

**IDENTIFYING SOURCES OF CONTAMINANTS IN URBAN STORMWATER AND EVALUATION OF THEIR REMOVAL EFFICACY ACROSS A CONTINUUM OF URBAN BEST MANAGEMENT PRACTICES
MID PROJECT REPORT**

July 2019

Track-2: Integrated Projects

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PROJECT SUMMARY

We have made broad progress with all aspects of the study. We have collected a full set of stormwater samples representing sequential locations in stormwater conveyance from inflow to outflow to shallow groundwater to infiltration samples. These samples were readied for chemical analysis by the USGS National Water Quality Laboratory with approximately 75% of the analysis completed to-date. The installation of pressure transducers in two groundwater wells will provide additional data to place our findings into a larger hydrological context. We have validated the procedures to detect species-specific fecal contaminants in collected stormwater samples for human, canine, and other species to identify sources of contamination. We also have held a workshop for approximately fifteen high school science teachers at St. Cloud State University to provide information about stormwater and the potential adverse effects of contaminants of emerging concern in storm water. Laboratory work, including analytical chemistry and molecular extractions of DNA/RNA, has been hindered by the ongoing covid-19 pandemic. Despite this obstacle, we have progressed with preparations for manuscript dissemination of the study results and plan for several presentations at 2020 and 2021 scientific conferences.