То:	P.O. Box 304	ning and Research 4, Room 113 CA 95812-3044	From:	(Public Agency)	3310 El Car	ey Flood Protection Boar nino Ave, Suite 170 , CA 95821	<u>'d</u> — —
	County Clerk County of:						
Projec	t Title:	2017 Storm Damage	- USACE	Public Law 84-9	9 Levee Reh	abilitation	
•	t Applicant:	United States Army (_
•	t Location – S					3"	_
	roject consists in River basins		es along va	arious water way	s in the Sacr	amento River and San	
Projec	t Location – C	ity: Multiple, see atta	ched	Project Location	on – County:	Multiple, see attached	
Descri	iption of Nature	e, Purpose and Benefic	ciaries of Pr	oject:			
sites, v	with erosion or	ric river storms caused stability issues. Levee cts, and threats to wate	failure cou	ld result in loss	of life, proper	ty damage,	
		ncy Approving Project: Agency Carrying Out P		Central Valle	y Flood Prote	ection Board	_
	Declared Eme Emergency Pi Categorical E	ck one): Sec. 21080(b)(1); 152 Ergency (Sec. 21080(b) Froject (Sec. 21080(b)(Exemption. State type imption. State code nu	(3); 15269(4); 15269(and section	b)(c));			_
Reaso	ns why project	t is exempt:					
2017 will re	, due to atmos epair flood dam	by were proclaimed to e pheric river storms that naged levees in disaste ergency had been proc	t swept acro er-stricken a	oss California be	eginning in Ja	nuary 2017. This project	ē.
	Agency ct Person: <u>Ar</u>	ndrea Buckley	А	rea Code/ Tele	ohone/Extens	ion: <u>(916) 574-0332</u>	
1. A		d document of exemp		-	approving th	ne project? □Yes □No)
Signa	ture: Lel	w Hogh	7	_ Date: 3 . 3	3 . 202 € Tit	le: Executive Officer	_
	⊠Si	gned by Lead Agenc	y □Sig	ned by Applica	ant		

Authority cited: Sections 21083 and 21110, Public Resources Code. Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at Openor's Office of Planning & Research

2017 Storm Damage USACE PL 84-99 Levee Rehabilitation Sacramento Basin

A series of storms struck Northern California in early January to March 2017. Sacramento Valley's Yolo Bypass was inundated, dams were opened to relieve pressure from the excess water, and the Sacramento Weir was opened for the first time in 11 years. Many levees in the Sacramento and San Joaquin Valleys sustained significant damage during these storms. In Fall 2017, CVFPB filed a Notice of Exemption using the Emergency Exemption for 18 sites. In August 2018, CVFPB filed a Notice of Exemption using the Emergency Exemption for repairs to 20 sites. In the summer of 2019, CVFPB filed a Notice of Exemption for one site. Now, CVFPB is filing a Notice of Exemption using the Emergency Exemption for 8 remaining sites.

Sacramento River West Side Levee District - 0561-31, -32, -33,

Location: Sacramento River West Bank levee system, Colusa County, California

Site	Latitude	Longitude	End_Lat	End_Long
0561-31	38.8519	-121.7256	38.8508	-121.7254
0561-32	39.0956	-121.8974	3.0956	-121.8961
0561-33	39.0950	-121.8949	39.0905	-121.8957

<u>Description of Sites</u>: These sites experienced boils and excessive under and through seepage as a result of the 2017 flood event. The repair work described below will be constructed by USACE.

Description of Work:

Site 0561-31: The Sacramento River West Side Levee District previously constructed an emergency seepage berm to mitigate the March 2017 flood conditions. USACE will construct an approximately 1300-foot-long setback levee with a cutoff wall that would tie in to the existing levee.

Site 0561-32: A seepage berm will be constructed at the downstream toe of the levee to cover the boils. A 40 to 80-foot-wide, 440-foot-long gravel berm would be constructed at the berm toe. Stripping would be required as well as geotextile filter placement with a minimum overlap of 3 feet.

Site 0561-33: A seepage berm will be constructed at the landside levee toe to reduce risk of failure due to internal erosion and underseepage. The drain rock gravel berm would be 80 feet wide and 2,010 feet long, with an average height of 4 feet with a 2-foot toe berm. The berm would be built in conjunction with Site 0561-32. All infrastructure or other farm features within berm footprint will be identified and removed/relocated. All excavations resulting from removal of structures and utilities would be backfilled with the appropriate levee fill material and compacted correctly. Berm footprint would be cleared, stripped of vegetation, loose topsoil debris, organic matter and geotextile fabric placed.

2017 Storm Damage USACE PL 84-99 Levee Rehabilitation Page 2

The new berm will extend up slope of levee to a height of 4 feet above landside toe. A toe berm will also be constructed.

Reclamation District 787 – Site 0561-41

Location: Sacramento River West Bank levee system, Yolo County, California

Site	Latitude	Longitude	End_Lat	End_Long
0561-41	38.7963	-121.7390	38.7958	-121.7368

<u>Description of Site:</u> Site 0561-41 experienced landside and waterside slope slough/slips of approximately 750 feet along the north levee of the Colusa Basin Drainage Canal. The repair work described below will be constructed by USACE.

