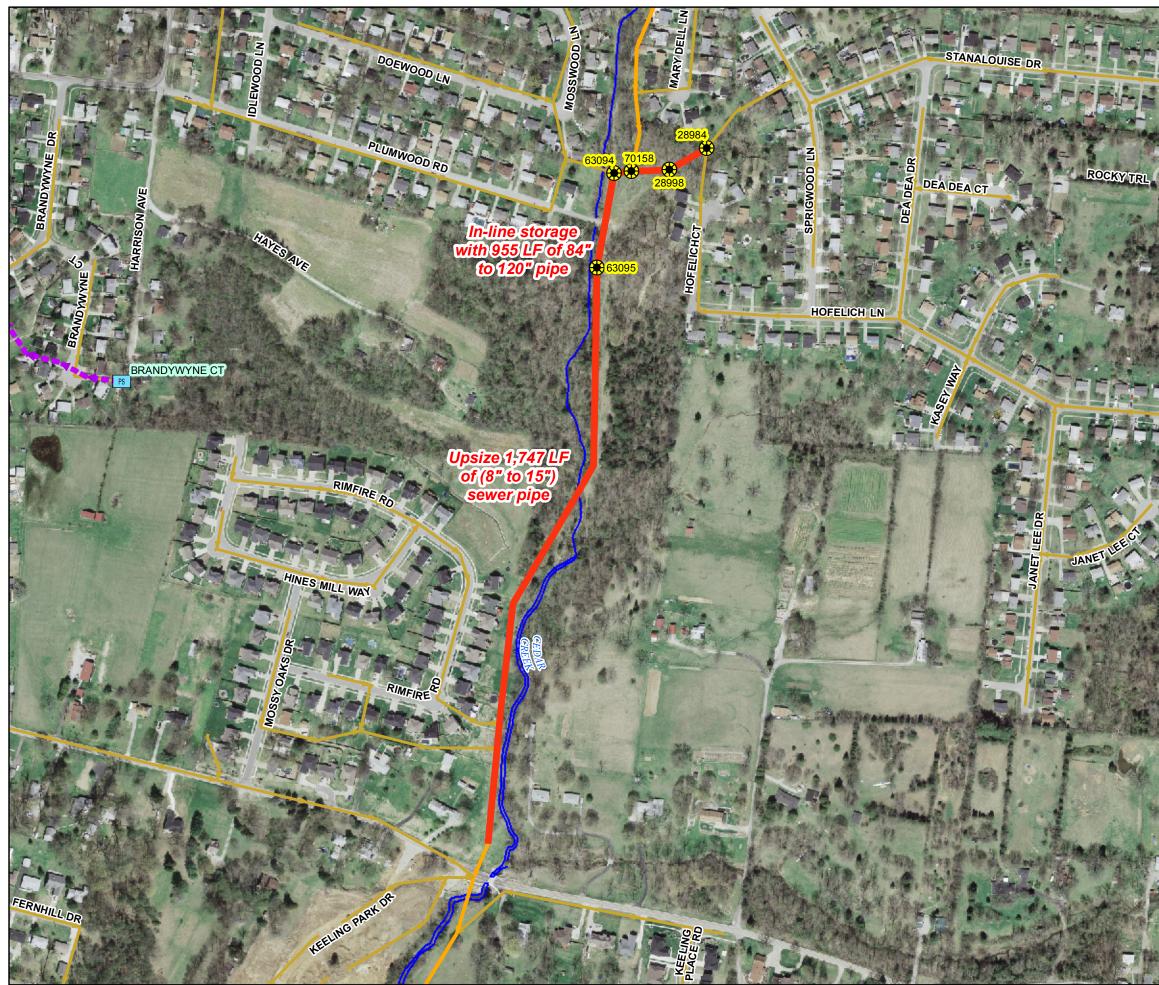




<u>SSO Project Number:</u>	S_CC_CC_70158_M_09A_C
<u>Project Name:</u>	Idlewood Inline Storage
Modeled Area:	Cedar Creek
Branch or SSO ID:	70158
<u>Project Type:</u>	Inline Storage
<u>Receiving Stream:</u>	Cedar Creek
Project Description:	This alternative includes in-line storage with 995 LF of (84" to 120") pipe to store wet weather peak flows. Also included are pipe upgrades for 1,747 LF of open cut (8" to 15") sewer to increase hydraulic capacity during wet weather peak flows.
Reason for Overflow:	Hydraulic bottleneck
Design Parameters / Assumptions:	This solution is based on a 1.82 inch cloudburst rain event
Project Constraints:	Homes are ~100' from the SSO locations Depth to rock is ~3'
Estimated Capital Cost (2008 dollars):	\$2,317,000
<u>Weighted Benefit/Cost Ratio (Present</u> <u>Worth):</u>	31.36

