Summary:

Problem description:

Stakeholders:

Min Lee: PM

George Batta: Faculty Advisor

Rishi Bhat: Reporting Lead

Jennifer: Coding Lead

Zach: Coding Lead

Kerrie: Director of administrative services

Cal state san ber, local school district

Rocky: district with three years, provide upgrade tools, better leverage the data, past two semesters have been working with

William: handle public outreach and conservation programs,

Elilenn: HR duties, planning and scheduling

Background:

Limited availability, weekly data, regression analysis, demand projection model completed, daily, operators

Linear programming model for flow routing tool for operators with constraints:

Excel model is desired but okay with other programs

Constraints: pump output, 39 different pump stations, we are allowed to run one

Same cost for all pump stations, constant cost per unit, $/KWh, challenge to cost is the building structure that’s different, when the rate is changed, the cost is changed. Energy usage rather than price is a good gauge. $/KWh is real satisfying output.

Water system masterplan

Reupload the last semester’s resources and improvements

Site visit in couple weeks out:

Conservation programs:

Rebates, are they working, are they leading to water savings?

Flush urinals, pool covers (large scale state data, not really applicable to the district)

Conservation rebates that can be engaged/recommended with the customers and educate them and help them and the district save water

Water savings, conservation efforts, relationship building

Kerrie: present to the formal board of directors, managers at the end of semester

Rocky: linear programming does not need to be perfect, tuned into little inputs and outputs, make simple assumptions

Excel plugin was used

R or Python may be difficult for operators who are our audience. Limited computer saavyness. Limited technical ability. Pretty familiar with Excel. User friendly

Rocky has saved all the resources from last semester in a box

Eileen will send all the personal information to us

Start with weekly meetings

Bi-weekly

Eileen will include the master plan in the email:

Two chapters on existing system and the rest is on demand projection and potential

**Proposed Solution:**

Minimum Viable Product (MVP):

Flow routing model

Post-MVP features:

Stretch Goals:

Conservation rebates programs

Cost-dependent MVP

Risks and solutions:

Timeline:

Phase 1:

Phase 2:

Phase 3:

Phase 4: