

7 Alternatives Development and CIP Prioritization

7.1 Previously Identified CIP Projects

Many Capital Improvement Program projects were identified in previous Master Plan updates and the full scope and budget estimates for the projects were sometimes unclear. Some of the projects are currently included in the City’s Capital Improvement Program for the Stormwater Fund, and for those the scope and status of the projects were reviewed with City staff and evaluated against current modeling results to determine if they should continue to be included in the CIP program. Table 7-1 shows the previously identified projects that were eliminated from the CIP program or replaced with a new or modified project scope.

Table 7-1. Previously Identified CIP Projects Eliminated or Replaced

CIP Project Name	Description	Estimated Cost	Notes
Elkcam, George, Schumann Seawall Repair/Replace	Repair and/or Replace Seawalls in the Elkcam Canal, George Lake, Schumann Lake	\$16,000,000	Identified in 2018 SWMP, no description. Not shown in current CIP - it appears this project was replaced with the project below.
Major Canal Improvements	This is to address major improvements to the canals. Sizable amounts are being programmed for each year so that portions of the work can be initiated.	\$2,500,000	Current CIP shows \$500k/year from FY 21-25, funded by Discretionary Sales Tax. Replaced with CIP Project Nos. 4-10.
Schumann Pipe Lining	Slip lining from Schumann Lake to Elkcam	\$200,000	Identified in 2018 SWMP, Completed in 2019-2020 FY.
Pelican Island Place Drainage	Drainage improvements including driveways, swales, road crossing replacements and repaving. Drainage repairs were completed in order to extend the longevity of the road repaving work.	\$475,000	Identified in 2018 SWMP, Completed in 2019-2020 FY.
Stonecrop Drainage Ditch	Due to erosion of the side slopes, this ditch is difficult to maintain and needs to be improved. The system drains the entire central section of the City and therefore is critical to maintain flow and avoid flooding. The project has been redesigned for open conveyance, versus piping, which substantially reduces the estimated costs. A FEMA Hazard Mitigation Grant is being pursued to provide 75% of the expected costs. Stormwater Funds of \$215,000 are being allocated for the grant matching amount.	\$860,000	Identified in 2013 SWMP (Bevan & Laconia culverts) @ \$1M. Shown in current CIP at \$860k FY20. Project removed from CIP list because it is currently being bid by the City. The project is a replacement of the Laconia culvert only with a 12x3' CON/SPAN bridge, with reduction of channel cross section and concrete armoring from Laconia to Stonecrop for stability.
Blossom Ditch Pipe	No description	\$1,000,000	Identified in 2004 SWMP as 100LF of 48" RCP @\$43k. Identified in 2013 SWMP @\$1M, no description. Replaced with CIP Project No. 27.

