



CENTRAL WATER & SEWERAGE AUTHORITY

ANNUAL REPORT 2021

FOR MORE
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ON OUR PRODUCTS &
SERVICES

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Mr. Maxwell Robertson
Mrs. Nerissa Gittens
Mr. Recardo Frederick
Mr. Daverson Dick**

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GIRLYN MIGUEL
CHAIR
BOARD OF DIRECTORS

In the recent past, the United Nations Organisation has been bringing to the fore, very important information for people to ponder as we grapple with the vagaries of climate change, and “Water” is highlighted for special focus. The 2021 theme for World Water Day (WWD) “Valuing Water” placed emphasis on not just the financial value of water but also on the “value for our households, food, culture, health, education, economics and the integrity of our natural environment”.

Today, we can still say that water is the most common substance on Earth. Water is everywhere, without water there is no life, because it fills our rivers and oceans; it is in the air we breathe, and it is in the ground.

World Water Day celebrations for 2022 focused on the theme “Groundwater: Making the Invisible Visible.” In essence, it seeks to highlight the importance of ground water, a most valuable resource which accounts for approximately 50% of drinking water and about 40% of water used in agricultural irrigation.

The Central Water and Sewerage Authority (CWSA) of St. Vincent and the Grenadines (SVG) thanks the United Nations for insights given.

As we focus on the 2022 international theme, our various departments here at home spread the message through ongoing training, nationally and regionally, and also international cooperation, for we believe in giving quality service to our people.

We cannot forget the experiences gained during the peak of the COVID-19 pandemic and the eruption of the La Soufriere volcano. A newness has been brought to operations at CWSA. Our finances have been negatively impacted, our climate monitoring equipment out in the fields were damaged, and the health of our staff members have been greatly challenged.

CWSA continues to offer a sympathizing ear to our customers who are slowly and surely reaching back to normalcy.

In many parts of SVG, the ground is still saturated with ash from the volcanic eruption, but our faith and resilience continue to see us through. Our catchments at Spring, Montreal, Layou, Greiggs, Lowmans, South Rivers, and bore holes at Penniston and Tourama were serviced for potable use by our people particularly during the eruption.

Sewerage and solid waste services, though faced with increased challenges, were handled with decent haste as the committed staff worked beyond the call of duty. Our General Manager notably set the pace by being present at early morning and late evening work and giving first-hand updates to our nation on radio.

CWSA continues to serve with a deep sense of purpose. Great foundations that were laid by our trail blazers help us today. Our deep focus on technical training, fleet upgrade, our timely collection services and deeper engagement in Information Technology have been stepping-stones towards the success our country enjoys during this period on which we report.

At this time, I repeat CWSA’s call for ample attention to be paid by all, for the conservation of water. A

country's problems are significantly influenced by the attitudes and habits of all its people. Indeed, their impact on the exhaustion of our groundwater is clearly evident. Thus, it is imperative, that our education system caters for the training of our youths. The CWSA will persist in its efforts at increasing awareness and skill enhancement to tackle future challenges.

CWSA embraces change on its way to future success while believing that the only thing that is constant in life is change – change that will take us step by step to more efficient service, systematic change which will help to transform our goals and help our people to adapt to change.



FROM THE CHIEF EXECUTIVE OFFICER



GARTH SAUNDERS
GENERAL MANAGER

In what will be my final report as General Manager of the CWSA, I am once again pleased to note that for the large part of 2021, there was the continuation of quality service delivery in all three main areas of operation, namely, Solid Waste, Sewerage and Water Supply. Despite these achievements however, the Authority's financial and operational performance was severely impacted by one significant natural disaster, occurring simultaneously with the yearlong challenges brought about by the COVID pandemic of 2020. That cataclysmic event was the April 9th, 2022, eruption of the La Soufriere volcano.

We will recall that in 2020 the CWSA's financial performance showed a significant decline over the performance of the previous year which was almost entirely due to the significant revenue shortfall of \$900,000 in the Solid Waste Unit due to the reduction in international travel and economic activity.

Although the year 2021 saw somewhat of a rebound in the international travel and solid waste revenue, these revenue improvements were easily wiped out by

the losses resulting from restoration and rehabilitation expenses occasioned by the evacuations and water system damage arising out of the volcanic eruption. The net result of all of these factors was a further decline in profitability of the CWSA from a small profit of \$137,000 in 2020 to a loss of \$1.72 million in 2021.

Despite these financial setbacks of an unprecedented and turbulent 2021, the CWSA's balance sheet reflected some significant improvements. Special note was made of the improvement in its liquidity position, which showed an increase in cash and cash equivalents of over twenty percent when compared to prior year. There was also a 9% improvement in current receivables, although this was eventually overshadowed by a significant and worrying 40% increase in Grenadines accounts receivables. It is however pleasing to note that, up to October 2022, the CWSA's financial position has already rebounded to a point where the Authority may report a surplus for 2022.

The Authority again continued its focus on attracting, training and retaining the best of the best in terms of its employees and once again the human resource section of this report clearly demonstrates the breadth and depth of our training initiatives and the priority

that is assigned to Occupational Safety and Health (OSH) and in ensuring that employees keep abreast of technological advances as well as their own professional development.

Because of the breadth of the scope of services offered by

the CWSA, the departmental reports presented in this publication more than adequately represent the high-quality performance of all major sectors and the important contributions that they all made to the 2021 success story.

"...the CWSA's financial position has already rebounded to a point where the Authority will again be reporting a surplus for 2022."

While this report highlights the challenges and achievements of the year 2021, it is always important to place this performance against the backdrop of recent challenges in the international arena where the authority has been able to maintain constant water rates/charges for over a decade, while faced with constantly rising costs of inputs. It is however anticipated that the impending and required increases in capital investment and debt servicing in the short to medium term, will necessitate an urgent review of water rates to ensure the continued viability of this important essential service.

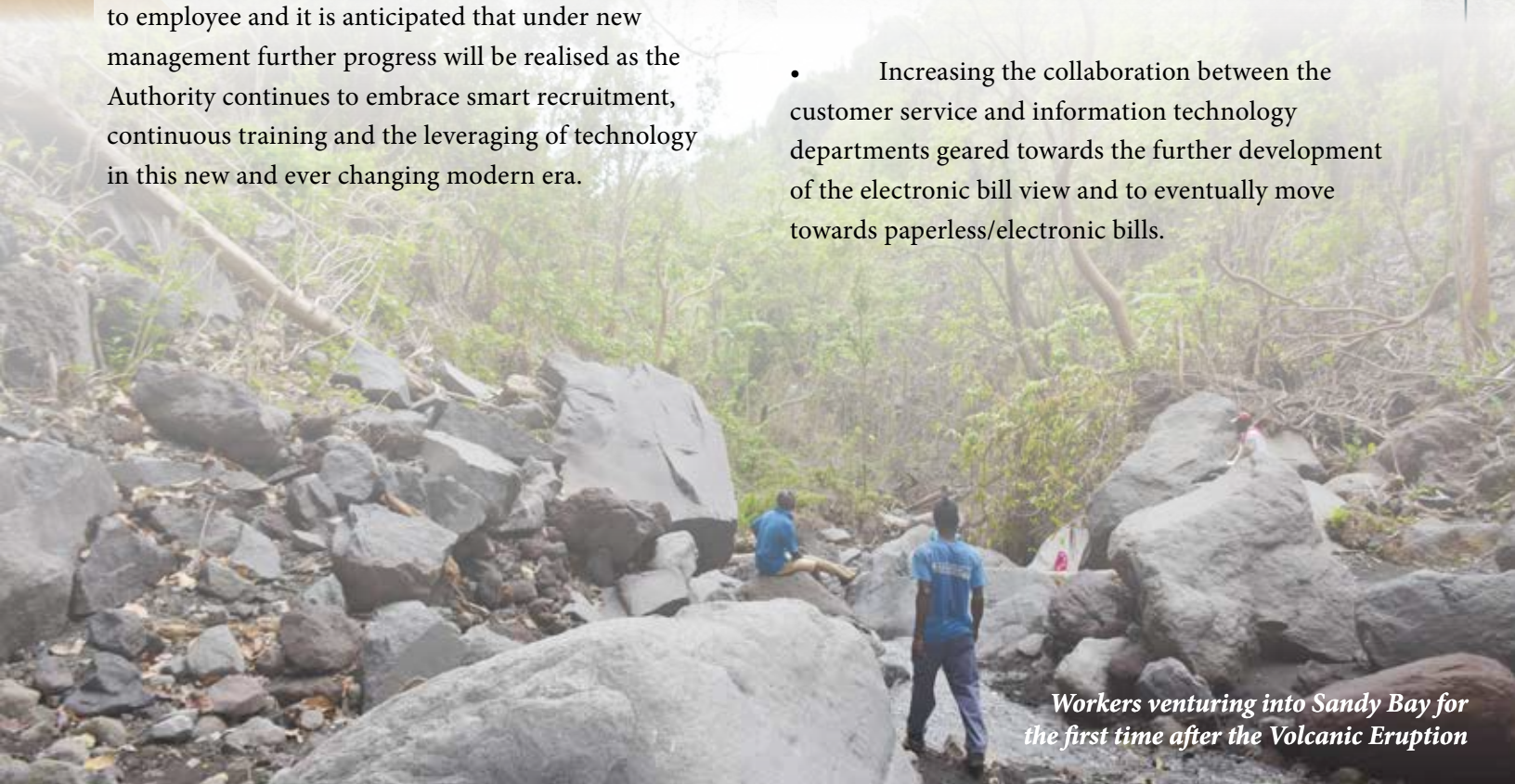
In 2021, the planned developmental thrust was only partially realized, being primarily stymied by the eruption of the La Soufriere volcano and the resulting population displacement, pipeline and water system damage. The CWSA was also further stretched by having to offer waivers on bill payments to both commercial and domestic customers in the affected zones of the volcanic eruption.

All in all, the CWSA continues to be governed, managed and operated by a cohesive team from Board to employee and it is anticipated that under new management further progress will be realised as the Authority continues to embrace smart recruitment, continuous training and the leveraging of technology in this new and ever changing modern era.

I conclude by highlighting some of the very urgent initiatives and challenges for CWSA for the period 2022 and beyond and these include:

- Improving the response to the frequent annual drought conditions by increasing above the ground storage and incorporating new water sources including ground water and desalination plants.
- Having the engineering and customer service departments keeping abreast of increases in demand from planned expansions in the tourism plant and also agriculture.
- Increasing the focus on the handling and treatment of special waste including medical waste from the planned improved and expanded medical and hotel facilities.
- Improving the partnership with VINLEC in response to the very low compliance with bill payment for environmental management services in the Grenadines. This will be aimed at improving the collection of fees.
- Increasing the collaboration between the customer service and information technology departments geared towards the further development of the electronic bill view and to eventually move towards paperless/electronic bills.

"All in all, the CWSA continues to be governed, managed and operated by a cohesive team from Board to employee and it is anticipated that under new management further progress will be realised..."



Workers venturing into Sandy Bay for the first time after the Volcanic Eruption



INTERNAL AUDIT STATEMENT

THE VALUE OF INTERNAL AUDITING

As we operate in an increasingly changing business environment, value is of critical importance in every organization. We are now into the third year of the global pandemic and our significantly disrupted business processes are compelled to contribute greater value. Internal Auditing is no exception.

CWSA's operational activities can be easily identified as delivering value in terms of quality, service and price to our customers. However, the value of Internal Auditing is generally less visible. According to the definition of Internal Auditing by the Institute of Internal Auditors (IIA), "internal auditing is an independent, objective assurance and consultancy activity designed to add value and improve an organization's operations". Therefore, Internal Auditing adds value through an improvement in the organization's internal controls, contributions to effective and efficient governance, protection of the company's assets and a reduction in risks to an acceptable level. Internal Auditing also provides objective assurance that adequate controls are in place to mitigate these risks and that the company's policies and procedures are being followed.

In order to add value to the organization, the following basic steps are taken when conducting Internal Audits:

1. Identify areas that require auditing. The first step is to identify areas that need to be audited. These areas are selected on a risk-based approach and can sometimes be chosen based on concerns reported.
2. Plan the audit. Each audit requires a structured and systematic approach. Planning the audit starts with understanding the policies and procedures that are currently in place to guide the selected audit area. At this stage, the objective and scope of the audit are defined, followed by the development of audit procedures to meet the specified objective. The scope and procedures necessary for carrying out the audit would then determine the timeframe within which the audit can be completed.
3. Alert departments of scheduled audit. Heads of departments that will be audited are given notice of an audit so that they can prepare the necessary documents and materials. At least a week prior to the start of the audit, managers will receive an email indicating the area that will be audited and the length of time it will take to complete that audit.
4. Perform fieldwork. During the fieldwork stage, a number of steps can be performed. These include verifying sample transactions, analyzing documents, reviewing policies and guidelines and conducting interviews with employees. In some cases, applicable laws and legislation may also be examined. Additionally, supervisors and managers would be contacted frequently during the fieldwork stage in order to gain clarification and discuss preliminary observations.
5. Document and analyze findings. The results of the fieldwork are recorded and analyzed. Information collected during the interview process, any differences in what is done in practice compared to the policies, as well as when policies are followed are all reviewed and documented. The objective here is to identify any gaps in compliance and to propose recommendations that are

likely to bridge those gaps and improve the organization's operations. Also, the findings may highlight areas that are functioning properly, but which may perform better if changes are made.

6. Discuss findings with Managers. The findings of the audit are discussed with those managers who are responsible for the various departments under audit. Along with any areas of weaknesses that may require improvement, managers are also briefed on areas that are performing well. Further, the proposed recommendations are discussed.

7. Report findings. A final report is developed which summarizes and communicates the results of the audit. This audit report will then be presented to Management.

8. Perform audit follow-ups. It is of critical importance to perform follow-up audits in order to ensure that recommendations have been implemented to address the findings contained in the audit report.

The value of Internal Auditing is therefore reflected in the objective assessment of operations, the insights for improving internal controls and the objective assurance that the organization is functioning in the way management intends.

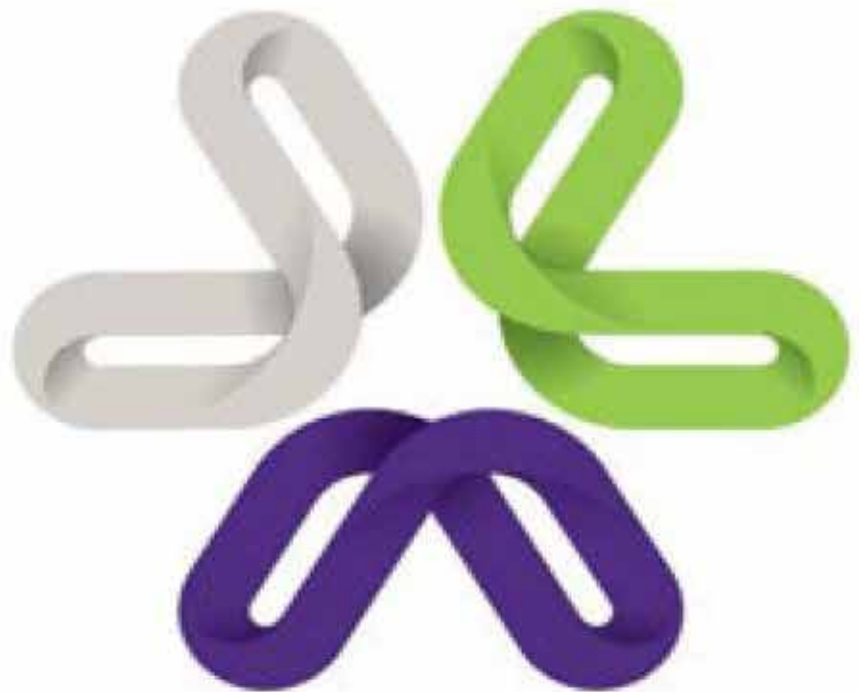
PREPARED BY GISELLE YOUNG
INTERNAL AUDITOR



Grant Thornton

Central Water and Sewerage Authority

Financial Statements
Year Ended December 31, 2021
(in Eastern Caribbean dollars)



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Mr. Crawford Young - Deputy Chairman
Mr. Rudolph Daize
Mr. Cuthbert Knights
Mr. Recardo Fredericks
Ms. Nerissa Gittens
Mr. Maxwell Robertson
Mr. Daverson Dick

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INDEPENDENT AUDITORS' REPORT

To the Directors of
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Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of **Central Water and Sewerage Authority**, which comprise the statement of financial position as at December 31, 2021, and the statement of changes in equity, statement of profit or loss, and statement of cash flows for the year then ended, and notes to the financial statements, including significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of **Central Water and Sewerage Authority** as at December 31, 2021, and its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS).

