

Flahive, Katie

From: Satish Gupta <gupta002@umn.edu>
Sent: Sunday, December 5, 2021 5:48 PM
To: Flahive, Katie
Subject: For Hypoxia Task Force
Attachments: Kari's Paper Supplemental Material -J Hydrology Regional Studies.pdf; Baeumler and Gupta 2020 JAWRA Highlighted Text.pdf; Baeumler and Gupta JAWRA 2020 Supporting Information.pdf; Kari's Paper 2020 J. Hydro. Reg Stud Highlighted Text.pdf

Dear Ms. Flahive,

Per Tetra Tech email instructions, about the Hypoxia Task Force meeting set for 14 December, I have attached copies of our two recent papers dealing with the issue of river nitrogen loads in the Midwest. Our conclusions are that recent increased nitrogen loads are mainly due to increased precipitation and not due to fertilizer use or changes in land use including cropping systems. This analysis covers rivers in Minnesota, Iowa, Illinois, Indiana, and Missouri. We believe that under the current cropping system, it will be very difficult to reduce these loads by managing soil or cropping system practices such as spring fertilizer application, bioreactors, buffer strip, saturated buffers, no-till, etc. Furthermore, it appears that the 45% reduction goal set by the task Force is not achievable under the current cropping system especially if this wet period continues.

I shall greatly appreciate it if you will share these publications with the Hypoxia Task Force in case they have not seen them. If there are any questions on our research, please feel free to drop me an email. I look forward to attending the next Hypoxia Task Force meeting on the 14 December.

Best regards,

Satish

Satish Gupta
Professor Emeritus
Dept. Soil, Water, & Climate
Univ. of Minnesota
St. Paul, MN 55108
612-625-1241

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fswac.umn.edu%2Fpeople%2Fsatish-gupta&data=04%7C01%7CFlahive.Katie%40epa.gov%7Ca465a183fa2d4f64180a08d9b84162bf%7C88b378b367484867acf976aacbeca6a7%7C0%7C0%7C637743414335190180%7CUnknown%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IjEkaWwiLCJXVCI6Mn0%3D%7C3000&data=pnXdEueOwIREncFN92%2BcnY0c7kiYtdKdINk6xsfaDdl%3D&reserved=0>