



# CITY OF ARLINGTON

Floodplain Program for Public Information and  
Flood Insurance Coverage Improvement

2020-2025





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## About the Floodplain Program for Public Information and the Community Rating System

Flooding is the most common natural hazard in the United States. More than 20,000 communities experience floods and this hazard accounts for more than 70 percent of all Presidential Disaster Declarations. In the United States, over 8 million residential and commercial structures are currently built in areas at risk to flooding. The cost of recovery is spread over local, state and federal governments and the victims themselves, who are directly affected by these disasters.

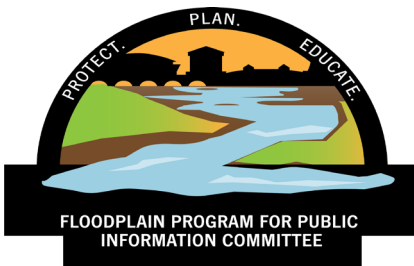
The National Flood Insurance Program (NFIP) is based on a cooperative agreement between the Federal Emergency Management Agency (FEMA) and local governments. FEMA agrees to underwrite flood insurance policies within a community and the community agrees to regulate development in the floodplain. Participation in the NFIP is voluntary, but communities have incentive to join because federally-backed flood insurance is not available to property owners in non-participating communities and a non-participating community will not receive federal aid for damages to insurable buildings in the floodplain.

The City of Arlington participates in the National Flood Insurance Program (NFIP) which offers flood insurance to all homeowners, renters, and business owners who live within a community that adopts and enforces ordinances that meet FEMA standards to reduce the risk of flooding.

The NFIP Community Rating System (CRS) Program recognizes community floodplain management activities that exceed the minimum FEMA standards and help reduce the risk of flooding. Under the CRS Program, flood insurance premium rates are discounted to reward community actions that meet the three goals of the CRS, which are:

- (1) reduce flood damage to insurable property;
- (2) strengthen and support the insurance aspects of the NFIP; and
- (3) encourage a comprehensive approach to floodplain management.

The City of Arlington has participated in the regular phase of the NFIP since December 31, 1974. In addition to meeting the basic requirements of the NFIP, Arlington has adopted additional regulations and procedures in order to participate in the Community Rating System (CRS) program. The City of Arlington is currently a CRS Class 6 which rewards all policyholders in the Special Flood Hazard Area (SFHA) with a twenty percent (20%) reduction in their flood insurance premiums. Non-SFHA policies (Standard Zone X policies) receive a ten percent (10%) discount and preferred risk policies do not receive a discount in their flood insurance premiums. The City of Arlington has participated in the CRS program since October 1, 1991.



The City is utilizing the Floodplain Program for Public Information (FPPI) process as outlined in the 2017 CRS User’s Manual to evaluate all floodplain educational outreach efforts and identify ways to diversity and improve messaging to all residents, visitors and the business community within the City. The FPPI Process includes a flood insurance coverage assessment and coverage improvement plan, review of all floodplain education and outreach materials, review of outreach efforts by other agencies, and discussion of flood issues that Arlington experiences. This review and discussion will help identify additional target audiences and topics to include with the City’s current educational outreach efforts. Educational program goals and outcomes are also identified for each outreach project.

The City Council’s priorities are also used as a guide during the FPPI Process to incorporate a more comprehensive approach to Floodplain education in Arlington. These goals are as follows: Put Technology to Work, Champion Great Neighborhoods, Support Youth and Families, Invest in Our Economy.

### Floodplain Program for Public Information Committee

The development of the Floodplain PPI Plan and its associated outreach activities is accomplished through the Floodplain Program for Public Information Committee (FPPIC). The committee is comprised of residents, business owners, a real estate agent, an insurance agent, a public information officer from the City’s Office of Communication and City Stormwater staff. This diverse committee is able to assess the different perspectives within the City and develop outreach projects for each part of the community. City staff is able to provide insight on other activities the community is doing for outreach and provide expertise on the flood hazards Arlington experiences.

The FPPIC was formed by City Council Resolution No. 19-111 on April 23, 2019. An application for residents to participate on the FPPIC was posted on the City’s website. Members were selected based upon the committee membership criteria outlined in the 2017 CRS User’s Manual.

*Table 1. FPPIC Members and Backgrounds*

Name	Background
Rhonda Miller	Arlington Business owner, Resident and Community Volunteer
Randy Hendricks	Active Retired Citizen and Community Advocate and Volunteer
Phyllis Hunter	DFW Texas Homes Real Estate Agent and Arlington Resident
Karen Dolan	Arlington Resident and Community Volunteer.
Dale Sharpe-Jenkins	Arlington Business Owner and Resident; Community Advocate; Insurance Agent
Robert Whites	West Arlington Resident and Community Volunteer
Angel Carter	South Arlington Resident and Community Volunteer
Susan Schrock	City of Arlington Communications Coordinator



Zachary Holmer	City of Arlington Graduate Civil Engineer
Melissa Walker	City of Arlington Stormwater Education Specialist

The FPPIC conducted its first meeting on July 17, 2019. Stormwater Management Staff provided a short presentation covering the background on the NFIP and the CRS Program. The presentation also included an overview of the PPI plan and Coverage Improvement Plan (CP) plan requirements and goals. The initial meeting resulted in meaningful discussions about the overall goals of the committee. Subsequent meetings of the committee and the topics discussed in each are in Table 2.

*Table 2. FPPIC Meeting Information*

<b>FPPIC Meeting Date</b>	<b>Agenda Topics</b>
August 8, 2019	<ul style="list-style-type: none"> <li>• Community Flood Assessment</li> <li>• Priority Areas</li> <li>• Flood Insurance Assessment (FIA)</li> <li>• Review of current flood insurance outreach projects</li> </ul>
August 29, 2019	<ul style="list-style-type: none"> <li>• Priority Areas Review</li> <li>• Discussion Priority Audiences</li> <li>• 2019 Repetitive Loss Area Analysis Summary</li> </ul>
September 12, 2019	<ul style="list-style-type: none"> <li>• Worked on Priority Area, Audience and Message matrix spreadsheet</li> <li>• Committee questions concerning RLAA and the FIA.</li> </ul>
October 10, 2019	<ul style="list-style-type: none"> <li>• Formulation of outreach messages for matrix spreadsheet</li> <li>• Started development of Project lists</li> </ul>
October 30, 2019	<ul style="list-style-type: none"> <li>• Update to the FIA information,</li> <li>• Continued discussion outreach messages and projects</li> <li>• Flood Insurance Messages and Projects</li> </ul>
November 21, 2019	<ul style="list-style-type: none"> <li>• Review of Draft FPPI plan</li> <li>• Review Flood Response Program (FRP)</li> <li>• Review of other CRS Public Information Activities</li> </ul>
December 12, 2019	<ul style="list-style-type: none"> <li>• Final review of FPPI plan and CP plan</li> </ul>



## Current Program and Outreach Efforts

Floodplain Management is essential to dealing with the City's flooding issues. Through the City's permitting process and development requirements, floodplain management can significantly reduce flood risk throughout the City. Currently, all development permitting begins in the Planning and Development Services Department, which is responsible for ensuring development within the City adheres to the City's Unified Development Code and the Design Criteria Manual.

The Public Works and Transportation Department has a capital improvement program for drainage improvement projects and a voluntary buyout program as part of a flood mitigation strategy. Improving our infrastructure and removing homes that have repeatedly flooded reduces our overall all flood risk within the City.

