

FLOOD CONTROL PROJECT NEEDS COMMITTEE

REVIEW OF FLOOD MANAGEMENT PROJECT FINANCING WITH AND WITHOUT FEDERAL FUNDING, ALTERNATIVE DIRECT BENEFIT AREA RATES AND ALTERNATIVE CONSTRUCTION DURATIONS AND THEIR IMPACTS ON ANNUAL CASH FLOWS AND OVERALL PROJECT COSTS

FCPNC Meeting November 16, 2017

Item #3 - Report and discussion on the overall project costs, annual cash flow including scenarios with and without federal funding, and alternative construction durations and their impacts on annual cash flow and overall project costs. Possible action to identify a duration of construction for purposes of analysis or to provide direction to staff.

**TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE**

SCOPE OF REVIEW

This review of the Truckee River Flood Management Project financing includes six scenarios and their impacts on annual cash flows and overall project costs given the following options:

- With or without federal cost sharing.
- Two Direct Benefit Area rates: \$0.008/sf per month or \$0.012/sf per month.
- Two alternative construction completion dates: FYE 2033 or FYE 2043.

Additional assumptions:

- The estimated total project cost in 2018 dollars is \$422.1 million.
- The estimated annual cash flows for the federal cost share is shown on Page 9, with TRFMA reimbursement to the Corps for its already incurred costs beginning in FYE 2024 and the Corps payment to support future project costs beginning in FYE 2025.
- The Direct Benefit Area revenue assumes rates will be imposed at the beginning of Phase 3 in FYE 2023, the rate base does not grow and the rate increases annually after construction based on the rate of inflation.
- Project financing is from a combination of cash and debt proceeds.
- The revenue required includes paying for the project cost, the annual operating and maintenance cost, plus funding an emergency replacement reserve fund.

The six scenarios reviewed are defined in the table below:

<p><u>Scenario 1</u></p> <ul style="list-style-type: none"> • Project Completion Date FYE 2043 • Direct Benefit Area Rate At \$0.008/sf Per Month • Excludes Federal Cost Share 	<p><u>Scenario 2</u></p> <ul style="list-style-type: none"> • Project Completion Date FYE 2043 • Direct Benefit Area Rate At \$0.008/sf Per Month • Includes Federal Cost Share
<p><u>Scenario 3</u></p> <ul style="list-style-type: none"> • Project Completion Date FYE 2033 • Direct Benefit Area Rate At \$0.008/sf Per Month • Excludes Federal Cost Share 	<p><u>Scenario 4</u></p> <ul style="list-style-type: none"> • Project Completion Date FYE 2043 • Direct Benefit Area Rate At \$0.012/sf Per Month • Excludes Federal Cost Share
<p><u>Scenario 5</u></p> <ul style="list-style-type: none"> • Project Completion Date FYE 2043 • Direct Benefit Area Rate At \$0.012/sf Per Month • Includes Federal Cost Share 	<p><u>Scenario 6</u></p> <ul style="list-style-type: none"> • Project Completion Date FYE 2033 • Direct Benefit Area Rate At \$0.012/sf Per Month • Excludes Federal Cost Share

**TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE**

RESULTS SUMMARY

As can be seen in the following table the results of Scenarios 1, 2, 4, and 5 are as expected, the longer the construction time (FYE 2043) results in a higher the total project cost as compared to the construction time in Scenarios 3 and 6 (FYE 2033).

However, as shown in Scenario 5 a longer construction time, hence lower annual required revenue, combined with the inclusion of the federal cost sharing and and a higher Direct Benefit Area rate (\$0.012/sf) reduces the share of revenue share from a new tax (34.4%) as compared to Scenario 2 new tax revenue share (37.7%) with a lower Direct Benefit Area rate (\$0.008/sf).

<p><u>Scenario 1</u></p> <ul style="list-style-type: none"> • Project cost = \$645,306,234 • Total revenue = \$918,094,472 • New tax revenue share = 48.5% • Direct benefit area revenue share = 6.8% • Federal cost share = 0% 	<p><u>Scenario 2</u></p> <ul style="list-style-type: none"> • Project cost = \$645,306,234 • Total revenue = \$899,175,749 • New tax revenue share = 37.7% • Direct benefit area revenue share = 6.4% • Federal cost share = 15.2%
<p><u>Scenario 3</u></p> <ul style="list-style-type: none"> • Project cost = \$557,186,134 • Total revenue = \$921,099,963 • New tax revenue share = 60.6% • Direct benefit area revenue share = 5.7% • Federal cost share = 0% 	<p><u>Scenario 4</u></p> <ul style="list-style-type: none"> • Project cost = \$645,306,234 • Total revenue = \$964,747,919 • New tax revenue share = 44.8% • Direct benefit area revenue share = 10.2% • Federal cost share = 0%
<p><u>Scenario 5</u></p> <ul style="list-style-type: none"> • Project cost = \$645,306,234 • Total revenue = \$897,549,260 • New tax revenue share = 34.4% • Direct benefit area revenue share = 9.6% • Federal cost share = 15.3% 	<p><u>Scenario 6</u></p> <ul style="list-style-type: none"> • Project cost = \$557,186,134 • Total revenue = \$922,089,057 • New tax revenue share = 57.8% • Direct benefit area revenue share = 8.5% • Federal cost share = 0%

