



Grant All-Detail Report Projects and Practices 2020

Grant Title - Washington Judicial Ditch 6 Headwaters Iron-Enhanced Sand Filter

Grant ID - C20-7191

Organization - Comfort Lake-Forest Lake WD

Original Awarded Amount	\$747,400.00	Grant Execution Date	5/5/2020
Required Match Amount	\$186,850.00	Original Grant End Date	12/31/2022
Required Match %	25%	Grant Day To Day Contact	Mike Kinney
Current Awarded Amount	\$747,400.00	Current End Date	12/31/2022

Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$747,400.00	\$12,765.32	\$734,634.68
Total Match Amount	\$186,850.00	\$19,577.61	\$167,272.39
Total Other Funds	\$0.00	\$0.00	\$0.00
Total	\$934,250.00	\$32,342.93	\$901,907.07

*Grant balance remaining is the difference between the Awarded Amount and the Spent Amount. Other values compare budgeted and spent amounts.

Budget Details

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
Engineering and Construction Administration	Technical/Engineering Assistance	Current State Grant	Washington Judicial Ditch 6 Headwaters Iron-Enhanced Sand Fi..	\$96,000.00	\$12,765.32	12/31/2021	N
Engineering and Construction Administration	Technical/Engineering Assistance	Local Fund	CLFLWD	\$33,850.00	\$4,501.11	12/31/2021	Y

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
Grant Management and Reporting	Administration /Coordination	Local Fund	CLFLWD	\$3,000.00	\$249.21	12/31/2021	Y
IESF System Construction	Urban Stormwater Management Practices	Current State Grant	Washington Judicial Ditch 6 Headwaters Iron-Enhanced Sand Fi..	\$651,400.00			N
IESF System Construction	Urban Stormwater Management Practices	Local Fund	CLFLWD	\$100,000.00			Y
Project Development	Project Development	Local Fund	CLFLWD	\$50,000.00	\$14,827.29	12/31/2021	Y

Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
638 - Water and Sediment Control Basin	1		0.25 AC	AC

Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
IESF System Construction	PHOSPHORUS (EST. REDUCTION)	85 LBS/YR	Forest Lake	Other	Continuous flow and phosphorus load inputs based on actual monitoring data

Final Indicators Summary

Indicator Name	Total Value	Unit
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Grant Activity

Grant Activity - Engineering and Construction Administration

<p>Description</p>	<p>Engineering costs for intake and pump, sediment pretreatment, and 0.5-acre iron-enhanced sand filter bed.</p> <p>Emmons & Olivier Resources (EOR), currently serving as the CLFLWD Engineer, will lead engineering and construction administration for this project. Tasks include permitting, hydrologic modeling, design, contract documents, bidding, and construction oversight, and development of an operations & maintenance manual for District staff. A registered land surveyor will be contracted to assist with easements and legal descriptions. EOR staff dedicated to the project and their individual roles are identified below.</p> <ul style="list-style-type: none"> • District Engineer, Limnologist – Meghan Funke, Ph.D., PE • Quality Control Engineer – Greg Graske, PE • Principal Oversight – Cecilio Olivier, PE • Primary Design Engineer – Kyle Crawford, PE • Supporting Design Engineer – Derek Lash, PE, CPESC • Landscape Designer – Kevin Biehn, PLA • Design Support – Britta Hansen, PLA • Civil Technician & Field Services – Brian Rucker, Dan Mossing, PE • H&H Modeling Support – Ryan Fleming, PE; Trevor Rundhaug, EIT • Hydrogeologist – Stu Grubb, PG • Wetland Permitting Lead – Jason Naber, WDC • Wetland Permitting Support – Jimmy Marty, WPC <p>Project Design and Construction Standards: The most current edition of the Minnesota Department of Transportation “Standard Specifications for Construction” (currently 2018) and of the City Engineers Association of Minnesota “Construction Standards Specifications” and the City of Forest Lake “Public Works / Engineering Standards” (both currently 2013) shall govern.</p> <p>See detailed work plan text in eLINK attachments for further description.</p>
<p>Category</p>	<p>TECHNICAL/ENGINEERING ASSISTANCE</p>
<p>Start Date</p>	<p>End Date</p>
<p>Has Rates and Hours?</p>	<p>No</p>

Actual Results	12/31/20 Update: Completed concept designs
	12/31/21 Update: Project design, permitting. Wetland delineation completed, working toward completing feasibility study.

