





Proposed Jerrett Reservoir

MONTEREY COUNTY
WATER RESOURCES AGENCY

WATER CAPITAL FACILITIES PLAN



JULY 1991

**VOLUME I
REPORT**

BOYLE
ENGINEERING CORPORATION

MONTEREY COUNTY
WATER RESOURCES AGENCY

WATER CAPITAL FACILITIES PLAN



JULY 1991

**VOLUME II
APPENDICES**

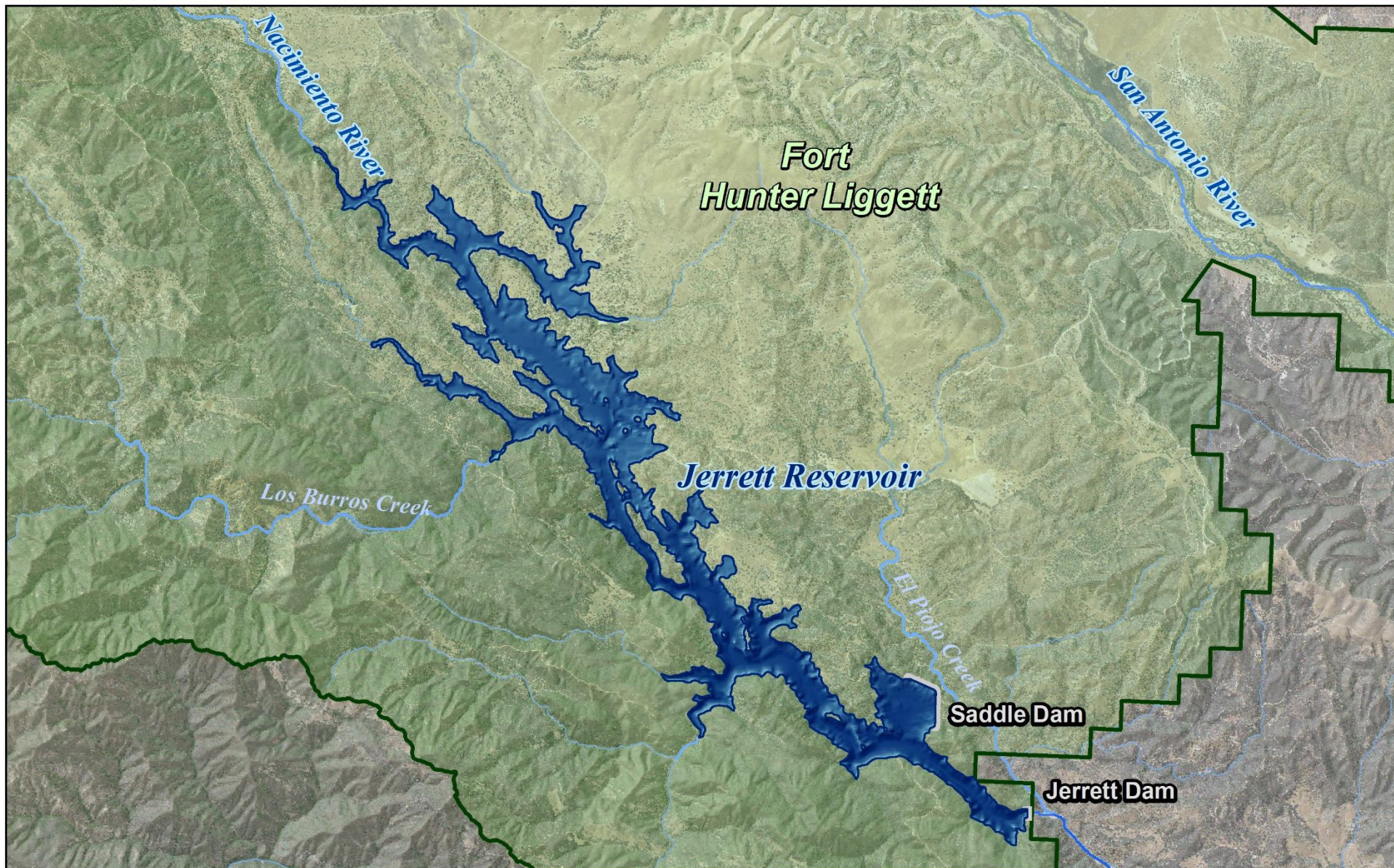
BOYLE
ENGINEERING CORPORATION



Storage Comparison

	Spillway Elevation (ft. msl)	Total Storage (acre-feet)	Surface Area (acres)	Dead Pool Elevation (ft. msl)
Nacimiento Reservoir	800	377,900	7,150	670
San Antonio Reservoir	780	335,000	6,753	645
Proposed Jerrett Reservoir	1,130	130,500*	2,352	1,000

* Total storage calculation based on USGS National Elevation Database – Digital Elevation Model (10 meter resolution)

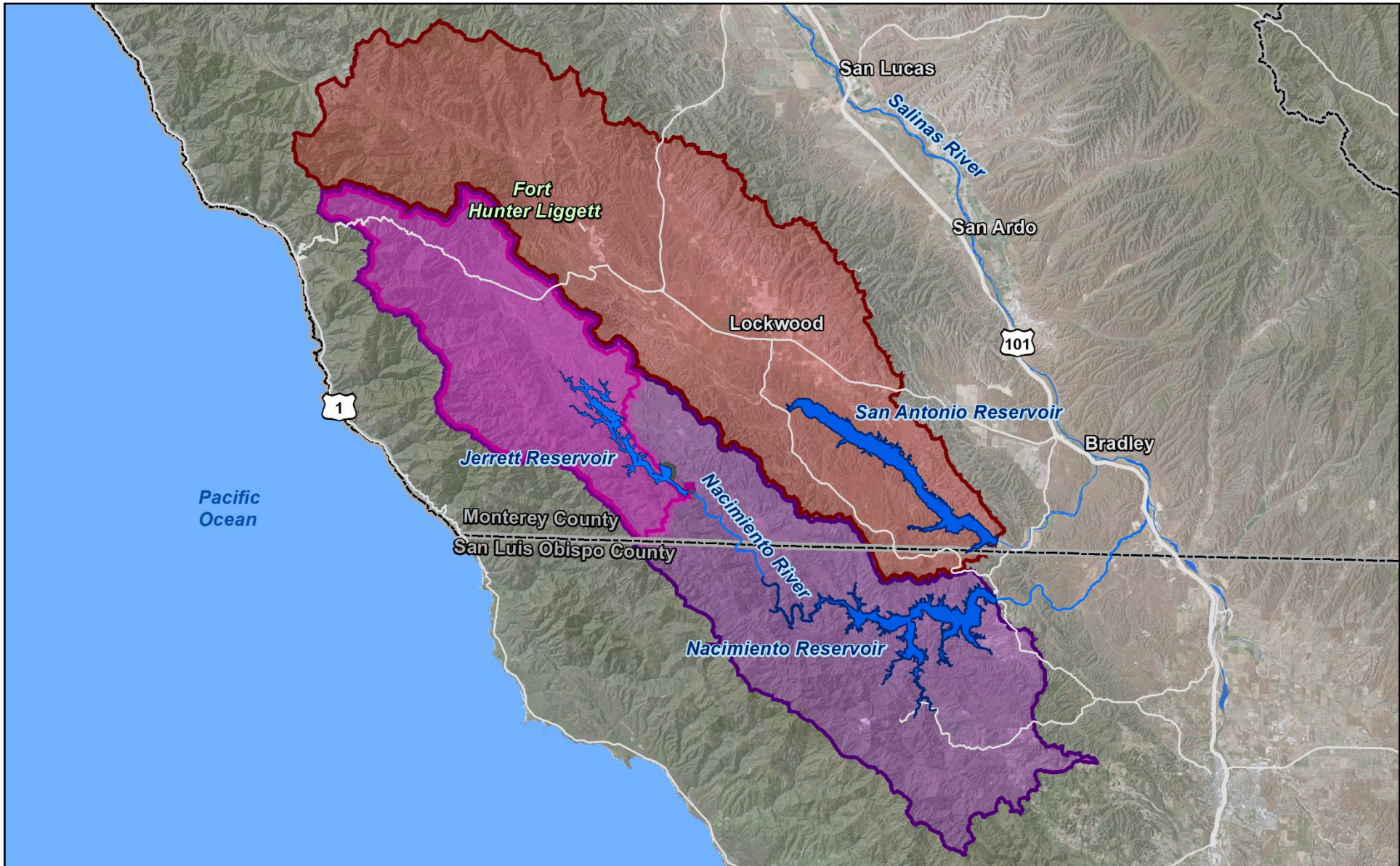


Design

	Spillway Height (above streambed– ft.)	Dam Length (along dam crest – ft.)
Proposed Jerrett Dam	210**	450**
Proposed Jerrett Saddle Dam	120 (dam height/no spillway)*	3,000**
Nacimiento Dam	215	1,650
San Antonio Dam	201	1,433

* Maximum height along saddle ridge (Nacimiento – El Piojo)

** Total calculation based on USGS National Elevation Database – Digital Elevation Model (10 meter resolution)



Watershed Comparison

	Watershed Area (acres)	Watershed Area (sq. miles)
Nacimiento Reservoir	207,872	324.8
San Antonio Reservoir	207,167	323.7
Proposed Jerrett Reservoir	80,448	125.7







TODAY'S ACTION

Consider Receiving a Report on Dam Breach
Inundation Maps for Nacimiento Dam and San
Antonio Dam



Financial Impact

- There is no financial impact in receiving this report.

