

City of Tulsa Program for Public Information



December 2014



R.D. Flanagan & Associates
Planning Consultants

Tulsa Partners, Inc.



Cover photos, clockwise from upper left: Julianna Monnot with City of Tulsa Streets and Stormwater Department presenting stormwater model to children; City of Tulsa Hazard Mitigation Booth display developed by R.D. Flanagan and Associates; 2014 Charles Page neighborhood meeting on levees; Burmese language video developed by Tulsa Partners Language and Culture Bank and Tulsa Community College Center for Creativity on creating emergency go kit.

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Above: Kids World 2014 exhibit booth staffed by Tulsa City County Health Department's Carrie Suns (center), Oklahoma Medical Reserve Corps volunteers Karin Price and Darlene Lister and Language & Culture Bank Steering Committee member Terry McGee.



Left: John Chau and Meganlee Esposito participating in Community Emergency Response Team training. These Americorps volunteers will be implementing the Points of Light Foundation's Community Emergency Preparedness Corps program in 2014-2015 under the auspices of Volunteer Tulsa.

Introduction

In December 2011, the Federal Emergency Management Agency (FEMA) published a report called: *"A Whole Community Approach to Emergency Management: Principles, Themes and Pathways to Action."* In it, the Whole Community approach is defined as, "...a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests. By doing so, a more effective path to societal security and resilience is built. In a sense, Whole Community is a philosophical approach on how to think about conducting emergency management." Referencing the lessons of past community resilience initiatives like Project Impact, this document offers examples of integrating public private partnerships and diverse community stakeholders into emergency management, including some specific references to land use and mitigation planning.

The Whole Community approach is the latest iteration of a long term trend to include citizen and private/nonprofit sector participation in minimizing disaster losses. Tulsa is, of course, no stranger to this trend. As an example, the City of Tulsa has regularly surpassed requirements for public information, education, and outreach for its Multi-Hazard Mitigation Plan and for the National Flood Insurance Program's (NFIP) Community Rating System (CRS). However, the need to engage citizens and the private sector often demands the review of old methods and development of new strategies in order to increase and keep stakeholders involved and engaged.

As a community that participates in the CRS program of the NFIP, the City of Tulsa wants to develop and implement a Program for Public Information (PPI). During the 2014 update of this community's Multi-Hazard Mitigation Plan, a Community Technical Advisory Committee participated in identifying hazards and the needs for mitigation and community outreach, under the auspices of the City of Tulsa Stormwater Drainage and Hazard Mitigation Advisory Board. This Committee has agreed to serve for this CRS process.

PPI Committee

Roster

The PPI Committee roster includes ten (10) City of Tulsa employees and fifteen (15) non-local government representatives from the public and the private sector.

Dave Berry, McGraw Realtors

Ashley Bracken, Oklahoma State Insurance Commission (local insurance agent)

Graham Brannin, City of Tulsa, Planning and Intergovernmental Administrator

Kyle Brierly, Stormwater Drainage & Hazard Mitigation Advisory Board

Jason Chromka, U.S. Army Corps of Engineers

Doug Duke, City of Tulsa, Development Services (floodplain management office)

J K Evicks, Tulsa County Local Emergency Planning Committee
Judith Finn, Stormwater Drainage & Hazard Mitigation Advisory Board
Richard Hall, City of Tulsa, Fire Department
Laura Hendrix, City of Tulsa, Working In Neighborhoods
Roger Jolliff, Tulsa Area Emergency Management Agency
Sara Kelly-Combs, First Tribal Lending (local lender)
Keith Laub Tulsa Community College
Kim MacLeod, City of Tulsa, Communications (public information office)
Stan May, City of Tulsa, Fire Department
Kim Meloy, City of Tulsa, Communications (public information office)
Julianna Monnot, City of Tulsa, Stormwater Land Management
Jamie Ott, Tulsa Area Emergency Management Agency / Tulsa County Local Emergency Planning Committee
Ann Patton, Ann Patton, LLC
Amanda Riddle, Oklahoma State Insurance Commission (local insurance agent)
Bob Roberts, Stormwater Drainage & Hazard Mitigation Advisory Board / Tulsa Public Schools
Bill Robison, City of Tulsa, Engineering Services (floodplain management office)
Kent Schroeder, City of Tulsa, Floodplain Administrator (floodplain management office)
Lynn Scofield, Stormwater Drainage & Hazard Mitigation Advisory Board
David Williams, U.S. Army Corps of Engineers

There are also five (5) non-voting consultants who attend the meetings and provide background information and facilitation services to the PPI Committee.

Phillip Berry, Flanagan and Associates, Inc.
Ron Flanagan, Flanagan and Associates, Inc.
Tim Lovell, Tulsa Partners
Mark Swift, Swift Water Resource Engineering, LLC.
David Wakefield, Flanagan and Associates, Inc.

Meeting summaries of the PPI Committee's preparation of this plan are provided in an appendix at the end of this document.

Community Needs Assessment

Because the PPI Committee served as a Community Technical Advisory Committee for the 2014 update of the Multi-Hazard Mitigation Plan, it is using the assessment from that document, with additional information as identified during the development of this planning document. A complete community description, including governance, geography, climate, history, demographics, lifelines, economy, development, and critical facilities is provided in section 1.2, pages 6-66 of the plan. The flood hazard community assessment is covered in section 4.10, pages 231-250. The dam failure hazard community assessment is covered in section 4.11, pages

251-271. The levee failure hazard community assessment is covered in section 4.12, pages 272-279. A summary of each of the cited community hazards are provided below.

Flood Hazard Conclusions

Over recent years, progress has been made in protecting the lives and property of Tulsa's citizens from flooding, but much work remains to be done to make Tulsa flood-safe. It is important that Tulsans avoid being lulled into a false sense of security that could make them vulnerable to unexpected tragedy.

Because of the number of streams that run through the city, the seasonal thunderstorms that dump massive amounts of rainfall in brief time-spans, the presence of aging levees, a high hazard dam on the Arkansas River above the jurisdiction, and the community's history of flooding, Tulsa remains vulnerable to frequent moderate flooding and the potential for infrequent catastrophic flooding.

The City of Tulsa is considered to have a HIGH vulnerability to and HIGH probability of the Flood hazard.

Dam Failure Conclusions and Levee Failure Conclusions

Tulsa is exposed to risk of flooding from failure of five high hazard-potential upstream dams identified through the Oklahoma Water Resource Board (OWRB) Dam Safety Program. These dams are Keystone, Yahola, Warrenton, Skiatook and Lynn Lane (A.B. Jewell). The dam posing the greatest threat to Tulsa is Keystone. See the end of this section for more information on the Oklahoma Dam Safety Program.

Forced releases of large amounts of water can be a significant flood hazard. This was exemplified by the 1986 Keystone Reservoir water releases that caused downstream flooding.

People, property, critical facilities, and infrastructure downstream of dams and behind levees could be subject to devastating danger and damage in the event of failure. The most important factor for public safety is the timeliness, the effectiveness of warning given to vulnerable populations, and the amount of pre-event public education and planning. Dams and levees often convey a false sense of security, allowing people to think they will always be protected, so dam and levee safety is not usually high in the public consciousness. The recent failures of the New Orleans and the Mississippi River levees may serve to focus more attention on these risks.

A related threat to Tulsa is posed by the Arkansas River levees, built in 1945 and protecting 2,271 residences, 149 commercial properties and 106 industrial parcels (\$150,000,000 in property). Failure of the levees along the Arkansas River would have a devastating impact upon the City of Tulsa and Tulsa County. In the 1986 flood event the levee breached in one location and had boils develop in other locations. This event had a maximum release rate of 307,000 CFS from Keystone Dam which has been called a 300-350 year event. In a similar event it is likely there would be similar performance issues.

The worst-case event, a failure of Keystone Dam and the Arkansas River levees, could impact over 16,400 parcels with improvements within the city limits of Tulsa, create a severe risk for an estimated 94,000 people, cause an estimated \$1,900,000,000 in damage to buildings, including 66 critical facilities. In addition, it could produce widespread power outages, and release of hazardous chemicals.

Tulsa is considered to have a HIGH vulnerability to a LOW probability Dam Failure event. Tulsa is considered to have a HIGH vulnerability to and a MODERATE probability of the Levee Failure hazard.

Oklahoma Dam Safety Program

“The OWRB coordinates the Oklahoma Dam Safety Program to ensure the safety of more than **4,700** dams in the state. The Program requires inspections for all **jurisdictional size** dams based on the presence of **downstream development**.”

Hazard-Potential Classification	Risk Involved with Dam Failure	Inspection Frequency
High	probable loss of human life	annually, by a registered professional engineer
Significant	no probable loss of human life but can cause economic loss or disruption of lifeline facilities	every three years by a registered professional engineer
Low	no probable loss of human life and low economic loss	every five years

In addition, owners of high hazard dams are required to have an **emergency action plan** (EAP) in place. Copies of the EAP must be submitted to local law enforcement agencies and emergency management officials. OWRB staff require submittal and subsequent approval of plans and specifications prior to all new dam construction and modifications to existing dams.”