Table 7-1. Previously Identified CIP Projects Eliminated or Replaced

CIP Project Name	Description	Estimated Cost	Notes
Empress Canal Piping	No description	\$250,000	Identified in 2018 SWMP, Developer of adjacent property has agreed to install a CON/SPAN bridge with the construction of the development. Therefore, the repair was removed from the City's CIP plan.
Landsdowne Box Culvert	No description	\$178,000	Shown as twin 36" culverts in 2013 MP @ \$100k. Identified in 2018 SWMP, no description. Project removed because modeling showed it would not result in significant improvement.
Rosebush Box Culvert	No description	\$242,000	Identified in 2013 SWMP as Rosebush Terrace Pipe (2-48" RCP @ \$100k). Identified in 2018 SWMP, no description. Project removed because modeling showed it would not result in significant improvement.
Tulip Box Culvert	This is a pinch point on a main ditch. The existing road crossing pipes are undersized due to minimal road coverage over the pipes and need to be replaced. It is recommended that the replacement be accomplished with a CON/SPAN open flow design to enhance conveyance.	\$232,000	Identified in 2013 SWMP as 42"x72" box culvert @\$100k. Identified in 2018 SWMP, no description @\$232k. \$232,000 shown in FY22 CIP. Replaced with CIP Project No. 15.
Albatross Box Culvert	No description	\$178,000	Identified in 2018 SWMP, no description. Not in current CIP. Replaced with CIP Project No. 16.
Bayfront Box Culvert	This is a main ditch pinch point and it needs to be replaced with a CON/SPAN open flow design. This will prevent the existing pipe to become plugged with debris, which causes the existing ditch to overflow into residential properties	\$178,000	Identified in 2018 SWMP, no description @\$178k. \$178,000 shown in FY23 CIP. Replaced with CIP Project No. 17.
Benedictine Ditch Piping	No description	\$1,515,000	Identified in 2018 SWMP, no description. Not in current CIP. Replaced with CIP Project No. 18.
Bryant/Friar Court Retention Pond	No description	\$315,000	Identified in 2018 SWMP, no description. Not in current CIP. Replaced with CIP Project No. 19.
Oyster Point Drainage Box	Installation of catch basin in front of the FDOT outfall	\$100,000	Identified in 2018 SWMP, Project completed.
Hardee Dam Retrofit Gates	No description	\$150,000	Identified in 2018 SWMP, no description. Not in current CIP. Replaced with CIP Project No. 20.
Potomac Ditch Piping	No description	\$393,000	Identified in 2013 SWMP, as Potomac Ave Lateral Pipe @\$200k. Completed in 2016-2017 FY.
Potomac Baffle Retrofit for Filter	No description	\$60,000	Identified in 2018 SWMP, no description. City removed project from CIP list. Existing Baffle

Table 7-1. Previously Identified CIP Projects Eliminated or Replaced

CIP Project Name	Description	Estimated Cost	Notes
			Box is functioning well and mostly in dry conditions.
Davis Street Baffle Retrofit for Filter	No description	\$60,000	Identified in 2018 SWMP, no description. Not in current CIP. Deleted per City staff. The site is currently utilizing a generation 1 Baffle Box.
Rosebush Retention Basin	New Stormwater Pond	\$315,000	Identified in 2018 SWMP. Replaced with CIP Project No. 22.
Indian River Drive Drainage Improvements	Realign Mulligan Pipe, Baffle Box at Southern Outfall, Baffle Box at Jackson Outfall/clear outfall area	\$1,000,000	Identified in 2013 SWMP, no description. Not in current CIP. Replaced with CIP Project No. 23.

7.2 Current and Proposed CIP Projects

The following is an updated list of proposed CIP projects identified through the modeling work in this Master Plan, those included in prior Master Plan updates and those identified through discussions with City staff. The goal is to produce a 10-year CIP program with the most feasible schedule and strategy to fund those improvement projects with the highest priority and the greatest benefits to the City. The H&H Model was used to evaluate various CIP projects and develop initial recommendations to address drainage issues and reduce surface flooding for the 25yr-24hr design storm event. See Section 3.7 for a detailed explanation of H&H modeling results. The CIP projects were evaluated based on surface flooding reduction, open channel flooding reduction, and cost effectiveness. Design and implementation of the CIP projects should include a review of available survey data, system conditions, and constructability.

Table 7-2. Current and Proposed CIP Projects

CIP Project No.	CIP Project Name	Description	Estimated Cost	Notes
1	Stormwater Equipment	New and scheduled replacements of equipment and trucks used in the operation and maintenance of the Stormwater System based on their expected useful service lives.	\$878,500	Shown in current CIP, \$309,000 from FY21 to 25
2	Stormwater Heavy Equipment	Heavy Equipment replacements for the Stormwater Maintenance Program. Replacements include:	\$119,000	Shown in current CIP, \$595,000 from FY21 to 25
3	Roadway Swale Work	Reconstruction of stormwater swales in ROW areas in conjunction with road resurfacing and reconstruction projects.	\$600,000	Shown in current CIP, \$60,000/year
4	Harbor Point Waterway and Collier Waterway North Improvements	Dredging and disposal of 3 ft (46,900 CY) of sediment from approximately 10,550 LF of trapezoidal open channel (12' bottom width, 4:1 side slopes), clear & grub, regrade, and	\$10,987,265	Future CIP, beyond 10-year planning horizon