Prior BOD Action

- On September 18, 2017 the Board of Directors approved Amendment No. 4 to the Agreement with AECOM Technical Services, Inc. to complete inundation maps for dam and spillway breach scenarios required by Calif. Dept. of Water Resources, Division of Safety of Dams (DSOD)
- On June 18, 2018 the Board of Directors approved Amendment No. 5 to the Agreement with AECOM Technical Services, Inc. to complete DSOD required revision to one set of inundation maps
- Total cost: \$76,010 - from Hydroelectric Fund 130



Discussion

- Nacimiento Dam and San Antonio Dam are classified as *Extremely High* downstream hazard potential dams by California Department of Water Resources, Division of Safety of Dams (DSOD).
- This hazard classification is based on the potential for loss of life and economic, environmental and lifeline losses downstream of a dam in the event of catastrophic failure.
- Downstream hazard classification does not indicate the condition of a dam.

Discussion

Effective July 1, 2017

Criteria for DSOD's Downstream Hazard Potential Classification

Downstream Hazard Potential Classification	Loss of Human Life	Economic, Environmental, and Lifeline Losses
Low*	None expected	Low and principally limited to dam owner's property
Significant*	None expected	Yes
High*	Probable (One or more expected)	Yes (but not necessary for this classification)
Extremely High	Considerable	Yes – major impacts to critical infrastructure or property

*Reference FEMA P-946, July 2013, Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures

http://www.water.ca.gov/damsafety/docs/Hazard_Classification.pdf

Discussion (cont.)

- 2017 State law (Calif. Water Code Sections 6160 and 6161) require Emergency Action Plan preparation and inundation mapping for a dam failure scenario and critical dam appurtenant structure failure scenario(s) for all *Extremely High* downstream hazard potential (and other) dams.
- In accordance with 2017 State law, resulting inundation downstream of Nacimiento Dam and San Antonio Dam have been modeled and mapped for four failure scenarios :

Discussion (cont.)

Downstream Inundation Mapping Completed for:

1. Failure of **Nacimiento Dam** embankment with full reservoir (water at top of spillway – El. 800 feet, no inflow to reservoir)
2. Failure of **San Antonio Dam** embankment with full reservoir (water at top of spillway – El. 780 feet, no inflow to reservoir)
3. Failure of the **Nacimiento Dam** concrete spillway structure with full reservoir (water at top of spillway – El. 800 feet, no inflow to reservoir, dam intact, 50 ft x 157 ft “notch” allows uncontrolled water release)
4. Failure of **San Antonio Dam** concrete spillway structure with full reservoir (water at top of spillway – El. 780 feet, no inflow to reservoir, dam intact, 8.5 ft x 140 ft “notch” allows uncontrolled water release)

Discussion (cont.)

Dam Embankment Breach Estimated Flow and Arrival Times

	San Antonio Dam Breach at Full Reservoir (water at spillway crest 780 ft)			Nacimiento Dam Breach at Full Reservoir (water at spillway crest 800 ft)		
	Estimated Peak Flow (cfs)	Estimated Flood Arrival Time (HOURS)	Estimated Peak Arrival Time (HOURS)	Estimated Peak Flow (cfs)	Estimated Flood Arrival Time (HOURS)	Estimated Peak Arrival Time (HOURS)
Camp Roberts	---	1.5	< 2	3,312,000	1	1.5
Bradley	830,000	2	3	2,582,000	1.5	2
San Miguel	n/a	n/a	n/a	---	1.5	2
San Ardo	790,000	3	4	2,275,200	2.5	3
San Lucas	660,000	5.5	7	1,935,100	4	4.5
King City	510,000	8	10	1,697,200	5	5.5
Greenfield	420,000	11	12.5	1,267,500	6.5	7
Soledad	370,000	14	16	1,187,500	8.5	9
Gonzales	330,000	17	18.5	1,128,500	10.5	11
Chualar	---	19	20	904,000	12.5	13
Hwy 68 Salinas/Spreckels	230,000	24	25	746,000	18.5	22
Hwy 1 Castroville	150,000	28	29.5	< 700,000	19	22.2
Moss Landing	---	29	30	< 700,000	22.5	22.5
Flooding occurs						
High water approaches						
--- flow not specified						

Dam embankment failure scenarios result in extreme downstream flooding far deeper, wider and faster moving than a 100-year flood.

Point of Reference:

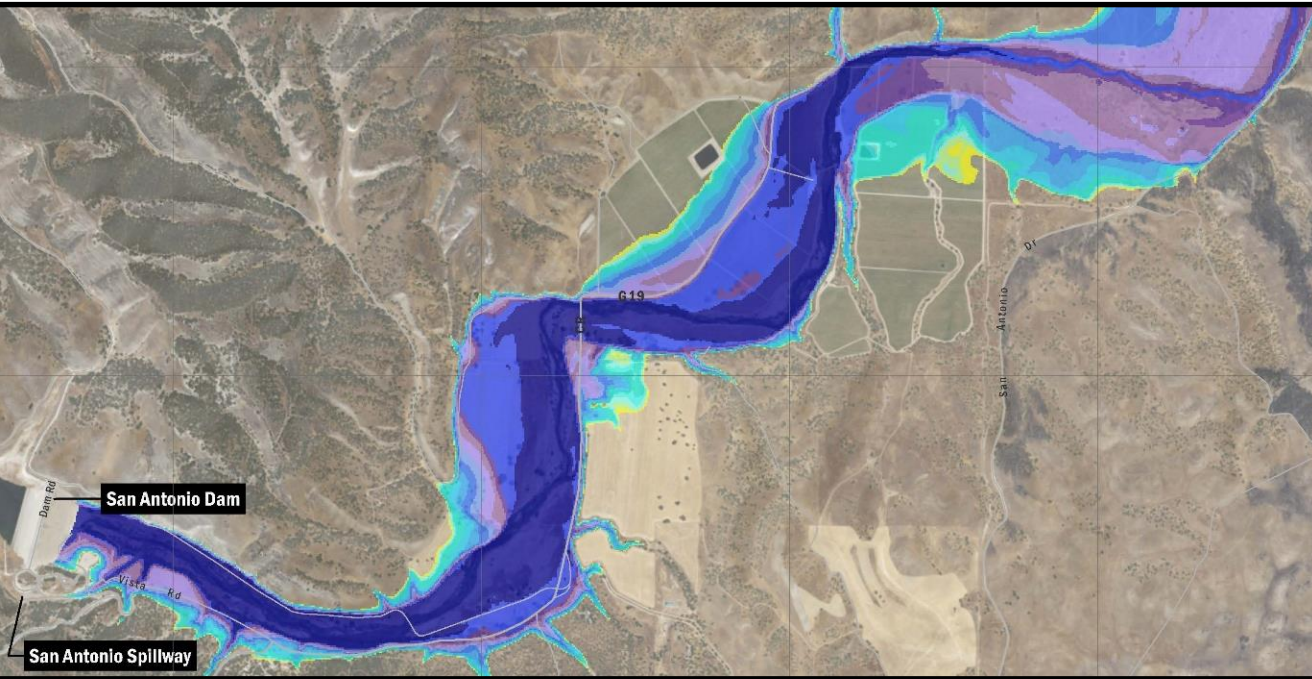
Feb 15, 2019 Mississippi River Flow at Vicksburg MS = 1,260,000 cfs (USGS)

Embankment Breach at Full Reservoir (water at spillway crest)