A listing of the details in each scenario is shown on pages 3 to 8.

TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE

Scenario 1

Project Completion Date FYE 2043

Direct Benefit Area Rate At \$0.008/sf Per Month

Excludes Federal Cost Share

Capital Project Financing

Source of Funds	Amount	% of Total
Debt Financed (Deposit to Capital Project Fund)	\$ 160,024,427	24.80%
General Fund (Transfer to Capital Project Fund)	463,977,013	71.90%
Capital Project Fund - Beginning Fund Balance	7,074	0.00%
Capital Project Fund Interest Income	21,119,019	3.27%
Capital Project Fund - Other Income	178,700	0.03%
Total Project Cost (Nominal \$)	\$ 645,306,234	100.00%

General Fund Revenues Thru Debt Repayment In FYE 2046

Revenue Source	Amount	Percent of Total
Existing Sales Tax	\$ 408,084,900	44.4%
New Tax	445,104,863	48.5%
Direct Benefit Area	62,814,562	6.8%
Federal Cost Share	-	0.0%
Other Revenue	2,090,147	0.2%
Total	\$ 918,094,472	100.0%

TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE

Scenario 2
Project Completion Date FYE 2043
Direct Benefit Area Rate At \$0.008/sf Per Month
Includes Federal Cost Share

Capital Project Financing

Source of Funds	Amount	% of Total
Debt Financed (Deposit to Capital Project Fund)	\$ 129,292,015	20.04%
General Fund (Transfer to Capital Project Fund)	491,555,319	76.17%
Capital Project Fund - Beginning Fund Balance	7,074	0.00%
Capital Project Fund Interest Income	24,273,126	3.76%
Capital Project Fund - Other Income	178,700	0.03%
Total Project Cost (Nominal \$)	\$ 645,306,234	100.00%

General Fund Revenues Thru Debt Repayment In FYE 2044

Revenue Source	Amount	Percent of Total
Existing Sales Tax	\$ 363,669,116	40.4%
New Tax	339,161,644	37.7%
Direct Benefit Area	57,220,730	6.4%
Federal Cost Share	137,000,000	15.2%
Other Revenue	2,124,259	0.2%
Total	\$ 899,175,749	100.0%

TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE

Scenario 3
Project Completion Date FYE 2033
Direct Benefit Area Rate At \$0.008/sf Per Month
Excludes Federal Cost Share

Capital Project Financing

Source of Funds	Amount	% of Total
Debt Financed (Deposit to Capital Project Fund)	\$ 233,930,471	41.98%
General Fund (Transfer to Capital Project Fund)	310,803,898	55.78%
Capital Project Fund - Beginning Fund Balance	7,074	0.00%
Capital Project Fund Interest Income	12,265,990	2.20%
Capital Project Fund - Other Income	178,700	0.03%
Total Project Cost (Nominal \$)	<u>\$ 557,186,134</u>	<u>100.00%</u>

General Fund Revenues Thru Debt Repayment In FYE 2041

Revenue Source	Amount	Percent of Total
Existing Sales Tax	\$ 301,779,957	32.8%
New Tax	558,066,554	60.6%
Direct Benefit Area	52,361,270	5.7%
Federal Cost Share	-	0.0%
Other Revenue	8,892,182	1.0%
Total	<u>\$ 921,099,963</u>	<u>100.0%</u>

TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE

Scenario 4
Project Completion Date FYE 2043
Direct Benefit Area Rate At \$0.012/sf Per Month
Excludes Federal Cost Share

Capital Project Financing

Source of Funds	Amount	% of Total
Debt Financed (Deposit to Capital Project Fund)	\$ 167,927,858	26.02%
General Fund (Transfer to Capital Project Fund)	455,928,271	70.65%
Capital Project Fund - Beginning Fund Balance	7,074	0.00%
Capital Project Fund Interest Income	21,264,331	3.30%
Capital Project Fund - Other Income	178,700	0.03%
Total Project Cost (Nominal \$)	\$ 645,306,234	100.00%

