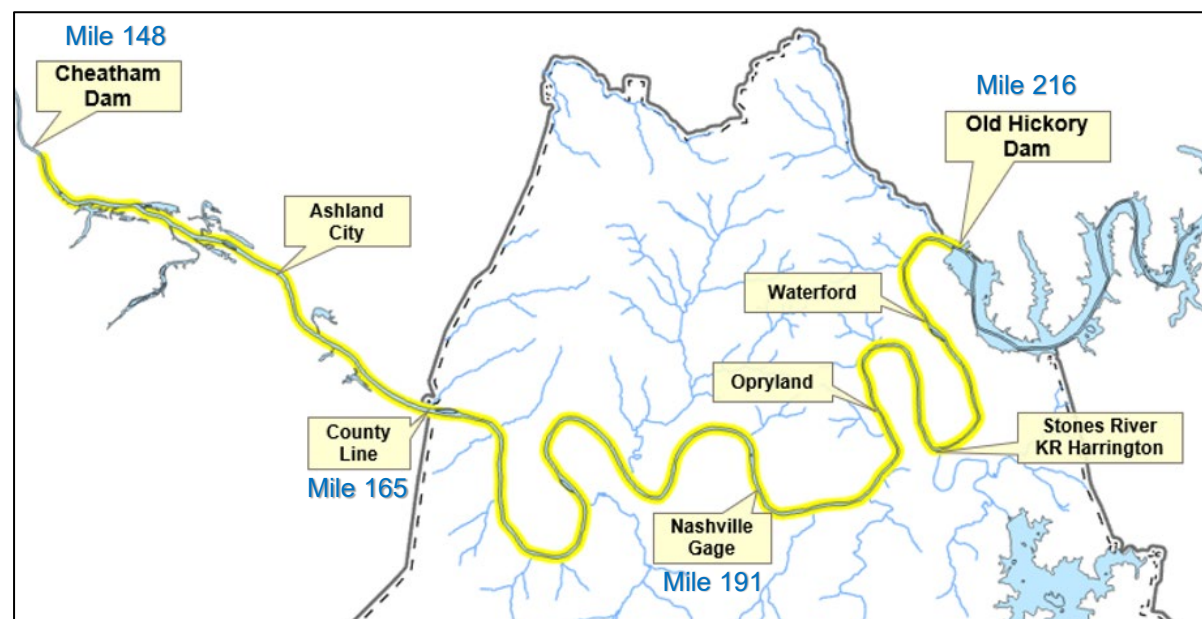
Downstream



Upstream

River Mile	Location	Effective FIS WSEL (Feet)				2025 Revised FIS WSEL (Feet)				Revised vs. Effective Difference (Feet)			
		2-YR	10-YR	100-YR	500-YR	2-YR	10-YR	100-YR	500-YR	2-YR	10-YR	100-YR	500-YR
148.71	Cheatham Dam Headwater	390.0	392.4	399.4	406.8	389.4	395.2	400.2	403.0	-0.6	2.8	0.8	-3.8
157.98	Ashland City	392.3	395.5	401.9	408.6	393.1	398.5	403.0	405.7	0.9	3.1	1.1	-2.9
165.23	Cheatham/Davidson Co. Line	394.6	398.0	404.3	410.4	395.6	401.1	405.5	408.2	1.0	3.1	1.2	-2.2
175.54	Richland Creek	398.3	402.1	408.4	413.9	399.9	405.6	410.1	412.8	1.6	3.5	1.6	-1.1
182.43	Whites Creek	400.9	404.9	411.4	416.7	402.4	408.2	412.9	415.7	1.4	3.3	1.5	-1.0
187.44	Metro Center	402.8	407.0	413.7	419.0	404.4	410.5	415.4	418.4	1.6	3.4	1.7	-0.7
189.18	River North	403.6	407.9	414.7	420.2	405.3	411.5	416.6	419.7	1.7	3.6	1.9	-0.5
190.74	East Bank (Titans Stadium)	404.1	408.4	415.1	420.6	405.9	412.1	417.3	420.5	1.8	3.8	2.2	-0.1
191.03	Nashville Gage (Shelby Street)	404.4	408.7	415.5	421.1	406.2	412.5	417.7	420.9	1.8	3.8	2.2	-0.2
192.82	Browns Creek	405.6	409.6	416.5	422.1	407.2	413.5	418.9	422.1	1.6	3.9	2.4	0.0
194.51	Mill Creek	406.5	410.6	417.6	423.2	408.0	414.4	420.0	423.2	1.5	3.8	2.4	0.0
197.36	Opry Mills Mall	408.0	412.2	419.1	424.4	409.3	415.8	421.2	424.4	1.3	3.6	2.1	-0.1
198.10	Opryland Hotel	408.4	412.6	419.5	424.8	409.6	416.0	421.5	424.6	1.2	3.4	2.0	-0.2
201.20	Pennington Bend	410.1	414.4	421.5	426.8	411.4	417.9	423.5	426.8	1.3	3.5	2.0	0.0
205.55	KR Harrington WTP (Stones River)	412.3	416.8	423.9	429.0	413.6	420.2	425.9	429.2	1.3	3.4	2.0	0.3
210.78	Waterford Subdivision	413.7	419.9	428.7	434.1	416.4	423.2	428.8	432.0	2.7	3.3	0.0	-2.1
214.06	Dry Creek WWTP	414.8	422.2	432.1	437.9	418.6	425.7	431.5	434.9	3.8	3.4	-0.6	-3.0
216.06	Old Hickory Dam Tailwater	415.4	423.7	434.1	439.9	419.9	427.0	432.9	436.2	4.5	3.3	-1.2	-3.7

Downtown  
Nashville



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## East Bank Hydraulic Analysis



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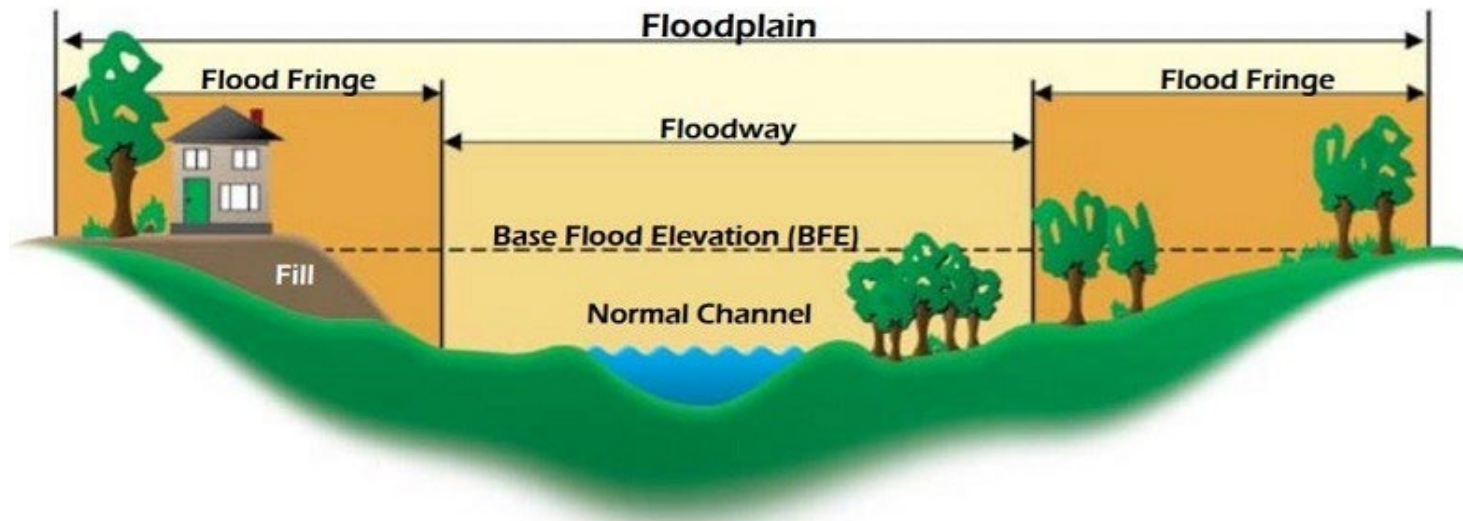


