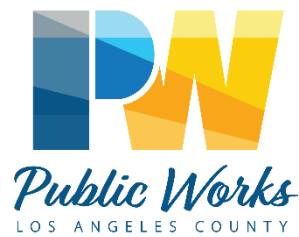


# COUNTY OF LOS ANGELES FLOODPLAIN MANAGEMENT PLAN 2018 PROGRESS REPORT



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2017-2018

**COUNTY OF LOS ANGELES  
FLOODPLAIN MANAGEMENT PLAN  
PROGRESS REPORT 2017-2018**

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**County of Los Angeles**  
**Comprehensive Floodplain Management Plan and**  
**Program for Public Information**  
**2018 Annual Progress Report**

**REPORTING PERIOD:** September 6, 2017, to September 5, 2018

**BACKGROUND:** The County of Los Angeles participates in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA) and in the NFIP's Community Rating System. In compliance with the NFIP, the County of Los Angeles prepared a Comprehensive Floodplain Management Plan, which is an overall strategy of programs, projects, and measures aimed at reducing the adverse impact of flood hazards in the community.

Throughout the years, Floodplain Management Plans have evolved to meet the needs of the community and to comply with applicable regulations. The first plan, titled "*Repetitive Loss Plan for the National Flood Insurance Program Community Rating System (CRS) for the County of Los Angeles*" was adopted by the County of Los Angeles Board of Supervisors in 1992 and approved by FEMA. A subsequent Floodplain Management Plan for repetitive loss properties was prepared and approved in 2002 by FEMA. In 2007, the County of Los Angeles updated the Floodplain Management Plan and brought it to the Board of Supervisors for adoption in 2010. The current Floodplain Management Plan was adopted by the County of Los Angeles Board of Supervisors in 2016.

Prior Floodplain Management Plans did not address all of the unincorporated areas of the County of Los Angeles. The plans considered properties that had been identified by FEMA as "repetitive loss properties" – properties for which two or more claims of \$1,000 or more had been paid by the NFIP within any rolling 10-year period since 1978. The current Floodplain Management Plan expands the previous efforts by addressing all of the unincorporated areas, changes in local development since the previous plans, and evolving local, State, and Federal regulations.

In addition, a companion document was prepared in conjunction with the Floodplain Management Plan called the Los Angeles County Repetitive Loss Area Analysis. This document provides an assessment of flooding and possible mitigation methods for repetitive loss areas. Repetitive loss areas were determined using a reverse of the depth-damage-function to determine the floodwater elevation and the possible extent of the flood hazard. The local drainage conditions were then considered to determine, which of these neighboring properties may be susceptible to damage by that flood.

The Floodplain Management Plan was developed to meet the following objectives:

- Comply with local, State, and Federal requirements for floodplain management planning.
- Coordinate existing plans and programs to facilitate the implementation and funding of high-priority initiatives and projects to mitigate possible disaster impacts.
- Create a linkage between the Floodplain Management Plan and other plans established by the County of Los Angeles, so they can work together in achieving successful flood mitigation.

The Floodplain Management Plan is available online at: <https://pw.lacounty.gov/WMD/NFIP/FMP/>

The County of Los Angeles also developed a program for public information to identify, prepare, implement, and monitor a range of flood-related public information activities that meet specific, local needs. The Program for Public Information (PPI) framework is described in Chapter 14 of the Floodplain Management Plan.

**PURPOSE:** The purpose of this progress report is to provide an annual update on the implementation of the action plan identified in the Comprehensive Floodplain Management Plan and on the implementation and evaluation of the outreach projects identified in the PPI. The objective is to ensure there is a continuing and responsive planning process that will keep the Floodplain Management Plan and related outreach efforts dynamic and responsive to the needs and capabilities of the County of Los Angeles and stakeholders. This report discusses the following:

- Flood events that have occurred during the reporting period (September 6, 2017, to September 5, 2018)
- Changes (if any) in risk exposure within the planning area (unincorporated County of Los Angeles)
- Mitigation success stories
- Changes (if any) in capabilities that could impact plan implementation
- Floodplain management plan implementation status
  - Review of the action plan
  - Recommendations for changes/enhancement
- Program for Public Information implementation and evaluation status
  - Review of the outreach projects
  - Review on progress toward desired outcomes
  - Recommendations for changes/enhancement

**FLOOD EVENTS WITHIN THE PLANNING AREA:** According to the County of Los Angeles precipitation records from October 1, 2017, to September 30, 2018, the Downtown Los Angeles rain gage (Station No. 716) recorded 4.88 inches of rain. This is about 68 percent below the average annual rainfall of 15.41 inches. During the reporting period, there were three flood events in the planning area that had a measurable impact on people or property. A summary of these events follows:

1. Rainfall Event Dates: January 8 to 9, 2018

Rainfall Totals:           Between 0.80 to 2.4 inches in the coast and valleys, and 2.00 to 5.6 inches in the mountains.

Notable Impacts/Issues:

- The National Weather Service issued flood warnings for most of the County of Los Angeles including recent burn areas.
- Mandatory evacuation orders were issued to residents near the Fish Fire burn area in Duarte.

- The Red Cross designated Duarte Community Center as an evacuation shelter.
- Classes at Valley View Elementary School were canceled.
- Mandatory evacuation orders were issued for areas affected by the Creek Fire in Kagel, Little Tujunga, and Lopez Canyons.
- Mandatory evacuation orders were issued for areas affected by the La Tuna Fire:
  - Mandatory evacuation order was issued for Country Club Drive (Burbank) and the 8300 to 8800 blocks of La Tuna Canyon Road (Los Angeles' Sun Valley area).
  - The Red Cross designated Sun Valley Recreation Center as an evacuation shelter.
  - Closure of more than 4 miles of La Tuna Canyon Road in Los Angeles' Sun Valley area due to mudflows.
- The Red Cross designated Westwood Recreation Center as an evacuation shelter for the Skirball Fire area in Los Angeles' Bel-Air area.
- Los Angeles Fire Department's swift-water rescue team rescued a man and a dog from the Los Angeles River in Sepulveda Basin.
- Multiple roads were closed due to debris flows, mudslides, and rain/flooding concerns around the greater Los Angeles area:
  - Portion of Highway 101 closed due to flooding and mud flows.
  - State Route 110 closed between downtown Los Angeles and Pasadena due to flooding.
  - Interstate 405 (Sepulveda Pass) partially closed due to debris flow.
  - Topanga Canyon Boulevard (State Route 27) in the Santa Monica Mountains, between Fernwood Pacific Drive and Pacific Coast Highway (State Route 1) were closed due to a mudslide.
  - Sand Canyon Road closed at Placerita Road (Santa Clarita) due to rain/flooding concern.

## 2. Rainfall Event Dates: March 1 to 3, 2018

Rainfall Totals:      Between 0.20 to 1.50 inches in the coast and valleys and 0.80 to 2.30 inches in the foothills and mountains, with up to 3.66 inches in the Santa Monica Mountains.

Notable Impacts/Issues:

- The National Weather Service issued warnings of flash flooding/debris flows due to forecasted peak rainfall rates across the Creek and La Tuna burn areas
- Various roads in the Santa Monica Mountains were impacted by mudslides and rockslides:
  - Topanga Canyon Boulevard (State Route 27) in the Santa Monica Mountains, was closed from Pacific Coast Highway (State Route 1) to Grand View Drive due to mudslides.

