

## Presentation Overview

- Motivation for and Initiation of Study
- Onion Study Scope of Work
  - Floodplain Study
  - Flood Mitigation Alternatives
- Previous Studies
- Additional Evaluations
- Project Status and Schedule

## Project Initiation

- 2013 Halloween Flood and high priority problem area
- Council Resolution 20140515-028 called for funding of flood mitigation study
- Study funded by WPD DUF – No additional funding requested
- Phase I - Survey of high water marks and finished floor elevations
  - Complete (Notice to Proceed issued 12/23/2014)
- Phase II – Floodplain study and flood mitigation alternatives analysis
  - Ongoing (Notice to Proceed issued 4/24/2015)

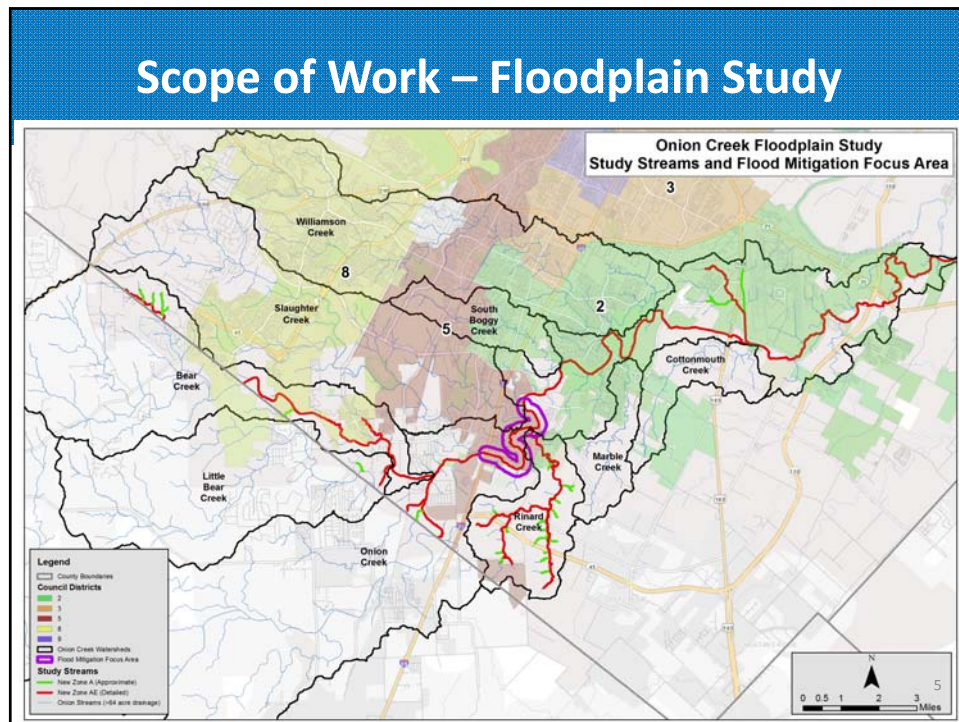
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## Scope of Work – Floodplain Study

- Updated Hydrology – Lower Onion and Rinard Creek
- Updated Hydraulics and Floodplain Mapping
  - Onion Creek Main Stem and Tributaries (34.0 miles)
  - Bear Creek and Tributaries (11.7 miles)
  - Little Bear Creek and Tributaries (1.0 miles)
  - Rinard Creek and Tributaries (15.7 miles)
- 11 FEMA FIRM Panels to be Updated
- Updated Regulatory Floodplains

*FEMA = Federal Emergency Management Agency; FIRM = Flood Insurance Rate Map*

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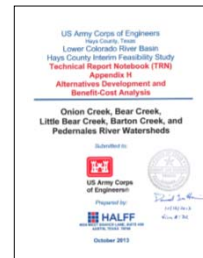
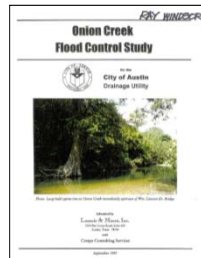


### Scope of Work Flood Hazard Mitigation

- Focus on Mitigation for Onion Creek between IH-35 and East Slaughter Lane
- Consider Broad Range of Potential Options
  - Regional Detention
  - Channel Modifications
  - Floodwalls / Levees
  - Limited Buyouts for Structural Solutions
  - General Buyouts
- The most feasible alternative is likely to include a combination of two or more of these elements.

