Osceola County Local Mitigation Strategy
Project Submission Form

Project Name: S-61 SPILLWAY ENHANCEMENT AND EROSION CONTROL				**Submission Date:** 7/21/23
Primary Agency: SFWMD	**Partner Agencies:** N/A	**Jurisdictions Benefited:** Osceola County	**Address:**	**GPS:** -81.352
			Flood Zone: AE	**USNG:**

Primary Contact:	**Secondary Contact:**	**Estimated Project Cost:**	**Project Timeframe:**
Name: Carolina Ana Maran	**Name:** David Colangelo	$40,027,611.00	5 Years
		Estimated Annual Maintenance Cost:	
		$20,000.00	
Agency: SFWMD	**Agency:** SFWMD	**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: cmaran@sfwmd.gov	**Email:** dcolange@sfwmd.gov		
Phone: 561-682-6868	**Phone:** 561-352-8927	**BCA:** 1.32	

List Potential Funding Sources

Primary Funding Source(s):	District Revenue (or State Funds TBD)	
Local Cost-Share(s) (Match) and Maintenance:	25% of project cost	

Primary Community Benefit:

Protection of Public Health and Safety

Primary LMS Category:

Stormwater/Drainage Mitigation/Road Elevation

***Primary LMS Goal:**

To minimize threats of disasters to the health, safety and welfare of the community's residents and visitors

***Primary Community Lifeline:**

Safety and Security

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Additional Project Information:

Population Benefited:
Project affects between 50,000 and 250,000 people

CRS Elements Addressed:
Flood Protection (530)

Project Lifespan:
40 or more years

Mitigates Repetitive Loss: Yes (●) No ( )
Attach relevant documentation if applicable

Project Status:
Conceptual

Benefits Critical Facilities: Yes (●) No ( )

Benefits Critical infrastructure: Yes (●) No ( )

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

SVI: 95.13

Consistency with Additional Long Range Plans:
Examples: Comprehensive plans, floodplain management plan, etcetera

(2023 SFWMD Sea Level Rise and Flood Resiliency Plan - Pag

Primary Hazards Addressed:

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

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Project Description:

S-61 SPILLWAY ENHANCEMENT AND EROSION CONTROL
This resiliency project is linked to the District's mission to provide flood control. The S-61 lock is 90 feet by 30 feet with two pairs of gates and permits passage of vessels between the Lake Tohopekaliga and other canals/lake downstream all the way to Kissimmee River. It is operated for flood control when Lake Toho stage exceeds 48.5 ft NGVD. The S-61 lock was not designed for flood control purposes; however, it is used to supplement the S-61 spillway flow capacity to pass floodwater during major storms and emergency response. This is a delicate operation that must be closely monitored and appropriately coordinated with the US Army Corps of Engineers.

In 2017, during and after Hurricane Irma (when the lock was used for flood control operations), the scour hole downstream of this lock increased to 7-feet. Further erosion damage was observed during emergency response operations from Hurricane Ian.

During storm response actions, it was recognized that this navigational lock needs to be augmented with the enhancement of S-61 Spillway to handle flood control operations during emergency events, as well as to continue serving navigation purposes. The currently proposed measures include construction of two new gated spillway to allow for improved conveyance/discharge capacity. After completion of the new spillway, demolition of the existing spillway will be performed and the peninsula will be rebuilt. The Canal enhancement will allow for flow to be directed to the new structure, along with proper erosion control measures such as sloped rip rap on the south side of the structure. Additionally, the area downstream of the S-61 Lock needs to be redesigned and repaired with appropriate erosion protection measures.

