

PLOC Master Plan – Work Session

August 7, 2019



SHAKOPEE | MN
COMMUNITY PRIDE SINCE 1857

City of Shakopee | 485 Gorman St., Shakopee MN 55379 | 952-233-9300 | www.ShakopeeMN.gov

Recent/Current



- MOA Update
 - The MOA is an agreement between Cooperators that include the Prior Lake-Spring Lake Watershed District, The City of Prior Lake, The City of Shakopee, and the Shakopee Mdewakanton Sioux Community.
 - City Council approved the agreement update 6-18-19.
 - Original agreement was created in 1981.
- Master Plan
 - Document to facilitate/plan PLOC activities to address capacity issues, bank stability/erosion issues, and easement issues.



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MOA Simplified

- The MOA is used to help facilitate use, operation, and maintenance of the PLOC and Outlet Structure.

Table 1: Outlet Channel Tributary Drainage Areas (downstream of Prior Lake)

Outlet Channel Segment	Area (acres)				
	PLSLWD ¹	Prior Lake	Shakopee	SMSC ²	Subtotal
1	-	771	-	7	778
2	-	180	-	30	210
3	-	924	15	109	1,048
4	-	1,056	1,749	2,141	4,946
5a	-	37	456	87	580
5b	-	-	143	-	143
6	-	-	758	303	1,061
7	-	-	1,469	26	1,495
8	-	-	29	-	29
Total	-	2,968	4,619	2,703	10,290

Table 4: Cost-Share Allocation for Outlet Channel

Outlet Channel Segment	Segment Flow			
	PLSLWD	Prior Lake	Shakopee	SMSC
1	87.0%	12.9%	0.0%	0.1%
2	84.1%	15.4%	0.0%	0.5%
3	72.1%	26.0%	0.3%	1.6%
4	40.7%	22.9%	22.1%	14.3%
5	37.4%	21.3%	27.6%	13.7%
6	33.2%	18.9%	34.2%	13.7%
7	27.9%	15.9%	44.5%	11.6%
8	27.8%	15.9%	44.7%	11.6%
Total Flow	42.0%	18.6%	29.0%	10.4%



Figure 1-1. Prior Lake Outlet Channel Alignment

MOA Continued

- This MOA is considered an interim update.
- The long-term strategy is for Cooperators to take ownership and maintenance responsibilities of their respective sections, in turn lessening administration while still maintaining an agreement to ensure appropriate cost sharing.
- The Master Plan is to help facilitate the transition of the long-term strategy.

Master Plan

- The Master Plan started in April 2018.
- The purpose of the master plan is to assess current conditions (primarily channel capacity, bank stability and easements) and guide PLOC MOA activities over a five year timeframe.
- Once these initiatives have been completed, consideration can be given to alternate methods for managing the PLOC channel.

Master Plan – Channel Capacity

- A model was updated with current precipitation/flow estimates, channel geometry and culvert crossing information.
- Model identified an area with three culvert crossings that have capacity issues.

11	Pike Lake outlet
12	Camp Kici Yapi driveway
13	Strauss driveway

- PLOC Cooperators working through a plan to address issues at these crossings.

