

# Fund 116 – Nacimiento Dam

## 3-Year Projection Consultants/Contractors/Large Parts

				Estimated Cost	FY 18-19	FY 19-20	FY 20-21	Years	
Req'd By	Nacimiento Dam			2018 Dollars	Year 1	Year 2	Year 3	Beyond	Notes
1. FERC	Consultant	7th Part12D inspection and report, spillway focused PFMA and ODSP Audit		\$80,000	\$80,000				Submit to FERC by Dec 31, 2018
2. FERC/DSOD	Consultant	Engineering evaluation/design of method(s) to stop boils D/S of dam		\$50,000	\$50,000				
3. FERC	Consultant	Investigation to characterize foundation material for liquefaction potential and perform seismic stability and deformation analysis		\$80,000	\$80,000				
4. FERC/DSOD	Consultant	Engineering evaluation and design of dam piezometer network		\$60,000	\$60,000				
5. FERC/DSOD	Consultant	Begin engineering for plunge pool erosion control		\$160,000	\$50,000				
6. FERC	Parts	Install additional survey monuments on D/S bench roads		\$15,000	\$15,000				
7. FERC/DSOD	Contractor	Spillway repair		\$150,000	\$150,000				Needed dollars as yet unknown
8. FERC/DSOD	Consultant	Piezometer network installation		\$256,000		\$64,000	\$64,000	\$128,000	Install when money available
9. Maint	Contractor	Nacimiento Lake Drive pavement maintenance / resurface		\$490,000	\$25,000	\$40,000	\$50,000	\$375,000	
10. Maint	Contractor	Paint low level outlet valves, piping and penstock		\$40,000	\$40,000				
11. Maint	Contractor	Replace FIVE low level outlet valves and piping		\$530,000	\$106,000	\$106,000	\$106,000		Replace 1 per year
12. Maint	Contractor	Improve main gate		\$10,000		\$10,000			
13. Maint	Contractor	Replace and modify low level valve No. 6		\$210,000		\$40,000	\$170,000		Engr 1 year, Install next year
14. Maint	Contractor	Maintenance and repair of bridge over spillway		\$172,000		\$40,000	\$132,000		
15. Maint	Consultant	Warning system for Bradley		\$50,000		\$50,000			
16. Maint	Contractor	Purchase & install THREE hydraulic actuators for 42" intake valves		\$285,000		\$95,000	\$95,000	\$95,000	Replace 1 per year
17. FERC	Consultant	Geologic review of slope stability adjacent power house		\$49,000			\$49,000		
18. FERC/DSOD	Contractor	Spillway plunge pool erosion repair - CONSTRUCTION		\$3,354,000				\$3,354,000	
19. FERC	Consultant	Install strong motion sensors at crest and toe of dam		\$48,000				\$48,000	
20. Maint	Contractor	Debris boom repair		\$63,000				\$63,000	
21. Maint	Contractor	Upgrade intake valve hydraulic operator system at Rucker House		\$30,000				\$30,000	
22. Maint	Contractor	Domestic water well for residence (or water system connection)		\$69,000				\$69,000	
				\$6,251,000				\$4,162,000	
Note: Fiscal Year Sub-Totals assume ± \$250,000 from SVWP Bond Refund				Sub-Total:	\$656,000	\$445,000	\$666,000		



# Fund 116 – San Antonio Dam

## 3-Year Projection Consultants/Contractors/Large Parts

Req'd By			San Antonio Dam	Estimated Cost 2018 Dollars	FY 18-19 Year 1	FY 19-20 Year 2	FY 20-21 Year 3	Years Beyond	Notes
1.	DSOD	Contractor	12" horizontal drain repair	\$38,000	\$38,000				
2.	DSOD	Contractor	Fabricate intake structure bulkhead gate	\$50,000	\$50,000				
3.	DSOD	Contractor	Install intake structure bulkhead gate	\$41,000		\$41,000			
4.	DSOD	Contractor	Install new access hatch in 84" penstock near BFV	\$40,000		\$40,000			
5.	DSOD	Contractor	Internal inspection and touch-up coating of penstock D/S of BFV	\$45,000		\$45,000			
6.	DSOD	Consultant	Final design of new inlet trash racks	\$25,000	\$25,000				
7.	DSOD	Contractor	Fabricate & install new inlet trash racks by Dec 31, 2020	\$271,000		\$271,000			By Dec 31, 2020
8.	DSOD	Consultant	Annual Dam surveillance report	\$53,000	\$53,000	\$53,000	\$53,000		Annual report
9.	Maint	Parts	Replace SIX 8" air release/vacuum relief valves	\$60,000	\$20,000	\$20,000	\$20,000		Install 2 per year
10.	Maint	Contractor	Inspect, clean, recoat Howell-Bunger valve & sleeve & replace brass bushing	\$21,000	\$21,000				
11.	Maint	Contractor	Purchase & install closed circuit TV & communications in BFV chamber	\$22,000	\$22,000				
12.	Maint	Parts	Replace left abutment drain piping	\$20,000	\$20,000				
13.	Maint	Consultant	Design new access hatch in 84" penstock near BFV	\$20,000	\$20,000				
14.	Maint	Contractor	Repair discharge cone D/S of howell-Bunger valve	\$79,000			\$79,000		
15.	Maint	Contractor	Flush left abutment drains	\$6,000	\$6,000				
16.	Maint	Contractor	Upgrade electrical wiring in BFV chamber	\$18,000	\$18,000				
17.	Maint	Parts	Replace SEVEN 10" air release/vacuum relief valves	\$159,000			\$22,714	\$136,286	Install 1 in FY 20-21
18.	Maint	Contractor	Install guard rails on spillway walls adjacent drain access manholes	\$15,000	\$15,000				
19.	Maint	Contractor	Paint penstock and piping in BFV chamber	\$44,000			\$44,000		
20.	Maint	Consultant	Update dam stability analysis (last done: Bechtel 1970)	\$82,000			\$82,000		
21.	Maint	Consultant	Dam and spillway Potential Failure Mode Analysis	\$50,000		\$50,000			
22.	DSOD	Contractor	Spillway repair (ref: GEI 4/12/2018)	\$4,669,000				\$4,669,000	ref: GEI 4/12/2018
23.	DSOD	Contractor	Install new dam piezometers (abandon existing Casagrande piezometers)	\$702,000				\$702,000	
24.	DSOD	Contractor	Reline 84" penstock D/S of BFV	\$1,050,000				\$1,050,000	By June 30, 2025
25.	Maint	Contractor	96" BFV hydraulic operation system upgrade	\$102,000				\$102,000	
26.	Maint	Parts	Purchase & install boat barrier buoy line	\$168,000				\$168,000	
27.	Maint	Contractor	Road pavement repair	\$215,000				\$215,000	
28.	Maint	Parts	Replace wood logboom at spillway inlet with new debris boom	\$207,000				\$207,000	
				\$8,304,714				\$7,249,286	
Note: Fiscal Year Sub-Totals assume ± \$250,000 from SVWP Bond Refund				<b>Sub-Total:</b>	\$308,000	\$520,000	\$300,714		



# Fund 116 – Coastal Conservancy Grant

## Estimated Spend Rate

