



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1399

29 NOV 2017

CESPD-DE

MEMORANDUM FOR Commander, San Francisco District U.S. Army corps of Engineers, ATTN: Mr. Son T. Ha (CESPN-ET)

Subject: Review Plan for 2017 Flood Event (Alameda, Santa Cruz and Santa Clara Counties), Review Plan Approval

1. The Review Plan for the 2017 Flood Event (Alameda, Santa Cruz and Santa Clara Counties) that has a revised date of 18 October 2017, has been prepared in accordance with Engineering Circular (EC) 1165-2-214. The Review Plan has been coordinated internally within the South Pacific Division, Planning and Policy Division, Regional Business Technical Division, and District Support Team. The Regional Business Technical Division will serve as the Review Management Office for the project.
2. With MSC approval the Review Plan will be made available for public comment via the district's internet and the comments received will be incorporated into future revisions of the Review Plan. The Review Plan does not include an Independent External Peer Review Type II Safety Assurance Review (SAR).
3. I hereby approve this Review Plan, which is subject to change as circumstances require, consistent with project development under the Project Management Business Process. Subsequent revisions to this Review Plan when there is a significant change in the level of review or purpose and scope will require new written approval from this office.
4. For any additional information or assistance, contact Judy Soutiere, District Support Team Lead, (916) 557-7397, Judy.M.Soutiere@usace.army.mil.

Encl
Review Plan


D. PETER HELMLINGER, P.E.
Brigadier General, USA
Commanding



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, SOUTH PACIFIC DIVISION
CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CA 94103

CESPN-ET

MEMORANDUM FOR Commander, South Pacific Division, ATTN: CESPD-PD-C, (Berresford)

SUBJECT: Review Plan for the 2017 Flood Event (Alameda, Santa Clara, Santa Cruz and Santa Clara Counties) South Pacific Division (SPD) Approval Memorandum

1. The attached Review Plan (RP) for the 2017 Flood Event (Alameda, Santa Cruz and, Santa Clara Counties) was distributed for review to the South Pacific Division for approval in accordance with EC 1165-2-214 "Civil Works Review Policy" on 18 September 2017.
2. The authorized names and locations of the levee rehabilitation projects are: 1) the Alamo Canal, Arroyo Mocho Canal, and Arroyo de la Laguna Canal located in Alameda County Flood Control and Water Conservation District Zone 7; 2) the Downtown Guadalupe River Federal Flood Damage Reduction Project in Santa Clara County; and 3) the Pajaro River Federal Levee project located in Santa Cruz County.
3. Authority for the Levee Rehabilitation Projects for the 2017 Flood Event is contained in the Flood Control and Coastal Emergency Act (Public Law 84-99) which states:

"USACE also has authority under PL 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C. 701n) (69 Stat. 186) for emergency management activities. Under PL 84-99, the Chief of Engineers, acting for the Secretary of the Army, is authorized to undertake activities including disaster preparedness, advance measures, emergency operations (flood response and post flood response), rehabilitation of flood control works threatened or destroyed by flood, protection or repair of federally authorized shore protective works threatened or damaged by coastal storm, and provisions of emergency water due to drought or contaminated source."

Under the authority of PL 84-99, an eligible flood protection system can be rehabilitated if damaged by a flood event. The flood system would be restored to its pre-disaster status at no cost to the Federal system owner, and at 20% cost to the eligible non-Federal system owner. All systems considered eligible for PL 84-99 rehabilitation assistance must be in the Rehabilitation and Inspection Program (RIP) prior to the flood event. Acceptable operation and maintenance by the public levee sponsor are verified by levee inspections conducted by the Corps on a regular basis. The Corps has the responsibility to coordinate levee repair issues with interested Federal, State, and local agencies following natural disaster events where flood control works are damaged.

CESPN-ET

SUBJECT: Review Plan for the 2017 Flood Event (Alameda, Santa Clara, Santa Cruz and Santa Clara Counties) South Pacific Division (SPD) Approval Memorandum

4. Project Descriptions

a. The Alamo Canal, Arroyo Mocho Canal, and Arroyo de la Laguna Canal located in Alameda County Flood Control and Water Conservation District Zone 7 is a non-federal project that is active in the RIP program. Significant channel bank erosion and bank instability occurred as a result of high storm flows. Thirty seven locations have been identified for repairs. Damaged channel bank locations range in length from about 30 to 2,250 feet in length along the channel alignment. Repair of the damaged channels will consist of removal of disturbed soil and the construction of stone protection revetment of approximately the lower third of the slope height and compacted earth fill at any damage locations above the damage. Lines and grades will match the original construction geometry.