Table 7-2. Current and Proposed CIP Projects

CIP Project No.	CIP Project Name	Description	Estimated Cost	Notes
		sod approximately 211,000 SF of side slope area.		
5	Central Collier Waterway Improvements - North Section	Clearing and grubbing 20' either side of City drainage ROW lines over approximately 8,550 LF of canal banks, demolition and reconstruction of existing dock structures and fences, abandon existing bulkheads in place, installation of approximately 8,550 LF of vinyl sheetpile bulkhead (20 ft panel length) w/ 24x24" concrete cap on water side of existing bulkhead, dredging 3' of sediment from approximately 4,270 LF of canal, regrading and resodding of approximately 171,000 SF of canal easement area (20 ft behind bulkhead).	\$27,130,362	Future CIP, beyond 10-year planning horizon
6	Central Collier Waterway Improvements - South Section	Clearing and grubbing 20' either side of City drainage ROW lines over approximately 11,350 LF of canal banks , demolition of existing dock structures and fences, installation of temporary sheeting where needed for stability, removal of of approximately 5,700 LF of existing seawalls and disposal of transite bulkhead panels, installation of approximately 5,770 LF of vinyl sheetpile bulkhead (20 ft panel length) w/ 24x24" concrete cap, dredging of approximately 5,770 LF of canal, regrading and resodding of approximately 230,800 SF of canal easement area (20 ft behind bulkhead and slope on Stormwater Park property).	\$21,585,297	Future CIP, beyond 10-year planning horizon
7	Schumann Waterway Improvements	Clearing and grubbing 20' either side of City drainage ROW lines over approximately 12,200 LF of canal banks , demolition of existing dock structures and fences, installation of temporary sheeting where needed for stability, removal of approximately 12,200 LF of existing seawalls and disposal of transite bulkhead panels, installation of approximately 12,200 LF of vinyl sheetpile bulkhead (20 ft panel length) w/ 24x24" concrete cap, dredging of approximately 6,100 LF of canal, regrading and resodding of approximately 244,000 SF	\$39,156,096	Future CIP, beyond 10-year planning horizon

Table 7-2. Current and Proposed CIP Projects

CIP Project No.	CIP Project Name	Description	Estimated Cost	Notes
		<p>of canal easement area (20 ft behind bulkhead).</p> <p>Not included in this project is a new culvert at Empress Avenue at the canal to allow continuous flow between North and South portions, which is going to be completed by a developer as they develop the property on the East.</p>		
8	Schumann Lake Improvements	Clearing and grubbing 20' either side of City drainage ROW lines over approximately 5,300 LF of lake banks, demolition of existing dock structures and fences, installation of temporary sheeting where needed for stability, removal of approximately 3,500 LF of existing seawalls and disposal of transite bulkhead panels, installation of approximately 5,300 LF of vinyl sheetpile bulkhead (20 ft panel length) w/ 24x24" concrete cap, no dredging of lake, regrading and resodding of approximately 106,000 SF of lake easement area (20 ft behind bulkhead).	\$13,195,257	Future CIP, beyond 10-year planning horizon
9	Joy Haven Waterway Improvements	Clearing and grubbing 20' either side of City drainage ROW lines over approximately 7,400 LF of canal banks, demolition of existing dock structures and fences, installation of temporary sheeting where needed for stability, removal of approximately 2,500 LF of existing seawalls and disposal of transite bulkhead panels, installation of approximately 7,400 LF of vinyl sheetpile bulkhead (20 ft panel length) w/ 24x24" concrete cap, dredging of approximately 3,700 LF of canal, regrading and resodding of approximately 148,000 SF of canal easement area (20 ft behind bulkhead).	\$23,774,172	Future CIP, beyond 10-year planning horizon
10	Collier Waterway South Improvements	Removal of approximately 14,800 LF of existing bulkheads, installation of approximately 14,800 LF of vinyl sheetpile bulkhead (20 ft panel length), dredging and vegetation removal of approximately 7,400 LF of canal.	\$51,091,662	Future CIP, beyond 10-year planning horizon
11	Ocean Cove Drainage Repair	Reconstruction of approximately 2,000 LF of trapezoidal ditch between Crystal Mist and	\$571,182	Identified in 2018 SWMP, no