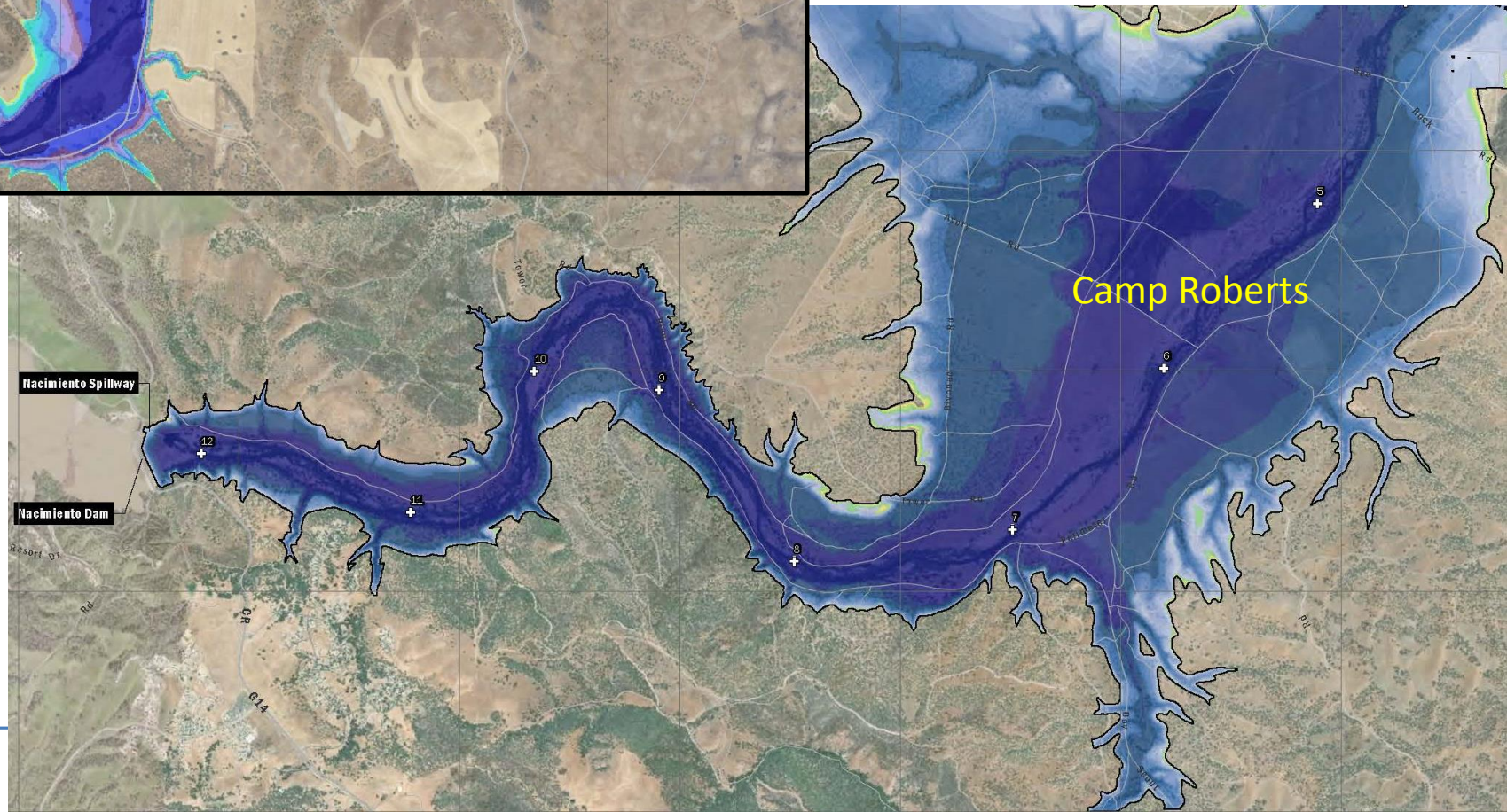
San Antonio

IMMEDIATELY BELOW DAMS

Nacimiento

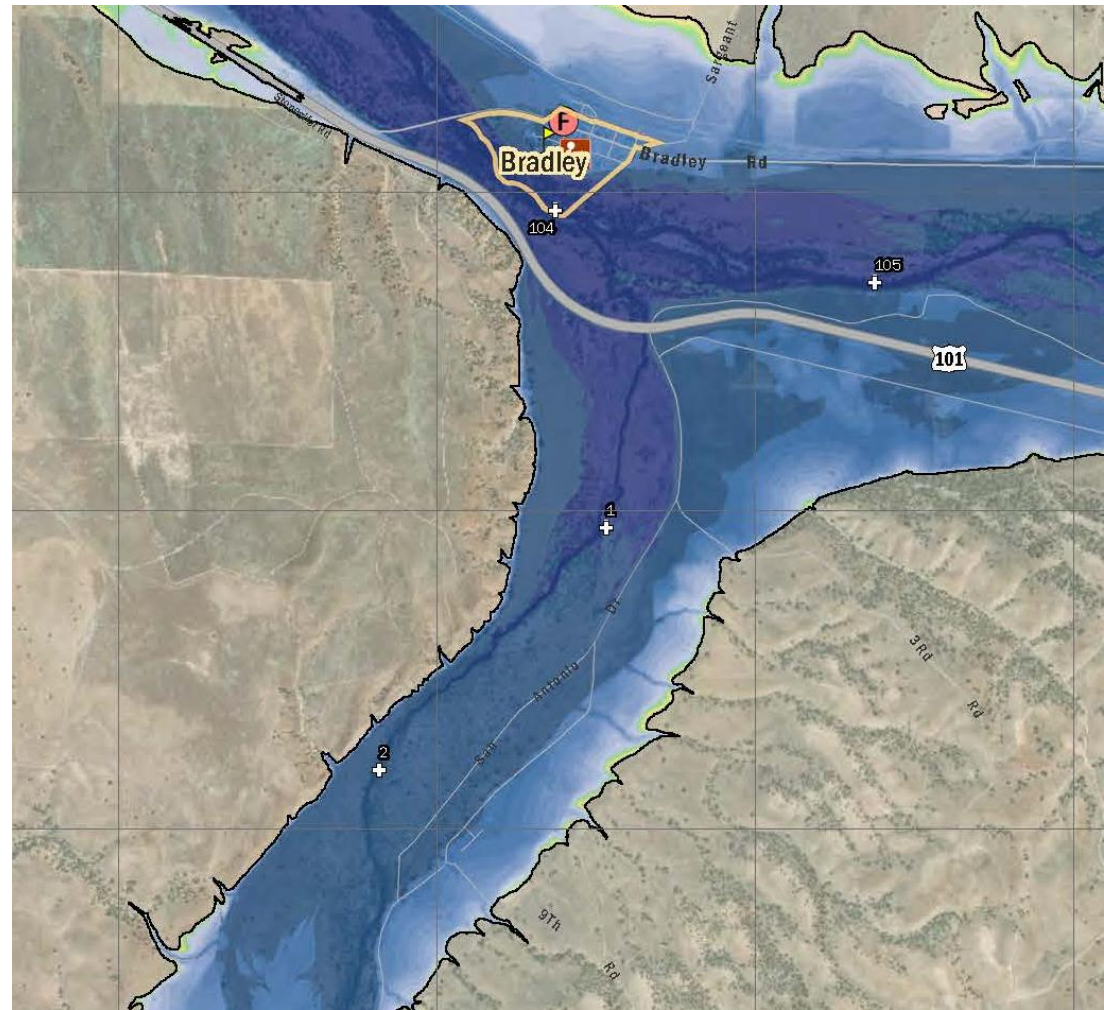
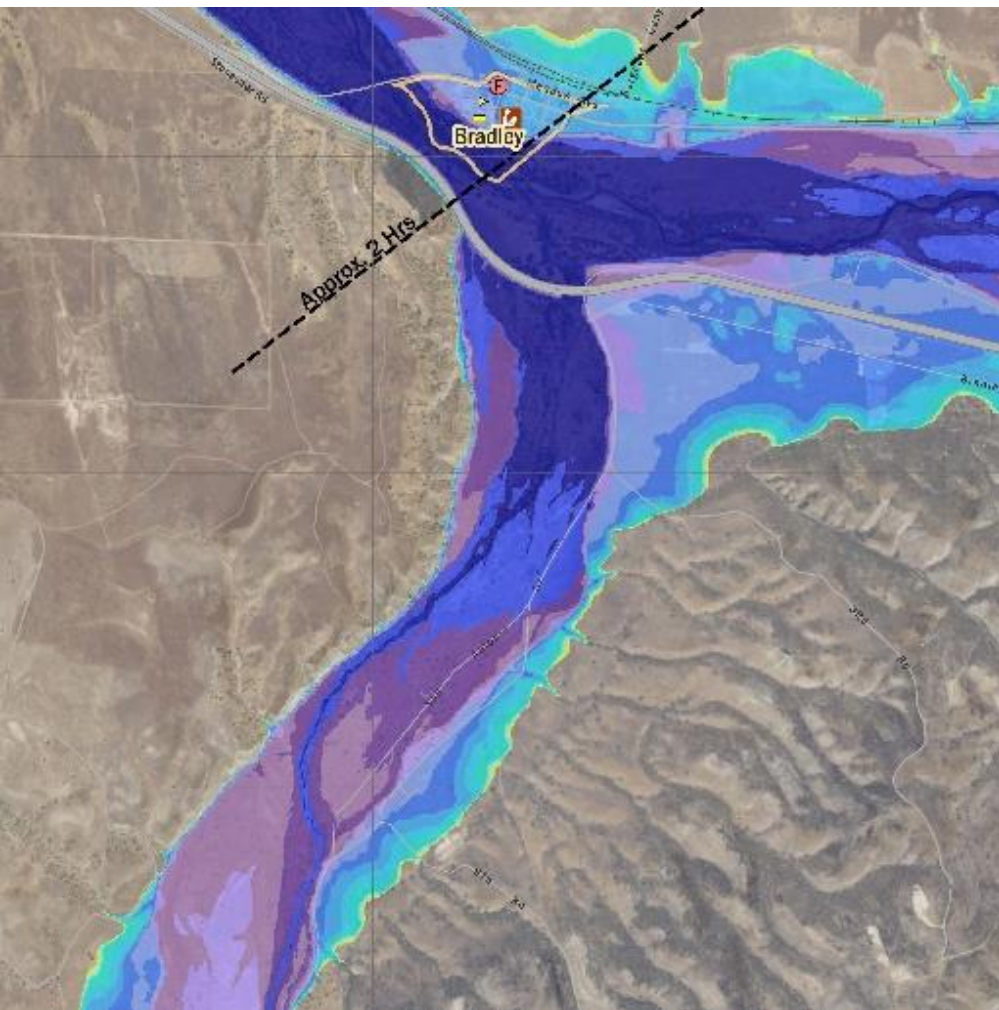


Note: Map shows areas of flooding greater than one foot. Shallow flooding less than one foot deep may occur between areas that are shown as disconnected.