b. The Downtown Guadalupe Flood Damage reduction project is a federal project located in San Jose, California. Two channel bank locations were eroded by high stream flows and identified for repairs. Site 1 is approximately 110 feet in length and is adjacent to a stream maintenance bridge. Site 2 is approximately 30 feet long and is located adjacent to a railroad bridge crossing. Repair of each damage site will consist of the construction of stone protection revetment to the pre-damaged lines and grades.

c. The Pajaro River Flood Control project is a federal project consisting of levee and channel improvements along the Pajaro River and the Salsipuedes Creek tributary. During the high flows that occurred during the January 2017 storms, significant erosion and occurred at various locations along the project including several drainage intake and outlet structures. Sixteen locations were recommended for repair ranging in length from about 10 to about 750 feet along the river alignment. The slope repairs are planned to consist of a combination of compacted earth fill similar to the existing fill materials and stone protection revetment surfacing at locations of more severe erosion. Damaged intake features are planned to be removed and replaced with stone-protection and grouted rip-rap revetments. Lines and grades of repairs will conform to the pre-damage geometry.

5. The USACE SPD Review Management Organization (RMO) has reviewed the attached RP and concurs that it describes the scope of review for work phases and addresses all appropriate levels of review consistent with the requirements described in EC 1165-2-214.

6. I concur with the recommendations of the RMO and approve the enclosed RP for the 2017 Flood Event for Alameda, Santa Clara, and Santa Cruz counties.

7. The District is requested to post the RP to its website. Prior to posting, the names of all individuals identified in the RP should be removed.

CESPN-ET

SUBJECT: Review Plan for the 2017 Flood Event (Alameda, Santa Clara, Santa Cruz and Santa Clara Counties) South Pacific Division (SPD) Approval Memorandum

8. If you have any questions or need additional information, please contact the undersigned.

Encl

SON T. HA, P.E.
Chief, Engineering Branch

IMPLEMENTATION DOCUMENTS REVIEW PLAN

For

**Flood Control and Levee Rehabilitation Projects 2017 Flood Event
Implementation Documents (Plans and Specifications)**

For

**P.L. 84-99 Erosion Sites in Alameda County Flood Control and
Conservation District Zone 7 Projects, Downtown Guadalupe Flood
Damage Reduction Project, and the Pajaro River Flood Control
Project**

San Francisco District

Draft Publication Date: 13 September 2017

MSC Approval Date: TBD

Last Revision Date: 18 OCT 2017



**US Army Corps
of Engineers®**

IMPLEMENTATION DOCUMENTS REVIEW PLAN
For
Flood Control and Levee Rehabilitation Projects 2017 Flood Event
Implementation Documents

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1. PURPOSE AND REQUIREMENTS

- a. **Purpose.** This Review Plan defines the scope and level of peer review for the Plans and Specifications for Alameda County Flood Control District Zone 7, Downtown Guadalupe Flood Damage Reduction Project, and Pajaro River Flood Control Project, located in Alameda, Santa Clara, and Santa Cruz Counties, California. The contract documents were produced by the U.S. Army Corps of Engineers (USACE) San Francisco District (SPN) under the general direction of the USACE South Pacific Division (SPD).

Project damage generally consisted of bank erosion and slope instability and occurred during high stream flows as a result of a sequence of storms occurring between January 4 and January 23, 2017. Additional damage likely occurred during subsequent flows and storms during the winter season of 2017. Additional damages including levee breach, undermining of bridges, and damage to nearby underground utilities are likely to occur without channel repairs.

b. References

- (1) EP 500-1-1 Emergency Employment of Army and Other Resources – Civil Emergency Management Program Procedures, 30 September 2001
- (2) Engineering Circular (EC) 1165-2-214, Civil Works Review Policy, 15 Dec 2012
- (3) Annex B – Interim Guidance for CW review of PL 94-99 Activities, 18 May 2017
- (4) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
- (5) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (6) Major Subordinate Command (MSC) and/or District Quality Management Plan(s)
- (7) ER 11-1-321, Army Programs, Value Engineering, 01 January 2011

- c. **Requirements.** This Implementation Document Review Plan was developed in accordance with EC 1165-2-214 and Annex B, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC and Annex B outline four general levels of review: District Quality Control (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review.

2. REVIEW MANAGEMENT ORGANIZATION (RMO/MSC) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The MSC will coordinate and approve the review plan. The San Francisco District will post the approved review plan on its public website.

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules, and contingencies.

3. STUDY INFORMATION

a. Implementation Documents.

Authority for the Levee Rehabilitation Projects for the 2017 Flood Event is contained in the Flood Control and Coastal Emergency Act (Public Law 84-99).

USACE also has authority under PL 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C. 701n) (69 Stat. 186) for emergency management activities. Under PL 84-99, the Chief of Engineers, acting for the Secretary of the Army, is authorized to undertake activities including disaster preparedness, Advance Measures, emergency operations (Flood Response and Post Flood Response), rehabilitation of flood control works threatened or destroyed by flood, protection or repair of federally authorized shore protective works threatened or damaged by coastal storm, and provisions of emergency water due to drought or contaminated source.

