A conceptual model for influent generation

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This document describes how to run conceptual model for influent generation.

Run power transformed normalized water level python code to get alpha velue

- Upload water level data in the input folder [i.e, WL_05485500_2023_2024.csv]
- Open Power_Transformed_Normalized_WL.py
- Set the working directory and change the csv file name [line 17 & 20]
- Change the calibrating parameter bita [line 33]
- Change number of months [line 49]
- Change the start and end date [line 52]
- Run the code

Running Influent generation model

- Upload CSV file with 'Date', 'Rainfall (mm/day)', and 'alpha' columns in input folder (Rainfall is historical data and alpha from output folder alpha.csv by running Power_Transformed_Normalized_WL.py) [i.e, WRF_Rainfall_2023.csv]
- Set the working directory and change the csv file name [line 25 & 28]
- Set weekly fraction for domestic and industrial wastewater [line 41 to 61]
- Set population and Daily per capita wastewater production [line 72 & 73]
- Set average daily industrial wastewater [line 82]
- Set K_RDI [line 91]
- Set alpha_invert and K_GWI [line 100 & 101]
- Set kd and K_RII [line 116 & 117]
- Influent can be found in the output folder

Note: The script is thoroughly commented to improve clarity and make it easier for users to understand and customize each modeling step.