Source: <http://www.owrb.ok.gov/hazard/dam/dams.php>

This is the link to OWRB’s chapter and jurisdictional authority for dam hazard classifications: http://www.owrb.ok.gov/util/rules/pdf_rul/current/Ch25.pdf

This is a link to the OWRB’s dam safety fact sheet: http://www.owrb.ok.gov/about/about_pdf/Fact-DamSafety.pdf

Target Audiences

The following target audiences are listed because of the PPI committee’s desire to reach a broad range of audiences. The recommendations were informed by committee discussions on public outreach during the 2014 Multi-Hazard Mitigation Plan update process which occurred over a period of a year. The PPI Committee will continue to review this list to identify target messages as appropriate for each audience.

Target Areas affected by floods (not in priority order)

1. Areas subject to flooding by levee failure
2. Repetitive loss properties/areas
3. Areas within City Regulatory and Special Flood Hazard Areas
4. Areas outside City Regulatory and Special Flood Hazard Areas
5. Areas subject to flooding by a dam failure

Other Target Audiences for outreach

6. Vulnerable Populations (as defined by City of Tulsa Multi-Hazard Mitigation Plan)*
7. Bankers/Lenders/Insurance/Builders/Real Estate Agents
8. Chambers of Commerce and Civic Groups
9. Critical Facilities (as defined by City of Tulsa Multi-Hazard Mitigation Plan)**
10. Neighborhood Associations

* In the 2014 Multi-Hazard Mitigation Plan, page 24, “vulnerable populations” may include the following:

- The elderly;
- People in poverty;
- People who speak a language other than English;
- People with mobility, hearing, visual or other physical disabilities;
- People with developmental or other cognitive disabilities;
- People with no access to private transportation;
- People with medical needs or medical/life support devices;
- People with pets.

**From 2014 Multi-Hazard Mitigation Plan, pages 39-40: Critical facilities are defined differently by different organizations and agencies, but are usually classified as those facilities vital to the health, safety, and welfare of the population and that are especially important following hazard events, or as those facilities that, if put out of operation by any cause, would have a broadly adverse impact on the community as a whole. FEMA includes the following:

- Structures or facilities that produce, use or store highly volatile, flammable, explosive, toxic and/or water-reactive materials;
- Hospitals, nursing homes, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a disaster;
- Police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for disaster response activities before, during, and after an event;
- Public and private utility facilities that are vital to maintaining or restoring normal services to affected areas before, during and after an event.

This may also include buildings designated as emergency shelters, schools, childcare centers, senior citizen centers, major medical facilities, disability centers, and City Hall. Since 9/11, FEMA has also added banks and other major financial institutions to their critical facilities list.

Public Information Efforts

Note that some of the stakeholder organizations listed may be used for future public outreach endeavors identified by the PPI Committee over the coming year.

American Red Cross

- Disaster Preparedness presentations 1-2 times a week in Tulsa

Catholic Charities Migration and Refugee Services

- Immigrant orientation which includes local hazards and disaster preparedness information in native languages

Child Care Resource Center

- Presentations on emergency and business continuity planning for child care facilities, once a year

City of Tulsa Communications (City Life, website)

- Periodic article in City Life utility bill stuffer with disaster preparedness and flood information
- Flood Control information website
- Social Media

City of Tulsa Engineering Services

- Annual Mailing to property owners in floodplain
- Presentations to groups like Greater Tulsa Realtors Association

City of Tulsa Fire Department

- Weekly presentations on fire and flood safety and general disaster preparedness

City of Tulsa Police Department

Presentations and booth on public safety and disaster preparedness by public education officer

City of Tulsa Streets and Stormwater Department

- Presentations on stormwater quality and low impact development (minimum of three LID presentations a year)
- Completed three video commercials related to Save Our Steams (low impact development, storm drains and pollution, erosion and sediment runoff) running on broadcast media and YouTube and City of Tulsa website

City of Tulsa Water and Sewer Department

- Presentations on water quality and low impact development

City of Tulsa Working In Neighborhoods

- Hazard information included in weekly electronic newsletter to neighborhoods
- Presentations to neighborhoods on hazard related topics

Community Action Project

- Has special community outreach program in Eugene Field area called Growing Together, which could assist with neighborhood outreach

Community Service Council of Greater Tulsa / 211

- Provides preparedness information through coalitions of social service agencies (Tulsa Human Response Coalition)
- Works with Tulsa County Social Services, John 3:16 and Salvation Army on preparedness / response outreach to transient population, including those in camps by river.

Environmental Education Committee

- Public and nonprofit sector environmental education groups track presentations and events on environmental issues, including low impact development and storm drains
- Has an online calendar of events

Greater Tulsa Association of Realtors

- Distribution of brochure on Realtor responsibility to disclose of flood hazard
- Presentation on Realtor responsibility to disclose flood hazard by City of Tulsa Engineering Services

Home Builders Association of Greater Tulsa

- Can assist with providing information on permitting and building in flood-prone areas.
- Hosts Greater Tulsa Home and Garden Show

John 3:16

- Works with Tulsa County Social Services, Community Service Council and Salvation Army on preparedness / response outreach to transient population, including those in camps by Arkansas River

Metropolitan Environmental Trust

- Provides information on hazardous waste
- Holds semi-annual Fairgrounds Pollutant Collection event

Metropolitan / Regional Medical Response Systems

- The RMRS/MMRS leads collaborative local Medical/Healthcare System initiatives and activities that facilitate integrated planning and enhance the ability of the local

healthcare delivery system to prepare for, respond to, and recover from incidents that have a public health and medical impact

National Weather Service-Tulsa Office

- Storm Spotter Workshop in coordination with Tulsa Area Emergency Management Agency. Basic weather awareness and spotter training draws about 125 people each year (late February).
- StormReady program
- Turn Around Don't Drown

Oklahoma Conservation District-Blue Thumb

- Educational outreach on water quality issues, including storm drains

Oklahoma Emergency Management Association

- Materials and resources for disaster preparedness outreach

Oklahoma Floodplain Managers Association

- Presentations on stormwater quantity and water quality issues
- Presentations on Turn Around Don't Drown

Oklahoma Insurance Department

- Presentations on insurance-related issues

Oklahoma Silver Jackets/ U.S. Army Corps of Engineers-Tulsa Office

- The Arkansas River Flood Risk Management Public Involvement Plan (PIP) is to improve public awareness and understanding of flood risk associated with the Tulsa-West Tulsa Levees, and provide opportunities for community members to mitigate their own risk
- Exercises on flood related topics with area stakeholders

Oklahoma Small Business Development Center

- Works with small businesses on development of emergency/business continuity plans in conjunction with Tulsa Partners

Oklahoma State Department of Health

- Works closely with Tulsa City-County Health Department
- Has a website on emergency preparedness and a state working group on access and functional needs and emergency preparedness

Oklahoma Water Resources Board

- OWRB primary responsibilities include water use appropriation and permitting, water quality monitoring and standards, financial assistance for water/wastewater systems, dam safety, floodplain management, water supply planning, technical studies and research, and water resource mapping.

Oxley Nature Center

- Can provide tours and information on open space preservation and natural floodplain function.

Print and Broadcast Media

- The print and broadcast media play a critical role as a stakeholder in writing article and stories and op ed pieces as a part of outreach projects. The following is a list of those media outlets. Some radio station groups have multiple stations. (Articles and stories count for additional stakeholder credit even if generated by City press release because public views story as coming from media outlet.)

This Land Press

Cox Inc.

The Journal Record

KJRH

KOTV

KTUL

KOKI – Fox23

OETA

KWGS (NPR station at TU)

iHeartMedia (previously Clear Channel--multiple radio stations)

Tulsa Business Journal

Tyler Media (Telemundo)

Teletul

Associated Press-Oklahoma

Oklahoma Eagle

Tulsa World

Journal Broadcast Group (radio stations)

Langdon Publishing

GTR

Life Senior Services' Vintage Magazine



Save Our Streams- Low Impact Development commercial on broadcast television and YouTube

Regional Medical Planning Group

- Regional Medical Planning Groups (RMPGs), have been established to serve as the jurisdictions Healthcare Coalition. The RMPG's meet regularly throughout the calendar year to coordinate medical system planning efforts among RMPG members

Salvation Army

- Presentations on disaster preparedness
- Works with Tulsa County Social Services, John 3:16 and Community Service Council on preparedness / response outreach to transient population, including those in camps by river.

TSHA, Inc.

- “Total Source for Hearing-loss and Access”
- Ongoing information provided to deaf and hard of hearing population
- Deaf Deaf World, immersion experience for hearing population on issues for deaf/hard of hearing community, including simulated emergency alert on flood or nuclear attack.

