



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



*VIRGIN ISLANDS*  
**RECOVERY AND  
DEVELOPMENT AGENCY**

**Bob's Gas Station – Road Rehabilitation & Slope Stabilisation**  
**Evaluating Value for Money**  
Project Number: RDS.02.27.180.08

## Executive Summary

The Bob's Gas Station project activity has been assessed using the RDA's Value for Money (VfM) Framework, which analyses projects' achievement of Economy, Efficiency, Effectiveness and Equity (4Es). Based on assessment using this Framework, the project received an overall VfM Score of **92.11 out of 100**.

Specifically, the respective scores for each aspect of VfM assessed are as follows:

VfM Area	Score	Main Reasons
Economy	10/10	This project's final spend came in well within its original budget, therefore full points were awarded in assessment of its Economy. The original budget was \$429,000 and the final spend was \$345,069, some 19.6% below the original budget.
Efficiency	32.5/40	In terms of Cost Efficiency, based on the benchmark used, this project was within the cost benchmark used, resulting in full points for Cost Efficiency. On Time Efficiency and Schedule, the project fell outside the benchmark for time used as well as outside the anticipated schedule. Time delays were due to the contractor having difficulty in procuring materials in a timely manner, slowing down the pace of implementation during the project execution stage.
Effectiveness	45/45	A full score was received for Output and Outcome Effectiveness as well as Quality, as this project activity delivered its planned outputs and contributed to a broader outcome while meeting quality standards in terms of industry standards and no valid defects being reporting during the defects and liability period.
Equity	NA/5	Equity was not scored for this project. As such, the total of 87.5/95 was converted into an overall VfM Score of 92.11 out of 100.
<b>TOTAL</b>		<b>92.11/100</b>

Based on the VfM assessment conducted, the following lessons were also identified:

- 1) Importance of managing public expectations and giving timely public notice of road closures and/or traffic diversions in order to maintain public support and engagement throughout project execution;
- 2) Improving time management throughout project cycle to ensure that deliverables are produced in accordance with the project plan and schedule; and
- 3) Strengthening coordination between public and private sector agencies to ensure that considerations are adequately accounted for in project design and implementation.

Going forward, it will be important to ensure that time management is more central to the RDA's efforts, ensuring for instance, that contractors order required materials with sufficient lead time that they do not significantly delay project implementation. Additionally, it will be important to ensure that key stakeholders are engaged throughout the project cycle and that the public is regularly updated on project progress, including any delays and implications of these.

# Bob's Gas Station (Roads, Slopes and Coastal Defenses)

## Value for Money (VfM) Assessment 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:

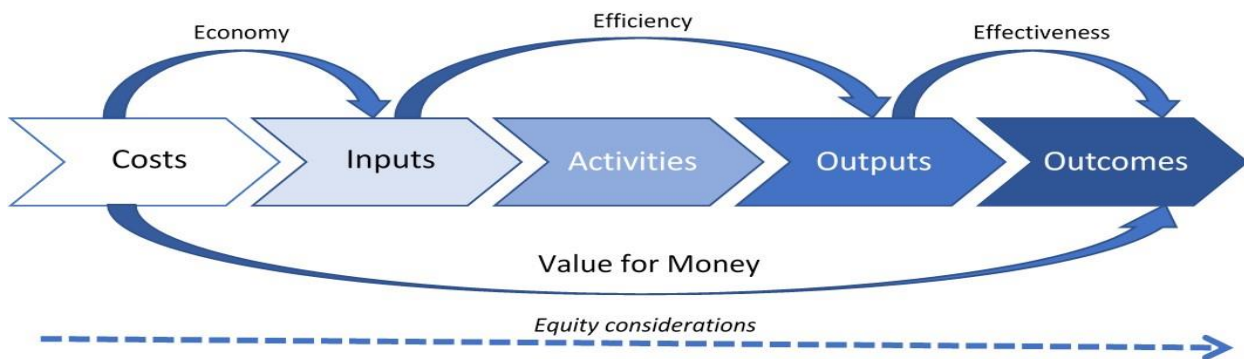
- (c) deliver the intended benefits; [and]
- (d) ensure that each project represents value for money.