## East Bank Hydraulic Analyses

- At Metro's request, USACE conducted hydraulic modeling for the East Bank in 2021 and for current 2025 study.
- Focus:
  - Life Safety
  - Infrastructure improvements (Road and Bridges)
  - Flooding Impacts from placement of fill in the floodplain (within flood fringe outside floodway)



Characteristics of a Floodplain

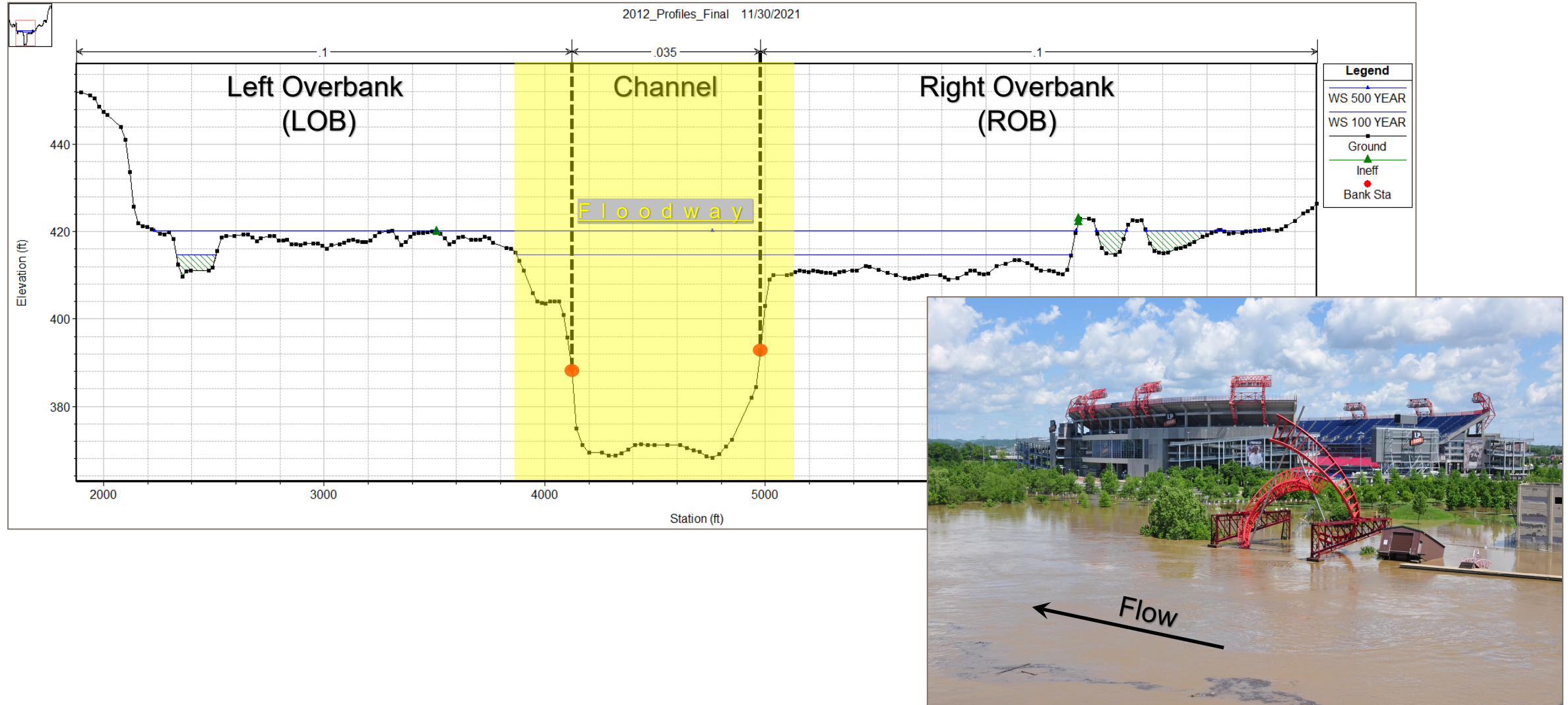


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## 1-D HEC-RAS MODEL CROSS-SECTION (LOOKING DOWNSTREAM)

- Flow Conveyance Zones – Left Overbank (LOB), Channel, and Right Overbank (ROB)

