

SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
ZONE 9 ADVISORY COMMITTEE

NOTICE IS HEREBY GIVEN that the Zone 9 Advisory Committee will hold a Regular Meeting at **1:30 PM** on **Wednesday, October 10, 2018** at the City of San Luis Obispo, Community Development Department in Conference Room #1 located at 919 Palm Street, San Luis Obispo, CA 93401.

AGENDA

1. Introductions and roll call
2. Approval of meeting minutes
3. Reports
 - a. Sustainable Groundwater Management Act (SGMA) updates
 - b. Mid-Higuera Bypass Project updates
 - c. Creek maintenance updates
 - d. Arundo removal updates
4. Endorsement of City of San Luis Obispo's Annual Work Plan - Fiscal Year 2019-20
5. Discussion of FEMA flood mapping updates to San Luis Obispo Creek Watershed
6. Public comment
At this time, the public may address the Committee on any item not appearing on the agenda that is within the subject matter jurisdiction of the Committee.
7. Future agenda items

Next Regular Meeting

Wednesday, December 12, 2018 at 1:30 PM
City of San Luis Obispo, Community Development Department
919 Palm Street, San Luis Obispo, CA 93401

"The purpose of the Zone 9 Advisory Committee: SECTION 1: To advise the County Board of Supervisors concerning all policy decisions relating to Zone 9. The Committee shall determine the needs, desires, and financial capabilities of the property owners in Zone 9 and, upon deliberation, shall convey to the Board of Supervisors their recommendations with respect to the objectives of said zone. SECTION 2: To recommend to the Board of Supervisors specific programs to alleviate and control flood damage within Zone 9 with recognition of the ecological and aesthetic values of the programs. Further, to recommend to the Board of Supervisors other programs within Zone 9 concerning the objects and purposes of the Flood Control District Act. SECTION 3: To recommend methods of financing programs for Zone 9." – Excerpts from the By-Laws adopted March 1, 2011

SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
ZONE 9 ADVISORY COMMITTEE

Meeting Minutes (DRAFT) – Wednesday, August 08, 2018

Members Present

Wayne Peterson, Chairperson, Member, County At-Large
Andy Pease, Member, City Council
Matt Horn, Vice Chairperson, Member, City Staff
Christine Mulholland, Member, City At-Large
Dave Romero, Alternate, City At-Large

1. Introductions and roll call

Wayne Peterson calls the meeting to order at 1:30 PM. Quorum established.
Introductions of attendees present.

2. Approval of Meeting Minutes - April 11, 2018

Motion by: **Christine Mullholland**

Second by: **Andy Pease**

The Committee approves the April 11, 2018 meeting minutes (5-0-0).

3. Ongoing Reports and Updates

- Sustainable Groundwater Management Act (SGMA) Update

Andy Pease adds the Committee a Joint Sustainability Plan between the City and County that is under development and will need to be approved by both the City and County. Christine Mullholland asks who else would be part of the plan. Andy Pease responds that there are four named entities, such as Golden State Water Company, who will be a part of the Joint Sustainability Plan while all other overlying land owners will be represented by the County.

- Mid-Higuera Bypass Project Updates

Mladen Bandov, County Public Works, reports that the Board of Supervisors will hold a hearing on August 21, 2018 that recommends: (1) certification of the Final Supplemental Environmental Impact Report for the Mid-Higuera Bypass Project; and (2) revising and approving the reimbursement agreement with the City of San Luis Obispo. The revised agreement includes updating the roles and responsibilities of the City and County related to the Mid-Higuera Bypass Project, which includes directing County staff to perform activities related to regulatory permitting for the project. The revised agreement also includes automatic term extension renewals after the initial 5-year term for four (4) additional consecutive 5-year term extensions.

Brian Nelson, City Engineer, reports that Wallace Group is working on the preliminary design and just submitted a Technical Memorandum Update with details of the DRAFT HEC-RAS model. Wallace Group's next steps in the preliminary design are to finalize the HEC-RAS model and to work with their subconsultant on the preliminary Bianchi Lane bridge alternatives analysis and associated geotechnical foundation report. The final engineering design plans submittal scheduled by June 2019. The preliminary cost estimate for the project is \$4.1 million including a 15% contingency.

