Benefit-Cost Analysis

IMPLEMENTATION COSTS

Calendar Year	Project Year	Residential Acquisition	Commercial Acquisition	Stormwater Management	Bank Stabilization	Flood Control	Trails & Improvements	Residential Architectural Improvements	Critical Infrastructure	Total Cost
2017	1	$ 5,802,300.00	$ 828,900.00	$ 1,777,151.20	$ 1,583,849.40	$2,378,355.28	$2,357,725	$ 250,000.00	$ 2,734,732.00	$ 17,713,012.88
2018	2	$ 5,560,537.50	$ 828,900.00	$ 1,793,123.20		$2,383,401.72	$2,357,725	$ 250,000.00	$ -	$ 13,173,687.42
2019	3	$ 5,077,012.50	$ 828,900.00	$ 1,809,095.20		$2,388,448.16	$2,357,725	$ 250,000.00	$ 1,500,000.00	$ 14,211,180.86
2020	4	$ 5,077,012.50	$ 828,900.00	$ 1,824,900.30		$2,393,494.60	$25,000	$ 250,000.00	$ 1,500,000.00	$ 11,899,307.40
2021	5	$ 5,077,012.50	$ 828,900.00	$ 1,840,870.80		$2,398,541.04	$25,000	$ 250,000.00	$ 1,500,000.00	$ 11,920,324.34
2022	6	$ 5,077,012.50		$ 1,856,841.30		$2,403,587.48	$25,000	$ 250,000.00	$ 1,250,000.00	$ 10,862,441.28
2023	7			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2024	8			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2025	9			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2026	10			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2027	11			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2028	12			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2029	13			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2030	14			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2031	15			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2032	16			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2033	17			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2034	18			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2035	19			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2036	20			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2037	21			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2038	22			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2039	23			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2040	24			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2041	25			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2042	26			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2043	27			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2044	28			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2045	29			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
2046	30			$ 95,827.50		$30,278.64	$25,000			$ 151,106.14
									Total Cost:	$ 83,406,501.54

IMPLEMENTATION BENEFITS

Calendar Year	Project Year	Residential Acquisition	Commercial Acquisition	Stormwater Management	Bank Stabilization	Flood Control	Trails & Improvements	Residential Architectural Improvements	Critical Infrastructure	Total Benefit
2017	1	$6,605,603.59	$ 1,877,603.29	$ 1,121,569.72	$ 746,707.57	$ 1,002,043.98	$ -	$250,465.35	$1,226,631.05	$ 12,830,624.55
2018	2	$6,138,953.73	$ 1,748,917.62	$ 1,062,720.05	$ 694,438.04	$ 954,665.51	$ 166,584.28	$250,865.55	$93,181.29	$ 11,110,326.06
2019	3	$5,683,321.73	$ 1,629,047.69	$ 1,006,613.63	$ 645,827.38	$ 909,010.00	$ 154,923.38	$251,207.44	$704,508.60	$ 10,984,459.85
2020	4	$5,299,539.93	$ 1,517,389.85	$ 953,098.40	$ 600,619.46	$ 865,068.41	$ 144,078.74	$251,497.23	$698,442.50	$ 10,329,734.52
2021	5	$4,941,639.32	$ 1,413,381.77	$ 902,193.85	$ 558,576.10	$ 822,824.49	$ 133,993.23	$251,740.53	$692,801.03	$ 9,717,150.31
2022	6	$4,261,486.93	$ 1,314,445.05	$ 853,745.75	$ 519,475.77	$ 782,255.88	$ 124,613.70	$1,942.43	$69,704.45	$ 7,927,669.98
2023	7	$3,963,182.85	$ 1,222,433.90	$ 324,681.73	$ 483,112.47	$ 95,022.42	$ 115,890.74	$1,806.46	$64,825.14	$ 6,270,955.71
2024	8	$3,685,760.05	$ 1,136,863.52	$ 301,954.01	$ 449,294.59	$ 88,370.85	$ 107,778.39	$1,680.01	$60,287.38	$ 5,831,988.81
2025	9	$3,427,756.84	$ 1,057,283.08	$ 280,817.23	$ 417,843.97	$ 82,184.89	$ 100,233.91	$1,562.41	$56,067.27	$ 5,423,749.59
2026	10	$3,187,813.87	$ 983,273.26	$ 261,160.02	$ 388,594.89	$ 76,431.95	$ 93,217.53	$1,453.04	$52,142.56	$ 5,044,087.12
2027	11	$2,964,666.90	$ 914,444.13	$ 242,878.82	$ 361,393.25	$ 71,081.71	$ 86,692.30	$1,351.33	$48,492.58	$ 4,691,001.02
2028	12	$2,757,140.21	$ 850,433.04	$ 225,877.30	$ 336,095.72	$ 66,105.99	$ 80,623.84	$1,256.73	$45,098.10	$ 4,362,630.95
2029	13	$2,564,140.40	$ 790,902.73	$ 210,065.89	$ 312,569.02	$ 61,478.57	$ 74,980.17	$1,168.76	$41,941.23	$ 4,057,246.78
2030	14	$2,384,650.57	$ 735,539.54	$ 195,361.28	$ 290,689.19	$ 57,175.07	$ 69,731.56	$1,086.95	$39,005.34	$ 3,773,239.51
2031	15	$2,217,725.03	$ 684,051.77	$ 181,685.99	$ 270,340.95	$ 53,172.82	$ 64,850.35	$1,010.86	$36,274.97	$ 3,509,112.74
2032	16	$2,062,484.28	$ 636,168.15	$ 168,967.97	$ 251,417.08	$ 49,450.72	$ 60,310.83	$940.10	$33,735.72	$ 3,263,474.85
2033	17	$1,918,110.38	$ 591,636.38	$ 157,140.21	$ 233,817.89	$ 45,989.17	$ 56,089.07	$874.30	$31,374.22	$ 3,035,031.61
2034	18	$1,783,842.65	$ 550,221.83	$ 146,140.40	$ 217,450.63	$ 42,769.93	$ 52,162.84	$813.09	$29,178.03	$ 2,822,579.40
2035	19	$1,658,973.67	$ 511,706.30	$ 135,910.57	$ 202,229.09	$ 39,776.03	$ 48,511.44	$756.18	$27,135.56	$ 2,624,998.84
2036	20	$1,542,845.51	$ 475,886.86	$ 126,396.83	$ 188,073.05	$ 36,991.71	$ 45,115.64	$703.25	$25,236.08	$ 2,441,248.92
2037	21	$1,434,846.32	$ 442,574.78	$ 117,549.05	$ 174,907.94	$ 34,402.29	$ 41,957.54	$654.02	$23,469.55	$ 2,270,361.50
2038	22	$1,334,407.08	$ 411,594.55	$ 109,320.62	$ 162,664.38	$ 31,994.13	$ 39,020.51	$608.24	$21,826.68	$ 2,111,436.19
2039	23	$1,240,998.59	$ 382,782.93	$ 101,668.17	$ 151,277.88	$ 29,754.54	$ 36,289.08	$565.66	$20,298.81	$ 1,963,635.66
2040	24	$1,154,128.68	$ 355,988.12	$ 94,551.40	$ 140,688.43	$ 27,671.72	$ 33,748.84	$526.06	$18,877.90	$ 1,826,181.16
2041	25	$1,073,339.68	$ 331,068.95	$ 87,932.80	$ 130,840.24	$ 25,734.70	$ 31,386.42	$489.24	$17,556.44	$ 1,698,348.48
2042	26	$998,205.90	$ 307,894.13	$ 81,777.51	$ 121,681.42	$ 23,933.27	$ 29,189.37	$454.99	$16,327.49	$ 1,579,464.09
2043	27	$928,331.49	$ 286,341.54	$ 76,053.08	$ 113,163.72	$ 22,257.94	$ 27,146.12	$423.14	$15,184.57	$ 1,468,901.60
2044	28	$863,348.28	$ 266,297.63	$ 70,729.37	$ 105,242.26	$ 20,699.89	$ 25,245.89	$393.52	$14,121.65	$ 1,366,078.49
2045	29	$802,913.90	$ 247,656.80	$ 65,778.31	$ 97,875.30	$ 19,250.90	$ 23,478.68	$365.98	$13,133.13	$ 1,270,452.99
2046	30	$746,709.93	$ 230,320.82	$ 61,173.83	$ 91,024.03	$ 17,903.33	$ 21,835.17	$340.36	$12,213.81	$ 1,181,521.29
Residual	31-100	$144,600.06	$ 21,654.30							$ 166,254.36
									Total Benefit:	$136,953,946.91
									BCR:	1.64