To this end, the RDA has developed a 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	
<b>Economy</b>	Economy
<b>Efficiency</b>	Output Cost, Output Time, Schedule
<b>Effectiveness</b>	Output Effectiveness, Outcome Effectiveness, Quality
<b>Equity</b>	Equity



The Bob's Gas Station Road and Retaining Wall forms part of the broader Roads, Slopes and Coastal Defenses project funded by the Caribbean Development Bank (CDB) Rehabilitation and Reconstruction Loan (RRL).

The Bob's Gas Station activity began on the 26 August 2020 and was completed on 5 May 2021. This amounts to a total of 252 days to produce the outputs of this project activity. This activity aimed at stabilising a portion of the Fort Hill Road above Bob's Gas Station, installing retaining walls, and completing adjacent road works to make the roadway safe for passenger traffic. The specific sections of the Fort Hill Road above Bob's Gas Station had been subject to slope failure, having been undermined due to the flooding and hurricanes of 2017. The slope failure had deteriorated over time, resulting in significant risk to persons traversing the area.

The scope of this project activity encompassed slope stabilisation through construction of retaining walls as well as required culverts and drainage mechanisms, curb walls and guardrails. This work aimed at improving road safety along this stretch of road, as well as improving traffic flow which had been hindered by the narrowing of the roadway due to the worsening undermining of the road.

Over a period of 252 days, using \$345,069 this project activity has been able to deliver on planned outputs, installing retaining structures, drainage and guardrails which have improved road safety and traffic flow on the Fort Hill Road above Bob's Gas Station.

The following sections of this report assess the overall Value for Money of the Fort Hill Road and Retaining Wall project activity, using the methodology outlined in the RDA's VfM Framework Guidelines for Economy, Efficiency, Effectiveness and Equity.

## 2) Overview of Overall VfM Score (92.11 out of max 100 points)

This project activity received full scores for Economy, Cost Efficiency, Output and Outcome Effectiveness, and Quality. Both Time Efficiency and Schedule received middling scores as the project was finished well outside its planned schedule, and slightly outside the time benchmark used. The main challenge to a more successful overall VfM score for this project was therefore the issue of time. The project activity was able to achieve its targeted outputs and contribute to a broader outcome within its estimated budget and cost benchmark and to a high level of quality however, resulting in full scores for Economy, Cost Efficiency, and Output and Outcome Effectiveness, and Quality.

<b>Bob's Gas Station – VfM Scoring</b>			
<b>Economy</b>	Economy	10/10	10/10
<b>Efficiency</b>	Cost Efficiency	20/20	32.5/40
	Time Efficiency	7.5/10	
	Schedule	5/10	
<b>Effectiveness</b>	Output Effectiveness	20/20	45/45
	Outcome Effectiveness	15/15	
	Quality	10/10	
<b>Equity</b>	Equity Goals	NA/5	NA/5
<b>Overall VfM Score</b>			<b>87.5/95</b>
<b>Total Adjusted VfM Score</b>			<b>92.11/100</b>

The overall VfM score was 92.11 out of 100. This indicates limited scope for improving overall Value for Money of this project, only as it relates to efficiency assessment against benchmark time and schedule. More time was spent on this project activity than initially envisioned, and the time spent was over both the time benchmark used as well as the planned schedule. Delays in project completion and exceeding timelines therefore negatively affected the efficiency scores related to time.

Following discussions on the importance of improving timing of RDA-implemented projects, given that efficiency is a core argument for the continued existence of the RDA in facilitating public sector recovery and development, a decision has been made to present an enhanced scoring framework for Value for Money in the RDA context, which further highlights timing. As such, the Table below presents a more time-focused assessment of VfM for the Bob's Gas Station project activity.

<b>Bob's Gas Station – Time Focused VfM Scoring</b>			
<b>Economy</b>	Economy	10/10	10/10
<b>Efficiency</b>	Cost Efficiency	20/20	37.5/50
	Time Efficiency	10/15	
	Schedule	7.5/15	
<b>Effectiveness</b>	Output Effectiveness	20/20	35/35
	Outcome Effectiveness	5/5	
	Quality	10/10	
<b>Equity</b>	Equity Goals	NA/5	NA/5
<b>Overall Time Focused VfM Score</b>			<b>82.5/95</b>
<b>Total Adjusted Time Focused VfM Score</b>			<b>86.8/100</b>

A focus on the time element results in an Overall Adjusted VfM Score of 86.8 out of 100 for this project activity. The time focused VfM Score is provided alongside the original VfM Scoring framework in VfM Reports to further put into focus the importance of efficiency gains in RDA-implemented projects.