Embankment Breach at Full Reservoir (water at spillway crest)

San Antonio **BRADLEY** Nacimiento

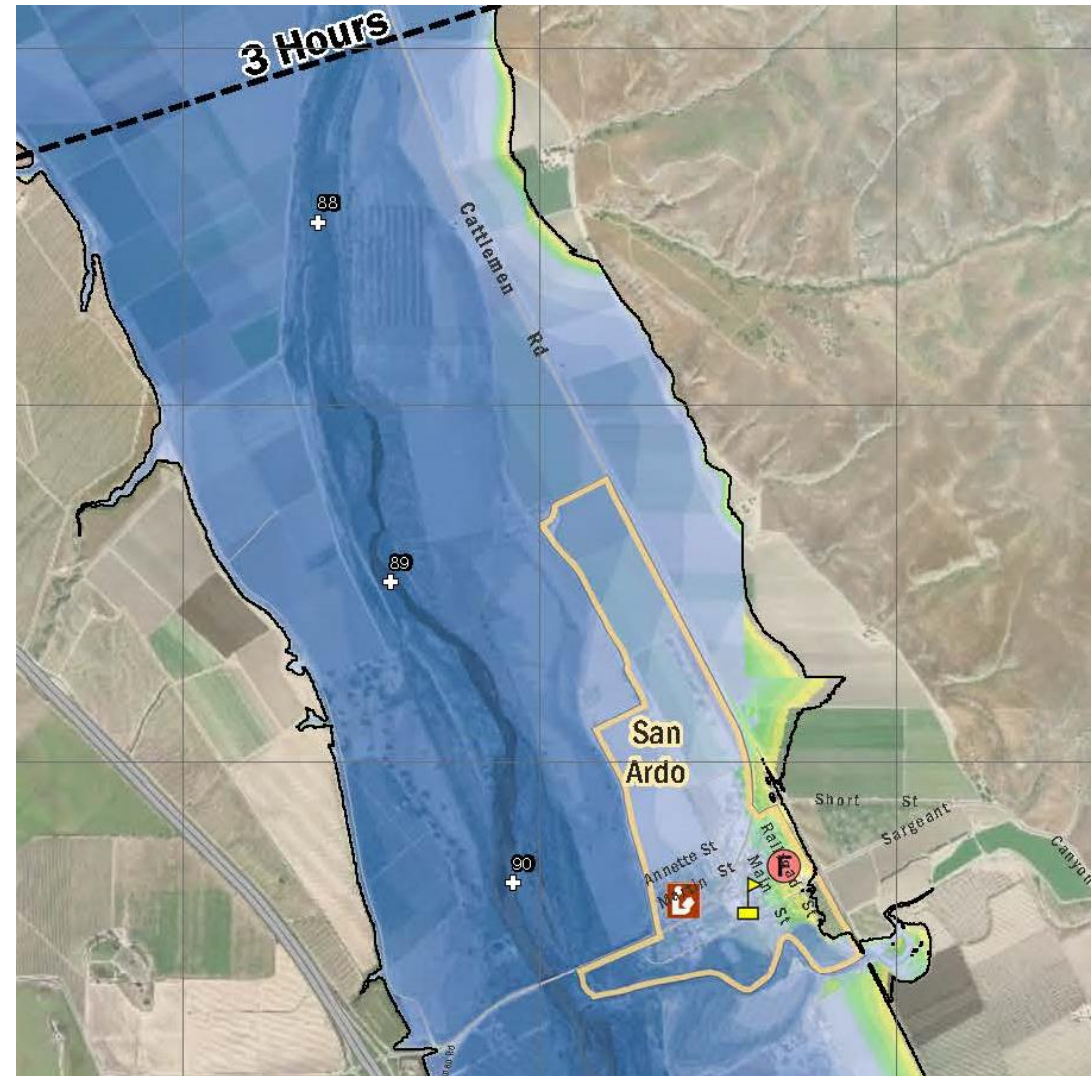
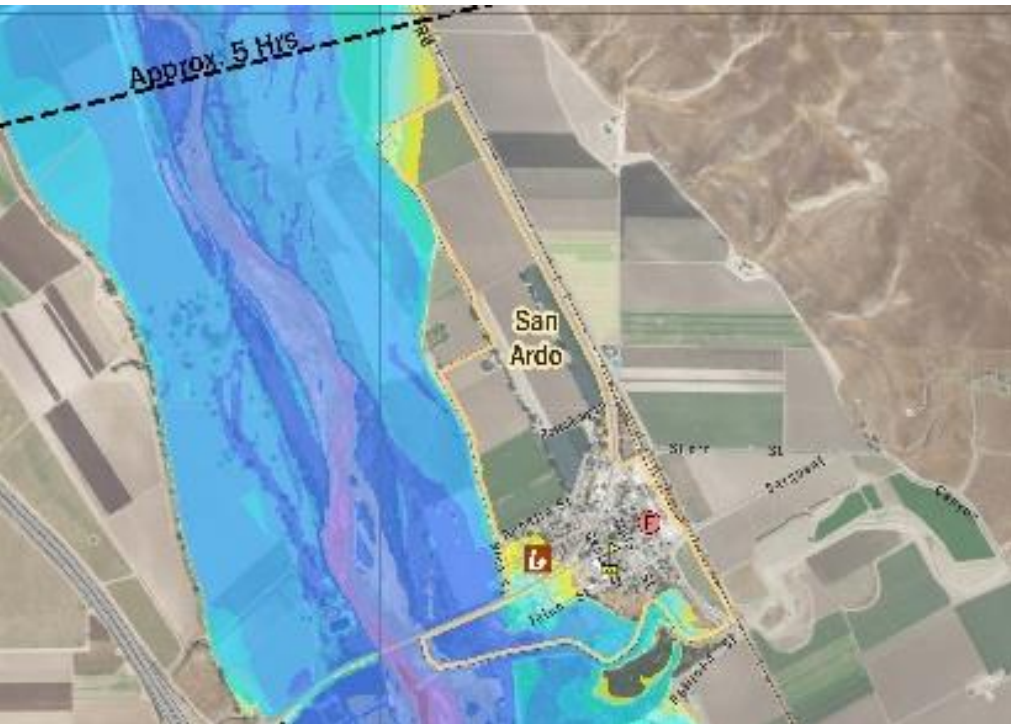


Maximum Flood Depth (ft)		5 - 10	30 - 35
0 - 1	10 - 15	35 - 40	
1 - 2	15 - 20	40 - 45	
2 - 3	20 - 25	45 - 50	
3 - 4	25 - 30	>50	
4 - 5			

Note: Map shows areas of flooding greater than one foot. Shallow flooding less than one foot deep may occur between areas that are shown as disconnected.



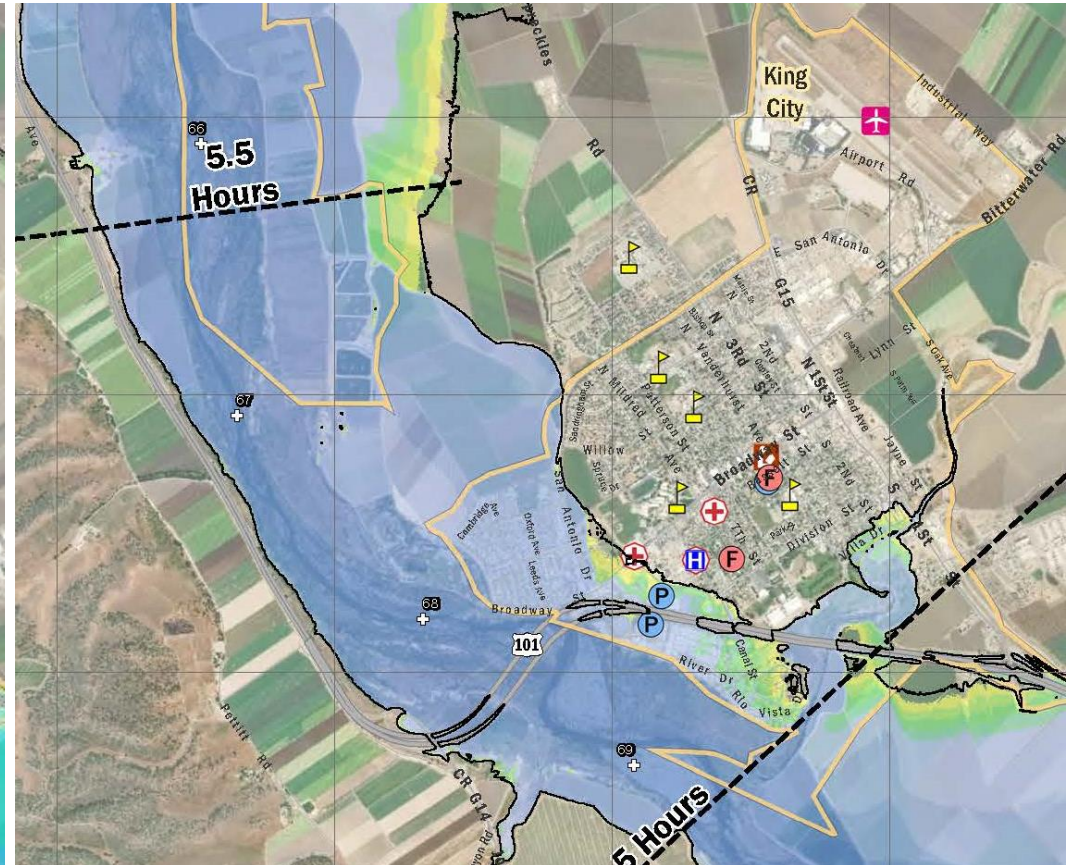
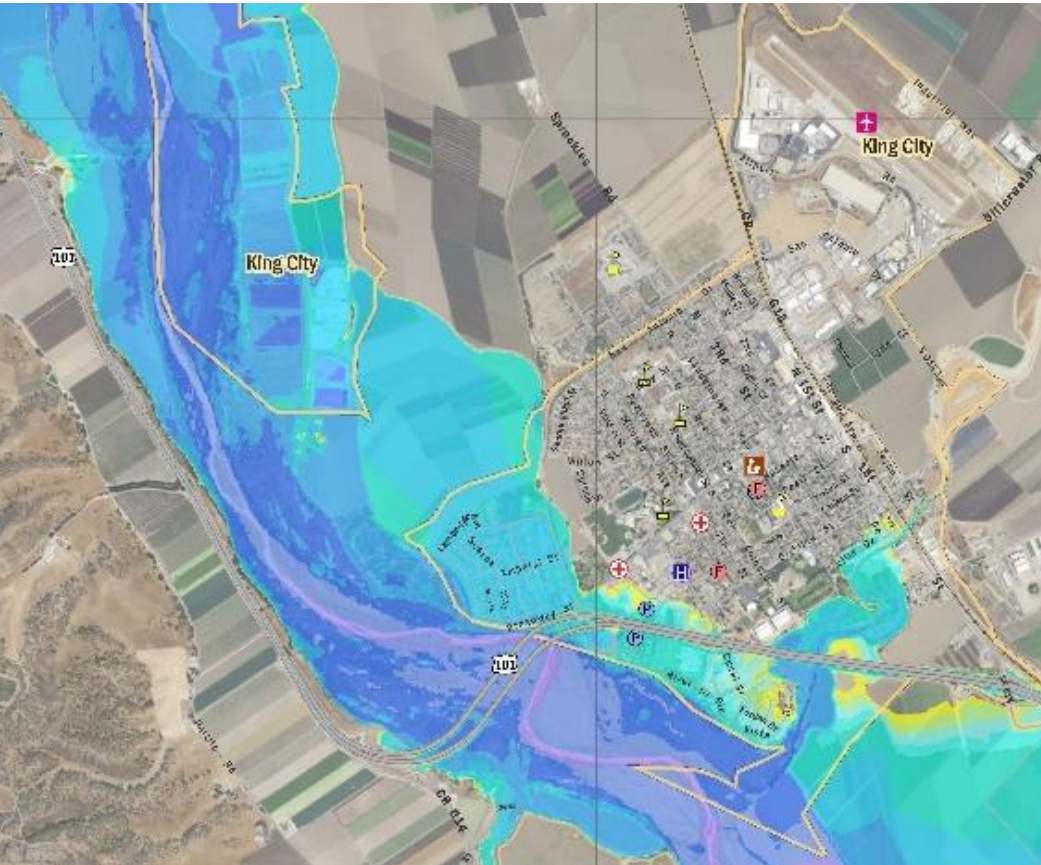
Embankment Breach at Full Reservoir (water at spillway crest)
 San Antonio **SAN ARDO** Nacimiento



