



MEMORANDUM

TO: Mayor and Council

FROM: Joseph G. Pantalion, P.E., Director
Watershed Protection Department

DATE: December 1, 2015

**SUBJECT: Onion Creek Floodplain and Flood Mitigation Study
Status and Updated Schedule**

In response to the 2013 Halloween flood on Onion Creek, the City Council passed Resolution 20140515-028 directing the City Manager to, among other items, provide a report to Council regarding the staff, programmatic, and budgetary needs necessary to study feasible flood mitigation options within the Onion Creek floodplain outside the William Cannon Drive and Pleasant Valley Road area; and to bring for Council consideration as part of the fiscal year 2014-15 budget process the funding identified in the report.

As part of the fiscal year 2014-15 budget, the Watershed Protection Department (WPD) identified funding for the Onion Creek study. The study is separated into two phases. WPD provided our consultant with the notice to proceed with Phase 1 of the study in October 2014 and with Phase 2 in April 2015.

Phase 1 includes field surveys of home elevations and high water marks from the 2013 Halloween flood. This information is used to support the active buyout project in the Lower Onion Creek area in addition to providing data to calibrate the engineering models. Phase 2 includes the floodplain modeling and mapping of Onion Creek, Bear Creek, Little Bear Creek, Rinard Creek, and several small tributaries to create new regulatory floodplain maps for the City of Austin in addition to floodplain maps for FEMA flood insurance purposes. Phase 2 also includes the evaluation and recommendation of flood mitigation alternatives for the portion of Onion Creek between IH-35 and East Slaughter Lane. Among the options to be evaluated will be regional detention in the upper watershed, channel and floodplain modifications, flood walls and/or levees, and home buyouts.

We have included a copy of the current project schedule that shows the anticipated timeframe for the study tasks and deliverables. The original Phase 2 schedule called for the analysis of flood mitigation alternatives to be completed in late Fall 2016. We have coordinated with our consultant to revise the schedule in order to provide a high level feasibility analysis of the flood mitigation alternatives as soon as possible. *The consultants have responded to us that they will provide a memorandum summarizing the feasibility analysis, including cost estimates, by the end of February 2016 (see revised schedule on page 2).* A more detailed evaluation of the

alternatives along with refinement of the estimated construction and maintenance costs will be completed by September 2016.

If you have any questions about the Onion Creek study, please contact Kevin Shunk, P.E., at 512-974-9176 or Kevin.Shunk@austintexas.gov.

CC: Marc A. Ott, City Manager
Sue Edwards, Assistant City Manager

Revised Onion Creek Study Project Schedule – Phase 2

TASK NAME	Start	Finish
NOTICE TO PROCEED	Apr-15	
Task 1: Project Management	Apr-15	Sep-16
Task 2: Data Search, Collection and Surveys	May-15	Jan-16
<i>Survey Completion</i>	Jun-15	Sep-15
<i>Documentation</i>	Nov-15	Jan-16
Task 3: Update of Hydrologic Model	Jun-15	May-16
<i>Model Development</i>	Jun-15	Mar-16
<i>Existing Condition Onion Creek Model (Upstream of Rinard)</i>	Jun-15	Dec-15
<i>Existing Condition Models (Onion and others)</i>	Jan-16	Mar-16
<i>Fully Developed Condition Model</i>	Dec-15	Mar-16
<i>Sensitivity Analysis (Land Use Impacts)</i>	Mar-16	Apr-16
<i>Documentation</i>	Mar-16	May-16
Task 4: Development of Hydraulic Models	Jun-15	Jun-16
<i>Model Development</i>	Jun-15	Mar-16
<i>Existing Condition Model (Onion Creek upstream of Rinard)</i>	Jun-15	Jan-16
<i>Existing Condition Models (Onion and others)</i>	Jun-15	Apr-16
<i>Fully Developed Condition Models</i>	Dec-15	Mar-16
<i>Documentation</i>	Mar-16	Jun-16
Task 5: Floodplain Mapping and Profiling	Mar-16	Jun-16
Task 6: Flood Mitigation Analyses (I-35 to East Slaughter Lane)	Dec-15	Sep-16
<i>Feasibility Level Evaluation</i>	<i>Dec-15</i>	<i>Feb-16</i>
<i>Hydrologic Alternatives (Detention)</i>	<i>Dec-15</i>	<i>Feb-16</i>
<i>Hydraulic Alternatives (Channel Modifications, Flood Walls, etc.)</i>	<i>Jan-16</i>	<i>Feb-16</i>
<i>Preliminary Engineering Evaluation</i>	Mar-16	Sep-16
Task 7: Letter of Map Revision*	Jun-16	Sep-16
Task 8: Quality Assurance and Quality Control Procedures	Apr-15	Sep-16

*Letter of Map Revision will be submitted to FEMA in September 2016. The coordination time required with FEMA may vary.