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Authority in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements that are relevant to our audit of the financial statements in the Eastern Caribbean, and we have fulfilled our ethical responsibilities in accordance with these requirements and IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Authority or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. "Reasonable assurance" is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.



As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, then we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Authority to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, related safeguards.

October 31, 2022

Central Water and Sewerage Authority

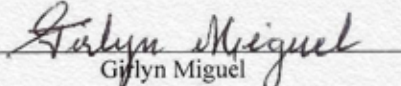
Statement of Financial Position

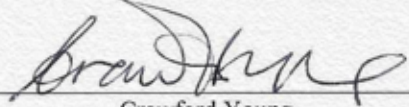
As of December 31, 2021

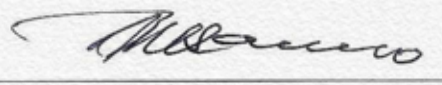
(in Eastern Caribbean dollars)

	Notes	2021 \$	2020 \$
ASSETS			
Current Assets			
Cash and cash equivalents	7	3,215,754	2,696,392
Trade receivables	8	6,472,197	7,064,271
Other receivables	9	1,639,170	1,365,834
Investment securities	10	4,370,536	4,392,782
Inventories	11	6,357,978	6,720,749
Prepayments		328,083	349,094
		22,383,718	22,589,122
Property, Plant and Equipment	12	74,149,613	75,391,315
		96,533,331	97,980,437
LIABILITIES AND GOVERNMENT'S EQUITY			
Current Liabilities			
Borrowings	13	655,563	639,963
Trade and other payables	14	3,124,503	3,963,812
		3,780,066	4,603,775
Borrowings	13	3,642,369	2,502,622
Employee Benefits	15	67,929	72,622
Obligations to Customers	16	92,623	131,321
		7,582,987	7,310,340
Government's Equity			
Contributed capital	17	53,845,644	53,845,644
Accumulated other comprehensive income	18	6,826,310	6,826,310
Retained earnings		28,278,390	29,998,143
		88,950,344	90,670,097
		96,533,331	97,980,437

APPROVED BY THE BOARD OF DIRECTORS ON OCTOBER 31, 2022.


Garlyn Miguel
Chairman


Crawford Young
Deputy Chairman


Garth Saunders
Secretary

The accompanying notes form an integral part of these financial statements.

Central Water and Sewerage Authority

Statement of Changes in Equity

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

	Contributed Capital \$	Accumulated Other Comprehensive Income \$	Retained Earnings \$	Total \$
Balance as of December 31, 2019	53,845,644	6,826,310	29,974,811	90,646,765
Net profit for the year	0	0	23,332	23,332
Balance as of December 31, 2020	53,845,644	6,826,310	29,998,143	90,670,097
Net loss for the year	0	0	(1,719,753)	(1,719,753)
Balance as of December 31, 2021	53,845,644	6,826,310	28,278,390	88,950,344

The accompanying notes form an integral part of these financial statements.

Central Water and Sewerage Authority

Statement of Profit or Loss

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

	Notes	2021 \$	2020 \$
Revenue			
Water income		18,276,690	18,883,950
Sewerage income		638,671	656,551
Solid waste income	19	7,706,896	8,278,431
Other water and sewerage related revenue		419,022	399,617
Other income		635,554	272,640
		<u>27,676,833</u>	<u>28,491,189</u>
Operational Costs			
Production and maintenance costs	20	(17,492,627)	(17,197,547)
Selling, general and administrative expenses	21	(11,729,775)	(11,156,557)
		<u>(29,222,402)</u>	<u>(28,354,104)</u>
Operating (Loss) Profit		<u>(1,545,569)</u>	<u>137,085</u>
Finance charges		<u>(174,184)</u>	<u>(113,753)</u>
Profit for the (Loss) Year		<u>(1,719,753)</u>	<u>23,332</u>
The following expense is included in the foregoing:-			
Depreciation	12	4,082,833	3,931,257

The accompanying notes form an integral part of these financial statements.

The accompanying notes form an integral part of these financial statements.

Central Water and Sewerage Authority

Statement of Cash Flows

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

	Note	2021 \$	2020 \$
Cash Flows from Operating Activities			
(Loss) profit for the year		(1,719,753)	23,332
Adjustments for			
Depreciation expense		4,082,833	3,931,257
Interest income		(163,943)	(119,197)
Finance charges		174,184	113,753
Gain on disposal of property, plant and equipment		(102,037)	(75,054)
Profit before Working Capital Changes		2,271,284	3,874,091
Decrease in trade receivables		592,074	294,952
Increase in other receivables		(273,336)	(348,935)
Decrease (increase) in prepayments		21,011	(28,529)
Decrease (increase) in inventories		362,771	(1,126,945)
(Decrease) increase in trade and other payables		(839,309)	791,985
(Decrease) increase in obligations to customers		(38,698)	81,236
Cash Generated from Operations		2,095,797	3,537,855
Interest paid		(174,184)	(113,753)
Interest received		163,943	117,637
Employee benefits paid		(4,693)	(20,668)
Net Cash Generated from Operating Activities		2,080,863	3,521,071
Cash Flows from Investing Activities			
Purchases of property, plant and equipment		(2,870,793)	(3,722,461)
Proceeds from sales of property, plant and equipment		131,699	75,054
Change in investments securities		22,246	(519,826)
Net Cash Used in Investing Activities		(2,716,848)	(4,167,233)
Cash Flows from Financing Activities			
Repayment of long-term loans		(565,161)	(356,486)
Proceeds from long-term loan		1,853,430	1,348,830
Net Cash Generated from Financing Activities		1,288,269	992,344
Net Movement in Cash and Cash Equivalents		652,284	346,182
Cash and Cash Equivalents – Beginning of Year		2,563,470	2,217,288
Cash and Cash Equivalents – End of Year	7	3,215,754	2,563,470

The accompanying notes form an integral part of these financial statements.

Central Water and Sewerage Authority

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Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

1. Legal Status

The Central Water and Sewerage Authority (the "Authority") is a statutory corporation established in 1969 under the revised Central Water and Sewerage Authority Act.

2. Principal Activities

The Authority's principal activities are the management, treatment and distribution of water and the management of solid waste and sewerage throughout St. Vincent and the Grenadines.

3. Basis of Preparation

The principal accounting policies adopted in the preparation of these financial statements are set out in **Note 4**. These policies have been consistently applied to all the years presented, unless otherwise stated.

Statement of Compliance

The financial statements of the Authority have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), under the historical cost convention unless otherwise stated.

Significant Accounting Judgments, Estimates and Assumptions

The preparation of the Authority's financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of assets or liabilities affected in future periods.

In the process of applying the Authority's accounting policies, management made various judgments. Those which management has assessed to have the most significant effect on the amounts recognised in the financial statements have been discussed in the individual notes of the related financial statement line items.

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are also described in the individual notes of the related financial statement line items below. The Authority based its assumptions and estimates on parameters available when the financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond the control of the Authority. Such changes are reflected in the assumptions when they occur.

The Authority carries its investment properties at fair value, with changes in fair value being recognised in the statement of profit or loss. In addition, it measures land and buildings at revalued amounts with changes in fair value being recognised in Other Comprehensive Income (OCI). The Authority engaged an independent valuation specialist to assess fair value for investment property.

a. New and Amended Standards and Interpretations

The Authority applied for the first-time certain standards and amendments, which are effective for annual periods beginning on or after January 1, 2021. The Authority has not early adopted any standard, interpretation or amendment that has been issued but is not yet effective.

Management anticipates that all the relevant pronouncements will be adopted in the Authority's accounting policies for the first period beginning after the effective date of the pronouncement. New standards, interpretations and amendments not adopted or listed below are not expected to have a material impact on the Authority's financial statements.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

3. Basis of PreparationCont'd

Significant Accounting Judgments, Estimates and AssumptionsCont'd

a. New and Amended Standards and InterpretationsCont'd

Amendments to IFRS 16 Covid-19 Related Rent Concessions

On May 28, 2020, the IASB issued Covid-19 Related Rent Concessions – amendment to IFRS 16 Leases. The amendments provide relief to lessees from applying IFRS 16 guidance on lease modification accounting for rent concessions arising as a direct consequence of the Covid-19 pandemic. As a practical expedient, a lessee may elect not to assess whether a Covid-19 related rent concession from a lessor is a lease modification. A lessee that makes this election accounts for any change in lease payments resulting from the Covid-19 related rent concession the same way it would account for the change under IFRS 16, if the change was not a lease modification.

The amendment was intended to apply until June 30, 2021, but as the impact of the Covid-19 pandemic is continuing, on March 31, 2021, the IASB extended the period of application of the practical expedient to June 30, 2022. The amendment applies to annual reporting periods beginning on or after April 1, 2021. This amendment had no impact on the financial statements of the Authority.

- Provide temporary relief to entities from having to meet the separately identifiable requirement when an RFR instrument is designated as a hedge of a risk component

These amendments had no impact on the financial statements of the Authority. The Authority intends to use the practical expedients in future periods if they become applicable.

b. New and Amended Standards and Interpretations Issued but not yet Effective

The standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Authority's financial statements are disclosed below. The Authority intends to adopt these standards, if applicable, when they become effective. The new and amended standards and interpretations are not expected to have a significant impact on the Authority's financial statements.

Amendments to IAS 1: Classification of Liabilities as Current or Non-Current

In January 2020, the IASB issued amendments to paragraphs 69 to 76 of IAS 1 to specify the requirements for classifying liabilities as current or non-current. The amendments clarify:

- What is meant by a right to defer settlement
- That a right to defer must exist at the end of the reporting period
- That classification is unaffected by the likelihood that an entity will exercise its deferral right
- That only if an embedded derivative in a convertible liability is itself an equity instrument would the terms of a liability not impact its classification

The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and must be applied retrospectively. The Authority does not expect any effect on its financial statements.

Property, Plant and Equipment: Proceeds before Intended Use – Amendments to IAS 16

In May 2020, the IASB issued Property, Plant and Equipment – Proceeds before Intended Use, which prohibits entities deducting from the cost of an item of Property, Plant and Equipment, any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the costs of producing those items, in profit and loss.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

3. Basis of PreparationCont'd

Significant Accounting Judgments, Estimates and AssumptionsCont'd

b. New and Amended Standards and Interpretations Issued but not yet EffectiveCont'd

The amendment is effective for annual reporting periods beginning on or after January 1, 2022, and must be applied retrospectively to items of property, plant and equipment made available for use on or after the beginning of the earliest period presented when the entity first applies the amendment.

The amendments are not expected to have a material impact on the AUTHORITY.

Onerous Contracts – Costs of Fulfilling a Contract – amendments to IAS 37

In May 2020, the IASB issued amendments to IAS 37 to specify which costs an entity needs to include when assessing whether a contract is onerous or loss-making.

The amendments apply a 'directly related cost approach'. The costs that relate directly to a contract to provide goods or services include both incremental costs and an allocation of costs directly related to contract activities. General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract.

The amendments are effective for annual reporting periods beginning on or after January 1, 2022. The Authority will apply these amendments to contracts for which it has not yet fulfilled all its obligations at the beginning of the annual reporting period in which it first applies the amendments.

IFRS 9 Financial Instruments – Fees in the '10 per cent' test for derecognition of financial liabilities

As part of its 2018-2020 annual improvements to IFRS standards process, the IASB issued an amendment to IFRS 9. The amendment clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. An entity applies the amendment to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment.

The amendment is effective for annual reporting periods beginning on or after January 1, 2022, with earlier adoption permitted. The Authority will apply the amendments to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment.

The amendments are not expected to have a material impact on the Authority.

Definition of Accounting Estimates – Amendments to IAS 8

In February 2021, the IASB issued amendments to IAS 8, in which it introduces a definition of 'accounting estimates'. The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, they clarify how entities use measurement techniques and inputs to develop accounting estimates.

The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and apply to changes in accounting policies and changes in accounting estimates that occur on or after the start of that period. Earlier application is permitted as long as this fact is disclosed.

The amendments are not expected to have a material impact on the Authority.

Central Water and Sewerage Authority

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For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

3. Basis of PreparationCont'd

Significant Accounting Judgments, Estimates and AssumptionsCont'd

b. New and Amended Standards and Interpretations Issued but not yet EffectiveCont'd

Disclosure of Accounting Policies – Amendments to IAS 1 and IFRS Practice Statement 2

In February 2021, The IASB issued amendments to IAS 1 and IFRS Practice Statement 2 Making Materiality Judgements, in which it provides guidance and examples to help entities apply materiality judgements to accounting policy disclosures. The amendments aim to help entities provide accounting policy disclosures that are more useful by replacing the requirement for entities to disclose their 'significant' accounting policies with a requirement to disclose their 'material' accounting policies and adding guidance on how entities apply the concept of materiality in making decisions about accounting policy disclosures.

The amendments to IAS 1 are applicable for annual periods beginning on or after January 1, 2023, with earlier adoption permitted. Since the amendments to the Practice Statement 2 provide for non-mandatory guidance on the application of the definition of material to accounting policy information, an effective date for these amendments is not necessary.

The Authority is currently assessing the impact of the amendments to determine the impact they will have on the Authority's accounting policy disclosures.

4. Significant Accounting Policies

a. Cash, Cash Equivalents and Short-term Investment Securities

Cash equivalents include highly liquid investments with insignificant interest rate risk and original maturities of ninety (90) days or less at the date of purchase. Investments with maturities between ninety (90) days and one year at the date of purchase are considered to be short-term investment securities. Short-term investment securities consist primarily of investment grade commercial paper, bankers' acceptances, and certificates of deposit.

b. Trade Receivables

Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method less allowance for impairment. Trade receivables are amounts due from customer for water, sewerage and other services sold in the ordinary course of business. They are generally due for settlement within 30 days and therefore are classified as current. Trade receivables are recognized initially at the amount of consideration that is unconditional unless they contain a significant financing component, when they are recognized at fair value. The authority holds trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortized cost using the effective interest method.

A trade receivable is written off when it is established that there is objective evidence that the Authority will not be able to collect all amounts due according to the original terms of the receivable.

Subsequent recoveries of amounts previously written off are credited against selling and distribution costs in the statement of profit or loss.

c. Inventories

Inventories are carried at the lower of cost and net realisable value. In general, cost is determined on an average cost basis and includes expenditures incurred in acquiring the inventories and bringing them to their existing location and condition. Net realisable value is the price at which inventories can be realised in the normal course of business.

An allowance is made for obsolete, slow moving and defective items.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

4. Significant Accounting PoliciesCont'd

d. Financial Assets

The authority classifies its financial assets in the following categories: -

- (i) Financial Assets at Amortised Cost
- (ii) Financial Assets at Fair Value through Other Comprehensive Income

Management determines the classification of its financial assets at initial recognition.

(i) Financial Assets at Amortised Cost

The authority classifies its financial assets at amortised cost only if both of the following criteria are met: -

- the asset is held within a business model whose objective is to collect the contractual cash flows, and
- the contractual terms give rise to cash flows that are solely payments of principal and interest.

(ii) Financial Assets at Fair Value through Other Comprehensive Income

Financial assets at fair value through other comprehensive income (FVOCI) comprise equity securities which are not held for trading, and which the authority has irrevocably elected, at initial recognition, to recognise in this classification to be more relevant.

On disposal of these equity investments any related balance within the FVOCI reserve is reclassified to retained earnings.

