



## Zoning and Platting Commission CodeNEXT Recommendations

*Watershed-related Questions and Data Requests in October 30<sup>th</sup>, 2017 Draft #2 Recommendation*

*November 29, 2017*

Questions regarding the Flood Mitigation Task Force (FMTF) Report:

- Which regulatory recommendations identified in the report are addressed in CodeNEXT?
- What feedback did the consultants provide for each regulatory recommendation in the FMTF Report?
- How is each recommendation addressed in CodeNEXT?
- If any recommendation was not addressed in CodeNEXT, what is the rationale?

*The [FMTF Final Report](#) contains recommendations on a wide array of subjects concerning mitigation strategies, funding, maintenance, education, and many other important topics; the attached summary table discusses the status of FMTF recommendations related to the Land Development Code.*

General Questions:

- Numerous individuals and groups have raised flooding concerns. How have those individual concerns been addressed? How is the comment process demonstrating the community's concerns are being heard and addressed?

*Staff shares the community's concerns about citywide flooding. The current CodeNEXT draft includes provisions beyond what the current code requires to help address flooding concerns. The most significant of these items is the flood risk reduction requirement for commercial and multifamily redevelopment projects.*

*Additional recommendations will be included in Draft 3 regarding measures designed to minimize house-to-house drainage problems during the Building Permit phase of residential construction.*

*The FMTF Final Report also recommended a forum for citizen concerns be created, and the Environmental Commission has stepped forward as such a forum (per another FMTF recommendation that the Environmental Commission play a larger role). The Commission requested and received Council approval to create a standing Drainage Infrastructure and Flood Mitigation (DIFM) committee which considers drainage topics and which includes several FMTF former members as ex-officio participants. Meetings have included presentations and discussions on CodeNEXT drainage and flooding proposals, and have included citizen comment and discussion.*

- Additionally, it must be noted that the Environmental Commission is not making a recommendation on the second draft due to not having enough information. What additional information is needed? How quickly can that information be provided?

The Environmental Commission noted the following gaps in their November 1, 2017 Resolution:

- The Environmental Commissioners have not had relevant and essential draft code language, and the analysis associated with the proposed language.

*Draft 2 was provided on September 15, 2017. The comparison of existing impervious cover versus proposed impervious cover entitlements was presented at the Environmental Commission Drainage subcommittee meeting on October 16 and posted to the Council Q&A message board on October 20. Results of the creek and localized flood modeling analysis related to the Draft 2 flood risk reduction requirement and residential infill is scheduled to be presented to the Environmental Commission on December 6, 2017.*

- The drainage impact analysis requirements for “missing middle” housing was presented to an Environmental Commission sub-committee for the first time only 1 week ago, in conceptual form, without any specific draft code language; in other words, these proposed requirements are not even part of draft 2 of the code.

*Extensive staff coordination has been necessary to develop a staff recommendation that provides review of essential elements while minimizing design, construction, and permitting costs to the applicant. The proposed requirements for the residential heavy process are anticipated for Draft 3. DSD and PAZ will be presenting these requirements as part of the December 20 Missing Middle PC/ZAP meeting, and the Environmental Commission will be updated following that date. The drainage impact of these housing types is captured in the Single-Family Residential modeling analysis, which will be presented to the Environmental Commission on December 6, 2017.*

- The Environmental Commission still has not received all the modeling and analyses that it deems necessary to evaluate the drainage and other impacts resulting from the proposed code changes, including a comparison of existing impervious cover (as it exists on the ground now) versus proposed impervious cover entitlements under CodeNEXT and localized drainage and flooding impacts.

