# 2025 Project Planning

# Recommended General Project Approach

- We are on the home stretch of our in-lake water quality goals.
- We achieved the 80% of water quality results with the very best 20% of projects.
- As we work toward the last 20% of water quality results, we start to dip into the 80% of projects available, which may have a lower cost-benefit and may be more difficult/complicated to implement (all the low hanging fruit has been picked). Flood mitigation and greenway corridor projects are among many other possibilities within this "80%" pool even though their main benefit might be storage, they will also provide water quality benefits similar to our past projects.
- The following pages provide a brief, high level summary of the project implementation and water resource protection plan for 2025 and beyond.
- Most District programs are not detailed or quantified here, but continued implementation of a wide variety of programs will serve to protect the water quality improvements that have been made.
- As we get closer to closing the chapter on TMDL Reductions, we are looking ahead to the next chapter of Climate Change Resiliency, Flood Mitigation, and Projects with Multiple Benefits
- This next chapter will look different from the last chapter. The last chapter was defined by diagnostic studies and a highly targeted nutrient reduction approach. This next chapter will be best served by weighing multiple benefits (e.g., phosphorus and sediment reductions are one factor, and flood mitigation will be an increasing factor for cost-benefit evaluation). We are still targeting our work, but the targeting approach is different.

# Recommended Approach to Grants

- Grants have always been key to the District's ability to implement projects, and they will continue to be critical moving forward.
- The District has been highly successful in grant seeking over the last decade, winning \$9.3 million from 2010-2023, being the largest winner of Clean Water Fund Projects & Practices grant awards state-wide from 2014-2024, as well as tapping into a wide array of grant programs (successful with 20 different programs to date, and have applied to an additional 12 programs unsuccessfully or still pending).
- Despite the District's successful track record, grants are not guaranteed revenue.
- Recommended approach: approve a balanced budget with the high probability revenues we know of (levy, interest, awarded grants, recurring consistent small grant programs). Budget for anticipated match expenditures.
- If/when we win grants, amend the budget to incorporate those revenues and associated expenses. The District will seek overlapping grants in order to minimize its local match. Note that many grant programs include a requirement that grant funds not supplant available local funding.

# Little Comfort Lake

### Phosphorus Reduction Goal: 839 lbs Progress Toward Goal: 60%

### Little Comfort Lake Headline

Multiple projects still needed to achieve WQ goal. Several are in progress/planned. We have run into barriers with some projects from diagnostic study, and we are adapting. Projects result in multiple benefits (e.g., sediment). Shoreline buffers needed to maintain WQ improvements.

Phosphorus Load Reduction Goal and Progress Made (multiple other herefits have been achieved and are being tracked as well such as sediment (nitregen)					
(multiple other benefits have been achieved and are being tracked as well such as sediment/nitrogen) Completed Total 503 lb/yr					
<u>.</u>	In Progress Total				
Planned Total				211 lb/yr	
Total Load Re	duction to Meet Goal			839 lb/yr	
Completed	Upstream Improvements	Upstream improvements have resulted in significant water quality improvements compared to baseline	Past	503 lb/yr	
In Progress	July Ave Feedlot	Grant awarded. Will have larger improvement for School Lake (~65 lb/yr)	2025	~45 lb/yr	
In Progress	Heath Ave IESF	TBD pending landowner purchase agreement and FY25 CWF grant	2025	80 lb/yr	
Planned/ Ongoing	Shoreline Program	Comprehensive program will result in multiple benefits	Ongoing	TBD	
Planned	July Ave Degraded Wetlands	Restore wetlands downstream of feedlot after feedlot project is complete	TBD	TBD	
Planned	Ag BMPs/Livestock Mgmt	Various locations upstream in Little Comfort LMD; landowner outreach in progress	TBD	TBD	
Planned	School Lake Inlet/Outlet Channels	Investigating further through monitoring program	TBD	TBD	
Planned	Little Comfort Alum Treatment	Re-evaluate internal load after making more progress on external load	TBD	TBD	

### Resources

### **Implementation Plan**

The Comfort and Little Comfort's Implementation Plan has three major objectives:

- 1. **Little Comfort Lake TP Reduction:** Improve the in-lake water quality of Little Comfort Lake through implementation of TP reduction practices in the Heath Avenue inlet drainage area, the Itasca Avenue inlet downstream of School Lake, and to reduce internal loads.
- 2. **Comfort Lake TP Reduction:** Improve the in-lake water quality of Comfort Lake through improvement of Little Comfort Lake water quality and implementation of TP reduction practices in the Sunrise River inlet drainage area.
- 3. **Stormwater Treatment:** Reduce sediment loading by increasing water storage in the Comfort LMD through regional stormwater treatment projects and enhancement of wetlands along the Sunrise River corridor.

