

ATTACHMENT E

**Conceptual Finance Plan – Technical
Memorandum**

Technical Memorandum

Nicolaus and Rio Oso Flood Risk Reduction Feasibility Study Small Communities Flood Risk Reduction Program

Conceptual Finance Plan

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Prepared by: Elisabet Abdissa

Reviewed by: Sean Myers, David Lee, & Derek Larsen, P.E., CFM

Purpose

This memorandum has been prepared by Larsen Wurzel & Associates, Inc. (LWA) in support of the communities of Nicolaus and Rio Oso Flood Risk Reduction Feasibility Studies under the Department of Water Resources (DWR) Small Communities Flood Risk Reduction (SCFRR) Program. This memorandum provides a conceptual financial plan and funding strategy for implementation of the preferred alternative.

Approach

The conceptual finance plan applies information from the Financial Feasibility and Funding Sources memos prepared by LWA with funding information provided by the local agencies to identify potential local and non-local matching funds to implement the preferred alternative. Based on cost estimates provided by the Nicolaus and Rio Oso project teams, a funding “sources and uses” table was prepared to determine funding capabilities for flood risk reduction features. This memo does not address funding mechanisms for identified multi-benefit projects.

Selected Alternative

The ability to pay analysis was a three-step screening process. First, a maximum annual land-based assessment was calculated using a rate analysis for the benefited area(s). Second, the range of remediation alternatives cost were compared to the community’s ability to generate local matching funds as a percent of the total project costs. Each project has one alternative alignment, with multiple remediation measures for **19 miles** of levee for Nicolaus and **6.8 miles** of levee for Rio Oso, for a total of 25.8 miles of continuous levee improvement. Each segment of levee can feature up to two separate measures with varying repair costs. Finally, the project team determined the amount of existing assessment revenue that could be allocated toward funding the capital project. The existing capital revenue was combined with the additional local assessment capacity to determine the total capital capacity, \$401,950.

Funding Approach

Total Project costs estimates provided by the Nicolaus and Rio Oso Project teams are displayed in **Table 1**.

Table 1
Nicolaus & Rio Oso Small Communities Flood Risk Reduction
Alternatives Cost Summary of Results

Alternative	Total Construction Cost	Existing Assessment Revenue [1]	Annual O&M [2]	Remaining Revenue [3]	Maximum Assessment Capacity	Remaining Capital Capacity
		A	B	C= (A-B)*65%	D	E=C+D
Preferred	\$465,678,200	\$953,000	\$470,000	\$313,950	\$88,000	\$401,950
Min	\$464,531,000	\$953,000	\$470,000	\$313,950	\$88,000	\$401,950
Max	\$590,832,190	\$953,000	\$470,000	\$313,950	\$88,000	\$401,950

[1] Total existing Assessment Revenue Provided by project Team.

[2] Annual total district O&M costs provided by Project Team.

[3] District's funding for levee work limited to 65% of total revenues; 35% of total revenues for other-than-levee work.

As shown in **Table 1**, the preferred alternative's total construction cost estimate is \$466 million. The maximum capital costs total \$591 million and the minimum total \$465 million. The existing assessment revenue for the cities of Nicolaus and Rio Oso is \$953,000, of which \$470,000 covers the district's total annual O&M costs, and 65% or \$313,950 of that equates to the available remaining revenue for levee improvements¹. The maximum revenue for the new assessment is \$88,000. The estimated remaining annual capital capacity for each alternative totals \$401,950, which could raise between \$5.62 million to \$7.16 million based on varying debt financing with interest rates between 3% to 5%. **Table 2** provides a funding sources and uses breakdown for the existing Nicolaus and Rio Oso assessment revenue.

A detailed breakdown of the potential debt financing for the range of alternatives is displayed in **Table 3**.

Table 4 is a funding sources and uses table developed for the preferred project. It is assumed that the capital improvement project will secure 90% of non-local matching funds revenue from State and federal sources. The remaining revenue to cover general overhead and administration (GO&A), operations, maintenance, repair, replacement and rehabilitation (OMRR&R), and the local matching share would be raised locally. GO&A was assumed to be 1% of the total cost of the estimated Capital Improvements projects. The annual O&M costs were

¹ District limits available revenue for levee improvement to 65% of total annual revenues. Remaining 35% of annual revenues designated for O&M and capital improvements on drainage and other projects.

provided by the Nicolaus and Rio Oso project team². The GO&A represents the increased level of effort by the County to complete the planned capital improvements. It was assumed the County would be able to secure a portion of the required local matching funds to supplement local revenue raised through a land-based assessment. Unidentified local funding sources would be necessary to meet a full 10% local cost share on planned improvements. **Table 5** provides a summary of potential State and federal funding sources that could be sought to complete proposed improvements.