The City of Arlington's Floodplain Management Group is part of the Stormwater Management Division of the Public Works and Transportation Department. Floodplain staff is responsible for administering the provisions of the City's Flood Damage and Prevention Code, maintaining and operating the City's stream gauge network, performing comprehensive watershed planning, maintaining floodplain maps and other information and providing comprehensive floodplain information to residents, builders, contractors and other groups. Floodplain Development Permits submitted on properties in the FEMA-determined floodplain are reviewed by the Public Works and Transportation Department's Floodplain Staff. These properties are required to adhere to the City's Flood Damage and Prevention Ordinance, which incorporates NFIP requirements and higher regulatory standards for development.

The 2018 Arlington annex to the Tarrant County Hazard Mitigation Action Plan (Appendix C) ranks flooding as the highest natural hazard for City of Arlington. The annex created by the City's Office of Emergency Management in consultation with other city departments outlines the potential impacts to the community following a flood event. The Office of Emergency Management included a list of Critical and Vulnerable Facilities/Assets and a map of low water crossing locations (See Map 1 Appendix A) within its annex to the Tarrant County HMAP. Mitigation projects and education programs in these areas will help reduce flood risk and potential harm to life and property.

The CRS Program recognizes community efforts to provide the public with information that is needed to increase flood hazard awareness and motivate actions to reduce flood damage, encourage flood insurance coverage, and protect natural functions of the floodplain. The City currently has a floodplain outreach program that meets the minimum criteria outlined in the 2017 CRS User's Manual. Table 3 documents the current outreach efforts by the City of Arlington. These outreach projects were evaluated by the FPPIC during the Floodplain PPI Process to identify any updates that were needed to better convey the messages to reach additional target audiences.



*Table 3. Public Information Efforts*

<b>Organization</b>	<b>Project</b>	<b>Subject Matter</b>	<b>Frequency</b>
Public Works and Transportation Department - Stormwater	Website/Social Media	<ul style="list-style-type: none"> <li>• Flood Information Services</li> <li>• All Floodplain Topics/Messages</li> <li>• Watersheds</li> <li>• Storm Drain Infrastructure</li> <li>• Stormwater Pollution Prevention</li> </ul>	Annual
Public Works and Transportation Department-Stormwater	Repetitive Loss Areas	<ul style="list-style-type: none"> <li>• Get a Flood Insurance Policy</li> <li>• Prepare for Flooding</li> <li>• Assess Your Property's Drainage or Flooding Issues</li> <li>• Get a Building Permit</li> <li>• Financial Assistance Advice</li> <li>• Flood Brochure: 6 CRS Topics and Weather Warning Information</li> </ul>	Annual Mailout to Owners and Tenets
Public Works and Transportation Department - Stormwater	Utility Bill Inserts	<ul style="list-style-type: none"> <li>• Flood Information Services</li> <li>• Report Illegal Dumping</li> <li>• Stormwater Pollution Prevention Topics</li> </ul>	3 times per year
Public Works and Transportation Department - Stormwater	School Program	<ul style="list-style-type: none"> <li>• Journey Through the Storm Drain/TADD</li> <li>• Be Flood Prepared</li> </ul>	Presentations are given throughout the year when requested. 3 <sup>rd</sup> grade Turn Around Don't Drown (TADD) annual art contest.





Public Works and Transportation Department - Stormwater	Community Events	<ul style="list-style-type: none"> <li>All Floodplain Topics/Messages</li> <li>Stormwater Pollution messages</li> </ul>	Community events occur throughout the year and are sponsored by various groups such as UTA, TCC, the City and River Legacy.
Public Works and Transportation Department - Stormwater	Community Presentations	<ul style="list-style-type: none"> <li>Know Your Flood Risk</li> <li>Be Flood Prepared</li> <li>Build Responsibly</li> <li>Stormwater Pollution and Prevention</li> </ul>	Each presentation is given twice a year at one of the City's Library branches. They are also given upon request.
Public Works and Transportation Department – Field Operations	Inlet Decal Program	No Dumping Drains to Creek	350 placed In Problem Site Maintenance Areas or at City facilities each year.

The FPPIC also reviewed outreach efforts that are managed by other City departments or agencies to identify other floodplain educational opportunities and note any best practices to incorporate into the outreach projects identified by the FPPIC during the Floodplain PPI Process. These outside public information efforts are shown in Table 4.

*Table 4. Outside Public Information Efforts*

Organization	Project	Subject Matter	Frequency
City of Arlington Fire Department	Know What to Do Campaign; Stay Safe Webpage	Know how to prepare for Floods; What to do after a flood and Floods Vs Flash Floods	Posted on Website under Community Services and Stay Safe Tabs; Community Events throughout the year; Social media as needed
OUR Energy LLC. Utility Company	Mail insert to Arlington customers (English/Spanish)	Hurricane/Flood Safety and Preparedness	Annual
Tarrant County Transportation Department	Website and Social Media	Floodplain Development Permits; Flood Assistance 2-1-1 Information; Flood Damage Assessments	Year-round



River Legacy Living Science Center	Let's Explore Freshwater Ecology Kids Summer Camp	Exploration of water quality through an interactive watershed model demonstration	1 or 2 times a year
Texas Floodplain Managers Association	Outreach and website on flood training, flood preparedness; Student coloring book - Texana Tadpole	CFM and NFIP training; TADD coloring book message; Flood safety and preparedness	Training at least once a year; Coloring books given out at schools or community events. Website annually; social media as needed.
City of Arlington Office of Communications	News Stories; Social Media	Various Flood Safety and Preparedness Topics including Flood Warnings, After Flood Response	As Needed
City of Arlington Police Department	News Stories; Social Media	Flooded Roadway alerts	As Needed
City of Arlington Office of Emergency Management	News Stories, Website and Social Media	Flood Watches and Warnings; Flooded Roadways; After Flood Response	As Needed; Website information provide throughout the year
Texas Department of Public Safety Emergency Management Office	Electronic Signs; Website; Social Media	Flooded Roadways; Flood Safety and Preparedness messages; After flood response	As needed; Website information provided throughout the year

## Community Public Information Needs Assessment

The City of Arlington covers an area of 99.5 sq. miles, with a census-estimated 2018 population of approximately 398,112. The City of Arlington is located in Tarrant County, Texas and is the third largest city in the Dallas/Ft. Worth Metroplex.

### Flood Hazards

The City of Arlington has 129 stream miles located in the following Arlington Watersheds: Trinity River Tributaries, Upper and Lower Village Creek, Rush Creek, Johnson Creek, Cottonwood Creek, Fish Creek, Lynn Creek, Bowman Branch Creek and Walnut Creek. The West Fork of the Trinity River flows through North Arlington.

The City of Arlington primarily experiences three types of flooding. Flash flooding results from heavy rainfall in a short amount of time that causes our local creeks, streams and/or other waterways. Surface flooding happens when heavy rain fall overwhelms the storm drainage



system, or the pipe system is blocked due to trash and debris. Riverine flooding results from heavy and prolonged rainfall over a watershed that causes a river to exceed its storage capacity.

Arlington has a long history of flooding from Johnson Creek, Rush Creek and the West Fork of the Trinity River. There are also areas of the City that have flooding due to under sized stormwater infrastructure or in areas that are located near low water crossings.

Approximately 11.8% of the total City area lies within the Special Flood Hazard Area (SFHA) on the FEMA flood maps. There are currently 2,191 building footprints partially or fully within the SFHA and account for 2.0% of the total building footprints in the City.