Table 7-2. Current and Proposed CIP Projects

CIP Project No.	CIP Project Name	Description	Estimated Cost	Notes
		Carnival Terrace from Clearbrook St to Periwinkle to stabilize side slopes and maintain conveyance capacity.		description @\$278k. Shown at \$300k in FY24 CIP
12	Day Drive Retention Area Restoration	Desilt culvert, clear vegetation over 0.25 ac, excavate 3 feet (approximately 3,200 CY) and regrade approximately 0.80 ac (175'x425') retention pond and drainage swale to design grades to restore proper retention volume.	\$1,570,614	Current CIP shows \$240,000 FY21 CIP
13	Concha Dam Repair	Removal and disposal of approximately 100 LF of existing metal bulkhead and concrete cap, installation of approximately 100 LF of metal sheetpile bulkhead (20 ft panel length) w/ 24x24" concrete cap w/ weir, regrading and resodding of approximately 800 SF of canal easement area (20 ft behind bulkhead). Currently in design.	\$365,199	Current CIP shows \$250k FY25
14	SWMS Pipe Lining	Sliplining of existing culvert pipes rather than open cut replacement to reduce cost and disturbance.	\$200,000	
15	Stonecrop Ditch - Tulip Culvert Replacement	Existing twin 36" culverts in Stonecrop Ditch at Tulip Dr. (just E of 798 Tulip Dr.) to be changed to a 4' x 7' concrete box culvert to improve capacity (14.1 SF flow area increased to 28 SF). This will match the culvert capacity at Albatross assuming Project Number 16 and 17 are completed (culverts downstream of Tulip culvert)	\$239,230	
16	Stonecrop Ditch - Albatross Culvert Replacement	Existing 54" culvert in Stonecrop Ditch at Albatross Terrace (just W of 787 Albatross Terrace) to be changed to a 4' x 7' concrete box culvert to improve capacity (15.9 SF flow area increased to 21 SF). This will match the culvert capacity at Bayfront Terrace assuming Project Number 17 is completed (culvert downstream of Albatross culvert)	\$174,375	
17	Stonecrop Ditch - Bayfront Culvert Replacement	Existing twin 40" culverts in Stonecrop Ditch at Bayfront Terrace (just W of 789 Bayfront Terrace) to be changed to a 4' x 7' concrete box culvert to improve capacity (17.4 SF flow area increased to 28 SF) which is similar to the proposed Laconia St CON/SPAN 12ft x 3ft bridge (30SF). This project would also	\$824,663	

Table 7-2. Current and Proposed CIP Projects

CIP Project No.	CIP Project Name	Description	Estimated Cost	Notes
		include regrading and armoring of 657ft open channel from Bayfront Terrace to Laconia St.		
18	Benedictine Area Culvert Improvements	Increase the conveyance capacity of the Benedictine Area Stormwater Network: Replace existing twin 36" culverts at Barber St crossing South of intersection with Rolling Hill Dr, Dredging and expanding the existing open channel from Barber St crossing and the Rolling Hill Drive crossing, replace existing 36" culvert at Rolling Hill Drive (just N of 414 Rolling Hill Dr.), replace existing 24" culvert at Benedictine Terrace, replace existing twin 24" culverts at Coverbrook Lane.	\$636,163	
19	Bryant/Friar Court Retention Pond	Construct new approximately 1.0 ac retention pond in the property just N of 105 Friar Ct., appears to be a Park property. Regrade perimeter swales if needed to drain to retention pond. There is some modeled flooding in the area - minor regrading may help to focus the stormwater in the park area.	\$282,512	
20	Hardee Dam Retrofit Gates	Currently has wood panels acting as the gates. These have been leaking beneath the dam and the dam will eventually have to be replaced. Per City staff, the concrete is still in ok condition, stoplogs need replacement.	\$25,000	
21	Surrey Terrace Retention Basin	Approximately 2.3 ac vacant City-owned property S of 737 Surrey Terrace available to create an additional retention basin to help with flooding in this area.	\$779,055	
22	Rosebush Retention Basin	Approximately 2.5 ac vacant City-owned property E of 768 Newhall Terrace available to create an additional retention basin to help with flooding in this area.	\$837,040	
23	Coolidge Outfall Improvements	Remove existing outfall pipe sections in manhole area, install new precast concrete 4' diameter manhole, install approximately 80 LF of A2000 pipe, install inline tide valve and manatee guard on new outfall pipe. Grout fill and abandon in place remaining existing outfall pipe sections under Mulligan's building.	\$73,309	
24	Blossom Ditch Drainage Improvements	Dredge Blossom Ditch and create positive drainage in the ditch and in the connecting	\$1,684,839	

