

Osceola County Local Mitigation Strategy Project Submission Form

Project Name:				Submission Date:	
Primary Agency:	Partner Agencies:	Jurisdictions Benefited:	Address:	GPS:	
			Flood Zone:	USNG:	

Primary Contact:	Secondary Contact:	Estimated Project Cost:	Project Timeframe:
Name:	Name:		
		Estimated Annual Maintenance Cost:	
Agency:	Agency:	Benefit Cost Analysis: Project submissions must include a benefit cost analysis. Projects with a BCA less than 1 will not be considered. https://www.fema.gov/fact-sheet/fema-bca-toolkit-60-installation-instructions	
Email:	Email:		
Phone:	Phone:		
		BCA:	

List Potential Funding Sources

Primary Funding Source(s):		
Local Cost-Share(s) (Match) and Maintenance:		

Primary Community Benefit:

Primary LMS Category:

***Primary LMS Goal:**

***Primary Community Lifeline:**

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Additional Project Information:	
Population Benefited:	CRS Elements Addressed:
Project Lifespan:	<div style="display: flex; justify-content: space-between;"> <div>Mitigates Repetitive Loss:</div> <div>Yes</div> <div>No</div> </div> <div>Attach relevant documentation if applicable</div>
Project Status:	<div style="display: flex; justify-content: space-between;"> <div>Benefits Critical Facilities:</div> <div>Yes</div> <div>No</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Benefits Critical infrastructure:</div> <div>Yes</div> <div>No</div> </div>
Social Vulnerability Index: Project submissions will be scored using the social vulnerability index provided with the FEMA national risk index: https://hazards.fema.gov/nri/map	Consistency with Additional Long Range Plans: Examples: Comprehensive plans, floodplain management plan, etcetera
<div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="margin-right: 10px;">SVI:</div> <div style="border: 1px solid black; width: 100px; height: 30px;"></div> </div>	

Primary Hazards Addressed:	
Tropical Cyclone Flooding Tornado Wildfire Severe Thunderstorm Pandemic Agriculture/Livestock Disease Geomagnetic Storm Sinkhole Climate Change	Cyber Attack Terrorism Nuclear Facility Incident Civil Unrest Mass Migration Transportation Incident Hazardous Material Release

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Project Description:	
Potential Disruption to Local Community:	Potential Regulatory Compliance Issues:

COST ESTIMATE BREAKDOWN

Erosion Control at S-59 and C-31 Conveyance Improvements Cost Estimate

Demolish old Structure and Build a New Spillway	\$23,731,532
S-59 Electrical Work	\$743,497
C-31 Canal Widening, Including Rip Rap Work	\$ 8,412,576
Total Construction Cost	\$32,887,605
Total Construction Cost	\$39,308,208

S-58 Structure Enhancement Cost Estimate

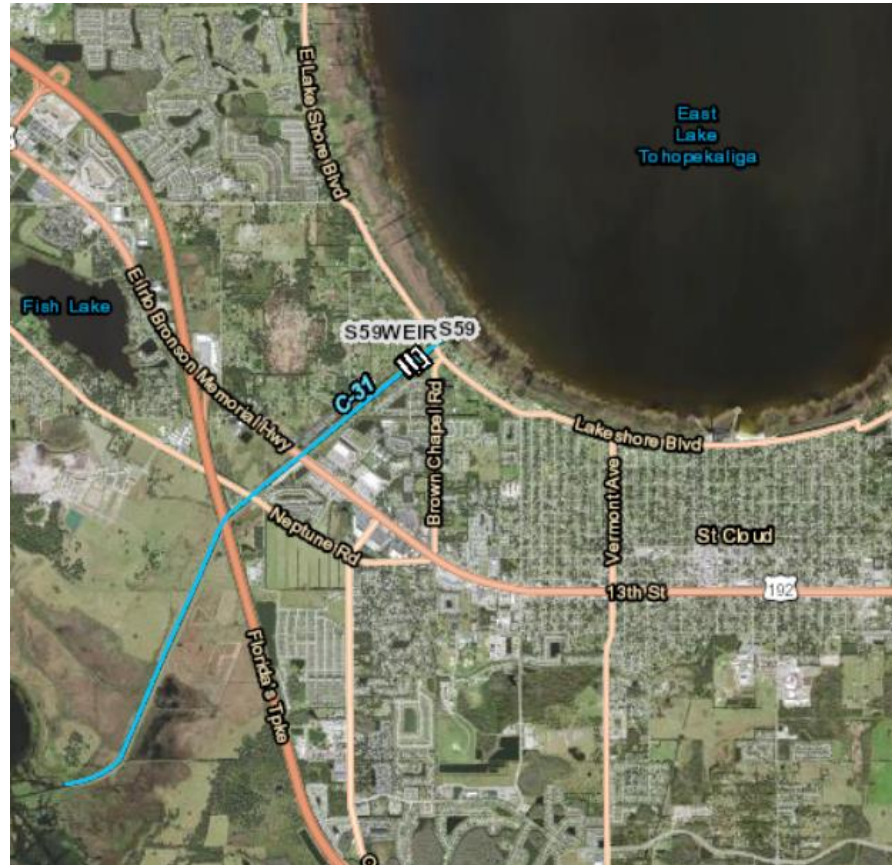
Removal of the existing structure	\$4,568,189
Addition of 2 (two) gated spillways with fully remote operation capability	\$31,346,062
Purchase of two-way temporary pump(s) and permanent installation of pump platforms	\$ 6,631,180
Total Project Cost	\$42,545,431