- Creek Maintenance Updates

Freddy Otte, City Biologist, reports that an inventory is being developed using previous hot spot locations and complaints from public. California Conservation Corps will be contacted if available to assist with maintenance. Landscape contractors may be used if necessary. Minimal debris jams have been encountered during creek walks this year and preventative maintenance is being undertaken.

4. Waterway Management Plan (WMP) Implementation

Wayne Peterson comments that flooding on Buckley Road resulting from flows coming from the East Branch of San Luis Obispo Creek originating from Broad Street area. The problem appears to be the capacity of the East Branch of San Luis Obispo Creek downstream of the bridge on Buckley Road.

Mladen Bandov summarizes that staff report provided in the agenda packet:

- The WMP for Zone 9 is the comprehensive approach to address flooding issues throughout the entire watershed.
- Preferred Projects in the WMP include both capital improvement projects and nonstructural activities used to address flooding
- Mid-Higuera Bypass has been the first individual project pursued since the WMP was developed.
- Projects for the East Branch were part of prior drafts of the Airport Area Specific Plan. However, once the Airport Area Specific Plan was finalized, the plan addressed flooding using on-site mitigation in accordance with the Regional Water Board's requirements. As a result, there are no planned projects identified for the East Branch.
- The entire East Branch is considered in the WMP, including the specific issues on Buckley Road near the bridge and Vachell Lane intersection, and the Committee can address the issue of flooding in this area.
- Staff is seeking direction from the Committee

Members from Preserve the SLO Life, a citizens group, expressed concerns about the following:

- The flow capacity of the bridge on Buckley Road and the need to raise the road
- On-site mitigation capacity of Avila Ranch development project due to presence of groundwater and soil type

- Additional flood waters entering the Tank Farm Creek Watershed resulting from 50-year storm event causing San Luis Obispo Creek to overtop south of Prado Road (Avila Ranch Environmental Impact Report – Local Flood Hazards Section 3.7-12)
- Emergency vehicle access during flood events
- Creek cleaning and maintenance in the County areas

Hal Hannula, City Supervising Civil Engineer, responds that he will investigate the design of onsite mitigation and double check that the basins are not relying on infiltration.

Mladen Bandov, County Public Works, responds that currently there is not a program for creek maintenance in the areas outside of the City limits. A program could be considered which would address creek maintenance for the East Branch and other areas outside the City limits. Historically, the Coastal San Luis Resource Conservation District (RCD) was previously contracted to work with private property owners to assess the creek conditions in the downstream areas of the East Branch. The RCD could provide an assessment and follow up with assistance to property owners to obtain permitting to clean the creek in the areas in question.

Andy Pease inquires about the level of effort to update the WMP. Christine Mulholland comments that the City Council should consider the how large projects address flooding issues and how the Committee could bring more awareness to the decision-making bodies. Andy Pease suggests that a presentation on the WMP's drainage design manual (DDM), regulatory requirements such as post-construction requirements (PCRs) and other measures that projects need to provide.

Wayne Peterson suggests that staff come up with a program to look at reducing the frequency of flooding in East Branch area, including understanding if creek cleaning would work.

Mladen Bandov reviews the possible actions including

- General update of the WMP, which may be either
 - a limited update to the Preferred Project (i.e., the individual capital projects) in Volume I, or
 - an update to the entire WMP including the Preferred Project Volume I, the Stream Management and Maintenance Program (SMMP) in Volume II and/or the Drainage Design Manual (DDM) in Volume III
- Studying the specific flooding on Buckley Road including the backwater condition and vegetation removal with the objective to reduce flooding frequency from a high frequency interval (observations from the public include flooding that occurs annually) to a lower frequency interval
- Include objectives in either the WMP update or Buckley Road study that provide stormwater capture and recharge opportunities into the groundwater basin

Bob Hill suggests presenting on the regulatory and contemporary setting of stormwater post-construction requirements, the City's stormwater resource plan for improving water quality and recharging the basin and increasing efforts for flood control.

5. Public Comment

Bob Hill had commented that the Foothill Bridge replacement project (ST-I-2 of the Preferred Project) had been completed.

6. Future Agenda Items

No future agenda items were suggested.