Table 7-2. Current and Proposed CIP Projects

CIP Project No.	CIP Project Name	Description	Estimated Cost	Notes
		pipes from the N alleviating flooding along Lanco Ave and Blossom Dr. 2006 Construction Plans developed but not constructed. Add 12'x24' NSBB to outfall for quality.		
25	Drainage Improvements at Hazel and Lloyd St	Add a culvert crossing at Fordham St to allow flow to travel north to twin ditches, includes regrading open channels and upsizing the downstream culverts from Fordhams St to Twin Ditches	\$755,939	
26	Stormwater Park Operation	The stormwater pumps are not currently operated using the Float system and therefore do not operate during wet weather events. Repair controls.	\$50,000	
27	Stonecrop Retention Area	Modify the control structure. Currently the Stonecrop ditch enters the retention area, at elevations 7.38ft and 7.62ft, two 60inch culverts. The compound weir dimensions are summarized below: 2.16ft wide at elevation 6.557ft and 18ft wide at elevation 9.067ft. The weir elevations prevent free discharge from the Stonecrop Ditch. Add inline tide valves on the two 60" pipes under Stonecrop Dr.	\$100,000	
Total Estimated Cost			\$197,686,732	

7.2.1 Cost Estimate Criteria

A detailed cost estimate was prepared for each proposed CIP project, including a project location map, quantity takeoffs, contingency allowances, and notes referencing calculation assumptions and cost sources. Copies of the estimates are included in Appendix I.

7.3 CIP Prioritization Process/Tool

The method for prioritization of maintenance issues was presented in Section 6. CIP prioritization follows a similar methodology but is more detailed and results in a more thorough triple bottom line (TBL) type cost-benefit analysis that considers economic, social and environmental effects. Upon identifying a CIP need, the project priority should be determined by the City Engineer. Issues that without capital improvement pose a safety hazard or create a condition that prohibits the proper function of the SWMS should be prioritized over aesthetic or preventative projects. The amount of time required to address CIP projects ranges from a few weeks to months or even years depending on the severity, complexity, and priority of the project. In certain more complex emergency

cases, temporary resolutions should be presented as a stop-gap measure to address public safety or functional issues while a more permanent resolution is determined.

The CIP Priority scoring uses a simple calculation to weight the importance of a proposed project based on economic, social and environmental criteria. For each of those three criteria, a criticality score and project effectiveness score is determined through a series of scored queries and an overall percentage of total category score is calculated to determine its priority. CIP projects having the highest overall percentages are the highest priority projects. In the CIP Priority calculation, the score weighting was as shown in Figure 7-1.

Criteria	Criticality	Effectiveness
Economic	0.28	0.32
Social	0.30	0.32
Environmental	0.42	0.36
TOTAL	1.00	1.00

Figure 7-1. CIP Priority Criteria Weighting

Once the proposed CIP projects shown in Table 7-2 were identified, scoped, and cost estimates were prepared, a CIP Priority scorecard was prepared for each of them to determine their overall priority ranking. An example of a project scorecard is shown in Figure 7-2. A summary of the final priority scoring is shown in Figure 7-3, and a graph of the final Criticality vs. Effectiveness scoring is shown in Figure 7-4.