<u>sso</u>	<u>SSO Name</u>	<u>Service Area</u>	Overflow Type	<u>Discharge To</u>	<u>Average Overflow /</u> Incident (gallons)
28984	Plumwood #1	Cedar Creek	Manhole	Ground	21,600
28998	Plumwood #2	Cedar Creek	Manhole	Ground	21,600
63094	Plumwood #4	Cedar Creek	Manhole	Stream	50
63095	Plumwood #5	Cedar Creek	Manhole	Stream	13
70158	Plumwood #3	Cedar Creek	Manhole	Ground	378,333



CMS Inc. SSDP Map Series: Idlewood Inline Storage.mxd

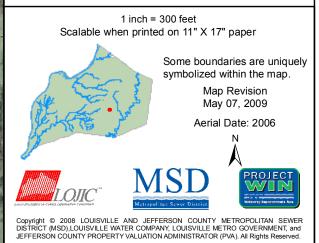
Integrated Overflow Abatement Plan Vol. 3 - Sanitary Sewer Discharge Plan

Cedar Creek Sewershed Solution ID # S_CC_CC_70158_M_09A_C Idlewood Inline Storage

Preliminary - For Budget Development Only Legend

- Documented SSO
- Suspected SSO
- Haul Operation
- Proposed Pump Station Solution
- Pump Station
- WWTP
- Proposed Pipe Solution
- ► Force Main
- Collector < 12"</p>
- Interceptor => 12"
- --- Combined Sewer Pipe
- Proposed Off-line Storage
- ---- Road
- ----- Streams
- Floodway
- Small WWTP Service Area
- Large WWTP Service Area
- CSO Area
- Metro Parks

General representation of overflow abatement solutions are for preliminary planning purposes. Alignments and locations may be altered during design.



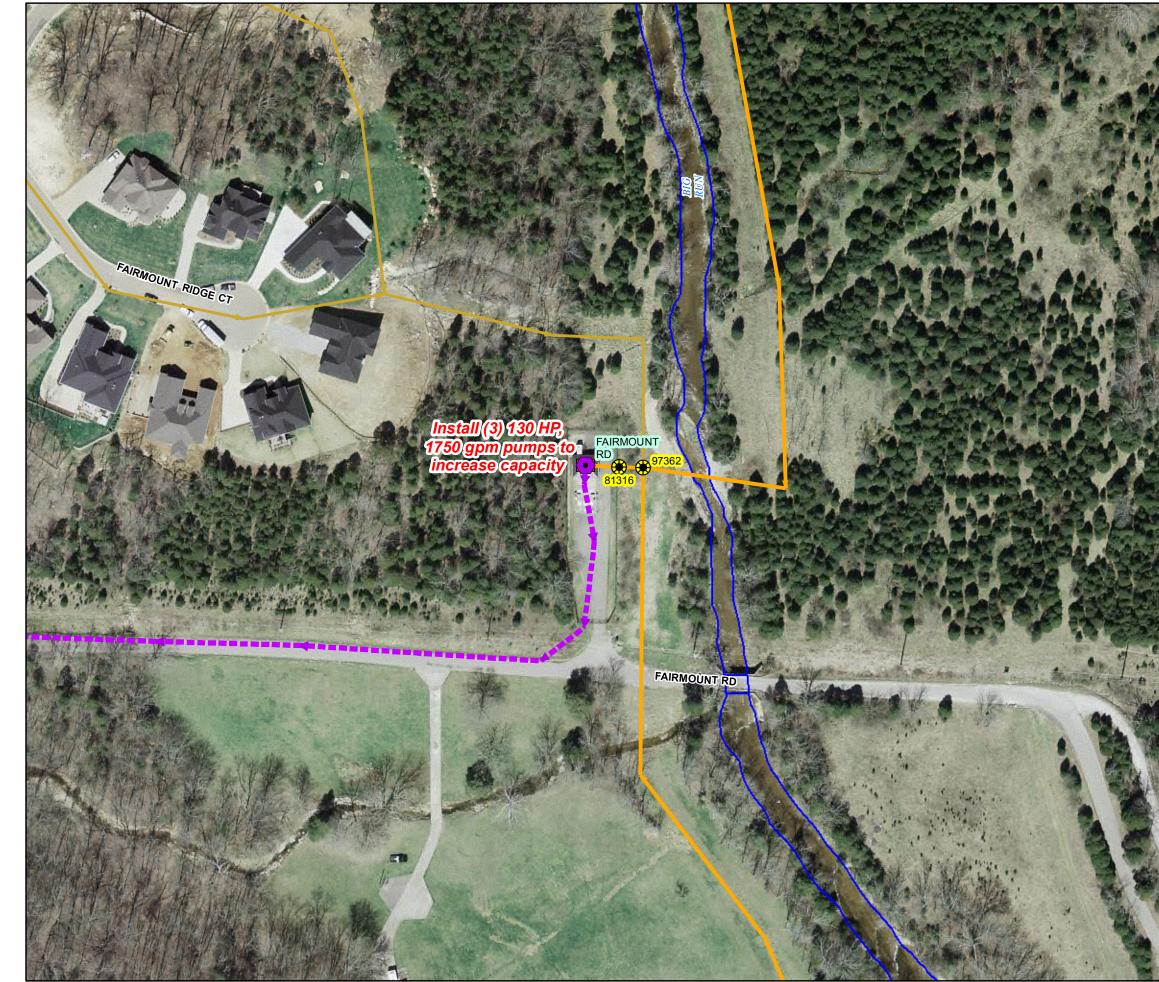
This document was developed in color. Reproduction in black and white may not represent the data as intended.