As part of an effort to continuously improve, the RDA has implemented more in-depth planning processes in order to propel efficiency gains in improving time management later on in project execution by more adequately capturing requirements upfront.

**Figure 1: Overall Value for Money Scoring – Radar Chart**



The overall Value for Money Scoring Chart (Figure 1) demonstrates the excellent scores received for Economy, Cost Efficiency, Output Effectiveness, Outcome Effectiveness and Quality; while assessment of Schedule and Time Efficiency resulted in partial points being assigned for these aspects of Value for Money. Equity was not scored for this project activity.

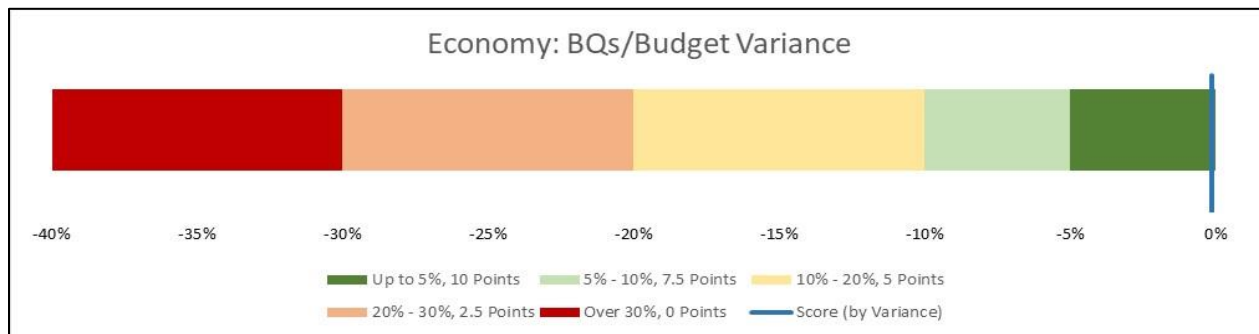
**3) ECONOMY (10 out of max 10 points)**

The economy of the Bob’s Gas Station Road and Retaining Wall project activity has been assessed based on the original budget anticipated for the activity, in-line with the CDB Loan Agreement. The original budget was estimated at \$429,000 for the Bob’s Gas Station Road and Retaining Wall activity.

The total spend for the Bob’s Gas Station project activity as at end of March 2023 is \$345,069 which is under the original budget amount, by 19.56%. Being well within budget, this project activity has therefore been assigned full points in assessment of Economy (Table 2).

*Table 2: Assessment of Economy*

<b>ECONOMY ASSESSMENT: 10/10 POINTS</b>	
Original Budget	\$429,000
Actual Spend	\$345,069
Variance (\$)	\$83,931
Variance (%)	19.56%
<b>ECONOMY SCORE</b>	<b>10</b>



#### 4) ON BENCHMARKS USED

In calculating VfM Scores for both Cost and Time Efficiency, consideration has been given to performance against relevant benchmarks established for production of specific outputs. Giving a background of the benchmarks used, and why, provides the necessary context for comparisons made.

In the case of the Bob’s Gas Station Road and Retaining Wall project activity, the following benchmarks for cost and time have been used to assess cost and time efficiency:

Type	Benchmark	Sources and Considerations
<b>Cost</b>	\$1,977 per metre of road rehabilitated and slope stabilised	Based on original budget estimate divided by target metres of road rehabilitated and slope stabilised. This benchmark is significantly lower than the output cost benchmarks used for previous road project activities assessed, the average of these has been: \$3,824
<b>Time</b>	1.21 metres of road rehabilitated and slope stabilised per day	Based on target metres of road rehabilitated and slope stabilised divided by number of planned project days. This benchmark is higher than the output time benchmarks used for previous road project activities assessed, the average of these is: 0.72 metres

##### **Cost Benchmark**

The cost benchmark has been determined based on the original budget for the project activities divided by the target metres of road rehabilitated and slope stabilised. This calculated benchmark has been used absent a more objective, independent measure, as this was not readily available.

