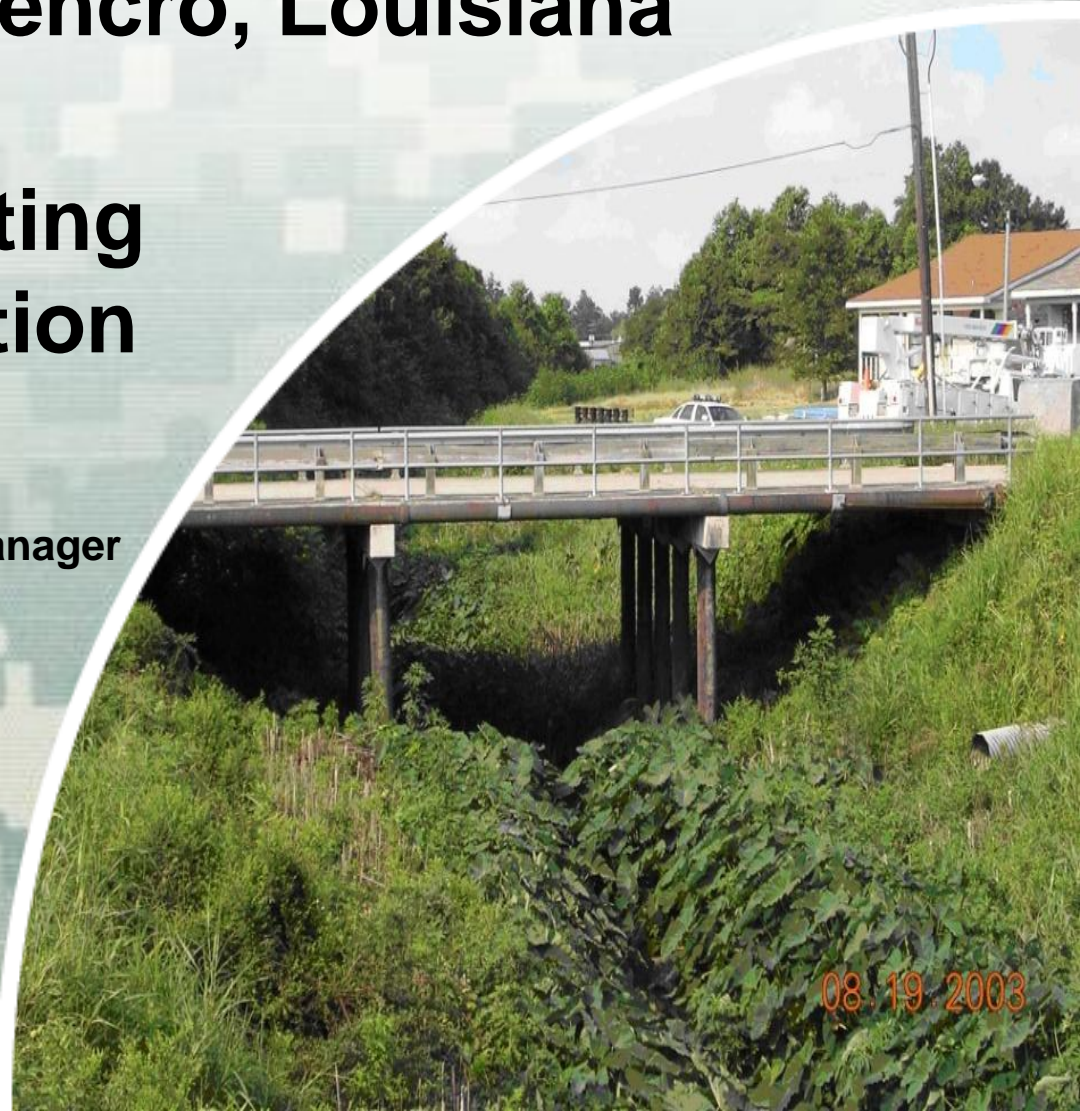


Continuing Authorities Program, Section 205 Feasibility Study City of Carencro, Louisiana