*The drainage modeling was complex and has taken more time than originally anticipated. We know that this was a high priority for Commissions, Council, and the public, and we regret the delay. The creek and localized flood modeling analysis related to the Draft 2 flood risk reduction requirement and residential infill will be presented to the Environmental Commission on December 6, 2017. The comparison of existing impervious cover versus proposed impervious cover entitlements was presented at the Environmental Commission Drainage subcommittee meeting on October 16<sup>th</sup> and posted to the Council Q&A message board on October 20. Staff’s revised, final report on Draft 2 impervious cover entitlements is complete and will be available prior to the combined PC/ZAP meeting on December 4<sup>th</sup> and the Environmental Commission meeting on December 6.*

#### Data Requests:

- Data on all the locations of localized flooding throughout the city.

*The most complete source of citywide localized flood information comes from what we refer to as the localized flood complaint database. This includes the drainage-related complaint calls that staff receives from the community regarding building, yard, and street flooding. Per the Watershed Protection Master Plan protocol, staff verifies and groups complaint calls into local flood problem areas. These areas are indicated on the Watershed Protection Master Plan Problem Score Viewer and summarized by watershed*

in the Watershed Protection Master Plan (pg. 88), which are both available on the city's website (<http://austin.maps.arcgis.com/apps/MapJournal/index.html?appid=d45481abb0804c95a8e6b033188982b9>, <http://www.austintexas.gov/departments/watershed-protection-master-plan>).

Staff superimposed the local flood problem areas data on maps showing maximum entitlements for impervious cover between current code and Draft 2 CodeNEXT proposed zoning. This information was posted to the Council CodeNEXT Q&A website on October 20 and shared with PC/ZAP on November 16. The information shows most localized flood problem areas to have no increased impervious cover entitlements; in the small number of cases where increases are proposed, WPD has already proposed capital improvement program (CIP) projects to improved drainage.

Meanwhile, staff is currently in the process of creating engineering models for the drainage system citywide. These models help us validate the complaint data and prioritize project areas instead of relying solely on the complaint database.

- A list of all buyout locations; and identified buyout locations including money secured for buyouts, buyout status pending and properties identified but no money available to proceed with the buyouts.

The Watershed Protection Department currently has five buyout project areas. These include: Lower Onion Creek; Upper Onion Creek Recovery Buyouts; Middle Williamson Creek; February Drive; and Charing Cross. Staff has a recommended flood risk reduction project to expand the Upper Onion Creek project area. The Watershed Protection Department has recommended using existing funding to initiate phase 1 of this project. City Council must approve the use of the existing funding for this project, which we anticipate taking the item for City Council consideration in early 2018. The available funding is not enough to complete the project. The table below summarizes each project and provides its status as of November 17, 2017.

Project Area		Buyout Status		Financial Status ^	
		# Properties Acquired to Date	# Properties in Project Area	Current Project Cost Estimate	Expenditures to Date
Lower Onion	Army Corps Project Area	483	483	\$73.2M	\$66.3M
	25-Year Project Area	133	137	\$33.1M	\$28.3M
	100-Year Project Area	192	203	\$53.7M	\$44.3M
Middle Williamson		48	66	\$25M	\$18.0M
Upper Onion	Recovery Buyouts	3	10	\$5M	\$2.1M
Walnut - February Dr		3	5	\$1.9M	\$728k
Bull - Charing Cross (LFHM)		3	5	\$1.8M	\$1.1M

^ FEMA grant funding is reflected in the appropriations and expenditures where appropriate (\$7.8M for Lower Onion - Army Corps Area and \$1M for Lower Onion - 100-year Area)

#### Zoning and Platting Recommendations:

- "The Zoning and Planning Commission [sic] recommends that the City of Austin implement a regional storm water management system for the remaining watersheds that don't have a Regional Storm Management Program (RSMP). We would also like the RSMP to be the subject of a third party evaluation per the flood mitigation task force recommendation." (pg. 6)

*WPD agrees with these recommendations. The Regional Stormwater Management Program is available citywide—the Drainage Criteria Manual will be updated to clarify that all watersheds are eligible for RSMP. WPD staff has contracted with a consultant to evaluate appropriate RSMP fees consistent with construction costs and benchmark program with other cities. In addition, the consultant will make recommendations on potential improvements to the administration of the RSMP. This evaluation is expected to be completed by July 2018.*