<u>SSO Project Number:</u>	S_FF_CC_81316_M_03_C_A
Project Name:	Fairmount Rd. PS Improvements
Modeled Area:	Cedar Creek
Branch or SSO ID:	81316
<u>Project Type:</u>	PS Upgrades
Receiving Stream:	Big Run
Project Description:	Install (3) 130 HP, 1750 gpm pumps to increase capacity
<u>Reason for Overflow:</u>	Pump station capacity
Design Parameters / Assumptions:	The Fairmount Rd Pump Station Expansion project will install new pumps, which eliminate overflows up to the 2.60-inch cloudburst storm event. This upgrade is part of the original design to accommodate future development.
Project Constraints:	None
<u>Capital Projects:</u>	E00303 ~ Fairmount Road Pump Station Expansion; E01037 ~ Fairmount Road Pump Station Expansion; E01238 ~ Broad Run Road Interceptor Sanitary - Outside 5 Year Plan; E01240 ~ Billtown Road Interceptor Sanitary - Awaiting Start; E93357 ~ Billtown Rd. Pump Station, Force Main - Outside 5 Year Plan; E94251 ~ Lake of the Woods WWTP Elimination - Outside 5 Year Plan; E94366 ~ Razor Branch Interceptor Sanitary Sewer - Awaiting Start
Estimated Capital Cost (2008 dollars):	\$874,000
<u>Weighted Benefit/Cost Ratio (Present</u> <u>Worth):</u>	33.29
Overflow Points Addressed:	
	Average Overflow /

<u>SSO</u>	<u>SSO Name</u>	Service Area	Overflow Type	<u>Discharge To</u>	<u>Average Overflow /</u> Incident (gallons)
81316	Fairmount Road #1	Cedar Creek	Manhole	Ground	500
97362	Fairmount Road #2	Cedar Creek	Manhole	Ground	212,100



Integrated Overflow Abatement Plan Vol. 3 - Sanitary Sewer Discharge Plan

Cedar Creek Sewershed Solution ID # S_FF_CC_81316_M_03_C_A Fairmount Rd. PS Improvements