Rehabilitation under the authority of PL 84-99, an eligible flood protection system, can be rehabilitated if damaged by a flood event. The flood system would be restored to its pre-disaster status at no cost to the Federal system owner, and at 20% cost to the eligible non-Federal system owner. All systems considered eligible for PL 84-99 rehabilitation assistance must be in the Rehabilitation and Inspection Program (RIP) prior to the flood event. Acceptable operation and maintenance by the public levee sponsor are verified by levee inspections conducted by the Corps on a regular basis. The Corps has the responsibility to coordinate levee repair issues with interested Federal, State, and local agencies following natural disaster events where flood control works are damaged.

Projects in Alameda County Flood Control and Water Conservation District Zone 7, the Guadalupe River Project in San Jose, and the Pajaro River Project in Santa Cruz and Monterey Counties were damaged during 2017 winter storm events.

b. Study/Project Description.

Damages and recommended repairs are described in the approved Project Information Reports (PIR)s for each project and generally include restoration of channel banks and levees with the construction of stone protection revetments. In general, lines and grades will be constructed to match the pre-damage conditions. In some cases, earthfill will be replaced with stone revetment to provide better scour resistance and provide a lower cost and impact than replacing with compacted earthfill.

Alameda County Flood Control and Water Conservation District Zone 7 Projects:

Project Damages – The Alamo Canal, Arroyo Mocho Canal, and Arroyo de la Laguna Canal located in Alameda County Flood Control and Water Conservation District Zone 7 are part of a non-federal flood control project that is active in the RIP program. Significant channel bank erosion and bank instability occurred as a result of high storm flows. Thirty seven locations have been identified for repairs. Damaged channel bank locations range in length from about 30 to 2,250 feet in length along the channel alignment. Underground utilities are located adjacent to the channel, and several thousand feet of sewer line are threatened by the slope instability. Damage sites are shown in Figure 1. Repair of the damaged channels will consist of removal of disturbed soil and the construction of stone

protection revetment of approximately the lower third of the slope height and compacted earth fill at any damage locations above the damage. Lines and grades will match the original construction geometry.