		Scenario 1: Scenario 2: Little Comfort at 30 µg TP/L TP/L TP/L		ort at 33 µg	Scenario 3: Little Comfort at 40 µg TP/L		
Lake	Total Phosphorus (TP) Source	TP Reduction (Ib./yr.)	% Total Reduction Needed	TP Reduction (Ib./yr.)	% Total Reduction Needed	TP Reduction (lb./yr.)	% Total Reduction Needed
	Direct drainage	1	0.3%	1	0.3%	0	
Little	Itasca Avenue inlet	205	56%	159	50%	50	27%
Comfort	Heath Avenue inlet	102	28%	102	32%	75	41%
Lake	Internal load	59	16%	59	18%	59	32%
	TOTAL	366		320		183	
	Direct drainage	26	14%	27	14%	26	13%
Comfort Lake	Sunrise River inlet at W. Comfort Dr.	31	16%	52	27%	104	54%
	Little Comfort Lake	136	70%	114	59%	64	33%
	TOTAL	193		193		193	

### Table 2-33. Comparison of the Little Comfort and Comfort Lakes TP Reduction Scenarios

- <u>https://www.clflwd.org/wp-content/uploads/2022/11/Comf\_Diag\_Update\_5-19-</u> 2021\_FINAL.pdf#page=14
- <u>https://www.clflwd.org/wp-content/uploads/2022/11/Comf\_Diag\_Update\_5-19-2021\_FINAL.pdf#page=94</u>
- <u>https://www.clflwd.org/wp-content/uploads/2023/07/2022-03-24</u> Presentation TSS-Loading-Analysis.pdf

# Comfort Lake



### Phosphorus Reduction Goal: 825 <u>lbs</u> Progress Toward Goal: 85%

### **Comfort Lake Headline**

Several projects completed, in progress, and planned. Water quality is good, and sediment loading levels are within range for a lake like this. Monitoring is ongoing to keep track of threats to Big Comfort and Little Comfort. Shoreline buffers needed to maintain WQ improvements.

(multiple		sphorus Load Reduction Goal and Progress Made been achieved and are being tracked as well suc		ment/nitrogen)
Completed				697 lb/yr
In Progress	Total		64-136 lb/yr	
Planned Total				64+ lb/yr
Total Load I	Reduction to Meet G	Goal		825 lb/yr
Completed Stormwater Pe		Permitting program has resulted in water quality improvements b/c of required stormwater BMPs	Past	28 lb/yr
Completed	Broadway IESF	Iron enhanced sand filter	Past	15 lb/yr 683 lb/yr TSS
Completed	Enhanced Street Sweeping	City of FL partner program	Past	37 lb/yr 683,407 lb/yr TSS
Completed	Bixby Park	Wetland enhancement	Past	93 lb/yr 5,546 lb/yr TSS
Completed	Target Retrofits	IESF, tree trenches	Past	5 lb/yr
Completed	Hwy 61/Sunrise River/Tax Forfeit	Wetland enhancement	Past	65 lb/yr 18,630 lb/yr TSS
Completed	Upstream Improvements	In addition to projects in this LMD, upstream improvements have resulted in significant water quality improvements compared to baseline	Past	460 lb/yr
In Progress	Little Comfort Lake Improvements	Diagnostic study provided scenarios ID'ing Little Comfort Lake as a high priority means to improving Comfort Lake. Varying load reductions based on varying improvements to Little Comfort	2025+	64-136 lb/yr
Planned/ Ongoing	Shoreline Program	Comprehensive program will result in multiple benefits	Ongoing	TBD
Planned	City of FL Regional Treatment Facility	Led by City of FL, supported by CLFLWD	TBD	TBD
Planned	Volume Control Facility, Flood Mitigation, Greenway Corridor	Targeting in progress through Floodplain Vulnerability Assessment. Comfort LMD is a likely implementation area, pending prioritization discussions.	TBD	TBD
Planned	Shallow Pond Impoundment	Addressing other upstream improvements in the watershed first. This project would impact many landowners, require multiple easements/ landowner agreements, and require 10+ years of landowner outreach. Add to 2025 staff work plan – further landowner engagement w/ staff.	TBD (Long- range)	TBD

### Resources

(See also Little Comfort resources above)

		Scenario 1: Little Comfort at 30 μg TP/L		Scenario 2: Little Comfort at 33 μg TP/L		Scenario 3: Little Comfort at 40 μg TP/L	
Lake	Total Phosphorus (TP) Source	TP Reduction (Ib./yr.)	% Total Reduction Needed	TP Reduction (Ib./yr.)	% Total Reduction Needed	TP Reduction (Ib./yr.)	% Total Reduction Needed
	Direct drainage	1	0.3%	1	0.3%	0	
Little	Itasca Avenue inlet	205	56%	159	50%	50	27%
Comfort	Heath Avenue inlet	102	28%	102	32%	75	41%
Lake	Internal load	59	16%	59	18%	59	32%
	TOTAL	366		320		183	
	Direct drainage	26	14%	27	14%	26	13%
Comfort Lake	Sunrise River inlet at W. Comfort Dr.	31	16%	52	27%	104	54%
	Little Comfort Lake	136	70%	114	59%	64	33%
	TOTAL	193		193		193	