Preliminary - For Budget Development Only Legend

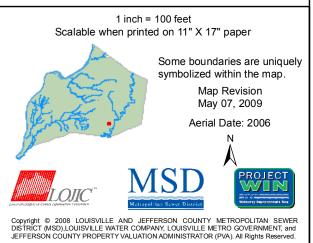
Documented SSO

Suspected SSO

Haul Operation

- Proposed Pump Station Solution
- Pump Station
- WWTP
- Proposed Pipe Solution
- ► Force Main
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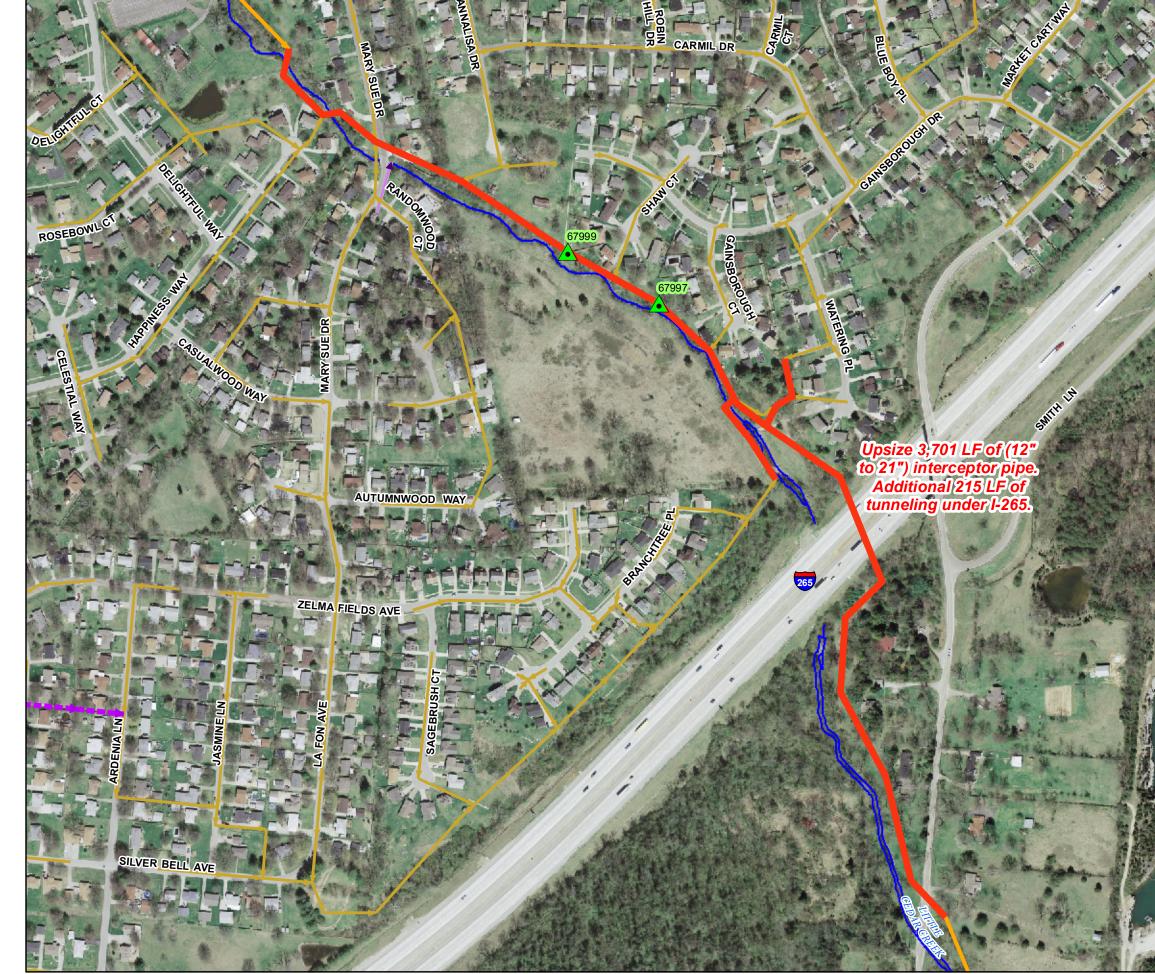