The fair value of a financial instrument that is not traded in an active market is determined using valuation techniques. The Authority uses judgement to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period.

Interest income arising on financial investments is accrued using the effective rate method.

The Authority has two types of financial assets that are subject to the expected credit loss model.

- Trade receivables
- Investment securities carried at amortised cost

Trade Receivables

The Authority applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables.

Trade receivables are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the Authority, and a failure to make contractual payments for a period of greater than 120 days past due.

Impairment losses on trade receivables are presented as net impairment losses within selling, general and administrative expenses. Subsequent recoveries of amounts previously written off are credited against the same line item.

Investment Securities carried at Amortised Cost

All of the authority's investments at amortised cost are considered to have low credit risk and the loss allowance is therefore limited to 12 months expected losses.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

4. Significant Accounting PoliciesCont'd

e. Property, Plant and Equipment

(i) Recognition and Measurement

Land and buildings initially are recognised at cost less subsequent depreciation on buildings. All other property, plant and equipment are carried at cost less depreciation.

If significant parts of an item of property, plant and equipment have different useful lives, then they are accounted for as separate items (major components) of property, plant and equipment.

Any gain or loss on disposal of an item of property, plant and equipment (calculated as the difference between the net proceeds from disposal and the carrying amount of the item) is recognised in profit or loss.

(ii) Subsequent Expenditure

Subsequent expenditure is capitalised only if it is probable that the future economic benefits associated with the expenditure will flow to the Authority.

(iii) Depreciation

Depreciation is calculated to write off the cost of items of property, plant and equipment using a straight-line method over their estimated useful lives and is generally recognised in the profit or loss. Land is not depreciated.

Landfill	2 - 5 %
Buildings	2%
Water and sewerage systems	2%
Meterisation	10%
Furniture and equipment	10 - 20 %
Heavy equipment	10%
Motor vehicles	20%

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

f. Foreign Currency Translation

These financial statements are expressed in Eastern Caribbean dollars, the Authority's functional currency. Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss in the statement of comprehensive income.

Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated into the functional currency at the spot exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between the amortized cost in the functional currency at the beginning of the year, adjusted for effective interest and payments during the year, and the amortized cost in foreign currency translated at the spot exchange rate at the end of the year.

Non-monetary assets and liabilities that are measured at fair value in a foreign currency are translated into the functional currency at the spot exchange rate at the date on which the fair value is determined. Non-monetary items that are measured based on historical cost in a foreign currency are translated using the spot exchange rate at the date of the transaction.

Foreign currency differences arising on translation are generally recognized in profit or loss. However, foreign currency differences arising on the translation of the equity instruments classified as FVOCI are recognized in OCI.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

4. Significant Accounting PoliciesCont'd

g. Borrowings

Borrowings are recognised initially at fair value, net of transaction cost incurred. Borrowings are subsequently stated at amortised cost and any difference between the net proceeds and the redemption value is recognised in the statement of profit or loss over the period of the borrowings using the effective interest method. Borrowings are removed from the statement of financial position when the obligation specified in the contract is discharged, cancelled or expired.

h. Trade and Other Payables

These amounts represent liabilities for goods and services provided to the authority prior to the end of the financial year which are unpaid. These amounts are unsecured and are usually paid within 30 days of recognition. Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting date. They are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

i. Provisions

Provisions are recognized when the Authority has a present legal or constructive obligation, as a result of past events, if it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amounts can be made.

j. Government Contributions

Government contributions that are not the result of an exchange transaction and are not expected to be repaid in the future are recognised under contributed capital on the fiscal year when the event occurs.

k. Employee Benefits

The Authority operate a defined contribution plan, the assets of which are generally held in a separate trustee-administered fund. Contributions to the plan are made by the Authority and its employees. The Authority's contributions are charged to profit or loss in the period during which related services are rendered by employees.

A defined contribution plan is a pension plan under which the Authority pays fixed contributions into a separate entity. The Authority has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods.

The Authority pays contributions to privately administered pension plan on a mandatory contractual basis. The Authority has no further payment obligations once the contributions have been paid. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payment is available.

The Authority carries a provision for employee benefits, to be paid to employees who were employed prior to 1992 and who, upon retirement age, would have served a minimum of thirty consecutive years immediately prior to retirement as a special retirement support benefit.

l. Revenue Recognition

Revenues from provision of services and the delivery of water are recognised in profit or loss during the period in which the services are provided and the supply is consumed by the end user. Because a rotational billing cycle is employed to recognise end user's consumption of water and the recording of the provision of services, at each reporting date, unbilled end user's consumption of supply are accrued on proportional basis of the last billing period.

Revenues accruing from the extension of transmission and distribution systems are recognised in profit or loss on the stage of completion of the extension project.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

4. Significant Accounting PoliciesCont'd

m. Income Tax

The Authority is exempt from income tax and import duties under the Central Water and Sewerage Authority Act.

n. Impairment of Non-Financial Assets

Assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation are reviewed for impairment whenever events and changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less cost to sell and value in use.

5. Financial Risk Management

a. Risk Management Objectives and Policies

The Authority is exposed to various risks in relation to financial instruments. The Authority's financial assets and liabilities by category. The main types of risks are market risk, credit risk and liquidity risk.

The Authority's risk management is coordinated at its management team, in close cooperation with the board of directors, and focuses on actively securing the Authority's short to medium-term cash flows by minimising the exposure to volatile financial markets. Long-term financial investments are managed to generate lasting returns.

The Authority does not actively engage in the trading of financial assets for speculative purposes, nor does it write options. The most significant financial risks to which the Authority is exposed are described below.

i) Market Risk Analysis

The Authority is exposed to market risk through its use of financial instruments and specifically to currency risk, interest rate risk and certain other price risks, which result from both its operating and investing activities.

ii) Credit Risk

The Authority has no significant concentration of credit risk. It has policies in place to ensure that sales of products and services are made to customers with an appropriate credit history. Additionally, the Authority has policies that limit its credit exposure to any financial institutions.

The Authority's exposure to credit risk is dependent on the degree of failure of counterparties, including its customers, banks and other debtors, to honour their obligations that could result in losses to it.

	2021 \$	2020 \$
Cash on hand and at bank	3,215,754	2,696,392
Trade receivables	6,472,197	7,064,271
Other receivables	1,639,170	1,365,834
Investment securities	4,370,536	4,392,782
	15,697,657	15,519,279

The exposure set out above are based on net carrying amounts as reported in the statement of financial position, and represent a worst-case scenario of credit risk exposure at December 31, 2021 and 2020, without taking into account any collateral held or other credit enhancements attached.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

a. Risk Management Objectives and PoliciesCont'd

ii) Credit RiskCont'd

The table below presents an analysis of the Authority's cash equivalents (**Note 7**), trade receivable (**Note 8**), other receivables (**Note 9**) and investment securities (**Note 10**) by rating agency designation at December 31, 2021 and 2020, based on Moody's ratings or equivalent:

	Cash Resources \$	Trade Receivables \$	Other Receivables \$	Investment Securities \$	Total \$
At December 31, 2021					
Lower than A-	1,139,753	0	0	0	1,139,753
Unrated	2,076,001	6,472,197	1,639,170	4,370,536	14,557,904
	3,215,754	6,472,197	1,639,170	4,370,536	15,697,657
	Cash Resources \$	Trade Receivables \$	Other Receivables \$	Investment Securities \$	Total \$
At December 31, 2020					
Lower than A-	898,861	0	0	825,000	1,723,861
Unrated	1,797,531	7,064,271	1,365,834	3,567,782	13,795,418
	2,696,392	7,064,271	1,365,834	4,392,782	15,519,279

The Authority continuously monitors defaults of customers and other counterparties, identified either individually or collectively, and incorporates this information into its credit risk controls. Where available at reasonable cost, external credit ratings and/or reports on customers and other counterparties are obtained and used. The Authority's policy is to deal only with creditworthy counterparties.

The Authority's management considers that all of the above financial assets that are not impaired or past due for each of the December 31 reporting dates under review are of good credit quality.

At reporting date, the Authority has certain trade receivables that have not been settled by the contractual due date but are not considered to be impaired. The amounts at reporting date, analysed by the length of time past due, are:

	2021 \$	2020 \$
Not more than 3 months	5,003,113	4,970,314
More than 3 months but not more than 12 months	2,564,726	2,754,794
More than 1 year	6,251,097	5,983,421
Total	13,818,936	13,708,529

In respect of trade and other receivables, the Authority is not exposed to any significant credit risk exposure to any single counterparty or any group of counterparties having similar characteristics. Trade receivables consist of a large number of customers in various sectors. Based on historical information about customer default rates management consider the credit quality of trade receivables that are not past due or impaired to be good.

The credit risk for cash and cash equivalents and short-term investments is considered negligible, since the counterparties are reputable banks with high quality external credit ratings.

The carrying amounts disclosed above are the Authority's maximum possible credit risk exposure in relation to these instruments.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

a. Risk Management Objectives and PoliciesCont'd

iii) Liquidity Risk

Liquidity risk is that the Authority might be unable to meet its obligations. The Authority manages its liquidity needs by monitoring scheduled debt servicing payments for long-term financial liabilities as well as forecast cash inflows and outflows due in day-to-day business. The data used for analysing these cash flows is consistent with that used in the contractual maturity analysis below. Liquidity needs are monitored in various time bands, on a day-to-day and week-to-week basis, as well as on the basis of a rolling 30-day projection. Long-term liquidity needs for a 180-day and a 360-day lookout period are identified monthly. Net cash requirements are compared to available borrowing facilities in order to determine headroom or any shortfalls. This analysis shows that available borrowing facilities are expected to be sufficient over the lookout period.

The Authority's objective is to maintain cash and marketable securities to meet its liquidity requirements for 30-day periods at a minimum. This objective was met for the reporting period. Funding for long-term liquidity needs is additionally secured by an adequate amount of committed credit facilities and the ability to sell long-term financial assets.

The Authority considers expected cash flows from financial assets in assessing and managing liquidity risk, in particular its cash resources and trade receivables. The Authority's existing cash resources and trade receivables significantly exceed the current cash outflow requirements. Cash flows from trade and other receivables are all contractually due within six months.

As at December 31, 2021, the Authority's non-derivative financial liabilities have contractual maturities (including interest payments where applicable) as summarised below:

			2021		
	Carrying Amount	Contractual Cash Flows	1 Year	2-5 Years	More than 5 Years
	\$	\$	\$	\$	\$
Borrowings	4,297,932	(4,484,911)	(804,180)	(2,845,570)	(835,161)
Employee benefits	67,929	(67,929)	(67,929)	-	-
Trade and other payables	3,124,503	(3,124,503)	(3,124,503)	-	-
	7,490,364	(7,677,343)	(3,996,612)	(2,845,570)	(835,161)

			2020		
	Carrying Amount	Contractual Cash Flows	1 Year	2-5 Years	More than 5 Years
	\$	\$	\$	\$	\$
Borrowings	3,142,585	(3,620,064)	(781,913)	(2,838,151)	0
Employee benefits	72,622	(72,622)	0	0	0
Trade and other payables	3,963,812	(3,963,812)	0	0	0
	7,179,019	(7,656,498)	(781,913)	(2,838,151)	0

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

a. Risk Management Objectives and PoliciesCont'd

iv) Interest Rate Risk

The Authority's policy is to minimize interest rate cash flow risk exposure on long-term financing. The Authority's long-term borrowings are therefore usually at fixed rates. The Authority's investment securities in certificates of deposits pay fixed rates of interest. The exposure to interest rate risks for the Authority is considered immaterial.

The Authority's exposure to interest rate sensitivity gap is as follows: -

	Up to One Year \$	One to Five Years \$	Non-Interest Bearing \$	Total \$
Financial Assets	7,134,192	285,715	8,004,414	15,424,321
Financial Liabilities	655,563	3,642,369	3,192,432	7,490,364
Interest Sensitivity Gap				
As at December 31, 2021	6,478,629	(3,356,654)		(7,933,957)
As at December 31, 2020	5,856,307	(2,052,622)		3,803,685

The following illustrates the sensitivity of profits to a reasonably possible change in interest rate of +/-50 bases points (2020: +/-50 bases points). These changes are considered to be reasonable possible based on observation of current market conditions. The calculations are based on a change in the average market interest rate for each period, and the financial instruments held at each reporting date. All other variables are held constant.

	Profit for the Year \$	
	+50 bases points	-50 bases points
2021 Effect of change due to movement	(19,309)	19,309
2020 Effect of change due to movement	(11,654)	11,654

v) Currency Risk

The Authority is subject to foreign currency risks to the extent that it trades in currencies other than Eastern Caribbean currency. The Authority does not use interest rate swaps or foreign currency options, or other derivative instruments to hedge any foreign currency risks exposure. As of reporting date, the Authority's significant currency position was as follows: -

	GBP \$	EURO \$	USD \$	EC \$	Total \$
Financial Assets	0	33,918	0	15,390,403	15,424,321
Financial Liabilities	0	0	464,705	7,025,659	7,490,364
Currency Sensitivity Gap					
As at December 31, 2021	0	33,918	(464,705)	8,364,744	7,933,957
As at December 31, 2020	(16,2047)	(719,706)	(527,588)	9,749,601	8,340,260

To mitigate the Authority's exposure to foreign currency risk, its foreign currency cash flows are monitored on a monthly basis. Generally, the Authority's risk management procedures distinguish short-term foreign currency cash flows (due within six months) from longer-term cash flows (due after six months). The Authority, however, does not employ any hedging strategy to mitigate its foreign exchange exposures.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

a. Risk Management Objectives and PoliciesCont'd

v) Currency Risk Cont'd

Foreign currency denominated financial assets and liabilities which expose the Authority to currency risk are disclosed below. The amounts shown are translated into Eastern Caribbean dollars at the closing rate:

	Short-term Exposure EC \$	Long-term Exposure EC \$
December 31, 2021		
Financial Assets	33,918	0
Financial Liabilities	464,705	0
Total Exposure	(430,787)	0
	Short-term Exposure EC \$	Long-term Exposure EC \$
December 31, 2020		
Financial Assets	33,398	0
Financial Liabilities	1,442,739	0
Total Exposure	(1,409,341)	0

The following table illustrates the sensitivity of profits of the Authority's financial assets and financial liabilities of EC exchange rate fluctuations to other currencies, 'all other things being equal'. It assumes a +/- 5% change of the EC exchange rate for the year ended at December 31, 2021 (2020: +/-5%). These percentages have been determined based on the average market volatility in exchange rates in the previous twelve months. The sensitivity analysis is based on the Authority's foreign currency financial instruments held at each reporting date.

Had the EC\$ strengthened against other currencies by 5%, then the effect on profits would have been as follows:

	Profit for the Year				
	GBP \$	US \$	EURO \$	BDS \$	Total \$
December 31, 2021	0	22,235	1,696	0	24,931
December 31, 2020	8,102	26,379	35,985	0	70,466

Had the EC\$ weakened against other currencies by 5%, then the effect on profits would have been as follows:

	Profit for the Year				
	GBP \$	US \$	EURO \$	BDS \$	Total \$
December 31, 2021	0	(23,235)	(1,696)	0	(24,931)
December 31, 2020	(8,102)	(26,379)	(35,985)	0	(70,466)

b. Fair Value of Financial Assets and Liabilities

Fair value amounts represent estimates of the consideration that would currently be agreed upon between knowledgeable, willing parties who are under no compulsion to act and are best evidenced by quoted market value, if one exists.

The Authority's financial assets and financial liabilities as disclosed in the statement of financial position approximate their fair value.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

6. Critical Accounting Estimates and Judgements

Judgements and estimates are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Authority makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

a. Estimated Impairment of Assets

The Authority tests each reporting period whether assets have suffered any impairment in accordance with the accounting policy stated in significant accounting policies section.

b. Allowance for Impaired Trade Receivables

The Authority reviews the status of its trade receivables as of each reporting date, after the direct write off of known uncollectible accounts, and assesses the likelihood of recovery, individually and collectively based on historic experience and forward-looking data available. The allowance for impaired trade receivables is estimated by applying loss percentages which approximate loss experience to the arrears status of the trade receivable accounts.