City of Sebastian Capital Improvement Project Benefit Cost Analysis Scoring Template

Project No: 13		Description: Concha Dam Repair							
Criteria	Criticality of Issue for LOS			Project Effectiveness			PROJECT SCORE		
	Score	Description	Context	Score	Description	Context	Criticality of Issue for LOS	Project Effectiveness	
ECONOMIC									
Project Cost	0			0	> \$10,000,000	What is the cost (to the City) of the proposed project?			10
	2			2	\$5,000,000 - \$10,000,000				
	4			4	\$3,000,000 - \$5,000,000				
	6			6	\$1,000,000 - \$3,000,000				
	8			8	\$500,000 - \$1,000,000				
	10			10	\$100,000 - \$500,000				
			12	< \$100,000					
Economic Impacts	0	Very Low	What are the economic impacts (future flooding damages, etc.) if the flooding or the asset condition is not addressed?	0	Very Low	What is the potential benefit of the proposed project to increased opportunities for economic development or community enhancements?			0
	4	Low		2	Low				
	8	Medium		4	Medium				
	10	High		6	High				
	12	Very High		8	Very High				
Condition of Existing Infrastructure Private	0	Excellent	What is the condition of existing private infrastructure assets in the project area?	0	No	Will the proposed project fix the private asset conditions in the project area?			0
	1	Good		1	Limited				
	2	Fair		2	Partially				
	3	Poor		3	Mostly				
	4	Very Poor		4	Completely				
Condition of Existing Infrastructure Public	0	Excellent	What is the condition of existing public infrastructure assets in the project area?	0	No	Will the proposed project fix the public asset conditions in the project area?			10
	4	Good		2	Limited				
	8	Fair		4	Partially				
	10	Poor		6	Mostly				
	12	Very Poor		8	Completely				
Economic Subtotal	28			32					10
SOCIAL									
Safety	0	No potential for injury / loss of life	What is the current impact on safety from flooding/asset condition in the project area for the intended level of service?	0	No	Will the proposed project minimize the impact on safety in the project area for the intended level of service?			2
	2	Limited potential for injury		2	Limited				
	4	Some potential for injury / loss of life		4	Partially				
	6	Reasonable potential for injury		6	Mostly				
	8	Great potential for injury / loss of life		8	Yes				
Number of Properties Impacted	0	None	How many properties are currently impacted by flooding/asset condition in the project area for the intended Level of Service?	0	None	How many properties will have positively benefited from the project for the intended Level of Service?			4
	1	1 to 5		1	1 to 5				
	2	6 to 10		2	6 to 10				
	3	11 to 15		3	11 to 15				
	4	Greater than 15		4	Greater than 15				
Traffic Flow on Public Streets	0	No potential impact	How is traffic affected by flooding/asset condition in the project area?	0	No	Will the proposed project positively affect traffic and flooding conditions in the project area?			0
	2	Secondary System / Alternatives Exist		2	Partially				
	4	Primary System / No Alternative		4	Yes/NA				
High Hazard Road Crossings in Project Area	0	No road crossing	Are there any high hazard road crossings in the project area?	0	No	Will the project positively affect the roadway crossings in the project area?			0
	2	Yes, one or more crossings		4	Yes/NA				
Proximity to Critical Facilities (hospitals, police, fire station, etc.)	0	> 2 miles	How close to the project area are facilities that provide health, safety or emergency response?	0					0
	4	< 2 miles		0					
	8	Located within project area		0					
Degree of Flooding (Public)	0	1% (100-year) Storm	At what design storm frequency does flooding (>6") typically occur within the project area?	8	1% (100-year) Storm	To what level (design storm) has the project fixed the flooding problem?			4
	2	4% (25-year) Storm		4	4% (25-year) Storm				
	4	10% (10-year) Storm		0	10% (10-year) Storm				
Property Damage (Private)	0	None	What is the worst case facility flooding for the intended LOS?	0	Livable / occupied space	What level of facility flooding is predicted following project implementation?			4
	1	Landscape / yard flooding		1	Crawl space / basement / mechanical				
	2	Garage / shed / driveway		2	Garage / shed / driveway				
	3	Crawl space / basement / mechanical		3	Landscape / yard flooding				
	4	Livable / occupied space		4	None				
Social Subtotal	30			32					10
ENVIRONMENTAL									
Erosion	0	None	What effect will the project have on reducing erosion issues within the SWMS?	0	None/NA	How has the project positively affected the environment?			1
	1	Limited		2	Limited				
	2	Moderate		4	Moderate				
	3	Significant		6	Significant				
Water Quantity Reduction	0	None	What effect will the project have on reducing the quantity of stormwater discharged to receiving waterbodies?	0	None/NA	How has the project positively affected the environment?			6
	4	Limited		2	Limited				
	8	Moderate		4	Moderate				
	12	Significant		6	Significant				
Water Quality Improvement	0	None	What effect will the project have on improving the quality of stormwater discharged to receiving waterbodies?	0	None/NA	How has the project positively affected the environment? How much CIRL BMAP TN and TP reduction credit will the project be eligible for?			6
	4	Limited		2	Limited				
	8	Moderate		4	Moderate				
	12	Significant		6	Significant				
Habitat Improvement	0	None	What effect will the project have on improving the habitat of receiving waterbodies?	0	None/NA	How has the project positively affected the environment?			6
	2	Limited		2	Limited				
	4	Moderate		4	Moderate				
	6	Significant		6	Significant				
Public Health	0	None	What effect will the project have on improving public health parameters in receiving waterbodies?	0	None/NA	How has the project positively affected the environment?			6
	1	Limited		2	Limited				
	2	Moderate		4	Moderate				
	3	Significant		6	Significant				
Aesthetic Effects	0	None	What effect will the project have on improving the aesthetics of the SWMS and receiving waterbodies?	0	None/NA	How has the project positively affected the environment?			4
	2	Limited		2	Limited				
	4	Moderate		4	Moderate				
	6	Significant		6	Significant				
Environmental Subtotal	42			36					39
TOTAL	100			100					59
							% of Total Category Score	59%	57%