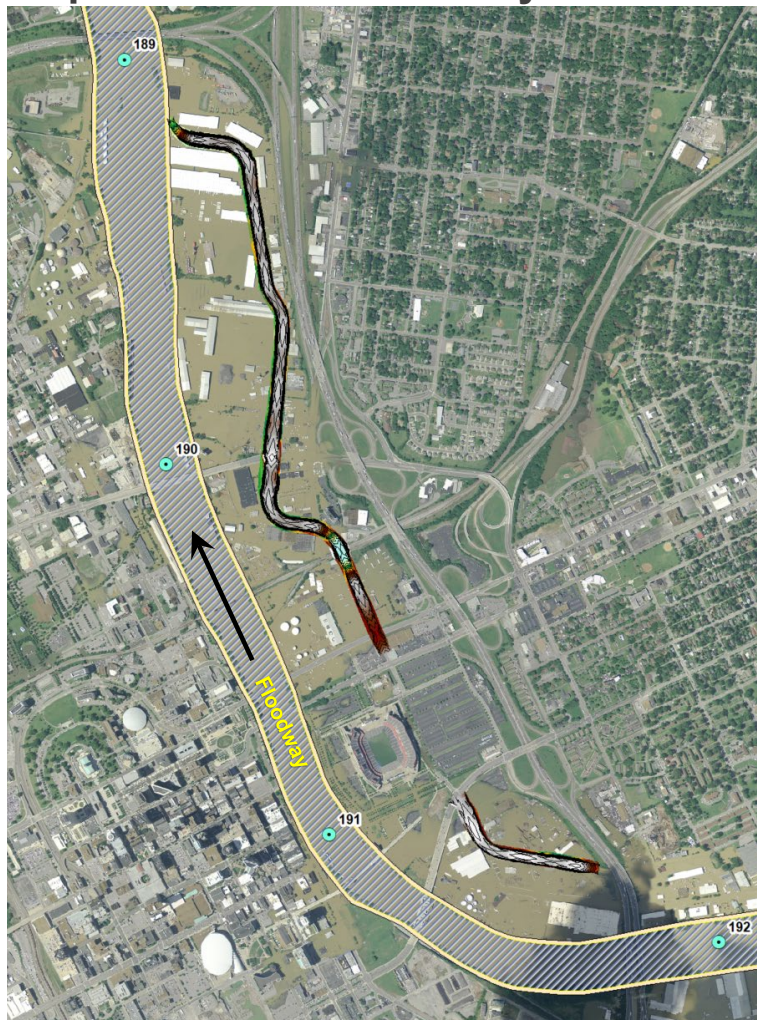




## 2021 USACE East Bank Hydraulic Analysis

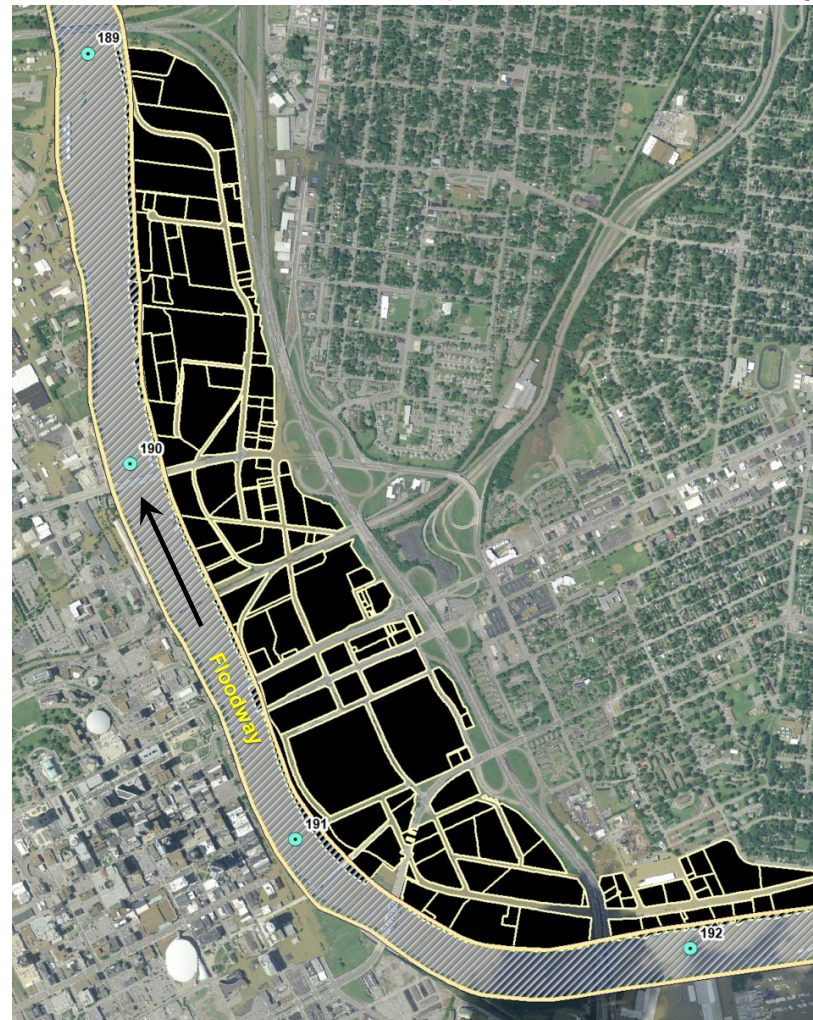
May 2010 Flood

Proposed Road Grade May 2010 + 2 Ft



East Bank

Development Raised 100-yr Plus 1-ft (All Fill)



Fill Flood Fringe - Outside Floodway + 50 ft Buffer



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2021 USACE East Bank Study						
Location	100-Year Flood Event			500-Year Flood Event		
	River	Increase in WSEL (Feet)		River	Increase in WSEL (Feet)	
	Mile	East Bank Rd	(1) Raise East Bank	Mile	East Bank Rd	(1) Raise East Bank
Interstate I-65	189	0	0.00	189	0	0.00
	190	0.01	0.01	190	0.01	0.04
Titans Stadium	191	0	0.01	191	0	0.03
	192	0	0.01	192	0	0.04
	193	0	0.01	193	0	0.03
Omohundro WTP	194	0	0.01	194	0	0.04
	195	0	0.01	195	0	0.04
	196	0	0.01	196	0	0.03
	197	0	0.01	197	0	0.03
Opryland Hotel	198	0	0.01	198	0	0.02
	199	0	0.01	199	0	0.02
	200	0	0.01	200	0	0.02
Pennington Bend	201	0	0.01	201	0	0.02
	202	0	0.01	202	0	0.03
	203	0	0.00	203	0	0.02
	204	0	0.01	204	0	0.02
KR Harrington WTP	205	0	0.01	205	0	0.02
	206	0	0.01	206	0	0.02

Average Increase (Feet)	0	≤ 0.01 ft. (~ 0.1 in.)	0	≤ 0.04 (~ 0.5 in.)
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(1) Raise East Bank

Raise All Development Located Outside Floodway (Plus 50-ft Buffer)

No Floodplain Storage Compensation River Mile 189 to 193 (All Fill)