Table 2
Nicolaus & Rio Oso Small Communities Flood Risk Reduction
Existing Assessment Revenue Sources and Uses

Sources	Cost [1]
Existing Assessment	\$953.00
Total Sources [A]	\$953.00
Existing Uses	Cost
Existing OMRR&R Costs	\$470.00
Non-O&M Costs	\$169.05
Total Uses [B]	\$639.05
Remaining Uses	Cost
Available Capital	\$313.95
Total Capital Uses [C]	\$313.95
Total Uses [D = B + C]	\$953.00
End Cash Position (Deficit) [E = A - D]	\$0.00

Notes:

[1] All values reported in thousands of dollars.

² Annual O&M costs anticipated to remain unchanged pre and post improvement.



Table 3
Nicolaus & Rio Oso Small Communities Flood Risk Reduction
Local Funding Analysis

Alt.	Capital Assessment Capacity \$	Low	High	Project Cost Millions \$	Local		Non-Local		Fund Capacity Ranking
		Int. Rate Millions \$ [1,2,4]	Int. Rate Millions \$ [1,3,4]		High %	Low %	High %	Low %	
Preferred	\$401,950	\$7.16	\$5.62	\$465.68	1.54%	1.21%	98.8%	98.5%	2
Min	\$401,950	\$7.16	\$5.62	\$464.53	1.54%	1.21%	98.8%	98.5%	1
Max	\$401,950	\$7.16	\$5.62	\$590.83	1.21%	0.95%	99.0%	98.8%	3

Notes:

[1] Assumes 1.1 Debt Coverage Ratio

[2] Low interest rate for debt issuance assumed to be 3%

[3] High interest rate for debt issuance assumed to be 5%

[4] Term for bond repayment assumed to be 30 years.



Table 4
Nicolaus and Rio Oso - Conceptual Finance Plan
Preferred Project Sources and Uses

Sources	Cost [1]	Percent
Existing Assessment for O&M	\$0.47	0.1%
Existing & New Assessment Available for Capital [2]	\$7.16	1.5%
Unidentified Local Funding Source	\$44.21	9.4%
State/Federal Funding (90% Share of Capital Project)	\$419.11	89.0%
Total Sources [A]	\$470.95	100.0%
GO&A & O&M Uses	Cost	Percent
General Overhead and Admin	\$4.80	1.0%
OMRR&R Costs	\$0.47	0.1%
Total GO&A and O&M Uses [B]	\$5.27	1.1%
Capital Improvement Projects Uses	Cost	Percent
Preferred Project	\$465.68	98.9%
Total Capital Uses [C]	\$465.68	98.9%
Total Uses [D = B + C]	\$470.95	100.0%
End Cash Position (Deficit) [E = A - D]	\$0.00	

Notes:

[1] All values reported in millions of dollars.

[2] Assumes 30-year assessment with a 3% debt financing (cost and revenue escalation not included)

Table 5
SCFRR - Funding Sources Memo
Funding Sources by Solution Matrix

		Structural		Non-Structural		Study/ Plan/ O&M	
		Levee Dam Floodwall Erosion	Bypass	Changes to NFIP	Relief Cut	Feasibility Study & Flood Management Plan	OMRR&R
Funding Program	Agency						
Urban Stormwater and Waterways Improvement Program	California Natural Resources Agency	X	X		X		
Urban Green Infrastructure Program	California Natural Resources Agency	X	X		X		
Flood Control Subventions Program (FCSP)	DWR	X	X		X		
Central Valley Tributaries Program (CVTP)	DWR	X	X		X		
Flood Damage Reduction Projects (FDRP)	USACE	X	X		X	X	
Flood-Related Continuing Authorities Program (FRCA)	USACE	X	X		X	X	
Watershed and Flood Prevention (WFPO)	USDA	X			X		
Inland Wetlands Conservation Program (IWC)	WCB	X	X		X		

Notes:

[1] Potential Funding Programs Identified by LWA from the Funding Sources Memo.

Recommended Next Step

The County should work to determine if advancing a land-based assessment would be a viable approach and should refine assumptions associated with the amount of funding required to complete the proposed improvements. In order to secure local funding, the County will need to prepare a detailed project financing plan and cash flow model to support a land-based assessment. This plan would ultimately become part of a required Engineer's Report. The County could advance design and environmental compliance of the preferred alternative to develop a construction ready project that can better compete for State and federal funding.

The project teams determined that the Nicolaus and Rio Oso local funding capacity is sufficient to fund all of the Alternative Remediation's O&M costs. The 65% of the remaining capital revenue from the existing assessment along with the maximum revenue from the new assessment, totaling \$401,950, could be utilized to raise up to 1.21% to 1.54 of project costs for the preferred remediation alternatives, through debt financing, towards the required local share of project costs. In LWA's experience, typical capital improvement projects require at least 10% to 15% local matching funds in order to qualify for State and Federal funding programs.

The County should explore developing a regional assessment district to fund a regional Capital Improvement Program (CIP) that could leverage a larger benefit assessment area to generate local funds to match State and federal funding. The regional assessment district could initially be utilized to fund SCFRR projects within the County and then other critical projects within the Sutter County.

As part of developing a larger regional program and CIP, the County would need to determine how to address governance prior to advancing the preferred alternative under a regional approach.