



**GOVERNMENT OF THE
VIRGIN ISLANDS**
Premier's Office



**VIRGIN ISLANDS
RECOVERY AND
DEVELOPMENT AGENCY**

ESHS Contracted Demolition

Evaluating Value for Money

Project Number: EDU.01.25.146

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ESHS Contracted Demolition
Value for Money (VfM) Report, October 2019

Introduction

One of the core roles of the Recovery and Development Agency (RDA) is ensuring Value for Money (VfM) in the delivery of programmes and projects aimed toward recovery and development of the Virgin Islands. Section 5(2)(c) and (d) of the Virgin Islands Recovery and Development Regulations outline the value for money mandate of the RDA, specifying that:

The Agency shall be responsible for implementing the Government’s Recovery and Development Plan in partnership with the Ministries and in so doing shall:

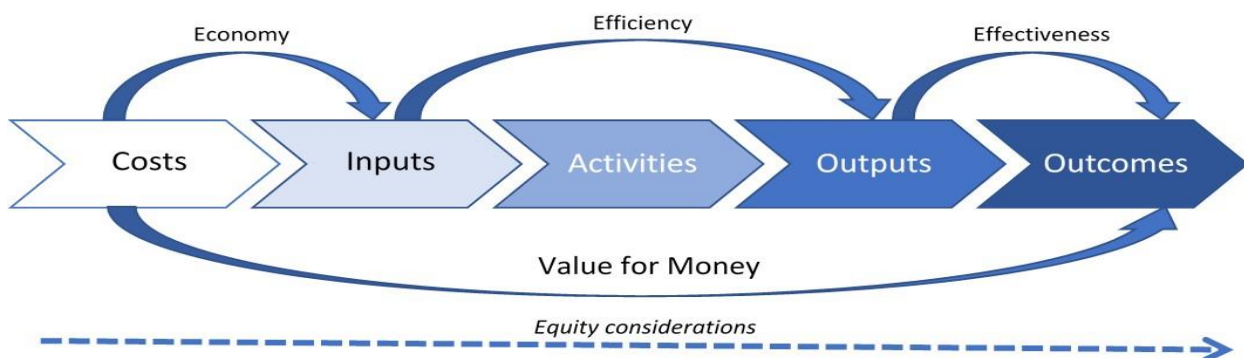
- (c) deliver the intended benefits; [and]
- (d) ensure that each project represents value for money.

To this end, the RDA has developed this Value for Money Framework and Methodology, which uses specific criteria to assess projects’ Value for Money and assigns an overall VfM score for each project.

The VfM score is made up of eight indicators (listed in Table 1) within the four outlined areas of Value for Money, namely Economy, Efficiency, Effectiveness and Equity.

Table 1: Value for Money Areas within the 4Es

VALUE FOR MONEY AREA	
Economy	Economy
Efficiency	Output Cost, Output Time, Schedule
Effectiveness	Output Effectiveness, Outcome Effectiveness, Quality
Equity	Equity



The following sections of this report assess the overall Value for Money of the ESHS demolition project using the methodology outlined in the RDA’s VfM Framework Guidelines for Economy, Efficiency and Effectiveness (neither Equity considerations nor Quality within Effectiveness were measured for this project).

Overview of Overall VfM Score (85 out of 85 weighted to 100 out of max 100 points)

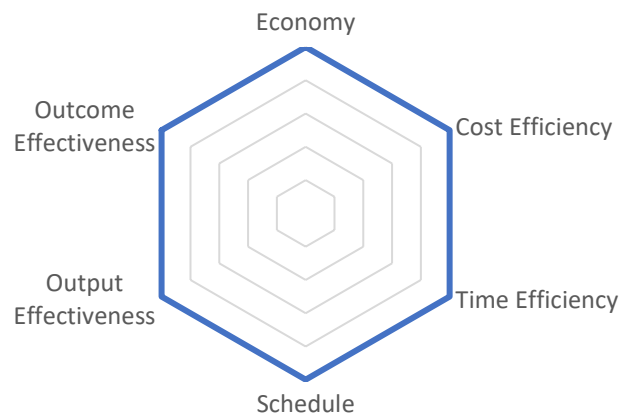
The project progressed efficiently and stayed within both budget and schedule through its entire life, while also achieving its targeted results. Because of this, the project scored well in all areas. The nature of the project (debris clearance and removal) meant that it was difficult to predict and set targets beforehand of how much output the project would produce (in this case, how much debris would be cleared). This meant that the time efficiency and output effectiveness scores were based on targeted output values only known following completion of the project (i.e. the target was to remove all debris from the target location).

