

Project Update
BYU Sewer Analysis
CEEN_CPST_015

Team SNAC
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We feel to be approximately 80% complete in our project. We lacked some important information necessary for model input, but we have recently gained that information and feel good about our progression.

We have already completed many necessary tasks. We learned how to use and model a sewer system using EPA SWMM. We have also found the location and elevations of all the manholes on campus, which will become our junctions. From that information we were able to determine the length of every pipe and which junctions they connect. We have also received or found diurnal curves for facility types and have identified which facility types related to the diurnal curves are connected to which buildings on campus. Also, we have begun a GIS map for visualizing the location and connection of these junctions and pipes, which have helped to identify facilities, and determine where there are inflows and outfalls. This mapping will also be useful for later analysis and visualization.

What we have left to accomplish is to finalize the data collection and have it easily organized. Specifically, we need to finish identifying which junctions are connected to which buildings to determine the inflows for the system. Once this data is finalized, we will take our compiled data spreadsheet, apply it to the junctions and pipes, and input it into SWMM for calibration and analysis. There is also likely to be error when first running the model that will need to be fixed. Once the model is successful and calibrated, an analysis can be made. From that analysis we can identify which BYU sewer pipes are close to capacity, if any, and have a model to turn into the company.

For the successful completion of this project each team member will have specific tasks and goals. Sophie will be finishing up the data collection and compilation, and then she will be helping with the calibration of the model. Natalie will be applying the data to the junctions and pipes with the help of Clay. Then she will be working on the analysis and GIS output maps to visually depict the results of the analysis. Andy will be working with Sophie to finish up the data compilation, helping with the data conversion over to SWMM, and then working on the calibration and analysis. Clay will be working on the actual running of the model and fixing error when they arise or delegating the needed aspects to other team members. Although we all have different tasks or goals based on our individual strengths, we will be working together and collaborating to finish this project successfully.

We do not have any proposed changes.