Wayne Peterson adjourns the meeting at 2:58 PM

TO: Zone 9 Advisory Committee
FROM: Sarah Crable, County Public Works
DATE: October 10, 2018
SUBJECT: Agenda Item #3: Ongoing Updates

Item #3.c - Creek Maintenance Updates

Report by: Freddy Otte, City Biologist, City of San Luis Obispo

- As of October 04, 2018, visits have been made to 14 of the 21 hotspot areas throughout the City where the City has property or drainage easements.
- During the week of October 01, 2018, the California Conservation Corp (CCC) cleared the lower section of Prefumo Creek as it has its confluence with Laguna Lake
- Tree contractors address 5 large threats in the creek and three other smaller ones so far.
- In the coming weeks, additional work will be scheduled with landscape contractors
- around the LOVR and Calle Joaquin intersection to begin addressing flooding int the street out there as well. I have one more week to schedule with the CCC and they will focus downstream of downtown unless something else major is discovered.

Item #3.d - Arundo Removal Updates

Report by: Jon Hall, Stewardship Director, The Land Conservancy of San Luis Obispo County

The following is an update for the Arundo removal efforts:

- Permits are in place
- Land owners are being contacted
- Arundo treatments will begin during the second week of October.



Public Works

919 Palm Street, San Luis Obispo, CA 93401-3218
805.781.7200
slocity.org

Date: September 21, 2018
To: Mladen Bandov, Water Resources Engineer – County of San Luis Obispo
From: Matt Horn, City Engineer - City of San Luis Obispo
Subject: 2019-20 Zone 9 Budget Request

Based on the current status and future needs to continue making progress on several projects, the City is requesting the following funding from Zone 9 for the 2019-20 Fiscal Year.

Project Name	Requested FY 2019/20
General Creek Maintenance	\$118,000
Silt Removal	\$50,000
Mid Higuera Bypass	\$90,000
Total	\$258,000

General Creek Maintenance

\$118,000 to fund ongoing general creek maintenance which includes channel clearing, including removal of trees, vegetation, and arundo from creeks. Funding is planned to be used as follows:

1. Contract Labor - Channel Clearing: \$45,000
2. Channel Tree Removals: \$40,000
3. Vegetation Disposal: \$ 5,000
4. Arundo Removal: \$28,000

Silt Removal

Existing funding of \$259,000 is sufficient to support upcoming creek silt removal work. The following locations have reached final design but are awaiting final regulatory permits before construction can begin. Construction is anticipated as follows:

1. 2018 - Prefumo Creek arm – Between LOVR and Laguna Lake
2. 2019 - Tank Farm Road 250 ft West of Orcutt
3. 2019 - Sacramento 500 ft North of Via Esteban
4. 2019 - Prefumo Creek - Downstream of South Madonna

An additional \$50,000 is requested to support design and environmental permitting services for silt removal locations planned for construction in 2020. Currently, the following locations are prioritized:

1. San Luis Obispo Creek at Marsh Street Bridge / 101 Freeway
2. San Luis Obispo Creek Bypass Channel – Near Water Reclamation Facility
3. San Luis Obispo Creek Bypass Channel – East Side of Prefumo Creek Confluence
4. San Luis Obispo Creek at LOVR – Bridge Barrel Sediment Removal

Mid Higuera Bypass

\$90,000 is requested to fund the ongoing work on the Mid Higuera Bypass project. Funding is planned to be used for compliance with regulatory permits and costs for utility relocations needed to accommodate the Bianchi Bridge replacement, as well as construction easements to complete the work on the Madonna property west of San Luis Obispo Creek.

TO: Zone 9 Advisory Committee

FROM: Sarah Crable, Water Resources Engineer

DATE: October 10, 2018

SUBJECT: Agenda Item #5: Discussion of FEMA flood mapping updates to the San Luis Obispo Creek Watershed

Recommendation

Provide input to FEMA Region IX in their efforts in the update to flood mapping in the San Luis Obispo Creek Watershed.

Discussion

At the August 8, 2018 meeting, the Committee requested staff to provide additional information about alternatives to alleviate flooding of the East Branch of San Luis Obispo Creek, including areas near Buckley Road and Vachell Lane.