SSO Project Number:	S_CC_CC_67997_M_01_C
Project Name:	Little Cedar Creek Interceptor Improvements
Modeled Area:	Cedar Creek
Branch or SSO ID:	67997
<u>Project Type:</u>	Pipe Upgrades
<u>Receiving Stream:</u>	Little Cedar Creek
Project Description:	This alternative includes upsizing 3,701 LF of open cut sewer and 215 LF of 21"tunneling interceptor pipe in the area to increase hydraulic capacity during wet weather peak flows.
Reason for Overflow:	System capacity
Design Parameters / Assumptions:	This solution is based on a 1.82 inch cloudburst rain event
Project Constraints:	Project will occur in MSD easements or land
<u>Estimated Capital Cost (2008</u> dollars):	\$1,875,000
<u>Weighted Benefit/Cost Ratio (Present</u> <u>Worth):</u>	23.86

<u>sso</u>	<u>SSO Name</u>	<u>Service Area</u>	Overflow Type	<u>Discharge To</u>	<u>Average Overflow /</u> Incident (gallons)
67997	7906 Gainsborough Court	Cedar Creek	Manhole	Stream	25
67999	7904 Shaw Court	Cedar Creek	Manhole	Stream	Suspected-no data
86423	8314 Casualwood Way	Cedar Creek	Manhole	Stream	MOP-no data
89195	8104 Kimberly Way	Cedar Creek	Manhole	Stream	MOP-no data
89197	8104 Kimberly Way	Cedar Creek	Manhole	Stream	MOP-no data



Integrated Overflow Abatement Plan Vol. 3 - Sanitary Sewer Discharge Plan

Cedar Creek Sewershed Solution ID # S_CC_CC_67997_M_01_C Little Cedar Creek Interceptor Improvements

Preliminary - For Budget Development Only Legend

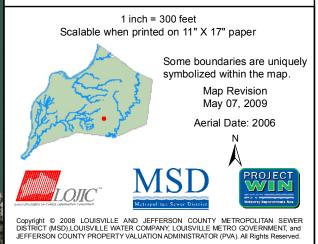
Documented SSO

Suspected SSO

Haul Operation

- Proposed Pump Station Solution
- Pump Station
- WWTP
- Proposed Pipe Solution
- ► Force Main
- ---- Collector < 12"
- Interceptor => 12"
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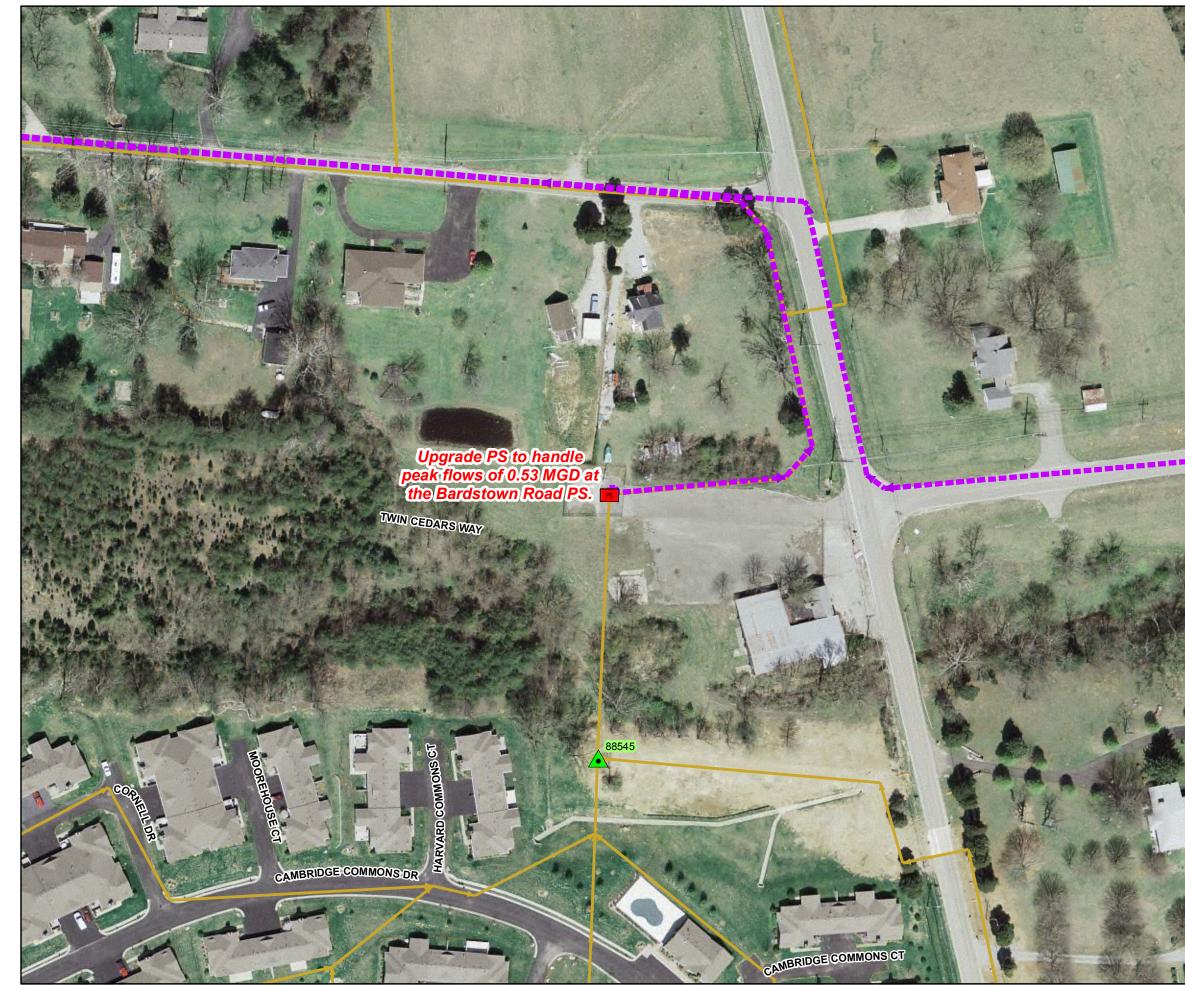