1 - Referenced in Factor 3 Narrative

2 - See Calculation at bottom of table

Project Type - Residential Acquisition and Relocation

IMPLEMENTATION COSTS

Calendar Year	Project Year	Acquisition cost/home[1]	Homes acquired	Acquisition Total	Stipend to Remain in City	Payouts to Remain in City	Total Payouts to Remain in City	Stipend to Remain in Area	Payouts to Remain in Area	Total Payouts to Remain in Area	Total Cost
2017	1	$ 184,200.00	24	$ 4,420,800.00	$92,100	12	$1,105,200	$46,050	6.0	$276,300	$ 5,802,300.00
2018	2	$ 184,200.00	23	$ 4,236,600.00	$92,100	12	$1,059,150	$46,050	5.75	$264,788	$ 5,560,537.50
2019	3	$ 184,200.00	21	$ 3,868,200.00	$92,100	10.5	$967,050	$46,050	5.25	$241,763	$ 5,077,012.50
2020	4	$ 184,200.00	21	$ 3,868,200.00	$92,100	10.5	$967,050	$46,050	5.25	$241,763	$ 5,077,012.50
2021	5	$ 184,200.00	21	$ 3,868,200.00	$92,100	10.5	$967,050	$46,050	5.25	$241,763	$ 5,077,012.50
2022	6	$ 184,200.00	21	$ 3,868,200.00	$92,100	10.5	$967,050	$46,050	5.25	$241,763	$ 5,077,012.50
										Total Cost	$ 31,670,887.50

IMPLEMENTATION BENEFITS

		Economic - Tax Revenue Retained			Social - Improved LMI Housing			Resiliency - Loss Reduction					Environmental - Riparian Areas & Green Space							
Calendar Year	Project Year	Lost Community Tax Revenue (Discounted at 7%)	Homes retained	Retained Tax Revenue Total	Retention Stipends (Discounted at 7%)	LMI Percentage	LMI Benefit Total	Loss Reduction per Home (Discounted at 7%)		Homes without Claims		Loss Reduction Benefit Total	Acres of New Riparian Area	New Riparian Area Value (Discounted at 7%)	New Riparian Area Total	Acres of New Green Space	New Green Space Value (Discounted at 7%)	New Green Space Total	Total Environmental Benefit	Total Benefit
2017	1	$ 860.91	18.0	$ 15,496.38	$1,381,500	41.19%	$569,039.85	$186.14		24		$4,467.36	150	$37,493	$5,623,950	50	$ 7,853.00	$392,650	$6,016,600	$6,605,603.59
2018	2	$ 800.65	35.25	$ 28,222.78	$1,231,262	41.19%	$507,156.77	$173.11		47		$8,136.18	150	$34,868	$5,230,274	50	$ 7,303.29	$365,165	$5,595,438	$6,138,953.73
2019	3	$ 744.60	51.00	$ 37,974.65	$1,045,502	41.19%	$430,642.25	$160.99		68		$10,947.49	150	$32,428	$4,864,154	50	$ 6,792.06	$339,603	$5,203,757	$5,683,321.73
2020	4	$ 692.48	66.75	$ 46,222.97	$972,317	41.19%	$400,497.29	$149.72		89		$13,325.35	150	$30,158	$4,523,664	50	$ 6,316.62	$315,831	$4,839,494	$5,299,539.93
2021	5	$ 644.01	82.50	$ 53,130.45	$904,255	41.19%	$372,462.48	$139.24		110		$15,316.66	150	$28,047	$4,207,007	50	$ 5,874.45	$293,723	$4,500,730	$4,941,639.32
2022	6	$ 598.93	98.25	$ 58,844.39				$129.50		131		$16,963.90	150	$26,083	$3,912,517	50	$ 5,463.24	$273,162	$4,185,679	$4,261,486.93
2023	7	$ 557.00	98.25	$ 54,725.28				$120.43		131		$15,776.43	150	$24,258	$3,638,640	50	$ 5,080.81	$254,041	$3,892,681	$3,963,182.85
2024	8	$ 518.01	98.25	$ 50,894.51				$112.00		131		$14,672.08	150	$22,560	$3,383,936	50	$ 4,725.16	$236,258	$3,620,193	$3,685,760.05
2025	9	$ 481.75	98.25	$ 47,331.90				$104.16		131		$13,645.03	150	$20,980	$3,147,060	50	$ 4,394.40	$219,720	$3,366,780	$3,427,756.84
2026	10	$ 448.03	98.25	$ 44,018.66				$96.87		131		$12,689.88	150	$19,512	$2,926,766	50	$ 4,086.79	$204,339	$3,131,105	$3,187,813.87
2027	11	$ 416.67	98.25	$ 40,937.36				$90.09		131		$11,801.59	150	$18,146	$2,721,892	50	$ 3,800.71	$190,036	$2,911,928	$2,964,666.90
2028	12	$ 387.50	98.25	$ 38,071.74				$83.78		131		$10,975.48	150	$16,876	$2,531,360	50	$ 3,534.66	$176,733	$2,708,093	$2,757,140.21
2029	13	$ 360.37	98.25	$ 35,406.72				$77.92		131		$10,207.19	150	$15,694	$2,354,165	50	$ 3,287.24	$164,362	$2,518,526	$2,564,140.40
2030	14	$ 335.15	98.25	$ 32,928.25				$72.46		131		$9,492.69	150	$14,596	$2,189,373	50	$ 3,057.13	$152,857	$2,342,230	$2,384,650.57
2031	15	$ 311.69	98.25	$ 30,623.27				$67.39		131		$8,828.20	150	$13,574	$2,036,117	50	$ 2,843.13	$142,157	$2,178,274	$2,217,725.03
2032	16	$ 289.87	98.25	$ 28,479.64				$62.67		131		$8,210.23	150	$12,624	$1,893,589	50	$ 2,644.11	$132,206	$2,025,794	$2,062,484.28
2033	17	$ 269.58	98.25	$ 26,486.07				$58.29		131		$7,635.51	150	$11,740	$1,761,038	50	$ 2,459.02	$122,951	$1,883,989	$1,918,110.38
2034	18	$ 250.71	98.25	$ 24,632.04				$54.21		131		$7,101.03	150	$10,918	$1,637,765	50	$ 2,286.89	$114,345	$1,752,110	$1,783,842.65
2035	19	$ 233.16	98.25	$ 22,907.80				$50.41		131		$6,603.95	150	$10,154	$1,523,121	50	$ 2,126.81	$106,340	$1,629,462	$1,658,973.67
2036	20	$ 216.84	98.25	$ 21,304.25				$46.88		131		$6,141.68	150	$9,443	$1,416,503	50	$ 1,977.93	$98,897	$1,515,400	$1,542,845.51
2037	21	$ 201.66	98.25	$ 19,812.96				$43.60		131		$5,711.76	150	$8,782	$1,317,348	50	$ 1,839.48	$91,974	$1,409,322	$1,434,846.32
2038	22	$ 187.54	98.25	$ 18,426.05				$40.55		131		$5,311.94	150	$8,168	$1,225,133	50	$ 1,710.71	$85,536	$1,310,669	$1,334,407.08
2039	23	$ 174.41	98.25	$ 17,136.23				$37.71		131		$4,940.10	150	$7,596	$1,139,374	50	$ 1,590.96	$79,548	$1,218,922	$1,240,998.59
2040	24	$ 162.21	98.25	$ 15,936.69				$35.07		131		$4,594.29	150	$7,064	$1,059,618	50	$ 1,479.60	$73,980	$1,133,598	$1,154,128.68
2041	25	$ 150.85	98.25	$ 14,821.12				$32.62		131		$4,272.69	150	$6,570	$985,445	50	$ 1,376.03	$68,801	$1,054,246	$1,073,339.68
2042	26	$ 140.29	98.25	$ 13,783.64				$30.33		131		$3,973.61	150	$6,110	$916,463	50	$ 1,279.70	$63,985	$980,449	$998,205.90
2043	27	$ 130.47	98.25	$ 12,818.79				$28.21		131		$3,695.45	150	$5,682	$852,311	50	$ 1,190.12	$59,506	$911,817	$928,331.49
2044	28	$ 121.34	98.25	$ 11,921.47				$26.23		131		$3,436.77	150	$5,284	$792,649	50	$ 1,106.82	$55,341	$847,990	$863,348.28
2045	29	$ 112.84	98.25	$ 11,086.97				$24.40		131		$3,196.20	150	$4,914	$737,164	50	$ 1,029.34	$51,467	$788,631	$802,913.90
2046	30	$ 104.95	98.25	$ 10,310.88				$22.69		131		$2,972.46	150	$4,570	$685,562	50	$ 957.28	$47,864	$733,427	$746,709.93
Residual	31-100	$ 1,443.62	98.25	$ 141,835.67				$21.10		131		$2,764.39								$144,600.06
																			Total Benefit	$73,165,864.74

