Appendix A-3 - New Erosion Sites Sacramento River Bank Protection Project

Site Name	Waterway	River Mile	Levee Mile	Bank	Levee Maintaining Agency	Economic Impact Area	Erosion Status	Year Added	Site Length (ft)	Berm Width (ft)	Erosion Mechanism(s)	Revetment Details	Veg Variance Required?	Encroachment Details	Site History	2017 Field Notes
BTC 1.8 L	Butte Creek	0	1.8	L	Maintenance Area 5	Unassigned	Eroding New	2017	558	20	Fluvial, Whole Bank Failure	None	Unsure	None		Long vertical scarp on toe.
BTS 0.8 R	Butte Slough	0.8	0	R	RD 070 - Meridian Farms	North Sutter	Eroding New	2017	409	0	Erosion Pockets, Whole Bank Failure	None	Likely	Overhead power lines and power poles		Erosion along lower bank, one section has slumped off. Large cracks observed, and expecting additional slumping failures.
CHS 1.8 L	Cache Slough	0	1.8	L	RD 2104 - Perters Pocket Tract	Peters Pocket	Critical	2017	21,499	0	Slump Cracking	None	Likely	Pump and pipes		Deep cracking aobserved along the ENTIRE LEVEE; risk of total levee failure; vertical cracking is on both the waterside and landside, eminent slump failure expected.
CHI 2.7 L	Chico Creek	0	2.7	L	Butte County	Unassigned	Eroding New	2017	207	15	Fluvial, Whole Bank Failure	None	Unlikely	None		No trees on bank or levee. Large erosion scarp along lower bank.
FHR 7.7 L	Feather River	7.7	0	L	RD 1001 - Nicolaus	Rio Oso	Eroding New	2017	309	0	Fluvial, Tree Popouts	Cobbles in Fair Condition	Unsure	None		Erosion along bank appears to be due to rapid drawdown condition. Lower bank cobbles are unraveling. Tree popout at upstream end.
GEO 5.5 R	Georgiana Slough	5.5	0	R	Brannan-Andrus Levee Maintenance District	Brannan Andrus Island	Eroding New	2017	86	0	Whole Bank Failure, Anthropogenic Erosion	Scattered Quarry Stone in poor condition	Unlikely	Pump and pipe through levee		Failed rock section, slump failure of bank to subvertical face.
GEO 9.0 R	Georgiana Slough	9	0	R	RD 556 - Upper Andrus Island	Brannan Andrus Island	Eroding New	2017	1,678	0	Whole Bank Failure, Toe Scour	Quarry Stone in fair condition	Likely	Pipe and ramps		Toe erosion and failed revetment.
GEO 9.2 R	Georgiana Slough	9.2	0	R	RD 556 - Upper Andrus Island	Brannan Andrus Island	Eroding New	2017	707	0	Whole Bank Failure, Toe Scour	Quarry Stone in fair condition	Likely	Pump and pipe		Toe erosion.
GEO 9.8 L	Georgiana Slough	9.8	0	L	RD 563 - Tyler Island	Tyler Island	Eroding New	2017	280	0	Whole Bank Failure, Wave Wash	None	Likely	None		Whole bank failure, eroded to subvertical face, and giant animal holes.
GEO 10.0 L	Georgiana Slough	10	0	L	RD 563 - Tyler Island	Tyler Island	Eroding New	2017	1,282	0	Wave Wash, Whole Bank Failure	Quarry Stone in poor condition	Unsure	Pipes		Revetment failure , toe erosion moving landward.
GEO 10.2 L	Georgiana Slough	10.2	0	L	RD 563 - Tyler Island	Tyler Island	Eroding New	2017	3,906	0	Whole Bank Failure, Wave Wash	None	Likely	Pump, pipes, and boat dock permitted		Evidence of meander process, eroding to short vertical face
GEO 10.9 R	Georgiana Slough	10.9	0	R	RD 556 - Upper Andrus Island	Brannan Andrus Island	Eroding New	2017	1,703	5	Toe Scour, Whole Bank Failure	Concrete Rubble in poor condition	Likely	Pipeline		Significant toe erosion and whole bank failure in sections, large pockets from tree popouts.
GEO 11.8 R	Georgiana Slough	11.8	0	R	RD 556 - Upper Andrus Island	Brannan Andrus Island	Eroding New	2017	1,007	5	Toe Scour, Whole Bank Failure	Concrete Rubble in poor condition	Likely	Pipe		Tree popout popouts eminent, significant toe erosion and whole bank failure in sections
GEO 12.0 L	Georgiana Slough	12	0	L	RD 563 - Tyler Island	Tyler Island	Eroding New	2017	356	0	Toe Scour	None	Likely	Pipe and ramp		Toe erosion throughout site, slumping, subvertical levee slope in sections.
HAS 8.4 L	Haas Slough	0	8.4	L	RD 2098 - Cache-Haas Area	Moore Tract	Eroding New	2017	1,514	0	Toe Scour, Tree Pop-outs	Scattered Quarry Stone in poor condition	Likely	Overhead powerpole		Horizontal cracks; scour along toe; poorly constructed levee susceptible to erosion.
LDS 1.7 L	Lindsey Slough	0	1.7	L	RD 2060 - Hastings Tract	Hasting Tract	Eroding New	2017	720	0	Erosion Pockets	None	Likely	None		Soil is boulders and sand. Multiple slumping sections.