Limited Scope Study of SLO Creek East Branch

A limited scope study of the East Branch of San Luis Obispo Creek and the frequent flooding near Buckley Road and Vachell Lane might include the following scope:

- A field review and creek walk to observe existing conditions.
- Running the City/County HEC-RAS model and interpreting results, including evaluation of the smaller, more frequent storms
- A brief technical memorandum to summarize findings including discussion on potential solutions to lessen flooding
- Presentation of results to the Committee

An initial cost estimate for this limited scope study could range between \$7,000 to \$10,000.

Given the upcoming FEMA flood mapping study, staff recommends waiting until the FEMA efforts are complete to provide better information for any study in the specific area of the East Branch.

FEMA Study of SLO Creek East Branch

FEMA Region IX has contracted with Stantec to develop updated flood hazard information for San Luis Obispo County residents and businesses. The hydrologic and hydraulic modeling efforts overseen by Stantec will be executed by FEMA's modeling team, STARR II. There are four study areas that within the county boundaries that will be examined to update flood mapping:

- Salinas River
- Huerhuero Creek
- San Luis Obispo Creek
- Meadow Creek

A kickoff meeting with FEMA, Stantec, and Public Works staff was held on September 28, 2018. In Stantec's request to staff for additional areas requiring updated investigations and studies, staff identified the area of the East Branch as needing an updated review and analysis. The following work products will be supplied to the County for the four main study areas and any additional requests that were made:

- Update approximate study to detailed study
- Watch for higher flows at tie ins with effective detailed studies
- Review analysis and mapping with stakeholders and document input
- Perform base mapping, field reconnaissance, structure surveys, hydrology, hydraulics, changes since las FIRM, water surface elevation grids, multi-frequency depth grids and work maps which will be reviewed with stakeholders.

It is recommended that Committee members provide input for FEMA Region IX's flood mapping efforts. All of the costs for the work efforts are provided by FEMA Region IX. Study results are anticipated to be completed by 2020.

Presentation material from the September 28, 2018 kick-off meeting are attached.



FEMA

Risk Identification and Assessment

San Luis Obispo, California
Kick-Off Meeting
September 28, 2018

RiskMAP
Increasing Resilience Together



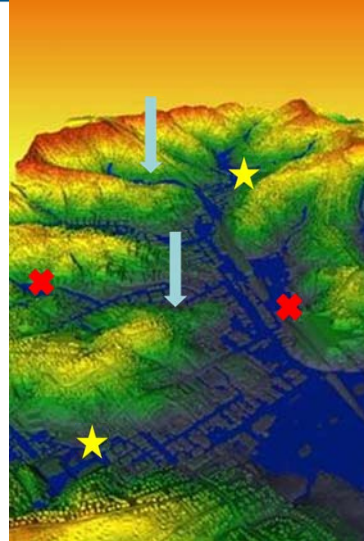
Introduction

- Participants should provide the following during our informal introduction session:
 - Name
 - Community/Organization
 - Your Role/Title
 - Is there an opportunity for minimizing flooding in your community?



Post-Discovery Process

- Discovery Meetings held January 2018
- FEMA reviewed local community input to determine needs
- Project team reviewed data collected during Discovery to prioritize needs including Discovery Report and Map

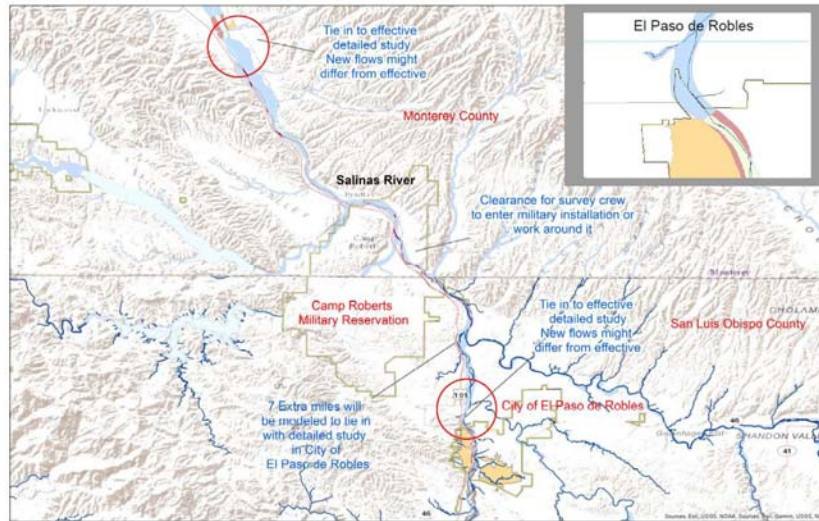


Where are we in the Risk MAP Process?