Because the project stayed within budget and costs were lower than the benchmark, full scores were assigned on Economy as well as Cost Efficiency. Similarly, full scores were assigned for Time Efficiency and Schedule given that the project was completed on time with all debris cleared within the targeted timeline.

Special Debris Clearance Project – VfM Scoring			
Economy	Economy	10/10	10/10
Efficiency	Cost Efficiency	20/20	40/40
	Time Efficiency	10/10	
	Schedule	10/10	
Effectiveness	Output Effectiveness	20/20	35/35
	Outcome Effectiveness	15/15	
	Quality	N/A	
Equity	Equity Goals	N/A	N/A
Overall VfM Score			85/85
Adjusted Overall VfM Score			100/100

When weighted-up, the overall VfM score was 85 points out of a total possible 85 points - a perfect score - based on Economy, Efficiency and Effectiveness using the RDA's VfM model.

Figure 1: Overall Value for Money Scoring – Radar Chart



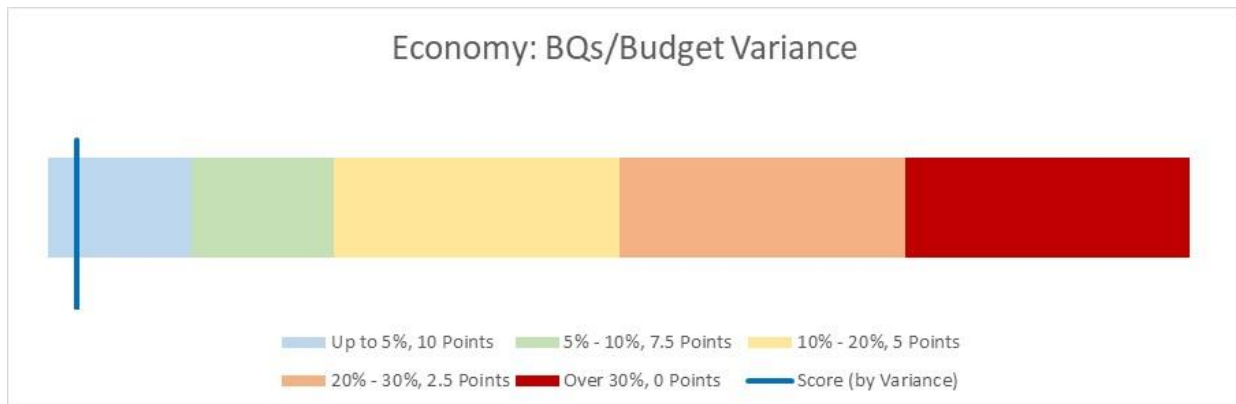
The overall Value for Money Scoring Chart (Figure 1) demonstrates the excellent scores received across all VfM aspects measured, namely Economy, Cost Efficiency, Time Efficiency, Schedule, Output and Outcome Effectiveness. With the full hexagon filled out, the ESHS Demolition project received a perfect score.

Economy (10 out of max 10 points)

The economy of the ESHS Contracted Demolition project is assessed based on the budget for the Project. This project was initially part of a larger ESHS demolition project within the Phase One Programme, budgeted at \$700,000. With the scope significantly reduced due to portions of the project being executed separately by Central Government, a revised budget for clearing the targeted area was set at \$40,000. The total spend to date at the end of August 2019 was \$38,569 which is approximately 3.6% below the initial budget. This indicates that this project was executed well within the 5% variance range for full scoring of the project’s economy, and as such, the project has been assigned a full economy score of 10 points (Table 2).