##### **Time Benchmark**

The time benchmark used was determined based on the target metres of road rehabilitated and slope stabilised divided by the number of planned project days. This calculated benchmark has been used absent a more objective, independent measure, as this was not readily available.

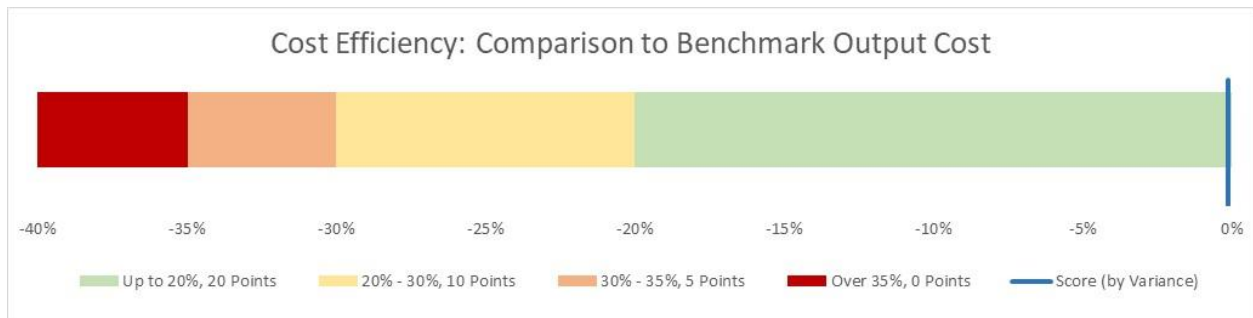
**5) EFFICIENCY (32.5 out of max 40 points)**

The efficiency of an intervention considers Output Cost (Cost Efficiency), Output Time (Time Efficiency) and Schedule. In terms of output cost, the project activities involved construction of retaining structures and reconstruction of the adjacent roadways, drainage, curb walls and guardrails over 217 metres. This translated to an average of \$1,590.18 per metre of road rehabilitated and slope stabilised to improve road safety and traffic flow in the area. Based on the targeted length of road and retaining walls rehabilitated and the original budget, a benchmark indicative cost of \$1,976.96 has been used.

In this way, the cost of each output for this project was well within (namely 20% below) the benchmark cost, therefore a full 20 points have been assigned for cost efficiency (Table 3).

*Table 3: Cost Efficiency Assessment*

<b>COST EFFICIENCY ASSESSMENT: 20/20 POINTS</b>	
Output Unit Cost	\$1,590.18 per metre of road rehabilitated and slope stabilised
Benchmark Output Unit Cost	\$1,976.96 per metre of road rehabilitated and slope stabilised
Variance (\$)	\$386.78
Variance (%)	19.56%
<b>COST EFFICIENCY SCORE</b>	<b>20</b>



Having started on 26 August 2020, the Bob’s Gas Station Road and Retaining Wall project activity was initially slated to be completed by 22 February 2021, that is within 180 project days. The Bob’s Gas Station project activity was actually completed on 5 May 2021, with a total recorded number of project days therefore at 252 days. The calculated output unit time was therefore an average of 0.86 metres of road rehabilitated and slope stabilised per day, whereas the benchmark output unit time was an average of 1.21 metres of road rehabilitated and slope stabilised per day.

This resulted in a partial 7.5 points being assigned for Time Efficiency, as the actual outputs – metres of road rehabilitated and slope stabilised - produced within the timeframe (0.86 metres of road rehabilitated and slope stabilised per day) was less than the benchmark output unit time of 1.21 metres of road rehabilitated and slope stabilised per day, but still within the threshold for assigning 7.5 out of 10 points (Table 4).



