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| UTC Project Information | |
| Project Title | MPC-690 – Pilot Scale Evaluation of Escherichia Coli Removal from Stormwater Runoff Using Steel Byproduct Filtration |
| University | South Dakota State University |
| Principal Investigator | Guanghui Hua  Christopher Schmit |
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| Funding Source(s) and Amounts Provided (by each agency or organization) | USDOT, Office of the Assistant Secretary for Research and Technology $120,000  East Dakota Water Development District  $50,000  South Dakota State University  $70,000 |
| Total Project Cost | $240,000 |
| Agency ID or Contract Number | 69A3551747108 |
| Start and End Dates | May 24, 2022 to July 31, 2023 |
| Brief Description of Research Project | Fecal indicator bacteria such as E. coli have been recognized as major contaminants that prevent the potable and non-potable reuse of stormwater runoff from different sources. Conventional stormwater best management practices are generally not effective in removing E. coli. Recycled steel byproducts are a new filtration material that can be used for stormwater runoff treatment. Laboratory experiments have shown that media filtration using steel products can effectively remove E. coli from stormwater runoff. The objective of this project is to install a large pilot scale steel byproduct filter at a stormwater site at the City of Sioux Falls, SD and determine the performance of this filter for E. coli removal. The results of this project can promote the full scale application of this new technology for stormwater treatment. |
| Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here |  |
| Impacts/Benefits of Implementation  (actual, not anticipated) |  |
| Web Links   * Reports * Project Website |  |