Tulsa Area Emergency Management Agency

- Emergency Management Day at the Capitol: Meet with area legislators at the Capitol to educate them about emergency management’s interest in pending legislation. Late February
- Storm Spotter Workshop in coordination with the National Weather Service. Basic weather awareness and spotter training draws about 125 people each year. Late February
- Television and Radio interviews about severe weather and the warning system. Ranges from 20 in a slow year to 50 in a busy year.
- TAEMA 101 and Severe Weather Preparedness. These topics have been presented on request to civic groups, including Rotary Clubs, Kiwanis Clubs, and neighborhood associations, over the past year.
- Exercises with stakeholders on multi-hazard topics, including floods

Tulsa County

- Press releases and social media on key messaging shared by City of Tulsa.

Tulsa County Conservation District

- Presentations on request concerning water conservation, watershed protection and pollution prevention
- Annual Resource Management Conference has presentations concerning water conservation, watershed protection, pollution prevention and low impact development

Tulsa City County Health Department

- Exhibit at health fairs and other venues on disaster preparedness
- Coordinates Oklahoma Medical Reserve Corps in Tulsa County

Tulsa City-County Library

- Provides space for brochures and other information on flood hazards

Tulsa County Levee District 12

- Presents on preparedness and mitigation needs for this levee district.

Tulsa County Local Emergency Planning Committee

- Public information on hazardous materials

Tulsa County Oklahoma State University Extension Service

- Provides research-based education on agriculture and natural resources.

Tulsa County Social Services

- Works with Community Service Council, John 3:16 and Salvation Army on preparedness / response outreach to transient population, including those in camps by river.

Tulsa Metropolitan Ministry

- Can provide information on disaster preparedness to area churches.

Tulsa Partners

- Developing speakers' bureau on topics related to disaster preparedness, disaster resistant construction, and sustainability. Planned for once a month.
- Millennium Center developing green and safe construction guidance based on experiences in Oklahoma City area since May 2013 tornado, including IBHS Fortified Home guidance. Available March 2015.
- Language and Culture Bank exhibits at multicultural events for both general public and immigrant communities, once a quarter
- Disaster Resistant Business Council holds A Day Without Business Symposium bi-annually and Make A Plan / Test Your Plan workshops based on IBHS Open for Business curriculum for business and nonprofits in alternating years to the symposium, as well as an annual Disaster Management for Long Term Care Facilities Workshop.

Tulsa Regional Chamber

- Conduit for outreach to business community
- Representative serves on Tulsa Partners Disaster Resistant Business Council

Volunteer Tulsa

- Year-round, Volunteer Tulsa promotes preparedness and supports response and recovery efforts through organizing and managing spontaneous unaffiliated volunteers (SUVs) through the Emergency Volunteer Center (EVC)
- Overseeing the Points of Light's Community Emergency Preparedness Corps to help strengthen our community's disaster resiliency

YWCA of Tulsa Immigrant and Refugee Program

- Citizenship classes for immigrant community; has information on disaster preparedness.

Inclusion of significant outreach activities subject to CRS

The PPI Committee has agreed to include the following activities in the Program for Public Information and to review annually projects associated with these outreach activities:

- Activity 320 Publicity on Map information Service provided by City. (See under Projects and Initiatives / Outreach Projects table for areas 3 and 4 on pages 16 and 18.)
- Activity 330 In addition to Outreach Projects, this activity includes Flood Response Preparations-- a pre-flood plan for public information projects that will be implemented during and after a flood. This will be under development during the coming year, although there is initial work under Flood Response Projects table, pages 21-22.
- Activity 340 Disclosure of Flood Hazards—See Realtor’s brochure under OP 7 under Builders and Realtors on page 19. Real estate agents will be involved in the development and distribution of this home hunters guide to check out the flood hazard before buying.
- Activity 350 Information provided through City of Tulsa flood control website: <https://www.cityoftulsa.org/city-services/flood-control.aspx>. (See under Outreach Projects table for areas 3 and 4 on pages 17 and 18.) The website will be reviewed to ensure that all PPI messages are included.
- Activity 360 Flood Protection Advice and Assistance, including after a site visit, offered through City of Tulsa. See reference under Areas 3 and 4, pages 16 and 18. The staff designated to provide this one-on-one technical assistance service to homeowners are familiar with structural / non-structural flood protection and mitigation measures including flood insurance. Reviewing program records, the PPI Committee will determine whether the service is being adequately promoted and used.
- Activity 360 Financial Assistance Advice-Providing information on all available sources of assistance. This will be under development during the coming year.
- Activity 370 Flood Insurance Assessment and Flood Insurance Coverage improvement plan— this will be under development during the coming year. We currently know the percent of the floodplain properties that have coverage, amount of coverage and total value of those structures.
- Activity 420 Open Space Preservation: Educational materials and tours in open space areas that have identified natural floodplain function. Since keeping open space areas with a natural floodplain function is considered a low impact development strategy, this is included under Message H, with OP 8 for areas 3 and 4 on pages 16 and 17.
- Activity 540 Drainage System Maintenance: Publicizing regulations prohibiting dumping in streams and ditches. Information on this would be included in outreach projects tied to Message G: “Storm Drains are for Rain,” protecting natural floodplain functions.
- Activity 610 Flood Warning and Response. Information on flood warning and response, including flood warning sirens, are included in Outreach Projects for Messages A, I and J, and are especially included in City of Tulsa website and City Life utility bill stuffers.
- Activity 620 Levees. See Area 1 on page 15.
- Activity 630. Dams. See Area 5 on page 18.

Messages and Desired Outcomes

Message	Desired Outcome	CRS Priority Topics (for comparison only)
A. Know your risk of flooding B. What are your options if you live in a repetitive loss property?	A. More requests for flood information and/or elevation certificates B. More requests for information on options for repetitive loss properties	Know your flood hazard
C. You need flood insurance	C. Increase in the number of flood insurance policies	Insure your property for your flood hazard
D. Turn around, don't drown	D. Fewer deaths due to drowning, or reports of water rescues or police ticketing drivers who ignore barricades	Protect people from the hazard
E. You can protect your property from flooding	E. More requests for information on flood-resistant construction and rehabilitation	Protect your property from the hazard
F. Get a building permit when constructing in flood-prone areas	F. Fewer floodplain violations	Build responsibly
G. Storm drains are for rain	G. Measured increase in water quality in watershed	Protect natural floodplain functions
H. LID improves water quality	H. More requests for information on low impact development or increase in related building permits	<i>PPI Additional Topic:</i> Low Impact Development
I. Everyone should have an emergency plan in case of flooding or other disasters	I. More people have emergency plans and kits	<i>PPI Additional Topic:</i> General Preparedness
J. Have a plan to protect your business from flooding or other disasters	J. More businesses report they have developed an emergency and business continuity plan after training	<i>PPI Additional Topic:</i> Business Preparedness
K. Avoid flood-prone areas when taking shelter during tornado events L. Get a building permit when installing safe rooms in flood prone areas	K. Fewer reports of people seeking shelter in culverts and areas prone to flash flooding. L. Increase in number of City-registered tornado shelters within flood-prone areas.	<i>PPI Additional Topic:</i> Tornado Preparedness

PPI Projects and Initiatives

Please see the table below for identified outreach projects to be implemented each year, as well as flood response projects to be implemented during and after a flood.

Outreach Projects

- OP 1: Silver Jackets Arkansas River Public Involvement Plan (See description under Oklahoma Silver Jackets / U.S. Army Corps of Engineers-Tulsa Office on page 8)
- OP 2: City Life Utility Bill Stuffer
- OP 3: Annual Notification Mailing to Repetitive Loss Property Owners
- OP 4: Annual Notification Mailing to City Regulatory and SFHA property owners
- OP 5: Media Releases (Press Inquiries, Broadcast Media, Commercials, Public Service Announcements)
- OP 6: Social Media Outreach
- OP 7: Brochures and Materials
- OP 8: Presentations and Exhibits
- OP 9: Workshops
- OP 10: Working In Neighborhoods Department (WIN) Electronic Newsletter

Other items under Outreach Projects

The following items, although not outreach projects, are included as part of our PPI and are to be promoted as a resource in the above outreach projects.