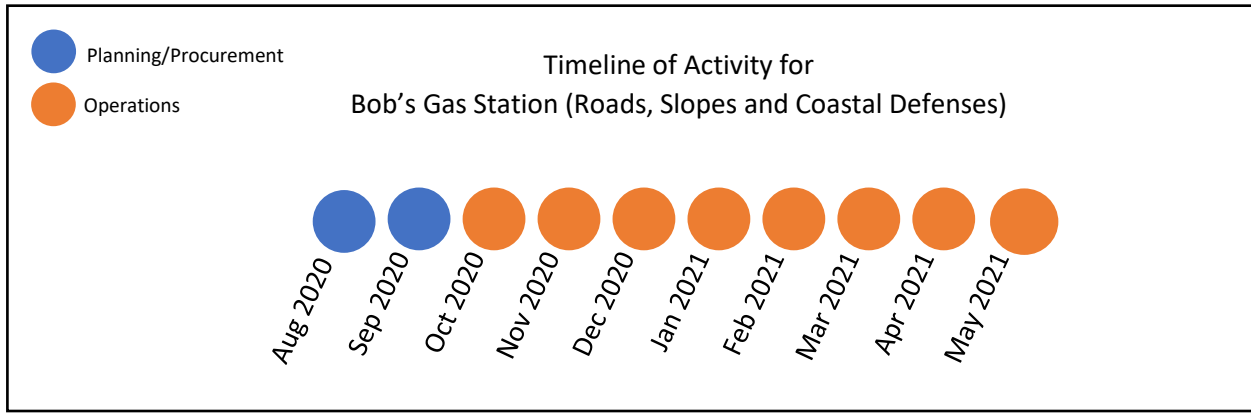
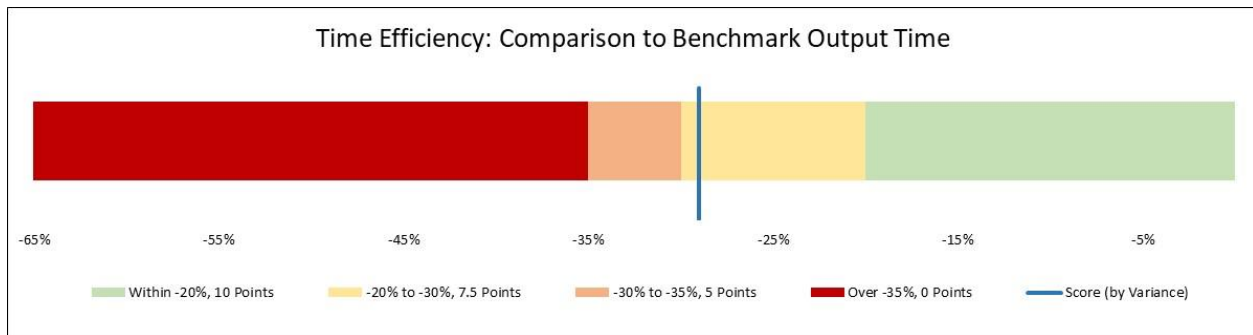


Table 4: Time Efficiency Assessment

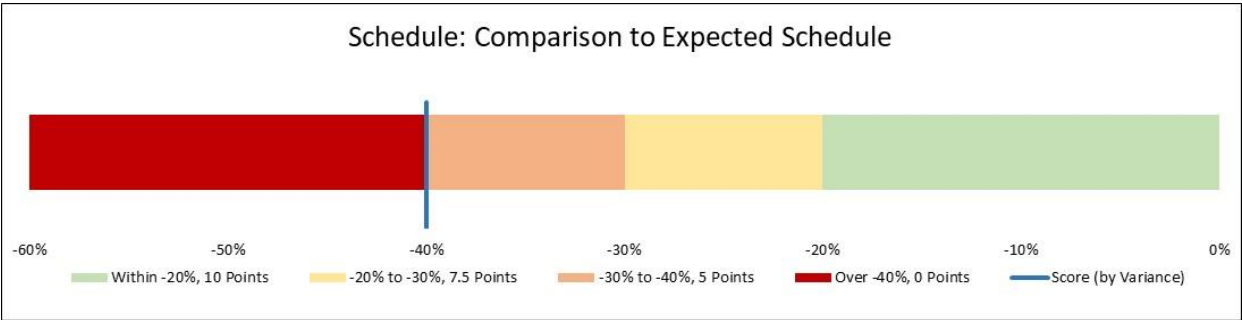
TIME EFFICIENCY ASSESSMENT: 7.5/10 POINTS	
Output Unit Time	Avg. 0.86 metres of road rehabilitated and slope stabilised per day
Benchmark Output Unit Time	Avg. 1.21 metres of road rehabilitated and slope stabilised per day
Variance (days)	(0.34)
Variance (%)	-29%
<b>TIME EFFICIENCY SCORE</b>	<b>7.5</b>



In terms of schedule performance, given that there were 180 planned project days compared to a total number of actual project days at 252, the variance of 72 days meant that the project was 40% over its scheduled timeline, with 5 points thus awarded for the project activity's Schedule assessment (Table 5).