### Social and Economic Needs

The demographic composition of the City of Arlington is an important consideration when developing outreach material. In the 2018 census, 28.9% of the City's population was Hispanic and 6.9% was Asian. In order to overcome potential obstacles associated with language barriers, the committee recognizes that we must effectively distribute messages by utilizing community resources and specific communication tools to target all residents. The City currently provides written flood information in English, Spanish and Vietnamese.

Approximately 16.1% of the population falls below the federal poverty line. These populations are unlikely to purchase flood insurance and many times these populations live in floodplain areas due to lower housing costs.

### Repetitive Flooding

A repetitive loss (RL) property is any insurable structure which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling 10-year period since 1978. Severe repetitive loss (SRL) properties are insurable structures that either have four or more claims of \$5,000 or more or have at least two claims that cumulatively exceed the building's value. Repetitive loss areas identify locations with at least one RL or SRL property.

In 2019, the City of Arlington updated its Repetitive Loss Area Analysis. 39 Repetitive Loss Areas were identified within the City of Arlington in accordance to the guidelines in the CRS Handout *Mapping Repetitive Loss Areas* dated October 2015. The 39 Repetitive Loss areas included 47 unmitigated repetitive loss properties plus an additional 400 properties that are subject to similar flooding conditions.

The City of Arlington works with property owners to undertake flood mitigation measures such as buyout, relocation, elevation or otherwise improving the structures so they are no longer subject to repetitive flood damage.



## Flood Insurance Coverage Assessment

In addition to the PPI, specific outreach to improve flood insurance coverage in the community is needed. Activity 370 of the CRS focuses on improving flood insurance coverage by assessing the current level of flood insurance coverage through a “Flood Insurance Coverage Assessment” (FIA). The results of the FIA are then incorporated into a “Coverage Improvement Plan” (CP) to identify where coverage needs to be improved. The CP was developed by the PPI Committee to determine the most effective ways to increase policy counts City-Wide. Committee members are listed in Table 1 of this document.

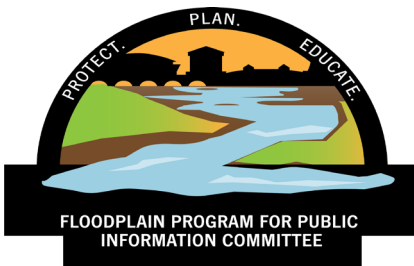
Using the FEMA Effective Floodplain and aggregated insurance data provided by the Insurance Services Office (ISO), current active insurance policies in Arlington were assessed. Table 5 shows the total number of active policies in the City of Arlington and information regarding the insurance policies. The Total Premium and Insurance in Force dollar values are yearly sums and the amount (\$) of Closed Paid Losses is the total payout value to the policies since the City of Arlington entered in the National Flood Insurance Program (NFIP) in 1974.

This assessment of insurance data has been prepared to examine the current level of flood insurance coverage in the City of Arlington. This data assessment provides comparisons to determine the shortages of insurance coverage and identify the community’s public information needs.

*Table 5. General Policy Data*

	<b>Policies in Force</b>	<b>Premium</b>	<b>Insurance in Force</b>	<b>Number of Closed Paid Losses</b>	<b>\$ of Closed Paid Losses</b>
<b>A01-30 &amp; AE Zones</b>	<b>471</b>	<b>\$383,528</b>	<b>\$131,210,700</b>	<b>310</b>	<b>\$12,271,178.67</b>
<b>A Zones</b>	<b>86</b>	<b>\$93,485</b>	<b>\$21,714,500</b>	<b>57</b>	<b>\$1,055,598.69</b>
<b>B, C &amp; X Zone</b>					
• <b>Standard Rate</b>	<b>180</b>	<b>\$156,823</b>	<b>\$52,841,500</b>	<b>208</b>	<b>\$3,915,594.99</b>
• <b>Preferred Rate</b>	<b>861</b>	<b>\$330,267</b>	<b>\$272,249,000</b>	<b>151</b>	<b>\$21,090,223.84</b>
<b>Total</b>	<b>1,598</b>	<b>\$964,103</b>	<b>\$478,015,700</b>	<b>726</b>	<b>\$21,090,223.84</b>

<b>Post FIRM Minus Rated Policies</b>	
<b>A Zone Minus Rated Policies</b>	<b>5</b>
<b>Community</b>	<b>Arlington</b>
<b>County</b>	<b>Tarrant</b>
<b>State</b>	<b>Texas</b>
<b>CID</b>	<b>485454</b>



### Flood Insurance Coverage by Occupancy

When a home is flooded by water from a source outside of the home, standard homeowners or building insurance policies will not cover the damages, the owners must have flood insurance through the NFIP in order to be covered. These NFIP policies must be purchased as a separate insurance policy and are required for all structures that have a federally backed mortgage and are in the Special Flood Hazard Area (SFHA). However, if a structure is located in the Zone X floodplain, they are considered to have a lower flood risk than the structures in the SFHA and are not required to purchase a flood insurance policy. These Zone X structures are also eligible to receive a lower, preferred rate policy than the structures in the SFHA.

In Arlington, there are 2,191 total structures in the SFHA. For the purposes of this assessment, all structures less than 500 square feet were removed from the count as these are considered sheds, garages, or other miscellaneous structures. 1,860 structures of the 2,191 are residential. This is approximately 84.9% of the structures in the SFHA. Table 6 shows that roughly 95.1% of the active flood policies throughout the City are for residential structures.

*Table 6. Insurance Coverage by Occupancy*

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	\$ of Closed Paid Losses
<b>Single Family</b>	<b>1,417</b>	<b>\$728,428</b>	<b>\$399,405,400</b>	<b>573</b>	<b>\$16,833,899.20</b>
<b>2-4 Family</b>	<b>6</b>	<b>\$2,415</b>	<b>\$1,250,900</b>	<b>61</b>	<b>\$572,482.62</b>
<b>All other Residential</b>	<b>97</b>	<b>\$101,476</b>	<b>\$42,544,200</b>	<b>26</b>	<b>\$1,369,640.59</b>
<b>Non-Residential</b>	<b>78</b>	<b>\$131,784</b>	<b>\$34,815,200</b>	<b>67</b>	<b>\$2,365,850.09</b>
<b>Total</b>	<b>1,598</b>	<b>\$964,103</b>	<b>\$478,015,700</b>	<b>727</b>	<b>\$21,141,872.50</b>

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	\$ of Closed Paid Losses
<b>Condo</b>	<b>7</b>	<b>\$2,341</b>	<b>\$1,072,300</b>	<b>16</b>	<b>\$236,308.17</b>
<b>Non-Condo</b>	<b>1,591</b>	<b>\$961,762</b>	<b>\$476,943,400</b>	<b>711</b>	<b>\$20,905,564.33</b>
<b>Total</b>	<b>1,598</b>	<b>\$964,103</b>	<b>\$478,015,700</b>	<b>727</b>	<b>\$21,141,872.50</b>

### Flood Insurance by Flood Zone and Watershed

The number of structures in the SFHA compared to active insurance policies in the SFHA helps to determine the shortage of insurance coverage. Active insurance policies are written to cover one structure per policy. Table 7 shows that there are 557 active insurance policies in the SFHA (both AE and A zones) which means that only 25.4% of all insurable structures in the SFHA have insurance policies. The remaining active policies are for structures in Zone X. These



policies are generally at a lower premium than policies in Zone A or AE due to the reduced flood risk. Zone X is any area not in the SFHA.

