

Rain Gauge Program Fact Sheet

Program Background:

- 18 rain gauges are actively operated by Louisville MSD
- Program expansion will add rain gauges in Jefferson and surrounding Counties to improve sewer system operations
- Additional rain gauge sites were prioritized based on location and partnership opportunities

Routine Maintenance by MSD Personnel:

- Inspections occur twice monthly
- Annual gauge calibration

Installation Information:

- Height – 10 feet from ground
- Pole-mounted tipping bucket
- To prevent structures or trees from influencing the readings, no obstructions may be present within a 45° angle of the rain gauge

Power:

- Direct utility access is ideal, but solar may be used in remote locations
- 2013 Average monthly electric usage – 6.6 kWh
- 2013 Average monthly electric cost – \$0.61





July 7, 2014

Mr. Jim Oliver
207 W. Main St.
Taylorsville, KY 40071

Re: *Rain Gauge Installation on Spencer County Middle School Property*

Dear Mr. Oliver:

Louisville Metropolitan Sewer District (MSD) actively operates eighteen rain gauges to record rainfall intensity and duration in Jefferson County. Because sewer overflows regularly correspond to rain events, tracking an accurate distribution of rainfall is critical to understanding the sewer system's wet weather response and mitigating Louisville's sewer overflow problems. MSD's network also serves as a powerful educational and weather tool for the community by offering real-time rain data to the news networks and via our website.

MSD is investigating expanding our rain gauge network within and around Jefferson County. Adding gauges in strategic locations will improve sewer system operations, resulting in environmental and public health benefits for our community. As part of a preliminary site study, Spencer County Middle School was identified as a partnership option for rain gauge placement. We are approaching select property owners in areas where additional rain data will be most beneficial and would like to request your cooperation in installing a rain gauge on the Spencer County Middle School property.

The installation will consist of a 10-foot tall post with a metal instrument panel and tipping bucket rain gauge, which will use telemetry to update rainfall conditions in 5-minute increments. The equipment is completely automated, but there will be a need to access the rain gauge for routine maintenance activities. To power the instrument, the electricity usage is nominal, averaging 6.6kWh per month (approximately \$0.61 per month). Plans call for the gauge to be operated indefinitely, but all equipment could be removed promptly upon request.

Enclosed is a fact sheet with information regarding the program, including installation information, power usage, and routine maintenance. To provide an incentive for installation and electric access, MSD is offering \$500 to partners who agree to participate in this program. Mary Landgrave (mary.landgrave@louisvillemسد.org, 502.472.2097) will be coordinating with you to discuss program details, schedule, and determining an appropriate gauge site location. Please contact her regarding any questions related to this program. Thank you for considering partnering with us to advance our data collection efforts, sewer system improvements, and educational opportunities for the community. We look forward to meeting with you to begin discussions regarding rain gauge placement and scheduling.

Sincerely,

Stephanie Baker Laughlin
Regulatory Services

sbl/Rain Gauge Program Letter.docx

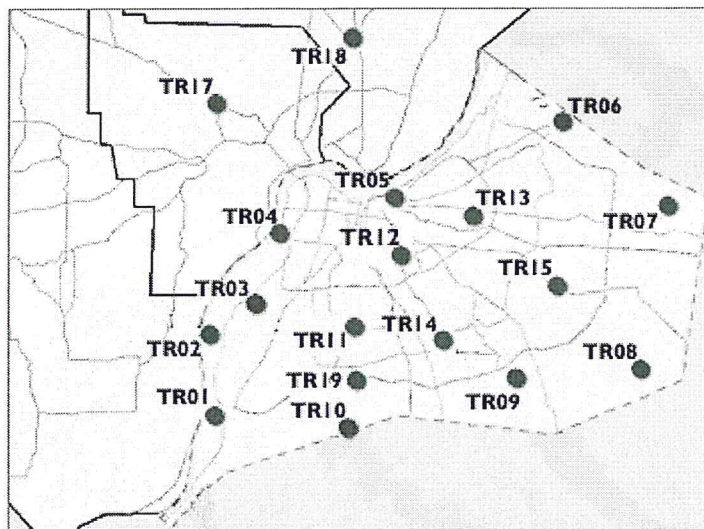
cc: A. Akridge, J. Gray, J. Loechle, M. Thomas, file



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RAINFALL CONDITIONS FOR JEFFERSON COUNTY, KENTUCKY

(page updates automatically)



This page provides rainfall summaries for rain gauges that are operated and maintained by MSD. Actual rainfall conditions are automatically telemetered (transmitted) to MSD's central computer every 5 minutes. This page is then updated every minute automatically. The "Rainfall Rate" column to right displays the rainfall rate in inches per hour detected by the gauge during the previous 5 minute period. The "Daily Total" column displays the total inches of rain recorded at that gauge since midnight of the current day.