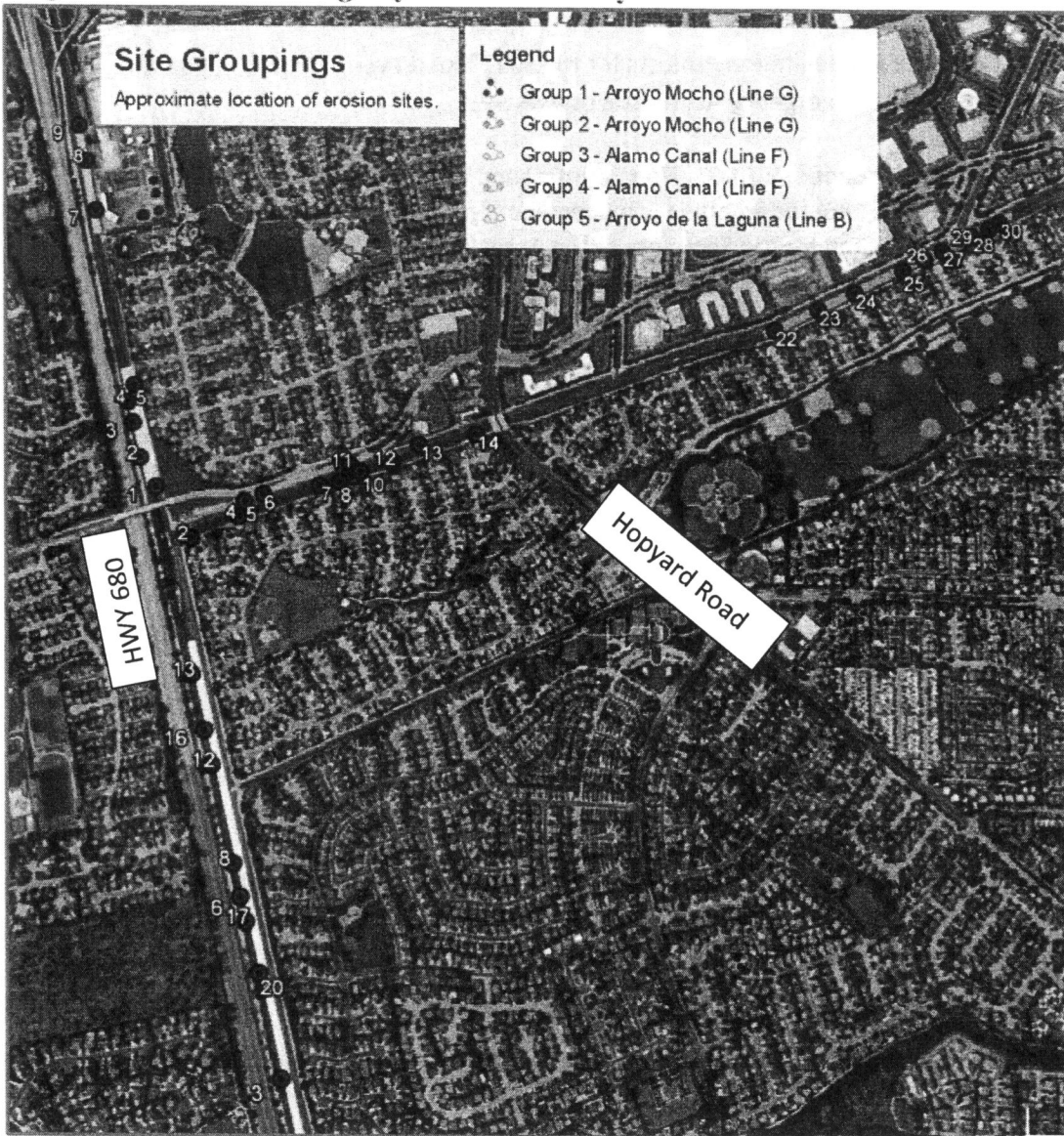


Figure 1 - Alameda Zone 7 Damage Locations

Downtown Guadalupe Flood Damage Reduction Project:

Project Damages – The Downtown Guadalupe Flood Damage Reduction Project is a federal project located in San Jose, California in Santa Clara County. Two channel bank locations (Site 1 and Site 2) were eroded by high stream flows and identified for repairs. Site 1 is approximately 110 feet in length, adjacent to a stream maintenance bridge, and Site 2 is approximately 30 feet long and is located adjacent to a Union Pacific Rail Road Bridge Crossing. Repair of each damage site will consist of the construction of stone protection revetment to the pre-damaged lines and grades. The damage sites are shown on Figure 2.