*Table 7. Flood Insurance Coverage by Flood Zone*

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	\$ of Closed Paid Losses
<b>A01-30 &amp; AE Zones</b>	<b>471</b>	<b>\$383,528</b>	<b>\$131,210,700</b>	<b>310</b>	<b>\$12,271,178.67</b>
<b>A Zones</b>	<b>86</b>	<b>\$93,485</b>	<b>\$21,714,500</b>	<b>57</b>	<b>\$1,055,598.69</b>
<b>B, C &amp; X Zone</b>					
• <b>Standard Rate</b>	<b>180</b>	<b>\$156,823</b>	<b>\$52,841,500</b>	<b>208</b>	<b>\$3,915,594.99</b>
• <b>Preferred Rate</b>	<b>861</b>	<b>\$330,267</b>	<b>\$272,249,000</b>	<b>151</b>	<b>\$21,090,223.84</b>
<b>Total</b>	<b>1,598</b>	<b>\$964,103</b>	<b>\$478,015,700</b>	<b>726</b>	<b>\$21,090,223.84</b>

There are nine major Watersheds in the City of Arlington (see Map 2 in Appendix A), and most of the policies cover structures in the Rush Creek Watershed. Fish Creek, Cottonwood Creek, and Johnson Creek have the least active insurance policies at 2.7%, 7.6%, and 11.6% respectively. Insurance Coverage by watershed is shown in Table 8, including breaking the policies down to active policies in the SFHA.

*Table 8. Flood Insurance Coverage by Watershed*

	# of Insurance Policies per Watershed	Insurance Premiums Totals	Structures in the SFHA	Policies in the SFHA	% of Structures in the SFHA with Flood Insurance
<b>Bowman Branch</b>	<b>26</b>	<b>\$10,230</b>	<b>13</b>	<b>4</b>	<b>30.8%</b>
<b>Cottonwood Creek</b>	<b>21</b>	<b>\$31,906</b>	<b>79</b>	<b>6</b>	<b>7.6%</b>
<b>Fish Creek</b>	<b>51</b>	<b>\$20,307</b>	<b>74</b>	<b>2</b>	<b>2.7%</b>
<b>Johnson Creek</b>	<b>137</b>	<b>\$111,596</b>	<b>423</b>	<b>49</b>	<b>11.6%</b>
<b>Lower Village Creek</b>	<b>157</b>	<b>\$93,678</b>	<b>166</b>	<b>38</b>	<b>22.9%</b>
<b>Lynn Creek</b>	<b>63</b>	<b>\$32,904</b>	<b>83</b>	<b>34</b>	<b>41.0%</b>
<b>Rush Creek</b>	<b>679</b>	<b>\$428,539</b>	<b>851</b>	<b>286</b>	<b>33.6%</b>
<b>Trinity Tributaries</b>	<b>298</b>	<b>\$162,545</b>	<b>252</b>	<b>95</b>	<b>37.7%</b>



<b>Upper Village Creek</b>	<b>166</b>	<b>\$66,861</b>	<b>214</b>	<b>43</b>	<b>20.1%</b>
<b>Total</b>	<b>1,598</b>	<b>\$958,566</b>	<b>2155</b>	<b>557</b>	

#### Flood Insurance in Pre-FIRM and Post-FIRM Buildings

It can also be helpful to look at the insurance policies on homes built before the initial Flood Insurance Rate Map (FIRM) was adopted in 1974 (Pre-FIRM) for Arlington and after the FIRMs were issued (Post-FIRM). As seen below, roughly 80.6% of active policies are on Post-FIRM structures.

A FIRM is a map which FEMA has delineated both the SFHA and other at-risk zones in a community. These maps are the official documentation of the floodplain in a community. Pre-FIRM homes will generally have a subsidized insurance rate because they may have been built without any flood data available.

*Table 9. Pre-FIRM Policy Data*

	<b>Policies in Force</b>	<b>Premium</b>	<b>Insurance in Force</b>	<b>Number of Closed Paid Losses</b>	<b>\$ of Closed Paid Losses</b>
<b>A01-30 &amp; AE Zones</b>	<b>101</b>	<b>\$157,250</b>	<b>\$24,951,900</b>	<b>271</b>	<b>\$325,950.24</b>
<b>A Zones</b>	<b>14</b>	<b>\$22,515</b>	<b>\$2,646,600</b>	<b>40</b>	<b>\$24,569.01</b>
<b>B, C, &amp; X Zones</b>					
• <b>Standard Rate</b>	<b>40</b>	<b>\$27,346</b>	<b>\$11,334,800</b>	<b>130</b>	<b>\$79,142.64</b>
• <b>Preferred Rate</b>	<b>155</b>	<b>\$57,614</b>	<b>\$47,353,000</b>	<b>55</b>	<b>\$82,866.47</b>
<b>Total</b>	<b>310</b>	<b>\$264,725</b>	<b>\$86,286,300</b>	<b>496</b>	<b>\$512,528.36</b>

*Table 10. Post-FIRM Policy Data*

	<b>Policies in Force</b>	<b>Premium</b>	<b>Insurance in Force</b>	<b>Number of Closed Paid Losses</b>	<b>\$ of Closed Paid Losses</b>
<b>A01-30 &amp; AE Zones</b>	<b>370</b>	<b>\$226,278</b>	<b>\$106,258,800</b>	<b>36</b>	<b>\$913,582.72</b>
<b>A Zones</b>	<b>72</b>	<b>\$70,970</b>	<b>\$19,067,900</b>	<b>17</b>	<b>\$319,337.13</b>
<b>B, C &amp; X Zones</b>					
• <b>Standard Rate</b>	<b>140</b>	<b>\$129,477</b>	<b>\$41,506,700</b>	<b>70</b>	<b>\$1,397,431.30</b>



• Preferred Rate	706	\$272,653	\$224,896,000	97	\$1,839,900.66
<b>Total</b>	<b>1,288</b>	<b>\$699,378</b>	<b>\$391,729,400</b>	<b>220</b>	<b>\$4,470,251.81</b>

#### Flood Insurance in Repetitive Loss Areas

A repetitive loss (RL) property is any insurable structure which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period since 1978. Severe repetitive loss (SRL) properties are insurable structures that either have four or more claims of \$5,000 or more or have at least two claims that cumulatively exceed the building's value. Repetitive loss areas identify locations with at least one RL or SRL property. Additional structures with insurance claims can be included a RL area depending on the proximity to the RL or SRL property.

There are 400 properties identified in the 39 repetitive loss areas within the City of Arlington. There are a total 113 active insurance policies in the repetitive loss areas. From the data provided in Table 11, 28.3% of the properties in the repetitive loss areas are insured. Repetitive losses have a significant impact on the amounts paid. Over \$11 million of the \$21 million have been paid to repetitive loss areas. This accounts for 53.4% of total claims in the City of Arlington.

*Table 11. Flood Insurance Coverage in Repetitive Loss Areas*

	Total Number of Repetitive Loss Areas	Total Number of Properties in Repetitive Loss Areas	Total Number of Insurance Policies in Repetitive Loss Areas	Premium Totals in Repetitive Loss Areas	\$ of Paid Losses in Repetitive Loss Areas
<b>Total</b>	<b>39</b>	<b>400</b>	<b>113</b>	<b>\$111,850</b>	<b>\$11,265,192.68</b>

#### Flood Insurance Assessment Summary

In the City of Arlington, there are 2,191 total structures in the SFHA. For the purposes of this assessment, all structures less than 500 square feet were removed from the count as these are considered sheds, garages, or other miscellaneous structures.