Note: Map shows areas of flooding greater than one foot. Shallow flooding less than one foot deep may occur between areas that are shown as disconnected.

Embankment Breach at Full Reservoir (water at spillway crest)

San Antonio **KING CITY** Nacimiento



Maximum Flood Depth (ft)	 5 - 10	 30 - 35
 0 - 1	 10 - 15	 35 - 40
 1 - 2	 15 - 20	 40 - 45
 2 - 3	 20 - 25	 45 - 50
 3 - 4	 25 - 30	 >50
 4 - 5		

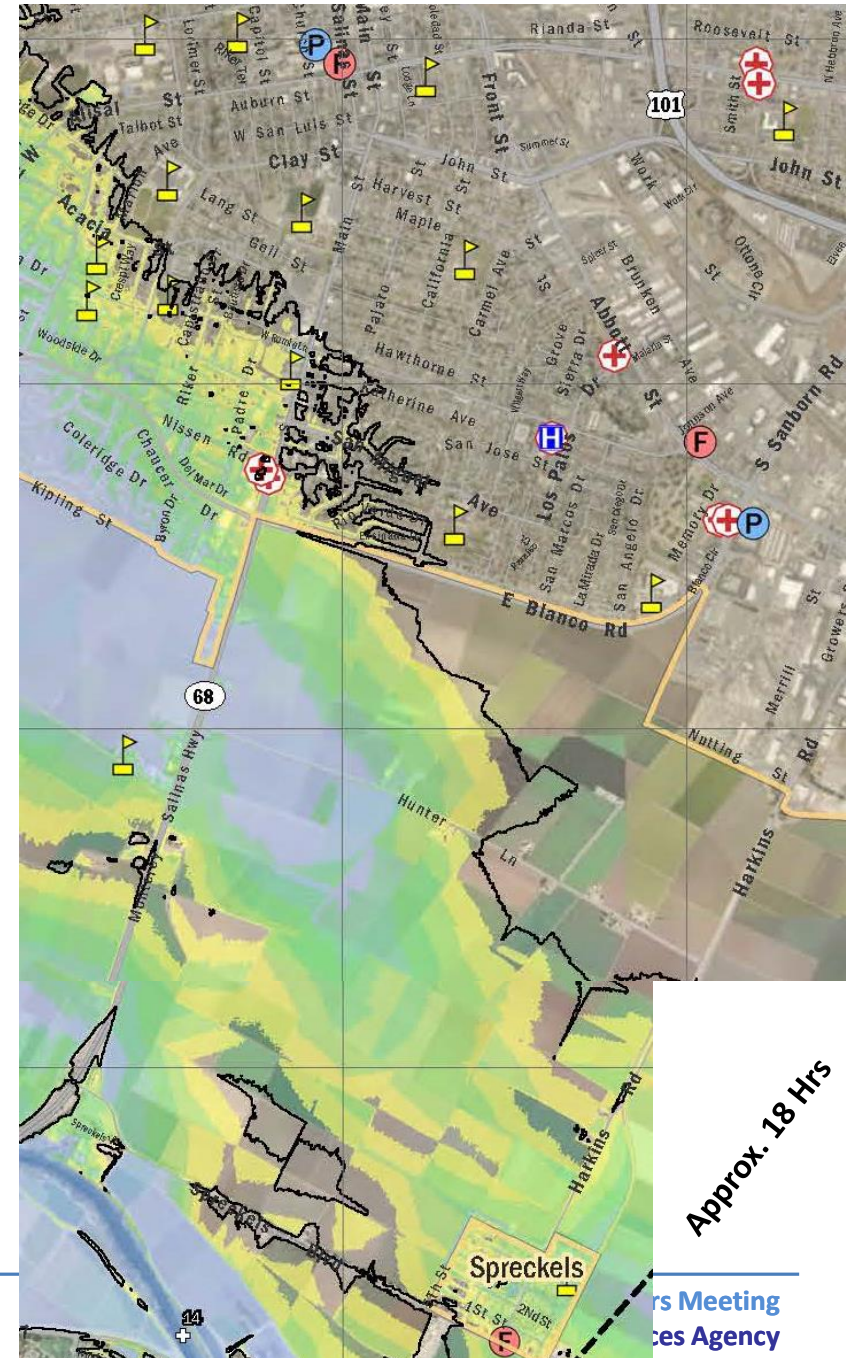
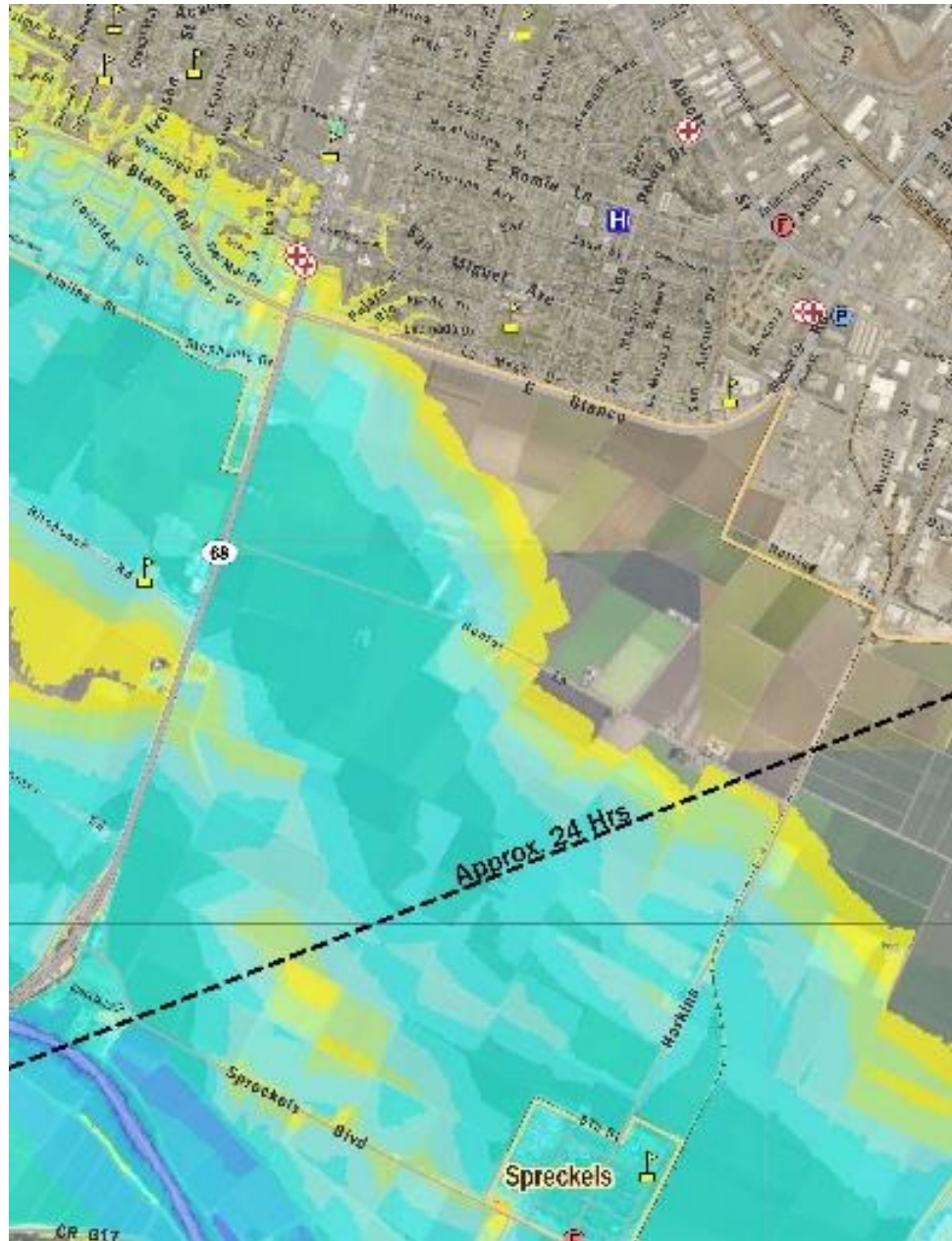
Note: Map shows areas of flooding greater than one foot. Shallow flooding less than one foot deep may occur between areas that are shown as disconnected.