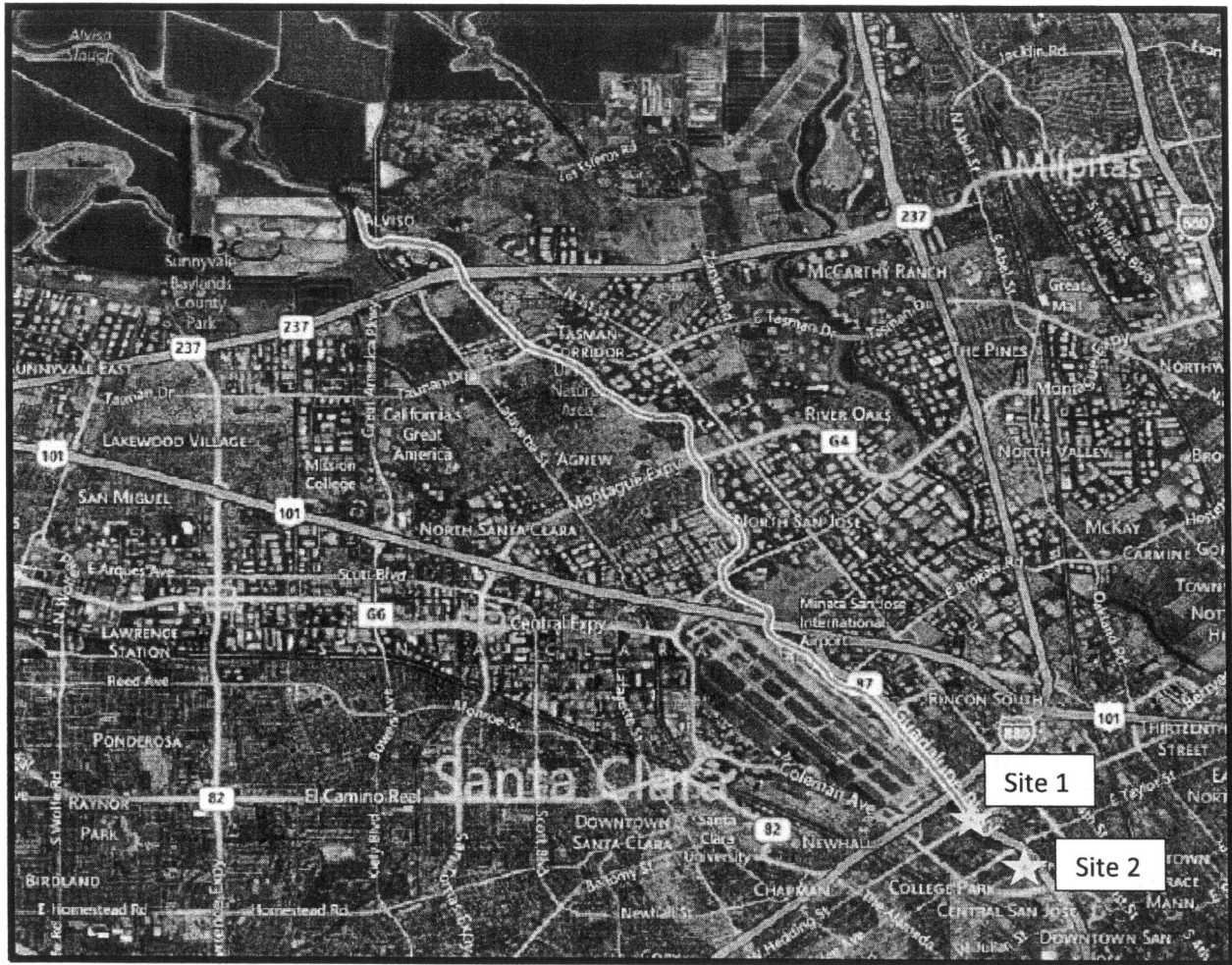


Figure 2- Downtown Guadalupe Damage Locations

Pajaro River Flood Control Project:

- c. The Pajaro River Flood Control project is a federal project consisting of levee and channel improvements along the Pajaro River and the Salsipuedes Creek tributary in Santa Cruz County. During the high flows that occurred during the January 2017 storms, significant erosion and occurred at various locations along the project including several drainage headwalls and outfall structures. Sixteen locations were recommended for repair ranging in length from about 10 to about 750 feet along the river alignment. Levee integrity is threatened at many locations, and several system intake and outlet features of storm drains that provide internal drainage are damaged at 3 locations. The slope repairs are planned to consist of a combination of compacted earth fill similar to the existing fill materials and stone protection revetment surfacing at locations of more severe erosion. Damaged headwall and outfall structures consists mostly of erosion and undermining around the structures. Damaged intake features are planned to be removed and replaced with stone-protection and grouted rip-rap revetments. Lines and grades of repairs will conform to the pre-damage geometry. The damaged Figure 3 shows the damage locations. For damage sites along Salsipuedes creek, it is anticipated that the creek will be isolated from the work areas by a cofferdam across the channel and the water pumped around the work area.