- Flood Protection Advice and Assistance
- Map Information Service
- Website

Flood Response Projects

- FRP 1 Media releases (Press Inquiries, Broadcast Media, Commercials, Public Service Announcements)
- FRP 2 Social Media outreach

**Arkansas River Tabletop
Exercise facilitated by U.S.
Army Corps of Engineers**



Projects and Initiatives
Outreach Projects (OP)

Target Audience	Message(s) (See Table page 13)	Outcome (See Table page 13)	Project(s)	Assignment	Schedule / Description	Stakeholder
1. Areas subject to flooding by levee failure	A	A	OP 1 Silver Jackets Public Involvement Plan Project	U.S. Army Corps of Engineers	Public meetings and outreach are ongoing	Levee District 12 and other Silver Jackets partners
	A,C	A,C	OP 2 City Life utility bill stuffer	City of Tulsa Communications Department	Periodic messages related to flood hazards, includes annual message to properties at risk to levee failure	
2. Repetitive loss properties	A-I	A-I	OP 3 Annual Mailing notification to repetitive loss areas	City of Tulsa Engineering Services	Annually	
3. Areas within City Regulatory and Special Flood Hazard Areas	A-I	A-I	OP 2 City Life utility bill stuffer	City of Tulsa Communications Department	Periodic messages related to flood hazards	
	A, C	A,C	OP 4 Annual notification mailing to City Regulatory and SFHA property owners	City of Tulsa Engineering Services	Spring 2015	
	A-L	A-L	OP 5 Media releases	City of Tulsa Communications Department	Based on seasonal interest (Spring 2015) or by events	Print and Broadcast Media (see list under public information efforts)

Target Audience	Message(s) (See Table page 13)	Outcome (See Table page 13)	Project(s)	Assignment	Schedule / Description	Stakeholder
3. Areas within City Regulatory and Special Flood Hazard Areas (continued)	G,H	G,H	OP 5 Media Releases and OP 6 Social Media Outreach	City of Tulsa Streets and Stormwater Department	Save Our Streams Video Commercials (See description on page 7) Scheduled through March 2015 on Broadcast media and all year on YouTube	
	A-L	A-L	OP 6 Social Media outreach (Facebook, Twitter)	City of Tulsa Communications Department	Based on seasonal interest (Spring) or by events, or in conjunction with City Life topics	City of Tulsa, Tulsa County
	A-L	A-L	OP 7 Brochure and Materials	City of Tulsa Engineering Services	Ongoing year round display	Multiple stakeholders including but not limited to Tulsa City County Library
	H	H	OP 8 Presentations and Exhibits	City of Tulsa Engineering Services	Seasonal tours of open space preservation areas	Multiple stakeholders including but not limited to Oxley Nature Center
	A,E	A,E	Flood Protection Advice and Assistance	City of Tulsa Engineering Services	Year-round as part of regular service	
	A	A	Map Information Service	City of Tulsa Engineering Services	Year-round as part of regular service	

Target Audience	Message(s) (See Table page 13)	Outcome (See Table page 13)	Project(s)	Assignment	Schedule / Description	Stakeholder
3. Areas within City Regulatory and Special Flood Hazard Areas (continued)	A-L	A-L	Website	City of Tulsa Communications Department	Ongoing website content on City of Tulsa website	
4. Areas outside City Regulatory and Special Flood Hazard Areas	A-I	A-I	OP 2 City Life utility bill stuffer	City of Tulsa Communications Department	Periodic messages related to flood hazards	
	A-L	A-L	OP 5 Media releases	City of Tulsa Communications Department	Based on seasonal interest (Spring) or by events	Print and Broadcast Media (see list under public information efforts)
	G,H	G,H	OP 5 Media Releases and OP 6 Social Media Outreach	City of Tulsa Streets and Stormwater Department	Save Our Streams Video Commercials (See description on page 7) Scheduled through March 2015 on Broadcast media and all year on YouTube	
	A-L	A-L	OP 6 Social Media outreach (Facebook, Twitter, etc.)	City of Tulsa Communications Department	Based on seasonal interest (Spring) or by events, or in conjunction with City Life topics	City of Tulsa, Tulsa County
	A-L	A-L	OP 7 Brochure and Materials	City of Tulsa Engineering Services	Ongoing year round display	Multiple stakeholders including but not limited to Tulsa City County Library

Target Audience	Message(s) (See Table page 13)	Outcome (See Table page 13)	Project(s)	Assignment	Schedule / Description	Stakeholder
4. Areas outside City Regulatory and Special Flood Hazard Areas (continued)	H	H	OP 8 Presentations and Exhibits	City of Tulsa Engineering Services	Seasonal tours of open space preservation areas	Multiple stakeholders including but not limited to Oxley Nature Center
	A,E	A,E	Flood Protection Advice and Assistance	City of Tulsa Engineering Services	Year-round as part of regular service	
	A	A	Map Information Service	City of Tulsa Engineering Services	Year-round as part of regular service	
	A-L	A-L	Website	City of Tulsa Communications Department	Ongoing City of Tulsa website content	
5. Areas subject to flooding by a dam failure	A,C	A,C	OP 2 City Life utility bill stuffer	City of Tulsa Communications Department	Periodic messages related to flood hazards; Includes annual message on properties at risk to dam failure	
6. Vulnerable Populations	A, I, K	A, I, K	OP 8 Presentations and exhibits	PPI Committee	Presentations to groups and booth exhibits at events for vulnerable populations	Multiple stakeholders listed under public information efforts, including but not limited to TSHA, American Red Cross, Oklahoma State Department of Health, etc.,

Target Audience	Message(s) (See Table page 13)	Outcome (See Table page 13)	Project(s)	Assignment	Schedule / Description	Stakeholder
7. Bankers / Lenders/ Insurance/ Builders and Real Estate Agents	A-C, E-F, H-J, L	A-C, E-F, H- J, L	OP 8 Presentations and exhibits	PPI Committee	Presentations to groups and booth exhibits at events for bankers, lenders and insurance industry	Multiple stakeholders listed under public information efforts, including but not limited to the Oklahoma Insurance Department, Homebuilders Association of Greater Tulsa and the Greater Tulsa Realtors Association
	A,C	A,C	OP 7 Brochure and Materials	City of Tulsa Engineering Services	Develop brochure with realtors for home shoppers on disclosure of flood hazards	Greater Tulsa Realtors Association
	H	H	OP 9 Workshops	PPI Committee	Workshops such as the Natural Resource Management conference which discuss low impact development and natural floodplain functions	Multiple stakeholders listed under public information efforts, including but not limited to the Tulsa County Conservation Commission

Target Audience	Message(s) (See Table page 13)	Outcome (See Table page 13)	Project(s)	Assignment	Schedule / Description	Stakeholder
8. Chambers of Commerce & Civic Groups	A-L	A-L	OP 8 Presentations and exhibits	PPI Committee	Presentations to groups and booth exhibits at events for chambers of commerce and civic groups	Multiple stakeholders listed under public information efforts, including but not limited to the Tulsa Regional Chamber, Tulsa Partners, etc.
	J	J	OP 9 Workshops	Tulsa Partners Disaster Resistant Business Council	Workshops on business continuity and emergency planning	Done in conjunction with Oklahoma Small Business Development Center
9. Critical Facilities	A-L	A-L	OP 8 Presentations and exhibits	PPI Committee	Presentations to groups and booth exhibits at events for schools, child care facilities, long term care facilities, and other critical facilities	Multiple stakeholders listed under public information efforts, including but not limited to Tulsa Partners, Child Care Resource Center, OFMA & Metropolitan Medical Response System

Target Audience	Message(s) (See Table page 13)	Outcome (See Table page 13)	Project(s)	Assignment	Schedule / Description	Stakeholder
9. Critical Facilities (continued)	J	J	OP 9 Workshops	PPI Committee	Workshops on business continuity and emergency planning	Multiple stakeholders listed under public information efforts, including but not limited to Tulsa Partners, Child Care Resource Center, and Metropolitan Medical Response System
10. Neighborhood Associations	A-L	A-L	OP 10 WIN Electronic Newsletter	City of Tulsa Working In Neighborhoods (WIN) Department	Weekly newsletter to registered neighborhood associations with hazard information in each issue	Neighborhood Associations
Flood Response Projects (FRP)						
1. Areas subject to flooding by levee failure	A,D, I, K	A, D, I, K	FRP 1 Media releases	City of Tulsa Communications Department	In response to event in levee inundation area	Print and Broadcast Media (see list under public information efforts)
	A,D, I, K	A, D, I, K	FRP 2 Social Media outreach (Facebook, Twitter)	City of Tulsa Communications Department	In response to event in levee inundation area	City of Tulsa, Tulsa County

Target Audience	Message(s) (See Table page 13)	Outcome (See Table page 13)	Project(s)	Assignment	Schedule / Description	Stakeholder
3. Areas within City Regulatory and Special Flood Hazard Areas	A, D, I, K	A,D,I,K	FRP 1 Media releases and press inquiries	City of Tulsa Communications Department	In response to event	Print and Broadcast Media (see list under public information efforts)
	A,D, I, K	A, D, I, K	FRP 2 Social Media outreach (Facebook, Twitter)	City of Tulsa Communications Department	In response to event	City of Tulsa, Tulsa County
4. Areas outside City Regulatory and Special Flood Hazard Areas	A,D, I, K	A, D, I, K	FRP 1 Media releases	City of Tulsa Communications Department	In response to event	Print and Broadcast Media (see list under public information efforts)
	A,D, I, K	A, D, I, K	FRP 2 Social Media outreach (Facebook, Twitter)	City of Tulsa Communications Department	In response to event	City of Tulsa, Tulsa County
5. Areas subject to flooding by a dam failure	A,D, I, K	A, D, I, K	FRP 1 Media releases and press inquiries	City of Tulsa Communications Department	In response to event in dam inundation area	Print and Broadcast Media (see list under public information efforts)
	A,D, I, K	A, D, I, K	FRP 2 Social Media outreach (Facebook, Twitter)	City of Tulsa Communications Department	In response to event in dam inundation area	City of Tulsa, Tulsa County
6. Vulnerable Populations	A,D, I, K	A, D, I, K	FRP 1 Media releases	City of Tulsa Communications Department	In response to event, with special information for target audience in form they can understand	Print and Broadcast Media (see list under public information efforts)

Follow Up

The Lead Engineer for Stormwater Project Coordination at the City of Tulsa will monitor submitted information on projects and initiatives as they are developed and implemented, including input from city employees and stakeholders participating in the activities. That information will be shared with committee members via email or at scheduled PPI meetings.