City Council Meeting Project Presentation

April 16, 2012

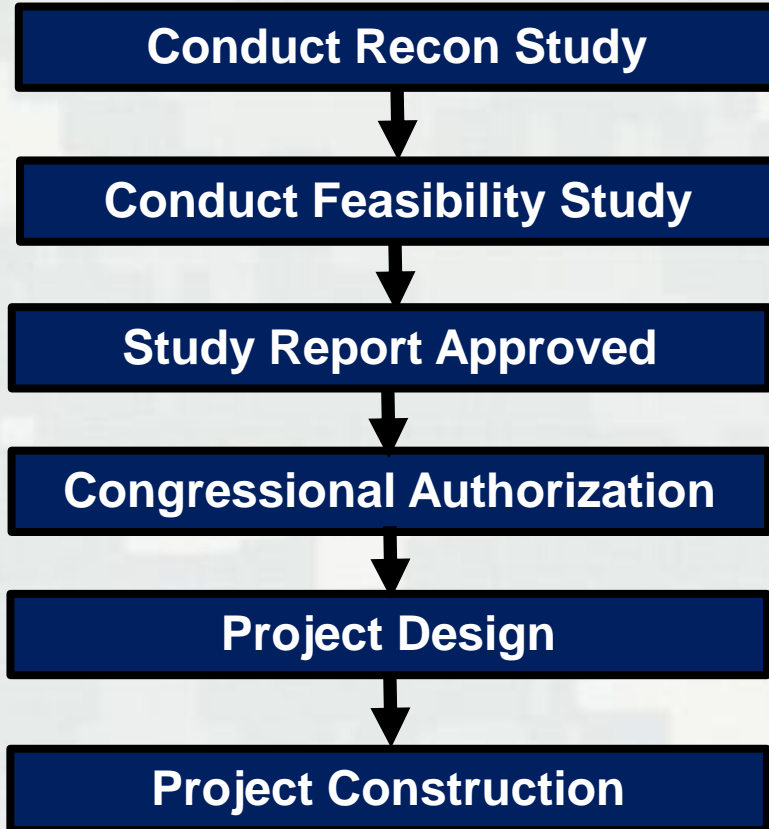
Presenter: Durund Elzey, Sr. Project Manager



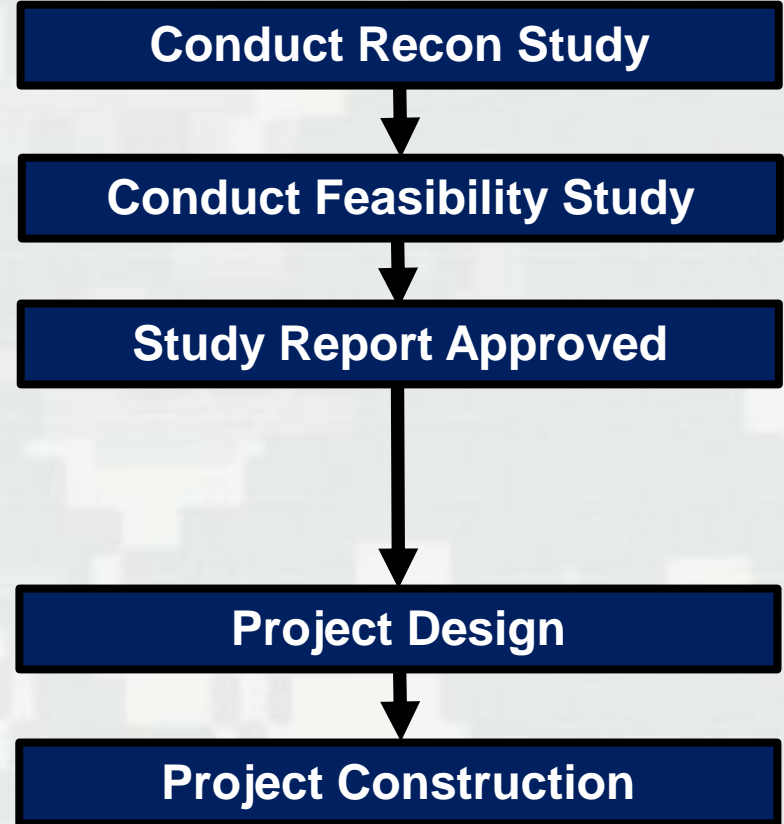
08.19.2003

Civil Works Program

Traditional Civil Works Process



Continuing Authority Program (CAP) Process



Continuing Authorities Program (CAP)

Authority

- Section 205 authorizes the Corps to study, design, and construct small flood risk management projects in cooperation with a local sponsor

Project Sponsor

- City of Carencro



City of Carencro CAP 205

- Primary goal is to reduce risk from flooding in Beau Bassin Coulee



Beau Bassin Coulee



Flood Risk Reduction Measures

- Structural measures
 - **Enlarging** the coulee
 - **Lining** the coulee with concrete or gabion
 - **Storing** flood waters in a retention or detention basin
 - **Clearing, grubbing, and dressing (CG&D)** to remove accumulated debris and smooth coulee surface
 - **Diverting** water away from Carencro
- Nonstructural Measures
 - **Acquisition or relocation** of high risk structures
 - **Elevation** of high risk structures



Screening of Alternatives

➤ Initial Array of Alternatives

- Initially 11 structural alternatives; screened to 3
- Initially 6 non-structural alternatives; screened to 1