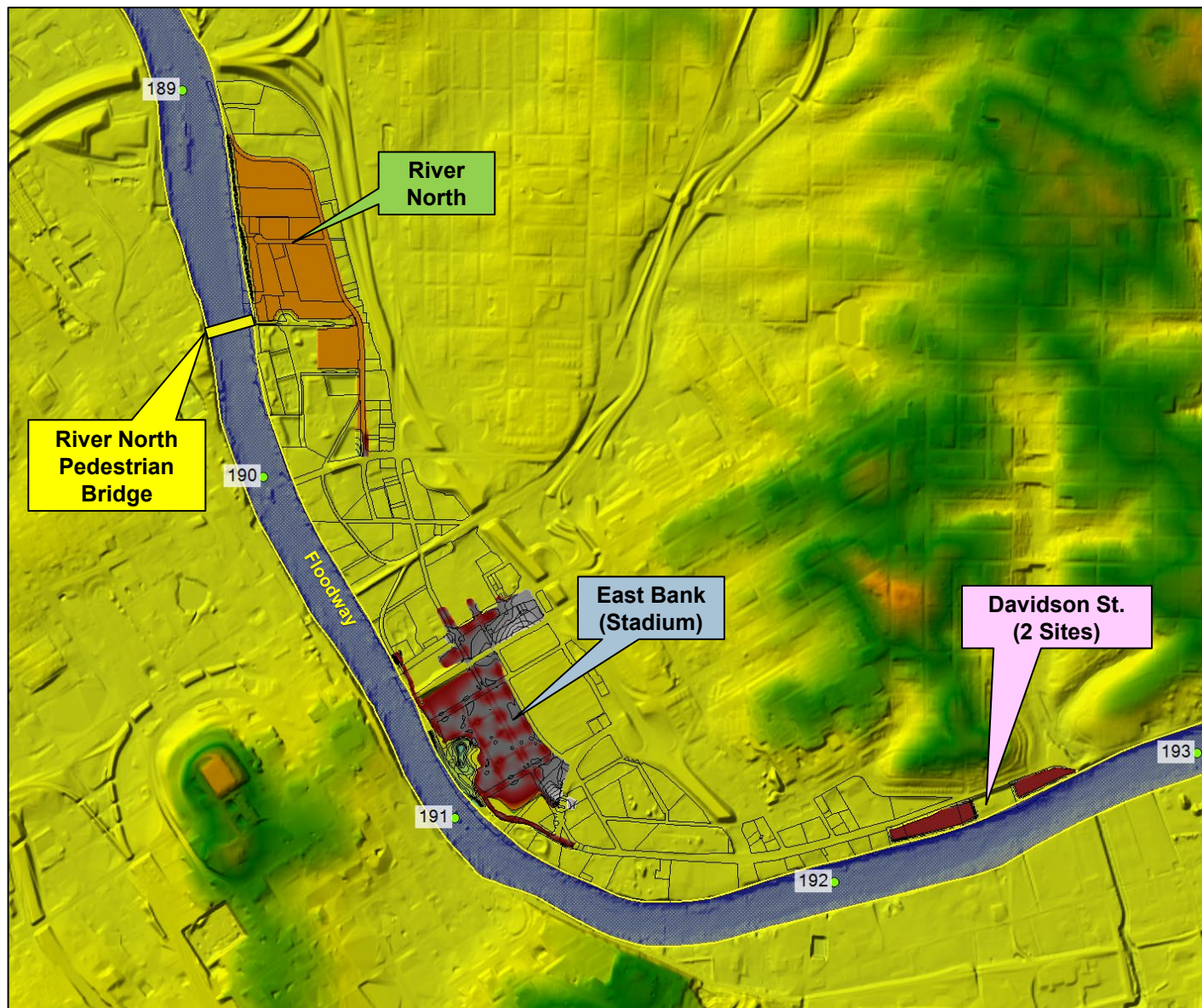


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## 2025 USACE East Bank Hydraulic Analysis



Work Performed by USACE for Metro Water Services:

- River North - El. 420 ft.
- River North Pedestrian Bridge
- East Bank (Stadium) ~ El. 421 ft.
- Davidson Street - El. 421 ft.
- All proposed fill located outside floodway within flood fringe



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2025 USACE East Bank Study				
Location	100-Year Flood Event		500-Year Flood Event	
	River	Increase in WSEL (Feet)	River	Increase in WSEL (Feet)
	Mile	(1) East Bank Developments	Mile	(1) East Bank Developments
Interstate I-65	189	0.00	189	0.00
River North	190	0.01	190	0.03
Titans Stadium	191	0.01	191	0.02
Davidson Street	192	0.01	192	0.02
	193	0.00	193	0.02
Omohundro WTP	194	0.00	194	0.02
	195	0.00	195	0.02
	196	0.00	196	0.02
	197	0.00	197	0.02
Opryland Hotel	198	0.00	198	0.02
	199	0.00	199	0.02
	200	0.00	200	0.02
Pennington Bend	201	0.00	201	0.01
	202	0.00	202	0.01
	203	0.00	203	0.02
	204	0.00	204	0.01
	205	0.00	205	0.01
KR Harrington WTP	206	0.00	206	0.01

Average Increase (Feet)

≤ 0.01 ft. (~ 0.1 in.)

≤ 0.03 (~ 0.5 in.)

(1) East Bank Developments All Development Outside Floodway Except Pedestrian Bridge  
 River North - No Floodplain Storage Compensation (All Fill)  
 Titans Stadium - Balanced Cut and Fill Site  
 Davidson Street - Redevelopment of Existing Buildings (Minor Fill)



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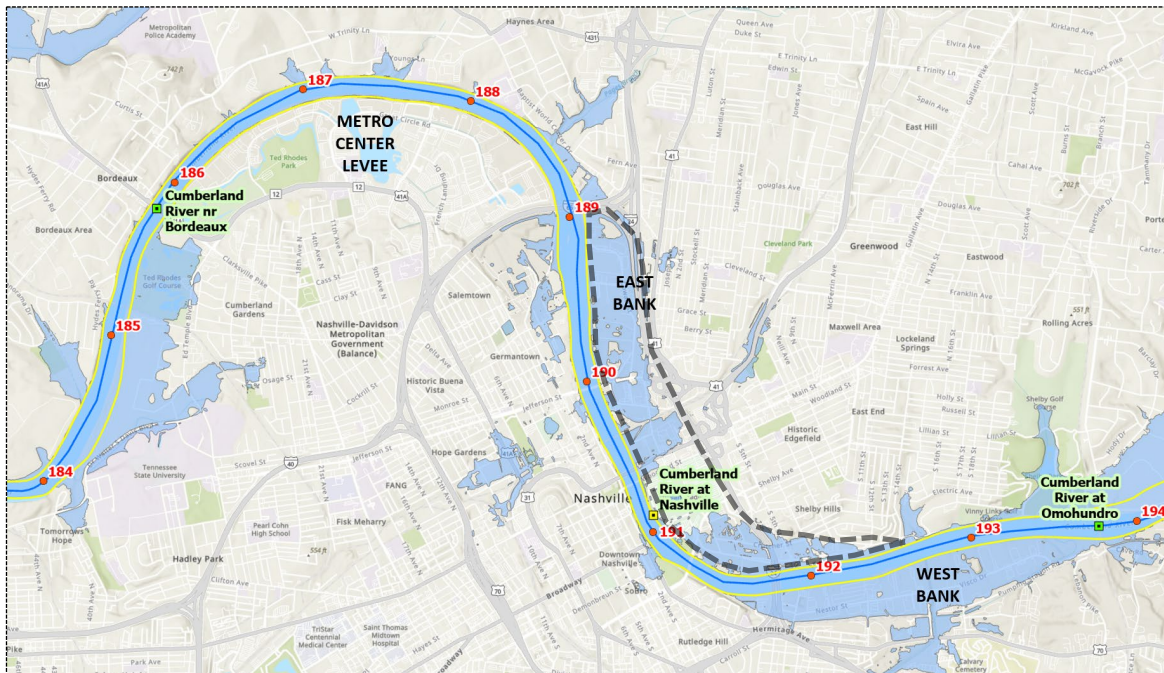




## USACE East Bank Hydraulic Analyses

- USACE 2021 and 2025 hydraulic analyses showed flow conveyance along the East Bank is very restricted due to existing fill material, buildings and major bridge crossings spanning the entire floodplain. The East Bank floodplain is shallow in comparison to more natural floodplain reaches like Shelby Bottoms (upstream) and Bells Bend (downstream) from Nashville.
  - Steady flow hydraulic model was not very sensitive to fill along the East Bank within flood fringe
  - East Bank carries 1% of 100-yr flow and 2% of 500-yr flow
  - Removal of East Bank flow conveyance (Right Overbank) resulted average increase in flood profiles:
    - $\leq 0.01$  ft. (0.1 in.) increase in 100-yr
    - $\leq 0.04$  ft. (0.5 in.) increase in 500-yr