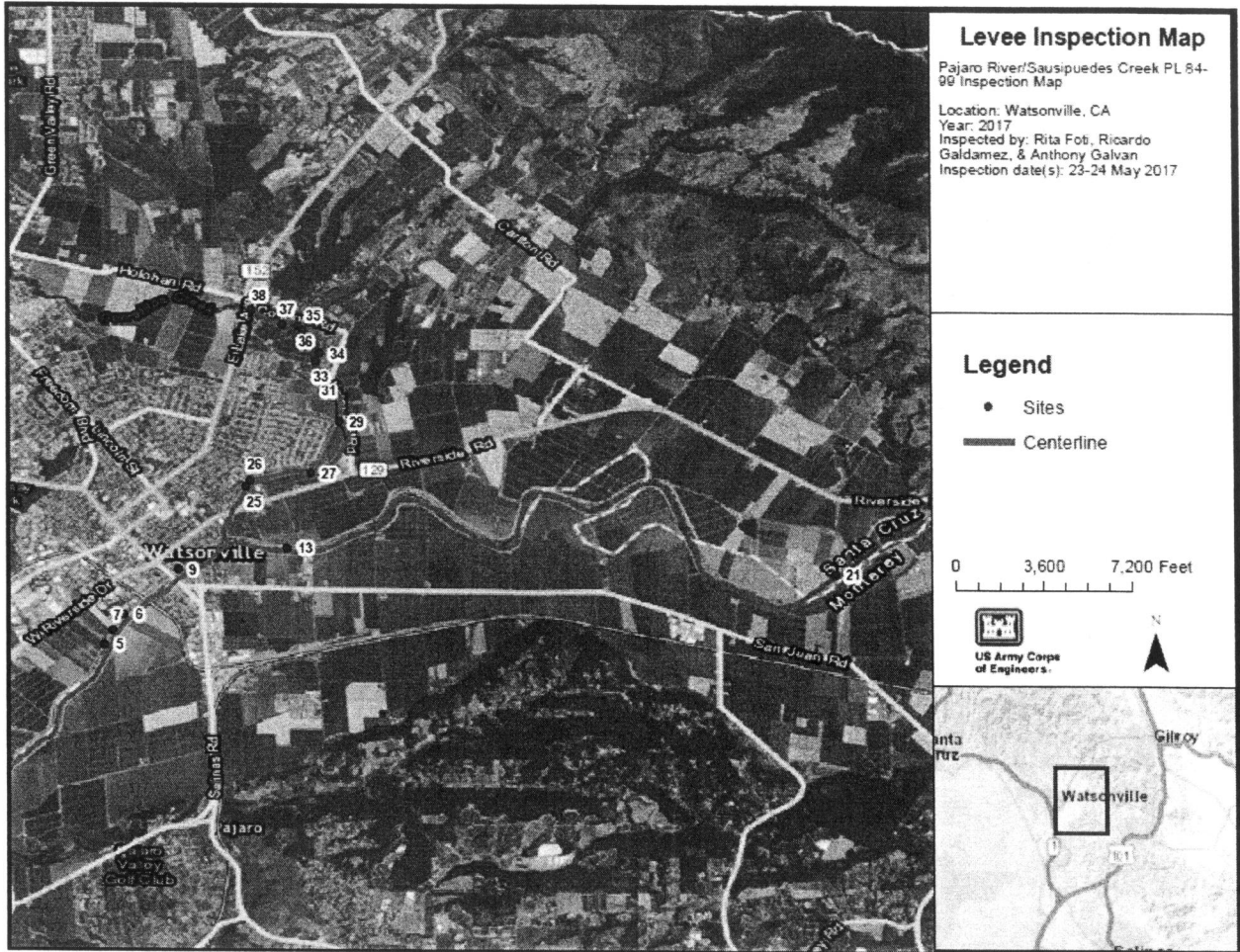


Figure 3- Pajaro River Flood Control Project Damage Locations

- d. Factors Affecting the Scope and Level of Review.** This review plan describes the anticipated review process and levels of review for the Rehabilitation Projects for the 2017 Flood Event. This Review Plan is a stand-alone document. The DQC will be managed from within the district in accordance with the District Quality Management Plans. For the PL-84-99 Plans and Specifications, the SPN Chief of Engineering has determined in accordance with Annex B - Interim Guidance for CW review of PL 94-99 Activities, dated 18 May 2017, that for the repair projects on the Alameda County Zone 7 flood control projects, on the Guadalupe River and for the Pajaro River Project, Independent External Peer Review (IEPR) are not required due to the small project sizes and low risk nature of the project. For the Zone 7 project and the Guadalupe River project ATR is not required. Factors leading to the conclusion ATR and IEPR are not required are discussed in the sections below.
- e. Factors affecting ATR review need decision.** Paragraph 15, part b. of EC 1165-2-214 was reviewed to evaluate project risks. Table 1 summarizes this review and supports the basis of decision below.

1165-2-214 ATR Risk Evaluation Questions	Alameda County Zone 7 Repair Evaluation	Guadalupe River Repairs Evaluation	Pajaro River Project Repairs Evaluation
Does the project include any design?	No. The project channel bank repairs are based on previously successful channel bank repair designs at the project, and new designs are not planned	Limited. The stone protection sizes for channel bank repairs will be selected based on previous project stream velocity studies.	Limited. The stone protection and outlet drainage repair stream velocity studies, at commercial quarry sizes. The designs will match existing comparable performance
Does it evaluate alternatives?	No. limited alternative comparison was made in the PIR but not during plans and specifications development.	No. limited alternative comparison was made in the PIR but not during plans and specifications development.	No. limited alternative comparisons and specifications developed
Does it include a recommendation?	No. The Plans and specs provide construction requirements	No. The Plans and specs provide construction requirements	No. The Plans and specs provide construction requirements
Does it have a formal cost estimate?	Yes. – project costs are anticipated to be on the order of \$15 to \$20M	Yes. Project costs are estimated to be a few hundred thousand dollars	Yes. Project costs are estimated to be a few hundred thousand dollars
Will it require a NEPA document?	Yes. Categorical Exemption - complete	Yes. Categorical Exemption - complete	Yes. Categorical Exemption - complete
Does it impact a structure or feature of a structure whose performance involves potential life safety risks?	No. Project repairs bank instability. There is not an existing life safety risk or life safety risk after repair	No. Project repairs bank instability. There is not an existing life safety risk or life safety risk after repair	Yes. Project repairs damaged structure. Project will have damaged state.
What are the consequences of non-performance?	The slope could erode again and destabilize creek banks and threaten underground utilities.	The slope could erode again and threaten the maintenance bridge and Rail Road bridge abutments	The slopes could erode and lead to increased flooding leading to levee breach. It could lead to increased flooding of the area preceding the dam
Does it support a significant investment of public money?	Yes.	No.	Yes.
Does it support a budget request	Yes. Money is being requested for construction	Yes. Money is being requested for construction	Yes. Money is being requested for construction
Does it change operation of the project	No.	No.	No.
Does it involve excavation, subsurface investigations or placement of soil?	Yes.	Yes.	Yes.
Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions	No. USACE cannot permit their own projects therefore we have not done a 404 evaluation	No. USACE cannot permit their own projects therefore we have not done a 404 evaluation	No. USACE cannot permit their own projects therefore we have not done a 404 evaluation
Does it involve activities that could potentially generate hazard waste and/or disposal of materials such as lead base paint or asbestos?	No.	No.	No.
Does it reference reliance on local authorities for inspection/certification of utility systems like waste water, storm water, electrical, etc?	No.	No.	No.
Is there or is there expected to be any controversy surrounding the Federal action associated with the work product?	No.	No.	No.