- “The Zoning and Platting Commission recommends that properly credentialed engineers review subjects that they are licensed in, including site plans for three to nine residential units.” (pg. 6)

*WPD staff agrees with this recommendation. Floodplain review for site plans, subdivisions, and building permits is currently completed by properly credentialed engineering staff. Drainage review for site plans and subdivisions is currently completed by engineering staff as well. WPD is working with Development Services to propose a requirement for a simplified drainage analysis by a licensed professional engineer for 3 – 6 unit development on residential lots to address lot-to-lot drainage issues while minimizing design, construction, and permitting costs to the applicant. The Planning Commission and ZAP are scheduled to be briefed on this proposal on Dec. 20, 2017, and it will be included in CodeNEXT Draft 3.*

- “Neighborhoods identified in the report from the Mayor’s Task Force on Institutional Racism should not be upzoned and compatibility protections should be restored for properties with current single-family zoning. The Save Our Springs (SOS) ordinance passed in 1992 in the city to protect environmentally sensitive parts of Austin from overdevelopment. An unintended consequence is that the ordinance encouraged overdevelopment into east Austin. The Zoning served and Platting commission recommends that CodeNext provide enhanced environmental protections in central and east Austin to treat different areas of the city equitably and to avoid the negative consequences of impervious cover and overdevelopment in all areas of the city.” (pg. 9)

*Austin lies along the boundary of two ecological regions: the Edwards Plateau (“Hill Country”) to the west and the Blackland Prairie to the east. The distinctive terrains and soils of these two regions pose unique challenges for the protection of creeks and floodplains. The Edwards Plateau features steep slopes, rugged canyons, and the caves and springs of the Edwards Aquifer; thin soils and rapid transmission of water mean stormwater receives very little filtration, which risks contamination of surface and groundwater. In addition, these western watersheds drain to the City’s principle sources of drinking water. In contrast, the Blackland Prairie features broad, alluvial floodplains as well as deep but erosive clay soils and creek banks. Given these fundamental physical differences, watershed regulations for the eastern and western watersheds have been tailored to best fit the unique and substantially different conditions of each region.*

*The City of Austin has responded to this challenge of developing and steadily improving its watershed protections. It was an early national leader in flood and water quality regulations. The 1974 Waterway Ordinance, 1980 Barton Creek Ordinance, 1986 Comprehensive Watersheds Ordinance, and 1992 Save Our Springs Ordinance were just a few efforts to direct development patterns in ways that prevent environmental harm and expense. However, the focus of these historic ordinances was on the western watersheds, such as in the Barton Springs Zone and around Lake Austin, without recognizing then that the eastern watersheds would also need a higher level of protection. Their fragile clay soils, expansive floodplains, and long history of farming and other land alteration pose different challenges that the Comprehensive Watershed Ordinance did not adequately address.*

*One of the core objectives of the 2013 Watershed Protection Ordinance was to provide better protection for the unique environmental resources in the eastern watersheds and provide similar levels of protection across the City as a whole. The ordinance extended creek buffers—setbacks to ensure that development is not built too close to waterways—to over 400 miles of “headwaters” streams. The ordinance also focused not only on preserving environmental resources but also on restoring the health and function of creeks and floodplains to regain lost ecosystem and cultural services. Together, these key changes will help foster the recovery and reforestation of degraded waterways, which will in turn better protect streams, rivers, and lakes downstream—preserving water quality for the citizens of Austin.*

*CodeNEXT proposes to carry forward the important strides made by the Watershed Protection Ordinance and its predecessors, hold the line on additional impervious cover entitlements, and build upon this foundation with new measures to enhance environmental function and resiliency to most gracefully accommodate its growing community.*

**Flood Mitigation Task Force (FMTF) Recommendations:**  
**Summary of Recommendations related to Land Development Code**