7. Cash and Cash Equivalents

	2021	2020
	\$	\$
Cash on hand	4,000	4,000
Bank balances and demand deposits	3,211,754	2,692,392
	3,215,754	2,696,392

The Authority's cash and cash equivalents are denominated in the following currencies: -

	2021	2020
	\$	\$
EUR	33,918	33,398
ECD	3,181,836	2,662,994
	3,215,754	2,696,392

Cash and cash equivalents include the following for the purpose of the cash flow statement: -

	2021	2020
	\$	\$
Cash and cash equivalents	3,215,754	2,696,392
Bank overdraft (Note 13)	0	(132,922)
	3,215,754	2,563,470

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

8. Trade Receivables

	2021 \$	2020 \$
Un-metered accounts	11,278	16,757
Metered accounts	10,093,160	9,518,498
Grenadines accounts	973,485	684,270
Sewerage accounts	61,560	58,525
Bulk water accounts	27,890	22,981
Environmental levy receivable	147,081	148,044
Government of St. Vincent and the Grenadines	2,658,562	3,414,562
	13,973,016	13,863,637
Allowance for impaired receivables	(7,500,819)	(6,799,366)
	6,472,197	7,064,271

Pursuant to an agreement with the Government, the Authority supplies water to standpipes and state-owned institutions for a consideration of \$1,100,000 (2020: \$1,100,000) per annum, payable in quarterly instalments of \$275,000 (2020: \$275,000), due on March 31, June 30, September 30 and December 31, each year.

As of reporting date, trade receivables of \$7,500,819 (2020: \$6,799,366) were considered impaired. The individually impaired receivables mainly relate to consumers which are in unexpected difficult economic situations and or reluctant to pay certain charges.

The aging of those receivables are as follows: -

	2021 \$	2020 \$
91 to 365 days	674,709	545,335
Over 365 days	6,826,110	6,254,031
	7,500,819	6,799,366

Movement in the allowance for impaired trade receivables that are assessed for impairment collectively are as follows: -

	2021 \$	2020 \$
At January 1	6,799,366	6,201,282
Increase in allowance for impaired receivables (Note 21)	701,453	658,456
Direct write-offs	0	(60,372)
At December 31	7,500,819	6,799,366

During the year, the following bad debts expense was recognised in profit or loss in relation to impaired receivables: -

	2021 \$	2020 \$
Movement in allowance for impaired receivables (Note 21)	701,453	598,084

Due to the short-term nature of the current receivables, the carrying amount is assumed to be the same as their fair value. Trade receivables are denominated in Eastern Caribbean currency.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

9. Other Receivables

	2021 \$	2020 \$
Sundry receivables	187,576	99,181
Staff receivables	103,986	86,206
VAT refundable	1,347,608	1,180,447
	1,639,170	1,365,834

Other receivables are neither past due nor considered impaired. Based on the historical credit performance of other receivables, it is expected that these amounts will be received as they become due. The Authority does not hold any collateral in relation to other receivables.

The carrying value of other receivables is denominated in the following currencies: -

	2021 \$	2020 \$
ECD	1,639,170	1,365,834
	1,639,170	1,365,834

10. Investment Securities

At Amortized Cost

	2021 \$	2020 \$
Bank of St. Vincent and the Grenadines Limited, certificate of deposit	1,666,225	1,641,603
General Employees Co-operative Credit Union Limited, certificates of deposit (Note 13)	1,954,192	1,888,109
Government of St. Vincent and the Grenadines treasury bills	285,715	400,000
CIBC FirstCaribbean Bank certificate of deposit (Note 13)	425,000	425,000
	4,331,132	4,354,712
Interest receivable	39,404	38,070
	4,370,536	4,392,782

Movement schedule of carrying values:

	2021 \$	2020 \$
Balance at January 1	4,392,782	3,871,396
Additions to portfolio of securities	0	425,000
Interest capitalised	52,636	58,316
Interest accrued	39,403	38,070
Redemption on principal	(114,285)	0
Balance at December 31	4,370,536	4,392,782

Investments comprise fixed rate term deposits. Due to the short-term nature of the investment securities, their carrying amount is considered the same as their fair value.

The effective interest rate on held-to-maturity investments at reporting date was as follows: -

	2021 %	2020 %
Term deposits	2.27	2.20
Treasury bills	6.75	6.75

The investment securities of the Authority are denominated in Eastern Caribbean currency.

As disclosed in Note 13, the General Employees Co-operative Credit Union Limited and CIBC FirstCaribbean International Bank certificate of deposit are pledged as collateral for term loans.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

11. Inventories

	2021	2020
	\$	\$
Pipes and fittings	4,602,722	5,023,219
Mechanical spares	620,777	586,708
Other	92,776	94,126
Goods-in-transit	1,041,703	1,016,696
	6,357,978	6,720,749

Inventories recognized as an expense during the year amounted to \$2,044,465 (2020: \$2,144,577). These were included in the production and maintenance cost of providing services to customers.

Central Water and Sewerage Authority

Notes to the Financial Statements
For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

12. Property, Plant and Equipment

	Land	Landfills	Buildings	Water System	Sewerage System	Meterisation	Furniture and Equipment	Heavy Equipment	Motor Vehicles	Capital Projects-in-Progress	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
At January 1, 2019											
Operational assets, cost	1,472,147	12,353,179	16,277,310	81,534,811	4,631,967	7,826,579	7,383,227	4,303,652	6,761,355	1,746,985	144,291,212
Accumulated depreciation	0	6,690,976	3,439,604	33,692,392	3,494,920	7,367,099	6,230,703	2,621,885	5,153,522	0	68,691,101
Net Book Amount	1,472,147	5,662,203	12,837,706	47,842,419	1,137,047	459,480	1,152,524	1,681,767	1,607,833	1,746,985	75,600,111
NBV at January 1, 2020											
Additions	1,472,147	5,662,203	12,837,706	47,842,419	1,137,047	459,480	1,152,524	1,681,767	1,607,833	1,746,985	75,600,111
Transfers	16,728	0	20,211	0	0	0	770,932	1,162,915	523,677	1,227,998	3,722,461
Depreciation charge	0	0	187,898	856,307	0	45,592	0	0	0	(1,089,797)	0
NBV at December 31, 2020	0	(398,522)	(325,701)	(1,636,985)	(104,581)	(143,790)	(363,481)	(298,752)	(659,445)	0	(3,931,257)
At December 31, 2020											
Operational assets, cost	1,488,875	5,263,681	12,720,114	47,061,741	1,032,466	361,282	1,559,975	2,545,930	1,472,065	1,885,186	75,391,315
Accumulated depreciation	1,488,875	12,353,179	16,485,419	82,391,118	4,631,967	7,872,171	8,154,159	5,466,567	6,952,387	1,885,186	147,681,028
Net Book Amount	0	7,089,498	3,765,305	35,329,377	3,599,501	7,510,889	6,594,184	2,920,637	5,480,322	0	72,289,713
NBV January 1, 2021											
Additions	1,488,875	5,263,681	12,720,114	47,061,741	1,032,466	361,282	1,559,975	2,545,930	1,472,065	1,885,186	75,391,315
Disposal	0	0	1,150	31,263	201,111	200,651	207,278	71,504	594,282	1,563,554	2,870,793
Transfers	0	0	0	0	0	0	0	0	(29,662)	0	(29,662)
Depreciation charge	0	0	0	2,028,125	0	0	0	0	0	(2,028,125)	0
NBV at December 31, 2021	0	(398,522)	(329,808)	(1,649,823)	(101,721)	(127,068)	(418,327)	(424,020)	(633,544)	0	(4,082,833)
At December 31, 2021											
Operational assets, cost	1,488,875	12,353,179	16,486,569	84,450,506	4,833,078	8,072,822	8,361,437	5,538,071	7,517,007	1,420,615	150,522,159
Accumulated depreciation	0	7,488,020	4,095,113	36,979,200	3,701,222	7,637,957	7,012,511	3,344,657	6,113,866	0	76,372,546
Net Book Amount	1,488,875	4,865,159	12,391,456	47,471,306	1,131,856	434,865	1,348,926	2,193,414	1,403,141	1,420,615	74,149,613

Depreciation expense of \$3,689,225 (2020: \$3,516,574) and \$393,608 (2020: \$414,683) have been included in the production and maintenance costs and selling and administrative expenses, respectively.

During the year, the Authority gave recognition to the contribution of equipment by the Government of St. Vincent and the Grenadines valued at Nil (2020: Nil). These amounts represent non-cash activities and therefore not reflected in the statement of cash flows.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

12. Property, Plant and Equipment ... Cont'd

In 1984, the water and sewerage system were revalued on a replacement cost basis resulting in a credit of \$12,151,424 to revaluation surplus.

The Authority's commercial buildings were revalued in 2013, on a market basis, by Arthur Guy, an independent valuator, resulting in a credit of \$6,826,310 to revaluation surplus.

13. Borrowings

	2021 \$	2020 \$
Bank of St. Vincent and the Grenadines Limited – overdraft (Note 7)	0	132,922
General Employees Co-operative Authority Limited		
The loan which is guaranteed by Certificate of deposit is repayable in 96 monthly instalments of \$28,550, inclusive of interest at the rate of 5% per annum. The loan is due to mature on December 29, 2025	1,516,634	1,772,634
FirstCaribbean International Bank		
The loan which is guaranteed by bill of sale on equipment and certificate of deposit is repayable in 84 blended payments of \$23,433.11, inclusive of interest at the rate of 4.25% per annum. The loan is due to mature February 14, 2027.	1,341,548	1,237,029
National Insurance Services		
The loan which is repayable in 120 monthly instalments of \$15,032, inclusive of interest at the rate of 3.75% per annum. The loan is due to mature on July 1, 2031.	1,439,750	0
	4,297,932	3,142,585
Less: current portion due within one year	(655,563)	(639,963)
	3,642,369	2,502,622

As disclosed in **Note 10**, the Authority provided a Certificate of Deposit, having a carrying value of \$1,954,192 (2020: \$1,888,109), as collateral for its indebtedness to the General Employees Co-operative Credit Union loan.

The Authority pledged, by way of bill of sale stamped to cover \$1,275,000, equipment and certificate of deposit, having carrying values of \$1,463,402 and \$425,000 respectively, as collateral for its indebtedness to FirstCaribbean International Bank.

The fair value of the Authority's borrowings is not materially different to their carrying amounts.

The exposure to interest rate charges and the contractual repricing dates at the reporting date are as follows: -

	2021 \$	2020 \$
Less than one year	655,563	639,963
Between one and five years	3,642,369	2,502,622
	4,297,932	3,142,585

The following summarises the effective interest rates on borrowing, as follows: -

	2021 %	2020 %
General Employee Co-operative Credit Union Limited	5.12	5.12
FirstCaribbean International Bank (Barbados) Limited	4.33	4.33
National Insurance Services	3.82	0.00

Borrowings are denominated in Eastern Caribbean currency.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

14. Trade and Other Payables

	2021 \$	2020 \$
Trade payable	931,060	1,865,827
Accrued liabilities	505,044	463,595
Payroll accruals	1,265,269	1,222,960
Customers' deposits	423,130	411,430
	3,124,503	3,963,812

Trade and other payables are denominated in the following currencies: -

	2021 \$	2020 \$
ECD	2,659,798	2,521,073
USD	464,705	527,588
EURO	0	753,104
GBP	0	162,047
	3,124,503	3,963,812

Trade payables are unsecured and are usually paid within 30 days of recognition.

The carrying amounts of trade and other payables are assumed to be the same as their fair values, due to their short-term nature.

15. Employee Benefits

a. Defined Contribution Pension Plan

The Authority provides retirement benefits, under a defined contribution plan administered by Sagacor Life Inc., for substantially all of its employees. Under the provisions of the plan, the Authority is required to contribute 6% of the employees' basic monthly salary towards the plan. Employees are required to contribute 4% of their basic monthly salary.

During the reporting period, the Authority's contributions to the pension plan amounted to \$658,521 (2020: \$661,092).

b. Other Employee Benefits

Effective June 2009, the Authority commenced accruing interest at the rate of 3.5% per annum on the retirement benefit balances due to employees for services rendered prior to the introduction of the defined contribution pension plan in 1992.

16. Obligations to Customers

Subject to connection provisions, consumers may be required to make contributions to water and sewerage systems extensions. The following summarises consumers' contribution to water and sewerage systems connections which were not completed at reporting date.

	2021 \$	2020 \$
Customers contributions	92,623	131,321

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

17. Contributed Capital

Contributed capital represents the value of the Government of St. Vincent and the Grenadines' investment in the Authority.

18. Accumulated Other Comprehensive Income

Accumulated other comprehensive income comprises: -

	Revaluation Surplus Buildings \$
January 1, 2021	6,826,310
December 31, 2021	6,826,310

In 1984, the water and sewerage system were revalued on a replacement cost basis, resulting in \$12,151,424 credit to revaluation surplus.

In 2013, the commercial buildings were revalued on a market basis, by Arthur Guy, an independent valuator, resulting in a credit of \$6,826,310 to revaluation surplus.

19. Solid Waste Management Unit – Schedule of Income

	2021 \$	2020 \$
Collection fee – fixed	1,206,500	1,493,500
Collection fee – variable	4,951,574	5,159,111
Disposal fees	534,441	523,999
Environmental levy – stay over	154,896	158,401
Environmental levy – cruise	62,068	426,896
Mustique disposal fees	213,250	176,800
Skip services	284,210	153,146
Septage service	72,226	71,009
Other	227,731	115,569
	7,706,896	8,278,431

20. Production and Maintenance Costs

	2021 \$	2020 \$
Chemicals	31,860	39,410
Depreciation expense - Plant	1,751,544	1,741,566
- Landfills	398,521	398,521
- Equipment	455,039	392,356
- Motor vehicles	1,084,121	984,131
Disaster preparation and relief	433,339	68,498
Drawing office and laboratory expenses	25,146	43,093
Garbage and waste collection and disposal	2,819,370	2,810,103
Insurance	174,482	182,695
Pension and medical contribution	299,104	297,581
Training	4,099	28,581
Transmission and distribution	1,811,954	2,105,167
Transportation and other equipment expenses	1,095,056	908,432
Salaries, wages, allowances, and NIS contributions	7,108,992	7,197,413
	17,492,627	17,197,547

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

21. Selling, General and Administrative Expenses

	2021 \$	2020 \$
Administration asset expense	31,791	39,088
Advertising and public relations	172,690	114,859
Audit fees	47,706	45,081
Bad debt expense (Note 8)	701,453	658,456
Bank charges and commissions	67,993	85,217
Communications	203,379	176,265
Depreciation expense	393,608	414,683
Directors' fees	65,850	64,950
Donations	34,235	37,226
Electricity expense	363,723	327,867
Health and safety	19,950	19,615
Insurance	61,095	60,896
Legal fees	10,992	9,909
Miscellaneous expenses	43,064	48,646
Membership and subscription	203,140	205,601
Pension and medical	635,595	632,358
Printing, postage and office supplies	330,568	399,695
Public liability compensation	2,090	3,721
Repairs and maintenance	29,159	18,758
Salaries, benefits and National Insurance contributions	7,564,702	6,937,029
Scholarships and awards	36,200	40,300
Security services	402,328	360,049
Staff training	367	3,764
Travelling allowances	590,705	613,870
Trustees' fees	25,600	0
	12,037,983	11,317,903
Overheads allocated to projects	(308,208)	(161,346)
	11,729,775	11,156,557

22. Capital Commitments

As of reporting date, the Board of Directors had approved capital expenditure amounting to \$15,907,700 (2020: \$22,128,300).

23. Related Party Transactions

(a) Identification of Related Party

A party is related to the Authority if:

(i) Directly or indirectly the party:

- a. Controls, is controlled by, or is under common control with the Authority;
- b. Has an interest in the Authority that gives it significant influence over the Authority; or
- c. Has joint control over the Authority.