Project Type - Commercial Acquisition and Relocation

IMPLEMENTATION COSTS

Calendar Year	Project Year	Acquisition cost/building[1]	Businesses Acquired	Acquisition Total	Stipend to Remain in City	Payouts to Remain in City	Total Payouts to Remain in City	Total Cost
2017	1	$ 184,200.00	3	$ 552,600.00	$92,100	3	$276,300	$ 828,900.00
2018	2	$ 184,200.00	3	$ 552,600.00	$92,100	3	$276,300	$ 828,900.00
2019	3	$ 184,200.00	3	$ 552,600.00	$92,100	3	$276,300	$ 828,900.00
2020	4	$ 184,200.00	3	$ 552,600.00	$92,100	3	$276,300	$ 828,900.00
2021	5	$ 184,200.00	3	$ 552,600.00	$92,100	3	$276,300	$ 828,900.00
2022	6	$ 184,200.00	0	$ -	$92,100	0	$0	$ -
								$ 4,144,500.00

IMPLEMENTATION BENEFITS

		Economic - Tax Revenue Retained			Environmental - Riparian Areas			
Calendar Year	Project Year	Lost Community Tax Revenue	Businesses acquired	Tax Revenue Total (Discounted at 7%)	Acres of New Riparian Area	New Riparian Area Value	New Riparian Area Total (Discounted at 7%)	Total Benefit
2017	1	$ 984.43	3	$ 2,953.29	50	$37,493	$1,874,650	$ 1,877,603.29
2018	2	$ 915.52	6	$ 5,493.12	50	$34,868	$1,743,425	$ 1,748,917.62
2019	3	$ 851.43	9	$ 7,662.90	50	$32,428	$1,621,385	$ 1,629,047.69
2020	4	$ 791.83	12	$ 9,502.00	50	$30,158	$1,507,888	$ 1,517,389.85
2021	5	$ 736.40	15	$ 11,046.07	50	$28,047	$1,402,336	$ 1,413,381.77
2022	6	$ 684.86	15	$ 10,272.85	50	$26,083	$1,304,172	$ 1,314,445.05
2023	7	$ 636.92	15	$ 9,553.75	50	$24,258	$1,212,880	$ 1,222,433.90
2024	8	$ 592.33	15	$ 8,884.99	50	$22,560	$1,127,979	$ 1,136,863.52
2025	9	$ 550.87	15	$ 8,263.04	50	$20,980	$1,049,020	$ 1,057,283.08
2026	10	$ 512.31	15	$ 7,684.62	50	$19,512	$975,589	$ 983,273.26
2027	11	$ 476.45	15	$ 7,146.70	50	$18,146	$907,297	$ 914,444.13
2028	12	$ 443.10	15	$ 6,646.43	50	$16,876	$843,787	$ 850,433.04
2029	13	$ 412.08	15	$ 6,181.18	50	$15,694	$784,722	$ 790,902.73
2030	14	$ 383.23	15	$ 5,748.50	50	$14,596	$729,791	$ 735,539.54
2031	15	$ 356.41	15	$ 5,346.10	50	$13,574	$678,706	$ 684,051.77
2032	16	$ 331.46	15	$ 4,971.88	50	$12,624	$631,196	$ 636,168.15
2033	17	$ 308.26	15	$ 4,623.85	50	$11,740	$587,013	$ 591,636.38
2034	18	$ 286.68	15	$ 4,300.18	50	$10,918	$545,922	$ 550,221.83
2035	19	$ 266.61	15	$ 3,999.16	50	$10,154	$507,707	$ 511,706.30
2036	20	$ 247.95	15	$ 3,719.22	50	$9,443	$472,168	$ 475,886.86
2037	21	$ 230.59	15	$ 3,458.88	50	$8,782	$439,116	$ 442,574.78
2038	22	$ 214.45	15	$ 3,216.76	50	$8,168	$408,378	$ 411,594.55
2039	23	$ 199.44	15	$ 2,991.58	50	$7,596	$379,791	$ 382,782.93
2040	24	$ 185.48	15	$ 2,782.17	50	$7,064	$353,206	$ 355,988.12
2041	25	$ 172.49	15	$ 2,587.42	50	$6,570	$328,482	$ 331,068.95
2042	26	$ 160.42	15	$ 2,406.30	50	$6,110	$305,488	$ 307,894.13
2043	27	$ 149.19	15	$ 2,237.86	50	$5,682	$284,104	$ 286,341.54
2044	28	$ 138.75	15	$ 2,081.21	50	$5,284	$264,216	$ 266,297.63
2045	29	$ 129.03	15	$ 1,935.52	50	$4,914	$245,721	$ 247,656.80
2046	30	$ 120.00	15	$ 1,800.04	50	$4,570	$228,521	$ 230,320.82
Residual	31-100	$ 1,443.62	15	$ 21,654.30				$ 21,654.30
Total Benefit								$ 23,925,804.31