The PPI Committee will meet at least twice each year to review implementation of these projects and initiatives. At that time, the status of the projects will be explained and progress toward the outcomes will be discussed. The Committee will recommend to the appropriate City offices and stakeholders who implement projects whether the projects should be changed or discontinued.

At least once a year, staff will draft an update to the table above of target audiences and send it to the Committee members. The Committee will meet and review the outcomes of each individual activity to change, add, or approve them. The Messages and Desired Outcomes table will be revised. The outcomes and revisions will be submitted as part of the City's annual recertification package for CRS, and a written report will be submitted to the Stormwater Drainage and Hazard Mitigation Advisory Board and the City Council.

Adoption

This plan will become effective when it is approved by the Stormwater Drainage and Hazard Mitigation Advisory Board and adopted by City Council and the Mayor.



Meeting of Stormwater Drainage and Hazard Mitigation Advisory Board

APPENDICES

Photos of A Day Without Business Symposium 2014 in Tulsa, including panel presentation with representatives from Boulder, Colorado (floods) and Moore, Oklahoma (tornadoes), discussing need to have business continuity and emergency plans.



Appendix A: PPI Committee Meeting Summaries and Sign In Sheets

PPI Committee Meeting Summaries

The following are meeting summaries of three meetings held by this Committee in 2014, as well as a prior meeting in 2013 done as part of the Multi-Hazard Mitigation Plan Update. They are provided as background on the development of this Program for Public Information.

February 2013

The work of the PPI Committee grew directly out of the 2014 City of Tulsa Multi-Hazard Mitigation Plan update, for which public information and education was an ongoing topic of monthly meetings about the various hazards. As a part of that process, the February 7, 2013 meeting of the Technical Advisory Committee discussed Public Information and Engagement. Tim Lovell, Executive Director of Tulsa Partners, presented a PowerPoint presentation that combined the new FEMA Community Rating System (CRS) Public Participation and Involvement Requirements, adapted to the needs of All-Hazards Mitigation. Tim facilitated the interactive participation and involvement of all Technical Advisory Committee members. The notes of the meeting included a Flip-Chart summary of ideas and issues of the participants, including target audiences, pre-packaged programs for public information and engagement (public information efforts), coordination with key stakeholders, and action guidance (keep messages small and simple; key messages to builders; etc.).

Targets

Senior Health Care Facilities
Senior care facilities
Churches
Realtors
Building Trade Associations
Policy Makers, Politicians
Government Entities
Chamber of Commerce
Public Housing
Special Needs Populations
Non-Profit Organizations

Neighborhood Associations
Critical Facilities
English Language Learners
Bankers/Lenders/Mortgage Inst.
Historic Properties
School Children
Civic Groups
Day Care Facilities
Confinement Facilities
Media
Tribal Nations

Pre-Packaged PPI/PPE Programs

Salvation Army
StormReady
City-County Health
Metropolitan Ministry/Alliance

FireWise
Medical Response
Local Emergency Planning Committee
IBHS/FLASH

Issue: Coordination

Media

Joint Information Center

New Ideas

Meteorologists

Human Response Coalition

Action

Keep Messages Small and Simple

What You Can Do About It

Key Messages to Builders

Incentives

Raise Awareness

Neighbor-to-Neighbor

Teachable Moments

Build “Know Your Neighborhood” Network

Recommendations

Sarah Kelly Combs, Mortgage Banker- Have a Clear Message; Lower Loss of Life

Dave Berry, Realtor- Realtors, Hazards Information, Awareness

Roger Jolliff, Director, Tulsa City County Emergency Management- Many Messages; Ways to get the Message out; Use of Social Media

Keith Laub, Tulsa Community College- One Unified Voice on All Hazards

Charles Hardt, Retired, Director, CoT Public Works- Need a Simple, Specific Comprehensive Plan

Richard Hall, Planner, Tulsa Fire Department- Target Audience; Slogans, e.g., “Turn Around, Don’t Drown”

J. K. Evicks, BAMA Industries- Focus, Identify Audience; Clear, Concise Message

Bob Roberts, Emergency Manager, Tulsa Public Schools, SDHMA Board Member-Need for a Pilot; Infrastructure

Julianna Monnot, CoT Water-Sewer Dept, Public Information Officer- Prepare for Teachable Moments

Bob Bledsoe, CoT Communications Officer- Need Salesmen

Lisa Piccolo, Planning Liaison, Pawnee- Personal Safety, Risk Analysis

Ann Patton, SDHMAB Board Member, Vice Chair Natural Hazards Mitigation Association- On-Going, Longer Term Focus beyond the HM Plan

Annie Mack, Consultant, Flanagan & Assoc. - Need for Focus on Hazardous Materials and Transportation Hazards

Bill Robison, P.E., CoT HM Project Manager, Lead Engineer, Stormwater Planning-One Message that addresses all Hazards; Measurable Outcomes

Tim Lovell, Exec. Director, Tulsa Partners- Continue TAC Meetings

Ron Flanagan, Consultant- Need for a Stable Funding Source for Public Information & Engagement.

September 2014

On September 3, 2014, the Committee met to discuss development of a Program for Public Information. Tim Lovell again facilitated this meeting.

Tim reviewed the background of the PPI process up to this point, including providing a copy of the February 7, 2013 meeting notes, and providing an overview of the requirements of the Program for Public Information process through use of a PowerPoint presentation. This Program for Public Information was to be multi-hazard in focus but meet the criteria for the CRS program.

The Committee was provided an initial draft of target audiences based on the February 2013 meeting list and staff guidance. Staff recommended inclusion of certain target areas such the properties behind the levees, repetitive loss properties, City Regulatory and Special Flood Hazard Areas, as well as areas subject to localized flooding. Thirty percent of all damage occurs outside the floodplain. It was recommended in the meeting that this should be changed to areas outside the City Regulatory and Special Flood Hazard Areas. On the question of whether these target areas were listed in priority order, there was a discussion of the importance of levee outreach referenced during the Hazard Mitigation Planning process, but also the overall importance of the City Regulatory and Special Flood Hazard Areas to the CRS process. It was decided that these target areas should be noted as not being in a prioritized order. A caution was also shared by the Committee that this process focus on what our priorities and needs are, not what the CRS requirements are.

On target audiences, listed in alphabetical order, the entire community was included by staff because many of the hazards (tornadoes, etc.) would impact everyone. Other items were previously identified by the Committee with some modifications. Bankers and Lenders were combined with Insurance. Builders and Realtors were combined. Chambers of Commerce and Civic Groups were combined. It was recommended in the meeting that school children be expanded to include schools, families, administration. Higher Education was recommended as an additional target audience, on a separate line from schools because it has residential facilities.

Some items previously included as target audiences were not recommended by staff because target audiences are groups for which we are doing public outreach and education, rather than stakeholders who are sources of public education. This list of audiences not recommended by staff included critical facilities, government entities and policy makers, media, confinement facilities, tribal nations. The Committee felt that tribal nations are both a stakeholder and an audience because of tribal members and should be included. It was strongly felt the government and policy makers need to be a target audience. Military should be added to government. It was recommended that there needs to be a tiered approach to public outreach, providing outreach to some groups so they can assist in outreach to a larger audience. Media would fit in this tiered approach. It was recommended that several items could fall under critical facilities, such as child care, long- term care facilities, hospitals, etc. Schools need to continue to be a separate item. It was decided that critical infrastructure, such as utilities, would be classified as a stakeholder in this multi-hazard PPI. The Committee was reminded that each target would need to have an outreach project associated with it.