Embankment Breach at Full Reservoir (water at spillway crest)

San Antonio

SPRECKELS - SALINAS

Nacimient



February 19, 2019



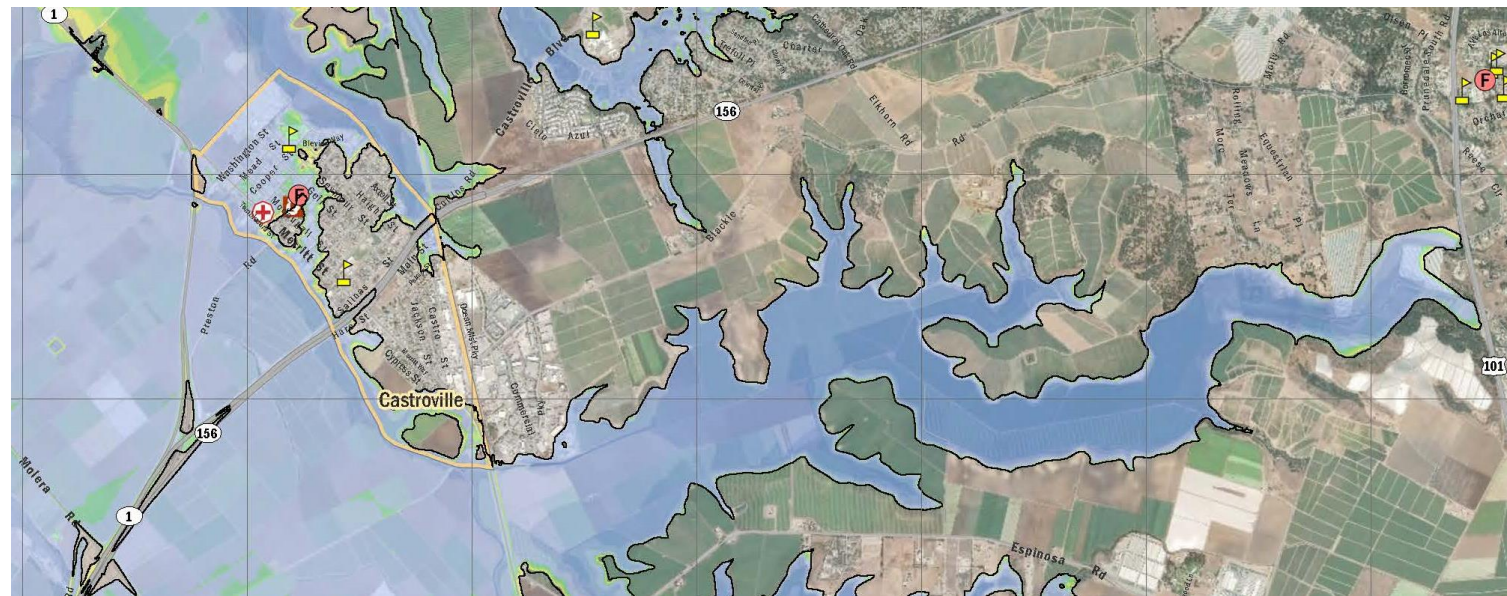
Approx. 18 Hrs
Meeting
Agency

Embankment Breach at Full Reservoir (water at spillway crest)

San Antonio

CASTROVILLE

Nacimiento



Additional Inundation Maps

Critical Appurtenant Structure Failure:

- Failure of **San Antonio Dam** spillway structure (8.5' x 140' breach; full reservoir; no inflow; dam remains intact)
- Failure of **Nacimiento Dam** spillway structure (50' x 157' breach; full reservoir; no inflow; dam remains intact)

	San Antonio Spillway Failure			Nacimiento Spillway Failure		
	Full Reservoir; 8.5' x 140' Spillway Breach; Dam Intact			Full Reservoir; 50' x 157' Spillway Breach; Dam Intact		
	Estimated Peak Flow (cfs)	Estimated Flood Arrival Time (HOURS)	Estimated Peak Arrival Time (HOURS)	Estimated Peak Flow (cfs)	Estimated Flood Arrival Time (HOURS)	Estimated Peak Arrival Time (HOURS)
Camp Roberts	9,000	1.5	---	---	---	---
Bradley	---	4	---	134,000	3.5	6
San Miguel	n/a	n/a	n/a	n/a	n/a	n/a
San Ardo	---	14	---	127,000	8	10
San Lucas	---	25	---	113,000	11.5	15
King City	---	37	---	100,000	17	20
Greenfield	---	---	---	90,000	22	25
Soledad	---	73	---	80,000	24	30
Gonzales	---	96	---	73,000	34	36
Chualar	---	108	---	---	---	---
Hwy 68 Salinas/Spreckels	---	120	---	51,000	45	50
Hwy 1 Castroville	5,500	130	---	46,000	48	60
Moss Landing	with high tide	---	---	---	---	---

Map indicates some flooding

--- not specifically presented in report

Summary

- Extremely High potential for downstream loss of life and damage exist if Nacimiento Dam or San Antonio Dam breaches catastrophically with full or less-than-full reservoir, including:
 - Inundation at: Camp Roberts, Bradley, San Ardo, King City, Spreckels, Salinas, Castroville, Moss Landing, central Salinas Valley, transportation lifelines including 17 bridges, State Hwy 101, 68 and 1, rail line, and many County roads.
 - Nacimiento Dam embankment failure also results in inundation of a portion of San Miguel in San Luis Obispo County.
- Emergency Action Plans for both dams are being updated and will be reviewed and approved by California Office of Emergency Services (and FERC – Nacimiento)
- Inundation maps for embankment failure and spillway failure are approved by DSOD for both dams
- Inundation maps will be posted on the MCWRA website



TODAY'S ACTION

Consider Receiving a Report on Dam Breach
Inundation Maps for Nacimiento Dam and San
Antonio Dam





TODAY'S ACTION

Consider approving submission to U.S. Army Corps of Engineers and National Marine Fisheries Service for the re-initiated consultation on the *“Biological Opinion for the Salinas Valley Water Project”*

Financial Impact

- There is no financial impact in receiving this report.
- Costs to complete the Habitat Conservation Plan (HCP) and provide for necessary staffing have been estimated at approximately \$4.5 million over the next three years.



Committee/BOD Action

- Reservoir Operations January 31, 2019
- Planning February 6, 2019

Discussion

- August 2016 Corps re-initiated consultation with NMFS
- 2016-2019 discussions with NMFS
- 2018-2019 updates to this BOD
- January 11, 2019 BOD “Special Meeting”
 - Gather stakeholder feedback

Discussion (cont.)

- Staff Recommendations:
 - Update existing flow prescription
 - Include Errata from 2005-2006
 - Remove items that have been addressed since 2005
 - Modify monitoring to focus on Arroyo Seco and the lower Salinas River
 - Increase minimum flow releases from 3 cfs to 10 cfs from San Antonio

Discussion (cont.)

- Staff Recommendations:
 - Provide a commitment to NFMS to continue funding for HCP development (\$4.5 million over 3 years)
 - Analyze potential changes to the Flow Prescription using the SVIHM during this process




TODAY'S ACTION

Consider approving submission to U.S. Army Corps of Engineers and National Marine Fisheries Service for the re-initiated consultation on the *“Biological Opinion for the Salinas Valley Water Project”*







DRAFT

Financial Planning and Strategizing

Shauna Lorange
Interim General Manager
February 19, 2019

Overview

DRIFT

Where
were we?

Where are
we now?

Where are
we going?

Where Were We?

DRAFT

- Forward thinking
 - Built reservoirs
 - Built Salinas River Diversion Project
 - Monitoring and collecting data
- Not so forward thinking
 - Minimal maintenance funding
 - Reduced projects and staff to balance budget

Where Are We Now?

DRAFT

- Groundwater Sustainability Plan and Agency
- Identifying projects and who pays
- Should we be doing some of this?
- Dug ourselves into a hole
 - Budget requires assistance from reserves
 - Accumulated maintenance
 - Dam maintenance and repair is in tens of Millions
 - Anticipated DSOD requirements – Large \$

Where Are We Going?

DRAFT

- Developing “good enough” program and project list
- Estimating high level costs and financial plan
- Identifying what level of funding is needed for next three years

Programmatic Options

We have three options:

- Do nothing and cut projects and programs
- Obtain funding for ongoing programs and select projects
- Obtain funding for ongoing programs and all projects, including high cost projects

Still have to coordinate with Salinas Valley Groundwater Basin Sustainability Agency.....