1- Cost Description and Justification Referenced in BCA Narrative Table

Project Type - Stormwater Management

IMPLEMENTATION COSTS

Calendar Year	Project Year	Infrastructure Investment Cost	Feet of Roadway Improved	Total Infrastructure Investment	O&M Costs per Linear Foot	Linear Feet	Total Cost	Total Cost
2017	1	$ 165.40	10648	$ 1,761,179.20	$ 1.50	10648	$ 15,972.00	$ 1,777,151.20
2018	2	$ 165.40	10648	$ 1,761,179.20	$ 1.50	21296	$ 31,944.00	$ 1,793,123.20
2019	3	$ 165.40	10648	$ 1,761,179.20	$ 1.50	31944	$ 47,916.00	$ 1,809,095.20
2020	4	$ 165.40	10647	$ 1,761,013.80	$ 1.50	42591	$ 63,886.50	$ 1,824,900.30
2021	5	$ 165.40	10647	$ 1,761,013.80	$ 1.50	53238	$ 79,857.00	$ 1,840,870.80
2022	6	$ 165.40	10647	$ 1,761,013.80	$ 1.50	63885	$ 95,827.50	$ 1,856,841.30
2023	7				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2024	8				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2025	9				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2026	10				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2027	11				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2028	12				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2029	13				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2030	14				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2031	15				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2032	16				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2033	17				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2034	18				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2035	19				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2036	20				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2037	21				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2038	22				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2039	23				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2040	24				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2041	25				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2042	26				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2043	27				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2044	28				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2045	29				$ 1.50	63885	$ 95,827.50	$ 95,827.50
2046	30				$ 1.50	63885	$ 95,827.50	$ 95,827.50
							Total Cost	$ 13,201,842.00

IMPLEMENTATION BENEFITS

		Resiliency - Basement Flooding & Mold Eradication			Social - Improved LMI Neighborhoods			Economic - Minimized O&M Costs for Porous Pavement			
Calendar Year	Project Year	Impacted Structures	Cost per Structure	Mold Eradication Total	Community Investment (discounted at 7%)	LMI %	LMI Benefit Total	Annual Cost Savings per Foot per Year, discounted at 7%	Feet of Porous Pavement	Economic Benefit Total	Benefits Total
2017	1	250	$1,500	$375,000	$ 1,777,151.20	41.19%	$ 732,008.58	$ 5.47	2662	$ 14,561.14	$ 1,121,569.72
2018	2	250	$1,395.00	$348,750	$ 1,667,604.58	41.19%	$ 686,886.32	$ 5.09	5324	$ 27,083.72	$ 1,062,720.05
2019	3	250	$1,297.35	$324,338	$ 1,564,686.44	41.19%	$ 644,494.34	$ 4.73	7986	$ 37,781.79	$ 1,006,613.63
2020	4	250	$1,206.54	$301,634	$ 1,467,871.33	41.19%	$ 604,616.20	$ 4.40	10647.75	$ 46,848.32	$ 953,098.40
2021	5	250	$1,122.08	$280,520	$ 1,377,067.10	41.19%	$ 567,213.94	$ 4.09	13309.5	$ 54,460.40	$ 902,193.85
2022	6	250	$1,043.53	$260,883	$ 1,291,782.90	41.19%	$ 532,085.37	$ 3.81	15971.25	$ 60,777.24	$ 853,745.75
2023	7	250	$970.49	$242,621	$ 61,999.45	41.19%	$ 25,537.57	$ 3.54	15971.25	$ 56,522.83	$ 324,681.73
2024	8	250	$902.55	$225,638	$ 57,659.49	41.19%	$ 23,749.94	$ 3.29	15971.25	$ 52,566.24	$ 301,954.01
2025	9	250	$839.37	$209,843	$ 53,623.33	41.19%	$ 22,087.45	$ 3.06	15971.25	$ 48,886.60	$ 280,817.23
2026	10	250	$780.62	$195,154	$ 49,869.69	41.19%	$ 20,541.33	$ 2.85	15971.25	$ 45,464.54	$ 261,160.02
2027	11	250	$725.97	$181,493	$ 46,378.81	41.19%	$ 19,103.43	$ 2.65	15971.25	$ 42,282.02	$ 242,878.82
2028	12	250	$675.16	$168,789	$ 43,132.30	41.19%	$ 17,766.19	$ 2.46	15971.25	$ 39,322.28	$ 225,877.30
2029	13	250	$627.89	$156,974	$ 40,113.04	41.19%	$ 16,522.56	$ 2.29	15971.25	$ 36,569.72	$ 210,065.89
2030	14	250	$583.94	$145,985	$ 37,305.12	41.19%	$ 15,365.98	$ 2.13	15971.25	$ 34,009.84	$ 195,361.28
2031	15	250	$543.07	$135,766	$ 34,693.77	41.19%	$ 14,290.36	$ 1.98	15971.25	$ 31,629.15	$ 181,685.99
2032	16	250	$505.05	$126,263	$ 32,265.20	41.19%	$ 13,290.04	$ 1.84	15971.25	$ 29,415.11	$ 168,967.97
2033	17	250	$469.70	$117,424	$ 30,006.64	41.19%	$ 12,359.73	$ 1.71	15971.25	$ 27,356.05	$ 157,140.21
2034	18	250	$436.82	$109,205	$ 27,906.17	41.19%	$ 11,494.55	$ 1.59	15971.25	$ 25,441.13	$ 146,140.40
2035	19	250	$406.24	$101,560	$ 25,952.74	41.19%	$ 10,689.93	$ 1.48	15971.25	$ 23,660.25	$ 135,910.57
2036	20	250	$377.80	$94,451	$ 24,136.05	41.19%	$ 9,941.64	$ 1.38	15971.25	$ 22,004.03	$ 126,396.83
2037	21	250	$351.36	$87,840	$ 22,446.53	41.19%	$ 9,245.72	$ 1.28	15971.25	$ 20,463.75	$ 117,549.05
2038	22	250	$326.76	$81,691	$ 20,875.27	41.19%	$ 8,598.52	$ 1.19	15971.25	$ 19,031.29	$ 109,320.62
2039	23	250	$303.89	$75,972	$ 19,414.00	41.19%	$ 7,996.63	$ 1.11	15971.25	$ 17,699.10	$ 101,668.17
2040	24	250	$282.62	$70,654	$ 18,055.02	41.19%	$ 7,436.86	$ 1.03	15971.25	$ 16,460.16	$ 94,551.40
2041	25	250	$262.83	$65,709	$ 16,791.17	41.19%	$ 6,916.28	$ 0.96	15971.25	$ 15,307.95	$ 87,932.80
2042	26	250	$244.44	$61,109	$ 15,615.79	41.19%	$ 6,432.14	$ 0.89	15971.25	$ 14,236.39	$ 81,777.51
2043	27	250	$227.33	$56,831	$ 14,522.68	41.19%	$ 5,981.89	$ 0.83	15971.25	$ 13,239.84	$ 76,053.08
2044	28	250	$211.41	$52,853	$ 13,506.09	41.19%	$ 5,563.16	$ 0.77	15971.25	$ 12,313.06	$ 70,729.37
2045	29	250	$196.61	$49,153	$ 12,560.67	41.19%	$ 5,173.74	$ 0.72	15971.25	$ 11,451.14	$ 65,778.31
2046	30	250	$182.85	$45,713	$ 11,681.42	41.19%	$ 4,811.58	$ 0.67	15971.25	$ 10,649.56	$ 61,173.83
										Total Benefit	$ 8,603,944.04