Table 5: Schedule Assessment

SCHEDULE ASSESSMENT: 5/10 POINTS	
Planned Project Days	180 days
Actual Project Days	252 days
Variance (days)	(72 days)
Variance (%)	(40%)
<b>SCHEDULE SCORE</b>	<b>5</b>



It should be noted that this project activity was implemented following the Covid-19 pandemic, with significant supply chain issues leading to delays in receiving orders for materials and equipment. As such, this goes some way in explaining time delays and the Time Efficiency and Schedule scores achieved.

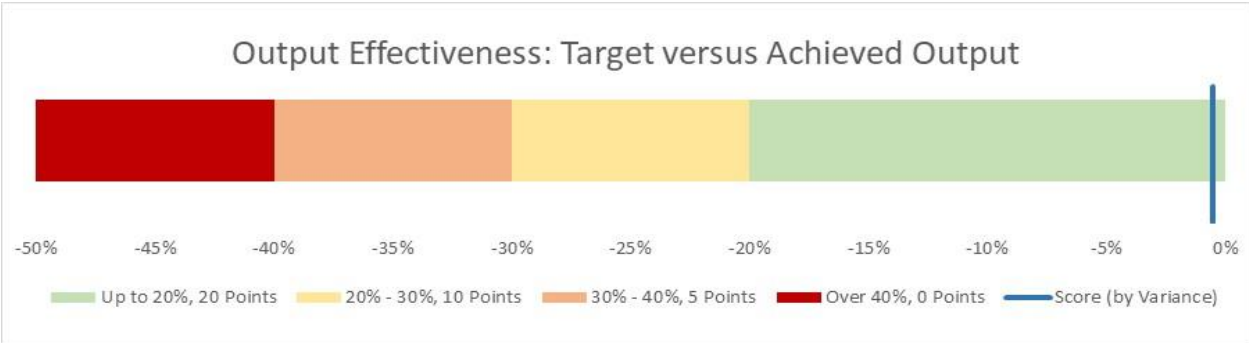
**6) EFFECTIVENESS (45 out of max 45 points)**

*Output effectiveness*

Output effectiveness is a measure which compares targeted outputs to achieved outputs, in determining whether and to what extent the project has met output expectations and produced the immediate result intended. In the case of the Bob’s Gas Station project activity, the total number of metres targeted for road rehabilitation and slope stabilisation to improve road safety and traffic flow was 217 metres. The project was able to rehabilitate and stabilise the targeted area, hence a full 20 points has been assigned for Output Effectiveness (Table 6).

Table 6: Target versus Achieved Output

<b>OUTPUT EFFECTIVENESS ASSESSMENT: 20/20</b>	
Targeted outputs rehabilitated and stabilised	217 metres
Achieved outputs rehabilitated and stabilised	217 metres
Variance	(0)
Variance (%)	(0%)
<b>OUTPUT EFFECTIVENESS SCORE</b>	<b>20</b>