Figure 7-2. CIP Prioritization Project Scorecard

City of Sebastian Stormwater Master Plan Update

CIP Project No.	Description	Criticality of Issue for LOS Scores				Project Effectiveness Scores				TOTAL SCORE	Normalized Score
		Economic	Social	Environ.	Total	Economic	Social	Environ.	Total		
4	Harbor Point Waterway and Collier Waterway North Improvements	18	11	11	41	2	11	5	18	59	-0.96
5	Central Collier Waterway Improvements - North Section	18	11	12	41	2	11	5	18	59	-0.96
6	Central Collier Waterway Improvements - South Section	18	11	12	41	2	11	5	18	59	-0.96
7	Schumann Waterway Improvements	18	11	12	41	2	11	5	18	59	-0.96
8	Schumann Lake Improvements	18	11	12	41	2	11	5	18	59	-0.96
9	Joy Haven Waterway Improvements	18	11	12	41	2	11	5	18	59	-0.96
10	Collier Waterway South Improvements	18	11	12	41	2	11	5	18	59	-0.96
11	Ocean Cove Drainage Repair	14	20	16	50	16	23	12	51	101	0.57
12	Day Drive Retention Area Restoration	16	17	16	49	16	18	14	48	97	0.43
13	Concha Dam Repair	10	10	39	59	18	10	29	57	116	1.12
15	Stonecrop Ditch - Tulip Culvert Replacement	16	15	4	35	20	17	6	43	78	-0.27
16	Stonecrop Ditch - Albatross Culvert Replacement	16	15	4	35	20	17	6	43	78	-0.27
17	Stonecrop Ditch - Bayfront Culvert Replacement	16	15	4	35	20	17	6	43	78	-0.27
18	Benedictine Area Culvert Improvements	16	15	4	35	20	17	6	43	78	-0.27
19	Bryant/Friar Court Retention Pond	16	13	36	65	20	27	26	73	138	1.93
20	Hardy Dam Retrofit Gates	24	17	31	72	22	27	18	67	139	1.96
21	Surrey Terrace Retention Basin	0	11	19	30	8	17	16	41	71	-0.52
22	Newhall Terrace Retention Basin	0	11	19	30	8	17	16	41	71	-0.52
23	Coolidge Outfall Improvements	16	15	19	50	20	17	16	53	103	0.65
24	Blossom Ditch Drainage Improvements	18	15	19	52	12	21	20	53	105	0.72
25	Drainage Improvements at Hazel and Lloyd St	18	18	21	57	20	21	18	59	116	1.12
26	Stormwater Park Operation	4	2	16	22	16	4	14	34	56	-1.07
27	Stonecrop Retention Area	20	14	23	57	26	21	20	67	124	1.42
MAXIMUM SCORE		28	30	42	100	32	32	36	100	200	-

