Sweating the (BMP) Details

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Clean Water Partnership

- **Description**
- Goals

Design through Construction

- Collaboration, Design Review and Feedback
- Outreach
- Inspections
- Maintenance Transfer

Maintenance Lessons Learned

- Proactive vs Reactive
- Building Workforce
- Cost Drivers
- Data and Looking ahead

Collaborative Infrastructure



Stormwater Management can be an impactful solution to infrastructure programs that achieve broader County policy goals and objectives:

- Achievement of greater cost savings, innovation, efficiencies, and economic development output are realized
- More effective utilization of a partnership— shared goals and interests foster collective teaming behavior in the overall infrastructure strategy as opposed to the relational dynamics of an environmental contractor
- Can increase efficiencies and job creation opportunities that do <u>NOT</u> duplicate efforts across CIP, DPWT & CWP, but leverage the established subcontractor capacity & workforce development programs across all of them
- Improvements needed to the existing funding strategy that causes inflated pricing, delayed payments and reputational impact that reduces opportunities for S/MBE firms to grow.

Collaborative Infrastructure





Collaboration





Collaboration





Data Sharing



















Impacting Design





Impacting Design





Impacting Design



Research and Strategize

- Develop a plan
- Translate into plain language and graphics
- Share information with stakeholders
- Document efforts
- Assess outcome

Prince George's County, in atliance with the Clean Water Partnership (CWP), has been working on the planning and design of a weeker quality improvement project at a stormweter menagement pond at Konterra Businese Park. Construction for this project is scheduled to start in Sommer 2018. PROJECT DETAILS This project is being completed to meet regulatory requirements for treating stormwater within the soundy. The team CONTRACTOR: Sec will be remaining excess sediment and other pollutants from the pond shown show employing Best Management Practices. The team will remove silt and mud, as well as provide better drainage to the outfall structure. Construction materials such as sand, gravel, and Hidlmans, and pipes will be stored at the pond site. The Clean Weter Pertnerably will add ground cover plants upon

completion of the project.

CONSTRUCTION 57 CONSTRUCTION FOR CONSTRUCTION HOU Manday - Friday: 7:50 Seturday: 7:00 a.m.- 6:0 SITE ACCESS: Construct existing access road off M o gain access and will have writte flow as needed

CLEAN WATER PARTNERSHIP KONTERRA **BUSINESS PARK**

CONSTRUCTION INFORMATION

Outreach Coordination





- Confirm proper elevations, materials, placement
- Monitor erosion & sediment control devices

Inspections





Stabilization





Stakeholder Buy in





Proactive vs Reactive Maintenance



Before - Low flow is clogged, silted in & woodel

After - provided more capacity & forebay for filtering

Proactive vs Reactive Maintenance



Pond Retrofit - Before

After - excess nutrients are being held by the forebay



Proactive vs Reactive Maintenance



Aesthetic standards

- Naturalistic vs. manicured appearance
- Number of visits to the site per year
 - Trash and sediment removal, weeding are major drivers
- Need for specialized skills/equipment
 - Access issues for subsurface maintenance
 - Untested materials or products
- Labor standards
 - Prevailing wage/job classification
- BMP location and type affects all of the above
- Amount of oversight required

Maintenance Cost Drivers



- Specialty Skills Needed to Maintain LID Practices
 - Native plant care
 - Arboriculture
 - CCTV pipe inspection
 - Pipe and inlet cleaning
 - Porous pavement vacuuming
 - Reading design and planting plans
 - Use of mobile devices and software
 - Data collection
 - Identification and reporting of performance issues
 - Public engagement and outreach
- Workforce Base
 - Construction
 - Landscaping/grounds maintenance
 - Masonry
 - Pipe inspection/Utility location
 - Workforce development programs, CBLP

Training and Workforce Development





Community Involvement



- Pete Littleton <u>Peter.Littleton@corvias.com</u>
- Eric Jones, CBLP <u>ejones@akrf.com</u>
- Jen Wijetunga, P.E., CPSWQ jwijet@menv.com

To learn more about the Clean Water Partnership, visit our website at <u>https://thecleanwaterpartnership.com</u>

Questions?