3. Rainfall Event Dates: March 20 to 23, 2018

Rainfall Totals: Between 0.40 to 2.30 inches along the coast and in the valleys and 1.40 to 4.00 inches in the foothills and mountains.

Notable Impacts/Issues:

- The National Weather Service issued flood warnings for most of the County of Los Angeles including potential for flash flooding/debris flows in recent burn areas.
- Mandatory evacuation orders were issued for areas affected by the La Tuna Fire:
  - The 8300 block to 9000 La Tuna Canyon Road (Los Angeles' Sun Valley area)
  - Police closed La Tuna Canyon Road just east of Sunland Boulevard at Vineland Elementary School.
- Mandatory evacuation orders were issued for areas affected by the Creek Fire in Kagel, Little Tujunga, and Lopez Canyons.
- The Red Cross designated the following evacuation shelters:
  - Sylmar Recreation Center in Sylmar
  - Sun Valley Recreation Center in Sun Valley
  - Verdugo Recreation Center in Burbank
- Animal shelters were opened for residents evacuating due to potential flash flooding.
  - Hansen Dam Equestrian Center
  - Sylmar Recreation Center

- Los Angeles County Animal Care Center
- Due to the heavy rain, many homeless shelters in the County of Los Angeles were open for extended hours
- Road hazards due to storms:
  - A minor debris slide was reported on Glendora Mountain Road (Angeles National Forest).
  - A vehicle overturned on Roadrunner Road in Santa Clarita's Canyon Country neighborhood on Thursday, March 22, 2018. The occupants in the vehicle were not injured. Roadrunner Road was closed due to hazardous road conditions.

**CHANGES IN RISK EXPOSURE IN THE PLANNING AREA:** Not applicable during this reporting period.

**MITIGATION SUCCESS STORIES:**

**1. La Tuna Fire – Postfire Debris Flow Mitigation Advice**

The La Tuna Fire occurred from September 1 to 9, 2017. The wildfire burned portions of the Verdugo Mountains above Burbank and Los Angeles's Sun Valley area. Because of the fire, the burned areas became susceptible to mud and debris flows during storms. As part of the emergency response provided by Los Angeles County Public Works (Public Works), engineering teams provided Post-Burn Engineering Advice to 68 residents or business owners in the La Tuna Fire area on how to mitigate debris flow impacts on their properties. The advice provided was based on a necessarily limited field review of the property to inform property owners of emergency temporary measures that can be taken to protect their property. In addition, property owners were informed that they can contact a civil engineer with experience in drainage matters to review what additional, more long-term measures can be taken.

**2. Sunset Upper Debris Basin Postfire Enlargement**

The September 2017 La Tuna Fire burned portions of the Verdugo Mountains including the canyon above Sunset Upper Debris Basin in Burbank. The watershed was approximately 97 percent burned and could potentially produce a large amount of debris flow. The debris flow from the burned watershed could overflow Sunset Upper Debris Basin during intense storms and potentially cause damage to properties below the basin. Public Works took immediate measures to enlarge Sunset Upper Debris Basin to increase its storage capacity and completed construction in April 2018.

**3. Oxford Basin Retention Project**

The Oxford Basin Multiuse Enhancement Project is in the unincorporated area of Marina del Rey. The project modernized roughly 10.7 acres of an existing retention facility to improve flood protection, improve water quality and ecological health. The project also provided open space and recreational amenities such as observation areas with

educational signage; park benches; pedestrian walkways; and bike paths with eco-friendly lighting that connect the surrounding community to the greater Los Angeles area transit network.

#### **4. Creek Fire – Postfire Debris Flow Mitigation Advice**

The Creek Fire occurred from December 5, 2017, to January 9, 2018. The wildfire burned portions of Kagel Canyon and the Angeles National Forest north of Los Angeles' Sylmar area. Because of the fire, the burned areas became susceptible to mud and debris flows during storms. As part of the emergency response provided by Public Works, engineering teams provided Post-Burn Engineering Advice to 96 residents or business owners in the Creek Fire area on how to mitigate debris flow impacts on their properties. The advice provided was based on a necessarily limited field review of the property to inform property owners of emergency temporary measures that can be taken to protect their property. In addition, property owners were informed that they can contact a civil engineer with experience in drainage matters to review what additional, more long-term measures can be taken.

#### **5. Skirball Fire – Postfire Debris Flow Mitigation Advice**

The Skirball Fire occurred from December 6 to 15, 2017. The wildfire burned in Los Angeles' Bel Air area. Because of the fire, the burned areas became susceptible to mud and debris flows during storms. As part of the emergency response provided by Public Works, engineering teams provided Post-Burn Engineering Advice to 18 residents or business owners in the Skirball Fire area on how to mitigate debris flow impacts on their properties. The advice provided was based on a necessarily limited field review of the property to inform property owners of emergency temporary measures that can be taken to protect their property. In addition, property owners were informed that they can contact a civil engineer with experience in drainage matters to review what additional, more long-term measures can be taken.

### **CHANGES THAT MAY IMPACT IMPLEMENTATION OF THE PLAN:**

#### **1. Physical Map Revision for the Triunfo Creek area**

The Federal Emergency Management Agency performed an updated Flood Insurance Study and a Physical Map Revision of Flood Insurance Rate Maps (FIRMs) for the Triunfo Creek area. The FIRMs for nearby Lobo Canyon were also updated although without a new study. The updated flood hazard boundaries became effective on April 4, 2018.

This change affected FEMA's FIRM Panel Nos. 06037C1239G, 06037C1243G, 06037C1502G, 06037C1506G, and 06037C1507G. Approximately 7 insurable structures in unincorporated areas were mapped out of 1 percent annual chance flood zones (Special Flood Hazard Areas) and 14 insurable structures were newly mapped into Special Flood Hazard Areas. Public Works mailed to affected property owners an outreach letter and maps showing the changes on their properties. Public Works also held a community meeting on March 21, 2018, for the residents to explain the changes.



## FLOODPLAIN MANAGEMENT PLAN PROGRESS

**Summary Overview of the Plan's Progress:** The performance period for the Floodplain Management Plan became effective on September 6, 2016, with the final approval of the plan by the Board of Supervisors. The performance period for this plan will be five years, with an anticipated update to the plan to occur by September 5, 2020. As of the end of this reporting period, the performance period for this plan is considered to be 74 percent complete. The Floodplain Management Plan has targeted 35 flood hazard mitigation initiatives to be pursued during the 5-year performance period. As of the reporting period, the following overall progress can be reported (please see Table 2):

- 12 out of 35 initiatives (34 percent) reported ongoing action toward completion.
- 22 out of 35 initiatives (63 percent) were reported as being complete, continue to implement as necessary.
- one out of 35 initiatives (3 percent) reported no action taken.

**The Floodplain Management Plan Steering Committee:** The Floodplain Management Plan Steering Committee, made up of stakeholders within the planning area, reviewed and approved this progress report at its annual meeting held on June 12, 2019. It was determined through the plan's development process that a Steering Committee would remain in service to oversee maintenance of the plan. The Steering Committee provided technical review and oversight on the development of the annual progress report. As the implementation of the Floodplain Management Plan moves forward, it is anticipated that there will be turnover in the membership annually, which will be documented in the progress reports. For this reporting period, the Steering Committee membership is as indicated in Table 1.