Based on the information provided by ISO, approximately 74.6% of structures in the SHFA are uninsured. Zone A and AE coverage accounts for only 25.4% of the active insurance policies. Only 28.3% of the structures in all repetitive loss areas have active insurance policies. When assessing the structures in the SFHA, the second largest watershed in the City of Arlington, Johnson Creek, has only 11.6% of structures with active insurance policies. The map of active insurance policies (Map 3 in Appendix A) also shows the lack of insurance coverage in the Fish and Cottonwood Creek watersheds primarily in East Arlington.





By completing this assessment, it illustrates the lack of insurance coverage in the City of Arlington that, allows the Program for Public Information (PPI) to target various audiences. Due to the lower percentages of insurance coverage referenced above, it is recommended that outreach initiatives are implemented to inform Fish and Cottonwood Creek residents (East Arlington), repetitive loss areas, residents in the SFHA, Non-SFHA flood prone area residents, and general public.

## Recommendations

After review of the City's current floodplain educational and outreach programs, the FPPIC recommended additional priority areas, target audiences, improvements to the Flood Response Plan and implementation of the Flood Insurance Coverage Improvement Plan to help increase awareness of flood risks in the City and educate residents, business owners and visitors on ways to protect themselves from these risks.

### Priority Areas

The Floodplain PPI Committee understands that the entire community can be affected by flooding. The Committee recognizes that property owners can take measures to protect their property from flood damage and that the City can help education residents through a flood protection educational program that helps residents identify ways to minimize or eliminate flooding on their property. Therefore, broad outreach through online articles, videos and social media posts along with public outreach presentations and public events should continue throughout the year. City Staff and the Committee also defined several specific areas that require tailored messages.

1. Non-SFHA Flood-prone Areas include locations that receive a high volume of drainage complaints due to minor flooding or ongoing drainage issues that are outside of the SFHA. This will also include areas with low insurance policy counts. The low policy count areas will be addressed in the Flood Insurance Coverage Improvement Plan.
2. Repetitive Loss Areas - Citizens living in a repetitive loss property or a defined repetitive loss area will continue to receive an annual letter and brochure mailout. These areas are outlined in the 2019 Repetitive Loss Area Analysis.
3. Low Water Crossing and Barricade Location Areas - During high-flow conditions, water runs over these roadways blocking vehicular and pedestrian traffic. These crossings are extremely dangerous when flooded. These mapped locations are monitored for flood conditions by Stormwater Maintenance staff and Emergency Management staff. Arlington Police Department is notified when closures occur (see Map 1 in Appendix A).
4. Critical and Vulnerable Facility Areas located within or near a Special Flood Hazard Area and facilities near low water crossings are mapped. This list can include government owned buildings, hospitals and other medical facilities, commercial or retail properties where the public assembles.



5. Entertainment District and Downtown Business District: The Entertainment District includes AT&T Stadium, Globe Life Field, Globe Life Park, Texas Live! Entertainment Center, Live! by Loews Hotel, Six Flags Over Texas, Hurricane Harbor and Esports Stadium Arlington and Expo Center. The Downtown district encompasses Levitt Pavilion, City Hall, Arlington Downtown Library and multiple retail spaces along Abram Street, Front Street and Main Street.
6. University of Texas at Arlington Campus and Tarrant County Community College - Southeast Campus: UTA is adjacent to the Downtown area of the City of Arlington. The Campus covers 420 acres which includes education buildings, residential halls, recreation facilities, central library and many more structures. There are also privately-owned apartment complexes adjacent to the campus that house UTA students. The TCC-SE Campus covers a 123-acre area in southeast Arlington. This campus has multiple buildings and is adjacent to the 360 Hwy corridor.
7. Residents and businesses located in Special Flood Hazard Areas. There are currently 2,191 structures in the SFHA. Currently only 25.4% of these structures have flood insurance policies. These areas are addressed in the Flood Insurance Coverage Improvement Plan.
8. City of Arlington linear parks, park facilities and public open space areas: The City of Arlington has over 90 park facilities. This includes recreation buildings, golf courses, aquatic centers and public open spaces or linear park areas. Many of the Arlington parks focus on the interaction with the natural ecosystem. There are approximately 466 linear miles of walking trails. Lake Arlington provides kayaking and fishing opportunities.
9. Arlington Independent School District: AISD is the 11<sup>th</sup> largest school district in the State of Texas and is one of the largest employers in the City of Arlington. This includes 13 high schools, 10 junior high schools and 55 elementary schools. Approximately 62,000 students and over 8,500 employees utilize these facilities every day.

### Target Audiences

The Floodplain Committee used the above priority areas to develop several target audiences in addition to the current target audiences the City is currently targeting for outreach projects. These target audiences are as follows:

- A. The City at large
- B. All property owners in the floodplain
- C. Repetitive Flood Loss Areas
- D. Non-SFHA flood-prone area residents and business owners
- E. Low water crossing and barricade location area residents and business owners



- F. AISD bus drivers and City of Arlington Handitran drivers and Via drivers
- G. Students, faculty and staff at UTA, TCC and AISD Campuses. (This may include outreach to other school districts with campuses inside the City limits of Arlington)
- H. City of Arlington Parks and Recreation Facility visitors and park patrons
- I. Entertainment District visitors, short-term rental property owners, businesses, Chamber of Commerce organizations
- J. City employees and volunteers
- K. Hospitals, nursing homes, gas well operators and industrial businesses
- L. Non-English-speaking residents
- M. Prospective buyers, lenders, real estate agents, mortgage agencies

### Outreach Topics

The CRS Program currently requires six outreach topics to develop educational materials and messages for the City. The FPPIC identified four additional outreach topics and messages to include that were important to the target audiences.

*Table 12. Outreach Topics/Messages*

Outreach Topic	Outcome	Messages
A. Know Your Flood Hazard	Increase flood information inquiries to the Stormwater Department	Know Your Flood Hazard
B. Promote Flood Insurance	Increase Flood Insurance Policy Coverage Community Wide. Refer to Flood Insurance Coverage Plan	Protect and Insure your structure; Get Flood Insurance; Get flood Insurance, It's Good Business
C. Protect People from flood hazards	Increase in the number and types of distribution of flood safety messages	Be Stormwater Savvy; Safeguard Your Patients/Guests/Visitors/Tourists
D. Protect Property from flood hazards	Reduction of property damage by increased messaging	Protect Your Assets; Protect Your Home/Property From Rising Water
E. Build Responsibly	Reduction of Flood Damage Prevention and Stormwater Pollution ordinance violations.	Get A Permit; Keep Your Site Clean
F. Protect Natural Floodplain Functions	Reduce trash, litter, debris and contaminants that are dumped into creeks, streams, rivers and lakes	Protect Arlington's Waterways; Report Illegal Dumping; Keep Waterways Clean



G. Storm Drain Infrastructure	Increased awareness of the storm drainage system and its function.	Get to Know Your storm drain
H. Arlington Watersheds	Increased awareness of City of Arlington Watersheds and how they function	Know Your Watershed; Protect Your Watershed
I. Guidelines on what to do after a flood	Increase in reporting of flood damage to structures in the city and awareness of flood safety after a flood	Keep You and Your Family Safe After a Flood; Stay Out of Toxic Floodwaters; Watch Out for Animals Their Homes Flooded Too.
J. Diverse population outreach	Increase in outreach material and community events to socio-economic disadvantaged groups including Non-English-Speaking Groups	Get Flood Insurance, It's For Everyone.