Operational Financial Information

	FUND											TOTAL
	111	112	116	121	122	124	127	130	131	132	134	
	General	Pajaro	Dams	Soledad storm	Reclamation Ditch	San Lorenzo Creek	Moro Cojo Slough	Hydro	CSIP	SVRP	SRDF Ops	
OPERATIONS												
REVENUES	\$1,518,535	\$437,570	\$4,887,615	\$74,312	\$1,438,432	\$40,237	\$115,652	\$595,000	\$4,649,341	\$4,351,984	\$1,016,070	\$19,124,748
SALARIES AND BENEFITS	\$2,179,897	\$324,692	\$1,838,631	\$51,703	\$716,000	\$11,592	\$87,349	\$340,857	\$288,952		\$280,215	\$6,119,888
SERVICES AND SUPPLIES	\$882,764	\$62,412	\$1,640,591	\$15,724	\$347,731	\$22,340	\$14,501	\$190,177	\$2,092,614	\$3,000,300	\$876,032	\$9,145,187
OTHER CHARGES	\$70,511	\$20,193	\$122,034	\$2,018	\$31,096	\$417	\$3,566	\$11,341	\$2,096,651	\$1,200,000	\$8,975	\$3,566,802
CAPITAL ASSETS	\$9,750	\$3,900	\$56,850	\$3,900	\$217,400	\$417	\$1,950	\$27,300	\$26,400		\$6,600	\$354,467
EXPENSES	\$3,142,922	\$411,197	\$3,658,106	\$73,345	\$1,312,227	\$36,299	\$107,366	\$569,675	\$4,504,617	\$4,200,300	\$1,171,822	\$19,187,877
												\$22,898,820
beginning fund balance	\$3,565,660	\$181,469	\$1,504,308	\$177,286	\$918,575	\$89,793	\$460,168	\$1,222,653	\$4,097,996	\$928,313	\$4,129,801	\$17,276,022
transfer to fund balance	(\$1,624,387)	\$26,373	\$1,124,509	(\$967)	\$126,205	\$3,938	\$8,286	\$25,325	\$144,724	\$151,684	\$155,752	\$141,442
remaining fund balance	\$1,941,273	\$207,842	\$2,628,817	\$178,253	\$1,044,780	\$93,731	\$468,454	\$1,247,978	\$4,242,720	\$1,079,997	\$3,974,049	\$17,107,893
ONE TIME COSTS	\$507,146	\$235,590	\$1,334,056		\$215,620		\$259,633	\$114,884	\$699,056		\$344,958	\$3,710,943
remaining fund balance	\$1,434,127	(\$27,748)	\$1,294,761		\$829,160		\$208,821	\$1,133,094	\$3,543,664		\$3,629,091	\$12,044,969
Reduction to fund balance	\$2,131,533	\$209,217	\$209,547		\$89,415		\$251,347	\$89,559	\$554,332		\$500,710	\$4,035,661

FUND 111 - GENERAL

REVENUES	\$1,518,535
SALARIES AND BENEFITS	\$2,179,897
SERVICES AND SUPPLIES	\$882,764
OTHER CHARGES	\$70,511
CAPITAL ASSETS	\$9,750
EXPENSES	\$3,142,922
Annual costs added through budget amendment 1	\$195,000
Annual Program Costs	\$450,000
REMAINING REVENUE	(\$2,269,387)

PROGRAMS	
Enviro BO/LTMP/HCP	
IRWMP	\$50,000
Grant preparation	included
Combined Funds Activities	
Lower Salinas River Channel	\$35,000
Merritt Lake	\$150,000
Arroyo Seco Area	\$50,000
Carnation Subdivision	\$25,000
Storm Drain Maintenance	\$50,000
Gonzales slough maintenance	\$15,000
Groundwater level and quality monitoring	
monthly	included
annual	included
august	included
seawater intrusion monitoring wells WL , WQ	included
Other GW activities	
Groundwater sustainability agency support	funded through MOU
Well Application Review	envir health funded
5 yr basin investigation	RMA funded
Other Programs	
Integrated coastal monitoring program	Paid by CalAm slant well desal
Technology updates	included
Upgrade flood warning-ALERT	\$75,000
Total Annual Program Costs	\$450,000

FUND 111 (cont)

PROJECTS		Year			
	Total	1	2	3	4+
Habitat conservation Plan					
SR Long term Management Plan	\$100,000	\$100,000			
complete HCP	\$4,500,000	\$1,500,000	\$1,500,000	\$1,500,000	
Groundwater					
Deep Aquifer Study	\$1,500,000	\$1,500,000			
Evaluate req. valley wide gw quality monitoring program	\$50,000		\$50,000		
Resource Management					
Organization Review	\$90,000	\$90,000			
office reorg	\$100,000	\$100,000			
Compliance database	\$150,000	\$150,000			
Total Project Costs	\$6,490,000	\$3,440,000	\$1,550,000	\$1,500,000	\$0

FUND 112 PAJARO

REVENUES	\$437,570
SALARIES AND BENEFITS	\$324,692
SERVICES AND SUPPLIES	\$62,412
OTHER CHARGES	\$20,193
CAPITAL ASSETS	\$3,900
EXPENSES	\$411,197
Annual costs added through budget amendment 1	\$35,000
Annual Program Costs	\$600,000

REMAINING REVENUE	(\$608,627)
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PROGRAMS	
Pajaro River	
Maintain levees	\$400,000
remove silt and control vegetation	\$200,000
Total Annual Program Costs	\$600,000

PROJECTS	Year				
Misc Flood Control Projects	Total	1	2	3	4+
Pajaro Culvert and flap gates (16)	\$2,000,000	\$800,000	\$600,000	\$600,000	
Total Project Costs	\$2,000,000	\$800,000	\$600,000	\$600,000	\$0

HIGH COST PROJECTS					
JPA for PR flood Risk Management project (total cost) pajaro river	\$75,000,000				\$75,000,000
Total Project Costs	\$75,000,000	\$0	\$0	\$0	\$75,000,000

FUND 116 Dam Operations

REVENUES	\$4,887,615
SALARIES AND BENEFITS	\$1,838,631
SERVICES AND SUPPLIES	\$1,640,591
OTHER CHARGES	\$122,034
CAPITAL ASSETS	\$56,850
EXPENSES	\$3,658,106
Annual costs added through budget amendment 1	\$180,000
Annual Program Costs	\$1,400,000

REMAINING REVENUE	(\$350,491)
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PROGRAMS	
Enviro BO/LTMP/HCP	
Reservoir and stream flow monitoring and data	included
Groundwater level and quality monitoring	
monthly	included
annual	included
august	included
Gems 2A,2B	included
monitoring wells WL , WQ	included
Naci and San Antonio reservoir	
Reservoir WQ	included
Annual maintenance	\$1,000,000
Mercury eval for reservoirs	\$50,000
two new water maintenance & 1 senior water maintenance, 1 engineer currently unfunded	\$350,000
Total Annual Program Costs	\$1,400,000

FUND 116 (cont)

PROJECTS	Total	Year			
		1	2	3	4+
Repairs at Nacimiento Dam					
spillway plunge pool erosion	\$3,850,000		\$3,850,000		
spillway repair	\$1,500,000		\$1,500,000		
piezometer network installation	\$375,000				\$375,000
Nacimiento lake drive pavement	\$465,000				\$465,000
replace five lowlevel outlet valves and piping	\$530,000	\$134,000	\$132,000	\$132,000	\$132,000
repair & modify low level valve 6	\$210,000	\$105,000	\$105,000		
bridge over spillway	\$200,000	\$100,000	\$100,000		
warning system for Bradley	\$50,000	\$50,000			
three hydraulic actuators	\$300,000	\$100,000	\$100,000	\$100,000	
geologic review of slope stability - power house	\$50,000		\$50,000		
motion sensor at crest and toe of dam	\$50,000				\$50,000
debris boom repair	\$75,000				\$75,000
intake valve operator at Rucker house	\$50,000				\$50,000
domestic water well or connection for residence	\$100,000				\$100,000

PROJECTS	Total	Year			
		1	2	3	4+
Reparis at San Antonio Dam					
install intake bulkhead gate	\$75,000	\$75,000			
install hatch in 84" penstock	\$50,000	\$50,000			
internal inspection	\$50,000	\$50,000			
install trash racks	\$275,000	\$275,000			
replace 6 air release	\$80,000	\$20,000	\$20,000	\$20,000	\$20,000
repair discharge cone	\$80,000	\$30,000	\$25,000	\$25,000	
paint piping and penstock in BFV	\$50,000		\$50,000		
update dam stability analysis	\$85,000		\$85,000		
potential failure mode analysis	\$50,000	\$50,000			
new piezometers	\$700,000				\$700,000
reline 84" penstock	\$1,200,000			\$1,200,000	
BFV hydraulic operation system upgrade	\$120,000			\$120,000	
boat barrier buoy line	\$170,000				\$170,000
road repair	\$215,000				\$215,000
Horizontal drain repair	\$100,000	\$100,000			
wood logboom at spillway inlet	\$210,000				\$210,000
Total Project Costs	\$11,315,000	\$1,139,001	\$6,017,002	\$1,597,003	\$2,562,000

HIGH COST PROJECTS	Total	Year			
		1	2	3	4+
San Antonio Chute replacement	\$40,000,000			\$40,000,000	
Interlake Tunnel	?????				
Total Project Costs	\$40,000,000	\$0	\$0	\$40,000,000	\$0

