

Commonwealth Engineers, Inc.

Progress / Status Report

TO: DCRWD **Report Period:** 3-8-18 thru 4-4-18
FROM: CEI **Client:** DCRWD
DATE: 4-4-18

LAST MONTH ACTIVITIES:

- 3-7-18 DCRWD Meeting
- 3-8-18 CEI site visit with Jason Richards and Scott Friend Royerton Elementary School
- 3-21-18 Received initial Royerton Area Sewer CAD Model Data from GRW
- Progress on PER Assembly including ongoing data collection with Penny Ring and Jason Richards

WORK ANTICIPATED NEXT MONTH:

- Continue to progress on PER assembly
- Summarize preliminary Westbrook alternatives for review with DCRWD
- Obtain additional SewerCAD model data from GRW for the Royerton Overflow issue; Confirm lift station and asbuilt information for infrastructure within the Royerton Overflow area; mobilize field crew to confirm asbuilt information
- Complete electrical & controls site reconnaissance for CR600W lift station site.

SPECIFIC ACUTE CONCERNS UPDATE:

- Westbrook
 - GRIPP / GRW flow metering effort ongoing
 - CEI ongoing evaluation:
 - CEI has reviewed the study
 - Still need actual FM asbuilt drawings to confirm pipe lengths and elevations (current assessment based upon utilizing sizes, lengths, and elevations obtained from GRW report.
 - Original pump manufacturer (Worthington) has been bought by FlowServe
 - Wrong application for existing pumps based upon actual site conditions; Headloss calculations from GRW report appear to be incorrect (off between 15 ft – 30 ft); actual system headloss is significantly higher than pump design conditions.
 - This is reason the pumps cannot operate at speeds greater than 80% (will damage motor)
 - CEI looking at options which include replacement pumps that can operate at higher head conditions; upsize existing FM such that existing pumps capacities can be maximized
 - CEI electrical and controls engineer will be scheduling a site visit to evaluate the existing electrical service and control panel
 - Royerton Overflow
 - CEI has reviewed study.
 - CEI obtained initial SewerCAD data from GRW; supplemental SewerCAD output data has been requested by the end of this week.
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- CEI received updated pump station curve data from DCRWD
 - CEI has completed a preliminary assembly of all, in house asbuilt information for the Royerton area (a paper copy of the area around the school will be provided to Jason Richards for his review and comment.
 - With Commonwealth's as-builts, approach would be to (1) obtain GRW model and review, (2) mobilize field crew to confirm as-builts / obtain necessary supplemental information (pumps installed, accuracy of as-builts), (3) confirm or disprove GRW recommendation and (4) assemble alternative cost conscious solutions.
 - PER (55-60% COMPLETE)
 - Ongoing effort to address original report deficiencies. Obtained updated financial and flow data from DCRWD. Ongoing coordination with WWTP equipment vendors.
 - Narrative for first three (3) chapters in draft form pending internal QA/QC review; maps and figures are with CAD group.
 - Ongoing assembly and development of alternatives
 - Anticipate presentation of draft PER subsequent to May 2018 DCRWD Meeting (**we can schedule a date/time**).
 - IDEM Compliance Status:
 - Westbrook - IDEM March 21, 2018 SSO Inspection Summary Noncompliance Letter
 - IDEM Inspection occurred on March 6, 2018
 - Reference to 12 days of SSOs in last 12 months
 - Refers letter to OWQ Enforcement
 - Findings forwarded to IDEM Enforcement
 - Incorporation into current Agreed Order 2011-19984-W
 - Commonwealth to provide response for DCRWD signature
 - Flow metering, study, etc. activities to be included in response
 - IDEM OWQ Enforcement Agreed Order Case No. 2011-19984-W
 - Agreed Order only for Westbrook area at this time
 - Case and Action Plan recently revisited by IDEM Enforcement
 - Commonwealth has been in frequent discussion with IDEM Enforcement Chief and Case Manager on DCRWD's behalf
 - DCRWD to receive letter in coming days to submit new Compliance Plan
 - Stipulated penalties may be referenced and Commonwealth will negotiate on DCRWD's behalf to reduce or eliminate
 - Compliance Plan submitted in 2012 may have been implemented, but not effective due to recurring SSO events
 - Compliance Plan will incorporate short-term (flow metering, pump evaluations, etc.) and long-term PER-based solution, design, and construction
 - Royerton – IDEM March 20, 2018 SSO Inspection Summary Noncompliance Letter
 - IDEM Inspection occurred on March 6, 2018
 - Reference to 6 Reported SSOs in last 12 months
 - Requests Action Plan to address SSOs
 - Commonwealth to provide draft response for DCRWD signature
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- Modeling, alternatives evaluation, etc. to be referenced as mitigation strategy for Action Plan
- Royerton area SSO mitigation could potentially be incorporated into Agreed Order summarized above, which would allow for collaborative future compliance and enforcement reporting activities

POTENTIAL ISSUES:

- Waiting for modified SewerCAD files for Royerton area from GRW
 - Need to get the / a second pump functional as a back-up (Lag) pump for the CR600W Lift Station
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