<b>TABLE 1 STEERING COMMITTEE MEMBERS</b>	
Name	Jurisdiction/Agency
Laren Bunker (Chairperson)	Stormwater Maintenance Division, Los Angeles County Public Works
Debbie Sharpton (Vice-Chairperson)	Mountains Restoration Trust
Martin Araiza	Hydrology and Hydraulics, Stormwater Engineering Division, Los Angeles County Public Works
John Blalock	Resident, Antelope Valley
Gina Natoli	County of Los Angeles Department of Regional Planning
Patricia Wood	CRS Coordinator, Stormwater Engineering Division, Los Angeles County Public Works
Loni Eazell	Disaster Services Group, Los Angeles County Public Works
Okorie Ezieme	Altadena Town Council
Scott Gardner	Los Angeles County Fire Department
Michael Hart	Malibou Lake Mountain Club
Frank Lopez	Los Angeles Chamber of Commerce
Lisa Naslund	Building and Safety Division, Los Angeles County Public Works
Kendra Pospychalla	American Red Cross, Los Angeles Region

**Review of the Action Plan:** Table 2 reviews the action plan, reporting the status of each initiative. Reviewers of this report should refer to the Floodplain Management Plan for more detailed descriptions of each initiative and the prioritization process.

The “status” column of Table 2, address the following:

- Was any element of the initiative carried out during the reporting period?
- If no action was completed, why?
- Is the timeline for implementation for the initiative still appropriate?
- If the initiative was completed, does it need to be changed or removed from the action plan?