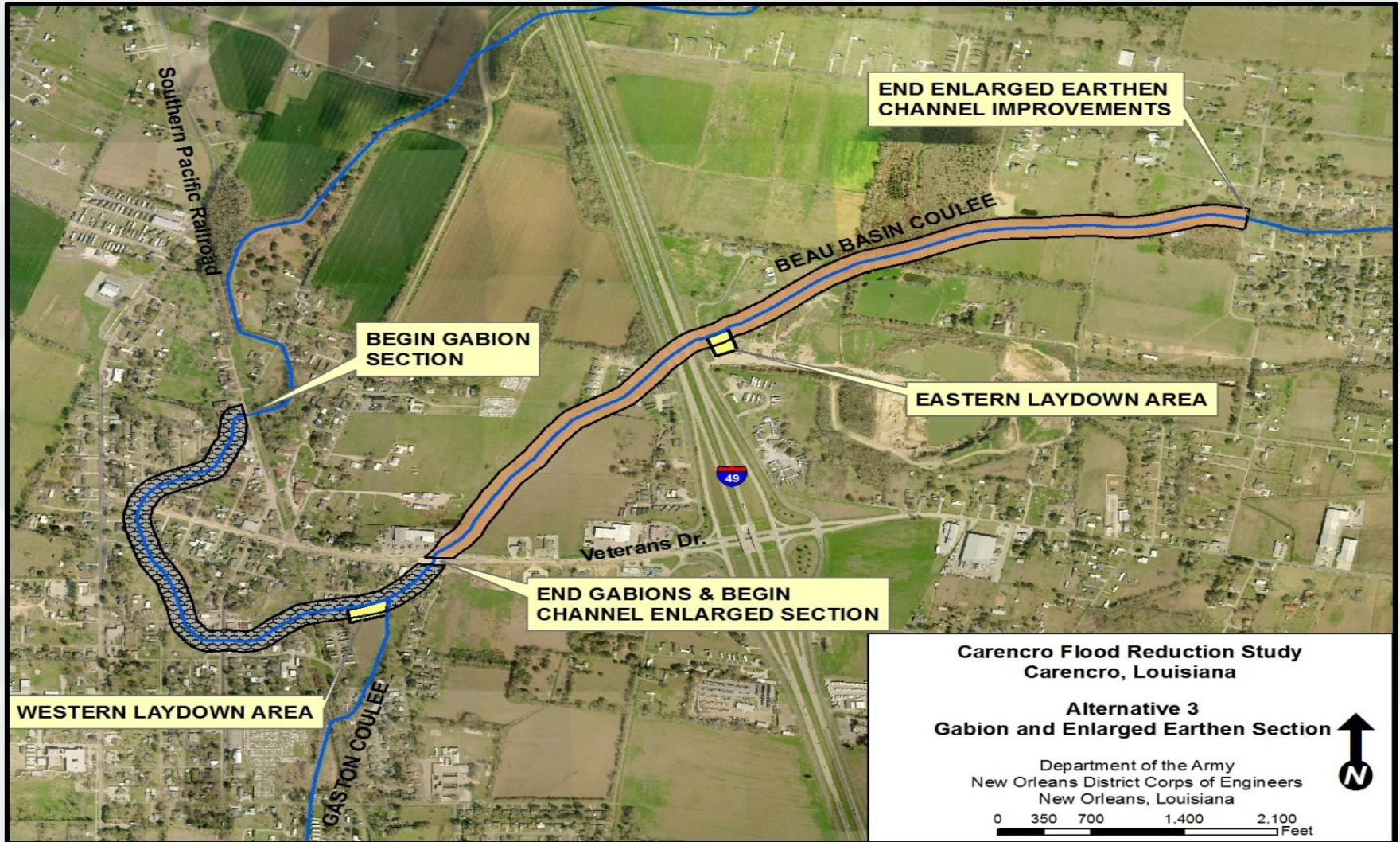
➤ Final Array of Alternatives

- Alternative 3: Gabion and Enlarged Earthen Section
- Alternative 7: Retention Storage in Central Carencro with Channel Clearing
- Alternative 8: Retention Storage in Central Carencro with Channel Clearing and Enlarged Earthen Channel
- Non-structural Alternative: Elevate structures at the 4% chance flood event