The Committee reviewed a list of public information efforts, listed by stakeholder with their associated outreach projects. As a part of this discussion, it was referenced that emergency management exercises should be considered an outreach project. It was recommended that Community Service Council / 211 should be added to the list, as well as the Metropolitan Environmental Trust, and the OSU Extension Service. On a question about FLASH and the Insurance Institute for Business and Home Safety, it was suggested that Tulsa Partners serves as their local representative in distributing materials. It was recommended that we discuss with Salvation Army, John 3:16, and Tulsa County Social Services because of their outreach to the homeless population.

The Committee reviewed a list of nine messages and outcomes developed by staff for a multi-hazard PPI. Six were tied to CRS priority topics, three were additional messages available because we are doing a PPI. A question was raised about how many of the outcomes required a baseline in order to know if there has been a decrease or an increase. It was suggested that this first year of the PPI may be the year we set the baseline. The City of Tulsa Communications Department representative will be asked to review and enhance the key messages. One additional message/outcome can be added to the PPI if desired. These messages need to be related to flood.

The group agreed by consensus to approve the reviewed materials with the necessary edits, to which narrative sections will be added and will be reviewed by the Committee prior to going to the City Council for adoption.

October 2014

The PPI Committee met on October 1, 2014. Tim Lovell again facilitated the meeting. Since the last meeting, there was discussion by city staff to have the current version of the PPI focus on floods, given the current timeframe with the CRS process, and that this document will be integrated into a broader multi-hazard PPI at a later date. Because of this, the document has been modified to be more flood-centric.

After a review of the initial sections of the document, the Committee focused on reviewing the updated target audience list. A new target area was added about areas subject to flooding by dam failures and was accepted. On areas outside the City Regulatory and Special Flood Hazard Areas, it was asked whether it should be clarified that it was for properties with drainage issues. The Committee felt it should be left broader since there were messages that would apply to everyone.

Tim Lovell noted that target audiences for additional CRS credit would need to reach everyone in the target audience, although we would still receive a general outreach credit for projects. Additionally, outreach to government and policy makers do not qualify at all. The Committee still felt that this target audience needed to be included. On critical facilities, it was decided to use the definition in the Multi-Hazard Mitigation Plan to define what is included in that category, and to include schools under critical facilities.

The Committee reviewed the public information efforts to see if there were any stakeholders that need to be removed because they do not work on flood related hazards or if there are others that need to be added. The City of Tulsa Communications Department uses social media and does both media releases and field media inquiries. Concerning this, it was noted that articles done by media would count as being done by the media stakeholder under CRS.

The National Weather Service needs to be added. The Greater Tulsa Realtors Association could assist with getting a brochure out to its members. The U.S. Army Corps of Engineers needs to be added with the Silver Jackets program. The Print and Broadcast Media lists the media outlets here in Tulsa.

Additional stakeholders and projects can still be submitted via email.

The Committee discussed and agreed to review annually those items listed under "Inclusion of significant outreach activities subject to CRS."

The Committee reviewed Messages and Outcomes, which had changed significantly since last month due to the change in focus to flooding. A question was raised about the inclusion of warning sirens, which ultimately was decided as having been included as part of general flood

preparedness message, and which is available on the City of Tulsa website. No other additions were made to the new messages and outcomes.

The Committee had a lengthy review and discussion on which messages were appropriate to which of the target audiences. This review was done without the outreach projects, which were to be added after this review. A portion of the discussion involved whether we had too many target audiences. It was felt after review that the outreach projects needed to be added from the public information efforts and tied to the messages and the audiences. The final directive given to staff was that if there was not a target message /outreach project appropriate to a target audience, then there really wasn't a target audience and it should be taken off. The final version will be sent to the Committee for review prior to submittal to City Council.

November 2014

The PPI Committee met on November 12 for a final review of the Program for Public Information. Some committee members were to send their comments via email. The document was gone over section by section during the two hour meeting. The Committee was provided a draft of the document as well as a PowerPoint that provided a table of contents for the different sections as well as a list of the Outreach Projects. Tim Lovell asked if the list of Outreach Projects should be added to the document. The Committee felt this would be helpful.

There were no changes in the introduction. The PPI Committee roster was updated given changes in staff, such as the retirement of Bob Bledsoe from the City of Tulsa Communications Department, the adjustment of duplicate staff from the same city office, and the changing of some staff based on position, such as adding Stan May from the Tulsa Fire Department as their public information officer (PIO), replacing Michael Baker who was the previous PIO.

Tim Lovell recommended that the meeting summaries be moved to the back of the document, to which the Committee concurred. The summary for the November meeting would also be added as well as the sign in sheets for the meetings.

Under the Community Needs Assessment, Jason Chrumka with the US Army Corps of Engineers-Tulsa Office shared orally and in writing some concerns and changes he had about wording in the document that the Corps did not feel was accurate about Tulsa's dams and levees. The wording and content were taken from the 2014 City of Tulsa Multi-Hazard Mitigation Plan. It was suggested that the document could be adjusted to say that the source was the Multi-Hazard Mitigation Plan, with amended information provided by the Corps during this process. The Committee was agreeable to this. It was also recommended by Kent Schroeder that the estimated numbers in this section be rounded off instead of presented as exact numbers, such as the financial estimates.

There was a long discussion concerning the list of Target Audiences. The question was raised again, as it had been at previous meetings, about whether there was too many audiences, or if more audiences could be consolidated. A key question raised was whether we had so many audiences that it would be difficult for staff to track and get a successfully measured result. Given this, the group reviewed the list of target audiences. Everyone agreed that the target areas 1-5 needed to stay. It was decided that English language learners and tenants of public housing could be included in the Access and Functional Needs category as defined by the City of Tulsa Multi-Hazard Mitigation Plan, and that the definition from the Multi-Hazard Mitigation plan needed to be included in the document. Builders and Realtors needed to be merged as an audience with Bankers, Lenders and Insurance. Chambers and Civic Groups remained as is. After some discussion, it was decided that churches were more of a stakeholder than an audience, and that some churches would fall under Critical Facilities. Critical Facilities as an audience remained as is. On Historic Properties, there was a proposed outreach project of providing information to historic property owners about flooding, but after much discussion it was felt that there was not enough difference between historic properties and other building owners to make this a viable project and audience. Because the Working In Neighborhoods Department has a weekly electronic newsletter to neighborhood associations that includes hazard information, neighborhood associations remained as an audience. After some brief discussion, it was felt that Tribal Nations, Government Officials, Policy Makers and Military either did not have outreach projects affiliated with them or that they were not what was intended as an audience for this type of program for public information.

The Committee reviewed Public Information Efforts and asked a few questions. Julianna Monnot wanted to know if Oxley Nature Center had been contacted about being on the list. Tim Lovell said no, although the description with what they as an organization do, which Julianna agreed. She said that she could serve as a point of contact for them. Tim said he would contact the organizations about their inclusion in this plan and provide Bill Robison with points of contact for each organization. Julianna also wanted to clarify the work of the City of Tulsa Streets and Stormwater Department versus the City of Tulsa Water and Sewer Department. The former does presentations on stormwater quality and low impact development, the latter does presentations on water quality and low impact development. This wording was clarified. Additional clarifications in wording were done for other entries such as the Tulsa Fire Department, TAEMA and TSHA.

On Inclusion of Significant Outreach Activities Subject to CRS, Tim Lovell explained how he expanded these entries based feedback from David Arkens that they needed more information in this section connecting these activities with outreach projects and messages. Bill asked a few questions on some items he wanted to be sure were included. Tim also noted that some of the items, like the Map Information Service, need to be included in the Outreach Project table but were not to be listed as an Outreach Project per se. Tim Lovell said he would check with French Wetmore on his review of this section and the handling of these items.

The Messages and Outcome section received little comment after reviews from prior meetings. On Message F, “Get a building permit when constructing in flood-prone areas,” there was a question raised on encouraging building in the floodplain through that message. It was decided that changing the outcome measure to fewer floodplain violations and focusing on the role of building permits in helping people know what they can / cannot do in a floodplain would help with the intended purpose of this message.

On the Projects and Initiatives table, the focus on those audiences remaining after the consolidation earlier in the meeting, particularly the first five target areas, and on the Flood Response Projects. Kim Meloy asked about the intent on the Assignment section where some of the outreach project had City of Tulsa Communications Department working with internal stakeholders, and City of Tulsa Engineering Services and PPI Committee coordinating with external stakeholders. This was based on the idea that city departments are supposed to have their communications efforts coordinated with the Communications Department. Kim said that although this is true in theory, it does not always happen in practice. Bill Robison recommended that these outreach projects be coordinated by the PPI Committee rather than breaking it down between internal and external stakeholders. Kim Meloy also asked under Flood Response Projects about the inclusion of social media as a project for Access and Functional Needs Populations, including English Language Learners whose primary language is other than English. The City has not capacity to do such outreach through social media, so this Flood Response Project was dropped.