(ii) The party is a member of the key management personnel of the Authority;

(iii) The party is a close member of the family of any individual referred to in (i) or (ii);

(iv) The party is a post-employment benefit plan for the benefit of employees of the Authority or any entity that is a related party of the Authority.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

23. Related Party Transactions ... Cont'd

(b) Related Party Transactions and Balances

A number of transactions have been entered into with related parties in the normal course of business.

(c) Transactions with Government of St. Vincent and the Grenadines

The value of transactions and balances with the Government of St. Vincent and the Grenadines were as follows:

	Balances Due by as of Reporting Date		Transaction Values for the Period Ended	
	2021	2020	2021	2020
	\$	\$	\$	\$
Water and sewerage charges	1,100,000	1,100,000	317,154	592,154
Solid waste charges	1,350,000	1,493,500	2,484,814	2,822,314
Decline in Government subvention paid	0	0	(143,500)	0

During the current year, there was a reduction in the Government subvention paid to the Authority on a quarterly basis. The amount recorded reflects the yearly balance.

24. Solid Waste Management Unit – Income and Expenditure

	Notes	2021 \$	2020 \$
Income from Services	19	7,706,896	8,278,432
Less: Operational Costs			
- Production and maintenance costs	25	(7,481,169)	(7,168,612)
- General and administrative expenses	26	(2,266,055)	(2,184,448)
Net Loss for the Year		(2,040,328)	(1,074,628)

25. Solid Waste Management Unit – Production and Maintenance Costs

	2021 \$	2020 \$
Allowance	111,658	113,714
Contra expense/transfers	406,437	254,935
Land and building expense	509,353	525,303
Motor vehicle/garage expense	1,260,672	1,024,445
Pension and National Insurance contribution	223,162	221,073
Plant and operating equipment	313,142	387,825
Salaries	1,922,566	1,888,864
Services	9,763	44,253
Supplies	31,669	42,798
Waste management	2,692,747	2,665,402
	7,481,169	7,168,612

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2021

(in Eastern Caribbean dollars)

26. Solid Waste Management Unit – Selling, General and Administrative Expenses

	2021 \$	2020 \$
Advertising, director and legal fees	34,067	33,326
Allowances	52,545	53,512
Bad debts expense	260,777	216,252
Commission expense	40,391	49,430
Communication expense	75,141	88,944
Employee benefits and National Insurance contributions	105,018	104,035
Finance expense	145,613	97,417
IT expense	114,814	121,478
Janitorial services	19,200	19,200
Miscellaneous expense	6,895	10,690
Office facilities and equipment	267,500	254,352
Office and other supplies	15,322	16,690
PR and marketing expense	7,039	6,732
Salaries	904,737	888,877
Security services	219,131	223,689
	<u>2,268,190</u>	<u>2,184,624</u>
Overhead allocated	(2,135)	(176)
	<u>2,266,055</u>	<u>2,184,448</u>

27. Staff Cost

	2021 \$	2020 \$
Salaries, wages and allowances	13,618,856	13,534,607
Pension	728,890	732,261
Medical	205,809	197,678
National Insurance Services contribution	616,841	615,678
Other staff costs	143,718	138,045
	<u>15,314,114</u>	<u>15,218,269</u>
Average number of employees at reporting date	<u>290</u>	<u>282</u>

DEPARTMENTAL REPORT

PUBLIC RELATIONS & MARKETING

PREPARED BY JOAN RYAN
DEPARTMENT HEAD

The year 2021 continued as a challenging one, as our Nation and the CWSA contended with differing issues. Covid -19 and its consequences, the supply of water amidst a dry spell, the threat and consequent explosive eruption of the La Soufriere volcano, the passage of Tropical Storm Elsa and continued disruption of the water supply north of the Rabacca Dry River as a result of lahars. The impact the aforementioned issues had on the smooth working of the CWSA, had to be communicated to the public.

Communicating steady and effective information about our services without loss of integrity took professionalism, commitment and love for the responsibilities we hold in the CWSA and Public Relations (PR) Department in particular. Like most of the staff of the CWSA, the PR Department functioned outside of regular working hours -from very early hours of the morning to late evenings in many instances as we catered to the needs of the nation. Highest commendation is extended to this small team of women for never slacking off and for pressing forward with the duties of the CWSA despite difficulties.

FACEBOOK /OTHER MEDIA NOTIFICATIONS

Facebook continues to be a major avenue for reaching customers. The CWSA's Page, <https://www.facebook.com/CWSA.SWMU/>, has a following of 9,000, while viewership for some of the CWSA's individual programming efforts in 2021 rose to a record high of 75,000. The statistics displayed below indicates that the information sent from the CWSA is received.

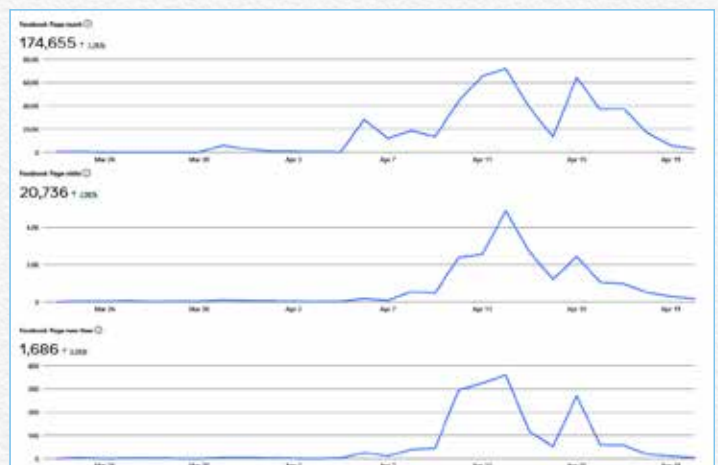
Post Insights for the period March 24th - April 20th

Between the aforementioned period, a total of 174, 655 persons were reached via the CWSA's official Facebook page;

- **74,671 persons engaged with posts from the CWSA's page either through reactions, comments, shares and or post clicks**

- **27, 267 engaged through video views**

- **20,736 were logged as page views**



Facebook posts for the reporting period included:

1. Notices about planned water disruptions to fix leaks on the system throughout the eight (8) water districts.
2. Announcements to encourage customer preparedness for the dry season including the need for adequate water storage.
3. Meter reading tips on the tethering of dogs, earth/ground wire placement and general upkeep of the

meter area were emphasised.

Prior to and following the explosive eruption of the volcano the information communicated from the CWSA was done on a gradual basis and covered several critical areas.

Again, the need for adequate water storage at home was emphasized and advised that all systems would be shut down and that water rationing would commence after a 48 -hour period.

Consumers received timely advisories on several issues namely:

- *Use of water for domestic purposes only;*
- *The restoration of water to specific areas, the erection of temporary standpipes and their locations;*



- *Specific advisories regarding efficient water use during the volcanic eruption and the dry season;*
- *The scheduled visits of the water tender to different communities for water distribution.*
- *The need for necessary*

water safety measures such as boiling of any water before drinking until the all-clear was given by Health Authorities;

- *Photos and videos displayed on the Facebook page provided photographic coverage of a range of activities during the period under review. These included, but were not limited to showcase water distribution to Emergency Shelters, successful ground water extraction at Pembroke, donation of respirators by the Caribbean Imaging Medical Centre and a video documentary of a visit to the Owia intake following the volcanic eruption and restoration works.*

OTHER MEDIA

There were several core media programmes that were facilitated by the Department. These included the long-standing third week monthly sponsorship of NBC Radio's newscast, during which the CWSA's advertisements were aired. Daily morning radio talk shows were monitored, and major newspapers and online publications scanned for any issues raised about the CWSA's services.

- *All press releases that covered the major challenges, namely the dry season, the eruption and the hurricane season were sent to radio stations, online publications and television stations.*
- *The CWSA hosted a Press Conference early June which was streamed live on Facebook and aired on local television and radio stations throughout the State.*
- *The CWSA through this department also consented to provide sponsorship for the Al Archer's weather report which was aired on NBC for the duration of the Hurricane Season. This sponsorship included the airing of our ads on disaster management.*

VOLCANIC ERUPTION

The Department assisted in fielding calls daily following the eruption. Department staff aided in the coordination

of the trucking of water via a partnership with Hot97 FM, Digicel, Gonsalves Liquors Ltd., DeFreitas' Trucking and the CWSA. Water was trucked to the following communities: Park Hill, Mt. Grenan, Diamond Village, New grounds, Stubbs, Cedars, Biabou, North Union Secondary School, South Rivers, Ackers, Belmont, Long Piece, Peruvian Vale, Mt. Pleasant Argyle, Stubbs, Glen, Fairhall, South Union, Bonhomme, Carapan, Diamond Estate.

Visits and phone calls regarding water and solid waste concerns were made to several shelters in different constituencies including East and West St George, South Central Windward, Kingstown and South Leeward. Interface took place with agencies and individuals in coordinating, water distribution and waste collection, including discussion with the Deputy Commissioner of Police Mr. Frankie Joseph, to supply water to several Police stations and in supplying waste management skip services to Regional Police stationed at Arnos Vale Playing Field and Calliaqua during the recovery period.

Post eruption saw different challenges for consumers in the red zone north of the Rabacca Dry River. Water disruption notices during the rainy season or during heavy rains became more frequent as some communities battled with the effects of flooding which affected their water supply.

Interviews on the effects the eruption had on the water supply were done with news agencies locally and regionally and included Searchlight newspaper, NBC radio, SVG television and the Caribbean Broadcasting Cooperation. One interview was done jointly with Flow SVG following the receipt of 25,000 gallons of water from Flow Grenada.



Members Of CWSA's Emergency Response Team with Members of Flow SVG

COLLABORATIONS

The Department represented the CWSA at several meetings as part of its efforts to foster collaboration with agencies and government ministries. We participated in meetings such as the National Engender Project, the GECCU River 14 committee that was responsible for the creation of a recreational site at River 14 South Rivers, the Nationally Determined Contribution (NDC) Gender Mainstreaming Roadmap for SVG and the SVG Volcano Response meeting.

INTERNAL RELATIONS

With COVID-19 protocols in place requiring physical distancing, no general meetings were held. During that period, the intercom system was used primarily to communicate pertinent information to staff.

WEBSITE

During the period, the website which was established previously was reviewed and the decision was taken to design a new website. The I.T. and PR departments were tasked with the responsibility to ensure a new/enhanced viewer/visitor experience.

The PR Department was responsible for collating pertinent information, pictures and graphics about the various departments and their functions while the IT department designed and developed the site. The Customer Care Department which is critical to enhancing the customer service experience provided insights on how this could be done on the new website. Their suggestions to include sections Let's Chat and Subscription were incorporated into the new design. The subscription section will be particularly useful as it allows customers to register and receive updates posted on the site. This section will also aid in capturing customer information for updating their records and email addresses. Members of the PR department took part in a short inhouse training programme to learn how to update the website. The training was conducted by IT Officer, Randy Jackson.

ANNUAL REPORT

The joint annual reports of the CWSA for 2019 and 2020

were produced and published during the reporting period.

CWSA JUBILEE CELEBRATION

As a result of the threat of the COVID-19 pandemic, where all gatherings were subjected to “No Mass Gathering” protocols, the decision was taken to cancel most of the Jubilee’s celebratory activities and to only wrap the CWSA messenger van. This provided constant public relations through increased visibility of projects done by the CWSA over the years. The concept for this wrapping was reviewed and the work was completed.



Two Sides Of The Newly Wrapped Van

UNIFORMS

Janouras a company out of Trinidad and Tobago was used for the procurement of the female uniforms and a quantity of the male staff polo shirts. The supply of the male uniform pants was contracted out to local companies One St Vincent LTD and Trend. Workwear Express out of

the United Kingdom was contracted to supply a quantity of high visibility polo shirts for the field staff. All uniforms were received and distributed. Note that all uniform orders were late in delivery due to complications of COVID-19.

WORLD WATER DAY 2021

For World Water Day March 22nd, 2021, the CWSA hosted commemorative activities to highlight the day. The activities included,

(a) A pre-recorded message/preached word by Reverend Adolf Davis, a Minister of the Methodist Church, on the topic “Making the Invisible Visible”;

(b) Messages by Hon. St. Clair Jimmy Prince, Minister of Health Wellness and the Environment, and Mrs. Girlyn Miguel, Board Chairperson, were recorded and aired through media establishments nationally;

(c) A radio programme done jointly with the Health Education Unit in the Ministry of Health and the Environment was aired on NBC radio.

CWSA PROJECTS DOCUMENTARIES

Two documentaries were developed during 2021. The first was a feature of the waste management initiatives at the Diamond landfill and focused on composting, woodchip production, metal bailing, and overall management of waste at that site. The other documentary focused on the extension of the Mt Wynne -Peter’s Hope water main and the Kelbourney water tank construction projects. Both documentaries were aired by the Agency for Public Information (API). These documentaries sought to give the general public more insight into the programmes of the CWSA.

VOLCANO OPERATIONAL PLAN

Following the explosive eruption of the La Soufriere volcano, a series of interviews were held with Engineers, Superintendents and Supervisors within the water section to gather data for the production of a Volcanic Operational Plan. This Plan documented and detailed the

steps taken by the CWSA prior to, during and following the eruption of the volcano. In the event of future eruptions, this document can help to guide operational plans.

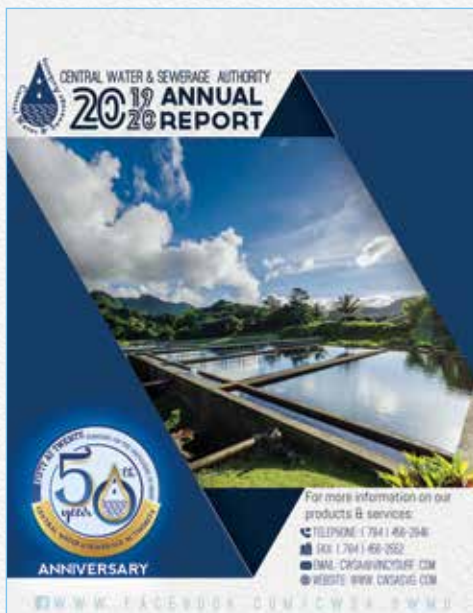
WORLD ENVIRONMENT DAY - JUNE 5TH 2021

This event saw the coming together of former and current members of the Solid Waste Management Unit to discuss waste management in St Vincent and the Grenadines, with the theme “Solid Waste Management - From Whence We Came.”

The panel comprised of past members of staff; Mr. O'Reilly Lewis, past Solid Waste Manager and Mrs. Valerie Horne, former Education and Awareness Manager along with current members of staff Mr. Winsbert Quow, Solid Waste Manager, and Ms. Joan Ryan, Public Relations and Marketing Manager, with Symantha George, Public Relations Assistant, as host. The discussion was aired on the CWSA's Facebook page, and is available online on our YouTube channel <https://www.youtube.com/@TheSVGCWSA>.

DESIGN & PRINTING

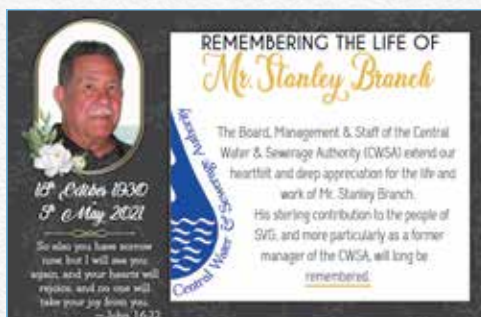
The graphic arts work which continues to be done inhouse within the PR Department must be commended. Flyers and posters were designed and printed for use by the various departments, advertisement on Facebook and national newspapers while others were designed inhouse and printed outside of the CWSA. The scope of this work ranged from updating generic posters to designing new works such as the 2019-2020 end of year report and annual calendars.



CONCLUSION

In 2021 the effort the PR Department placed on the volcano eruption awareness initiatives as the country was experiencing a dry spell

simultaneously were noteworthy. In addition, social media presence made a difference in the dissemination of information. Facebook followers were quick sharing the various posts, helping to reach even larger audiences. The department expresses gratitude for the internal cooperation among departments which assisted in the smooth execution of most of our programme and we look forward to the same going forward.