S-61 Spillway Enhancement Cost Estimate

Existing S-61 Demolition and Removal	\$4,568,189
New S-61 Two (2) Gated Spillway, including Canal Excavation	\$31,346,062
Repairing The Scour Hole in S-61 Boat Locks	\$4,113,361
Total Project Cost	\$40,027,611

S-59 STRUCTURE ENHANCING AND C-31 CANAL CONVEYANCE IMPROVEMENTS

This resiliency project is mainly tied to the District's mission to provide flood control. The S-59 structure is a gated spillway on the C-31 canal at the outlet of East Lake Tohopekaliga in Osceola County in the Upper Kissimmee Chain of Lakes. The structure can be remotely operated from the SFWMD Operations control center. The structure has a design capacity of 590-820 cfs and is operated to maintain optimum stages in the upstream C-31 Canal and in East Lake Tohopekaliga. The structure is operated in accordance with USACE Master Water Control Manual for Upper and lower Kissimmee basins, focusing on the East Lake Tohopekaliga Regulation Schedule which ranges between 55.0-58.0 ft. NGVD. The C-31 canal is 3.9 miles long and connects East Lake Tohopekaliga to the downstream Lake Tohopekaliga to the south. The C-31 canal design elevations are 52.0-55.0 ft. NGVD. The two major sources of inflow to Lake Tohopekaliga are Shingle Creek and C-31 Canal.



As a result of Hurricane 2022 Ian's heavy rainfall, equivalent to more than 200-year recurrence frequency for the region, water levels at East Lake Toho stayed above the safe development line stage of 59 ft. NGVD for approximately 25 days (Figure 9-20). During Hurricane Ian, temporary pumps were deployed to facilitate the conveyance between East Lake Toho and Lake Toho for the period of 10/01/22 to 10/31/22 with daily flow rates as high as 290 cfs.

As part of response actions, it is recognized that this structure needs to be upgraded to include an additional gate to address the single-gate vulnerability issue, along with an improved erosion protective measure that would not constrain the capacity at this structure and canal conveyance improvements. The currently proposed measures include removing existing structure and adding 2 (two) gated spillways and enhancement of the sheet pile weir with a more robust stilling basin with flow deflector and associated rip rap. Such design would remove major structure capacity limitations and potentially can result in a structure that has no maximum Allowable Gate Openings (MAGOs) constraints. Additionally, conveyance improvement along the C-31 conveyance is being proposed, especially as C-31 enters Goblet Cove in West Lake Toho and include canal dredging (deepening) and riprap augmentation. The Osceola Parkway expansion project includes widening of the Partin Settlement Rd near C-31 Canal, and Coordination with FDOT is recommended.