Table 2: Assessment of Economy

ECONOMY ASSESSMENT: 10/10 POINTS	
Original Budget	\$40,000
Actual Spend	\$38,569
Variance (\$)	\$1,431
Variance (%)	3.6%
ECONOMY SCORE	10



Efficiency (40 out of max 40 points)

The efficiency of an intervention considers Output Cost (Cost Efficiency), Output Time (Time Efficiency) and Schedule. In terms of output cost, the project cleared an estimated 2,296 cubic yards¹ of debris using \$38,569. This indicates an approximate rate of \$16.80 paid for each cubic yard of debris cleared. Based

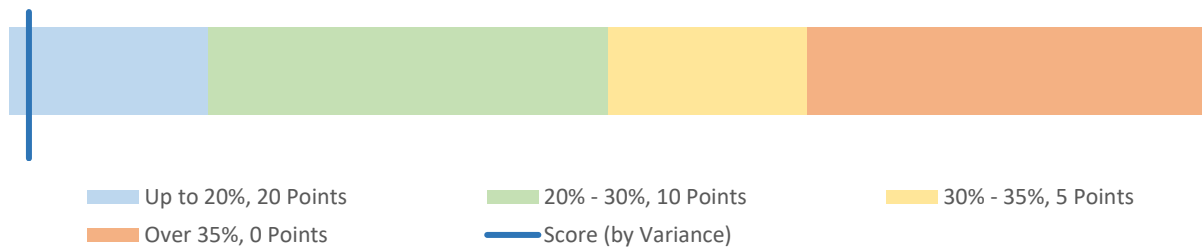
¹ Tons to cubic yards was calculated using ton to cubic yard conversion: 1 ton reg = 3.7037037037 yd³

on research conducted, the benchmark cost of debris removal is \$99.00 per cubic yard². In this way, the cost of each output for this project was below the benchmark, and as such a full Cost Efficiency score of 20 points has been assigned.

Table 3: Cost Efficiency Assessment

COST EFFICIENCY ASSESSMENT: 20/20 POINTS	
Output Unit Cost	\$16.80 per cubic yard of debris
Benchmark Output Unit Cost	\$99.00 per cubic yard of debris
Variance (\$)	\$82.20
Variance (%)	-83%
COST EFFICIENCY SCORE	20

Cost Efficiency: Comparison to Benchmark Output Cost



The Statement of Requirement for the project was signed on 15 May 2019. This is the date the VfM model begins calculating schedule and time efficiency. The project was planned to be completed on 6 June 2019 and met this goal, with the project completed on 6 June as planned, indicating a total of 22 project days.

When comparing this to the output, an average of approximately 104 cubic yards of debris was cleared per day. The VfM model created a benchmark from the amount of debris to be cleared in cubic yards to the number of planned days. Since the schedule was on time and all the planned debris was removed, this also equaled 104 cubic yards per day, indicating a full score of 10 points assigned for time efficiency for the ESHS demolition project.

Table 4: Time Efficiency Assessment

TIME EFFICIENCY ASSESSMENT: 10/10 POINTS	
Output Unit Time	104 cubic yards of debris cleared per day
Benchmark Output Unit Time	104 cubic yards of debris cleared per day
Variance (days)	0
Variance (%)	0%
TIME EFFICIENCY SCORE	10

² Debris removal benchmark based on pricing per cubic yard from Junk Trash Removal: <https://junktrashremoval.com/blog/junk-removal-pricing-cost-charge/#.XQfUSPZFw2w>