DEPARTMENTAL REPORT

HUMAN RESOURCE

PREPARED BY YVETTE DANIEL
DEPARTMENT HEAD

The Human Resource Department continued to be the vital link fostering effective working relationships between staff and management and among staff members. It is always with pride that we acknowledge the low employee turnover within the company, a sign we believe of the commitment the staff holds for the work we do at the CWSA. The diverse matters of employee pension, health insurance, facilitating labour relations, safety and health were among the contributing factors which helped to ensure our employees functioned within an environment conducive to positive outputs.

STAFF MATTERS

Our total staff numbered 290 as of December 31, 2021. Of this, 216 represented the Water and Sewerage Section and 74 the Solid Waste Management Unit. These numbers remained stable as staff turnover was at a minimum during the year.

APPOINTMENT

Ms. Kavern Ferril was appointed to the post of Environmental Engineering Technician

CONFIRMATION OF APPOINTMENT

Thirteen (13) persons were confirmed in their respective posts: K'Mani Browne, Rohan Castello, Sharimadean Patterson, Alieke Roberts, Jeylano Ottley, Othniel Lee, Mia Joseph, Mikey Irish, Mrs. Charlene Edwards, Mr. Romon Maule, Dexter Nelson. Bradley Ollivierre, Ikara Cottle were appointed to their positions following a period of acting.

PROMOTION

The following staff members were appointed on

promotion;

- *Mr. Bernard Maloney - Senior Engineer*
- *Mrs. Kurlene Anderson - Customer Services Supervisor*
- *Mrs. Yolanda Dyer - Senior Customer Services Clerk*
- *Mr. Joelann Malcolm - Apprentice Pipefitter*
- *Ms. Ossiah Stephen - Customer Services Clerk*
- *Mr. Carlon Douglas - Apprentice Pipefitter*
- *Mr. Moses Culzac - District Supervisor*
- *Ms. Afika Shallow - Secretary.*
- *Mr. Viale Richards - Engineering Technician*
- *Mr. Bradley Jackson - District Supervisor*
- *Mrs. Gaylene Matthias - Finance Manager*
- *Mr. K'Mani Browne - Information Technology/ Information Systems Officer*

RETIREMENT

We bade farewell to Ms. Gracie Samuel and Messrs. Garfield Toussaint, Michael John, Kenmore James, Patrick Williams, Junior Simmons and Elvin Morgan. These employees were thanked for their service and wished a happy retirement.

LABOUR RELATIONS

There was no major Industrial dispute. Proposals were received from the Commercial Technical and Allied Workers Union (CTAWU) for discussions to finalize the new Collective Agreement that should run from January 2021 to December 2023.

TRAINING

Employees participated in the following training programmes locally, on-line, and overseas during the period under review.

- *The 15 Valuable Laws Of Growth*
- *Improve Desal/Ro Facility Design Procurement And Construction*
- *Automatic Weather Station*
- *Resource Leader Shift*
- *Certified Financial Controller*
- *Technology “For Solid Waste Management With Recycling Promotion For Sound Material-Cycle Society*
- *Lahar Modelling*
- *Dry Season Caribbean Climate Outlook*
- *Installation, Operation, And Maintenance Of Hydro-Meteorological Stations*
- *Supervisory Management*

LONG TERM TRAINING

Senior Engineer, Mr. Marco Audain, successfully completed the requirements for the Project Management Professional (PMP) Certificate through the Project Management Institute.

Mr. Bernard Maloney, Senior Engineer, proceeded on

two (2) years study leave effective October 22, 2021, to complete his PHD studies in Future Infrastructure and Built Environment.

Mr. Mikhail Akers, Gauging Technician, successfully completed the National Engineering Technician Diploma in Instrumentation Engineering at the University of Trinidad and Tobago.

ON THE JOB ATTACHMENT

One (1) plumbing student from Marion House completed a three (3) months training attachment with the Kingstown pipefitting crew

Kenroy Williams joined the staff under the Supportive Education and Training Programme (SET) for a period of six (6) months. He was assigned to Water Resources Unit of the Engineering Department.

The tenure of interns on the Support for Education Training (SET) programme who began their internship on March 1, 2020, concluded on August 31, 2021.

PENSION PLAN

Following the anniversary of the Central Water and Sewerage Authority's pension plan the Pension fund earned 3.5% interest rate. The Trustees made a declaration of 3% to be applied to the employees' individual balances.

The annual statements were distributed to all employees.

DISPLACED EMPLOYEES

Twenty-three (23) employees who live in the orange and red zones were evacuated due to the explosive eruptions of the La Soufriere volcano. Seventeen (17) from the Engineering Department, two (2) from the Administration department and three (3) from the Solid Waste Management Unit and one (1) employee from the Customer Care Department.

The employees who worked in the North Windward area were reassigned to work in other areas.

EDUCATION GRANTS

During the period six (6) students, the children of employees, were awarded educational grants, from left;

- Jaden George
Parent Symantha George
- Kerissa Samuel
Parent Rennie Samuel
- Rajan Lewis
Parent Farrah Mascoll
- Jace Jackson
Parent Bradley Jackson
- Lenwin James
Parent- Phillip James



Not Pictured: Janoy Edwards- **Parent Joleen Edwards**

RAPID ANTIGEN TESTING OF UNVACCINATED EMPLOYEES

Ms. Ronique Samuel, a trained nurse, was contracted based on the Medical Officer of Health's Dr. Simone Keizer Beaches' recommendation for the rapid antigen testing of all unvaccinated employees. Employees were tested every two weeks at the CWSA's training room effective December 1, 2021.

OBITUARIES

We were saddened to learn of the passing of two (2) of our retired employees Messrs. Ashley Mc Lean and

Montgomery Alexander. We pray for comfort for their families, and may their souls rest in peace.

CONCLUSION

The staff and their development will continue to be the focus of the department in the future. Workplace safety, physical health and well-being as we seek to ensure high morale and levels of productivity among staff. The HR Department will continue to focus on workplace safety, employee health and well-being, training and development and other areas that would help to foster and promote a healthy working environment for all staff.

DEPARTMENTAL REPORT

ENGINEERING

PREPARED BY BRIAN DASILVA
DEPARTMENT HEAD

CAPITAL PROJECTS

New construction in 2021 took the form of mains laying and the construction of a new storage tank at Kilbourney. Projects for 2021 were as follows:

- *Calder Line Replacement*
- *Belair Line Improvement*
- *Francois Water Supply Project*
- *Peter's Hope, Mt. Wynne Line Extension*
- *Kilbourney Improvement Project*

CALDER LINE REPLACEMENT- PHASE I

This project was a part of the Feeder Roads Project. Approximately 2,740 feet of old 4', 1.5" and 1" galvanized lines were replaced with 110mm, 50mm and 40mm high density polyethylene pipes in this phase. This section of pipeline was laid along the upper Calder Road which is fed from the Akers tank. The project was completed in April of 2021 at a cost of approximately \$ 59,000.

BELAIR LINE REPLACEMENT

The aim of this project was to replace and improve the distribution network in the Belair and Cane Hall areas. A total of 4,700 feet of 4" ductile iron pipes were installed to replace old 2.5" and 1.5" galvanized pipes. The project commenced in August 2019 and worked in tandem with the government road works. Since these works experienced significant delays, this affected the project's initial scheduled date of completion. The project was completed in November 2021 at a cost of \$ 425,000.

FRANCOIS WATER SUPPLY PROJECT

The project entails the development of a new water supply system to supplement the Dalaway water supply system. This has become necessary to meet demand during the dry season as well as the anticipated commercial demand of a number of proposed hotel developments.

The project includes the construction of

- *Two small water intakes*
- *A water treatment plant*
- *A 300,000 gallons capacity reinforced concrete storage tank*
- *Laying approximately 5,700 feet of ductile iron water mains*

The project was budgeted to cost approximately \$3,600,000.

As of 2021, work on this project continued with the completion of the two intake structures, along with 2,200 feet of 4" and 6" ductile iron pipes. Expenditure to date is approximately \$380,800, and it is anticipated that work will continue on this project for the foreseeable future.

PETER'S HOPE, MT. WYNNE LINE EXTENSION

This project was developed to supply the proposed hotel developments at Peter's Hope and Mt. Wynne.

It consists of the construction of a 350,000 gallons capacity storage tank at Peter's Hope along with associated ancillary works and the installation of approximately 12,000 feet of mainly 6" ductile iron pipes. The overall approximate cost of the project is \$3.3 million.

The first phase of the project is the installation of approximately 6,700 feet of 6" ductile iron pipes between

Peter's Hope where the existing main on the Hermitage water supply system presently ends and the proposed Marriot Hotel at Mt. Wynne. During 2021, the installation of this pipeline was completed. In total 6,465 feet of 6" and 400 feet of 4' ductile iron pipes were installed. Expenditure on this section of pipeline was \$589,000.00.



Pipes being delivered in Mt. Wynne For Installation

KILBURNEY IMPROVEMENT PROJECT

This project was another phase of the upgrade to the Majorca water supply system. It consisted of the construction of a 50,000 gallons capacity storage tank at Kilburney to replace the old break-pressure tank and the installation of 4,280 feet of 8", 6" and 4" ductile iron pipes to replace old smaller 5", 4" and 2.5" steel pipes. Its main aim is to improve the reliability of the water supply in Fair Hall, Fairbairn, Belair, Belmont and surrounding areas.

Work commenced with the installation of the pipelines in September of 2020 and the project was commissioned in October 2021. Total expenditure on the project was approximately \$682,000.00.

WATER RESOURCE MANAGEMENT UNIT

Due to the adverse impacts of the COVID-19 pandemic and the explosive volcanic eruption of 9th April 2021, the National Water Resources Management Unit had a few challenges including increased reported sick days of technicians and high equipment maintenance. However, the Unit has been resilient during this year.

The staff monitored hydrometric, hydrometeorological equipment and groundwater stations that are distributed

throughout St. Vincent, Bequia, Union Island, and Mayreau. The data collected from the network was further processed, validated, analyzed, and stored. The Unit was involved in the abstraction (extraction) of 117,400 gallons of water from the Pembroke borehole from 10th to 18th April, 2021. This aided in relief water distribution.

From 25th to 29th August, 2021, the CWSA hosted three (3) United Nations Education, Scientific and Cultural Organization – Intergovernmental Hydrological Programme (UNESCOIHP) consultants- Mr. Miguel Doria (UNESCO Regional Hydrologist), Mr. Henrique Chaves, and Mr. Mauricio Vera Camiroaga (Water Specialists) who were engaged in a groundwater investigation on St. Vincent.

The Unit collaborated with the Forestry Department and the University of the West Indies, Mona to identify springs and wells on St. Vincent.

The Water Resource Management Unit continues with the monitoring of weather stations throughout St Vincent and the Grenadines. The network currently comprises of the following:

- 26 rain-gauges
 - 7 Early warning (Real Time) rain-gauges
 - 19 Data loggers rain-gauges
- 5 climate stations
- 16 Automatic water level recording stations
 - 7 Early Warning (Real time) water level stations
 - 9 Data logger water level stations
- 6 Boreholes (Deep Observation Wells with depths of 25 to 35 Meters)
- 21 flow (Discharge) measurement sites
- 26 Wells (Hand Dug/ shallow wells)
- 15 Water production sites

Measurements Conducted 2021:

Stream Gaugings – 243

Groundwater - 1182

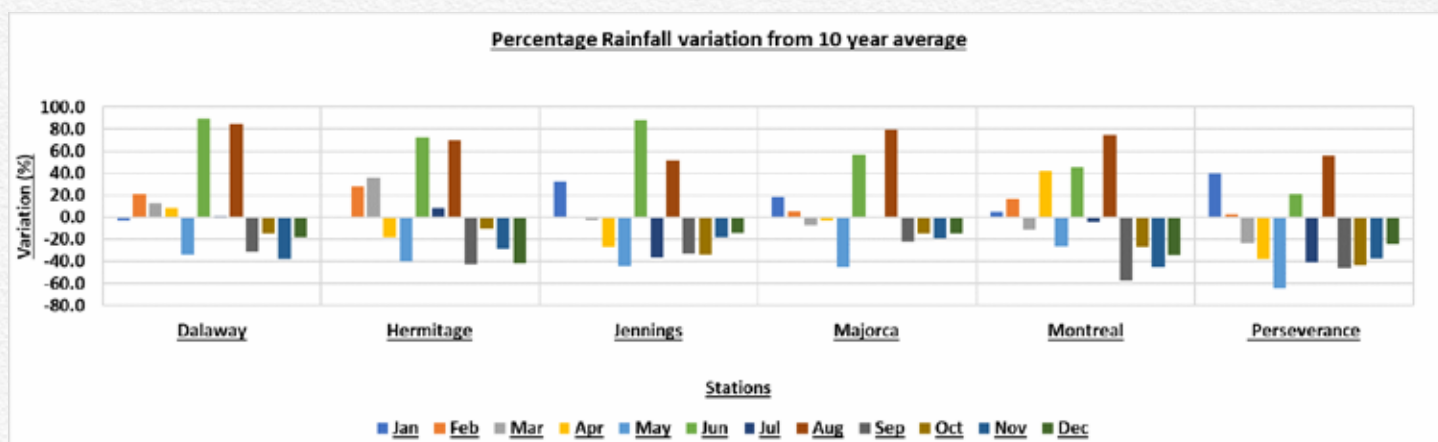
CLIMATE SUMMARY FOR 2021

The total rainfall over 2021 was below normal with the Hermitage rainfall station recording 4031.3 mm (158.7 inches) as illustrated in Graphs 2 and 3. The month of August was the wettest with 642.4mm (25.3 inches) of rainfall recorded at the Hermitage rainfall station. This station had a 7.3 percent rainfall reduction in comparison to 2020. The minimum daily rainfall was recorded in April with a value of 11.8mm (0.46 inches) at the Peters Hope station.

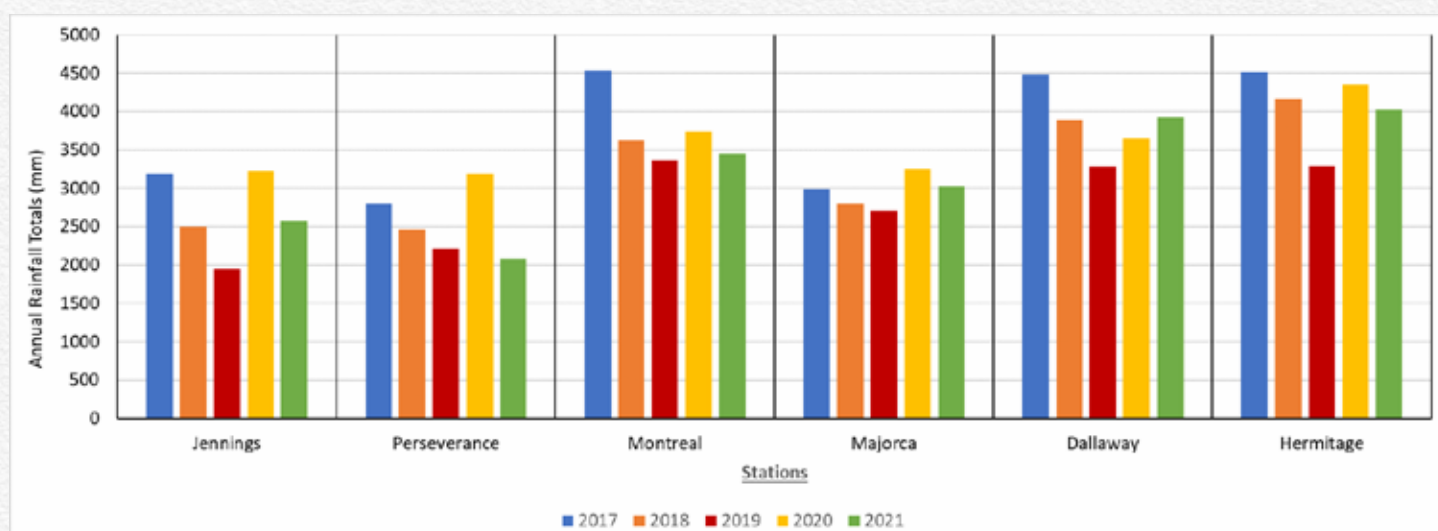
The monthly maximum air temperature was 34.2 degrees Celsius (93.56 degrees Fahrenheit) which was recorded at Rabacca Climate station in September and the minimum monthly air temperature was 19.3 degrees Celsius (66.74 degrees Fahrenheit) which was recorded at the Belle Isle climate station in March (see Graphs 3 to 4).