<b>Recommendation</b>	<b>Staff Response / Comment</b>	<b>Status</b>	<b>FMTF Report Subsec.*</b>
1. 3rd party evaluation of Regional Stormwater Management Program (RSMP) for effectiveness and accountability.	WPD continues to improve the way RSMP is administered.	WPD staff contracted a 3rd party consultant to evaluate appropriate RSMP fees consistent with construction costs and benchmark program with other cities. In addition, the consultant will make recommendations on potential improvements to the administration of the RSMP. This evaluation is expected to be completed by July 2018.	ES.13   1.A.9.   4.8.
2. Floodplain Variance policy: supportive of current approach with several suggestions.	WPD appreciates the support of our approach and is considering the suggested changes (e.g., provide public notification for properties & communities near proposed FP Variance requests).	WPD staff exploring implementation of potential improvements, e.g., Require public notice for Council floodplain variances.	ES.11   1.B.1.   thru   1.B.3.b.   1.E.5.a.   1.E.5.b.
3. Work with city, state, and county authorities to continue to restrain development in 100-year floodplains.	Austin's 100-year floodplain regulations implemented in 1983 have been very successful in preventing development in the floodplain. Austin regulates floodplains at a higher level than the FEMA minimum standards, contributing to our Community Rating System rating (which makes flood insurance more affordable for Austinites).	The City of Austin and Travis County have established a single-office review process for development within the City's ETJ and we are working to improve our coordination with Travis, Williamson, and Hays Counties. Staff do not believe there is a need for any change in CodeNEXT.	ES.10

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Recommendation	Staff Response / Comment	Status	FMTF Report Subsec.*
<p>4. WPD should comprehensively plan every 5 years to coordinate land use, transportation, utilities, and drainage to set maximum impervious cover and on-site detention requirements in flood-prone areas.</p>	<p>Current Land Development Code requires new Site Plan &amp; Subdivision developments to provide flood mitigation to a no adverse impact standard and coordinates transportation and utility infrastructure. Increases in impervious cover require mitigation via on-site controls, off-site improvements, or participation in the RSMP program. The Imagine Austin Comprehensive Plan also acknowledges the need to protect floodplains in Centers &amp; Corridors.</p>	<p>WPD and PAZ staff worked with Opticos to ensure that CodeNEXT proposes no net increases in impervious cover entitlements on a watershed basis.</p>	<p>1.F.1.   1.F.1.a.   1.F.1.b.   1.F.1.c.   1.A.14.</p>

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Recommendation	Staff Response / Comment	Status	FMTF Report Subsec.*
<p>5. Where flood problems severe, do not issue permits for new/re-/infill/ADU development until the flood problems are mitigated or certain conditions met.</p>	<p>Texas State Law strictly limits the use of moratoriums such that this recommendation is not possible. WPD is working to correct existing problems via capital improvement and operating program projects. Current code prohibits adverse flooding impacts to other properties and requires flood mitigation for increases in impervious cover for new Site Plan and Subdivision development.</p>	<p>Current code requires that new development not create adverse flooding conditions for Site Plan and Subdivision projects. CodeNEXT proposes to increase these requirements to include redevelopment projects. Drainage is not currently reviewed for single-family residential projects at the individual Building Permit level. City staff have examined possible solutions for single-family projects to address lot-to-lot drainage issues while minimizing impacts to staffing needs, affordability, and permitting complexity. We recommend that these projects be required to obtain an engineer's review and certification that any drainage changes will not negatively impact adjacent properties; this would not require a full determination of no adverse impact.</p>	<p>ES.10   1.F.1.e.   1.F.1.e.i.   1.F.1.e.ii.   1.F.1.e.iii.</p>