- f. **ATR Review Decision.** For the Alameda Zone 7 and Guadalupe project, because there are no life safety concerns, if the repairs didn't perform the consequences are limited to similar damages as exist, and designs are proven to work previously, ATR was determined not to be required.

For Pajaro, because the project includes repair of levees that could be damaged if the project doesn't perform and because the creek will be required to be dammed and diverted, ATR was determined to be appropriate.

- g. **Factors affecting IEPR review need decision.** The SPN Chief of Engineering has determined that Both Type I and Type II IEPRs are not required for the PL-84-99 projects described herein.

h. Factors affecting IEPR I need decision.

- There is not anticipated to be significant threat to public life due to the construction of the project. The project are repairs to existing projects, and the overall risk to the public is expected to be lower after project construction than in the current damaged conditions and similar to the risk before the flood damage occurred.
- Intended repairs include the placement of riprap, earthfill, and geotextiles, on the levee and channel slopes embankment to prevent future damage to the levee embankment. The repairs are necessary to reduce the risk of failure from damages caused by the 2017 flood and do not provide the levee systems with any additional capabilities beyond typical operation.
- The consequences of project non-performance with and without the project are similar because it is a rehabilitation project. It is not likely that the project will have significant economic, environmental, or social effects to the nation, such as (but not limited to) more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources; substantial impacts on fish and wildlife species or their habitat, prior to implementation of mitigation; more than negligible adverse impact on species listed as endangered or threatened, or to the designated critical habitat of such species, under the Endangered Species Act, prior to implementation of mitigation. Rehabilitation of these projects has been authorized under Public Law 84-99.
- Project costs are all less than \$45M.
- A request by the Governor does not exist for a State of Emergency or for a peer review by independent experts;
- The project is not likely to involve significant public dispute as to the size, nature, or effects of the project. The projects provide flood damage protection to urban areas, and are expected to prevent urban flooding. Therefore, there is no known opposition to the levee and channel rehabilitation. It is more likely that a public dispute is anticipated should levee and channel repairs be unnecessarily delayed;
- The recommended repair alternatives for the rehabilitation of the levees and channels are all standard practice and are being recommended to return the levees and channels to their pre-flood condition. The models, methodology and approach of the rehabilitation Project Information Reports do not deviate from the standards of Flood Risk Management, nor

do they present any extraordinary challenges.

- Project risks could occur if funding is not received within a time-frame that would allow award of construction contracts and rehabilitation of the levees this calendar year. The magnitude of this risk would be great in that the levees would not be returned to their pre-flood condition in time for the new flood season, leaving them in a weakened state as we approach the next flood season. This would leave the levee damaged areas without a sufficient level of flood risk management. Risk of Delay by having a delay due to Type I IEPR is judged more significant than the benefits an IEPR would provide.
- An Environmental Assessment is not required for each of the repair sites and they fall under the realm of a categorical exclusion. All environmental requirements will be met.

i. Factors affecting IEPR II need decision. An assessment from the SPN Chief of Engineering has determine that an IEPR type II is not required for the following reasons:

- There is not anticipated to be significant threat to public life due to the construction of the project. The project are repairs to existing projects, and the overall risk to the public is expected to be lower after project construction than in the current damaged conditions.
- Guadalupe and Zone 7 repairs are channels, and failure of the design would not result in a catastrophic flood release.
- Pajaro repairs include repairs to levees that protect the public from flooding. Failure of the repairs could progressively lead to levee breach resulting in flooding but unlikely to result in loss of life. The risk of a repair location failure is not higher than the pre-flood damage condition or other project levee location.

j. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR, however in-kind services are not being or planned to be provided by the non-federal Sponsors. All of the levees are federally-constructed levees. Provision of borrow material area(s) is the responsibility of the non-Federal Sponsor. With the Federally constructed levees, all costs are Federal costs. Therefore, there won't be any in-kind products from the sponsor.

4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage the DQC. Documentation of DQC activities is required and should be in accordance with the Quality Control Plan of the District and the home MSC.

- a. **Documentation of DQC.** DQC will be conducted in ProjNet and documented as DrChecks comments/responses/back checks and close-outs as part of the signature sheets with senior-level checkers, subject matter experts, and supervisors.
- b. **Products to Undergo DQC.** The contractual package to include design plans and specifications will undergo DQC consistent with the District Quality Control Plan.
- c. **Required DQC Expertise.** The required expertise needed to conduct DQC consistent with the District Quality Control Plan would be comprised of civil engineering, geotechnical engineering, and environmental sciences. The geotechnical engineering reviewer should be familiar with methods of remediating levees with seepage and slope stability concerns as well as best practices for repairing embankment erosion damage.