Springs and stream flows were observed to yield water quantities below the calculated five-year average. Montreal and Dalaway water sources were 47.5% and 30.7% respectively below the five-year average as shown in Graphs 5 & 6.

RAINFALL DATA:

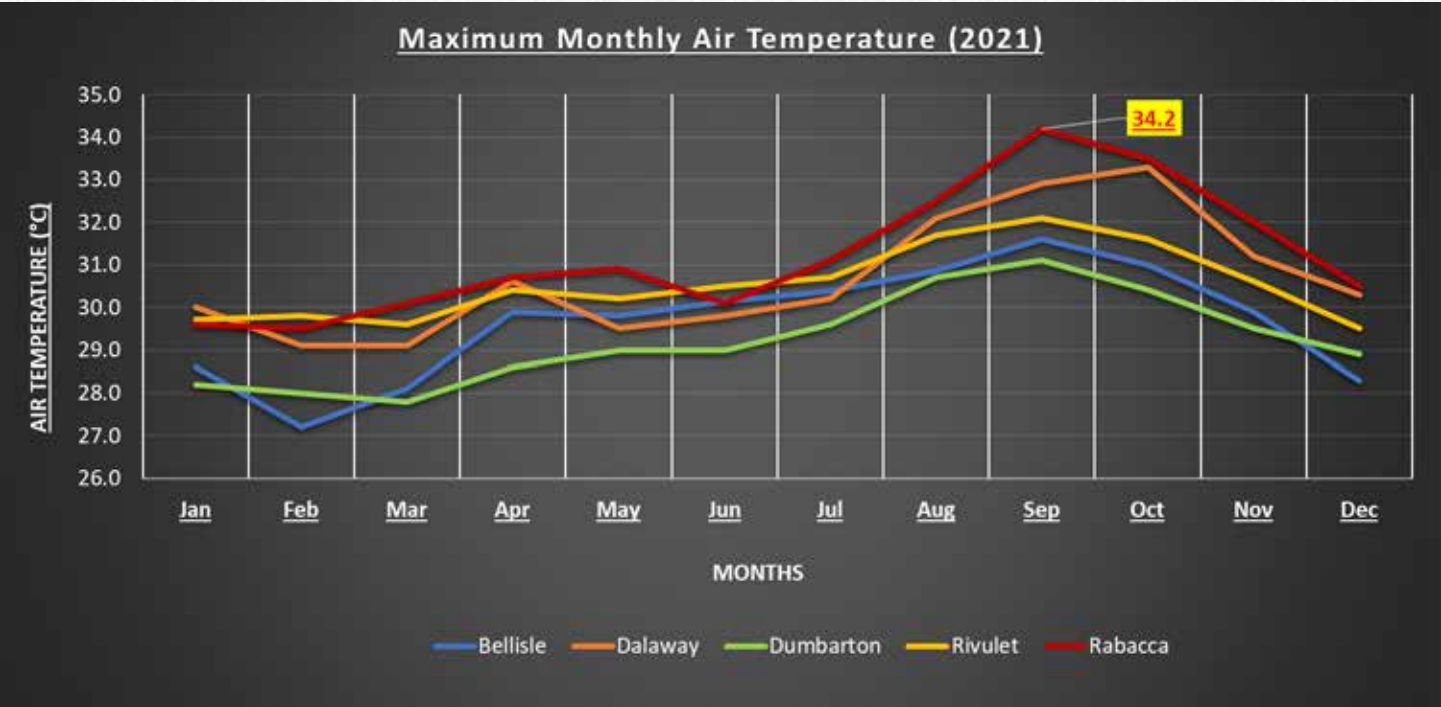


Graph 1: Percentage Rainfall Variation Graph 2021

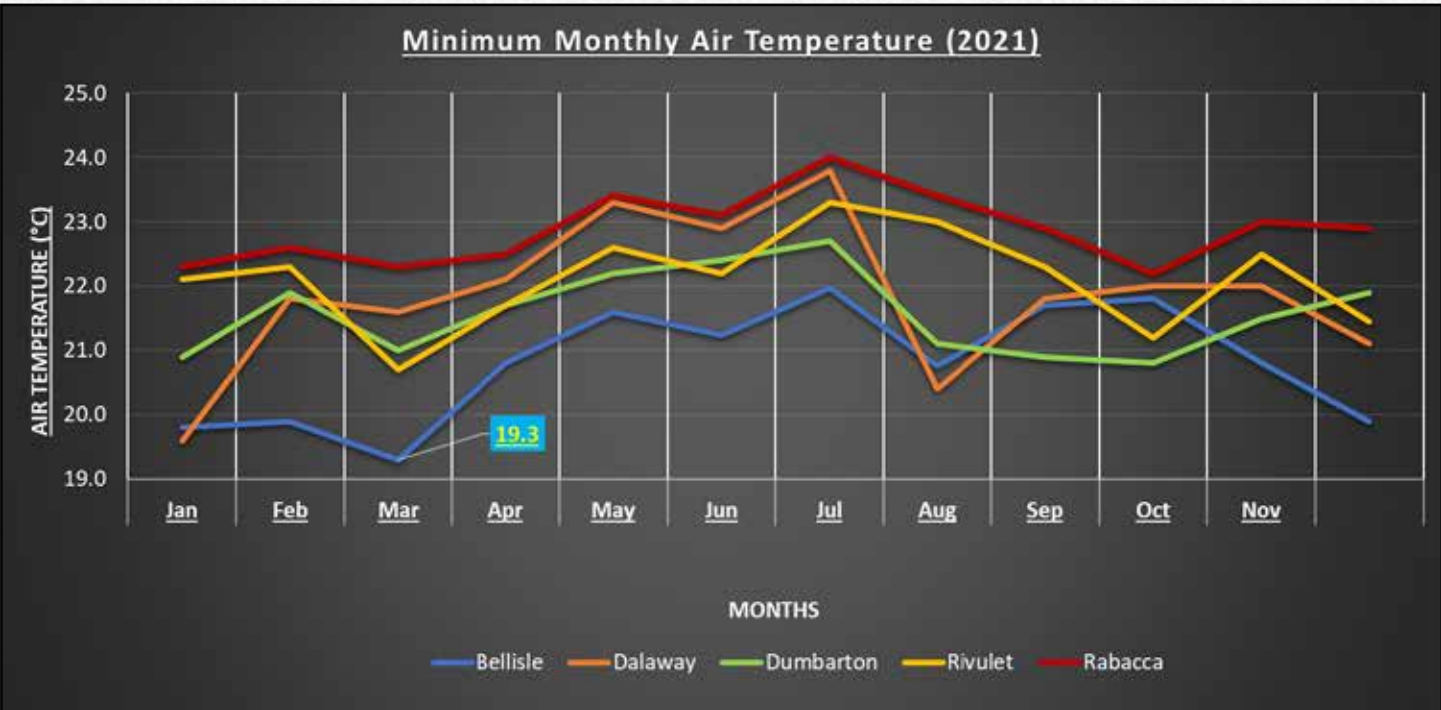


Graph 2: Comparative Annual Rainfall from 2017 to 2021

TEMPERATURE DATA:

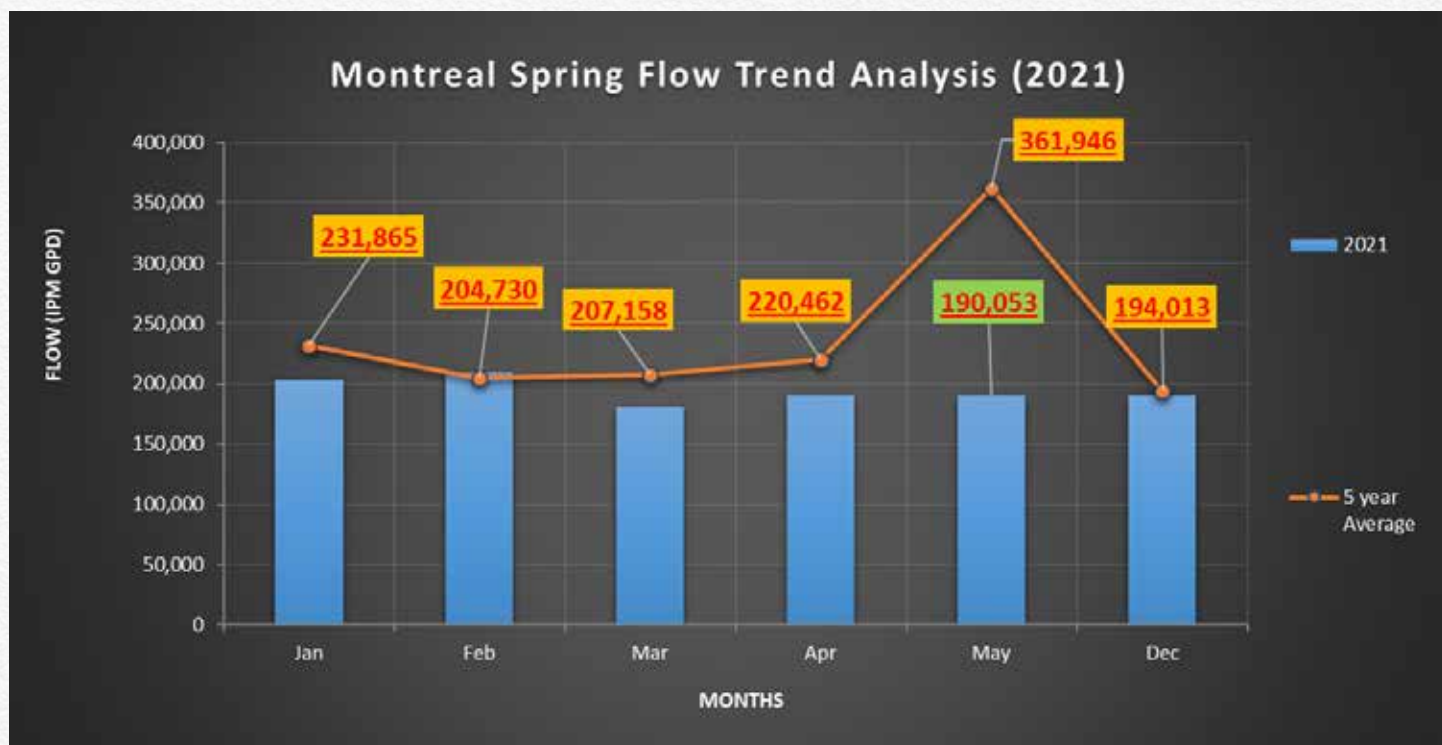


Graph 3: Maximum Monthly Air Temperature (2021)

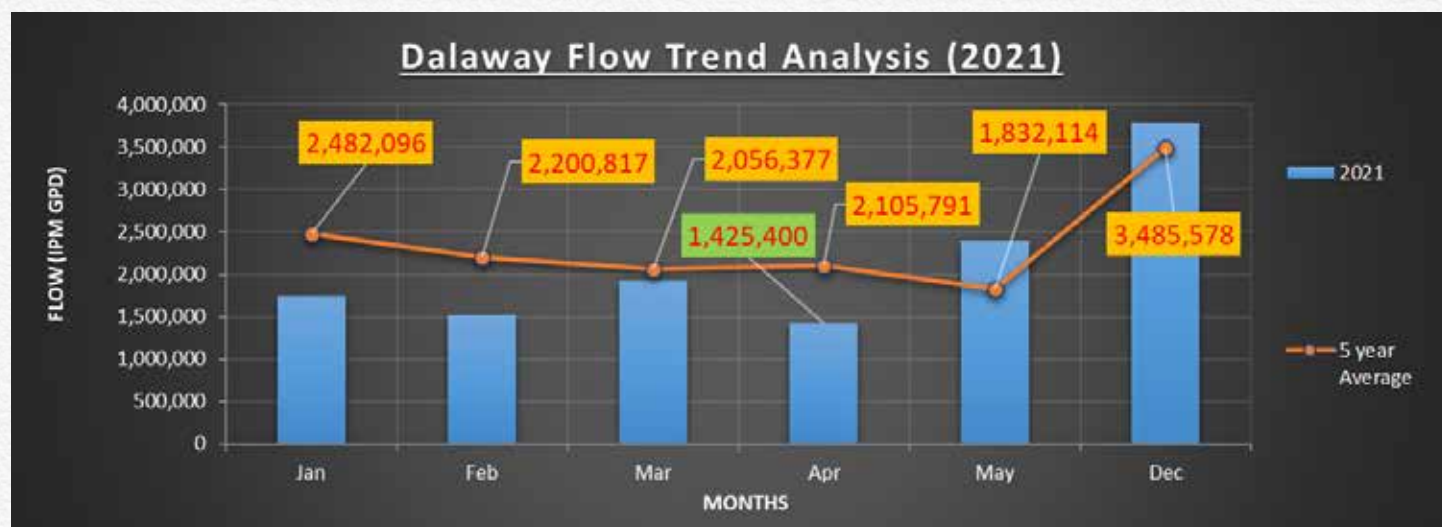


Graph 4: Minimum Monthly Air Temperature (2021)

FLOW DATA:



Graph 5: Montreal Spring flow Trend Analysis (2021)



Graph 6: Dalaway Flow Trend Analysis (2021)

During the year 2021, Ms. Zascha Robertson, technician, resigned. The staff thanked Ms. Robertson for her support and contribution during her tenure.

LAB REPORT 2021

The Lab conducted weekly water quality monitoring throughout 2021 for all of the water supply systems. This is necessary to determine the quality of the potable water supply and take remedial actions, if and when necessary, to improve water quality supplied to consumers. Below is a table of the number of tests performed and the percentage compliance to WHO guideline standards.

Parameter	Number of Field Tests	Number of Tests Out of Compliance Range	Percentage Compliance
Residual Chlorine	4509	44	99
pH	4509	-	-
Turbidity	4509	764	83

Total number of field analyses performed for the year was 13, 527.

CHLORINATION

Chlorination was consistently good for most of 2021, except for the period when there were the volcanic activities and during the rains which caused high turbidity in some water supply. Consequently, chlorine dosage was increased and flushing of distribution lines was recommended and carried out to improve water quality that was adversely affected.

Different formulations of granular chlorine were used at the Mamoon and Perseverance treatment plants. These tablet forms of Chlorine were received from PAHO and Water Mission respectively in response to the volcanic eruption. Water Mission also provided a Tablet Feeder

System that was successfully used at Perseverance before being transferred to the Layou source in response to difficulties sourcing the usual granular Calcium Hypochlorite.

FILTER MONITORING

Monthly monitoring of filters for Perseverance, Dalaway and Jennings was carried out in 2021 to determine efficiency of the filters.

RAW WATER TESTING

The Lab continued to conduct, in coordination with WRMU, raw water bacteriological testing for all sources, to determine whether there existed microbiological contamination at the various sources.

PRIVATE TESTING

The Lab conducted quarterly testing on water samples taken from the Dialysis Centre at Beachmont and monthly sampling for the Dialysis Centre at Georgetown up until the eruption of the volcano. Also, monthly sampling of truck borne water supplied to aircrafts was conducted for the Argyle International Airport (AIA).

VOLCANIC ERUPTION

In April 2021, the Lab responded to water quality issues after La Soufriere eruptions by inspecting, sampling and analysing water samples from all the CWSA sources and some private springs. Also, samples from all sources were collected and shipped out for further analysis. Bulk water brought on ships was also tested in most part, before being cleared for ingestion. The Lab received some equipment to assist in water quality analysis after the volcanic eruption from the International Atomic Energy Agency on September 24th, 2021.