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
<b>Initiative No. 1 — Promote awareness of flood hazards to residents in flood hazard areas.</b>			
Yes	High	In October 2017, Public Works mailed 3,551 copies of "Are You Prepared for A Flood?" brochure to property owners and residents in Special Flood Hazard Areas, County Floodways, and possible gaps in floodplain mapping (i.e. areas with possible flood hazards that are not on FEMA or County maps). The County of Los Angeles' National Flood Insurance Program (NFIP) website links were checked and updated. Previously, brochures were distributed to the Malibu, Rosemead, and Castaic Public Libraries. Brochures were distributed to additional public libraries closer to the floodplains including Topanga, Altadena, Duarte, and San Dimas.	✓
<b>Initiative No. 2 — Develop and distribute flood protection information and materials to property owners, renters, and developers in high-risk areas.</b>			
Yes	High	In addition to the outreach efforts mentioned in Initiative No. 1 above, Public Works mailed 226 copies of CDs containing County of Los Angeles and FEMA publications to all property owners and residents in Repetitive Loss Properties (RLP) and properties in the Repetitive Loss Areas (RLA).	✓
<b>Initiative No. 3 — Maintain a list of critical facilities located in FEMA-designated flood zones, provide flood protection information to operators of these critical facilities, and encourage the implementation of flood protection measures.</b>			
Yes	High	In December 2017, Public Works mailed a letter and outreach materials to owners of critical facilities located in FEMA's-designated Special Flood Hazard Areas. Critical facilities that received outreach materials include schools, hospitals, fire stations, and health care facilities.	✓
<b>Initiative No. 4 — Investigate Repetitive Loss Properties identified by FEMA and update the Repetitive Loss Property and high-risk property list. Conduct the following flood control activities for these properties:</b>			
<ul style="list-style-type: none"> <li>• Annually notify owners regarding local flood hazards and proper protection activities</li> <li>• Provide technical advice regarding flood protection and flood preparedness</li> <li>• Distribute a revised questionnaire to new Repetitive Loss Properties</li> </ul>			
Yes	High	Every year, Public Works performs field visits to all RLP and RLA properties. In October 2017, 226 copies of CDs containing FEMA and County of Los Angeles publications were mailed to all property owners and residents in RLP and RLA properties.	O
<b>Completion status legend:</b> ✓ = Project Completed, continue to implement as necessary O = Action ongoing toward completion X = No progress at this time			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
<b>Initiative No. 5 — Make sand bags available to flood risk property owners during the wet season, provide notifications of the availability of these materials, and track the distribution of the materials.</b>			
Yes	High	Public Works provides sandbags to the Los Angeles County Fire Department for distribution to residents thru over 160 local Fire Stations. Demand for sandbags varies from year to year. For the El Niño 2015-16 storm season, Public Works provided 1,257,000 sandbags to the Los Angeles County Fire Department. For the 2016-17 storm season, approximately 100,000 sandbags were distributed to the Los Angeles County Fire Department. For the 2017-18 storm season, approximately 162,000 sandbags were distributed to the Los Angeles County Fire Department. Public Works maintains over 750,000 sandbags for distribution. Public Works also maintains a website where residents can search for the nearest location to obtain sandbags:  <a href="http://pw.lacounty.gov/dsg/sandbags/">http://pw.lacounty.gov/dsg/sandbags/</a>	✓
<b>Initiative No. 6 — Provide public education about maintaining the stormwater system free of debris.</b>			
Yes	High	Public Works implements the Stormwater Public Education Program to educate members of the public about what they can do to prevent pollution and keep local waterways clean. The program uses a variety of different outreach efforts to help remind people what happens when they don't think about the effect they have on the environment. Current program outreach activities include paid advertising, community pilot programs, media relations, and corporate partnerships. In addition, the program provides technical assistance to the County's incorporated cities to help promote cohesive pollution prevention efforts throughout the region.  <a href="https://pw.lacounty.gov/prg/stormwater/">https://pw.lacounty.gov/prg/stormwater/</a>	✓
<b>Initiative No. 7 — Continue to maintain/enhance the County's classification under the Community Rating System to address increased flood insurance costs and promote safety and preparedness.</b>			
Yes	High	As of 2018, the County of Los Angeles holds a CRS class standing of 7. The County continues to maintain and strive to identify activities to help maintain and improve the CRS class rating.	✓
<p>Completion status legend:</p> <ul style="list-style-type: none"> <li>✓ = Project Completed, continue to implement as necessary</li> <li>O = Action ongoing toward completion</li> <li>X = No progress at this time</li> </ul>			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
Initiative No. 8 — Implement the Program for Public Information protocol identified in this plan including appropriate messaging for compliance with ADA.			
Yes	High	The County of Los Angeles continued implementation of the Program for Public Information developed in 2016. A report detailing the PPI implementation status for the 2017-18 period was approved by the PPI committee on April 3, 2019, and it is included at the end of this report.	✓
Initiative No. 9 — Provide emergency preparedness and flood protection information to the general public.			
Yes	High	<p>The County of Los Angeles provides emergency and flood protection information to the public through different means including:</p> <ul style="list-style-type: none"> <li>• A website specifically devoted to providing emergency preparation information that includes resources, tips, and facts to equip and alert residents on how to best respond to emergencies and recover from disasters: <a href="http://www.lacounty.gov/emergency/">http://www.lacounty.gov/emergency/</a>.</li> <li>• The County of Los Angeles Chief Executive Office - Office of Emergency Management website features informational resource links to Federal, State, and local government emergency operations departments and agencies, and nongovernmental organizations in the Document Library/Links section: <a href="https://ceo.lacounty.gov/emergency-management/">https://ceo.lacounty.gov/emergency-management/</a>.</li> <li>• Various flood hazard videos produced by Public Works and made available through YouTube including: <ul style="list-style-type: none"> <li>o Storm water safety: <a href="https://www.youtube.com/watch?v=5jFl6Z-Ld4w">https://www.youtube.com/watch?v=5jFl6Z-Ld4w</a></li> <li>o Swift Water: <a href="https://www.youtube.com/watch?v=EcOpX7TGY84">https://www.youtube.com/watch?v=EcOpX7TGY84</a> <a href="https://www.youtube.com/watch?v=2_oejOP_o_k">https://www.youtube.com/watch?v=2_oejOP_o_k</a></li> <li>o Storm season evacuation: <a href="https://www.youtube.com/watch?v=gqrr1_o4WYA">https://www.youtube.com/watch?v=gqrr1_o4WYA</a> <a href="https://www.youtube.com/watch?v=07BHy2Acq-Q">https://www.youtube.com/watch?v=07BHy2Acq-Q</a></li> </ul> </li> </ul>	✓
<p>Completion status legend:  ✓ = Project Completed, continue to implement as necessary  O = Action ongoing toward completion  X = No progress at this time</p>			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
Initiative No. 10 — Distribute information regarding flood prevention and flood insurance at emergency operations and emergency preparedness events.			
Yes	High	County of Los Angeles Office of Emergency Management, Fire Department, Sheriff's Department, and Public Works' Disaster Service Group participated in emergency preparedness events such as Los Angeles County's Prepareathon throughout this reporting period. Participants at the fair provided attendees with information and resources for preparation, such as the "Are You Prepared for a Flood?", "ALERT LA COUNTY" brochure, "Homeowner's Guide for Flood, Debris, and Erosion Control," and the "Emergency Survival Guide."	✓
Initiative No. 11 — Develop and maintain a list of priority maintenance-related problem sites.			
Yes	High	When Public Works encountered maintenance-related problem sites, Public Works mitigated maintenance-related issues with improvement projects and/or increased maintenance.	✓
Initiative No. 12 — Conduct routine maintenance of flood control facilities and additional maintenance as needed at priority maintenance-related flood problem sites.			
Yes	High	In the past year, as well as every year, Public Works performed routine inspection and maintenance for approximately 3,380 miles of underground storm drains, 500 miles of open channels, 140 miles of levees, 14 dams, 27 spreading grounds, 174 basins, and 60 pump stations.	✓
Initiative No. 13 — Conduct a stormwater facilities condition assessment to identify the physical and hydraulic condition of the system and to support infrastructure management.			
Yes	High	Public Works' Stormwater Maintenance Division (SWMD) performed routine inspections of Los Angeles County Flood Control District (LACFCD) facilities per SWMD Standard Procedures. During inspections, any deficiencies exceeding LACFCD's Acceptable Maintenance Conditions were noted and corresponding facilities were restored to LACFCD's standards.  In addition, Public Works is implementing a program that utilizes drones to perform inspections of certain Public Works' facilities, such as dams and bridges. A video detailing this pilot program is available at:  <a href="https://www.youtube.com/watch?v=GxuZ8-UVe-U">https://www.youtube.com/watch?v=GxuZ8-UVe-U</a>	✓
<p>Completion status legend:</p> <ul style="list-style-type: none"> <li>✓ = Project Completed, continue to implement as necessary</li> <li>O = Action ongoing toward completion</li> <li>X = No progress at this time</li> </ul>			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
<b>Initiative No. 14 — Evaluate storm drain, open channel, and flood retention basin facilities for future improvements.</b>			
Yes	High	Public Works routinely conducts studies to determine flood hazard risks and evaluate its flood control facilities to identify potential future improvements. The Oxford Basin Multiuse Enhancement Project was a recently completed project that modernized an existing retention facility to improve flood protection, improve water quality, and ecological health.	O
<b>Initiative No. 15 — Pursue appropriate flood hazard mitigation grant funding.</b>			
Yes	High	The County of Los Angeles continues to look for opportunities to work with FEMA to identify flood hazard mitigation funding opportunities. Public Works was also a participant of FEMA’s Hazard Mitigation Assistance External Stakeholder Working Group.	O
<b>Initiative No. 16 — Consider the conversion of high-risk properties into open space.</b>			
Yes	High	The conversion of high-risk properties into open space is consistent with Public Works’ goals to reduce flood risk, improve water conservation and quality, and create recreational opportunities for the County.	O
<b>Initiative No. 17 — Refine the plan check system to track properties in the flood zone and address drainage.</b>			
Yes	Medium	Public Works is in the process of developing a new plan check database system to better track and address permit requests from properties in flood zones.	O
<b>Initiative No. 18 — Flag Repetitive Loss Properties in the plan and check database for review and approval of building permit applications.</b>			
Yes	High	Public Works is developing a new database system to better flag Repetitive Loss Properties for building permit applications.	O
<b>Initiative No. 19 — Maintain a database system for tracking all reviewed and approved elevation certificates prior to the closure of a building permit.</b>			
Yes	High	Public Works is developing a new database system to better track elevation certificates prior to the closure of a building permit.	O
<b>Completion status legend:</b> ✓ = Project Completed, continue to implement as necessary O = Action ongoing toward completion X = No progress at this time			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
<b>Initiative No. 20 — Evaluate opportunities for incorporating Watershed Ecosystem Restoration into projects.</b>			
Yes	High	The County of Los Angeles continues to evaluate opportunities for watershed ecosystem restoration. The Oxford Basin Multiuse Enhancement Project was a recently completed project that modernized an existing retention facility to improve flood protection, improve water quality and ecological health. Some potential projects of Public Works to incorporate watershed ecosystem restoration include: Arroyo Seco Ecosystem Restoration Feasibility Study and Compton Creek Ecosystem Restoration Feasibility Study.	O
<b>Initiative No. 21 — Where feasible, cost-effective and supported both publicly and politically, restore the natural and beneficial functions of floodplains.</b>			
Yes	Medium	Public Works continues to evaluate opportunities to restore the natural and beneficial functions floodplains. Public Works is currently partnering with the California Department of Fish and Wildlife and State Coastal Conservancy on a project to potentially restore approximately 600 acres of the Ballona Wetlands in Los Angeles' Playa Vista area.	O
<b>Initiative No. 22 — Encourage the application of biological resource measures for the control of stormwater and erosion to the best of their applicable limits.</b>			
Yes	High	The County of Los Angeles encourages Low-Impact Development (LID) for stormwater management by adopting a LID ordinance and creating a LID Standards Manual. LID is an approach to stormwater management that works to mimic the natural hydrology of the site by retaining precipitation on-site to the maximum extent practicable. LID strategies are designed to protect surface and groundwater quality, maintain the integrity of ecosystems, and preserve the physical integrity of receiving waters by managing stormwater runoff at or close to the source.	✓
<p>Completion status legend:</p> <ul style="list-style-type: none"> <li>✓ = Project Completed, continue to implement as necessary</li> <li>O = Action ongoing toward completion</li> <li>X = No progress at this time</li> </ul>			