Risk MAP Phases

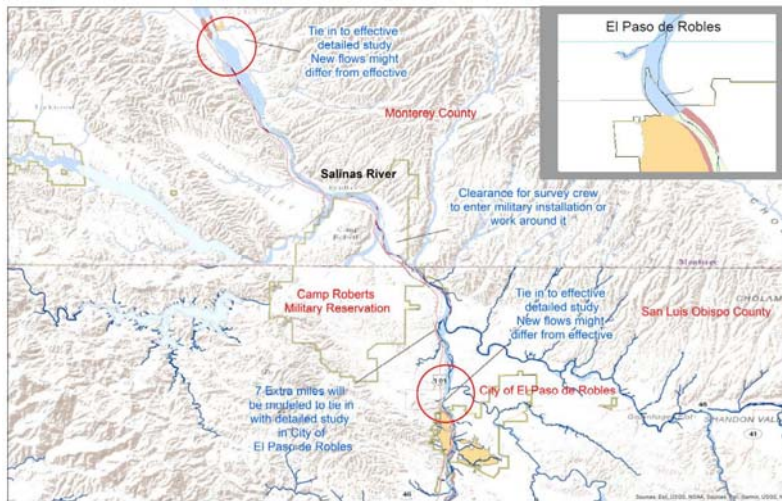
Salinas River– Study Area



Salinas River – Study Area

- Complete approximately 26.4 miles of updated detailed study with 6 structures and 23 surveyed cross sections on Salinas River within both Monterey and San Luis Obispo County and an additional 7 miles of new detailed study in San Luis Obispo (previously an approximate study) in order to tie into detailed study in El Paso de Los Robles
- Perform analysis consistent with mapping procedure guidelines
- Review analysis and mapping with stakeholders and document input
- Perform base mapping, field reconnaissance, structure surveys, hydrology, hydraulics, changes since last FIRM, water surface elevation grids, multi-frequency depth grids and work maps which will be reviewed with stakeholders

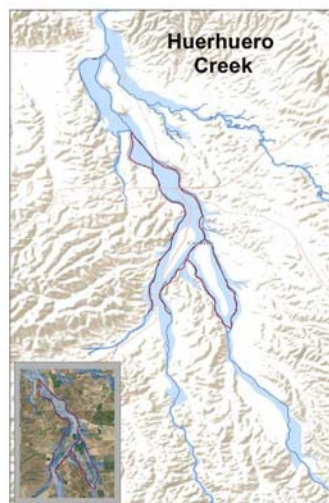
Salinas River – Study Area – Open Discussion



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Huerhuero Creek – Study Area



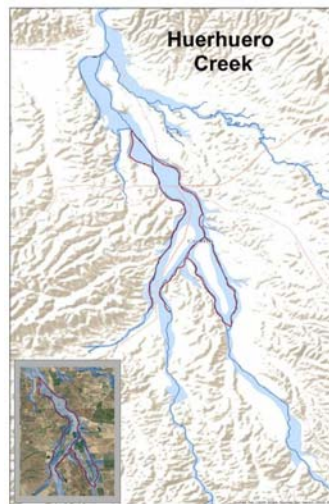
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Huerhuero Creek– Study Area

- Update approximate studies to 11 miles of detailed studies with 13 structures surveyed
- Review analysis and mapping with stakeholders and document input
- Perform base mapping, field reconnaissance, structure surveys, hydrology, hydraulics, changes since last FIRM, water surface elevation grids, multi-frequency depth grids and work maps which will be reviewed with stakeholders

Huerhuero Creek– Study Area – Open Discussion



San Luis Obispo Creek – Study Area



San Luis Obispo Creek – Study Area

- Update approximate study to detailed study
- Watch for higher flows at tie ins with effective detailed studies
- Review analysis and mapping with stakeholders and document input
- Perform base mapping, field reconnaissance, structure surveys, hydrology, hydraulics, changes since last FIRM, water surface elevation grids, multi-frequency depth grids and work maps which will be reviewed with stakeholders