There were no comments about the Follow Up and Adoptions sections. Bill Robison asked for the Committee by consensus to approve the document with any necessary changes. Committee members would have until Friday, November 14 to submit their comments. All concurred.



February 7, 2013 Community Technical Advisory Committee Meeting on Public Information and Education (Program for Public Information Committee)

Meeting Sign in Sheet



**R.D. FLANAGAN
& ASSOCIATES**
Planning Consultants
www.rdflanagan.com

Project: Tulsa, OK – 2013 MULTI-HAZARD MITIGATION PLAN UPDATE

Purpose of Meeting: Public Information and Education

Date of Meeting: February 7, 2013 **Time Begin:** 1:30 pm **Time End:**

Initial	Name	Position or Organization	T/C	Phone(s)	E-mail
	Flanagan, Ron	Consultant	T	918-749-2696	rdflanagan@rdflanagan.com
AM	Mack, Annaelise	Consultant	T	918-749-2696	amack@rdflanagan.com
	Swift, Mark, P.E.	Consultant	T	918-582-1380	swre@sbcglobal.net
	Swift, Angela	Swift Water Resources	T	918-582-1380	angela.swift@swreusa.com
MBR	1. Robison, Bill, P.E.	Project Manager	T	918-596-9475	brobison@cityoftulsa.org
	2. Ator, Paul	HazMat Coordinator	T	918-596-1810	paulator@cityoftulsa.org
	3. Baker, Michael		T	918-596-9420	MBaker@cityoftulsa.org
	4. Balogh, A.K.	HazMat	T	918-591-4406	abalogh@cityoftulsa.org
	5. Bennett, Tom	Tulsa Partners	C	918-639-8102	tom@jimsafe.com
DB	6. Berry, Dave	Realtor <i>McGraw</i>	C	918-637-5359	dberry@tulsarealtors.com
	7. Bledsoe, Bob	CoT Communications	T	918-596-1279	Bobbledsoe@cityoftulsa.org
	8. Brannin, Graham	CoT Planning and Intergovt Admin	T	918-749-7440	gbrannin@cityoftulsa.org

Initial	Name	Position or Organization	T/C	Phone(s)	E-mail
	9. Briery, Kyle	SDHMAB Member	C	918-622-6996	kylebriery@rooter.com
	10. Bruer, Kelli	EMSA		918-596-3140	bruerk@emsa.net
	11. Cheatham, Gary	SDHMAB Chair	C	918-695-8876	garycheatham@sbcglobal.net
<i>SKC</i>	12. Combs, Sara Kelly	Mortgage Officer		918-704-4575	sarakellycombs@gmail.com
	13. Dolman, Lucy		T	918-596-2490	ldolman@cityoftulsa.org
	14. Donaldson, Josh	CoT Planning Dept	T	918-576-5686	jdonaldson@cityoftulsa.org
	15. Dugan, Bob	ThorGuard			
	16. Easter, Curt	Emergency Management	T	918-596-9897	ceaster@cityoftulsa.org
<i>JE</i>	17. Evicks, J. K.	Bama	C	918-732-2183	jevicks@bama.com
	18. Finn, Judith, Dr.	SDHMAB Vice-Chair	C	918-587-1800	judithfinn@att.net
	19. Foster, Roy		T	918-596-1344	rfoster@cityoftulsa.org
	20. Fox, Patrick	CoT Planning Dept	T	918-576-5685	pfox@cityoftulsa.org
	21. Goss, Jeff			918-230-8429	jeff@servetulsa.com
	22. Grant, Martha	Tulsa Partners			
	23. Gurley, Mike	State Farm Insurance		918-899-2462	mike.gurley@ait2@statefarm.com
<i>RA</i>	24. Hall, Richard	Fire Dept. Planning	T	918-596-1782	RichHall@cityoftulsa.org
<i>CDL</i>	25. Hardt, Charles			918-369-5858	georgia.hardt@cox.net
	26. Hughes, Barry	Impact		918-274-9914	advertisingimpact@cox.net

Initial	Name	Position or Organization	T/C	Phone(s)	E-mail
<i>RL</i>	27. Jolliff, Roger	Emergency Manager	T	918-596-9898	rjolliff@cityoftulsa.org
<i>RL</i>	28. Laub, Keith	ESF 6/7 TCC	T	918-595-7567	Keith.laub@tulsacc.edu
	29. Lester, Michelle	CoT Real Estate	T	918-596-7266	mlester@cityoftulsa.org
	30. Lewis, Brian	Senior Environmental Monitoring Tech		405-306-7780	blewis@cityoftulsa.org
<i>TML</i>	31. Lovell, Tim	Tulsa Partners, Director	C	918-632-0044	tulsapartners@gmail.com
	32. Martin, D.C.	HazMat	T	918-591-4406	dcmartin@cityoftulsa.org
	33. McGavock, Nicole	NWS			
	34. Meloy, Kim	CoT Communications	T	918-596-7271	kmeloy@cityoftulsa.org
	35. Miller, Josh	Insurance Industry	C	918-627-1833	joshua.a.miller.r2d9@statefarm.com
<i>AR</i>	36. Patton, Ann	SDHMAB Member	C	918-296-1959	ann.patton@sbcglobal.net
	37. Price, Sue		T	918-596-2527	sprice@cityoftulsa.org
	38. Piltz, Steve	NWS			
<i>RL</i>	39. Roberts, Bob	SDHMAB Member/TPS	C	918-497-8845	brob11@swbell.net
	40. See, S.D.	HazMat	T	918-596-4406	steve.see@cityoftulsa.org
	41. Siddiqui, Sheryl	Language & Culture Bank	C	918-706-3595	sherylsiddiqui@yohoo.com
<i>RL</i>	42. Skimbo, Jami	<i>CoT SLM</i>	T	918-596-4376	jskimbo@cityoftulsa.org
<i>RL</i>	43. <i>Jilliana Wrennot</i> Spencer, Kathryn	<i>CoT SLM</i>	T	918-591-4375	<i>kwrennot</i> kspencer@cityoftulsa.org

Initial	Name	Position or Organization	T/C	Phone(s)	E-mail
	44. Spicer, James	Greencountry Permaculture LLC		928-583-4815	greencountrypermaculture@gmail.com
	45. Steele, G. David	Development Services	T	918-596-7085	dsteeler@cityoftulsa.org
	46. Stevens, Chris	EMSA		918-830-8214	stevensc@emsa.net
	47. Thornton, Tim	Parks Maint. Supervisor		918-519-8701	timthorton@cityoftulsa.org
	48. Townsend, Henry	TCC LEPC, Chair	T	918-628-0651	hdytownsend@peoplepc.com
	49. Warlick, Theron	CoT Planning	T	918-576-5677	twarlick@cityoftulsa.org
	50. Wright, Scott	HazMat	T	918-698-1085	
	51. Lisa Piccolo	R.O. Flanagan Trs.		918 633 5670	lpiccolo@wildblue.net
	52. Tina Fera	Kangaroo Culture Park		918-595-8386	TULIPANUS@aol.com
	53.				
	54.				
	55.				
	56.				
	57.				
	58.				
	59.				
	60.				



Meeting Sign in Sheet

Project: Tulsa, OK – 2014 Community Rating System – Program for Public Information
Purpose of Meeting: PPI Measures
Date of Meeting: September 3, 2014
Time Begin: 1:30 pm
Time End:

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OCT 2014

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SIGN IN SHEET
2014

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NOVEMBER
2014

PPI COMMITTEE MEETING
SIGN-IN SHEET
2014

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Appendix B: Glossary of Terms

The term definitions below were gathered from the following sources and designated with asterisks (*):

*City of Tulsa Multi-Hazard Mitigation Plan Update 2014

**National Flood Insurance Program Community Rating System Coordinator's Manual 2013

***Developing A Program for Public Information for Credit under CRS Activity 330 (Outreach Projects), March 2013

Activity: A floodplain management activity for which Community Rating System credit has been established.**

City of Tulsa Regulatory Floodplain Area: City of Tulsa Regulatory Floodplain Areas take into account "100-year" flooding that would occur when contributing watersheds are fully developed. Therefore, Tulsa Regulatory Floodplain Areas may be wider than the FEMA floodplains (see Special Flood Hazard Areas) and may extend farther up creeks and waterways.*

Community Rating System (CRS): A National Flood Insurance Program (NFIP) that provides incentives for NFIP communities to complete activities that reduce flood hazard risk. When the community completes specified activities, the insurance premiums of policyholders in these communities are reduced.*

CRS classification: A rating of a community's floodplain management program according to the CRS Coordinator's Manual. The premium rate credits for each class are listed in Table 110-1. A community that has not applied for Community Rating System classification is a Class 10 community.**

Consequences: The damages, injuries, and loss of life, property, environment, and business that can be quantified by some unit of measure, often in economic or financial terms.*

