



GOVERNMENT OF THE
VIRGIN ISLANDS
Premier's Office



**VIRGIN ISLANDS
RECOVERY AND
DEVELOPMENT AGENCY**

Special Debris Clearance

Evaluating Value for Money

Project Number: TOU.01.26.108

SPECIAL DEBRIS CLEARANCE

Value for Money (VfM) Report

1) 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:

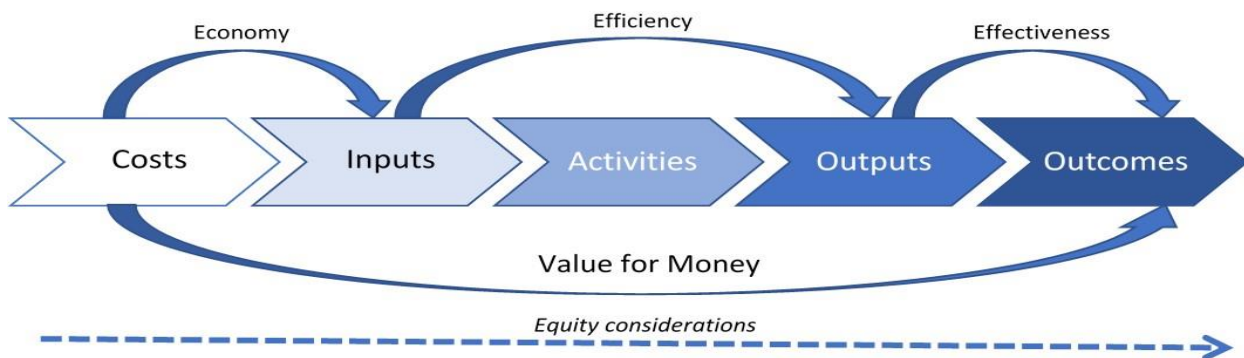
- (c) deliver the intended benefits; [and]
- (d) ensure that each project represents value for money.

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 Special Debris Clearance project emerged in mid-2018, from an impetus to assist in clearing the significant amount of debris accumulated across the Territory as a result of Hurricanes Irma and Maria. The Recovery and Development Agency (RDA) worked to support the Department of Waste Management’s ongoing efforts to clear debris from across the Territory. Overall, through delivery of eleven (11) contracts, the project was able to clear approximately 6,959¹ cubic yards of debris over a time period of 288² days.

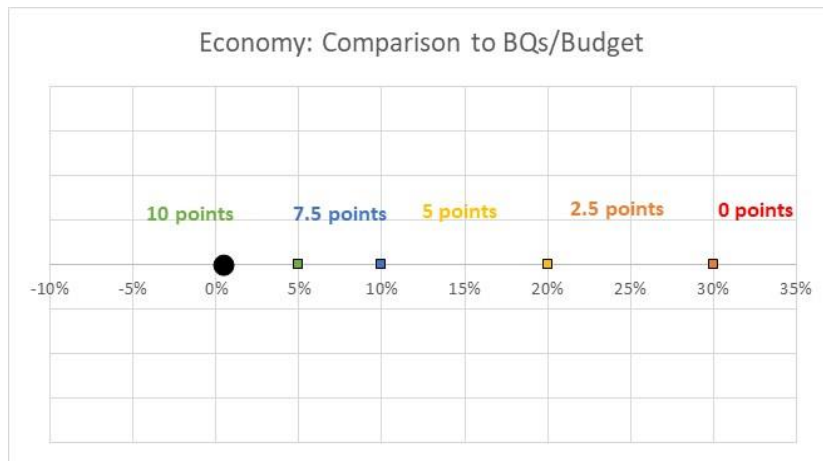
The following sections of this report assess the overall Value for Money of the Special Debris Clearance project, using the methodology outlined in the RDA’s VfM Framework Guidelines for Economy, Efficiency and Effectiveness (neither Equity considerations nor Quality within Effectiveness were measured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

2) ECONOMY (10 out of max 10 points)

The economy of the Special Debris Clearance project is assessed based on the budget for the Project. Within the Phase One Programme, this project was budgeted at \$647,000. The total spend to date as at end of June 2019 was \$650,234 which is approximately 0.5% above 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	\$647,000
Actual Spend	\$650,234
Variance (\$)	(\$3,234)
Variance (%)	(0.50%)
ECONOMY SCORE	10



¹ Estimate for total cubic yards of debris cleared comprised of 1,200 tons (4,444 cubic yards using conversion factor of 3.7037 cubic yards per ton) cleared in initial weeks; 920 cubic yards of scrap metal cleared from Virgin Gorda; and 290 scrap cars (1,595 cubic yards using conversion factor of 5.5 cubic yards per scrap car) cleared from Virgin Gorda.