MUD 3.3 L	Mud Creek	0	3.3	L	Butte County	Unassigned	Eroding New	2017	457	10	Whole Bank Failure, Fluvial	None	Unsure	None		Large mass failure of lower bank
MUD 2.8 L	Mud Creek	0	2.8	L	Butte County	Unassigned	Eroding New	2017	766	15	Fluvial, Whole Bank Failure	None	Unsure	None		Large erosion scarp along lower toe.
NCC 1.9 L	Natomas Cross Canal	0	1.9	R	RD 1001 - Nicolaus	Rio Oso	Eroding New	2017	408	0	Fluvial	None	Unsure	None		Erosion along mid bank and sections of slumped bank.
NCC 2.9 R	Natomas Cross Canal	2.9	2.9	R	RD 1001 - Nicolaus	Rio Oso	Eroding New	2016	2,377	0	Erosion Pockets	None	Unlikely	None	2016 - Slumping of upper bank slope.	Hummocky levee face, slumping upper bank.
SAP+B12:T12 1.4 R	Sacramento Bypass	0	1.4	R	RD 785 - Driver District	Elkhorn	Critical	2017	841	0	Slump Cracking, Erosion Pockets	None	Unlikely	None		New site, immediately upgraded to critical. Start of slump failure, deep cracks along levee crest, concern that a large slump failure will occur from the next heavy rain.
SAC 7.5 L	Sacramento River	7.5	5.5	L	RD 341 - Sherman Island	Sherman Island	Eroding New	2017	580	0	Whole Bank Failure, Anthropogenic Erosion	Concrete Rubble in poor condition	Likely	Ramp, pipe, poles		Erosion along levee slope, erosion appears to mainly be human caused, but it is threatening the integrity of the Hwy on top of the levee.
SAC 38.8 L	Sacramento River	38.8	0	L	Maintenance Area 9	Beach Stone Lake	Eroding New	2017	549	0	Toe Scour, Wave Wash	Quarry Stone in fair condition	Likely	None		Toe erosion along entire site. Heavily used by people for fishing and campfires. Large tree at downstream end.
SAC 40.4 L	Sacramento River	40.4	0	L	Maintenance Area 9	Beach Stone Lake	Eroding New	2017	108	0	Fluvial, Toe Scour	Quarry Stone in fair condition	Likely	None		Erosion along lower slope. Large erosion pocket at downstream end.
SAC 48.4 L	Sacramento River	48.4	0	L	Maintenance Area 9	Sacramento	Eroding New	2016	1,399	0	Toe Scour, Wave Wash	None	Unsure	None	2016 - Extensive toe erosion. Erosion around roots of multiple trees.	New erosion along toe. Possibly part of pl 84-99 site

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Site Name	Waterway	River Mile	Levee Mile	Bank	Levee Maintaining Agency	Economic Impact Area	Erosion Status	Year Added	Site Length (ft)	Berm Width (ft)	Erosion Mechanism(s)	Revetment Details	Veg Variance Required?	Encroachment Details	Site History	2017 Field Notes
SAC 74.0 R	Sacramento River	74	0	R	RD 1600 - Mull District	Elkhorn	Eroding New	2017	2,049	30	Toe Scour, Whole Bank Failure, Tree Pop-outs	None	Likely	None		Significant toe erosion. Erosion along entire bank. Tree popouts observed.
SAC 141.9 R	Sacramento River	141.9	0	R	Sacramento River West Side Levee District	Colusa Basin	Eroding New	2017	1,018	20	Whole Bank Failure, Tree Pop- outs	Scattered Quarry Stone in poor condition	Unsure	Pump, pipes, pole		Erosion along entire bank slope. Bank heavily vegetated. Tree popout that has removed a large of bank.
STM 15.5 L	Steamboat Slough	15.5	0	L	RD 003 - Grand Island	Grand Island	Eroding	2016	379	0	Wave Wash, Whole Bank Failure	Quarry Stone in fair condition	Likely	None	2016 - Large erosion pockets observed.	No observed change.
STM 21.2 R	Steamboat Slough	21.2	0	R	RD 501 -Ryer Island	Ryer Island	Eroding New	2016	318	0	Fluvial	Quarry Stone in good condition	Likely	None	2016 - Large slump section.	Difficult to observe due to high vegetation.
WAC 4.4 L	Wadsworth Canal	0	4.4	L	DWR Sutter Maintenance Yard	Yuba City	Eroding New	2017	6,776	5	Whole Bank Failure, Fluvial	None	Unlikely	Pipes, overhead utility, bridges		Significant lower bank erosion and overall slumping.
WPC 0.1 R	Western Pacific Interceptor Canal	1.6	0	R	RD 784 - Plumas Lake	Arboga	Under Construction	2017	31,652	0			Unlikely	Pipe		Entire levee was under construction.
YOL 2.2 R	Yolo Bypass	0	2.2	R	RD 2098 - Cache-Haas Area	Moore Tract	Eroding New	2017	202	0	Whole Bank Failure, Erosion Pockets	Scattered Quarry Stone in poor condition	Unsure	None		POTENTIALLY UNDER REPAIR; full landslide from levee crown down, revetment failure, additional slumping ds and slump cracks observed.
YOL 3.5 R	Yolo Bypass	0	3.5	R	RD 2035 - Conaway Tract	Woodland	Eroding New	2016	1,517	0			Unsure	None	2016 - Erosion observed at levee toe.	Unable to view due to access issues.
							•		87,613							