Central Control, Sewers and (0,1) quadratic programming

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We consider small sewer systems that combine foul water and storm water sewer functions in flat terrain. These systems are a combination of local gravity flow networks connected by pumps. The pumps are usually fixed speed, so they are on or off. We formulate a (0,1) quadratic programming problem, provide an overview of known solution methods and examine the relative speed of different solution methods.