Figure 7-3. CIP Prioritization Scoring Summary

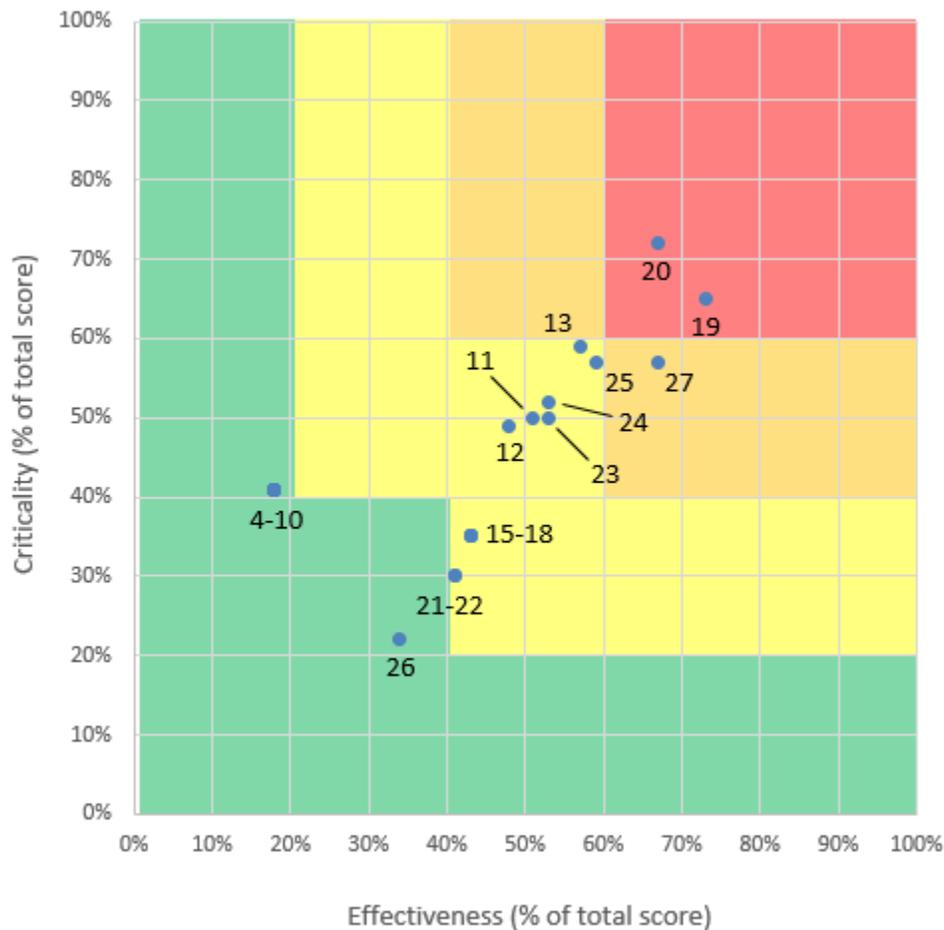


Figure 7-4. CIP Prioritization Scoring – Criticality vs. Effectiveness

7.4 Recommended and Prioritized Improvements

Projects with high costs and low priority scores were shown in the 10-year CIP plan as “Future”, and the CIP planning emphasis was directed towards lower cost, higher priority projects. A copy of the proposed CIP Plan from 2023-2033 including more than \$9 million in capital projects is included in Appendix I. A detailed discussion of the funding plan for the CIP projects and the ongoing operations and maintenance of the City’s SWMS is included in the next Section.