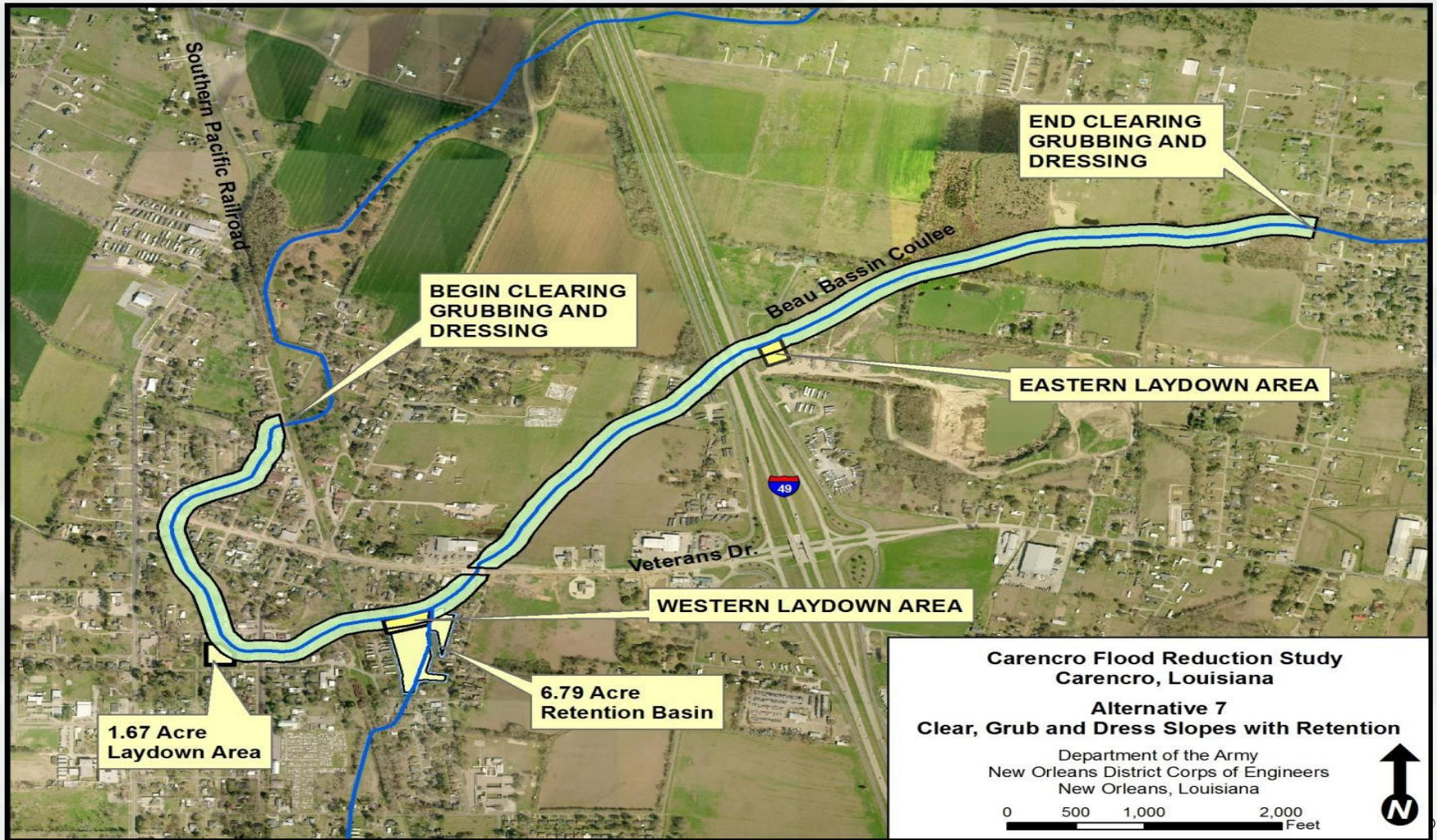
Final Array – Structural Alternatives

Alternative 3: Combined Gabion and Enlarged Earthen Section



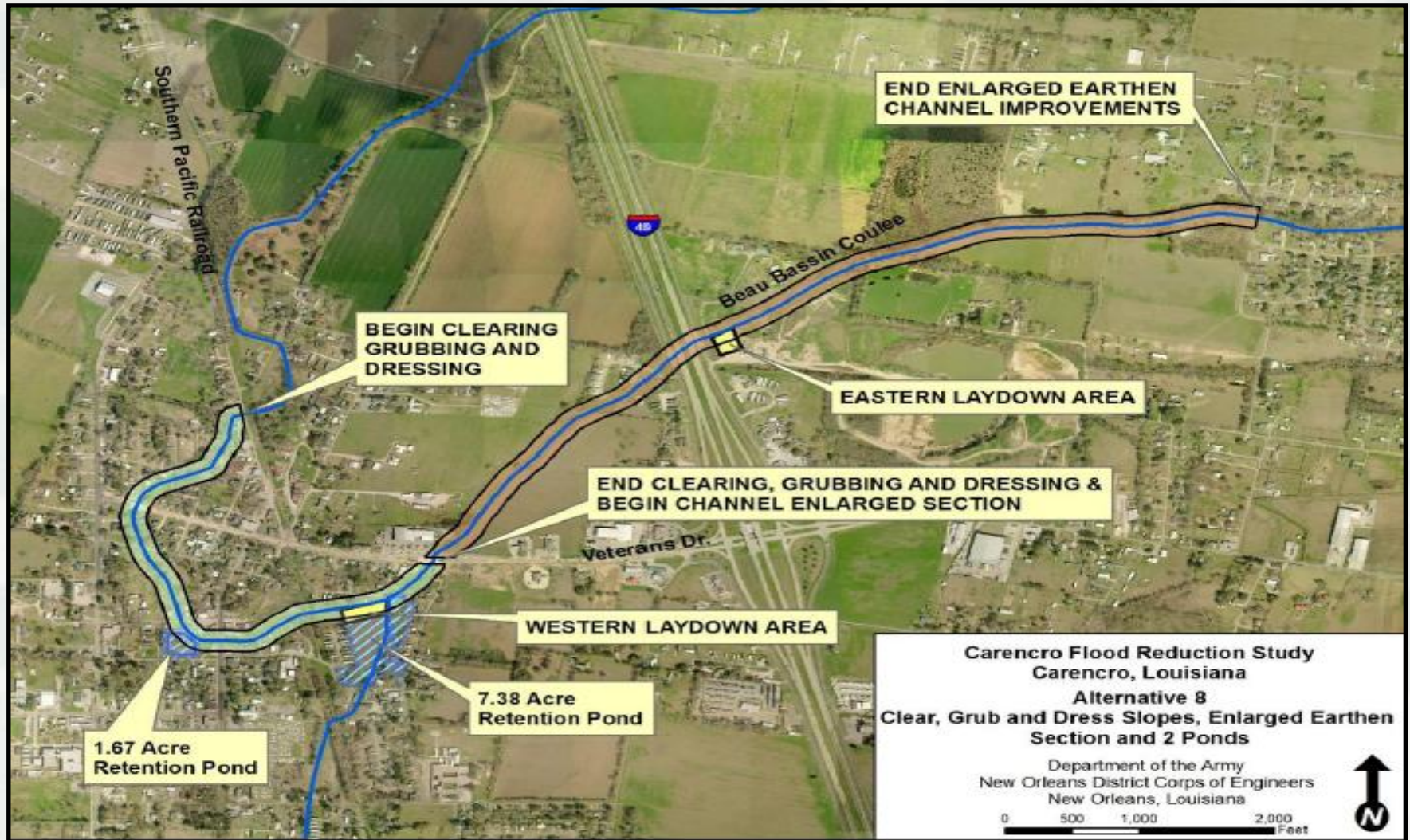
Final Array – Structural Alternatives

Alternative 7: Retention Storage in Central Carencro with Channel Clearing



Final Array – Structural Alternatives

Alternative 8: Retention Storage in Central Carencro with Channel Clearing & Enlarged Earthen Channel



Final Array – Non-structural Alternative

Elevate Structures