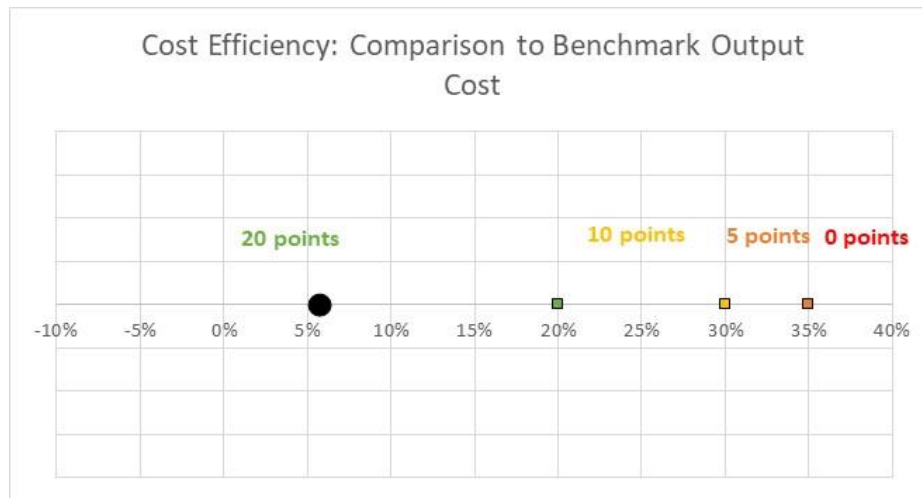
² Total number of project days calculated as 288 days, between 1 July 2018 and 15 April 2019.

3) EFFICIENCY (20 out of max 40 points)

The efficiency of an intervention considers Output Cost (Cost Efficiency), Output Time and Schedule (Time Efficiency). In terms of output cost, the project cleared an estimated 6,959 cubic yards of debris using \$650,234. This indicates an approximate rate of \$93.43 paid for each cubic yard of debris cleared. Based on research conducted, the benchmark cost of debris removal is \$99.00 per cubic yard³. 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	\$93.43 per cubic yard of debris
Benchmark Output Unit Cost	\$99.00 per cubic yard of debris
Variance (\$)	\$5.57
Variance (%)	5.62%
COST EFFICIENCY SCORE	20



Having started on 1 July 2018, the Special Debris Clearance project was initially slated to be completed by the beginning of September 2018, that is, within 76 days (to 15 September 2018). The project was finally completed on 15 April 2019, with a total recorded number of project days therefore at 288. In terms of assessment of time efficiency, the calculated output unit time was an average of 24 cubic yards of debris cleared per day, whereas the benchmark output unit time was an average of 117 cubic yards of debris cleared per day. This benchmark output time is based on the planned outputs and planned schedule.

The graphic below demonstrates that of the ten (10) months within the actual project schedule, debris clearance occurred primarily in three of these months, with protracted delays causing a lengthy period, with no clearance activity occurring between September 2018 and April 2019.

³ Debris removal benchmark based on pricing per cubic yard from Junk Trash Removal: <https://junktrashremoval.com/blog/junk-removal-pricing-cost-charge/#.XQfUSPZFw2w>