Time Efficiency: Comparison to Benchmark Output Cost

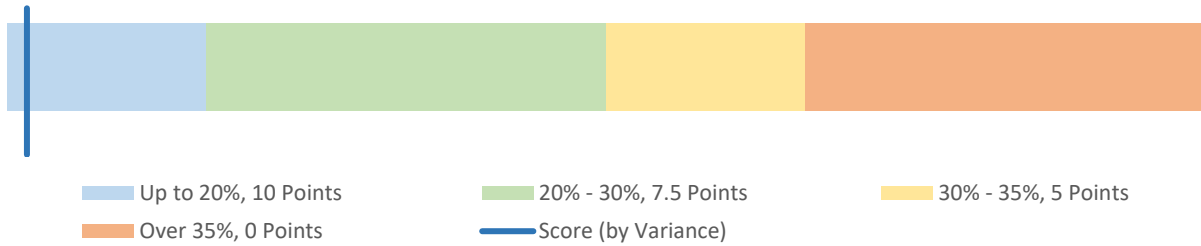
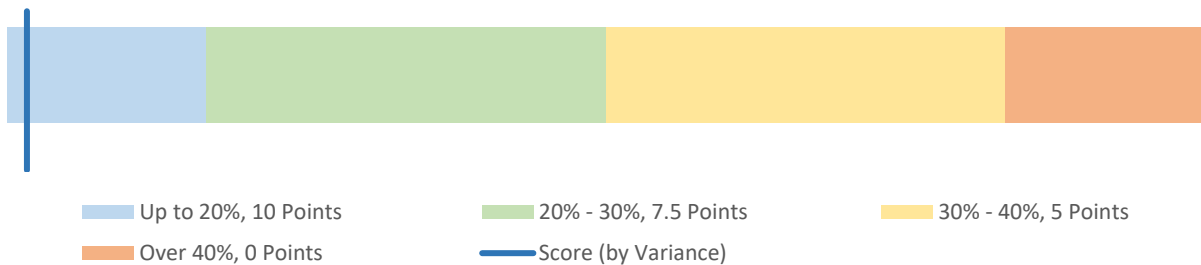


Table 5: Schedule Assessment

SCHEDULE ASSESSMENT: 10/10 POINTS	
Planned Project Days	64 days
Actual Project Days	64 days
Variance (days)	0 days
Variance (%)	(0%)
SCHEDULE SCORE	10

Schedule: Comparison to Expected Schedule

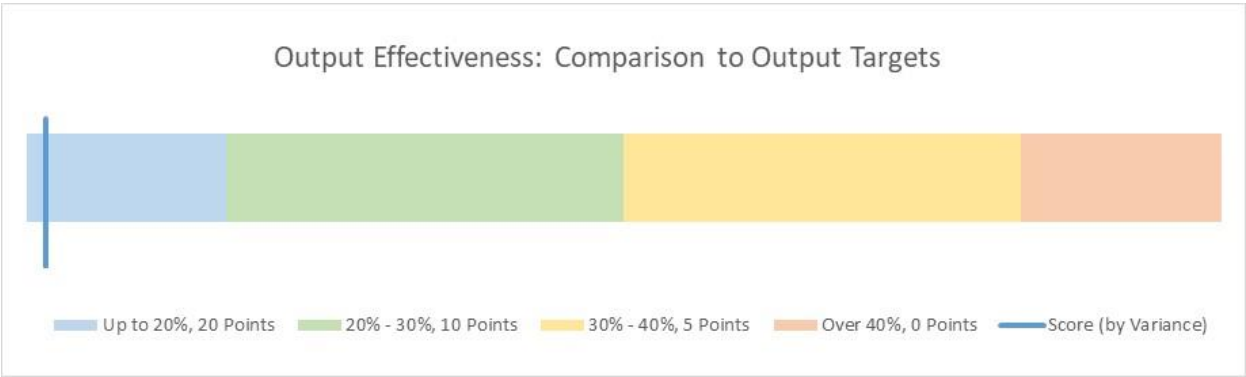


Effectiveness (35 out of max 35 points)

Output effectiveness is a measure which compares targeted output indicators to achieved output indicators. In the case of the ESHS Demolition project, the total targeted number of tons of debris cleared was 620 tons. The project met this goal by removing 620 tons of debris during demolition. With the variance percentage of 0%, the project has been assigned a full score of 20 out of 20 points (Table 6).