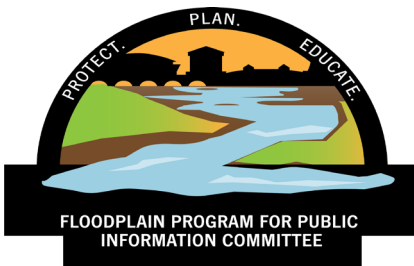
### Outreach Projects

The following table provides a comprehensive list of the program activities, which include various public information tasks, website information and other social media efforts. These projects are scheduled to be implemented between the fiscal years of 2020-2025.

The FPPIC recognizes that awareness of a potential flood hazards is not typically enough to motivate people to take action to protect themselves and their property. The Committee recommends that repeating and distributing messages multiple times and in a variety of forms will increase the effectiveness of flood messages.

*Table 13. PPI Projects and Initiatives*

OP	Target Audience	Topics Messages	Proposed Projects	Outcome	Assignment	Schedule
1	AISD Bus Drivers; City's Handitrans and Via Drivers	Topics C	TADD Driver Education Presentation	Increased awareness of Low Water Crossings and Flood Safety	Stormwater Education Specialist develops presentation and coordinates training	Annual
2	Low Water Crossing and Barricade	Topics F, G and H	Illegal Stream Dumping Signs	Increased Awareness of Arlington's	Stormwater Education Specialist	Installation of 2 new stream dumping



	location residents; Community at Large; Floodplain Residents and Businesses			Watersheds and the effects of illegal dumping	designs new signage; Approval of design by FPPI Committee; Create Map of locations	signs each year.
3	Visitors and Residents	Topics F, G and H	Flyer/pledge given to Pavilion Renters	Increased awareness of illegal dumping and trash and debris effects on our watersheds	Stormwater Education Specialist develops flyer to be given to pavilion renters	Year Round
4	Visitors, Commercial Businesses, Short Term Rentals; Chamber of Commerce	Topics A, C, F, G, H and I	Flyer given to property owners in the Entertainment District and Downtown District to disseminate to their renters and visitors;	Increase awareness of Rush Creek and Johnson Creek flooding issues and how to prepare for a flood when visiting the City	Stormwater Education Specialist develops a flyer to be used by property owners at their discretion.	As needed throughout the year
5	Critical and Vulnerable Facilities/Assets	Topics A, C, D, G, H and I	Create flyer and presentation	Increase flood safety and preparedness	Stormwater Specialist creates flyer and presentation	Presentations offered throughout year. Written material mailed annually

### Flood Response Plan

Flood Response Plan (FRP) is a collection of outreach projects prepared prior to a flood event but not delivered until a flood occurs. The FPPIC reviewed the City's current Flood Response Program and recommended several new projects and messages that are key to flood and post-flood response. These will include the development of new written material, public service announcements, Website and Social Media materials. Table 14 outlines four FRP projects and their target audiences and message topics.



*Table 14. Flood Response Preparation Projects*

FRP#	Target Audience	Topic	Project	Outcome	Assignment
1	Homes and Businesses which have flooded	Topics C, D, I and J	Door Packets	Increase in reporting of flood damage	Review/update current door packet.
2	Homes and Businesses which have flooded	Topics C, D, I and J	Flood Damage/Clean-up fact sheet	Increased awareness of what to do after a flood	Create new flood damage and clean up sheet for distribution after a flood.
3	Local Media and City Communications Employees	Topics C, D, I and J	Media Packet	Increased awareness by City staff and local media on "What to do after a flood"	Create new media packet that includes social media posts, PSA's and written material for distribution by local media and City Office of Communication employees after a flood
4	City CERT Teams	Topics C, D, I and J	Flood Ambassador Training	Training for citizen emergency response teams on what to do after a flood	Create presentation for CERT teams and written material for distribution.

### Flood Insurance Coverage Improvement Plan

The Flood Insurance Assessment completed by City Staff provided the FPPIC information and data to develop projects to improve policy coverage in critical areas throughout the City of Arlington to be included in the Flood Insurance Coverage Improvement Plan. Table 15 shows the FPPIC Coverage Improvement Projects and their target audiences.

*Table 15. Coverage Improvement Plan Projects*

OP	Target Audience	Topics/ Messages	Specific Project	Assignment	Schedule
1	Non-SFHA Flood-prone Areas	Topics A-J	Mayor Letter/Post Card	Stormwater Engineering Staff; Stormwater	Create map by spring 2020; Begin



				Education Specialist	Mailouts Summer 2020
<b>2</b>	Repetitive Loss Areas	Topics A-J	Letter and Citizens Guide to Flood Safety annual mailout	Stormwater Education Specialist	Update material by FY2021 mailout
<b>3</b>	Local Insurance Agents and Lenders	Topics A, B, D and J	Development Training/Presentations for local insurance agents and mortgage lenders	Stormwater Education Specialist; Office of Communication	Create material in FY 2020. Develop an outreach campaign to increase attendance.
<b>4</b>	Community-Wide	Topics A-J	PSA Development for City communication channels and local media	City's Office of Communication; Stormwater Education Specialist	Begin in FY 2020. Have at least one PSA developed by FY 2021
<b>5</b>	Low policy count watersheds -Fish, Cottonwood, Johnson and Rush Creeks	Topics A, B, D, F, H and J	Council Cleanup Challenge	City's Office of Communication; Stormwater Education Specialist	Begin in FY 2021. Have at least one event annually
<b>6</b>	SFHA Multi-Family Renters	Topics A, B, J	Flood Insurance Posters	Stormwater Engineering Staff; Stormwater Education Specialist	Create posters for community areas in Multi-Family Complexes

## Annual Evaluation

The City's Public Works and Transportation Department's Stormwater Management Division will monitor the FPPI outreach projects as they are developed and disseminated. They will document the results and revise projects as needed with input from the Floodplain PPI committee members and suggestions from other City employees and/or stakeholders participating in the activities. An annual report will be prepared annually and provided to the Arlington City Council.



The FPPIC will meet twice a year or as needed to evaluate implementation of outreach projects and provide an annual review of the goals and objectives of the PPI plan. An annual report with outcomes and revisions will be submitted to the City Council as part of the City's annual recertification to the Community Rating System.