General Fund Revenues Thru Debt Repayment In FYE 2047

Revenue Source	Amount	Percent of Total
Existing Sales Tax	\$ 431,297,070	44.7%
New Tax	432,634,599	44.8%
Direct Benefit Area	98,606,939	10.2%
Federal Cost Share	-	0.0%
Other Revenue	2,209,310	0.2%
Total	\$ 964,747,919	100.0%

TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE

Scenario 5
Project Completion Date FYE 2043
Direct Benefit Area Rate At \$0.012/sf Per Month
Includes Federal Cost Share

Capital Project Financing

Source of Funds	Amount	% of Total
Debt Financed (Deposit to Capital Project Fund)	\$ 130,238,211	20.18%
General Fund (Transfer to Capital Project Fund)	491,090,054	76.10%
Capital Project Fund - Beginning Fund Balance	7,074	0.00%
Capital Project Fund Interest Income	23,792,194	3.69%
Capital Project Fund - Other Income	178,700	0.03%
Total Project Cost (Nominal \$)	\$ 645,306,234	100.00%

General Fund Revenues Thru Debt Repayment In FYE 2044

Revenue Source	Amount	Percent of Total
Existing Sales Tax	\$ 363,669,116	40.5%
New Tax	308,924,789	34.4%
Direct Benefit Area	85,831,096	9.6%
Federal Cost Share	137,000,000	15.3%
Other Revenue	2,124,259	0.2%
Total	\$ 897,549,260	100.0%

TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE

Scenario 6
Project Completion Date FYE 2033
Direct Benefit Area Rate At \$0.012/sf Per Month
Excludes Federal Cost Share

Capital Project Financing

Source of Funds	Amount	% of Total
Debt Financed (Deposit to Capital Project Fund)	\$ 234,956,923	42.17%
General Fund (Transfer to Capital Project Fund)	309,962,575	55.63%
Capital Project Fund - Beginning Fund Balance	7,074	0.00%
Capital Project Fund Interest Income	12,080,861	2.17%
Capital Project Fund - Other Income	178,700	0.03%
Total Project Cost (Nominal \$)	<u>\$ 557,186,134</u>	<u>100.00%</u>

General Fund Revenues Thru Debt Repayment In FYE 2041

Revenue Source	Amount	Percent of Total
Existing Sales Tax	\$ 301,779,957	32.7%
New Tax	532,928,721	57.8%
Direct Benefit Area	78,541,905	8.5%
Federal Cost Share	-	0.0%
Other Revenue	8,838,474	1.0%
Total	<u>\$ 922,089,057</u>	<u>100.0%</u>

**TRUCKEE RIVER FLOOD MANAGEMENT PROJECT
ANALYSIS OF OPTIONAL PROJECT COMPLETION DATES, FEDERAL COST SHARE
AND DIRECT BENEFIT AREA REVENUE**

**Estimated Federal Cost Share Cash Flows
Based on a Project Completion Date of FYE 2043**

Table 1

Total Estimated Federal Cost Share Cash Flows	
Total Support From	202,000,000
Total Reimbursement To	20,000,000
Net	182,000,000

Table 2

Estimated Annual Federal Cost Share Cash Flows		
Year	Reimbursement To	Support From
FYE 2018		
FYE 2019		
FYE 2020		
FYE 2021		
FYE 2022		
FYE 2023		
FYE 2024	5,000,000	
FYE 2025	5,000,000	2,000,000
FYE 2026	5,000,000	10,000,000
FYE 2027	5,000,000	10,000,000
FYE 2028		5,000,000
FYE 2029		10,000,000
FYE 2030		5,000,000
FYE 2031		10,000,000
FYE 2032		5,000,000
FYE 2033		10,000,000
FYE 2034		10,000,000
FYE 2035		5,000,000
FYE 2036		10,000,000
FYE 2037		10,000,000
FYE 2038		5,000,000
FYE 2039		5,000,000
FYE 2040		5,000,000
FYE 2041		5,000,000
FYE 2042		5,000,000
FYE 2043		5,000,000
FYE 2044		5,000,000
FYE 2045		5,000,000
FYE 2046		5,000,000
FYE 2047		5,000,000
FYE 2048		5,000,000
FYE 2049		5,000,000
FYE 2050		5,000,000
FYE 2051		5,000,000
FYE 2052		5,000,000
FYE 2053		5,000,000
FYE 2054		5,000,000
FYE 2055		5,000,000
FYE 2056		5,000,000
FYE 2057		5,000,000