Osceola County Local Mitigation Strategy Project Scoring Worksheet

Project Title: SFWMD- S-59 Structure Enhancement and C-31 Canal Conveyance Improvements

Agency: South Florida Water Management District **Date:** August 10, 2023 **Score:** 42.24

The LMS Project Scoring Worksheet was developed by the Project Prioritization Subcommittee using the STAPLEE (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) framework, which has been established as a best practice in hazard mitigation. Following this framework ensures that a thorough evaluation of each project is completed before it is submitted for funding and all potential impacts are taken into consideration. The Project Scoring Worksheet is designed to assist the LMS Working Group with project prioritization by ensuring that projects meet minimum eligibility requirements and by providing a reference score derived from an analysis based on the established criteria. The score is to serve only as a reference for the LMS Working Group when prioritizing projects, and alone does not determine project eligibility or prioritization.

Category	Description	Score
Hazards addressed	2 – Addresses 2 or more hazards 0 – Addresses 1 hazard	2
Benefit to community	4 – Hazard Reduction 3 – Preparedness Against Hazard 2 – Mapping and Regulatory 1 – Public Information	3
Scope of Benefits	1 – Project serves 2 or more jurisdictions 0 – Project does not serve multiple jurisdictions	1
Population benefited	4 – This project could affect over 250,000 people and/or major portions of the county population 3 – This project could affect between 50,000 and 250,000 people 2 – This project could affect between 1,000 and 50,000 people 1 – This project could affect less than 1,000 people	3
Benefit to critical facilities	2 – Project benefits a critical facility 0 – Project does not benefit a critical facility	0
Benefit to critical infrastructure	2 – Project benefits critical infrastructure 0 – Project does not benefit critical infrastructure	2
Social Vulnerability Index of community benefited	This category is scored using the Social Vulnerability Index (SVI) provided with the FEMA National Risk Index. (Score = (SVI/100) *6)	5.24
Disruption to established neighborhoods and/or population groups after completion	4 – No disruption 2 – Minimal disruption 0 – Maximal disruption	4
Project Status	4 – Ready for construction 3 – Preliminary assessment 2 – Design 1 – Study 0 – Conceptual	0
Repetitive Loss Mitigation	4 – Alleviates severe verified repetitive loss. 2 – Loss may have occurred but was not formally documented 0 – No effect on repetitive loss	0
Lifespan of mitigation measure	4 – High - Expected to last/address hazards for 40 or more years 2 – Medium - Expected to last/address hazards for 20-39 years 0 – Low – Expected to last/address hazards for less than 20 years	4
Community Rating System	1 – Project supports CRS elements 0 – Project does not support CRS elements	1

Osceola County Local Mitigation Strategy Project Scoring Worksheet

Consistency with other guiding documents and plans	2 – Project shows consistency with 2 or more plans 1 – Project shows consistency with 1 other plan 0 – Project shows consistency with LMS but no additional plans (Examples: Comprehensive Plan, Floodplain Management Plan, etc.)	2
Political support/local champion/public support	1 – Project demonstrates documentation of support from an organization other than the submitting agency 0 – Project does not demonstrate support from an organization other than the submitting agency	1
Regulatory Compliance	1 – No compliance issues 0 – Project demonstrates issues with regulatory compliance	1
Benefit Cost Analysis	6 – Benefit cost analysis is greater than 1.5 3 – Benefit cost analysis is 1.0 – 1.5 0 – Benefit cost analysis is less than 1.0	6
Funding Availability / Probability of Funding	6 – Funding is secured/budget line item 3 – Funding sources are available 0 – No funding sources can be identified	3
Complexity/Technical Feasibility	4 - Relatively easy to complete in a short period of time 3 - Not very complex based on the items listed below 2 - Somewhat complex due to one of the items listed below 1 - Complex due to two of the items listed below 0 - Complex project due to three or more items listed below Factors for complexity: • Time involved for planning and/or completion • Involves coordination of numerous agencies and/or jurisdictions • Permitting (Type of permitting required or the time period involved) • Difficulty in obtaining funding • Requires a public vote • Requires a public hearing	2
Project benefit to floodway/floodplains	4 - Project benefits publicized floodway 2 - Project benefits mapped floodplains 0 - No impact on floodplains	2
Total		42.24

This score was determined by a thorough review conducted by the Project Prioritization Subcommittee. All members of the Subcommittee were afforded the opportunity to provide their input, and the score is representative of their consensus.

Project Prioritization Subcommittee Chair or designee: Robin Hinson
Signature