5. AGENCY TECHNICAL REVIEW (ATR)

The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the MSC and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product.

- a. **Products to Undergo ATR.** Plans and Specifications for the Pajaro River Project Repair
- b. **Required ATR Team Expertise.** At this time it is anticipated that ATR expertise will be required in geotechnical engineering, Civil Design, and Construction Management. The District Engineering Technical Lead will make recommendations for the ATR reviewers to the RMO.
- c. **Documentation of ATR.** ATR will be conducted in ProjNet and documented as DrChecks comments/responses/back checks and close-outs as part of the signature sheets with senior-level checkers, subject matter experts, and supervisors.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for decision documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, is made as to whether IEPR is appropriate. For these projects, the SPN Chief of Engineering has determined that IEPR is not

required and that the project designs and construction are unlikely to benefit from IEPRs.

- a. **Products to Undergo IEPR.** Not-Applicable.
- b. **Required IEPR Panel Expertise.** Not-Applicable.
- c. **Documentation of IEPR.** Not-Applicable

7. POLICY AND LEGAL COMPLIANCE REVIEW

Implementation documents will be reviewed for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

8. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

Estimated Schedule : Per Annex B – Interim Guidance for CW review of PL 84-99 Activities. Review must be completed in 5 days per paragraph 5.c.

Estimated Budget: \$5,000 to 15,000

b. Type I or II IEPR Schedule and Cost. Not Applicable.

9. PUBLIC PARTICIPATION

The final plans and specifications will be made available to the public on the San Francisco District website.

10. REVIEW PLAN APPROVAL AND UPDATES

The South Pacific Division Commander is responsible for approving this Review Plan. Like the PMP, the Review Plan is a living document and may change. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Home District's webpage. The latest Review Plan will also be provided to the MSC.

11. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

- San Francisco District Engineering Branch Chief, Son Ha, P.E. - (415) 503-6821

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number
Initial Review Plan		
18 OCT 2017	Revision per SPD comments	-

ATTACHMENT 1: TEAM ROSTERS:

FLOOD RESPONSE LEVEE REHABILITATION TEAM ROSTER AND AGENCY REVIEW TEAM (ATR) ROSTERS FOR PIR's AND PLANS AND SPECIFICATIONS

2017 Flood Response Levee Rehabilitation Assistance Team			
Area	Name	Office Symbol	Telephone
Emergency Management	Duke Roberts	SPN-OR	(415) 289-3080
ICW Project Management	John Cheng	SPN-OR	(415) 289-3078
FCCE Project Management	Jeff Ide	SPN-OR	(415) 289-3077
Cost Engineering	Rita Foti	SPN-ET-ES	(415) 503-6750
Cost Engineering	Ali Hajali	SPN-ET-ES	(415) 503-6826
Geotechnical Engineering	Anthony Galvan	SPN-ET-EG	(415) 503-6929
Geotechnical Engineering	Tu Nguyen	SPN-ET-EG	(415) 503-6918
Levee Safety Program Manager	Nick Malasavage	SPN-ET-EG	(415) 503-6915
Planning	Tom Kendall	SPN-ET-PF	(415) 503-6822
Environmental	Ellie Covington	SPN-ET-PB	(415) 503-6856
Environmental	Chris Eng	SPN-ET-PB	(415) 503-6868
Planning	Benjamin Reder	SPN-ET-PF	(415) 503-6840
Contracting	Linda Hales	SPN-ET-CA	(916) 919-6863
Construction	Jere Harper	SPN-ET-CC	(415) 289-3310
Economics	Mark Bierman	SPN-ET-PC	(415) 503-6508

District Quality Control (DQC) and BCOES Team for Plans and Specifications			
Area	Name	Office Symbol	Telephone
Engineering and Design	Son Ha	SPN-ET-E	(415) 503-6821
Civil Engineering and H&H	Janice Lera-Chan	SPN-ET-ED/EW	(415) 503-6743
Geotechnical Engineering	Brian Hubel	SPN-ET-EG	(415) 503-6916
Environmental Review	Jessica Burton	SPN-ET-PB	(415) 503-6862
BCOES Review	Jere Harper	SPN-ET-CC	(415) 289-3310

ATR Reviewers			
Area	Name	Office Symbol	Telephone
Civil Levee Design	Glenn Kato	CENWS-END-C	(206)764-3549
Geotechnical Levee Design	Glenn Kato	CENWS-END-C	(206)764-3549
Cost Engineering	TBD	CENWS	
Construction Management	TBD	CENWS	