FUND 122 – RECLAMATION DITCH

REVENUES	\$1,438,432
SALARIES AND BENEFITS	\$716,000
SERVICES AND SUPPLIES	\$347,731
OTHER CHARGES	\$31,096
CAPITAL ASSETS	\$217,400
EXPENSES	\$1,312,227
Annual costs added through budget amendment 1	\$70,000
Annual Program Costs	\$30,000
REMAINING REVENUE	(\$100,000)

PROJECTS	Total	Year			
		1	2	3	4+
Miscellaneous Flood control					
RDIPAC-develop financial plan	\$500,000		\$500,000		
rec ditch impact fees	\$50,000	\$50,000			
Total Project Costs	\$550,000	\$50,000	\$500,000	\$0	\$0

PROGRAMS	
Reclamation Ditch	
Operate ditch near city of Salinas	included
erosion	included
tide gates	\$30,000
Total Annual Program Costs	\$30,000



FUNDS 121, 124, 127

FUND 121 Soledad Storm

REVENUES	\$74,312
SALARIES AND BENEFITS	\$51,703
SERVICES AND SUPPLIES	\$15,724
OTHER CHARGES	\$2,018
CAPITAL ASSETS	\$3,900
EXPENSES	\$73,345
Annual Program Costs	\$75,000
REMAINING REVENUE	(\$74,033)

PROGRAMS	
Soledad Storm Drain	
Maintain soledad storm drain	\$75,000
Total Annual Program Costs	\$75,000

FUND 124 San Lorenzo Creek

REVENUES	\$40,237
SALARIES AND BENEFITS	\$11,592
SERVICES AND SUPPLIES	\$22,340
OTHER CHARGES	\$417
CAPITAL ASSETS	\$417
EXPENSES	\$36,299
Annual Program Costs	\$70,000
REMAINING REVENUE	(\$66,062)

PROGRAMS	
San lorenzo creek	
remove silt and debris	\$50,000
maintain bulkhead wall	\$10,000
construct improvements if \$ avail	\$10,000
Total Annual Program Costs	\$70,000

FUND 127 Moro Cojo Slough

REVENUES	\$115,652
SALARIES AND BENEFITS	\$87,349
SERVICES AND SUPPLIES	\$14,501
OTHER CHARGES	\$3,566
CAPITAL ASSETS	\$1,950
EXPENSES	\$107,366
Annual costs added through budget amendment 1	\$10,000
Annual Program Costs	\$0
REMAINING REVENUE	(\$1,714)
PROGRAMS	
Moro Cojo Slough	
maintain four tide gates	included
O&M of castroville pump station	included
Total Annual Program Costs	\$0

PROJECTS		Year			
Misc Flood Control Projects	Total	1	2	3	4+
Moro Cojo Tide Gates	\$500,000	\$250,000	\$250,000		
Total Annual Program Costs	\$500,000	\$250,000	\$250,000	\$0	\$0

FUND 130 - HYDRO



REVENUES	\$595,000
SALARIES AND BENEFITS	\$340,857
SERVICES AND SUPPLIES	\$190,177
OTHER CHARGES	\$11,341
CAPITAL ASSETS	\$27,300
EXPENSES	\$569,675
Annual costs added through budget amendment 1	\$35,000
Annual Program Costs	\$0
REMAINING REVENUE	(\$9,675)

PROJECTS	Total	Year			
		1	2	3	4+
Repairs at Nacimiento Dam					
New hydro unit 2	\$3,000,000				\$3,000,000
Total Annual Program Costs	\$3,000,000	\$0	\$0	\$0	\$3,000,000

FUND 131 – CSIP

REVENUES	\$4,649,341
SALARIES AND BENEFITS	\$288,952
SERVICES AND SUPPLIES	\$2,092,614
OTHER CHARGES	\$2,096,651
CAPITAL ASSETS	\$26,400
EXPENSES	\$4,504,617
Annual costs added through budget amendment 1	\$20,000
Annual Program Costs	\$310,000
REMAINING REVENUE	(\$185,276)

PROGRAMS	
Enviro BO/LTMP/HCP	
Environmental Compliance - Tam	included
Castroville Seawater	
Well maintenance	\$210,000
Construction services (repair)	\$100,000
Total Annual Program Costs	\$310,000

PROJECTS	Total	Year			
		1	2	3	4+
New Source Water Project					
Blanco Drain	\$3,000,000	\$3,000,000			
Reclamation Ditch	\$1,216,000	\$1,216,000			
Prop 218 work and consultants	\$100,000	\$100,000			
Mods to Regional Treatment facility	\$673,000	\$673,000			
Castroville seawater intrusion project (CSIP)					
well destruction	\$7,240,000		\$7,240,000		
eng. Design modeling and proj feasibility	\$300,000	\$200,000	\$100,000		
isolation valve (MIP)	\$540,000	\$180,000	\$180,000	\$180,000	
cathodid protection repair	\$800,000	\$300,000	\$250,000	\$250,000	
recommission well 6L for CSIP and connect to CSIP system	\$550,000			\$550,000	
drill new wells	\$4,600,000				\$4,600,000
storage tank design and modeling	\$6,000,000		\$3,000,000	\$3,000,000	
Total Projects Costs	\$25,019,000	\$5,669,000	\$10,770,000	\$3,980,000	\$4,600,000

FUND 134 – SRDF OPERATIONS

REVENUES	\$1,016,070
SALARIES AND BENEFITS	\$280,215
SERVICES AND SUPPLIES	\$876,032
OTHER CHARGES	\$8,975
CAPITAL ASSETS	\$6,600
EXPENSES	\$1,171,822
Annual costs added through budget amendment 1	\$20,000
Annual Program Costs	\$650,000
REMAINING REVENUE	(\$825,752)

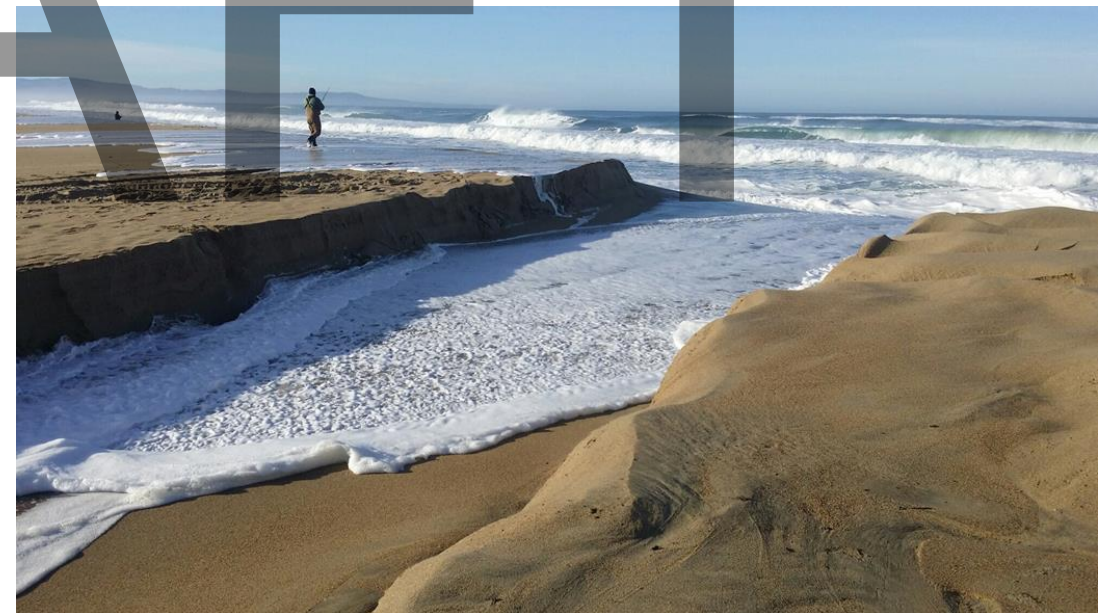
PROGRAMS	
Enviro BO/LTMP/HCP	
ongoing BO monitoring	\$400,000
one biologist and seasonal or consulting help	\$250,000
Environmental Compliance	included
Total Annual Program Costs	\$650,000

PROJECTS	Total	Year			
		1	2	3	4+
Castroville seawater intrusion project (CSIP)					
storage tank design and modeling	\$6,000,000		\$3,000,000	\$3,000,000	
Total Projects Costs	\$6,000,000	\$0	\$3,000,000	\$3,000,000	\$0



WHO FUNDS THESE??

PROGRAMS	
Enviro BO/LTMP/HCP	
LTMP activities (long list)	TBD
one biologist and seasonal or consulting help	\$250,000
Salinas Lagoon Sand Bar Management-permit costs	\$300,000
State leases	\$40,000
Groundwater level and quality monitoring	
GEMS 2C	\$300,000
Naci and San Antonio reservoir quagga mussel	\$10,000
Other Programs	
SR SMP	\$100,000
Total Annual Program Costs	\$1,000,000



So What Does This Mean?

Annual Programs and Operations and Maintenance

- Total revenue minus operations = \$1 million
- Total additional annual programs = \$4.5 million
- 32% increase in funding overall

One Time Projects

- Over three years \$44.7 million (\$3 million per yr/30 yrs using home loan calculator; 4.5%)
- Projects identified at this time \$56 million
- Neither include the ILT or DSOD projects

Staffing levels not included or evaluated yet.....

NEXT STEPS

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Board of Directors

- Review
- Call with Questions

Revenue Committee

- Discuss options for increased funding

Finance Committee

- Discuss draft cost allocations/benefit areas

March Board Meeting

- Consider information from revenue and finance committee
- Consider scope of programs and projects

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QUESTIONS?