**Note: 2025 analysis included only River North, Stadium Sites and Davidson St.**



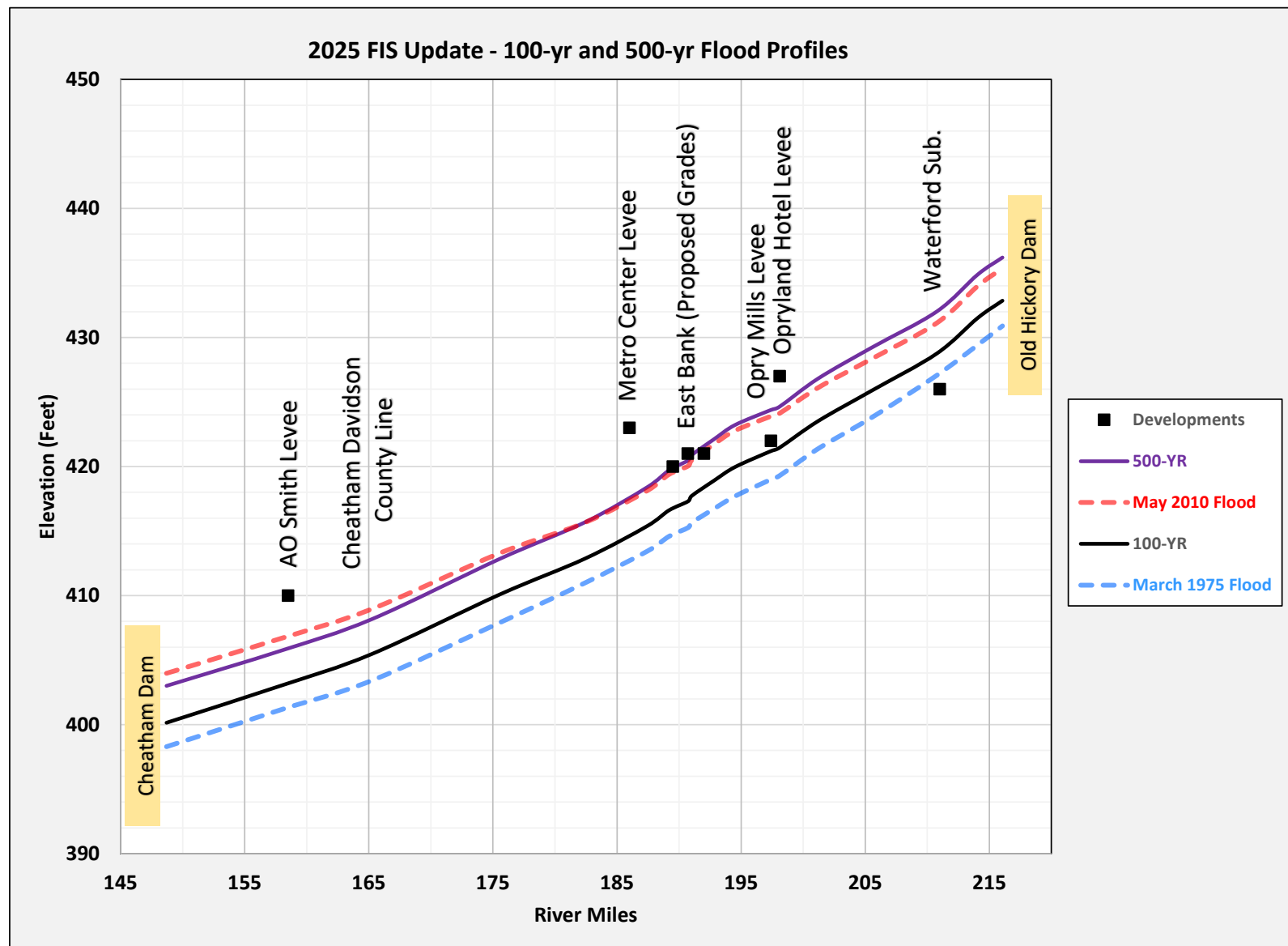
**May 2010 Flood  
(Proposed Road)**



**East Bank  
Development Extents**



## 2025 USACE East Bank Hydraulic Analysis Flood Profiles



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# Cumberland River Cheatham Reservoir FIS Update - Summary

## 100-yr Flow Frequency Discharges:

- Old Hickory Dam - 15% Reduction
- Nashville Gage - 10% Increase
- Cheatham Dam - 1% Reduction (basically no change)

## 100-yr Base Flood Elevations (BFEs):

- Average of 1.0 ft increase within Cheatham County
- Less than 2.0 ft increase from Cheatham/Davidson county line to Nashville (downtown).
- 2.0 ft - 2.5 ft increase through Nashville (downtown) to KR Harrington WWTP (Mouth of Stones River).
- Above KR Harrington WWTP, BFE decreases from 2.0 ft to zero near Waterford Subdivision.
- 1.0 ft reduction at Old Hickory Dam Tailwater.

## 100-yr Floodway Analysis

- No significant changes

## East Bank Hydraulic Analysis

- Cumberland River hydraulic model was not very sensitive to placement of fill within the 100-yr flood fringe (areas outside floodway).
- Does not include evaluation of internal stormwater drainage systems within the East Bank.