Description of Work:

Site 0561-041: Work will include the construction of an approximately 750-foot-long levee adjacent to the existing levee. The landside levee slope would be cleared of vegetation and excavated (benched and noted) to facilitate placement of fill material. A keyway would be excavated below the location of the new levee toe and would extend approximately 8 feet wide and 3 feet deep. The final levee slope would be overbuilt by approximately 6 inches and trimmed and track walked to the final geometry. Upon completion, the slope would be seeded and levee crown road would be surfaced with aggregate base. The new, adjacent levee will have a landside slope of approximately 2:9H:1V and an effective crown width of 28 feet, with additional reuse material remaining on the waterside crown and slope from the original levee. A 15 foot wide landside toe road would also be constructed.

Reclamation District 2035 – Site 0412-28

Location: Cache Creek RD 2035 Willow Bypass levee system, Yolo County, California

Site	Latitude	Longitude	End_Lat	End_Long
0412-28	38.6325	-121.6559	38.6323	-121.6558

<u>Description of Site</u>: Site 0412-28 experienced a landside slope slip. The repair work described below will be constructed by USACE.

Description of Work:

Site 0412-28: Work will include landslide erosion repair of approximately 230 feet along the west levee of the Yolo Bypass. Specifically, work will involve the relocation of a portion of the irrigation canal abutting the west side of the levee, backfilling the existing

2017 Storm Damage USACE PL 84-99 Levee Rehabilitation Page 3

canal, relocating the gravel farm road, and repairing the damaged section of the levee. The relocation of a portion of the irrigation canal would require a culvert from the new canal section to the cross irrigation ditch.

Reclamation District 2064 – Site 1151-21

Location: San Joaquin River East levee system, San Joaquin County, California

Site	Latitude	Longitude	End_Lat	End_Long
1151-21	37.6716	-121.2556	37.6689	-121.2509

<u>Description of Site</u>: Site 1151-21 experienced landside seepage boils over approximately 1,800 feet along the east levee of the San Joaquin River in San Joaquin County. The repair work described below will be constructed by USACE.

Description of Work:

Site 1151-21: Work will include one of the following two repair alternatives. The existing temporary seepage berm would be removed and rebuilt. The proposed seepage berm would be 100 feet wide by 1,400 feet long, with a height of approximately 4 feet. This would include the placement of geotextile filter fabric or 8" thick granular sand filler layer and blanket drain rock. The new berm would extend up the slope of the levee to a height of 5 feet above landside toe. The second repair alternative would include installation of a soil-bentonite seepage of 36-inch-wide cutoff wall of approximately 1,800 feet in length and a depth of 45 feet. Soil borings would be required during design to specify actual depth.

Levee District No. 1 – Site 0521-32

<u>Location</u>: Feather River Right Bank – Sutter Bypass East Bank levee system, Sutter County, California

Site	Latitude	Longitude	End_Lat	End_Long
0521-32	39.0183	-121.6103	39.0238	-121.6128

<u>Description of Site</u>: Site 0521-32 experienced waterside bank erosion of approximately 2,200 feet along the west levee of the Feather River in Sutter County.

Seepage and boils were reported during the 2017 storm event, and an emergency seepage berm was installed at this location to prevent boils and control excessive seepage at the landside toe. In November 2017, the northern portion of this site had been modified; the emergency berm removed, an 80-foot cutoff wall was placed, the

2017 Storm Damage USACE PL 84-99 Levee Rehabilitation Page 4

levee was widened by 8 feet and the top 8 feet of the levee was replaced. Since the northern portion was remediated, the repair work described below addresses the southern portion and will be constructed by USACE.

Description of Work:

Site 0521-32: Work will include the installation of imported angular quarry stone as erosion protection. Excavation would be required to remove loose and/or soft disturbed soil and to obtain a firm foundation for rock fill. Stone would be placed at an approximate 1.5H:1V slope or flatter. Initial quantities would be estimated using quarry stone; however, during the final design it may be possible to use smaller stone based on the results of hydraulic modeling. Aggregate base would be used to repair damages to the gravel road on the levee crown incurred during construction. Work would be completed when water levels are low to avoid in-water work.

Sutter Maintenance Yard - Maintenance Area 3 - Site 0521-41

<u>Location</u>: Feather River right bank – Sutter Bypass East Bank levee system, Sutter County, California

Site	Latitude	Longitude	End_Lat	End_Long
0521-41	39.9307	-121.5904	38.9065	-121.5916

<u>Description of Site</u>: Site 0521-41 experienced heavy seepage and pin boils along and beyond the landside toe of the site. A seepage berm was installed as an advanced measure in response to observed seepage and boils. However, USACE now recommends the repair work described below.

Description of Work:

Site 0521-41: USACE will construct a 1.6 mile long cutoff wall. The existing levee would be degraded by approximately one-third of its height and the material stockpiled for reuse for construction of the levee embankment. The cutoff wall would be approximately 65 feet in depth from the degraded working surface. The levee would be reconstructed with a select levee fill core and reused excavation as shell material. The cutoff wall would include the removal and replacement of an existing irrigation pipeline crossing the levee with two welded steel pipes over the completed cutoff wall. Any removal or modifications to location of the utility towers required for construction would be performed by the USACE and/or Pacific Gas & Electric Company. In addition to the construction, a staging area has also been defined for the project immediately adjacent to the levee.