Grant Activity - Grant Management and Reporting

Description	This Activity is primarily carried out by CLFLWD staff. Tasks include budgeting, reporting, and grant management. Minor support may be needed by the District Engineer. District legal counsel time needed to review contracts and landowner agreements are also included in this grant activity.	
Category	ADMINISTRATION/COORDINATION	
Start Date		End Date
Has Rates and Hours?	Yes	
Actual Results	12/31/21 Update: Grant reporting	

Grant Activity - IESF System Construction

Description	<p>Construction costs for intake and pump, sediment pretreatment, and 0.5-acre iron-enhanced sand filter bed.</p> <p>This Activity will be primarily carried out by a contractor selected through a public bidding process. EOR and CLFLWD staff will oversee the bidding and construction process.</p> <p>See detailed work plan text in eLINK attachments for further description.</p> <p>Based on load monitoring data collected at the project site in 2016 and 2018, and IESF reduction calculations, the proposed project is expected to achieve an 85 lb/yr reduction in phosphorus, or 9% of the total reductions needed for Forest Lake to meet the District goal of a mean phosphorus concentration of 30 µg/L.</p>	
Category	URBAN STORMWATER MANAGEMENT PRACTICES	
Start Date		End Date
Has Rates and Hours?	No	
Actual Results		

Activity Action - Iron Enhanced Sand Filter System			
Practice	638 - Water and Sediment Control Basin	Count of Activities	1
Description	The project pumps water from WJD-6 through a pre-treatment cell, and then into the iron-enhanced sand filter beds. Water would filter through the iron-sand mix before performed subdrains would route the clean water back into the WJD-6 corridor.		
Proposed Size / Units	0.25 AC	Lifespan	25 Years
Actual Size/Units	AC	Installed Date	
Mapped Activities	No	Technical Assistance Provider	

Grant Activity - Project Development	
Description	<p>This Activity is primarily carried out by District staff and EOR. Tasks include project startup, general project management, landowner coordination and agreement(s), and public outreach. Support will be provided by Legal Counsel for project agreements. The District will employ a variety of measures to communicate the project need, benefits and long-term impacts to the local community. Outreach activities will go beyond standard newsletters/signs/press releases to include a pre-construction neighborhood meeting, direct mailers/postcards to nearby residents, social media and website posts, and communication through existing methods such as the State of the Watershed public meeting, District Tour, Annual Report and annual Progress Report. The District will assume responsibility for lifetime (25-year) maintenance of the project.</p> <p>See detailed work plan text in eLINK attachments for further description.</p>
Category	PROJECT DEVELOPMENT
Start Date	End Date
Has Rates and Hours?	Yes
Actual Results	<p>12/31/20 Update: Continued landowner discussions and completed UAV fly-over of ditch and project area.</p> <p>12/31/21 Update: Continued landowner discussions. Easement executed on 1/21/22.</p>

Grant Attachments

Document Name	Document Type	Description
2020 Competitive Grant	Grant Agreement	2020 Competitive Grant - Comfort Lake-Forest Lake WD

Document Name	Document Type	Description
2020 Competitive Grant EXECUTED	Grant Agreement	2020 Competitive Grant - Comfort Lake-Forest Lake WD
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 08/30/2021
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 04/13/2021
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/20/2022
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/30/2021
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 08/24/2021
Application	Workflow Generated	Workflow Generated - Application - 09/09/2019
Application Image_WJD6	Grant	Washington Judicial Ditch 6 Headwaters Iron-Enhanced Sand Filter
Draft Landowner Easement	Grant	Washington Judicial Ditch 6 Headwaters Iron-Enhanced Sand Filter
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 01/22/2020
Work Plan Detail	Grant	Washington Judicial Ditch 6 Headwaters Iron-Enhanced Sand Filter
grantmap_25657_2019-09-06_03-46-17-PM.jpg	Grant	Washington Judicial Ditch 6 Headwaters Iron-Enhanced Sand Filter