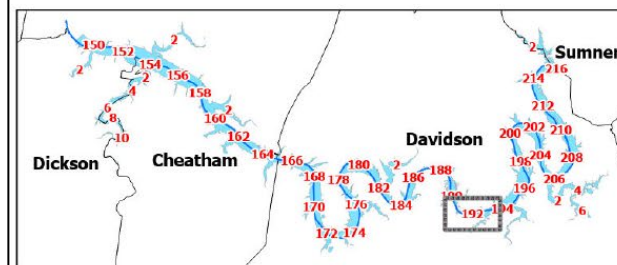
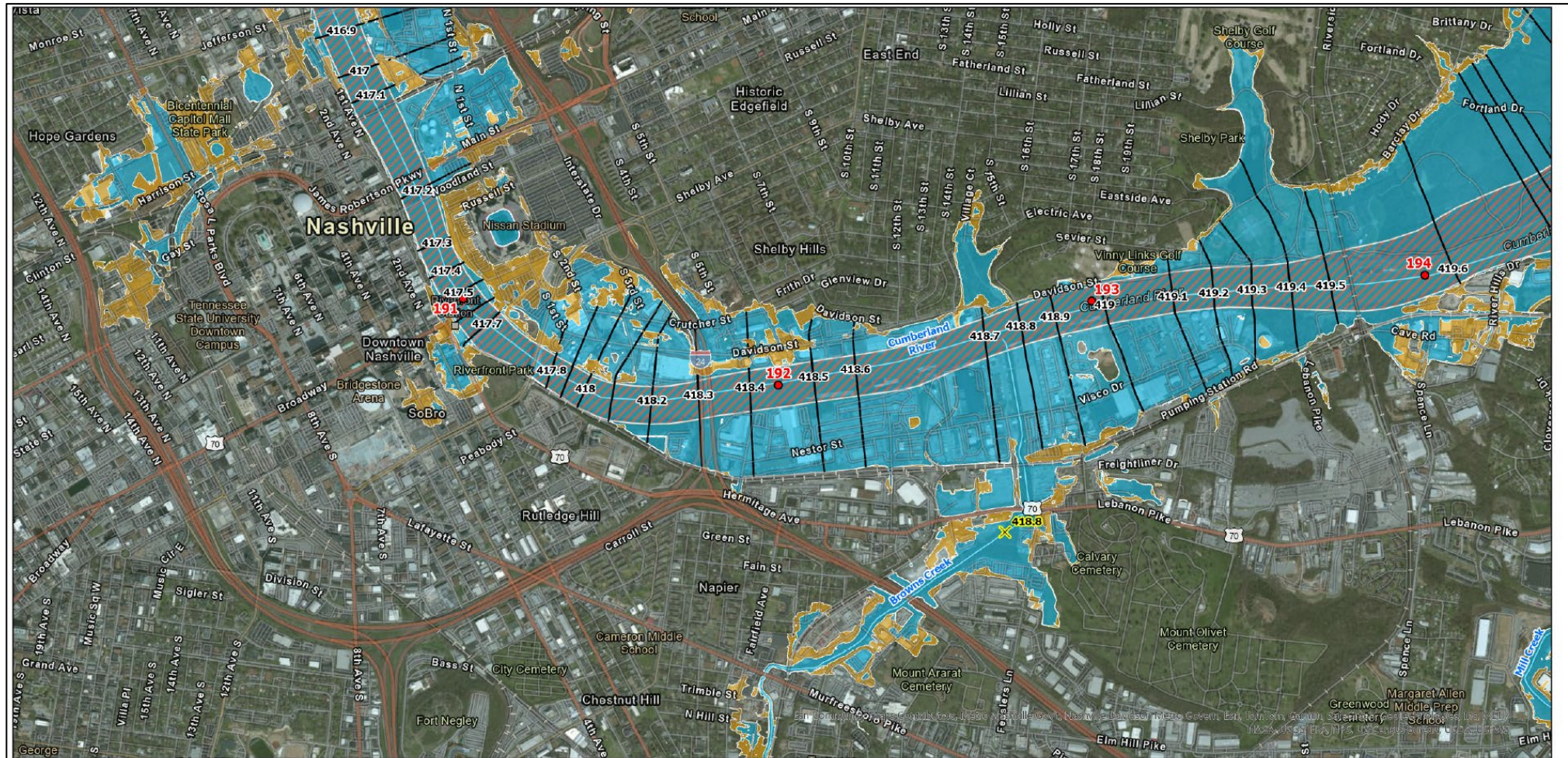
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# 2025 FIS Update Study – Inundation Mapping Product (0.1 ft BFE Contour Map)

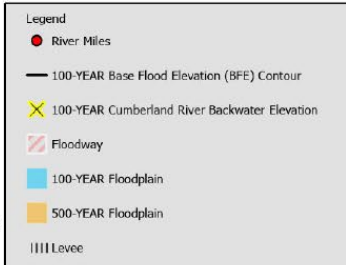
30



**See Comparison of  
FEMA Effective FIS &  
2025 USACE Study  
Base Flood Elevations**

0.5

Miles



**U.S. Army Corps of Engineers  
Nashville District**

**Cumberland River Cheatham Reservoir  
May 2025**

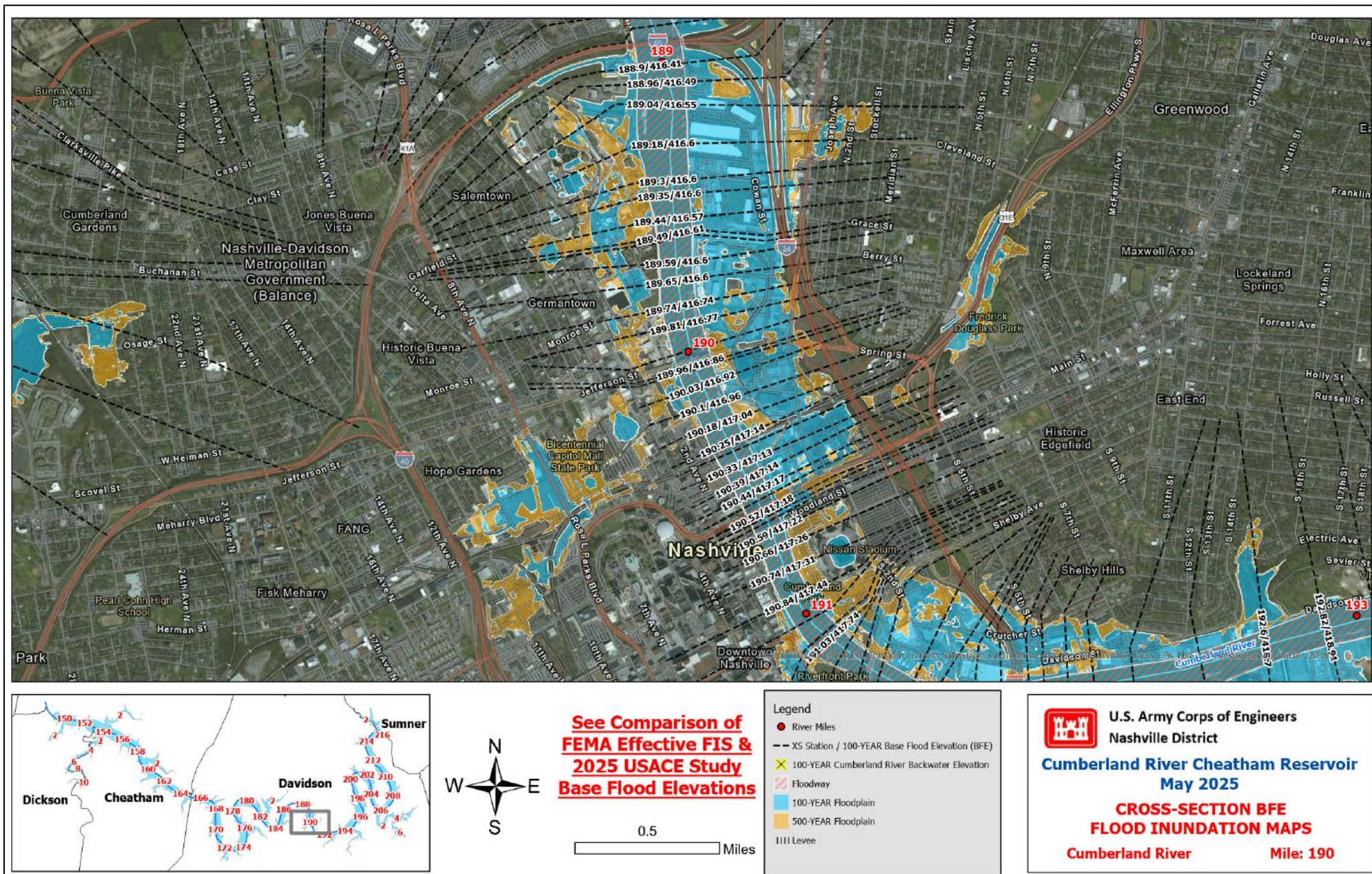
**BFE CONTOURS  
FLOOD INUNDATION MAPS  
Cumberland River      Mile: 192**