Project Type - Bank Stabilization

IMPLEMENTATION COSTS

Calendar Year	Project Year	Bank Stabilization cost/linear ft[1]	Linear ft acquired	Bank Stabilization Total
2017	1	$ 325.56	4865	$ 1,583,849.40

IMPLEMENTATION BENEFITS

		Resiliency - Critical Infrastructure Protection	Social - Improved LMI Neighborhoods

Calendar Year	Project Year	Reduced Risk to Vulnerable Infrastructure[2] (Discounted at 7%)	Resiliency Benefit Unit	Resiliency Benefit Total	Community Investment (discounted at 7%)	LMI %	LMI Benefit Total	Discounted Benefit
2017	1	$ 94,320.00	1	$ 94,320.00	$ 1,583,849.40	41.19%	$ 652,387.57	$ 746,707.57
2018	2	$ 87,717.60	1	$ 87,717.60	$ 1,472,979.94	41.19%	$ 606,720.44	$ 694,438.04
2019	3	$ 81,577.37	1	$ 81,577.37	$ 1,369,871.35	41.19%	$ 564,250.01	$ 645,827.38
2020	4	$ 75,866.95	1	$ 75,866.95	$ 1,273,980.35	41.19%	$ 524,752.51	$ 600,619.46
2021	5	$ 70,556.27	1	$ 70,556.27	$ 1,184,801.73	41.19%	$ 488,019.83	$ 558,576.10
2022	6	$ 65,617.33	1	$ 65,617.33	$ 1,101,865.61	41.19%	$ 453,858.44	$ 519,475.77
2023	7	$ 61,024.11	1	$ 61,024.11	$ 1,024,735.01	41.19%	$ 422,088.35	$ 483,112.47
2024	8	$ 56,752.43	1	$ 56,752.43	$ 953,003.56	41.19%	$ 392,542.17	$ 449,294.59
2025	9	$ 52,779.76	1	$ 52,779.76	$ 886,293.31	41.19%	$ 365,064.22	$ 417,843.97
2026	10	$ 49,085.17	1	$ 49,085.17	$ 824,252.78	41.19%	$ 339,509.72	$ 388,594.89
2027	11	$ 45,649.21	1	$ 45,649.21	$ 766,555.09	41.19%	$ 315,744.04	$ 361,393.25
2028	12	$ 42,453.77	1	$ 42,453.77	$ 712,896.23	41.19%	$ 293,641.96	$ 336,095.72
2029	13	$ 39,482.00	1	$ 39,482.00	$ 662,993.49	41.19%	$ 273,087.02	$ 312,569.02
2030	14	$ 36,718.26	1	$ 36,718.26	$ 616,583.95	41.19%	$ 253,970.93	$ 290,689.19
2031	15	$ 34,147.98	1	$ 34,147.98	$ 573,423.07	41.19%	$ 236,192.96	$ 270,340.95
2032	16	$ 31,757.63	1	$ 31,757.63	$ 533,283.46	41.19%	$ 219,659.46	$ 251,417.08
2033	17	$ 29,534.59	1	$ 29,534.59	$ 495,953.62	41.19%	$ 204,283.29	$ 233,817.89
2034	18	$ 27,467.17	1	$ 27,467.17	$ 461,236.86	41.19%	$ 189,983.46	$ 217,450.63
2035	19	$ 25,544.47	1	$ 25,544.47	$ 428,950.28	41.19%	$ 176,684.62	$ 202,229.09
2036	20	$ 23,756.36	1	$ 23,756.36	$ 398,923.76	41.19%	$ 164,316.70	$ 188,073.05
2037	21	$ 22,093.41	1	$ 22,093.41	$ 370,999.10	41.19%	$ 152,814.53	$ 174,907.94
2038	22	$ 20,546.87	1	$ 20,546.87	$ 345,029.16	41.19%	$ 142,117.51	$ 162,664.38
2039	23	$ 19,108.59	1	$ 19,108.59	$ 320,877.12	41.19%	$ 132,169.29	$ 151,277.88
2040	24	$ 17,770.99	1	$ 17,770.99	$ 298,415.72	41.19%	$ 122,917.44	$ 140,688.43
2041	25	$ 16,527.02	1	$ 16,527.02	$ 277,526.62	41.19%	$ 114,313.22	$ 130,840.24
2042	26	$ 15,370.13	1	$ 15,370.13	$ 258,099.76	41.19%	$ 106,311.29	$ 121,681.42
2043	27	$ 14,294.22	1	$ 14,294.22	$ 240,032.78	41.19%	$ 98,869.50	$ 113,163.72
2044	28	$ 13,293.62	1	$ 13,293.62	$ 223,230.48	41.19%	$ 91,948.64	$ 105,242.26
2045	29	$ 12,363.07	1	$ 12,363.07	$ 207,604.35	41.19%	$ 85,512.23	$ 97,875.30
2046	30	$ 11,497.66	1	$ 11,497.66	$ 193,072.04	41.19%	$ 79,526.37	$ 91,024.03
								$ 9,457,931.71