Evaluation of Alternatives – Risk Reduction

Chance-Flood Event	W/O Project	Alternative 3	Alternative 7	Alternative 8	Nonstructural
“2-year”	4	0	0	0	0
“5-year”	30	0	1	0	0
“10-year”	40	1	1	1	10
“25-year”	50	4	8	5	20
“50-year”	81	22	31	20	51
“100-year”	112	37	45	33	82
“250-year”	143	69	78	55	113
“500-year”	154	81	92	77	132

Number of Structures Inundated above First Floor Elevation (FFE)

BUILDING STRONG®

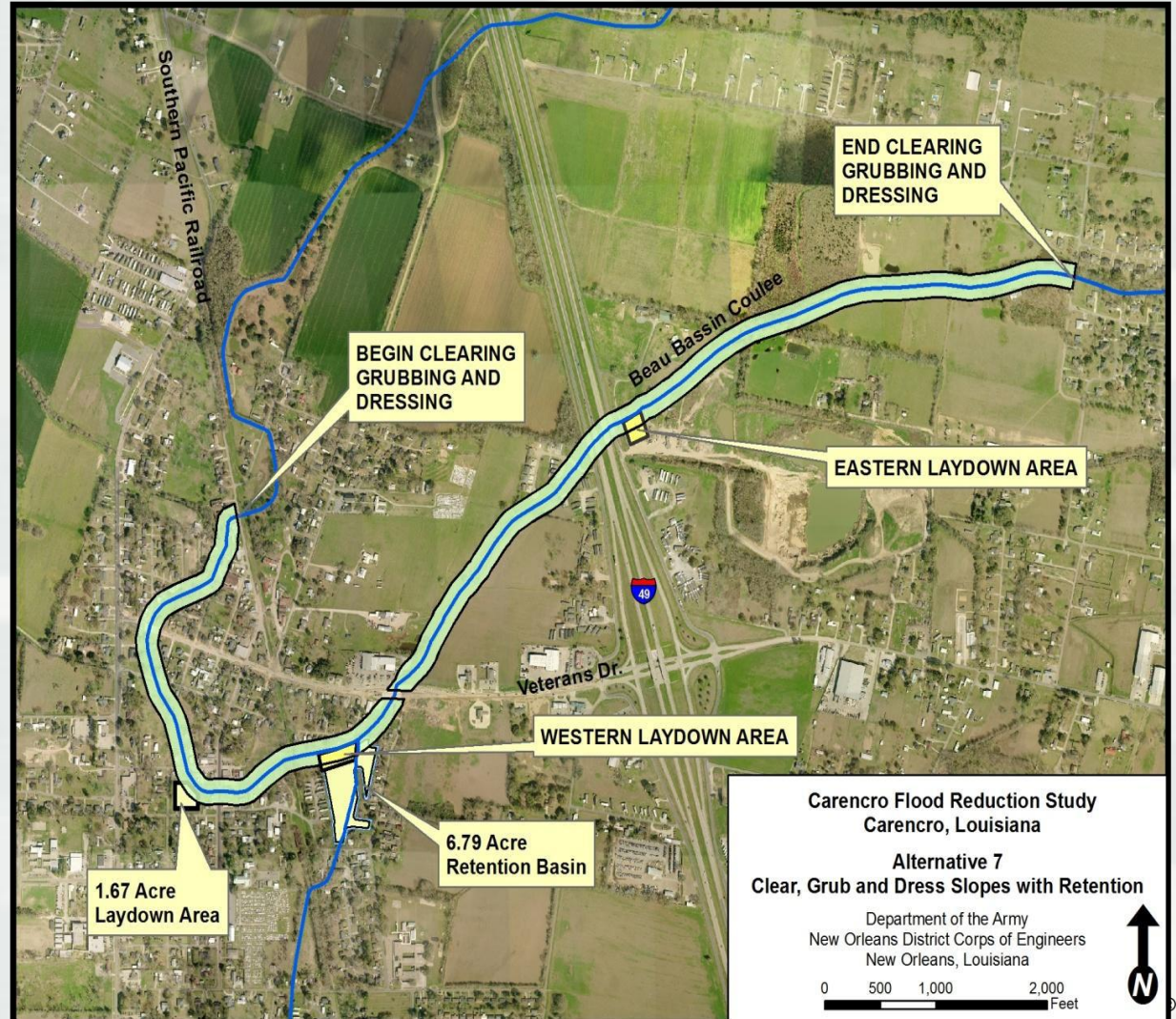
Evaluation of Alternatives – Economic Benefit/Cost Analysis