### Plan Adoption

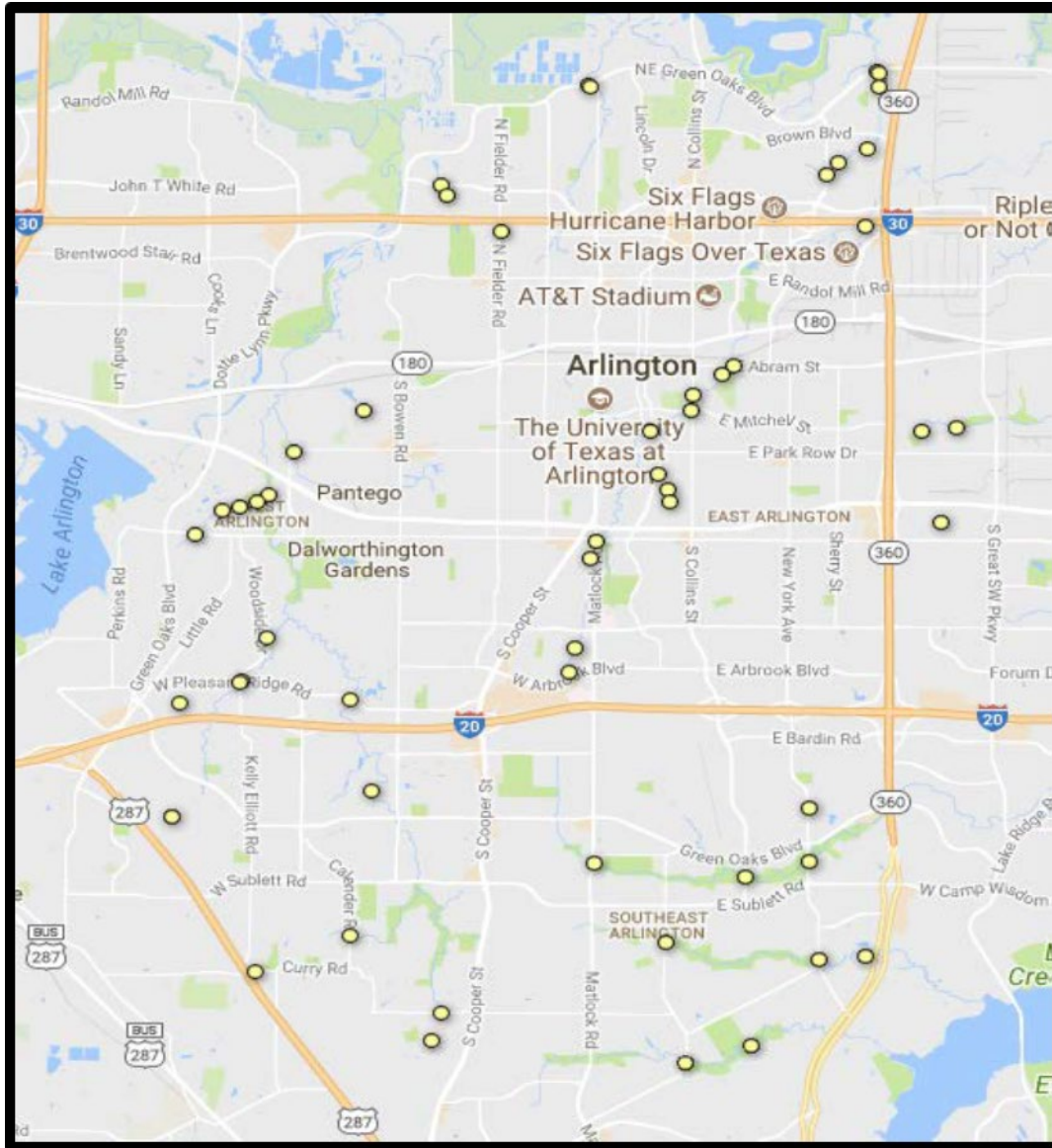
This document will become effective upon adoption by the Arlington City Council. Projected approval in January 2020.

The final draft of the CP document was sent to Gilbert Giron, Flood Insurance Liaison for FEMA Region 6 for review on December 19, 2019.