# 2025 FIS Update Study – Inundation Mapping Product (Cross-Section BFE Map)

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# USACE 2025 FIS Update – Water Surface Elevation Flood Profile Tables

**TABLE 2: Cumberland River Cheatham Reservoir - 100-Year Base Flood Elevation (BFE) Comparison  
2025 USACE Study vs. FEMA Effective Study (DAVIDSON COUNTY, TN)**

USACE (2025) Cross-Section River Station	County	Location	Effective FEMA Cross-Section Station	Effective FEMA Cross-Section Letter	Effective FEMA 100-YR WSEL (FT-NAVD88)	USACE (2025) 100-YR WSEL (FT-NAVD88)	WSEL Difference USACE vs. Effective (FT)
183.61	Davidson		949105	AO	411.7	413.2	1.5
184.08	Davidson		951662	AP	412.3	413.7	1.4
184.30	Davidson		952822	AQ	412.4	413.8	1.4
184.48	Davidson		953765	AR	412.4	413.9	1.5
184.94	Davidson		956159	AS	412.5	414.0	1.5
185.40	Davidson	Ted Rhodes Golf Course	958593	AT	412.7	414.2	1.5
185.87	Davidson	Clarksville Pike Bridge	960993	AU	412.8	414.4	1.6
186.11	Davidson		962275	AV	412.9	414.6	1.7
186.57	Davidson		964679	AW	413.1	414.8	1.7
187.01	Davidson		967006	AX	413.3	415.1	1.8
187.44	Davidson	Metro Center	969281	AY	413.7	415.4	1.7
187.70	Davidson		970779	AZ	413.7	415.4	1.7
188.08	Davidson		972695	BA	413.9	415.7	1.8
188.70	Davidson		976003	BB	414.3	416.2	1.9
188.76	Davidson		976448		414.4	416.3	1.9
188.90	Davidson	Interstate 65 Bridge	976861		414.5	416.4	1.9
188.96	Davidson		977367	BC	414.6	416.5	1.9
189.18	Davidson		978512		414.7	416.6	1.9
189.35	Davidson		979432		414.7	416.6	1.9
189.59	Davidson	River North Development	980619	BD	414.7	416.6	1.9
189.90	Davidson		982323		414.8	416.8	2.0
189.97	Davidson	Jefferson Street Bridge	982625		414.8	416.9	2.1
190.10	Davidson		983299	BE	415.0	417.0	2.0
190.28	Davidson		984219		415.1	417.2	2.1
190.48	Davidson	James Robertson Parkway Bridge	985287	BF	415.1	417.2	2.1
190.59	Davidson	Woodland Street Bridge	985886		415.1	417.2	2.1
190.74	Davidson	Tennessee Titans Stadium	986450		415.1	417.3	2.2
191.03	Davidson	Shelby Street Bridge (Pedestrian)	988146	BG	415.5	417.7	2.2
191.24	Davidson	Korean Veterans Boulevard Bridge	989227		415.5	417.8	2.3
191.46	Davidson		990483	BH	415.9	418.1	2.2
191.68	Davidson		991615		416.0	418.3	2.3
191.77	Davidson	Interstate 24 Bridge	992218		416.1	418.4	2.3
191.91	Davidson		992718	BI	416.1	418.4	2.3
192.37	Davidson		995026	BJ	416.3	418.6	2.3
192.82	Davidson		997722	BK	416.5	418.9	2.4
193.44	Davidson		1001027	BL	417.1	419.3	2.2
193.73	Davidson	Omohundro WTP	1002530	BM	417.3	419.6	2.3
194.51	Davidson	Mill Creek	1006699	BN	417.6	420.0	2.4
194.97	Davidson		1009150	BO	417.7	420.1	2.4
195.53	Davidson		1012129	BP	418.0	420.2	2.2
195.78	Davidson		1013413	BQ	418.0	420.3	2.3
196.39	Davidson	Shelby Bottoms	1016631	BR	418.2	420.6	2.4

TABLE 2: DAVIDSON COUNTY (Page 2)

**TABLE 3: USACE 2025 Study - Existing Conditions  
Cumberland River Cheatham Reservoir - Flood Frequency Water Surface Profiles**

Cross-Section River Station	2-YR WSEL (FT-NAVD88)	5-YR WSEL (FT-NAVD88)	10-YR WSEL (FT-NAVD88)	25-YR WSEL (FT-NAVD88)	50-YR WSEL (FT-NAVD88)	100-YR WSEL (FT-NAVD88)	200-YR WSEL (FT-NAVD88)	500-YR WSEL (FT-NAVD88)
188.08	404.63	408.55	410.72	412.86	414.29	415.68	417.02	418.69
188.44	404.86	408.81	410.99	413.16	414.61	416.02	417.41	419.11
188.70	405.03	408.99	411.18	413.36	414.81	416.23	417.58	419.28
188.76	405.08	409.05	411.24	413.43	414.89	416.32	417.67	419.38
188.90	405.16	409.13	411.33	413.52	414.99	416.41	417.77	419.49
188.96	405.21	409.18	411.38	413.59	415.06	416.49	417.85	419.57
189.04	405.25	409.23	411.44	413.64	415.12	416.55	417.91	419.64
189.18	405.29	409.27	411.48	413.69	415.17	416.60	417.97	419.70
189.30	405.30	409.28	411.48	413.69	415.16	416.60	417.97	419.70
189.35	405.31	409.29	411.49	413.70	415.17	416.60	417.97	419.70
189.44	405.30	409.27	411.47	413.67	415.14	416.57	417.94	419.67
189.49	405.34	409.31	411.51	413.71	415.18	416.61	417.96	419.69
189.51	405.32	409.28	411.48	413.68	415.14	416.57	417.92	419.65
189.59	405.35	409.31	411.51	413.70	415.17	416.60	417.96	419.69
189.65	405.36	409.32	411.52	413.71	415.18	416.60	417.96	419.69
189.74	405.45	409.42	411.62	413.83	415.31	416.74	418.12	419.85
189.81	405.47	409.45	411.65	413.86	415.34	416.77	418.15	419.88
189.90	405.50	409.48	411.68	413.90	415.37	416.81	418.18	419.91
189.96	405.55	409.53	411.73	413.95	415.43	416.86	418.23	419.96
189.97	405.55	409.53	411.73	413.95	415.43	416.87	418.23	419.96
190.03	405.60	409.58	411.79	414.01	415.49	416.92	418.30	420.04
190.10	405.65	409.62	411.83	414.04	415.53	416.96	418.32	420.05
190.18	405.71	409.69	411.89	414.12	415.60	417.04	418.41	420.13
190.25	405.77	409.76	411.97	414.20	415.69	417.14	418.50	420.24
190.28	405.79	409.78	412.00	414.23	415.72	417.17	418.54	420.28
190.33	405.77	409.76	411.97	414.20	415.69	417.13	418.50	420.23
190.39	405.78	409.77	411.98	414.21	415.70	417.14	418.51	420.24
190.44	405.81	409.80	412.00	414.23	415.73	417.17	418.54	420.28
190.48	405.81	409.79	412.00	414.23	415.72	417.17	418.53	420.27
190.52	405.83	409.81	412.02	414.25	415.74	417.18	418.54	420.28
190.54	405.83	409.82	412.03	414.26	415.75	417.19	418.55	420.29
190.56	405.85	409.84	412.05	414.28	415.78	417.22	418.59	420.33
190.59	405.86	409.84	412.05	414.28	415.78	417.22	418.58	420.31
190.66	405.89	409.88	412.09	414.32	415.82	417.26	418.63	420.36
190.74	405.93	409.92	412.13	414.37	415.87	417.31	418.68	420.41
190.84	406.03	410.03	412.24	414.49	415.99	417.44	418.81	420.55
190.93	406.11	410.12	412.34	414.60	416.11	417.56	418.94	420.68
191.00	406.20	410.21	412.44	414.70	416.22	417.68	419.06	420.82
191.03	406.24	410.26	412.49	414.75	416.27	417.74	419.12	420.87
191.09	406.25	410.26	412.48	414.75	416.27	417.73	419.11	420.86
191.16	406.26	410.27	412.49	414.75	416.27	417.72	419.11	420.86