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<b>Recommendation</b>	<b>Staff Response / Comment</b>	<b>Status</b>	<b>FMTF Report Subsec.*</b>
6. Support for WPD recommendation in CodeNEXT for flood mitigation for redevelopment (must mitigate assuming greenfield conditions); enforce existing code.	WPD strongly supports that redevelopment provide flood mitigation per CodeNEXT.	WPD staff are modeling the potential benefits of this approach and will have results to share with the community in December 2017. Staff recommends that the flood mitigation based on undeveloped conditions requirement for redevelopment be applied to commercial/multifamily properties only.	ES.7   1.F.2.   1.F.2.a.   1.F.2.b.   1.F.2.d.   1.F.2.f.   1.F.2.g.
7. Do not wait for CodeNEXT to implement regulatory recommendations.	City staff understands the dilemma of whether to package new flood regulatory protections with the larger CodeNEXT effort or move forward before that multi-year process. Ultimately, it is the Council's decision in consultation with the community.	WPD staff informed the CodeNEXT Advisory Group and Council of this request. Council also were given the message directly by Task Force members. At present, these proposals are included as part of CodeNEXT and expected to be considered for approval by Council in spring 2018.	ES.15

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<b>Recommendation</b>	<b>Staff Response / Comment</b>	<b>Status</b>	<b>FMTF Report Subsec.*</b>
8. Strengthen floodplain code with either a larger than 100-year flood or additional freeboard requirement.	WPD agrees that this is an important question with increasing storm intensity / extreme weather. Most flood risks are in areas that originally developed prior to floodplain regulations.	The Corps of Engineers and other partners are in the process of updating rainfall recurrence data for the State of Texas. The resulting Atlas 14 publication should be completed in 2019. WPD staff will consider updating the Drainage Criteria Manual with this updated information. The creation of updated floodplain maps using this new rainfall information would take a number of years to implement.	1.F.2.c.
9. Ensure DSD staff can check if proposed development is located within known flooding problem areas and advise applicant, staff & Neighborhood Plan Contact Teams.	All proposed development is reviewed for floodplain conflicts. WPD staff agree that sharing information about known flooding problem areas is very important for DSD and the community. Flood risks along mapped creeks are currently available to DSD and the community. WPD is working to produce flood risk information associated with local flooding areas.	WPD staff is working to complete the the localized flood online mapping services. At this time, we do not have an anticipated completion date. As the information becomes available, WPD staff will work with DSD and PAZ staff to place this (and potentially more) information on the City's Development Web Map (viewer).	1.F.3.b.

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Recommendation	Staff Response / Comment	Status	FMTF Report Subsec.*
10. Green Stormwater Infrastructure: incentives to build onsite flood controls, one-time DUF discounts, cost-sharing options, and integration with "grey" infrastructure.	City Council approved a stormwater management discount program for voluntary installation of on-site stormwater control measures (SCMs) that exceed development requirements (both green and grey). WPD also considers green stormwater infrastructure when designing water quality and flood solutions.	Complete: Discount is available to the public. Green solution development ongoing. City staff is also developing an inventory of Green Stormwater Infrastructure (GSI) projects and programs per Council Resolution 20170615-071 that will leverage greater public and private use of GSI. The CodeNEXT Beneficial Use proposal will also provide green stormwater infrastructure on sites—enhancing infiltration for smaller storms.	ES.14   1.F.1.GI.1.   thru   1.F.GI.4.b.
11. Discourage new/re-development in Onion Creek 500-year floodplain until FEMA review and map updates.	Floodplain maps finalized.	The new floodplain maps from the Onion Creek study for fully developed conditions have been completed since Nov. 2016 and are currently being used for City of Austin regulatory purposes. These floodplains now appear on the City's FloodPro site (ATXfloodpro.com) and development viewers. The federal process for formal FIRM adoption typically takes 1.5 to 2 years after the engineering work has been completed. WPD is evaluating future improvements to floodplain regulations, but these improvements are not considered for CodeNEXT.	4.7.

\* Final Report link: <http://www.austintexas.gov/edims/document.cfm?id=254319>