San Luis Obispo Creek— Study Area— Open Discussion



Meadow Creek— Study Area



Meadow Creek – Study Area

- Complete new study of 5.6 miles of detailed study
- Unmapped Flood Control Channel
- Review analysis and mapping with stakeholders and document input
- Perform base mapping, field reconnaissance, structure surveys, hydrology, hydraulics, changes since last FIRM, water surface elevation grids, multi-frequency depth grids and work maps which will be reviewed with stakeholders



Meadow Creek – Study Area – Open Discussion



Next Steps for Studies

- [Data Development](#)
 - Topographic Data Development
 - Note that LiDAR data will not be completed until next summer – Schedules pushed because of this
 - Field Survey and Reconnaissance
 - Hydrologic Modeling
 - Hydraulic Modeling and Floodplain Mapping (workmaps)
- [Flood Risk Review Meeting](#)
 - Non-Regulatory Risk MAP Products (CSLF, Depth Grids, WSEL Grids)



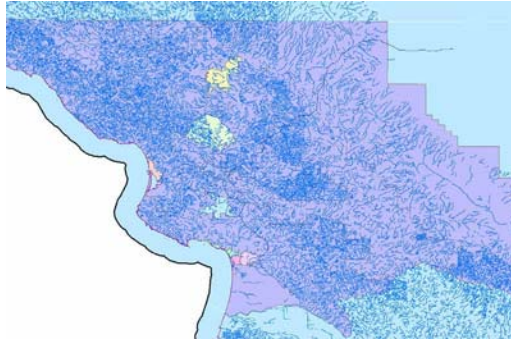
All Study Areas – Approximate Schedule

- Project Kick-off: September 2018
- Survey & Field Reconnaissance: October 2018 – October 2019
- Hydrology: November 2018 – September 2019
- Hydraulics: September 2019 – February 2020
- Floodplain Mapping: February 2020 – May 2020
- Flood Risk Products: March 2020 – May 2020
- 30 Work Maps: February 2020 – May 2020
- Work maps FRR review meeting: May 2020



Request for additional studies

- It's NOT too late! Communities can still request detailed studies from FEMA
- Review your community's needs and let's come up with a plan



Contact Information

- **General FEMA questions:**
FEMA Map Information eXchange
1-877-FEMA-MAP 1-877-336-2627
<http://msc.fema.gov>
- **FEMA Project Monitor** Eric Simmons
510.627.7029
eric.simmons@fema.dhs.gov
- **STARRII Contact** Craig Steward
510.627.7029
Craig.steward@Stantec.com

Thank you for attending.

Questions?

Please do not hesitate to call or email. We look forward to working together.