*Outcome effectiveness*

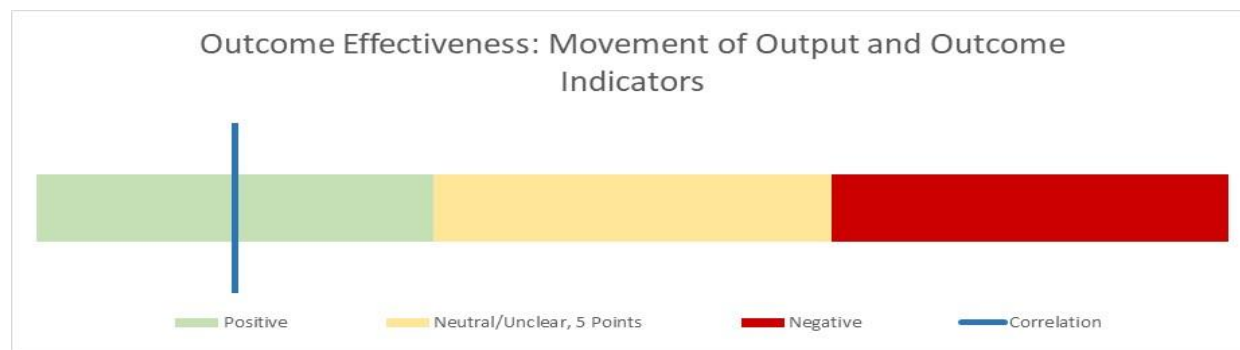
In terms of outcome effectiveness, the change relationship between the observed output and outcome has been used as a simple measure of outcome effectiveness. Using this methodology, the directional

change in output is compared to the directional change in outcome. This assessment aims at determining whether execution of the project has contributed to achievement of the secondary result intended. In the case of the Bob’s Gas Station project activity, both the output: metres of road rehabilitated and slope stabilised; as well as the outcome: miles of well-designed road network; moved positively due to execution of this project. In other words, as more metres of road were rehabilitated and slopes were stabilised, more miles of the Territory’s road network could be classified as well-designed. In other words, the Bob’s Gas Station project activity has improved the quality of the road network in the Virgin Islands, thereby improving road safety and traffic flow. Assessment of improvements in road safety will require a longer time period, following which the number of accidents taking place in the area can be assessed, and the expectation is that the number of accidents taking place in the area will decrease.

The change relationship between the output and outcome has thus been deemed a positive correlation, and the maximum score of 15 points has been assigned for this project activity’s outcome effectiveness (Table 7).

Table 7: Relationship between Outputs and Outcomes

<b>OUTCOME EFFECTIVENESS ASSESSMENT: 15/15</b>	
Output change: metres of road rehabilitated and slope stabilised	+217
Outcome change: miles of well-designed road network in the Territory	+135
Assessment of change relationship	Positive correlation
<b>OUTCOME EFFECTIVENESS SCORE</b>	<b>15</b>



### Quality

Assessment of quality involves evaluating to what extent the project intervention has met quality expectations and may be based on meeting industry standards, meeting user expectations, and/or not having any valid defects reported. In the case of the Bob’s Gas Station Road and Retaining Wall project activity, quality has been assessed on industry standards as well as reports of valid defects.

The rehabilitation and stabilization of the road and slopes at the Fort Hill Road site above Bob’s Gas Station involved several enhancements which have made the roadway safer and more resilient, including installation of drainage, curb walls and guardrails. These enhancements have improved the overall quality of the roadway, meeting industry standards for resilient construction. Additionally, no valid defects have been reported on the roadway within the defects and liabilities period.

Table 8: Quality assessment

QUALITY ASSESSMENT: 10/10	
Industry Standards on Resilience	Met
Valid Defects Reported	None
Assessment of Quality	Met
<b>QUALITY SCORE</b>	<b>10</b>

