



County of Fairfax, Virginia

MEMORANDUM

DATE: 10/19/2020

TO: Board of Supervisors' Environmental Committee

FROM: Randolph W. Bartlett, Director *RWB*

SUBJECT: DPWES Environmental Initiatives Updates

In our Environmental Committee pre-meeting we discussed the idea of including short updates on some of the ongoing environmental initiatives in the committee's packet. We are more than willing to provide additional information and details upon request.

Operation Stream Shield:

During the latter part of 2019, the Department of Public Works and Environmental Services (DPWES), Stormwater Planning Division (SWPD), successfully completed a 12-week pilot in coordination with the Office to Prevent and End Homelessness (OPEH) to provide part-time, temporary employment experience and compensation to shelter and drop-in clients in need, and at the same time assist SWPD with litter removal in or around streams and the removal of invasive plants.

Due to the success of the pilot program, contracts were executed to extend Operation Stream Shield (OSS) until 2025. The services are provided by three non-profits and cover the four human service regions of the county. Between March and October 2020, they collected about 14,000 pounds of litter.

SWPD coordinates with the Fairfax County Park Authority (FCPA), the Division of Vehicle Services (DVS) and other DPWES agencies to identify and prioritize stream areas for litter removal and invasive species management. The program has expanded to include general landscaping and special projects as needed throughout the county, including weekly visits to the I-95 and I-66 transfer stations to remove wind-blown trash and assist with other needed tasks.

Recently three of the participants have obtained full-time jobs as a result of their participation in the program.

Streetlight Conversion to LED:

At the Board's direction in June 2019, the county in partnership with Dominion Virginia Power (DVP), began a five-year program to convert the over 56,000 county streetlights to LED lighting. Through September, the county has identified over 16,000 streetlights for conversion and Dominion Power has completed the conversion of over 10,000 of these lights.

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The process is the County staff identifies an area for conversion, reviews the existing road geometrics, light spacing, mounting height and lighting design. The county staff modifies the design as appropriate to ensure a proper light distribution and levels, and then forwards the conversion requests to DVP. DVP engineers the work required to complete the conversion and provides the county an estimate for each conversion. Once the county reviews the estimate and authorizes the work, DVP has contractors perform the conversion. In addition to this program, new lights being installed are LED, and lights changed by DVP due to routine maintenance are converted to LED at that time.

When the program is complete, the county will have better lighting levels, with a more reliable fixture, utilizing less energy, with a better inventory of lights, and all at a lower operating cost.

Glass Recycling:

The glass recycling effort started in the spring of 2019, with ten locations throughout the region using old roll-off containers that were modified and painted purple in-house. The regional partnership has grown to include 10 communities, with bins at close to three dozen locations in the region with 16 in the county (including the towns of Herndon and Vienna). Reuse of the collected material was initially limited to use in county projects as aggregate (a substitute for gravel), or we paid \$5/ton for a glass recycler to pick up and haul the material to their facility, where the material was reused. Recently, we issued a new contract to a company that is a supplier to the bottle manufacturing industry, and they pick up whole glass (unprocessed) for \$15 per ton at our I-95 Landfill. In addition, our partners pay the county \$15/ton to drop off the material at the I-95 landfill, allowing the county to recover processing costs. In an effort to improve our operations and limit GHG/traffic, we recently installed two types of fill-level technologies: Compology in-bin cameras and Ecubelabs fill-level sensors. These devices allow us to monitor the fill levels in the bins to provide the most efficient collection operation.

The program has diverted over 15 million pounds of glass to date. Prior to the pandemic, we had begun discussions with property management groups about expansion into commercial areas, with a focus on bars and restaurants. We expect to resume those discussions in the near future.

cc: Rachel Flynn, Deputy County Executive
Thomas Barnett, Acting Director, Office to Prevent and End Homelessness (OPEH)
Abby Dunner, Singles Program Manager, OPEH
Hans Christensen, Director, DPWES, Solid Waste Operations Division
Kirk Kincannon, Director, Fairfax County Park Authority (FCPA)
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