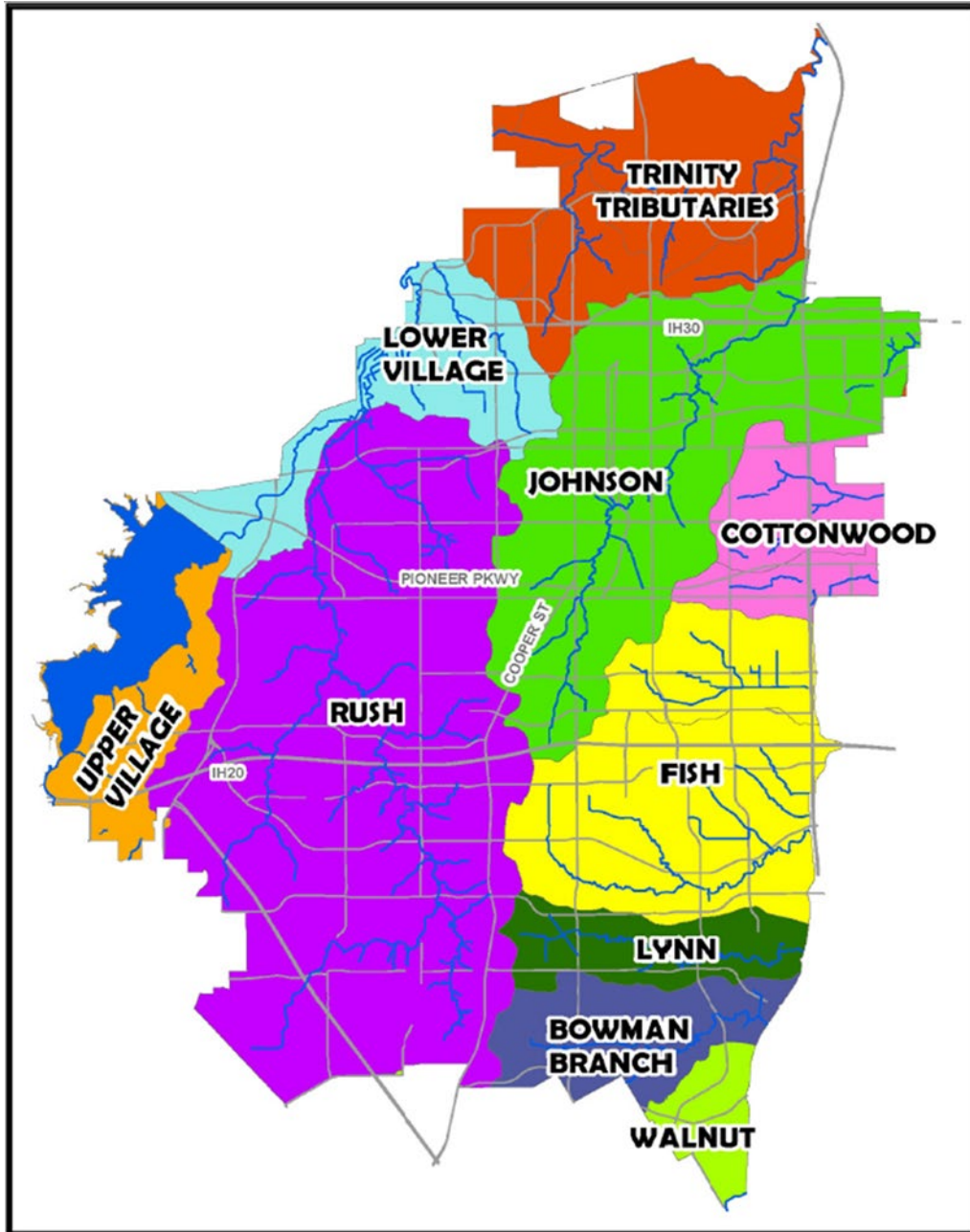




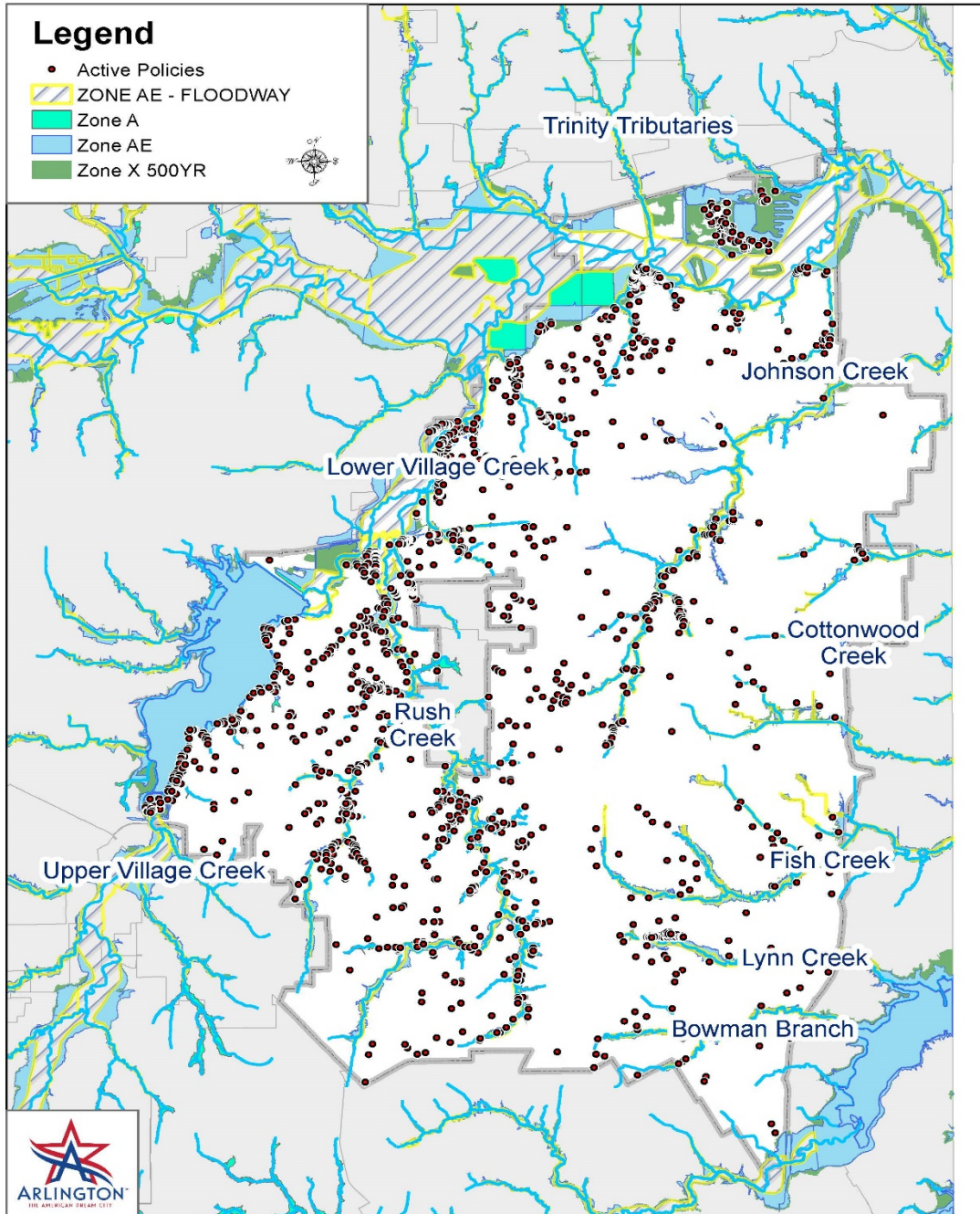
## Appendix A: Mapping Information



Map 1 – Low Water Crossing Locations (2018 Arlington Annex to the Tarrant County HMAP)



Map 2 – City of Arlington Watersheds



**Map 3 – Insurance Policy Coverage**



## Appendix B: Current and Proposed Project and Audience Table

Audience	Current Outreach Project	Proposed Outreach Project
Community Wide	<ul style="list-style-type: none"> <li>• Annual Utility Inserts</li> <li>• Community/Public Events</li> <li>• Library Presentation Series</li> <li>• Website/Social Media/News Articles</li> </ul>	<ul style="list-style-type: none"> <li>• PSA Development for website, social media and radio</li> <li>• Create new FRP Media packet that includes social media posts, PSA's and written material for distribution by local media and City Office of Communications Employees after a flood</li> <li>• Council Watershed Cleanup Challenge</li> </ul>
Non-SFHA Floodprone Area Residents and Business Owners	FRP Door Packets	<ul style="list-style-type: none"> <li>• Mayor Letter/Post Card for Flood Insurance Coverage Improvement</li> <li>• Create FRP Flood Damage and Clean Up Sheet</li> </ul>
Low Water Crossing and Barricade Location area Residents and Business Owners	Inlet Decal Program	<ul style="list-style-type: none"> <li>• Creation of Illegal Stream Dumping Signs</li> <li>• Council Watershed Cleanup Challenge</li> </ul>
AISD Bus Drivers and City of Arlington HandiTran drivers and Via drivers		<ul style="list-style-type: none"> <li>• Develops TADD presentation</li> <li>• Coordinate annual training</li> </ul>
Students, Faculty and Staff at UTA, TCC and AISD Campuses.	<ul style="list-style-type: none"> <li>• Journey Through the Storm Drain/TADD</li> <li>• Be Flood Prepared</li> <li>• TCC Arbor Day Event</li> <li>• UTA Celebrating People and the Planet Event</li> </ul>	



<p>City of Arlington Park Facility Visitors and Park Patrons</p>		<ul style="list-style-type: none"> <li>• Develop flyer/pledge to be given to pavilion renters</li> <li>• Council Watershed Cleanup Challenge</li> </ul>
<p>Entertainment District Visitors, Short Term rental property owners, Businesses, Chamber of Commerce</p>		<ul style="list-style-type: none"> <li>• Presentations to Critical and Vulnerable Facilities offered throughout year.</li> <li>• Critical and Vulnerable Facilities Written material mailed annually</li> <li>• Stormwater Education Specialist develops flood safety and awareness flyer to be used by property owners at their discretion.</li> </ul>
<p>City Employees and Volunteers</p>		<ul style="list-style-type: none"> <li>• Create new FRP Media packet that includes social media posts, PSA's and written material for distribution by local media and City Office of Communication Employees after a flood</li> <li>• Create FRP Presentation for CERT teams and written material for distribution after a flood</li> </ul>
<p>Hospitals, Nursing homes, Gas Well Operators/ Industrial businesses</p>		<ul style="list-style-type: none"> <li>• Presentations to Critical and Vulnerable Facilities offered throughout year.</li> <li>• Written material mailed annually</li> </ul>



<p>Non-English-speaking residents</p>	<ul style="list-style-type: none"> <li>• Flood Brochure and Stormwater Pollution Brochures are provided in Spanish and Vietnamese when requested</li> <li>• Website information can be translated into multiple languages</li> </ul>	<ul style="list-style-type: none"> <li>• PSA Development</li> </ul>
<p>Prospective buyers, Lenders, real estate agents, mortgage agencies</p>		<ul style="list-style-type: none"> <li>• Development Training Presentations for local insurance agents and mortgage lenders</li> </ul>
<p>SFHA Residents and Business Owners</p>	<ul style="list-style-type: none"> <li>• FRP Door Packets</li> <li>• Watershed studies/map updates/public meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Flood Insurance Multi-Family Building Posters</li> <li>• Council Watershed Cleanup Challenge</li> </ul>
<p>Repetitive Loss Properties</p>	<ul style="list-style-type: none"> <li>• Annual Mailout</li> <li>• Repetitive Loss Area Analysis</li> </ul>	