Alternative	Annual Costs	Annual Benefits	Net Benefits	BCR
Alternative 3	\$440,200	\$676,700	\$236,500	1.5
Alterative 7	\$265,800	\$636,000	\$370,200	2.4
Alternative 8	\$357,000	\$687,400	\$330,400	1.9
Nonstructural	\$191,600	\$277,700	\$86,100	1.4

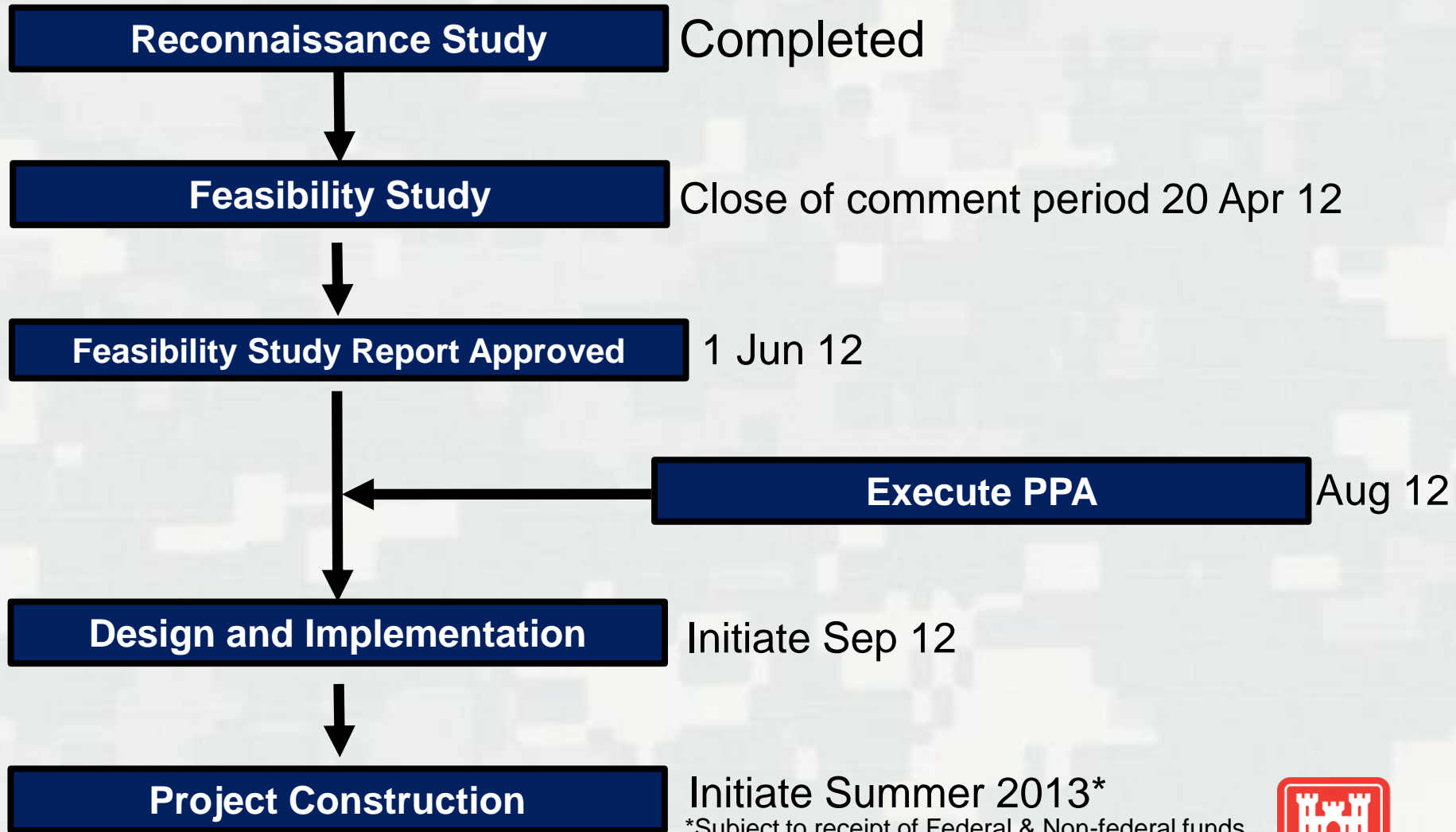
Tentatively Selected Plan

Alternative 7: Retention Storage in Central Carencro with Channel Clearing

- Provides the greatest net NED benefits
- Would cause the least disruption to the environment



Path Forward



Questions & Discussion



Backup Materials



08.19.2003

Chronology

- 2001 – Completed Reconnaissance