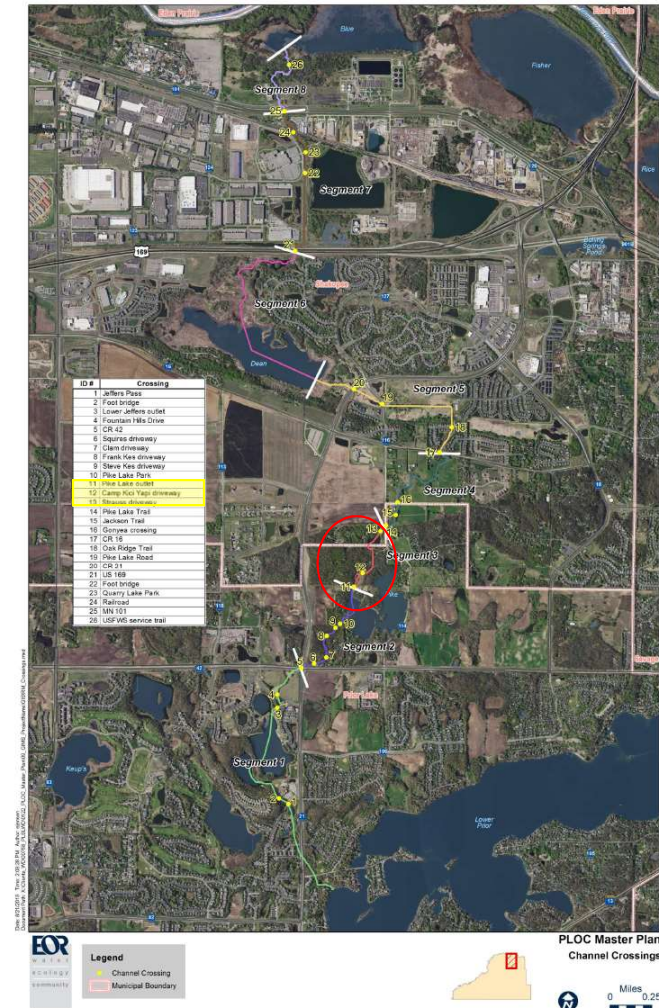


Figure 1-2. Prior Lake Outlet Channel Crossings

Master Plan – Bank Stability

Table 3-2. Five-Year Implementation Plan

ACTIVITY	2019	2020	2021	2022	2023
Bank Repair	\$150,000	\$206,000	\$88,000	\$111,500	\$132,500
Segment 1		\$6,500			
Segment 2		\$11,000			
Segment 3		\$2,500			
Segment 4			\$73,000		
Segment 5A-B	\$150,000*				
Segment 5C		\$186,000**			
Segment 6				\$111,500	
Segment 7			\$15,000		
Segment 8					\$132,500
Bank Inspection	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500
Invasives Mgmt.	\$7,500	\$7,500	\$5,000	\$5,000	\$5,000
TOTAL	\$165,000	\$221,000	\$100,500	\$124,000	\$145,000

The cost estimates listed above are 2018 present value.

* Contribution towards City of Shakopee Segment 5 Channel Re-meandering Project

** Cleanout of the Pike Lake Road box culverts and downstream sedimentation pond

- There are bank stability/erosion issues along the entire PLOC.
- There is a FEMA project to address erosion issues due to the 2014 flood events. The FEMA project only addresses erosion issues due to the 2014 flood events.
- Erosion issues that are pre/post the 2014 flood events need to be addressed by the cooperators. The Master Plan has identified a five year implementation plan.



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Master Plan – Easements

- It has been identified that there are a range of issues related to easements.
- PLOC Cooperators are working through a plan to address issues with easements. The issues include alignment issues, access issues, missing easements, incomplete documents/recording of easements.

Table 2-2. Summary of Existing Easements along the PLOC

	# of privately-owned parcels with an easement		# of these easements that need an amendment		# of privately-owned parcels without an easement		TOTAL # of parcels		# that need GIS mapfiles created/verified	
Segment 1	8	3	0	6	14	7				
Segment 2	4	2	0	3	7	4				
Segment 3	1	1	0	1	2	1				
Segment 4	14	9	0	0	14	9				
Segment 5	0	0	1	5	6	0				
Segment 6	0	0	2	1	3	0				
Segment 7	5	0	3	0	8	0				
Segment 8	1	1	2	0	3	1				
TOTAL:	33	16	8	16	57	22				
% of Total Parcels:	58%	28%	14%	28%	100%	39%				



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Conclusion

- Recent approved MOA is considered an interim MOA.
- Master Plan is to help facilitate the transition of the long-term strategy.

Questions?



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