1- Based on Costs Referenced in Musselshell WPP Feasibility Technical Study

2- Based on Damage to City of Roundup Water Facility during 2011 Flood

Project Type - Flood Control

IMPLEMENTATION COSTS

Calendar Year	Project Year	Cost per Linear Foot	Linear Feet	Acquisition Total	O&M Cost per Linear Foot (Discounted at 7%)	Linear Feet	O&M Cost Total	Total Cost
2017	1	$1,265	1876	$2,373,308.84	$ 2.69	1876	$ 5,046.44	$2,378,355.28
2018	2	$1,265	1876	$2,373,308.84	$ 2.69	3752	$ 10,092.88	$2,383,401.72
2019	3	$1,265	1876	$2,373,308.84	$ 2.69	5628	$ 15,139.32	$2,388,448.16
2020	4	$1,265	1876	$2,373,308.84	$ 2.69	7504	$ 20,185.76	$2,393,494.60
2021	5	$1,265	1876	$2,373,308.84	$ 2.69	9380	$ 25,232.20	$2,398,541.04
2022	6	$1,265	1876	$2,373,308.84	$ 2.69	11256	$ 30,278.64	$2,403,587.48
2023	7				$ 2.69	11256	$ 30,278.64	$30,278.64
2024	8				$ 2.69	11256	$ 30,278.64	$30,278.64
2025	9				$ 2.69	11256	$ 30,278.64	$30,278.64
2026	10				$ 2.69	11256	$ 30,278.64	$30,278.64
2027	11				$ 2.69	11256	$ 30,278.64	$30,278.64
2028	12				$ 2.69	11256	$ 30,278.64	$30,278.64
2029	13				$ 2.69	11256	$ 30,278.64	$30,278.64
2030	14				$ 2.69	11256	$ 30,278.64	$30,278.64
2031	15				$ 2.69	11256	$ 30,278.64	$30,278.64
2032	16				$ 2.69	11256	$ 30,278.64	$30,278.64
2033	17				$ 2.69	11256	$ 30,278.64	$30,278.64
2034	18				$ 2.69	11256	$ 30,278.64	$30,278.64
2035	19				$ 2.69	11256	$ 30,278.64	$30,278.64
2036	20				$ 2.69	11256	$ 30,278.64	$30,278.64
2037	21				$ 2.69	11256	$ 30,278.64	$30,278.64
2038	22				$ 2.69	11256	$ 30,278.64	$30,278.64
2039	23				$ 2.69	11256	$ 30,278.64	$30,278.64
2040	24				$ 2.69	11256	$ 30,278.64	$30,278.64
2041	25				$ 2.69	11256	$ 30,278.64	$30,278.64
2042	26				$ 2.69	11256	$ 30,278.64	$30,278.64
2043	27				$ 2.69	11256	$ 30,278.64	$30,278.64
2044	28				$ 2.69	11256	$ 30,278.64	$30,278.64
2045	29				$ 2.69	11256	$ 30,278.64	$30,278.64
2046	30				$ 2.69	11256	$ 30,278.64	$30,278.64
								$15,072,515.64

IMPLEMENTATION BENEFITS

		Resiliency - Infrastructure Protection			Social - Improved LMI Neighborhoods			
Calendar Year	Project Year	Protection per Foot/Yr	Linear Feet	Protection Benefit Total	Community Investment (discounted at 7%)	LMI %	LMI Benefit Total	Discounted Benefit
2017	1	$ 11.94	1876	$ 22,399.44	$2,378,355.28	41.19%	$979,644.54	$ 1,002,043.98
2018	2	$ 11.10	3752	$ 41,662.96	$2,216,563.60	41.19%	$913,002.55	$ 954,665.51
2019	3	$ 10.33	5628	$ 58,119.83	$2,065,768.81	41.19%	$850,890.17	$ 909,010.00
2020	4	$ 9.60	7504	$ 72,068.59	$1,925,224.14	41.19%	$792,999.82	$ 865,068.41
2021	5	$ 8.93	9380	$ 83,779.73	$1,794,233.45	41.19%	$739,044.76	$ 822,824.49
2022	6	$ 8.31	11256	$ 93,498.18	$1,672,147.85	41.19%	$688,757.70	$ 782,255.88
2023	7	$ 7.73	11256	$ 86,953.31	$19,589.98	41.19%	$8,069.11	$ 95,022.42
2024	8	$ 7.18	11256	$ 80,866.58	$18,218.68	41.19%	$7,504.28	$ 88,370.85

2025	9	$ 6.68	11256	$ 75,205.92	$16,943.38	41.19%	$6,978.98	$ 82,184.89
2026	10	$ 6.21	11256	$ 69,941.50	$15,757.34	41.19%	$6,490.45	$ 76,431.95
2027	11	$ 5.78	11256	$ 65,045.60	$14,654.33	41.19%	$6,036.12	$ 71,081.71
2028	12	$ 5.37	11256	$ 60,492.40	$13,628.52	41.19%	$5,613.59	$ 66,105.99
2029	13	$ 5.00	11256	$ 56,257.94	$12,674.53	41.19%	$5,220.64	$ 61,478.57
2030	14	$ 4.65	11256	$ 52,319.88	$11,787.31	41.19%	$4,855.19	$ 57,175.07
2031	15	$ 4.32	11256	$ 48,657.49	$10,962.20	41.19%	$4,515.33	$ 53,172.82
2032	16	$ 4.02	11256	$ 45,251.46	$10,194.84	41.19%	$4,199.26	$ 49,450.72
2033	17	$ 3.74	11256	$ 42,083.86	$9,481.21	41.19%	$3,905.31	$ 45,989.17
2034	18	$ 3.48	11256	$ 39,137.99	$8,817.52	41.19%	$3,631.94	$ 42,769.93
2035	19	$ 3.23	11256	$ 36,398.33	$8,200.29	41.19%	$3,377.70	$ 39,776.03
2036	20	$ 3.01	11256	$ 33,850.45	$7,626.27	41.19%	$3,141.26	$ 36,991.71
2037	21	$ 2.80	11256	$ 31,480.92	$7,092.43	41.19%	$2,921.37	$ 34,402.29
2038	22	$ 2.60	11256	$ 29,277.25	$6,595.96	41.19%	$2,716.88	$ 31,994.13
2039	23	$ 2.42	11256	$ 27,227.85	$6,134.25	41.19%	$2,526.70	$ 29,754.54
2040	24	$ 2.25	11256	$ 25,321.90	$5,704.85	41.19%	$2,349.83	$ 27,671.72
2041	25	$ 2.09	11256	$ 23,549.36	$5,305.51	41.19%	$2,185.34	$ 25,734.70
2042	26	$ 1.95	11256	$ 21,900.91	$4,934.12	41.19%	$2,032.37	$ 23,933.27
2043	27	$ 1.81	11256	$ 20,367.84	$4,588.74	41.19%	$1,890.10	$ 22,257.94
2044	28	$ 1.68	11256	$ 18,942.10	$4,267.52	41.19%	$1,757.79	$ 20,699.89
2045	29	$ 1.57	11256	$ 17,616.15	$3,968.80	41.19%	$1,634.75	$ 19,250.90
2046	30	$ 1.46	11256	$ 16,383.02	$3,690.98	41.19%	$1,520.32	$ 17,903.33
								$ 6,455,472.84