- 2003 – Executed FCSA with City of Carencro
- 2007 – Completed initial engineering studies
- 2008 – Completed HTRW and cultural resources surveys
- 2008 – City requests additional alternatives
- 2010 – Completed initial analysis of expanded alternatives; selected final array
- 2011 – Updated HTRW and cultural resource surveys; completed feasibility analysis and identified tentatively selected plan; completed quality control reviews.
- 2012 – Engineering analysis complete; draft report issued for public review./comment



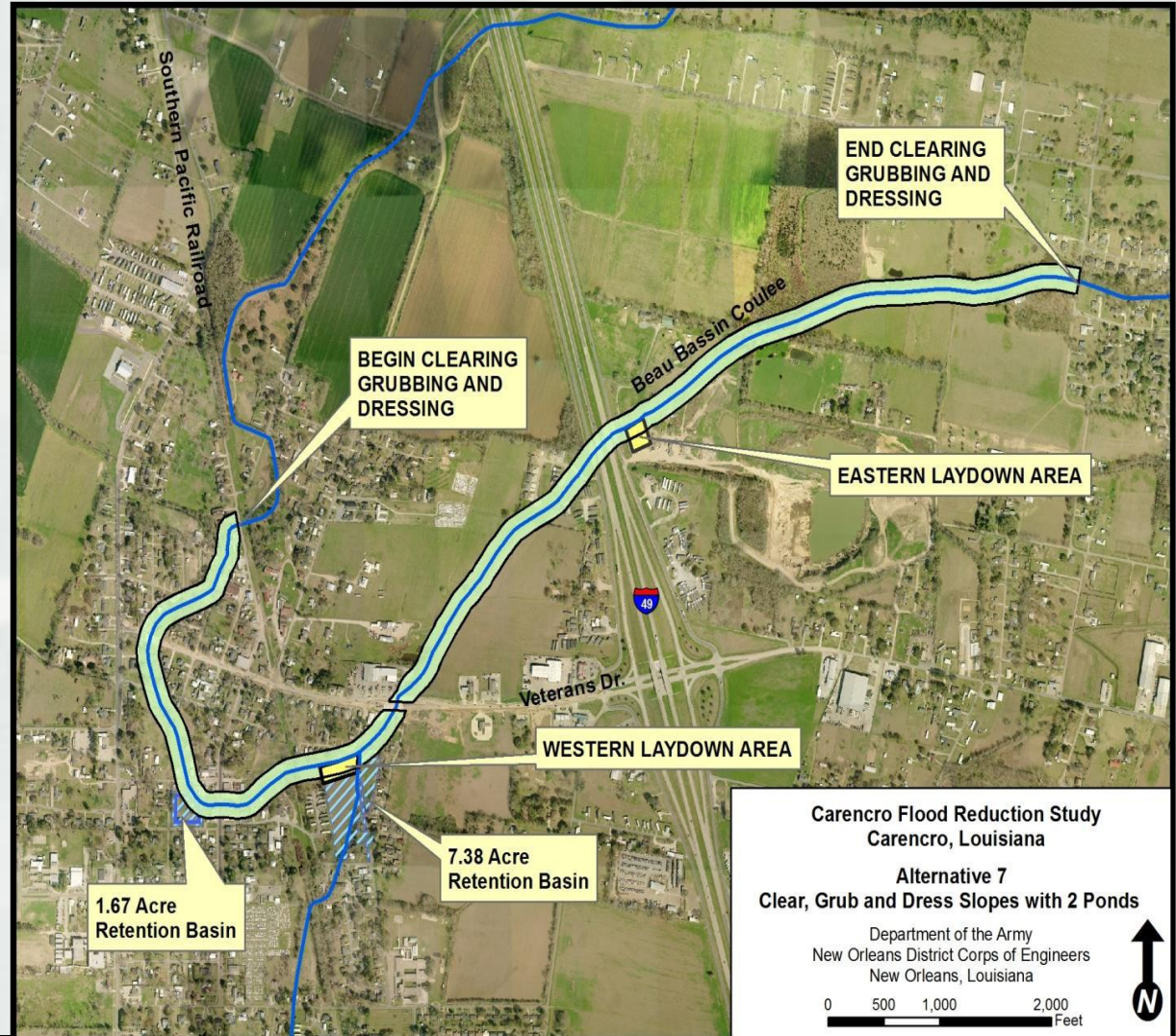
Geotechnical Sampling



Tentatively Selected Plan (pre-Optimization)

