



# Full Upgrade of Existing Recycling Center Complex

(P802201)

|               |                                   |                      |                          |
|---------------|-----------------------------------|----------------------|--------------------------|
| Category      | Recycling and Resource Management | Date Last Modified   | 12/27/24                 |
| SubCategory   | Recycling and Resource Management | Administering Agency | Environmental Protection |
| Planning Area | Rockville                         | Status               | Under Construction       |

## EXPENDITURE SCHEDULE (\$000s)

| Cost Elements                    | Total         | Thru FY24  | Rem FY24 | Total 6 Years | FY 25        | FY 26        | FY 27        | FY 28        | FY 29    | FY 30    | Beyond 6 Years |
|----------------------------------|---------------|------------|----------|---------------|--------------|--------------|--------------|--------------|----------|----------|----------------|
| Planning, Design and Supervision | 5,872         | 593        | -        | 5,279         | 2,879        | 760          | 1,180        | 460          | -        | -        | -              |
| Construction                     | 21,758        | -          | -        | 21,758        | 3,950        | 7,758        | 5,550        | 4,500        | -        | -        | -              |
| <b>TOTAL EXPENDITURES</b>        | <b>27,630</b> | <b>593</b> | <b>-</b> | <b>27,037</b> | <b>6,829</b> | <b>8,518</b> | <b>6,730</b> | <b>4,960</b> | <b>-</b> | <b>-</b> | <b>-</b>       |

## FUNDING SCHEDULE (\$000s)

| Funding Source                        | Total         | Thru FY24  | Rem FY24 | Total 6 Years | FY 25        | FY 26        | FY 27        | FY 28        | FY 29    | FY 30    | Beyond 6 Years |
|---------------------------------------|---------------|------------|----------|---------------|--------------|--------------|--------------|--------------|----------|----------|----------------|
| Current Revenue: Solid Waste Disposal | 4,372         | 593        | -        | 3,779         | 2,879        | 600          | 240          | 60           | -        | -        | -              |
| Revenue Bonds                         | 23,258        | -          | -        | 23,258        | 3,950        | 7,918        | 6,490        | 4,900        | -        | -        | -              |
| <b>TOTAL FUNDING SOURCES</b>          | <b>27,630</b> | <b>593</b> | <b>-</b> | <b>27,037</b> | <b>6,829</b> | <b>8,518</b> | <b>6,730</b> | <b>4,960</b> | <b>-</b> | <b>-</b> | <b>-</b>       |

## APPROPRIATION AND EXPENDITURE DATA (\$000s)

|                             |        |                          |        |
|-----------------------------|--------|--------------------------|--------|
| Appropriation FY 26 Request | -      | Year First Appropriation | FY22   |
| Cumulative Appropriation    | 27,630 | Last FY's Cost Estimate  | 27,630 |
| Expenditure / Encumbrances  | 720    |                          |        |
| Unencumbered Balance        | 26,910 |                          |        |

## PROJECT DESCRIPTION

This project will update the existing Material Recycling Center (MRF) with state-of-the-art equipment to increase commingled processing capacity to 200 - 240 tons per day (TPD). This includes a minor modification of the existing MRF building to increase storage capacity for both incoming and baled material. Equipment will be substantially replaced because the existing equipment is incompatible with modern recycling processing technology. An updated facility will have higher operation uptime (90% rather than the current 83%) and produce higher quality product that can receive higher prices in the market.

Features of the renovated facility include removing glass at the beginning of sorting to reduce wear and tear on equipment, improved sorting screens, optical sorting, high efficiency electric motors, and reduced reliance on labor for sorting. An upgrade to the facility's electrical capacity may be added if it is determined that the current facility cannot handle the load needed after the renovation. This design will allow for the future addition of single stream processing equipment within the existing facility to receive and process recyclables from other jurisdictions, if expansion to a regional concept is supported in an effort to improve the recycling program's

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cost-benefit ratio.

## LOCATION

16103 Frederick Road, Derwood, Maryland, 20877

## ESTIMATED SCHEDULE

A Facility Condition Assessment (FCA) revealed the need for a design change in the MRF project. Design of the upgrade continues in FY25, 30% design is expected to be complete in Spring 2025, and expenditures slipped into FY28. Construction solicitations and equipment fabrication, as well as permitting will need to be completed prior to construction. Installation and facility improvements are scheduled to start in FY27.

## PROJECT JUSTIFICATION

The current commingled processing system at the MRF was installed in 1991 and upgraded in 2002 to process 10 tons per-hour (TPH) or 80 tons per day (TPD). Due to increased population, expanded material mix, and increased resident participation, the MRF currently receives 130 - 150 TPD of commingled material, almost double the current capacity. To keep up with the incoming volume, the MRF must export 40 - 45% of the commingled material received at an annual cost of approximately \$1.2 million.

After almost 30 years of operation, the majority of the current system components have operated beyond their useful life, causing frequent downtime and high repair and maintenance costs. Replacement parts are increasingly difficult to source for some equipment. This project's improvements will reduce operating costs, increase revenue from the sale of recyclables, increase processing efficiency, and continue to provide high quality recycling services to the County.

## FISCAL NOTE

The Solid Waste Enterprise Fund is self-supporting through user fees, and revenue from the Solid Waste Enterprise Fund will be the source of repayment of the Solid Waste Revenue Bonds. In FY26, \$3,562,000 in Revenue Bonds is switched with Current Revenue: Solid Waste Disposal.

## COORDINATION

Maryland Environmental Service, Department of Permitting Services. Special Capital Projects Legislation [Bill No. 23-21E] was adopted by Council in June 2021.