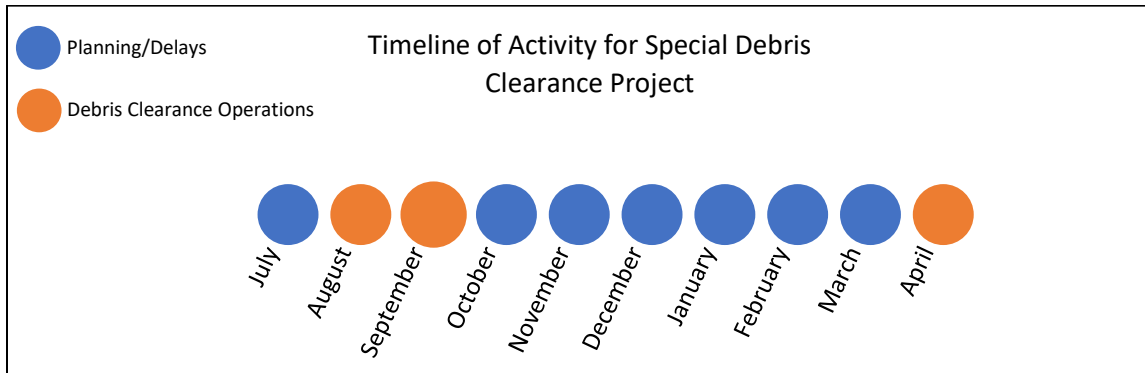
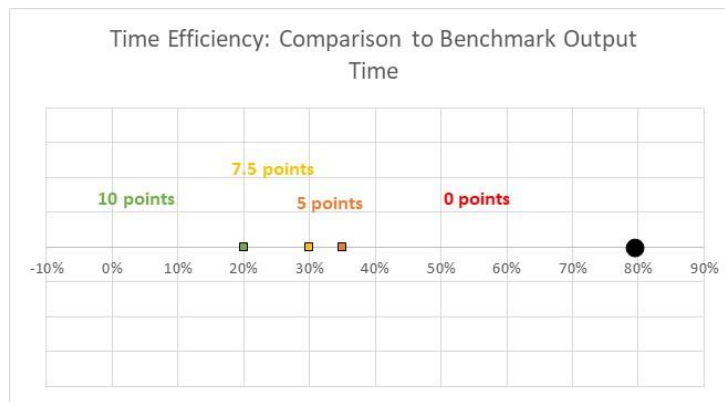


Table 4: Time Efficiency Assessment

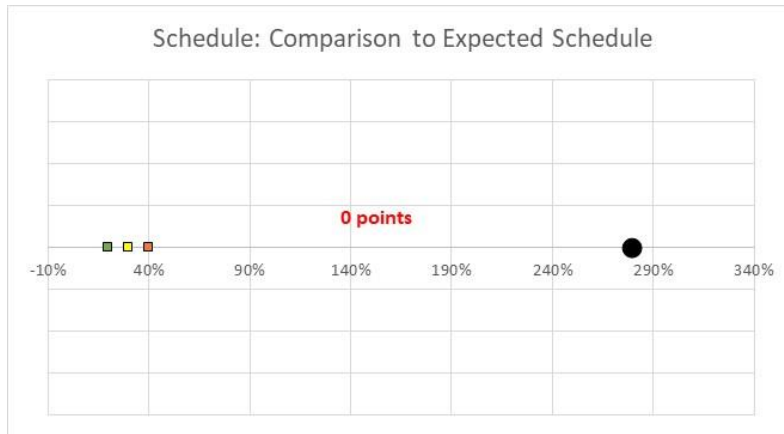
TIME EFFICIENCY ASSESSMENT: 0/10 POINTS	
Output Unit Time	Avg. 24 cubic yards of debris cleared per day
Benchmark Output Unit Time	Avg. 117 cubic yards of debris cleared per day
Variance (days)	(93)
Variance (%)	(79.37%)
TIME EFFICIENCY SCORE	0



Similarly, given that there were 76 planned project days compared to a total number of actual project days at 288, this variance of 212 days meant that no points were awarded for the Schedule assessment. Both the Time efficiency and Schedule scores (Tables 4 and 5) were negatively affected, and awarded no points, due to the significant project delays caused by protracted delays in the arrival of the barge and operators to the Territory.

Table 5: Schedule Assessment

SCHEDULE ASSESSMENT: 0/10 POINTS	
Planned Project Days	76 days
Actual Project Days	288 days
Variance (days)	(212 days)
Variance (%)	(278.95%)
SCHEDULE SCORE	0

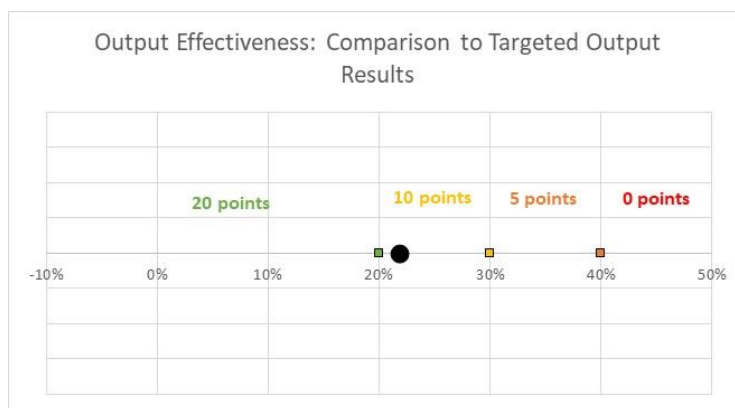


4) EFFECTIVENESS (25 out of max 35 points)