1- Cost Description and Justification Referenced in BCA Narrative Table

Project Type - Trails and Improvements

IMPLEMENTATION COSTS

Calendar Year	Project Year	Cost per Acre for Improvement	Acres to be Improved (see above)	Total Cost	Acres of Acquired Area (see above)	O&M Cost/Acre	Cost	Discounted Cost
2017	1	$93,309	25	$2,332,725	250	$100	$25,000	$2,357,725
2018	2	$93,309	25	$2,332,725	250	$100	$25,000	$2,357,725
2019	3	$93,309	25	$2,332,725	250	$100	$25,000	$2,357,725
2020	4				250	$100	$25,000	$25,000
2021	5				250	$100	$25,000	$25,000
2022	6				250	$100	$25,000	$25,000
2023	7				250	$100	$25,000	$25,000
2024	8				250	$100	$25,000	$25,000
2025	9				250	$100	$25,000	$25,000
2026	10				250	$100	$25,000	$25,000
2027	11				250	$100	$25,000	$25,000
2028	12				250	$100	$25,000	$25,000
2029	13				250	$100	$25,000	$25,000
2030	14				250	$100	$25,000	$25,000
2031	15				250	$100	$25,000	$25,000
2032	16				250	$100	$25,000	$25,000
2033	17				250	$100	$25,000	$25,000
2034	18				250	$100	$25,000	$25,000
2035	19				250	$100	$25,000	$25,000
2036	20				250	$100	$25,000	$25,000
2037	21				250	$100	$25,000	$25,000
2038	22				250	$100	$25,000	$25,000
2039	23				250	$100	$25,000	$25,000
2040	24				250	$100	$25,000	$25,000
2041	25				250	$100	$25,000	$25,000
2042	26				250	$100	$25,000	$25,000
2043	27				250	$100	$25,000	$25,000
2044	28				250	$100	$25,000	$25,000
2045	29				250	$100	$25,000	$25,000
2046	30				250	$100	$25,000	$25,000
Residual	31-100							

IMPLEMENTATION BENEFITS

Calendar Year	Project Year	New Park Users	Health Benefit from added park users (discounted at 7%)	Total Value	SEE ENVIRONMENTAL BENEFITS REFERENCED IN ACQUISITION SEGMENTS	SEE RESILIENCY BENEFITS REFERENCED IN ACQUISITION SEGMENTS	Discounted Benefit
2017	1	0	$ 693.20	$ -			$ -
2018	2	258.4	$ 644.68	$ 166,584.28			$ 166,584.28
2019	3	258.4	$ 599.55	$ 154,923.38			$ 154,923.38
2020	4	258.4	$ 557.58	$ 144,078.74			$ 144,078.74
2021	5	258.4	$ 518.55	$ 133,993.23			$ 133,993.23
2022	6	258.4	$ 482.25	$ 124,613.70			$ 124,613.70
2023	7	258.4	$ 448.49	$ 115,890.74			$ 115,890.74
2024	8	258.4	$ 417.10	$ 107,778.39			$ 107,778.39
2025	9	258.4	$ 387.90	$ 100,233.91			$ 100,233.91
2026	10	258.4	$ 360.75	$ 93,217.53			$ 93,217.53
2027	11	258.4	$ 335.50	$ 86,692.30			$ 86,692.30
2028	12	258.4	$ 312.01	$ 80,623.84			$ 80,623.84
2029	13	258.4	$ 290.17	$ 74,980.17			$ 74,980.17
2030	14	258.4	$ 269.86	$ 69,731.56			$ 69,731.56
2031	15	258.4	$ 250.97	$ 64,850.35			$ 64,850.35
2032	16	258.4	$ 233.40	$ 60,310.83			$ 60,310.83
2033	17	258.4	$ 217.06	$ 56,089.07			$ 56,089.07
2034	18	258.4	$ 201.87	$ 52,162.84			$ 52,162.84
2035	19	258.4	$ 187.74	$ 48,511.44			$ 48,511.44

2036	20	258.4	$ 174.60	$ 45,115.64									$ 45,115.64								
2037	21	258.4	$ 162.37	$ 41,957.54									$ 41,957.54								
2038	22	258.4	$ 151.01	$ 39,020.51									$ 39,020.51								
2039	23	258.4	$ 140.44	$ 36,289.08									$ 36,289.08								
2040	24	258.4	$ 130.61	$ 33,748.84									$ 33,748.84								
2041	25	258.4	$ 121.46	$ 31,386.42									$ 31,386.42								
2042	26	258.4	$ 112.96	$ 29,189.37									$ 29,189.37								
2043	27	258.4	$ 105.05	$ 27,146.12									$ 27,146.12								
2044	28	258.4	$ 97.70	$ 25,245.89									$ 25,245.89								
2045	29	258.4	$ 90.86	$ 23,478.68									$ 23,478.68								
2046	30	258.4	$ 84.50	$ 21,835.17									$ 21,835.17								
1- Cost Description and Justification Referenced in BCA Narrative Table																					

Project Type - Architectural Improvements

IMPLEMENTATION COSTS

Calendar Year	Project Year	Architectural Improvement Cost/Home	Homes Improved	Improvements Total	Total Cost
2017	1	$ 50,000.00	5	$ 250,000.00	$ 250,000.00
2018	2	$ 50,000.00	5	$ 250,000.00	$ 250,000.00
2019	3	$ 50,000.00	5	$ 250,000.00	$ 250,000.00
2020	4	$ 50,000.00	5	$ 250,000.00	$ 250,000.00
2021	5	$ 50,000.00	5	$ 250,000.00	$ 250,000.00
2022	6	$ 50,000.00	5	$ 250,000.00	$ 250,000.00
				Total Cost	$ 1,500,000.00