FEMA

RiskMAP

Increasing Resilience Together

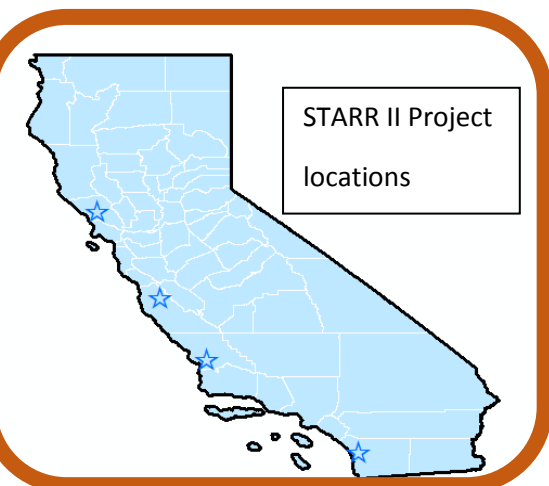
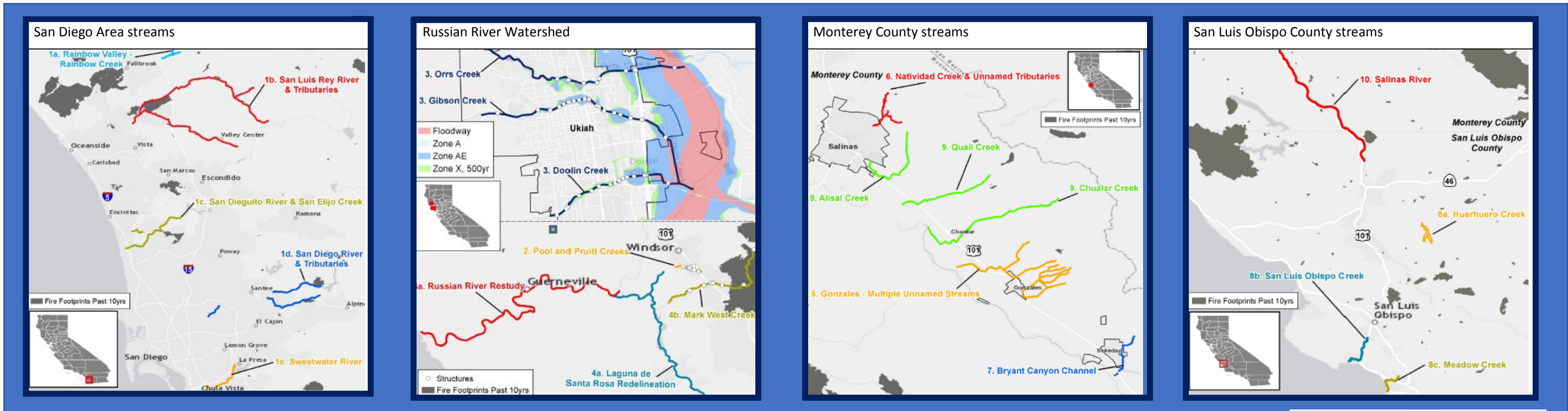
CALIFORNIA FACT SHEET



FEMA Region IX is inviting you to a meeting because flood study updates resulting in updated FIS products are planned for your community. At this meeting you will be provided with a description of the scope of work, and a schedule will be presented upon which deliverables are expected to be delivered. There will also be a discussion held regarding the modeling methods that will be used to study these streams.

Flood risk changes over time based on new development in a watershed, weather changes, and other factors. To make the most accurate flood map possible, we need the most current data available. This is your flood map, and we want to provide the tools that you will need to identify and assess your community's risks and evaluate the benefits of taking steps to reduce your community's vulnerability. The scope of work for these studies is shown in more detail below. It is spread across California and was finalized based on the Coordinated Needs Management Strategy (CNMS) needs, hydrologic inconsistencies, connectivity, data availability, Average Annualized Loss (AAL) data, additional risk factors, and community input.

We are moving forward with preparing the data, work maps and flood risk products. If you have additional or newer data, we ask that you provide this data to us to incorporate. Please note that FEMA is taking requests for new studies. Evaluate your needs and let's come up with a plan. As we proceed through the flood map project, we will keep you informed through similar project fact sheets and by setting up community meetings. A letter confirming the modeling methods will be sent out following this meeting. Note that the schedule for these studies have been pushed somewhat as new LiDAR which we want to use for these studies will not be completed before the summer of 2019. General questions for FEMA can be answered by contacting FEMA at the location shown below.



For information and questions about Flood Insurance Rate Map (FIRM), available products associated with FIRM, including historic versions of FIRM, the current map date for each FIRM, how to order products, or the National Flood Insurance Program in general, please call FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of FIRMs. Many of these products can be ordered or obtained directly from the website.



STREAM	MILES
Rainbow Creek	4.8
San Luis Rey River & Tributaries	46.6
San Dieguito River & San Elijo Creeek	13.3
Sweetwater River	9.4
Pool 7 Pruitt Creeks	2.3
Orrs, Gibson & Doolin Creeks	7.6
Russian River Restudy & Laguna de Santa Rosa	
Mark West Creek	14.5
Multiple Unnamed streams in Gonzales	18
Natividad Creek and Tributaries	6
Unmapped Flood Control Channel (Bryant Canyon Channel)	3.2
Huerhuero Creek	11
San Luis Obispo Creek	7
Meadow Creek	4.8
Unmapped Flood Control Channel (Bryant Canyon Channel)	31.8
Salinas River	33.4