Table 6: Target versus Achieved Output

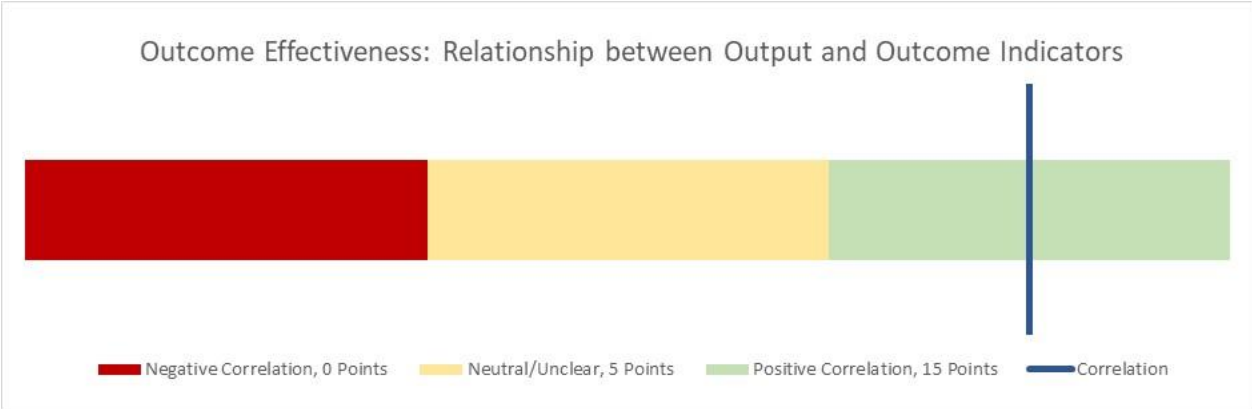
OUTPUT EFFECTIVENESS ASSESSMENT: 20/20	
Targeted Outputs	620 tons
Achieved Outputs	620 tons
Variance (tons)	0
Variance (%)	0%
OUTPUT EFFECTIVENESS SCORE	20



In terms of outcome effectiveness, the change relationship between the observed output and outcome has been used as a simple measure of outcome effectiveness for the ESHS Demolition project. While there is no concrete direct relationship between the ESHS building being cleared of debris and the outcome: *“Proportion of students, by gender and by age group, in schools fully repaired and equipped with modern facilities to meet education needs,”* one can reasonably observe that by the debris being cleared, construction has been able to move forward, assisting to provide a repaired school environment for children.

Table 7: Relationship between Outputs and Outcomes

OUTCOME EFFECTIVENESS ASSESSMENT: 15/15	
Output Change: cubic yards of debris cleared	+620
Assessment of Change Relationship	Positive correlation
OUTCOME EFFECTIVENESS SCORE	15



Conclusions

The scoring methodology of the RDA's VfM Framework has been used in assessing Value for Money and assigning a VfM Score to the ESHS Demolition project. Given that this project was completed on-time and within-budget, achieving its targeted outputs which have led to achievement of broader outcomes, the project has been assigned a perfect score for VfM using the Framework.

There were limitations to assessing this particular project using the VfM framework, specifically in the areas of:

- **Time Efficiency** – Due to the nature of this project's outputs, the amount of debris cleared was not known until all debris was cleared. Because of this, time efficiency was measured based on the schedule and whether the project was on-time, with output progress accomplished within the scheduled timeframe.
- **Output Effectiveness** – As above, since the specific amount of debris to be cleared was not known until all debris was cleared, the fact that the project successfully removed all debris meant that a full output score was awarded. With projects for which it is not possible to predict the output amount with a degree of confidence (such as amount of debris cleared) the output effectiveness target is set after project completion.
- **Outcome Effectiveness** – There is not a direct relationship between this project's output of debris cleared and the outcome of proportion of students in improved school settings. It is sometimes the case with outcome indicators that the relationship between outputs and outcomes is indirect, with other contributing factors present. It was thus reasonably assumed that the clearance of debris from the school site has contributed to the outcome in a positive manner.

It is important that limitations to VfM tracking are taken into consideration during project planning. While smaller-sized projects such as the ESHS demolition project will have limited options for planning and tracking indicators, it is important to ensure that larger projects are adequately assigned and utilise indicators which facilitate evaluation of various aspects of the project.

The importance of keeping accurate, up-to-date, readily-accessible information on project budgets, schedules, spending and results has been underlined in the process of conducting VfM assessments. The Monitoring and Evaluation Team will continue to play an important role in reviewing the quality of this information, and collating data for calculation of projects' VfM scores.