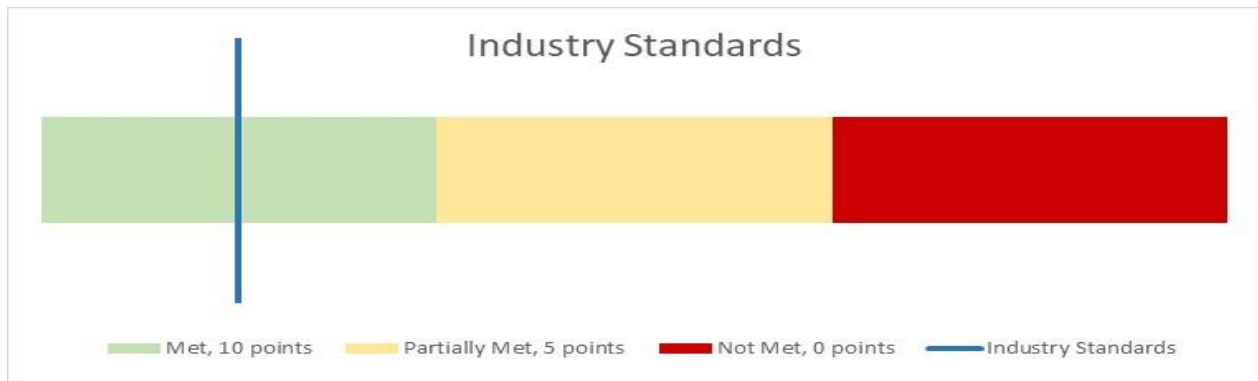
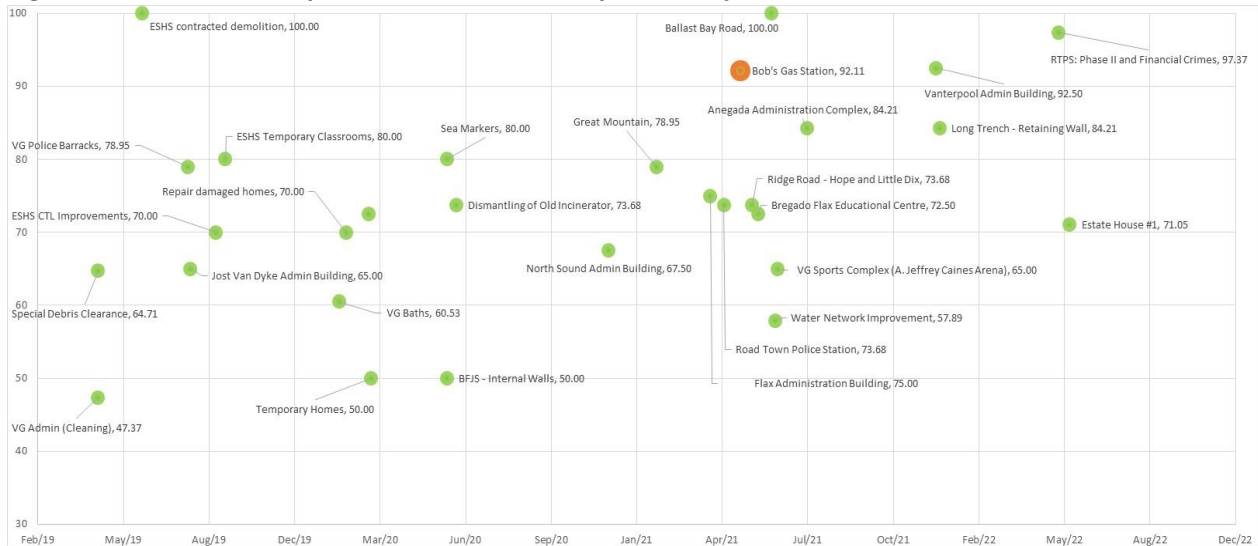


Figure 2: VfM Score Comparison with Other Completed Projects



Lessons identified coming out of the Bob’s Gas Station Road and Retaining Wall project activity include:

- 1) Importance of managing public expectations and giving timely public notice of road closures and/or traffic diversions in order to maintain public support and engagement throughout project execution;
- 2) Improving time management throughout project cycle to ensure that deliverables are produced in accordance with the project plan and schedule; and

- 3) Strengthening coordination between public and private sector agencies to ensure that considerations are adequately accounted for in project design and implementation.

## **7) Conclusions**

This report has been prepared using the RDA's Value for Money Framework in assigning a VfM Score to the Bob's Gas Station Road and Retaining Wall project activity based on assessed Economy, Efficiency and Effectiveness of project implementation (Equity was not scored for this project). The importance of keeping accurate, up-to-date, readily accessible information on project budgets, schedules, spending and results has once again been underlined in the process of conducting this VfM assessment. The Monitoring and Evaluation Team continues to play an important role in reviewing the quality of this information, and collating data for the calculation of projects' VfM scores.

Achieving an overall score of 92.11 points out of 100, the Bob's Gas Station Road and Retaining Wall project activity's VfM could have been enhanced through improved time management. That said, the project intervention was able to remain within budget and the cost benchmark used, achieve its targeted outputs, meet quality expectations, and contribute to a broader outcome. The project thus demonstrated perfect scores in Economy, Cost Efficiency, Output and Outcome Effectiveness, and Quality.