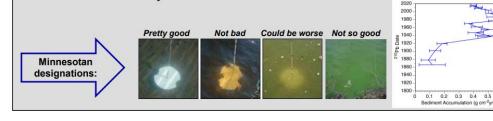
### Table 2-33. Comparison of the Little Comfort and Comfort Lakes TP Reduction Scenarios

# 2022 Comfort Lake Sediment



## Conclusions

- The input loads and accumulation rates of NVSS in Comfort Lake do not appear to be large.
  - Monitored values are larger than the reference value, but overall near or better than current water-quality standards.
- The accumulation rate from the sediment Pb-210 study appears to be anomalously large.
  - However, the trends in the lake-sediment core samples are self-consistent and thus reliable.
- Reductions in TSS may be possible for Little Comfort Lake inlet
  - Additional monitoring between School Lake and Little Comfort Lake
  - Preliminary stream condition walk through during Little Comfort Lake model survey



# Forest Lake



Phosphorus Reduction Goal: 1,450 lbs Progress Toward Goal: 56% before alum, 93% after alum

### Forest Lake Headline

Forest Lake is very close to its goals, and the completion of the alum treatment will all but cross the finish line toward the goals. Shoreline buffers and flood mitigation strategies in the watershed will serve to protect the WQ improvements the District has achieved.

(multiple		sphorus Load Reduction Goal and Progress Made		ont/nitrogon)
Completed 1		been achieved and are being tracked as well su	ch as sedim	823 lb/yr
In Progress 1			527 lb/yr	
Planned Tota	al			100 lb/yr
Total Load R	eduction to Meet G	ioal		1,450 lb/yr
Completed	Shields Lake Improvements	Carp barrier, aerator, stormwater reuse, alum treatment	Past	531 lb/yr
Completed	Smaller BMPs	Cumulative of multiple BMPs from permits, partners, and cost-share incentives	Past	35 lb/yr
Completed	Hilo Lane	Iron enhanced sand filter	Past	12 lb/yr
Completed	3 <sup>rd</sup> Lake Pond	Wetland restoration	Past	56 lb/yr 1,696 lb/yr TSS
Completed	Enhanced Street Sweeping	City of FL partner program	Past	72 lb/yr 190,824 lb/yr TSS
Completed	CR50 IESF	Iron enhanced sand filter	Past	97 lb/yr 3,000 lb/yr TSS
Completed	WJD-6 Wetland	To be completed in 2024	Past	20 lb/yr
In Progress	City Regional Treatment Facilities	North Shore Trail stormwater treatment basins in progress.	2024	TBD
In Progress	Forest Lake Alum Treatment	First dose in 2023, monitoring in 2024, second dose in 2025	2025	527 lb/yr
Planned	Volume Control Facility, Flood Mitigation, Greenway	Likely to benefit Forest Lake as well as Comfort Lake, pending prioritization discussions	TBD	TBD
Planned/ Ongoing	Shoreline Program	Comprehensive program will result in multiple benefits. Forest Lake water quality is good and very close to goal – achieving additional 100 lb/yr (7%) will further ensure WQ is protected. Standard margin of error for TMDL load reductions is 10% (after the alum treatment, we will be within the 10% range)	Ongoing	TBD

# Bone Lake



### Phosphorus Reduction Goal: 786 <u>lbs</u> Progress Toward Goal & State Standards: 100%

### Bone Lake Headline

Improvements made and has been de-listed for nutrient impairment as of April 2024! Ongoing programs and future efforts will serve to protect the water quality investments the District and local citizens have made. Shoreline buffers needed to maintain WQ improvements.

(multiple o		Load Reduction Goal and Progress Made chieved and are being tracked as well such	as sedimer	nt/nitrogen)
Completed To		821 lb/yr		
In Progress To		0 lb/yr		
Planned Total				TBD lb/yr
Total Load Re	duction to Meet Goal			786 lb/yr
Completed	Upstream and Other Watershed Improvements	Upstream/watershed improvements over the years have resulted in significant water quality improvements compared to baseline. Moody Lake improvements, carp removal, carp barriers.	Past	651 lb/yr
Completed	Agricultural Best Management Practices	Cumulative of multiple BMPs from ag BMP incentives	Past/ Ongoing	117 lb/yr 204,893 lb/yr TSS
Completed	Melanie Trail BMPs	Partnership project w/ City of Scandia	Past	2 lb/yr
Completed	Southeast Drained Wetland Restorations	Wetland restorations ("DCB" properties)	Past	35 lb/yr 324,640 lb/yr TSS
Completed	Northeast Legacy Wetland Restoration	Wetland restoration (estimated 15-20 lb/yr reduction)	Past	15 lb/yr
Planned	Volume Control Facility, Flood Mitigation, Greenway Corridor	Pending prioritization discussions. One ongoing greenway effort is the Bone Lake South Acquisition and potential future Wetland Restoration which will provide multiple benefits, further protecting Bone Lake's WQ improvements.	TBD	TBD
Planned/ Ongoing	Shoreline Program	Comprehensive program will result in multiple benefits.	Ongoing	TBD