## Previous Studies

- Study will build on previous work and include fresh options and analysis in light of recent floods.
- Previous Studies with Mitigation Evaluations
  - 1997 Onion Creek Flood Control Study
  - 2006 USACE Onion Creek Interim Feasibility Study
  - 2011 USACE Hays County Interim Feasibility Study



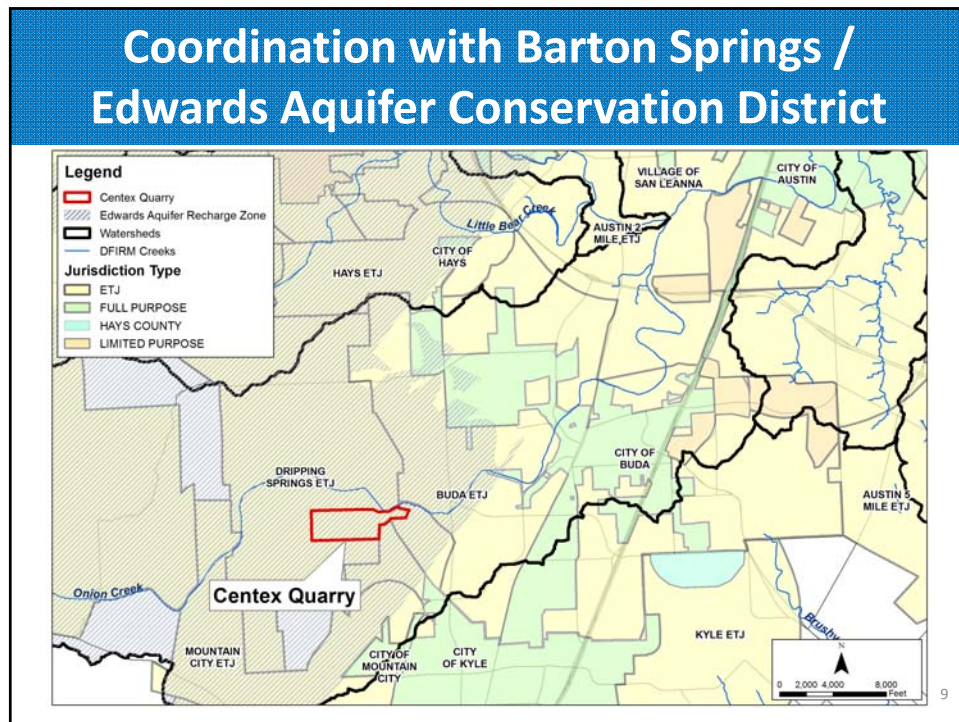
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## Coordination with Barton Springs / Edwards Aquifer Conservation District

- BSEACD grant application for recharge enhancement project
  - Plan to investigate diverting water into the Centex Quarry
- WPD met with Dr. Bob Larson (BSEACD Board) and John Dupnik (BSEACD General Manager) on November 11, 2015
  - Discussed COA support of the BSEACD grant application
  - Discussed cooperation on analysis of detention potential

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## Current Status

- Field survey complete
  - Hydraulic structures and cross sections
  - Finished floor elevations
  - High water marks
- Hydrology update in final review
- Draft hydraulic models reviewed and final models in preparation
- Feasibility-level flood mitigation alternatives analysis in progress
  - Initial focus on regional detention options
  - Other options as floodplain models are refined

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## Project Schedule

- **Feasibility Level Evaluation** Feb 2016
- Floodplain Model and Mapping Jun 2016
- **Preliminary Engineering Evaluation** Sep 2016
- Letter of Map Revision submittal Sep 2016
  - anticipated FEMA approval date Sep 2017
- PMR (new FEMA Maps) Uncertain

*PMR = Physical Map Revision (production of new FEMA FIRM panels)*

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## Contact Information

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### Flood Mitigation Task Force:

<https://www.austintexas.gov/fmtf> Main Webpage

<https://floodmitigationtaskforce.bloomfire.com/> Additional Resources Webpage

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