Critical Facility: Facilities that are critical to the health and welfare of the population and that are especially important during and following hazard events. Critical facilities include shelters, police and fire stations, schools, childcare centers, senior citizen centers, hospitals, disability centers, vehicle and equipment storage facilities, emergency operations centers, and city hall. The term also includes buildings or locations that, if damaged, would create secondary disasters, such as hazardous materials facilities, vulnerable facilities, day care centers, nursing homes, and housing likely to contain occupants who are not very mobile. Other critical city infrastructure such as telephone exchanges and water treatment plants are referred to as lifelines.*

Dam Breach Inundation Area: The area flooded by a dam failure or programmed release.*

Emergency: Any hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, drought, fire, explosion, or other catastrophe in any part of the United States which requires federal emergency assistance to supplement State and local efforts to save lives and protect property, public health and safety, or to avert or lessen the threat of a disaster. Defined in Title V of Public Law 93-288, Section 102(1).*

Emergency Response Plan: A document that contains information on the actions that may be taken by a governmental jurisdiction to protect people and property before, during, and after a disaster.*

Federal Emergency Management Agency (FEMA): The independent agency created in 1978 to provide a single point of accountability for all Federal activities related to disaster mitigation and emergency preparedness, response and recovery.*

Flash Flood: A flood event occurring with little or no warning where water levels rise at an extremely fast rate.*

Flood: A general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, or (3) mudflows or the sudden collapse of shoreline land.*

Flood Hazard Area: The area shown to be inundated by a flood of a given magnitude on a map.*

Flood Insurance Rate Map (FIRM): Map of a community, prepared by the Federal Emergency Management Agency, which shows both the special flood hazard areas and the risk premium zones applicable to the community.*

Flood Mitigation Assistance Program (FMA): A planning and project implementation grant program funded by the National Flood Insurance Program. Provides pre-disaster grants to State and local governments for both planning and implementation of mitigation strategies. Grant funds are made available from NFIP insurance premiums, and therefore are only available to communities participating in the NFIP.*

Floodplain: Any land area, including watercourse, susceptible to partial or complete inundation by water from any source.*

Flood Response Preparations (FRP): FRP credits developing a pre-flood plan for public information projects that will be implemented during and after a flood. An FRP package is a collection of outreach projects prepared in advance, but not delivered until a flood occurs.**

Frequency: A measure of how often events of a particular magnitude are expected to occur. Frequency describes how often a hazard of a specific magnitude, duration, and/or extent typically occurs, on average. Statistically, a hazard with a 100-year recurrence interval is expected to occur once every 100 years on average, and would have a 1 percent chance – its probability – of happening in any given year. The reliability of this information varies depending on the kind of hazard being considered.*

Hazard: A source of potential danger or adverse condition. An event or physical condition that has the potential to cause fatalities, injuries, property and infrastructure damage, agriculture loss, damage to the environment, interruption of business, or other types of harm or loss. Hazards, as defined in this study, will include naturally occurring events such as floods, dam failures, levee failures, tornadoes, high winds, hailstorms, lightning, winter storms, extreme heat, drought, expansive soils, urban fires, wildfires that strike populated areas, and earthquakes. A natural event is a hazard when it has the potential to harm people or property. For purposes of this study, hazardous materials events are also included.*

Hazard Event: A specific occurrence of a particular type of hazard.*

Hazard Identification: The process of defining and describing a hazard, including its physical characteristics, magnitude and severity, probability and frequency, causative factors, and locations or areas affected.*

Hazard Mitigation: Sustained actions taken to reduce or eliminate long-term risk to human life and property from natural and technological hazards and their effects. Note that this emphasis on long-term risk distinguishes mitigation from actions geared primarily to emergency preparedness and short-term recovery.*

Hazard Mitigation Plan: The plan resulting from a systematic evaluation of the nature and extent of vulnerability to the effects of natural hazards present in society that includes the actions needed to minimize future vulnerability to hazards. Section 409 of the Stafford Act requires the identification and evaluation of mitigation opportunities, and that all repairs be made to applicable codes and standards, as condition for receiving Federal disaster assistance. Enacted to encourage identification and mitigation of hazards at all levels of government.* (Note that the City of Tulsa plan is called the Multi-Hazard Mitigation Plan.)

High-hazard-potential dam: Dams assigned the high-hazard-potential classification are those whose failure or mismanagement will probably cause loss of human life.**

Low-impact development (LID): According to the U.S. Environmental Protection Agency, “an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible and treat stormwater as a resource rather than a waste product. LID practices include bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions.” (www.epa.gov/owow/NPS/lid/) **

Messages: Messages are specific statements or directions that the community considers important for its audiences. For CRS credit, the messages are based on one or more of six priority floodplain management topics. Communities that have developed a PPI may add up to four additional topics of their own that are particularly pertinent to their communities.**

National Flood Insurance Program (NFIP): A federal program created by Congress in 1968 that provides the availability of flood insurance to communities in exchange for the adoption and enforcement of a minimum floodplain management ordinance specified in 44 CFR §60.3. The ordinance regulates new and substantially damaged or improved development in identified flood hazard areas.*

Natural floodplain functions: a. The functions associated with the natural or relatively undisturbed floodplain that moderate flooding, retain flood waters, reduce erosion and sedimentation, and mitigate the effects of waves and storm surges from storms; and b. Other significant beneficial functions, which include maintenance of water quality, recharge of groundwater, and provision of fish and wildlife habitat.**

Outcomes: For each message, the PPI Committee is to determine what outcomes it would like to see. Outcomes are changes in behavior. To the extent possible, outcomes need to be objective, observable and measurable.***

Preparedness: Activities to ensure that people are ready for a disaster and respond to it effectively. Preparedness requires figuring out what will be done if essential services break down, developing a plan for contingencies, and practicing the plan.*

Probability: A statistical measure of the likelihood that a hazard event will occur.*

PPI Committee: The community's PPI must be developed by a committee of people from both inside and outside the local government. The number of participants and their identities is determined by the community, but the committee must

- Comprise at least five people,
- Include one or more representatives from the community's floodplain management office,

- Include one or more representatives from the community's public information office, if there is one, and
- Have at least half of its members from outside the local government.**

Program for Public Information (PPI): The PPI is an ongoing public information effort to design and transmit the messages that the community determines are most important to its flood safety and the protection of its floodplains' natural functions.**

Repetitive Loss Property: A property that is currently insured for which two or more National Flood Insurance Program losses (occurring more than ten days apart) of at least \$1000 each have been paid within any 10-year period since 1978. While Repetitive Loss Properties constitute only 2% of insured properties, they account for 40% of flood damage claims against the NFIP.*

Retrofitting: Modifications to a building or other structure to reduce its susceptibility to damage by a hazard.*

Risk: The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate or low likelihood of sustaining damage above a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.*

Risk Assessment: A process or method for evaluating risk associated with a specific hazard and defined in terms of probability and frequency of occurrence, magnitude and severity, exposure and consequences. Also defined as: "The process of measuring the potential loss of life, personal property, housing, public facilities, equipment, and infrastructure; lost jobs, business earnings, and lost revenues, as well as indirect losses caused by interruption of business and production; and the public cost of planning, preparedness, mitigation, response, and recovery. (Burby, 1998).*

Special Flood Hazard Area (SFHA): An area within a floodplain having a 1 percent or greater chance of flood occurrence in any given year (100-year floodplain); represented on Flood Insurance Rate Maps by darkly shaded areas with zone designations that include the letter A or V.*

Stafford Act: The Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-107 was signed into law November 23, 1988 and amended the Disaster Relief Act of 1974, PL 93-288. The Stafford Act is the statutory authority for most Federal disaster response activities, especially as they pertain to FEMA and its programs.*

Stakeholder Delivery (STK): Since most messages tend to come from the local government, extra CRS credit is provided for messages that are clearly from stakeholders—someone or some group concerned with the community, but not a part of the local government.**

Stakeholders: Floodplain residents, business leaders, insurance agents, civic groups, academia, non-profit organizations, major employers, managers of critical facilities, farmers, landowners, developers, and others who are affected by flooding or whose actions can help prevent or reduce flood losses.**

Stormwater Management: Efforts to reduce the impact of stormwater or snowmelt runoff on flooding and water quality.*

Substantial Damage: Damage of any origin sustained by a structure in a Special Flood Hazard Area whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage.

Target Area: Target areas are neighborhoods, districts, or other areas of the community with similar flooding, building, and population characteristics.***

Target Audience: A target audience is a group of people who need information on flood related topics.***

Vulnerability: Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, many businesses depend on uninterrupted electrical power— if an electric substation is flooded, it will affect not only the substation itself, but a number of businesses as well. Often, indirect effects can be much more widespread and damaging than direct ones.*

Zone: A geographical area shown on a Flood Insurance Rate Map (FIRM) that reflects the severity or type of flooding in the area.*