**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
<b>Initiative No. 23 — Maintain the Operational Area Emergency Response Plan</b>			
Yes	High	In 2012, the County of Los Angeles Board of Supervisors approved the Operational Area Emergency Response Plan (OAERP). The OAERP conforms to the requirements of the National Incident Management System and the California Standardized Emergency Management System. Currently, there are no revisions to the OAERP. The OAERP will be reviewed, exercised periodically, and revised as necessary to meet changing conditions. Update of the County's Operational Area Emergency Response Plan is projected to start near the end of 2019.	O
<b>Initiative No. 24 — Maintain standards for the use of structural and nonstructural techniques that mitigate flood hazards and manage stormwater pollution.</b>			
Yes	High	Public Works prepared the 2014 LID Standards Manual. The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges.	✓
<b>Initiative No. 25 — Continue to require environmental review in the development process to provide for the creation or protection of natural resources that can mitigate the impacts of development.</b>			
Yes	High	The County of Los Angeles Regional Planning performs environmental review for land use planning for unincorporated communities in the County of Los Angeles. Projects that generally require an environmental assessment are plan amendments, zone changes, conditional use permits, tentative parcel maps, and tentative tract maps.	O
<b>Initiative No. 26 — Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone (high-risk) areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.</b>			
Yes	High	Public Works continues to enforce NFIP regulations for building permit applications determined to be Substantial Improvement or Substantial Damage to protect the property owner's investment and safety and over time to reduce the number of buildings exposed to flood risk.	✓
<p>Completion status legend:</p> <ul style="list-style-type: none"> <li>✓ = Project Completed, continue to implement as necessary</li> <li>O = Action ongoing toward completion</li> <li>X = No progress at this time</li> </ul>			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
Initiative No. 27 — Use risked-based information from the County of Los Angeles Comprehensive Floodplain Management Plan and the County of Los Angeles Hazard Mitigation Plan to update the Safety Element of the County's General Plan.			
Yes	High	<p>The current Los Angeles County General Plan was adopted by the County of Los Angeles Board of Supervisors on October 6, 2015.</p> <p>The Safety Element of the County's General Plan works in conjunction with the OAERP. The OAERP, prepared by County of Los Angeles Chief Executive Office (CEO) – Office of Emergency Management, strengthens short- and long-term emergency response and recovery capability and identifies emergency procedures and emergency management routes in the County of Los Angeles.</p> <p>The Local All-Hazard Mitigation Plan, which provides policy guidance for minimizing threats from natural and manmade hazards in the County of Los Angeles was approved on February 24, 2014, by the County of Los Angeles Board of Supervisors, by FEMA, and by the Office of Emergency Services (formerly called California Emergency Management Agency). The Local All-Hazard Mitigation Plan used the 2009 County of Los Angeles Floodplain Management Plan and 2014 draft of County of Los Angeles General Plan as resources. The Local All-Hazard Mitigation Plan is currently being updated.</p> <p>For more information on County of Los Angeles' Emergency/Disaster Plans and Annexes, please visit the CEO's website at:  <a href="https://ceo.lacounty.gov/emergencydisaster-plans-and-annexes/">https://ceo.lacounty.gov/emergencydisaster-plans-and-annexes/</a></p>	✓
Initiative No. 28 — Continue to maintain good standing under the NFIP by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.			
Yes	High	The County of Los Angeles continues to maintain and strive to identify activities that meet or exceed NFIP requirements and to help improve the CRS class rating.	✓
<p>Completion status legend:</p> <ul style="list-style-type: none"> <li>✓ = Project Completed, continue to implement as necessary</li> <li>O = Action ongoing toward completion</li> <li>X = No progress at this time</li> </ul>			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
Initiative No. 29 — Consider the best available data and science to determine probable impacts on all forms of flooding from global climate change when making program enhancements or updates to the County's Floodplain Management Program.			
Yes	High	<p>Public Works partnered with the United States Department of the Interior Bureau of Reclamation to prepare a study of the Los Angeles Basin in cooperation with local water agencies and nongovernmental organizations to explore long-term water conservation opportunities and flood risk management impacts from climate change within the Los Angeles Basin.</p> <p>The Los Angeles Basin Study looked at the period from 2010 to 2095 and used state-of-the-art climate change and hydrologic modeling to develop projections of future water supply and demands in the region. Also evaluated were: potential climate change impacts from changes to precipitation and evapotranspiration; storm intensity; and the quantity, quality, and variability of runoff, recharge, and imported water deliveries to the region. The study also analyzed the major components of the water conservation and flood protection system such as dams, spreading grounds, and major channel outlets.</p> <p>The hydrologic modeling performed for the study can be used to estimate future flood events and establish trends that could result from projected climate change. The performance of the flood control infrastructure can also be analyzed using the hydrology modeling results from the study and help determine the probable impacts on flooding from climate change.</p> <p>The Los Angeles Basin Study is available online at:   <a href="https://www.usbr.gov/watersmart/bsp/docs/fy2017/LABasinStudySummaryReport.pdf">https://www.usbr.gov/watersmart/bsp/docs/fy2017/LABasinStudySummaryReport.pdf</a></p>	O
<p>Completion status legend:            ✓ = Project Completed, continue to implement as necessary            O = Action ongoing toward completion            X = No progress at this time</p>			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
Initiative No. 30 — Identify flood-warning systems for properties where such systems can be beneficially employed.			
Yes	Medium	<p>The County of Los Angeles has implemented an emergency mass notification system that is used to contact County residents and businesses via recorded phone messages, text messages, or e-mail messages in case of emergency. The system, called ALERT LA County, is used by the County's Emergency Operations Center to notify residents and businesses of emergencies or critical situations and provide information regarding necessary actions, such as evacuations. The system also utilizes the telephone companies' 911 database and can contact land-line telephone numbers, whether listed or unlisted. If the call is picked up by an answering machine, the system will leave a recorded message. If the number called is busy or does not answer, the system will redial the number in an attempt to deliver the message. The system is also TTY/TDD compatible.</p> <p>In addition, the National Weather Service sends out mass notifications to impacted communities via Wireless Emergency Alerts (WEA). WEA are emergency messages sent by authorized government authorities through participating mobile carriers. Government partners include local and State public safety agencies, FEMA, the FCC, the Department of Homeland Security, and the National Weather Service. No app or sign-up is required and alerts are sent automatically to WEA-capable phones during emergencies.</p>	✓
Initiative No. 31 — Consider the development of a comprehensive flood warning and response plan for the unincorporated County that would become a functional annex to the Operational Area Emergency Response Plan and meet the Community Rating System Activity 610 requirements.			
Yes	High	<p>Public Works will consider the development of a comprehensive flood warning and response plan for the unincorporated County that would become a functional annex to the Operational Area Emergency Response Plan. The County is currently updating the Local All-Hazards Mitigation Plan. Update of the County's Operational Area Emergency Response Plan is projected to start near the end of 2019.</p>	X
<p>Completion status legend:            ✓ = Project Completed, continue to implement as necessary            O = Action ongoing toward completion            X = No progress at this time</p>			

**TABLE 2  
ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Priority	Status	Completion Status (X, O, ✓)
Initiative No. 32 — Continue to enforce the County’s development regulations to prevent increases of the flood hazard on adjacent properties.			
Yes	High	The County of Los Angeles continues to regulate development in FEMA's Special Flood Hazard Areas and adopted County Floodplains in unincorporated areas.	✓
Initiative No. 33 — Conduct an evaluation of FEMA-designated flood zones and revise/update them to reflect current conditions.			
Yes	Medium	The County of Los Angeles is working with FEMA to update the Flood Insurance Rate Maps for several streams. The updates are the result of new Flood Insurance Studies being conducted by FEMA in cooperation with affected cities and the County of Los Angeles. During this reporting period, FEMA's Physical Map Revision of Flood Insurance Rate Maps for the Triunfo Creek and Lobo Canyon areas became effective on April 4, 2018.  In addition, Public Works reviews Conditional Letter of Map Revision submittals for projects that may revise/update FEMA designated flood zones.	✓
Initiative No. 34 — Continue to maintain and update the Hazus-MH model constructed to support the development of the FMP, to make flood risk information available to property owners.			
Yes	High	The County of Los Angeles continues to update the data used in the Hazus-MH model such as property information and topography.	O
Initiative No. 35 — Continue County coordination with other agencies and stakeholders on issues of flood control.			
Yes	Medium	The County of Los Angeles continues to partner and explore partnership opportunities with other agencies and stakeholders regarding flood control issues.	✓
Completion status legend: ✓ = Project Completed, continue to implement as necessary O = Action ongoing toward completion X = No progress at this time			

**Recommendations for Changes or Enhancements:** Based on the review of this report by the Floodplain Management Plan Steering Committee, the following recommendations will be noted for future updates or revisions to the plan:

- No recommendations for changes or enhancements during this reporting period

## PROGRAM FOR PUBLIC INFORMATION IMPLEMENTATION

**Summary Overview of Implementation:** The annual performance period for the County of Los Angeles' program for public information is from September 1 to August 31 of each year. In the 2017-18 reporting period, all 20 identified outreach projects (100 percent) were continued to be implemented. All projects have resulted in progress toward desired outcomes.