Output effectiveness is a measure which compares targeted output indicators to achieved output indicators. In the case of the Special Debris Clearance project, the total targeted number of cubic yards of debris to be removed was 8,904⁴. With an estimated 6,959 cubic yards of debris cleared, this represented 78.16% of the debris targeted for clearance. With the variance percentage of 21.84% therefore being between 20% and 30%, output effectiveness has been assigned a score of 10 out of 20 points (Table 6).

Table 6: Target versus Achieved Output

OUTPUT EFFECTIVENESS ASSESSMENT: 10/20	
Targeted Outputs	8,904 cubic yards
Achieved Outputs	6,959 cubic yards
Variance (cubic yards)	(1,945)
Variance (%)	(21.84%)
OUTPUT EFFECTIVENESS SCORE	10

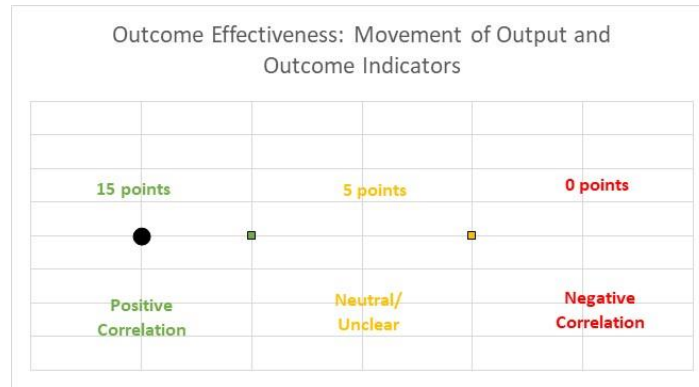


⁴ Estimate for targeted number of cubic yards of debris cleared comprised of 1,000 tons (3,703 cubic yards using conversion factor of 3.7037 cubic yards per ton) targeted in initial weeks; 3,000 cubic yards of scrap metal targeted in Virgin Gorda; and 400 scrap cars (1,481 cubic yards using conversion factor of 5.5 cubic yards per scrap car).

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 Special Debris Clearance project. The directional change in output has been compared to the directional change in outcome. In the case of the Special Debris Clearance project, both the output: number of cubic yards of debris cleared; as well as the outcome: total tourist arrivals; increased in the assessment period. The change relationship between output and outcome has thus been deemed a positive correlation, and the maximum score of 15 points has been assigned (Table 7).

Table 7: Relationship between Outputs and Outcomes

OUTCOME EFFECTIVENESS ASSESSMENT: 15/15	
Output Change: cubic yards of debris cleared	+6,959
Outcome Change: Jan to Apr tourist arrivals	+67,725
Assessment of Change Relationship	Positive correlation
OUTCOME EFFECTIVENESS SCORE	15



The main challenge to effectiveness which overall received 25 of 35 points, was the absence of a crusher at the project activities in Virgin Gorda in clearing scrap metal and scrap cars. Inability to crush the debris meant that only a smaller portion of the total debris could be transported by barge.

5) Overview of Overall VfM Score (55 out of 85 weighted to 65 out of max 100 points)

The main challenge to a more successful overall VfM score for this project was the prolonged time taken to complete the project at 288 days, which negatively affected Time Efficiency and Schedule scores. Delays in project completion occurred as a result of difficulties with ensuring arrival of the barge and operators contracted by the Department of Waste Management. Combined with this, the absence of the necessary crusher during removal of debris from Virgin Gorda meant that a smaller portion of debris was able to be removed than initially planned, negatively affecting efficiency and effectiveness scores. Staying largely within budget, the project was able to get full scores on Economy as well as Cost efficiency.