<u>Project Name:</u>	Bardstown Rd. PS Improvements
Modeled Area:	Cedar Creek
Branch or SSO ID:	MSD1025
<u>Project Type:</u>	Pump Station Upgrades
<u>Receiving Stream:</u>	Big Run
Project Description:	This alternative includes increasing the capacity of the pump station with an additional 70% of hydraulic capacity to 0.53 MGD so that overflows do not occur upstream.
Reason for Overflow:	Capacity
Design Parameters / Assumptions:	This solution is based on a 2.25 inch cloudburst rain event
Project Constraints:	None at this time.
Estimated Capital Cost (2008 dollars):	\$281,000
<u>Weighted Benefit/Cost Ratio (Present</u> <u>Worth):</u>	46.50

<u>sso</u>	<u>SSO Name</u>	<u>Service Area</u>	<u>Overflow Type</u>	<u>Discharge To</u>	<u>Average Overflow /</u> Incident (gallons)
	11101 Cambridge Commons				
88545	Drive	Cedar Creek	Manhole	Ground	Suspected- no data



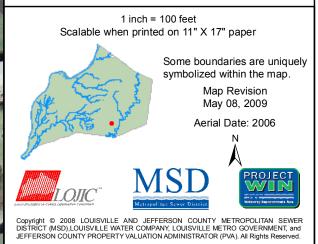
Integrated Overflow Abatement Plan Vol. 3 - Sanitary Sewer Discharge Plan

Cedar Creek Sewershed Solution ID # S_CC_CC_MSD1025_S_03_B Bardstown Rd. PS Improvements