Alternative 7: Retention Storage in Central Carencro with Channel Clearing

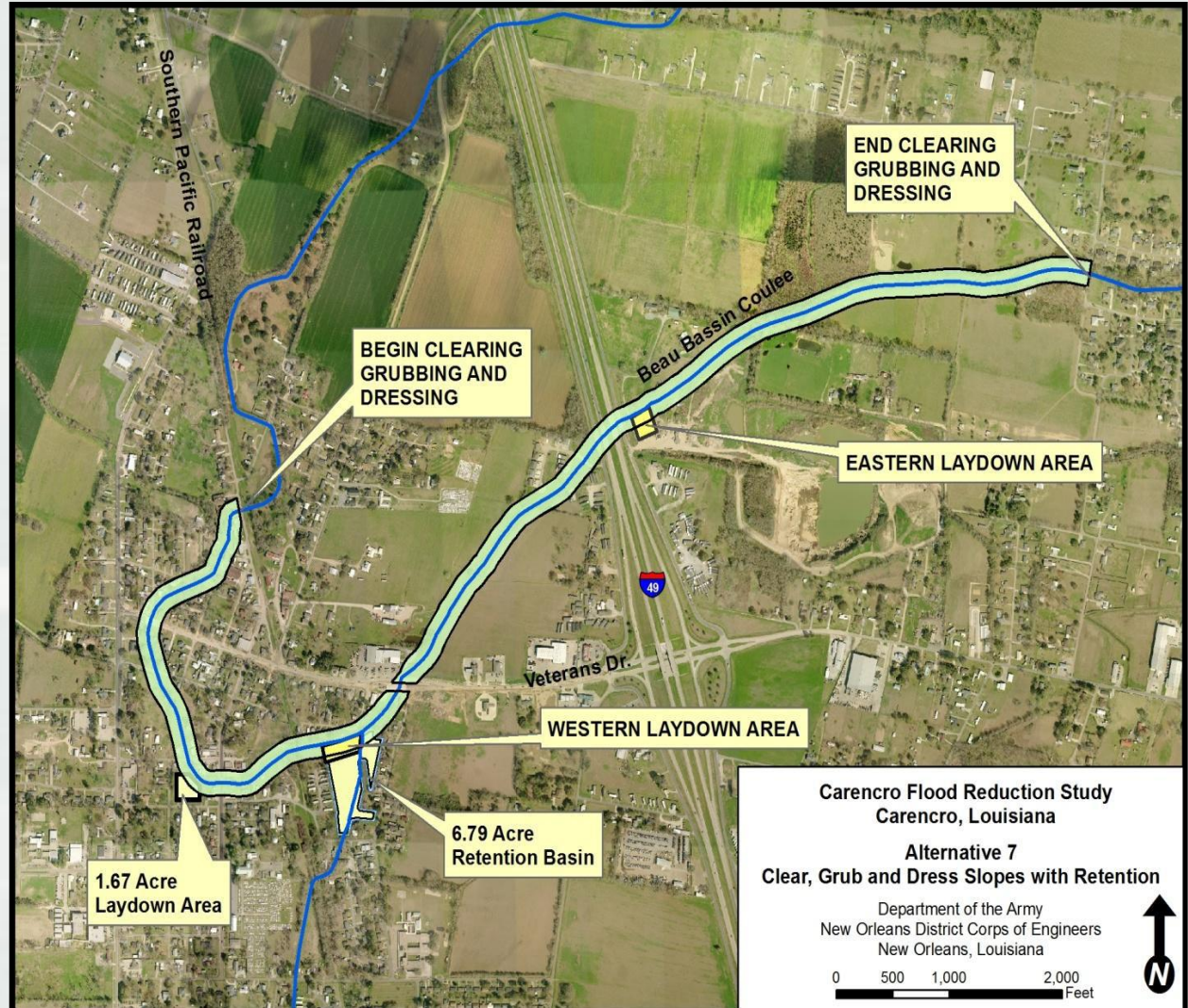
- Provides the greatest net NED benefits
- Would cause the least disruption to the environment



Tentatively Selected Plan

Alternative 7: Retention Storage in Central Carencro with Channel Clearing

- 1.67-acre site no longer used for retention
- Adjusted size and shape of remaining retention basin
- Evaluated flow control options at retention basin (none needed)



Path Forward

- **Complete Feasibility Study**
 - Complete public review period (20 Apr 12)
 - Address public comments/finalize report
 - Report Approval (1 Jun 12)
- **Execute Project Participation Agreement**
 - Matching funds available
 - Cooperative Endeavour Agreement with Parish
- **Project Design & Implementation**
 - Federal funds are currently available for design (\$300K)
 - Coordination construction activities with Parish