Potential Disruption to Local Community:	**Potential Regulatory Compliance Issues:**
none	none

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

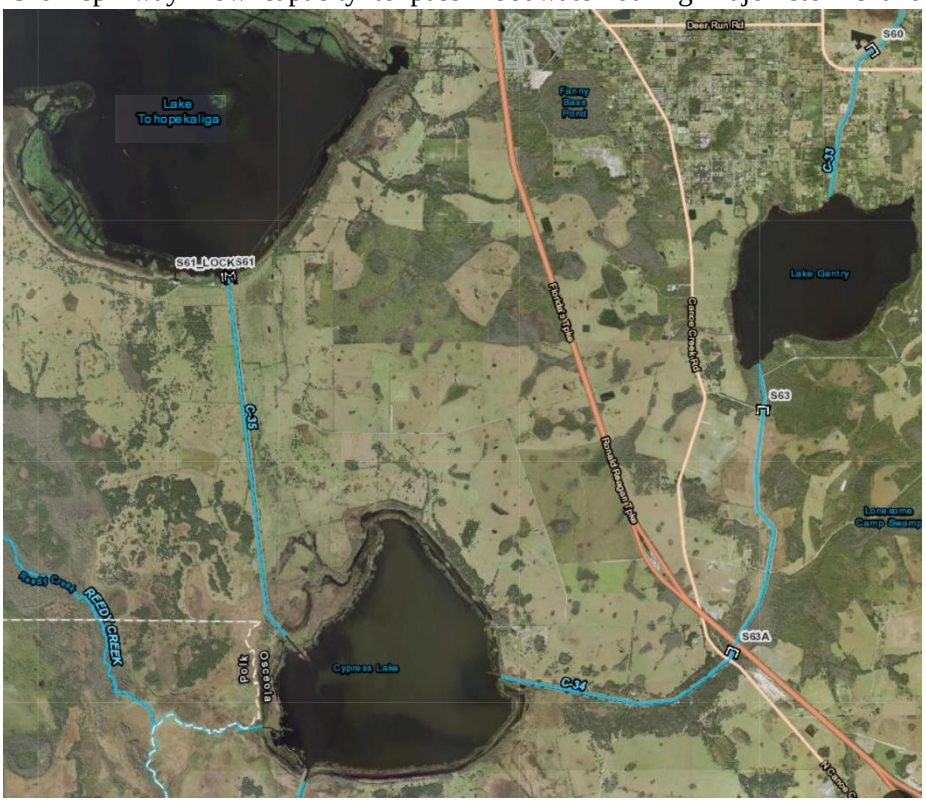
Removal of the existing structure	$4,568,189
Addition of 2 (two) gated spillways with fully remote operation capability	$31, 346,062
Purchase of two-way temporary pump(s) and permanent installation of pump platforms	$ 6,631,180
Total Project Cost	**$42,545,431**

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-61 SPILLWAY ENHANCEMENT AND EROSION CONTROL

This resiliency project is linked to the District's mission to provide flood control, The S-61 lock is 90 feet by 30 feet with two pairs of gates and permits passage of vessels between the Lake Tohopekaliga and other canals/lake downstream all the way to Kissimmee River. It is operated for flood control when Lake Toho stage exceeds 48.5 ft NGVD. The S-61 lock was not designed for flood control purposes; however, it is used to supplement the S-61 spillway flow capacity to pass floodwater during major storms and emergency response. This is a delicate operation that must be closely monitored and appropriately coordinated with the US Army Corps of Engineers.



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As part of response actions, it is recognized that this navigational lock needs to be augmented with the enhancement of S-61 Spillway to handle flood control operations during emergency events, as well as to continue serving navigation purposes. The currently proposed measures include construction of two new gated spillway to allow for improved conveyance/discharge capacity. After completion of the new spillway, demolition of the existing spillway will be performed and rebuild the peninsula. Canal enhancement will allow for flow to be directed to the new structure, along with proper erosion control measures, sloped rip rap on the south side of the structure.

Additionally, the area downstream of the l S-61 Lock needs to be redesigned and repaired with appropriate erosion protection measures.

S-61 Spillway Enhancement Cost Estimate

Existing S-61 Demolition and Removal	$4,568,189
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Osceola County Local Mitigation Strategy
Project Scoring Worksheet

Project Title: SFWMD- S-61 Spillway Enhancement and Erosion Control		
Agency: South Florida Water Management District	**Date: August 10, 2023**	**Score: 38.24**

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	**4**
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**

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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	**3**
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	**0**
Total		**38.24**

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