Preliminary - For Budget Development Only Legend

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- CSO Area
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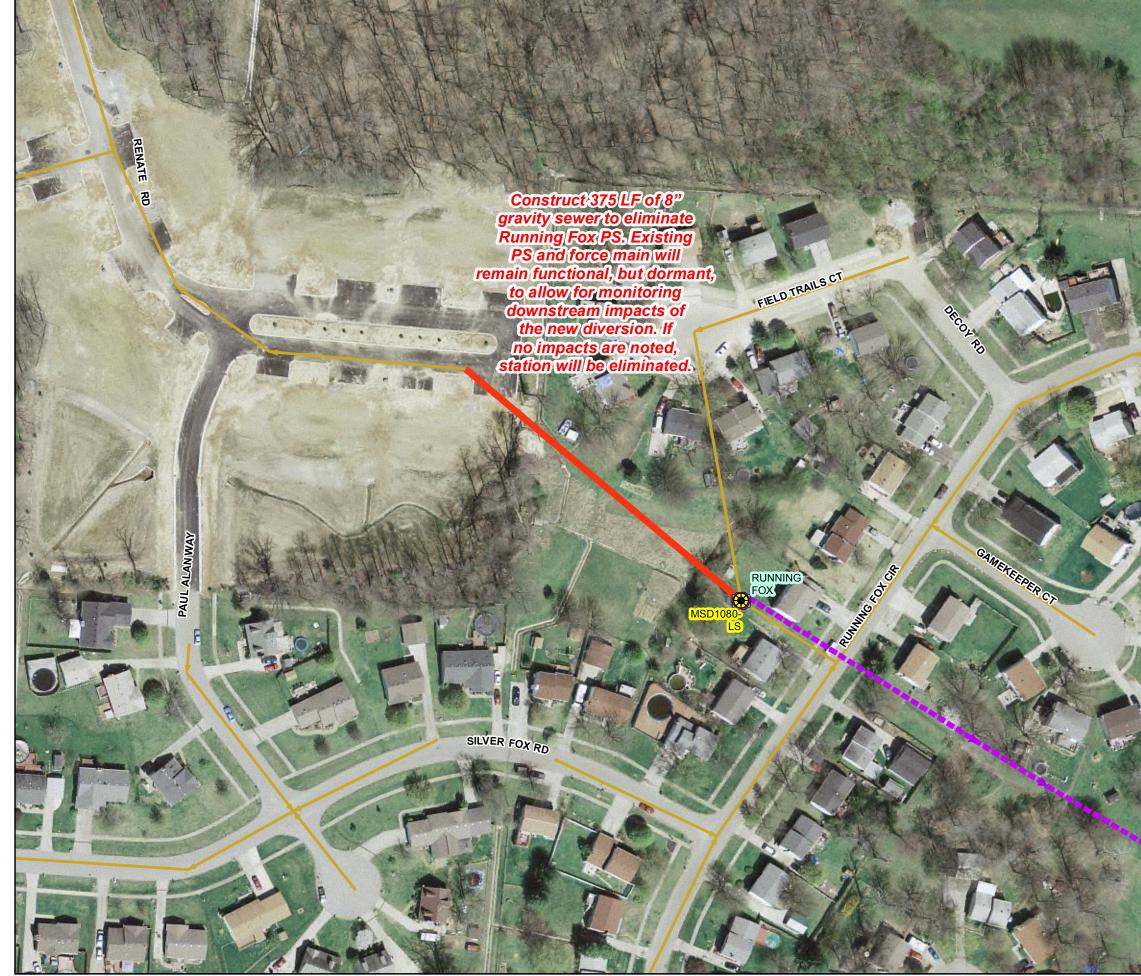






<u>SSO Project Number:</u>	S_CC_CC_MSD1080_S_01_C				
<u>Project Name:</u>	Running Fox PS Elimination				
Modeled Area:	Cedar Creek				
Branch or SSO ID:	MSD1080				
<u>Project Type:</u>	Diversion				
<u>Receiving Stream:</u>	Little Cedar Creek				
Project Description:	Construct 375 LF of 8" gravity sewer to eliminate Running Fox PS. Existing PS and force main will remain functional, but dormant, to allow for monitoring downstream impacts of the new diversion. If no impacts are noted, station will be eliminated and force main taken out of service. If downstream impacts arise, the PS will be reconfigured to supplement the capacity of the new diversion line.				
<u>Reason for Overflow:</u>	Pump Station capacity				
Design Parameters / Assumptions:	This solution is based on a 1.82 inch cloudburst rain event				
Project Constraints:	None				
<u>Estimated Capital Cost (2008</u> <u>dollars):</u>	\$96,000				
<u>Weighted Benefit/Cost Ratio (Present</u> <u>Worth):</u>	659.52				

<u>SSO</u>	<u>SSO Name</u>	Service Area	Overflow Type	<u>Discharge To</u>	Average Overflow / Incident (gallons)
MSD1080-LS	Running Fox	Cedar Creek	Lift Station	Ditch	37,000



MS Inc. SSDP Map Series: Running Fox PS Elimination

Integrated Overflow Abatement Plan Vol. 3 - Sanitary Sewer Discharge Plan

Cedar Creek Sewershed Solution ID # S_CC_CC_MSD1080_S_01_C **Running Fox PS Elimination**

Preliminary - For Budget Development Only Legend

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