IMPLEMENTATION BENEFITS

		Social - Improved LMI Housing			Resiliency - Loss Reduction			
Calendar Year	Project Year	Architectural Incentives	LMI Percentage	LMI Benefit Total	Loss Reduction per Home (Discounted at 7%)	Homes without Claims	Loss Reduction Benefit Total	Total Benefit
2017	1	$ 250,000.00	100.00%	$250,000.00	$93.07	5	$465.35	$250,465.35
2018	2	$ 250,000.00	100.00%	$250,000.00	$86.56	10	$865.55	$250,865.55
2019	3	$ 250,000.00	100.00%	$250,000.00	$80.50	15	$1,207.44	$251,207.44
2020	4	$ 250,000.00	100.00%	$250,000.00	$74.86	20	$1,497.23	$251,497.23
2021	5	$ 250,000.00	100.00%	$250,000.00	$69.62	25	$1,740.53	$251,740.53
2022	6				$64.75	30	$1,942.43	$1,942.43
2023	7				$60.22	30	$1,806.46	$1,806.46
2024	8				$56.00	30	$1,680.01	$1,680.01
2025	9				$52.08	30	$1,562.41	$1,562.41
2026	10				$48.43	30	$1,453.04	$1,453.04
2027	11				$45.04	30	$1,351.33	$1,351.33
2028	12				$41.89	30	$1,256.73	$1,256.73
2029	13				$38.96	30	$1,168.76	$1,168.76
2030	14				$36.23	30	$1,086.95	$1,086.95
2031	15				$33.70	30	$1,010.86	$1,010.86
2032	16				$31.34	30	$940.10	$940.10
2033	17				$29.14	30	$874.30	$874.30
2034	18				$27.10	30	$813.09	$813.09
2035	19				$25.21	30	$756.18	$756.18
2036	20				$23.44	30	$703.25	$703.25
2037	21				$21.80	30	$654.02	$654.02
2038	22				$20.27	30	$608.24	$608.24
2039	23				$18.86	30	$565.66	$565.66
2040	24				$17.54	30	$526.06	$526.06
2041	25				$16.31	30	$489.24	$489.24
2042	26				$15.17	30	$454.99	$454.99
2043	27				$14.10	30	$423.14	$423.14
2044	28				$13.12	30	$393.52	$393.52
2045	29				$12.20	30	$365.98	$365.98
2046	30				$11.35	30	$340.36	$340.36
1- Cost Description and Justification Referenced in BCA Narrative Table							**Total Benefit**	$1,279,003.22

Project Type - Critical Infrastructure

IMPLEMENTATION COSTS

Calendar Year	Project Year	Bridge Replacement	Bridges Replaced	Bridges Total	Road Elevation per Mile	Road Elevation Miles	Road Elevation Total	Water Intake	Water Intake Quantity	Water Intake Total	Total Cost
2017	1	$500,000	0	$ -	$5,000,000	0	$ -	$ 2,734,732.00	1	$ 2,734,732.00	$ 2,734,732.00
2018	2	$500,000	0	$ -	$5,000,000	0	$ -	$ 2,734,732.00	0	$ -	$ -
2019	3	$500,000	0	$ -	$5,000,000	0	$ -	$ 2,734,732.00	0	$ -	$ 1,500,000.00
2020	4	$500,000	3	$ 1,500,000.00	$5,000,000	0	$ -	$ 2,734,732.00	0	$ -	$ 1,500,000.00
2021	5	$500,000	3	$ 1,500,000.00	$5,000,000	0	$ -	$ 2,734,732.00	0	$ -	$ 1,500,000.00
2022	6	$500,000	3	$ 1,500,000.00	$5,000,000	0.25	$ 1,250,000.00	$ 2,734,732.00	0	$ -	$ 1,250,000.00
										Total Cost	$ 8,484,732.00

IMPLEMENTATION BENEFITS

		Resiliency - Loss Reduction			Social - Improved LMI Facilities			Economic - Lengthened Trip Time			
Calendar Year	Project Year	Infrastructure Loss Reduction	No-Loss Unit	Loss Reduction Benefit Total	Architectural Incentives	LMI Percentage	LMI Benefit Total	Detour Cost	Detour Days	Detour Total	Total Benefit
2017	1	$54,694.94	1	$54,694.94	$ 2,734,732.00	41.19%	$1,126,436.11	$ 455,000.00	0.1	$45,500.00	$1,226,631.05
2018	2	$50,866.29	1	$50,866.29	$ -	41.19%	$0.00	$ 423,150.00	0.1	$42,315.00	$93,181.29
2019	3	$47,305.65	1	$47,305.65	$ 1,500,000.00	41.19%	$617,850.00	$ 393,529.50	0.1	$39,352.95	$704,508.60
2020	4	$43,994.26	1	$43,994.26	$ 1,500,000.00	41.19%	$617,850.00	$ 365,982.44	0.1	$36,598.24	$698,442.50
2021	5	$40,914.66	1	$40,914.66	$ 1,500,000.00	41.19%	$617,850.00	$ 340,363.66	0.1	$34,036.37	$692,801.03
2022	6	$38,050.63	1	$38,050.63				$ 316,538.21	0.1	$31,653.82	$69,704.45
2023	7	$35,387.09	1	$35,387.09				$ 294,380.53	0.1	$29,438.05	$64,825.14
2024	8	$32,909.99	1	$32,909.99				$ 273,773.90	0.1	$27,377.39	$60,287.38
2025	9	$30,606.29	1	$30,606.29				$ 254,609.72	0.1	$25,460.97	$56,067.27

2026	10	$28,463.85	1	$28,463.85				$ 236,787.04	0.1	$23,678.70	$52,142.56									
2027	11	$26,471.38	1	$26,471.38				$ 220,211.95	0.1	$22,021.19	$48,492.58									
2028	12	$24,618.39	1	$24,618.39				$ 204,797.11	0.1	$20,479.71	$45,098.10									
2029	13	$22,895.10	1	$22,895.10				$ 190,461.32	0.1	$19,046.13	$41,941.23									
2030	14	$21,292.44	1	$21,292.44				$ 177,129.02	0.1	$17,712.90	$39,005.34									
2031	15	$19,801.97	1	$19,801.97				$ 164,729.99	0.1	$16,473.00	$36,274.97									
2032	16	$18,415.83	1	$18,415.83				$ 153,198.89	0.1	$15,319.89	$33,735.72									
2033	17	$17,126.73	1	$17,126.73				$ 142,474.97	0.1	$14,247.50	$31,374.22									
2034	18	$15,927.85	1	$15,927.85				$ 132,501.72	0.1	$13,250.17	$29,178.03									
2035	19	$14,812.90	1	$14,812.90				$ 123,226.60	0.1	$12,322.66	$27,135.56									
2036	20	$13,776.00	1	$13,776.00				$ 114,600.74	0.1	$11,460.07	$25,236.08									
2037	21	$12,811.68	1	$12,811.68				$ 106,578.69	0.1	$10,657.87	$23,469.55									
2038	22	$11,914.86	1	$11,914.86				$ 99,118.18	0.1	$9,911.82	$21,826.68									
2039	23	$11,080.82	1	$11,080.82				$ 92,179.91	0.1	$9,217.99	$20,298.81									
2040	24	$10,305.17	1	$10,305.17				$ 85,727.31	0.1	$8,572.73	$18,877.90									
2041	25	$9,583.80	1	$9,583.80				$ 79,726.40	0.1	$7,972.64	$17,556.44									
2042	26	$8,912.94	1	$8,912.94				$ 74,145.55	0.1	$7,414.56	$16,327.49									
2043	27	$8,289.03	1	$8,289.03				$ 68,955.36	0.1	$6,895.54	$15,184.57									
2044	28	$7,708.80	1	$7,708.80				$ 64,128.49	0.1	$6,412.85	$14,121.65									
2045	29	$7,169.18	1	$7,169.18				$ 59,639.49	0.1	$5,963.95	$13,133.13									
2046	30	$6,667.34	1	$6,667.34				$ 55,464.73	0.1	$5,546.47	$12,213.81									
1- Cost Description and Justification Referenced in BCA Narrative Table							**$2,979,986.11**			**Total Benefit**	$4,249,073.16									