**The Program for Public Information Committee:** The Program for Public Information Committee, made up of stakeholders within the planning area, reviewed and approved this progress report at its annual meeting held on April 3, 2019. It is expected that turnover will occur in Program for Public Information Committee membership from year to year. For this reporting period, the committee membership is as indicated in Table 3.

<b>TABLE 3. PROGRAM FOR PUBLIC INFORMATION COMMITTEE</b>	
<b>Name</b>	<b>Jurisdiction/Agency</b>
Patricia Wood	CRS Coordinator, Los Angeles County Public Works
Jolene Guerrero	Community and Government Relations Group, Los Angeles County Public Works
Neonika Walker	Community and Government Relations Group, Los Angeles County Public Works
Debbie Sharpton	Mountains Restorations Trust
Angel Barnuevo	Montebello School District
Shannon Ggem	Malibou Lake Resident

**Review of the Outreach Projects:** Program for Public Information Implementation Status reviews the identified outreach projects, reporting on the following items:

- The target audiences, the messages, and the desired outcomes.
- The projects in the PPI used to convey the messages.
- Which projects were implemented.
- Why some projects were not implemented.
- What progress was made toward the desired outcomes.
- What should be changed.

## PROGRAM FOR PUBLIC INFORMATION IMPLEMENTATION STATUS

### TOPIC 1: KNOW YOUR FLOOD HAZARD

#### 1. MESSAGE: KNOW YOUR FLOOD ZONE

([www.dpw.lacounty.gov/wmd/floodzone/index.cfm](http://www.dpw.lacounty.gov/wmd/floodzone/index.cfm))

##### Target Audiences:

- Residents, property owners, and businesses in the regulated floodplains
- Renters in flood-prone areas
- Critical Facility Operators in the regulated floodplains
- Realtors, Lenders, and Insurance Agents

##### Desired Outcomes:

- Increase in hits to Flood Zone Determination website

##### Progress Toward Outcomes:

- Los Angeles County Flood Zone Determination webpage hits:
  - October 1, 2015 to September 30, 2016: 6,680
  - October 1, 2016 to September 30, 2017: 8,160
  - October 1, 2017 to September 30, 2018: 15,258
- We are exploring option of creating a more mobile friendly version of the Flood Zone Determination Website.

#### a. Project: Mailing of outreach brochure "Are You Prepared for a Flood?" to target audiences

Assignment: Los Angeles County Public Works (Public Works)

Schedule: Annually, prior to rainy season (October)

Stakeholder Delivery (Element STK)<sup>1</sup>?: No

Implemented: Yes

Enhancement to project:

- The "Are You Prepared for a Flood?" brochure was updated in 2018.
- To increase the outreach to target audiences, the brochures have been distributed to the following public libraries: Castaic, Malibu, Rosemead, Topanga, Altadena, Duarte, and San Dimas. Additionally, the brochure is distributed to Public Works' Building and Safety Division's plan check counters at headquarters and its field offices.
- Consider distribution of brochures to County Parks and Recreation facilities.

#### Footnote:

<sup>1</sup> Element STK is a FEMA Community Rating System (CRS) point multiplier that credits project messages delivered or endorsed by stakeholders that are not part of the local government (i.e., Los Angeles County). Stakeholders are the individuals, agencies, and jurisdictions that have a vested interest in the recommendations of this plan, including:

- Community representatives
- Environmental advocacy groups
- Local non-County disaster preparedness and response agencies
- Residents, owners, and operators of businesses within the floodplain
- Repetitive loss area representatives.

- A Gap in Maps analysis was performed to determine homes in close proximity to streams, but where a FEMA or County floodplain has not been mapped; appropriate homes were added to the distribution list for the brochure.
- Public Works is exploring the feasibility of providing outreach material via a file sharing system like Dropbox in addition to mailing out CDs.

**b. Project: Annual notice of map information services to local realtors/lenders/insurance agents pursuant to the publicity requirements of CRS Activity 320**

Assignment: Public Works

Schedule: Annually (October)

Element STK?: Yes

Implemented: Yes

Enhancement to project:

- The current practice is to mail the annual notice to 80 agents in the unincorporated communities and adjacent areas. The distribution list will be expanded to additional agents.

**2. MESSAGE: YOU ARE IN A REPETITIVE LOSS AREA**

Target Audiences:

- Residents, property owners, and businesses in repetitive loss areas (RLAs)

Desired Outcomes:

- Increase in inquiries to Public Works from repetitive loss properties (RLPs) regarding flood hazards
- Property owners implementing temporary or permanent flood mitigation projects
- Increased demand for sandbags during the storm season

Progress Toward Outcomes:

- Public Works to query its log of calls in the future to determine how many are from repetitive loss areas.
- Every year, field visits to all RLPs are conducted to document any flood mitigation measures.
- In addition, field visits are conducted for all properties in RLAs.
- To date, Public Works submitted to FEMA the appropriate forms for 14 RLPs for FEMA's consideration to potentially classify the properties as being mitigated.
- Public Works provides sandbags to the Los Angeles County Fire Department for distribution to residents at over 160 local Fire Stations. Demand for sandbags varies from year to year. Public Works always maintains over 750,000 sandbags for distribution.

Year	Sandbags distributed to Fire Department
2015-16 (El Niño)	1,257,000
2016-17	100,000
2017-18	162,000



**a. Project: Annual mailing to Repetitive Loss Area Properties**

Assignment: Public Works

Schedule: Annually (October)

Element STK?: No

Implemented: Yes

Enhancement to project:

- In 2017, outreach materials were mailed to all properties within a RLA. If applicable, future mailings can be tailored to the potential flood hazards to, which an area may be subject, such as postfire debris flows.

**TOPIC 2: INSURE YOUR PROPERTY FOR YOUR FLOOD HAZARD**

**1. MESSAGE: YOU NEED FLOOD INSURANCE**

Target Audiences:

- Residents, property owners, and businesses in the 100-year (1 percent annual chance) floodplain
- Homeowners/building owners who do not have a mortgage or federally-backed mortgage

Desired Outcomes:

- Increase in flood insurance policy holders for insurable structures in the 100-year (1 percent annual chance) floodplain

Progress Toward Outcomes:

- Total Policy Holders in Unincorporated LA County:

May 31, 2014	2,001
December 1, 2015	2,908
January 31, 2016	3,194
March 31, 2017	1,912
September 30, 2018	1,553

There can be several factors affecting the increase or decrease over time of policy holders in the unincorporated areas. One possible explanation for the increase in policies from 2015 to 2016 may be attributed to the forecasted El Niño conditions, even though the season resulted in dryer conditions than anticipated. Decreases in the numbers of policies may be the result of several factors including: revisions in the Flood Insurance Rate Maps that are the result of drainage improvements or corrections to the flood boundaries.