DEPARTMENTAL REPORT

INFORMATION TECHNOLOGY

PREPARED BY MELISSA MCKENZIE
DEPARTMENT HEAD

The department strives to develop and implement innovative ventures throughout the organization and to harness digital technologies such as information systems and computer learning as a fundamental part of the organization's value.

Recent events such as the Covid-19 pandemic and the eruption of the La Soufriere Volcano have further pushed the Information Technology Department to be innovative while adapting to the constant change around us or what became somewhat of a normalcy. Whether it be computer systems automation or fast-tracking policies and procedures regarding disaster planning.

During 2021, technology was a critical tool for addressing the challenges and opportunities facing the department. The department continued to provide routine and unplanned maintenance, renewal, replacement and upgrade of its hardware and software inventory.

As the global pandemic continued to disrupt the organization, the department also continued to advance its technology readiness and collaborated and supported each department as the impact of COVID-19 continued to unfold and reshape the organization.

1.0 ROUTINE OPERATIONS

The Following routine operations were carried out during the year:

- *Security updates*
- *Software updates*
- *Scheduled backups of all servers*
- *Data entry of meter readings and bank & agency payments*
- *Monthly billings and postings*
- *Invoice Production*
- *Antivirus updates*
- *Repairs & fixes*
- *Installations of new and replacement hardware and software*
- *Individual user support*

2.0 DEPARTMENTAL SUPPORT

ACCOUNTING/ FINANCE

- Enhancements to purchase order requisition and approval security.
- Service Management Invoice Transaction Number Changes.
- Accounting software enhancements and updates for Accounts Receivable, Payroll, Purchase Order Management, Equipment & Facilities Management and Service Management.

CUSTOMER SERVICE

- Improvements to e-Bill view service.
- Enhancements to eBill monthly email.
- E-bill service in-house training.



ENGINEERING

- Lab – Implementation of the EF module to record water quality statistics.
- SCADA – Upgrade to the SCADA software.
- Water Resource Unit – Updates to software.
- Water Resource Unit – Expansion and upgrade to the network and the relocation of network cables and equipment .
- Operations & Maintenance – Installation of the vehicle diagnostic software.
- Operations & Maintenance – Maintenance of vehicle tracking software.
- Implementation of equipment and facilities (EF) module for the monitoring of water quality statistics.
- Relocated and set up equipment from the Georgetown office to a temporary makeshift office at North Union after the explosive eruption.

HUMAN RESOURCES

- Adaptation of the electronic time and attendance system at the technical complex building and the registration and training of users.

INFORMATION TECHNOLOGY

- Continuation of the transition of eBill – Paperless billing
- Enhancement to the eBill platform.
- Complete review of information systems user access.
- Implementation of the dedicated Internet access (DIA) for the New Montrose main office and three (3) district offices; namely Belair, Arnos Vale and Diamond.
- Migrated to Office 365 email platform.

- Upgraded forty (40) computers to Microsoft Windows 10 Pro.
- Upgraded and replaced UPS's.
- Purchased and installed new computers and software.
- Upgraded firewall and switches.
- Expanded the PBX telephone network.
- Continuation of training staff using Helpdesk.

PUBLIC RELATIONS & MARKETING DEPARTMENT

- The launch of a new CWSA website and interface to include our eBill service and paperless campaign, updates on projects and public relations activities, the inclusion of CWSA's Facebook page and notices as well as a live chat feature.

SOLID WASTE MANAGEMENT UNIT

- Arnos Vale office - Expansion and Upgrade to the network.
- Belair office - Reconfiguration of the CCTV system for the new dedicated Internet access (DIA).

3.0 ADMINISTRATIVE - POLICY & PROCEDURES

- Implemented new information systems access forms
- Re-circulation of Systems Development Life Cycle (SDLC) Policy.
- Review of CWSA Disaster Recovery Plan.
- Review of Backup and Retention Policy.

DEPARTMENTAL REPORT

CUSTOMER SERVICE

PREPARED BY PHILLIP DALRYMPLE
DEPARTMENT HEAD

Like the rest of the world, St. Vincent & the Grenadines was not spared the crippling effects of the global pandemic, . This coupled with the explosive eruption of the La Soufriere Volcano, tested our faith, commitment and resilience. This natural disaster prompted the entire institution to take a crucial look at its operation and also demonstrated the importance of teamwork in maintaining functionality not only at the organizational level, but by extension the nation.

The Customer Services Department rallied and persevered, having staff reporting for duty to ensure that our customers and the nation were provided with quality and reliable services despite the crisis.

EXPLOSIVE ERUPTION OF THE LA SOUFRIERE VOLCANO

The department's emergency response protocols were activated immediately following the explosive eruption of the volcano. The Truck Borne Committee was deployed to deliver water to all government and private shelters as well as communities that were affected throughout St. Vincent outside of the red and part of the orange volcanic hazard zones. The department ensured that our displaced employees had potable water and they were also provided with bottled water and storage containers that were donated by NEMO and the Red Cross.

The delivery and distribution of potable water to affected persons was a collaboration between the CWSA, governmental agencies,

private companies and individuals with privately owned trucks.



Private Water Distribution Truck Receiving Water From the Penniston BoreHole

Donations of bulk water were received from our regional counterparts, for which we were extremely grateful. However, before the water could be distributed it had to be tested, pumped, stored and monitored. Therefore, the collaboration of the Water Resources Management Unit and the Laboratory staff was critical to ensure that the water was of acceptable standard and was safe for consumption.

The department assisted with training of our local Constabulary on the operation of the equipment on the water tender trucks that were provided by our Trinidadian allies.



CWSA's Water Tender Getting Ready For Deployment

WATER SALE TO SHIPS

Due to the constraints brought about by the pandemic and the volcanic eruption, water sold to ships was limited only to the Grenadines vessels. However, during the reporting period water was donated by the CWSA to the Grenadines islands.

COMPLAINTS MANAGEMENT

The main office was closed to the general public for a short period following the explosive volcanic eruption. However, clerical and administrative support were needed as a result of the overwhelming calls from customers. A Communication Hub was established, and some employees weathered the hazardous condition and reported to work to manage communication and water distribution processes.

eBILL SERVICE

The department intensified its strategies to promote the eBill registration process, which continued to pose some challenges, as many customers were not adaptable to this new technological paradigm shift. Therefore, training was inevitable and our frontline workers were equipped with

the relevant information and resources to further enable the registration process. Customers were apprised of the benefits of the eBill service including the prompt dissemination of their bill via email and



the convenience of accessing their account data from an electronic device anytime and anywhere. Thus far, approximately 5,000 of the 41,810 active customers have registered for the service.

METER READING

Immediately following the explosive eruption of the volcano, meter reading had to be suspended due to the hazardous conditions. However, once the conditions were deemed safe, the Meter Readers resumed reading of

meters. Their duties were extended beyond only reading of meters, to report damage to the meter that may have occurred due to ashfall and debris that were emitted from the volcano. Their support assisted tremendously with the water restoration process.

SUSPENSIONS OF BILLING

Billing was suspended in communities classified as the red and part of the orange volcanic hazard zone as shown below:

Belle Isle to Richmond – April, May and June 2021

Byrea to Georgetown/Langley Park – April, May and June 2021

Communities north of the Dry River – April to December 2021

ENTRIES TO GIS DATABASE

The Meter Readers continued to work alongside the GIS Unit, to complete the input of customer locations into the Geographic Information System (GIS) data base. As at the end of December 2021, an approximate total of 24,000 entries were made.

NEW CONNECTIONS/RECONNECTIONS

Despite the challenges during the reporting period, the CWSA was able to complete an average of 90% of the requests for new service connections. A 100% reconnection was effected within 48 hours target and an average of 90% same day reconnection after receipt of payment.

DEPARTMENTAL REPORT

SOLID WASTE MANAGEMENT UNIT

PREPARED BY WINSBERT QUOW
DEPARTMENT HEAD

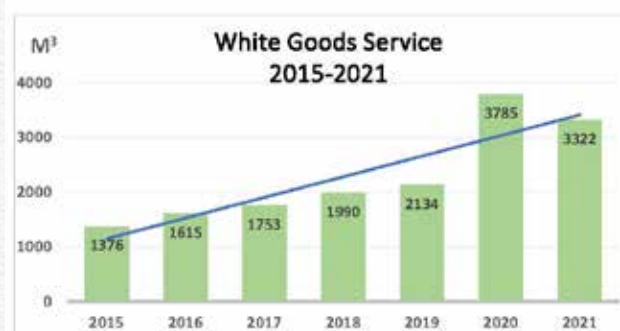
1.0 INTRODUCTION

2021 opened with the largest spike locally in Coronavirus infections, hospitalizations, and deaths since the onset of the pandemic in 2019. From April 9th – 22nd, there were a series of explosive volcanic eruptions from our once dormant La Soufriere Volcano. Despite these external unforeseen challenges, the Solid Waste Management Unit (SWMU) continued to provide a consistent and high-standard waste collection and disposal service to the people of St. Vincent and the Grenadines. Among other developments, the SWMU upgraded its recycling programme by commissioning a metal baler at the Diamond Landfill site, expanded its disposal fleet by the acquisition of a new Track Loader, and improved staff accommodations by the construction of the first floor of the administrative building at the Arnos Vale facility. The SWMU also secured an allocation of 10 million Eastern Caribbean Dollars under the World Bank-funded Blue Economy investment platform. These funds will be spent over a five-year period from 2022-2027 on equipment, projects, and training programmes geared toward continued improvements in the solid waste management service in St. Vincent and the Grenadines.

2.0 WHITE GOODS

The island-wide white goods collection service on St. Vincent was performed twice for the year as scheduled in February and September and yielded a total of 1,166 and 2,156 cubic meters of material respectively. The total quantity of white goods collected in September was approximately double the quantity collected in February. It is suspected that home cleaning activities intensified

in the months following the explosive volcanic eruptions in April (especially in the worst affected areas) and homeowners were able to capitalize on the opportunity presented by the whitegoods service to dispose of damaged bulky household items. There has been an upward trend in the volume of items collected over the years as shown in the graph below.



On the islands of Bequia, Canouan, and Union Island whitegoods were collected by the CWSA's contractors every two months.

3.0 DERELICT VEHICLES

The SVG Police Force, Public Health Department, and the SWMU have been collaborating since July 2017 to remove derelict vehicles from public places using the enforcement provisions of the Litter Act. As of March 2021, a total of 588 derelict vehicles were removed under the initiative. The programme was suspended in April 2021 as the COVID-19 pandemic and the volcanic eruptions resulted in some human resource challenges. The programme will resume in 2022 as there is still a significant number of derelict vehicles deposited in public spaces across the island. These derelict vehicles are public health, traffic, and disaster hazards and detract from natural amenities offered to locals and visitors to our beautiful island.

A metal baler was acquired and commissioned to compact the shells of the derelict vehicles after all the textiles, plastics, glass, and lubricants have been removed, in preparation for export. The baler essentially converts the scrap metal into 3ft dense cubes which can then be easily packed into containers for shipment overseas for recycling. At the end of 2021, some 100 bales were already produced and stockpiled at the Diamond Landfill.



4.0 EXPANSION OF THE ARNOS VALE FACILITY

The evolution of the Solid Waste Management Unit's (SWMU) Arnos Vale complex is reflective of the consistent improvements made in the overall waste collection and

disposal service. This 12-acre plot was once the largest garbage dumpsite in St. Vincent and the Grenadines. Following the opening of the Diamond Landfill in 2002, the Arnos Vale dumpsite was closed, which entailed the cessation of the deposit of garbage at the site, the compacting and covering of all exposed garbage, and the application of a 3ft capping layer of soil. The site was then repurposed into the dispatch facility for the waste collection operations and now has provisions for the parking and cleaning of trucks, a modern administrative office building and other staff accommodations, a security booth, and fuel storage. The site is also kept well-manicured to erase any memory of a garbage dump. In 2021, the SWMU completed the addition of the first floor of the two-story office building, with the upper floor earmarked to house additional administrative functions in the near future. The staff accommodations at Arnos Vale have been gradually upgraded over the last 20 years from a 5ft x 5ft wooden structure to a modified 20ft container, to a one-story 2,000 square foot single-story concrete building to now a two-story 4,000 square foot building. This demonstrates the CWSA's commitment to improving customer service and working conditions for its staff.



Original Office Structure



Modified 20' Container used as an Office until 2018



One storey 2,000 s.f. building completed in 2018



Two- storey 4,000 s.f. building completed in 2021

5.0 VOLCANIC ERUPTIONS RESPONSE

The La Soufriere volcano began erupting explosively on the morning of Friday, April 9th and the evacuation order for residents in the high-risk zone was issued by the

National Emergency Management Office (NEMO) on the afternoon of April 8th. It is estimated that 20,000 persons were evacuated from the north-western and north-eastern region of the country.

Waste collection from Georgetown to Fancy on the Windward side of the island and from Rose Bank to Richmond on the Leeward side of the island was suspended immediately following the first explosive volcanic eruption. However, the service continued, without interruption, in all other areas across the island. As roads were cleared of ash and the all-clear issued by NEMO for residents to return to evacuated areas, the service was gradually restored. Complete restoration of the household solid waste collection throughout the country was achieved by October 2022.

The SWMU began field inspections of emergency shelters on the morning of April 9th to verify occupancy levels, exchange contact details with shelter managers, and determine collection frequency requirements. It was understood that the occupancy levels in shelters may change with time, so along with regular field inspections, the SWMU instituted a system of information sharing with the Shelter Coordinators to ensure the adequate and efficient provision of solid waste collection. As of April 15th, there were eighty-seven (87) active shelters housing some 4,000 evacuees with occupancies ranging from 3 to 150 persons. The SWMU also offered waste collection and disposal services to international disaster relief organizations such as the World Food Programme (WFP) and the World Central Kitchen which had established operations on St. Vincent in response to the eruptions.

The SWMU also collaborated with All Islands Recycling Inc (AIR Inc.) on the issue of effective plastic bottle disposal as a result of the influx of bottled water in response to the water shortage issue posed by the volcanic eruption. AIR Inc. had the capacity to process over 500,000 bottles per week and they offered to the public a rate of EC\$2.75 per kilogram to purchase plastic bottles during the period. They reported that the number of sellers increased from 300 to over 600 as people took

advantage of the opportunity to make some extra income during the financially challenging period. A number of these new sellers were evacuees from the high-risk zone and were living in shelters.

6.0 UNLEASHING THE BLUE ECONOMY IN THE CARIBBEAN (UBEC)

The Solid Waste Management Sector is one of three sectors targeted by phase 1 of the Unleashing the Blue Economy in the Caribbean (UBEC) investment platform designed by the World Bank. The UBEC Program will be implemented as a Series of Projects (SOP) over a five to fifteen-year period (each project has a five-year period) as per projected country demand. Phase 1 of the UBEC project is to be implemented between 2022 and 2027 and is designed to stimulate economic recovery from COVID-19, generate additional and more diverse jobs, and improve marine and coastal resilience in SVG, St. Lucia, and Grenada by strengthening the sustainability and competitiveness of two critical, interconnected sectors – tourism and fisheries – and one underlying enabling infrastructure service, solid waste management. The link is clear between these three sectors in leveraging the

vast and vulnerable ocean resources of these islands to stimulate and sustain economic growth and promote the general well-being of its people and the environment.

In order to adequately support the overall development of the country, it was determined that a National Solid Waste Management Strategy is critical in defining a vision to guide the Government. This was ascertained during the planning of the solid waste activities to be implemented during Phase 1 of the project in consultation with the World Bank. It was determined that developing a National Solid Waste Management Strategy is critical in defining a vision for investment in the sector and to guide relevant authorities. The other activities programmed under the Solid Waste Sector for the first phase include the procurement of three pieces of equipment to support waste disposal and recycling operations, the improvement of waste disposal in the Southern Grenadines, implementation of a landfill monitoring programme, and training for the Solid Waste Management staff. The total allocation for solid waste management during the first five-year phase of the project is USD 3.6 million (approximately EC\$ 10 million)

END OF REPORT

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Our Mission Statement

To consistently provide all consumers with the highest quality water supply, sewerage and solid waste management services in an efficient and affordable manner.