

RV Lift Station: Response to UCCWA questions

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Diane,

Thank you for taking the time to talk with me about the subject project earlier today. I forgot to mention that this has also been submitted to the CCCSD for review and approval and that it has not been approved to date by the District.

- On future projects, if there is anything we can do differently to make this process run more smoothly, please let me know.
- In particular, if there are any requirements from the UCCWA that we need to be aware of regarding future lift station projects we can be sure to address those ahead of time.

As promised, I reviewed the questions you brought up during our call with our engineer, and have provided the answers below.

1. Will lift station have secondary containment, and if so, what is capacity? *No the lift station does not have secondary containment. The lift station was designed with some features that will allow for temporary bypassing of the lift station if an issue were to occur and requires the lift station to be taken out of service. For instance, if the wet well was found to be leaking, the operator can go to the manhole prior to the wet well and plug it to keep additional flow from entering the wet well and seeping out into the surrounding soils. There are also valves that may be closed to keep the water within the force main to drain back into the wet well and seeping into the surrounding soils.*
2. Not clear if there is any emergency overflow operation, and if so, capacity? *The CDPHE does require overflow storage to equal 60 minutes of storage at the peak hourly flow, which is being provided by a combination of storage within the collection system and the addition of a 25 foot long 36" dual wall corrugate wall pipe. The storage within the collection system piping is such that it would not result with the level of the water getting within 2 feet of the lowest manhole rim elevation of the collection system.*
3. Does lift station have backup power? *Yes, the control panel will include a quick-connect generator receptacle to be hooked up to a portable generator to provide temporary power to the lift station.*
4. Are they planning to tie into the Clear Creek emergency services building? *The project will be extending the force main to the Idaho Springs RV Site and connect to the existing force main that the Clear Creek Emergency building is currently connected to.*
5. Are there going to be future connections along this stretch? *The force main was designed in accordance with the CCCSD requirements. Our understanding is that the gun range will be*

connecting to the same force main but beyond that we are not aware of any other future connections planned at this time.

Thank you, let me know if any other questions at this time.

Chuck Williams, PE, PMP
KLJ – Englewood

UCCWA Feedback for Consideration

I think the lift station should have double redundancies. Basically, there should be two lift stations, two wet wells. And a separate disconnect for each. Each lift station should have at least two pumps but could go with three. In the Three pump scenario each of the pumps should be able to handle 50% of the flow.

Purists believe there should be two force mains. I'm not sure I could go there. But if there is a big difference between start up flows and build out flows it is good to have two force mains, one small for low flows and one large for build out flows. If you have little flow in a big pipe the sewage will go septic in the line, this will result in bad odors and bad gas in the area where the lift station discharges. In the event of a trailer park only, one is probably sufficient as it would typically take less than a month to meet build out.

The reg for the emergency also is required to contemplate reaction time of the operator. I'm not sure where the operator will be located, if in the trailer park the response time would be quick, if the operator is in Denver that should be considered.