**a. Project: Mailing to property owners in the flood zones and repetitive loss areas**

Assignment: Public Works

Schedule: Annually (October)

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue mailing outreach material to properties in the RLAs and properties in Special Flood Hazard Areas (SFHAs, which may include RLPs). In 2017, outreach materials were mailed to all RLA properties, and 3,551 flood preparedness brochures were mailed to properties in SFHAs, County

Floodways, which include areas that may be outside SFHAs, and Gaps in the Maps. Mailing lists are updated accordingly to account for changes in the Flood Insurance Rate Maps (FIRMs) that are the result of Letters of Map Revision (LOMRs), Physical Map Revisions (PMRs), and the Gaps in the Maps Analysis.

- Consider using Twitter to disseminate this message
- Consider keeping track of Twitter impressions

## 2. **MESSAGE: RENTERS CAN BUY FLOOD INSURANCE**

### Target Audiences:

- Renters in flood prone areas

### Desired Outcomes:

- Increase in flood insurance purchase by renters in the 100-year (1 percent annual chance) floodplain

### Progress Toward Outcomes:

- Specific statistics on flood insurance policies for content-only coverage for renters is not yet available.

#### **a. Project: Mailing to renters in the flood zone**

Assignment: Public Works

Schedule: Annually (October)

Element STK?: No

Implemented: Yes

Enhancement to project:

- To reach renters, the flood preparedness brochures are mailed to the site address and the building owner's mailing address. The flood preparedness brochure was updated in 2018 and specifies renters may also purchase flood insurance.
- Consider using a door-to-door flyer distribution service such as Walking Man
- Consider using Twitter to disseminate this message
- Consider keeping track of Twitter impressions

## **TOPIC 3: PROTECT PEOPLE FROM THE FLOOD HAZARD**

### 1. **MESSAGE: AVOID SWIFT WATER**

#### Target Audiences:

- People/children who hike or bike through channels and streams
- People who are camping/residing in channels and streams

#### Desired Outcomes:

- Decrease in swift water rescues
- Decrease in observed camping/residing in the channels and streams

#### Progress Toward Outcomes:

- The County of Los Angeles Fire Department performs swift water rescues where the need arises.
- Public Works has multiple YouTube videos regarding the flood hazard:
  - o Stormwater safety:  
<https://www.youtube.com/watch?v=5jFl6Z-Ld4w>

- Swift Water:
  - <https://www.youtube.com/watch?v=EcOpX7TGY84>
  - [https://www.youtube.com/watch?v=2\\_oeiOP\\_o\\_k](https://www.youtube.com/watch?v=2_oeiOP_o_k)
- Storm season evacuation:
  - [https://www.youtube.com/watch?v=gqrr1\\_o4WYA](https://www.youtube.com/watch?v=gqrr1_o4WYA)
  - <https://www.youtube.com/watch?v=07BHy2Acq-Q>
- Public Works tweets messages urging residents to stay away from rivers and channels during storms.
- Public Works posts messages and videos on Facebook reminding people to steer clear of swift-moving water during storms
- Public Works' Stormwater Maintenance Division (SWMD), upon receiving notification of homeless encampments within Los Angeles County Flood Control Districts' facilities, contacts the Los Angeles Housing Service Authority (LAHSA) to do outreach. The LAHSA engages the encampment inhabitants and makes them aware of available programs that provide shelter, housing, and services to people experiencing homelessness. In addition, LAHSA alerts encampment inhabitants of pending storms and the risk of remaining in the flood control channels. Following LAHSA's outreach, SWMD posts a notice that informs the homeless that they are trespassing and gives them a 2-week timeframe to move to safety. If necessary, the County Sheriff may assist in the relocation of the homeless.
- The 2017 and 2018 Homeless Count for encampments near rivers for County of Los Angeles are as follows below. The Homeless Counts were provided by LAHSA, and the Cities of Glendale, Pasadena, and Long Beach. There are no counts for rivers for prior years.

Riverbed	Total Encampments	
	2017	2018*
Arroyo Seco	14	34
Tujunga Creek	46	23
Los Angeles River	128	82
Rio Hondo	53	63
San Gabriel River	128	101

\*Starting in 2018, LAHSA no longer performs Homeless Counts near riverbeds in cities outside of the Los Angeles Continuum of Care (Glendale, Pasadena, and Long Beach). However, Public Works obtained Homeless Counts near riverbeds from the Cities of Glendale, Pasadena, and Long Beach and incorporated the data in the table above.

**a. Project: YouTube videos – Public Service Announcements (PSAs) for swift water warning**

Assignment: Public Works

Schedule: Year-round on YouTube

Element STK?: No

Implemented: Yes

Enhancement to project:

- Currently in the process of updating PSA video about swift water safety

**b. Project: Twitter reminders**

Assignment: Public Works

Schedule: Tweet prior to and during rainy season

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of the program
- Public Works has increased usage of Facebook to reach residents and business owners of County of Los Angeles
- Consider adding Facebook and Instagram reminders to reach younger audience
- Consider keeping track of Twitter impressions

**c. Project: Homeless Count**

Assignment: Los Angeles Homeless Service Authority (LAHSA)

Schedule: Annually

Element STK?: Yes

Implemented: Yes

Enhancement to project:

- Continue implementation of the program

**2. MESSAGE: TURN AROUND DON'T DROWN**

Target Audiences:

- Drivers

Desired Outcomes:

- Decrease in swift water rescues
- Decrease in car-related flood injuries and fatalities

Progress Toward Outcomes:

- Public Works actively tweets/retweets messages urging residents to avoid driving or walking through flood waters during storms.

**a. Project: Twitter reminders**

Assignment: Public Works

Schedule: Tweet prior to and during rainy season

Element STK?: No

Implemented: Yes

Enhancement to project:

- Exploring the feasibility of using other media to advertise message
- Exploring the feasibility of providing tweets in Spanish
- Consider keeping track of Twitter impressions

#### TOPIC 4: PROTECT YOUR PROPERTY FROM THE FLOOD HAZARD

1. **MESSAGE: NEED ADVICE FOR PROTECTING YOUR PROPERTY FROM FLOOD HAZARDS? PLEASE CALL US OR VISIT OUR WEBSITE**
- 2.

##### Target Audiences:

- Residents, property owners, and businesses in the regulated floodplains and in repetitive loss areas
- Environmental consultants/building contractors or others involved in the permitting process
- Gaps in the Maps identified properties
- Lake Los Angeles property owners with creeks through their properties
- Property owners near recently burned areas

##### Desired Outcomes:

- Increase in requests for advice/assistance

##### Progress Toward Outcomes:

- Storm Season Preparation YouTube video:  
<https://www.youtube.com/watch?v=GELAxD7hzIU> .
- Public Works has provided Post-Burn Engineering Advice to residents in post burn areas on how to mitigate debris flow impacts on their properties:

Year	No. Advice
2015	27
2016	151
2017	219
2018	489 (481 for Woolsey Fire Area, fire started on 11/8/2018)

- Public Works maintains at least 750,000 sandbags at its warehouse for emergencies, and during storm season provides Los Angeles County Fire Stations with an adequate supply for the public.
- During Repetitive Loss Property site visits, observed mitigation measures were documented. To date, Public Works submitted the appropriate forms for 14 RLPs for FEMA's consideration to potentially classify the properties as being mitigated.

##### **a. Project: YouTube video storm season preparation**

Assignment: Public Works

Schedule: Available year-round online

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of program

##### **b. Project: Twitter reminder**

Assignment: Public Works

Schedule: Prior to and during rainy season

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of program
- Consider keeping track of Twitter impressions

**c. Project: Distribute mailer to affected properties**

Assignment: Public Works

Schedule: Prior to and during rainy season and as needed

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of the program. Currently, owners and residents of properties within a SFHA or County floodway receive a flood preparedness brochure. In addition, owners and residents of properties within RLAs receive a letter along with a CD that contains extensive resources with information on ways to mitigate flood hazard on their properties.
- Consider distributing brochures during the County's Household Hazardous Waste Collection events

**d. Project: Facebook message**

Assignment: Public Works

Schedule: Prior to and during rainy season

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of program

**e. Project: Post-Burn Mudflow Protective Advice**

Assignment: Public Works

Schedule: Following brush fires and as needed

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of the program.

**TOPIC 5: BUILD RESPONSIBLY**

**1. MESSAGE: A LITTLE INVESTMENT NOW COULD SAVE YOU MONEY LATER**

Target Audiences:

- Environmental consultants/building contractors or others involved in the permitting process.

Desired Outcomes:

- Increase protection from flood hazards to structures

Progress Toward Outcomes:

- Public Works' current Building and Safety and Land Development plan checking procedures enforce flood protection requirements. Specific counts on increased protection of structures is not available.

**a. Project: Promote on social media (Twitter) and NFIP website**

Assignment: Public Works

Schedule: Year-round; revisions to website by October

Element STK?: No

Implemented: Yes

Enhancement to project:

- Provide at Public Works' Building and Safety permit counters booklets and FEMA flyers about proper construction
- Consider providing this information to organizations (e.g. local chapter of the American Institute of Architects) that would benefit from it during the planning phase

**TOPIC 6: PROTECT NATURAL FLOODPLAIN FUNCTIONS**

**1. MESSAGE: NO DUMPING**

Target Audiences:

- Areas where there are significant instances of illegal dumping into storm drains, channels, and flood control basins

Desired Outcomes:

- A reduction of illegal dumping instances

Progress Toward Outcomes:

- Public Works' YouTube channel has public service announcements featuring athletes from the Los Angeles Dodgers and Clippers to encourage residents to "Keep it classy, not trashy".
  - o PSA – Illegal Dumping with Dodgers Adrian Gonzalez:  
<https://youtu.be/YabWhMjklkw>
  - o PSA – Illegal Dumping with Clippers Lamond Murray  
<https://youtu.be/DRO77wc0rjc>
- Number of illicit discharges to which the Los Angeles Flood Control District responded:
  - Fiscal Year 2014 - 2015: 61
  - Fiscal Year 2015 - 2016: 57
  - Fiscal Year 2016 - 2017: 48
  - Fiscal Year 2017 - 2018: 241
- Number illegal dumping reported to Public Works countywide:
  - Fiscal Year 2015 - 2016: 2,313
  - Fiscal Year 2016 - 2017: 3,353
  - Fiscal Year 2017 - 2018: 3,504
- To control and reduce pollutants entering the storm drain system, Public Works has launched the Stormwater Public Education Program to educate the public about what they can do to prevent pollution and keep local waterways clean. Current program outreach activities include paid advertising, community pilot programs, media relations, and corporate partnerships. In addition, the program provides technical assistance to cities to help promote cohesive pollution prevention efforts throughout the region.

**a. Project: Drains to Ocean signage/No Dumping signage**

Assignment: Public Works

Schedule: As needed

Element STK?: No

Implemented: Yes

Enhancement to project:

- Exploring the feasibility of including Spanish versions as needed
- Consider adding the ongoing Free Disposal Days events information to the program

**TOPIC 7: GENERAL PREPAREDNESS**

**1. MESSAGE: SIGN UP FOR ALERT LA**

Target Audiences:

- Countywide
- Residents, property owners, and businesses in the regulated floodplains.
- School Districts

Desired Outcomes:

- Increase the number of residents who register their mobile device numbers for Alert LA

Progress Toward Outcomes:

- The number of enrollments for Alert LA County:  
October 1, 2016 to September 30, 2017: 4,602  
October 1, 2017 to September 30, 2018: 22,138
- The County of Los Angeles' website for storm preparation promotes citizens to sign up for Alert LA and provides resources for preparation such as weather forecast, videos, guides, notifications, and tweets.  
<http://www.lacounty.gov/larain>
- The County of Los Angeles participates in fairs and promotes Alert LA

**a. Project: Promote Alert LA on County Website**

Assignment: Public Works, Los Angeles County Sheriff's Department, County of Los Angeles CEO Office of Emergency Management (OEM)

Schedule: Available online year round

Element STK?: No

Implemented: Yes

Enhancement to project:

- Included language promoting Alert LA in the flood preparedness brochure

**b. Project: Provide Alert LA County Brochure**

Assignment: OEM

Schedule: Available online year round

Element STK?: No

Implemented: Yes



Enhancement to project:

- Continue implementation of the program

2. **MESSAGE: DEVELOP A FAMILY DISASTER PLAN**

Target Audiences:

- Countywide
- Residents, property owners, and businesses in the regulated floodplains
- School Districts

Desired Outcomes:

- Increase preparedness by residents

Progress Toward Outcomes:

- In addition to OEM's website, the County of Los Angeles' website for emergency preparation provides residents with resources, tips, and facts to equip and alert them on how to best respond to emergencies and recover from disasters.  
<http://www.lacounty.gov/emergency>
- The County of Los Angeles participates in fairs to promote citizens to prepare for disasters

**a. Project: Promote on social media (Twitter) and website**

Assignment: Public Works

Schedule: Quarterly

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of the program
- Consider keeping track of Twitter impressions

3. **MESSAGE: KNOW YOUR RISK**

Target Audiences:

- Countywide
- Residents, property owners, and businesses in the regulated floodplains
- School Districts

Desired Outcomes:

- Increase visits to the Flood Zone Determination Website

Progress Towards Outcomes:

- Los Angeles County Flood Zone Determination webpage hits:  
October 1, 2015 to September 30, 2016: 6,680  
October 1, 2016 to September 30, 2017: 8,160  
October 1, 2017 to September 30, 2018: 15,258

**a. Project: Mailer to all properties with structures in the floodplain**

Assignment: Public Works

Schedule: Annual Mailing (October)

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of the program

**b. Project: Promote on social media (Twitter)**

Assignment: Public Works

Schedule: Annually

Element STK?: No

Implemented: Yes

Enhancement to project:

- Continue implementation of the program
- Consider keeping track of Twitter impressions

***Recommendations for Changes or Enhancements:*** Based on the review of this report by the Program for Public Information Committee, the following changes will be incorporated during the next performance period:

- Consider keeping track of Twitter impressions, which is a tally of the number times a tweet has been seen
- Consider utilizing other forms of social media such as Facebook or Instagram to reach younger audiences
- Consider distribution of outreach material to additional County facilities such as County Parks and Recreations facilities
- Consider using a door-to-door flyer distribution service such as Walking Man to deliver messages

**PUBLIC REVIEW NOTICE**

*The contents of this report are considered to be public knowledge and have been prepared for total public disclosure. Copies of the report have been provided to the County Los Angeles Chief Executive Office and to local media outlets and the report is posted on the Floodplain Management Plan website. Any questions or comments regarding the contents of this report should be directed to:*

*Los Angeles County Public Works  
Stormwater Engineering Division  
(626) 458-6131*