Special Debris Clearance Project – VfM Scoring			
Economy	Economy	10/10	10/10
Efficiency	Time Efficiency	20/20	20/40
	Cost Efficiency	0/10	
	Schedule	0/10	

Effectiveness	Output Effectiveness	10/20	25/35
	Outcome Effectiveness	15/15	
	Quality	N/A	
Equity	Equity Goals	N/A	N/A
Overall VfM Score			55/85
Adjusted Overall VfM Score			64.71/100

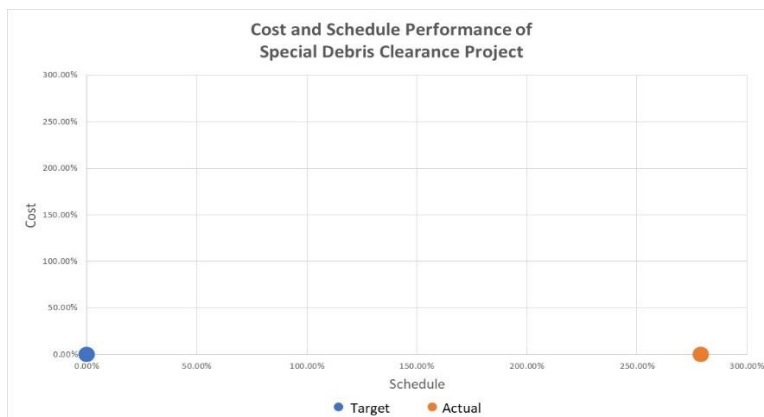
When weighted-up, the overall VfM score was 64.71. This indicates scope for improving overall Value for Money, at a rounded 65 out of a total of 100 possible points.

Figure 1: Debris Removal



Overall, the project was able to clear over 78% of the debris targeted for clearance, largely within budgeted expectations (Figure 1). The performance of the project by expected cost and schedule is demonstrated in Figure 2 below, with the budget target met, but the schedule target not met.

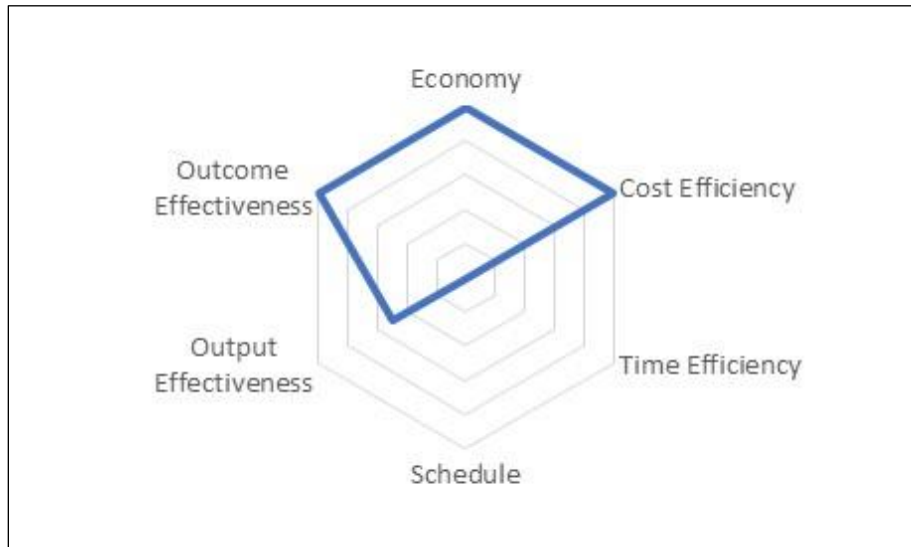
Figure 2: Cost and Schedule Performance



Lessons identified coming out of the Special Debris Clearance project involve:

- 1) Improving communication and coordination with Central Government implementing agencies;
- 2) Improving supply chain management through better contracting practices with third party suppliers;
- 3) Enhanced contingency planning as a strategy to manage risks; and
- 4) Ensuring adequate mechanisms are in place to measure project outputs, such that results and Value for Money can be tracked with greater accuracy.

Figure 3: Overall Value for Money Scoring – Radar Chart



The overall Value for Money Scoring Chart (Figure 3) demonstrates the excellent scores received for Economy, Cost Efficiency and Outcome Effectiveness; while Output Effectiveness received a middling score, and Time Efficiency and Schedule scores were both 0 due to the protracted delays in project completion.

6) Conclusions

This report has been prepared as a test of the Value for Money Framework currently under review. The scoring methodology of the Framework has been used in assessing Value for Money and assigning a VfM Score to the Special Debris Clearance 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 this VfM assessment. The Monitoring and Evaluation Team will play an important role in reviewing the quality of this information, and collating data for calculation of projects' VfM scores.

As part of the process of agreeing and finalising its contents, this VfM Evaluation has been shared across the Agency and with representatives of the Department of Waste Management, informed by their concerns.