TABLE 3: Cheatham Reservoir EXISTING CONDITIONS (Page 4)



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## Cumberland River Cheatham Reservoir FIS Update - Schedule

This work is performed for Metro Nashville utilizing the USACE Planning Assistance to States (PAS) Program. The Nashville Flood Preparedness (NFP) initiatives are a 50%/50% cost sharing “partnership” between USACE Nashville District and Metro.

**Task 1. Perform Flow Frequency Analysis - September 2024**

**Task 2. Develop Hydraulic Models - January 2025**

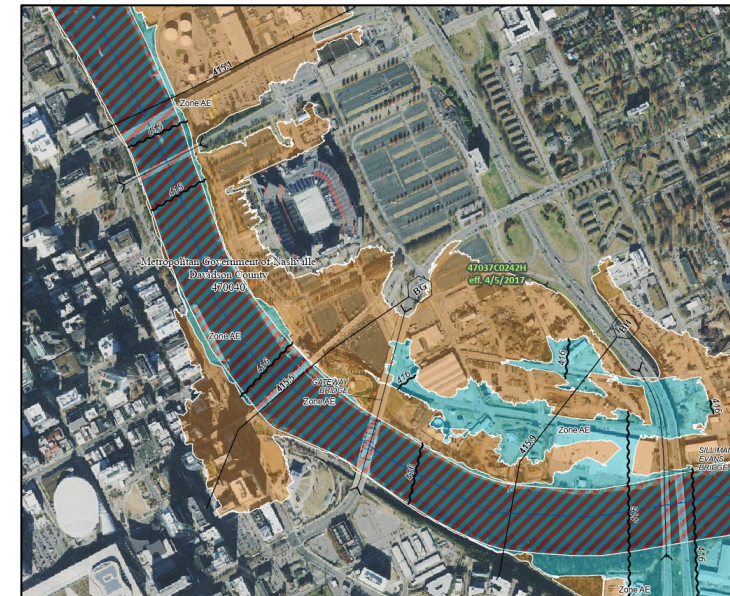
**Task 3. East Bank Hydraulic Analysis - February 2025**

**Task 4. Develop Final Products – June/July 2025**

**Task 5. Submit Final Products – August 2025**

- **To Metro and Share with FEMA**

- Data, models and results are provided to FEMA for use in their efforts to update floodplain mapping. Consequently, the information conveyed is not yet effective under the guidelines of the National Flood Insurance Program (NFIP) but may be used at Metro’s discretion to augment regulatory data in circumstances where the new information is more conservative than the effective Flood Insurance Study.



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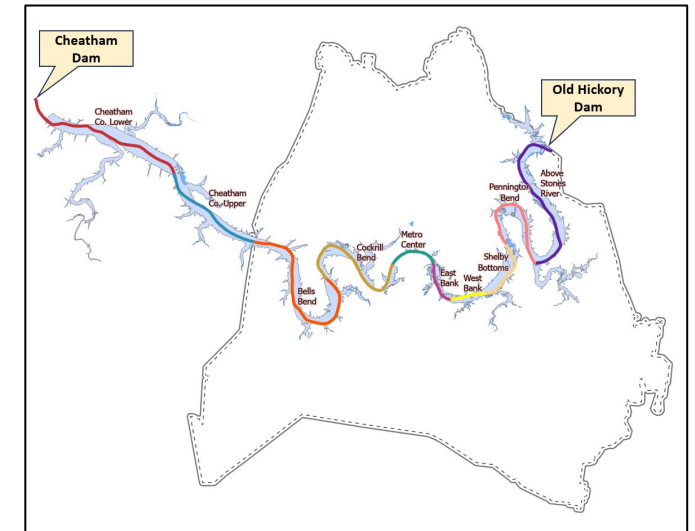


## Future Work – Nashville Flood Preparedness Phase 8

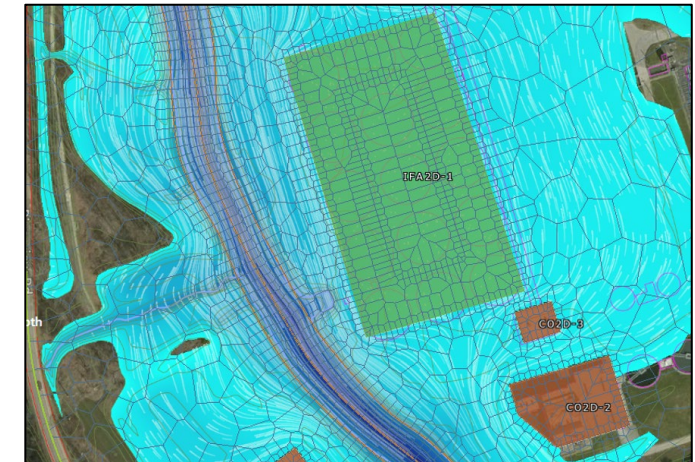
### Expanding Flood Modeling to Better Protect Nashville

This phase of work builds on the current efforts by expanding flood risk analysis in key areas. It includes:

- **Floodplain Storage Analysis:** A detailed 1-dimensional (1-D) unsteady flow analysis will examine how floodwaters from a 100-year storm event move across the entire Cheatham Reservoir floodplain, providing critical insights into how water behaves during major flood events and where natural storage can help reduce risk.
- **2-D Hydraulic Modeling:** Development of a more advanced 2-dimensional (2-D) 100-year hydraulic model through downtown Nashville. The 2-D model will provide a more accurate representation of floodplain flow through downtown and within the overbanks.



Floodplain Storage Analysis



2-D Hydraulic Model



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# QUESTIONS?



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# **EAST BANK**

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## **AGENDA ITEM VII CEO REPORT**





# CEO REPORT DISCUSSION



- CEO Report was emailed to the Board Members prior to the meeting
- Includes:
  - Description of the Transfer of Contracts from Metro to EBDA
  - Staffing and Policies Update
  - Legal Representation Memo
  - HDR Quarterly Report – Q1 2025
  - Fallon Company Statement of Progress