[Generate a report or query the database](#)

[View local flood warning and safety information](#)

View flood stage information at the McAlpine Dam on the Ohio River at Louisville

[Ohio River Levels at Louisville - Upper Gauge](#)

[Ohio River Levels at Louisville - Lower Gauge](#)

Last Updated: 02/14/06

Current Rainfall Conditions as of Sep 04, 2014 9:55 AM

ID	Site	Rainfall Rate (in./hr)	Daily Total (inches)
TR01	D. R. Guthrie WQTC	0.00	0.00
TR02	PRP Fire Station Training Facility	0.00	0.00
TR03	Shively PS	0.00	0.00
TR04	Morris Forman WQTC	0.00	0.00
TR05	Beargrass Creek PS	0.00	0.00
TR06	Hite Creek WQTC	0.00	0.00
TR07	Floyds fork WQTC	0.00	0.00
TR08	Fern Creek Fire Station #3	0.00	0.00
TR09	Cedar Creek WQTC	0.00	0.00
TR10	Camp Horine (Jefferson Co. Forest)	0.00	0.00
TR11	Northern Ditch PS	0.00	0.00
TR12	Nightingale PS	0.00	0.00
TR13	St. Matthews Elementary School	0.00	0.00
TR14	Lea Ann Way PS	0.00	0.00
TR15	Jeffersontown WQTC	0.00	0.00
TR17	Mt. St. Francis	0.00	0.00
TR18	IVY Tech	0.00	0.00
TR19	Fairdale High School	0.00	0.00

WQTC = Water Quality Treatment Center

PS = Pumping Station

[More Rainfall Info](#)

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Oliver, Jim R. (Director of Facilities and Grounds)

From: Mary R. Landgrave <mary.landgrave@louisvillemsd.org>
Sent: Thursday, September 04, 2014 9:50 AM
To: Oliver, Jim R. (Director of Facilities and Grounds)
Subject: RE: MSD Rain Gauge Expansion Project

Mr. Oliver,

Here's the link for the rainfall data: www.msdlouky.org/aboutmsd/rainfall.cfm

Let me know if you need more information or have more questions!

Thanks,
Mary Ruth Landgrave
Engineering Tech. V
Louisville & Jeff Co. MSD
Regulatory Services
mary.lanham@louisvillemsd.org

From: Mary R. Landgrave
Sent: Thursday, September 04, 2014 9:19 AM
To: Oliver, Jim R. (Director of Facilities and Grounds)
Subject: RE: MSD Rain Gauge Expansion Project

Sure. I would be happy to answer any questions you have. You can call either the office #: 502-540-6529 or my cell #: 502-472-2097.

Thanks,
Mary Ruth Landgrave
Engineering Tech. V
Louisville & Jeff Co. MSD
Regulatory Services
mary.lanham@louisvillemsd.org

From: Oliver, Jim R. (Director of Facilities and Grounds) <jim.oliver@spencer.kyschools.us>
Sent: Wednesday, September 03, 2014 8:51 AM
To: Mary R. Landgrave
Subject: RE: MSD Rain Gauge Expansion Project

I would like more info could you give me a number which you can be reached thanks Jim

From: Mary R. Landgrave [mailto:mary.landgrave@louisvillemsd.org]
Sent: Tuesday, September 02, 2014 12:16 PM
To: Oliver, Jim R. (Director of Facilities and Grounds)
Subject: MSD Rain Gauge Expansion Project

Dear Mr. Jim Oliver,

As promised, the electronic copies are attached. Once you review these documents, please let me know if Spencer Co. Middle School is interested in partnering with us. Then, the next step would be to schedule a site visit to choose the rain gauge location together.

Looking forward to partnering with you.

Sincerely,
Mary Ruth Landgrave
Engineering Tech. V
Louisville & Jeff Co. MSD
Regulatory Services
mary.lanham@louisvillemad.org