



HARRISONBURG-ROCKINGHAM REGIONAL SEWER AUTHORITY
RDII WORKING GROUP MEETING

MINUTES

Date: November 1, 2022
Time: 2:00 PM EDT
Location: HRRSA Administration Building, Conference Room,
856 North River Road, Mt. Crawford VA 22841
Facilitator: Aaron Tice, Wiley|Wilson

1. Call to Order
 - Last RDII Working Group was held on March 13, 2020.
2. Proof of Notice of Meeting
 - Date selected on October 12, 2022 and notice emailed to group members October 12, 2022.
3. Purpose of RDII Working Group
 - Environmental stewardship by reducing SSOs
 - Financial stewardship by reducing future project costs for projects identified in 2018 Level of Service Master Plan (LOS MP)
 - Total cost from 2018 LOS MP is approximately \$75 million, including plant and collection system upgrades.
 - Cost is partially driven by wet weather capacity needs
 - Collaboration among localities will reduce cost
 - Division 1 (Upper Blacks Run) from LOS MP is complete
 - LOS MP will be revised based on past reductions in RDII
 - Wet Weather Flow Targets:
 - 24-hour volume and peak flow reduction to achieve 2- and 5-year LOS in the Blacks Run Interceptor:
 - 2-year LOS = 33% RDII reduction
 - 5-year LOS = 50% RDII reduction
4. Update on HRRSA Blacks Run Interceptor Project
 - CIPP lining of approximately 3,000 linear feet of existing 36-inch interceptor through Purcell Park due to aging pipe
 - Replacement of approximately 3,700 linear feet of existing interceptor from Purcell Park to I-81 with 48-inch pipe
 - City of Harrisonburg is now working on stream restoration and pedestrian improvements in this area, so a reduction in SSOs is additionally beneficial to the community

5. Update on HRRSA Master Plan Update
 - Schedule for update is Spring/Summer 2023
 - Update will quantify the success of past RDII reduction
 - Update will coordinate HRRSA LOS MP with member locality master plans
 - Updated alternatives and cost projections, emphasizing scope reduction
 - At 22 MGD of total flow, Blacks Run (BRI) and Lower Cooks Creek (LCC) interceptors have a peaking factor (capacity vs. allocation) of 2.0, which is the minimum required per Virginia SCAT regulations. At future 28 MGD flow, BRI and LCC have a projected peaking factor of 1.6.

6. Flow Monitoring Summary (Aaron Tice, Wiley|Wilson)
 - Repairs are being made to existing meters, current delays due to supply chain issues
 - Meters will ideally be able to capture Winter/Spring 2023 data

7. Summary of HRRSA and Member Locality Reporting (Aaron Tice, Wiley|Wilson)
 - HRRSA has seen relatively few SSOs in the past couple years
 - Recent SSOs have been in Lower Cooks Creek Interceptor, just up from the plant
 - SSOs have not occurred recently in Blacks Run Interceptor, which has historically been a location of concern. This indicates potential positive improvements resulting from Division 1 and RDII reductions.

8. City of Harrisonburg SSO Reduction Program (Jamie Fultz, City of Harrisonburg)
 - The City's Sanitary Sewer Collection System includes the East, West, and North interceptors.
 - City has utilized flow monitoring to locate potential RDII issues
 - City uses a combination of temporary and permanent flow monitors
 - City has been using Hach FLO-DAR monitors
 - Monitoring at City Manhole 88 40 allowed the City to remove an entire subshed from further condition assessment due to minimal response to storms
 - Flow monitoring study was completed in 2020 to prioritize inspections. Study found that subsheds near downtown had highest RDII response
 - Discussion of how to locate RDII sources
 - CCTV efforts have located large sources of RDII, two of which were at storm sewer crossings
 - Prioritize CCTV inspections in areas known to have high water table
 - Conduct inspections during wet weather seasons
 - Annual smoke testing of approximately 10% (100,000 LF) of system

- Discussion of how to eliminate RDII sources
 - Log and document locations of RDII sources. City uses City Works program to flag specific infrastructure as RDII sources
 - Line pipes. When lining, replace laterals by open cut, otherwise RDII will travel along rehabilitated pipe and enter at laterals
 - Replace pipes or complete point repairs where necessary
 - Use manhole inflow pans, and bolt manhole frames to cone
- The City has an on-call contract with Prism to conduct CCTV. The City is agreeable to allowing other member localities cooperatively use the on-call contract to assess their systems

9. Member Roundtable Discussion

- Phillip Rhodes of Rockingham County discussed a recent project where the anticipated rehabilitation cost of a portion of sanitary sewer was approximately \$100,000. Due to severity of condition of the existing pipe, pipe had to be replaced for approximately \$1 million, highlighting the cost effectiveness of rehabilitation where possible.
- Harvey Morris of HRRSA reminded members that Electro Scan is working to reschedule demonstration for late November or early December 2022.

10. Adjournment

- Next proposed working group meeting likely in Quarter 2 of 2023, hopefully allowing for flow monitoring results to be reviewed

