



CENTRAL WATER & SEWERAGE AUTHORITY

20¹⁹₂₀ ANNUAL REPORT



ANNIVERSARY

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HIGHLIGHTS

MINISTER'S MESSAGE

The Minister laudes the men and women of the Authority for their dedication through adversity.

FROM THE CHAIR

The Chair speaks about the interconnectivity between Water and Climate Change and how the CWSA has adapted

FROM THE CHIEF EXECUTIVE OFFICER

The CEO reflects on the performance of the Authority during the 2019-2020 period.

LEADERS OF THE AUTHORITY

As the Authority celebrates its 50th Anniversary, we highlight the Chairpersons who have laid the foundation over the years



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SOLID WASTE
MANAGEMENT





CORPORATE INFORMATION

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Kingstown
St. Vincent and the Grenadines

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DIRECTORS

Mrs. Girlyn Miguel - Chairperson
Mr. Crawford Young - Deputy Chairperson
Mr. Cuthbert Knights
Mr. Rudolph Daize
Mr. Maxwell Robertson
Mrs. Nerissa Gittens
Mr. Recardo Frederick
Mr. Daverson Dick

CHIEF EXECUTIVE OFFICER

Mr. Garth Saunders

ADMINISTRATIVE OFFICER

Ms. Susette May

SOLICITORS

Saunders and Huggins
Cardinal Law Firm
Regal Chambers

BANKER

Bank of Saint Vincent and the
Grenadines

AUDITORS

Grant Thornton

MINISTER'S MESSAGE



HON. ST. CLAIR PRINCE
MINISTER OF HEALTH, WELLNESS & THE
ENVIRONMENT

The Central Water and Sewerage Authority (CWSA) continues to make this nation proud as the corporate entity distributing water and managing solid waste in St. Vincent the Grenadines.

Globally the issue of water is a complex one. Many countries are grappling with the challenges of managing this very vital resource. In St. Vincent and the Grenadines, we are blessed with a high water quality and a distribution system which has been improving by leaps and bounds owing to the hard work of management and the dedicated workers who daily pursue excellence as they respond to the demands of their varied customer base.

This team of committed men and women is one of the pillars of this excellent organisation. They can be seen at the Head office delivering daily service, responding to customers concerns and doing daily transactions.

Others are out in the field braving every weather condition to deliver prompt service through restoration and upgrading of the water, sewerage

and solid waste system. At the helm is a forward looking management team which has been guiding the CWSA in this period.

The CWSA operates under conditions of a difficult terrain, along with droughts and heavy rainfall related to climate change. However, the proactive nature of management and a willingness to embrace technology in its service delivery has allowed the company to mitigate well and to bring stability and consistency to our water supply. Certainly, the eight (8) line improvement and extension projects and the line mapping initiative completed in 2020 serve as ample evidence of this proactivity.

Furthermore, the onset of COVID-19 pandemic tested the mettle of the CWSA. In this our national "special period" the CWSA became a beacon in our national emergency response.

As Minister with responsibility for Health, it is with great pride that I encourage the Authority to continue its stellar performance in serving the Vincentian Public. It is a

pleasure to work alongside these highly dedicated men and women. The fight ahead especially with the COVID-19 pandemic is real and the Government will continue to work with them to ensure our people are protected. The provision of safe potable water is a most important element in this endeavour.

The Government and People of St. Vincent and the Grenadines salute the CWSA and wish you every success in the future.

Hon. St. Clair Prince

**"This team of
committed men and
women is one of the
pillars of this excellent
organization"**



Strength in times of adversity



GIRLYN MIGUEL
CHAIR
BOARD OF DIRECTORS

It was John Bunyan in his poem who penned these lines:

*He who would true valour see
Let him come wither
One here will constant be
Come wind – come weather*

These words boost the theme highlights by the United Nations for 2020 “Water and Climate Change”.

The word change speaks to the notion - to make different or - to alter or modify.

The Central Water and Sewerage Authority must always ponder on the constancy of change in the water sector – and change that affects productivity, delivery, finances and customer care.

Water and Climate change are closely linked. The global population grows and so does the demand for clean potable drinking water.

One may ask, what strategies must be employed

to balance societies needs to ensure that no nation or individual is left behind? The CWSA answers by focusing on improvements to its internal day to day operations which bring about lasting formation and transformation of personal and mechanisms to enhance overall productivity for the good of Vincentians.

The year 2020, despite its challenges, has been a good year. Mention must be made of the important work of the Forestry division which does meticulous work. They plant and maintain trees to attract rain to fill water catchments.

Our management team must be commended for its challenging mission to the Grenadines. The people of Myreau were noticeably loud in their praises for the service, hence; expansion and improvement are key words encompassing operations at CWSA. (water or SW)

Staff training, improvement of plants, equipment and transportation enhancement have received ample attention. Aged and ageing gadgets have had urgent attention for renewal. Our distribution network was upgraded to render greater service. In this digital world, we invested much in technology and engineering. Aged and indigent citizens have been served with compassion and good will as we met them at their point of need in partnership with the Ministry of National Mobilization.

In the handling if emergencies our team answered almost immediately to customers call for help.

The Solid Waste Management Unit has been constant in performance -despite the odds- SVG can boast of a cleaner and more beautiful country.

Mention must also be made of the important work of the Forestry division which does meticulous work. They plant and maintain trees to attract rain to fill water catchments.

*“CWSA, though hard pressed
by the vagaries of climate
change, is working harder
“come wind, come weather”.”*

Underpinned then, by economic stability, the Board of Directors echoes satisfaction with the working of the Authority and encourages that we continue to adhere to prudential standards for future improvement.

CWSA, though hard pressed by the vagaries of climate change, is working harder “come wind, come weather”.

The fiftieth year of our existence was ushered in amidst the Covid19 pandemic with water being an important tool to fight this difficult challenge. We cannot forget our trial blazers. Excellent team work marks the success of Central Water Sewerage Authority, and, as we go forward, we continue to harness greater quantities of water, and, quality which promotes the health of all.



Some of the trials faced by the Authority, during the 2019/2020 period

FROM THE CHIEF EXECUTIVE OFFICER



GARTH SAUNDERS
GENERAL MANAGER

I am once again happy to report that the CWSA can again boast of realizing its mission of providing quality and efficient water supply, sewerage and solid waste services at a price that both domestic and commercial consider affordable. This was once again achieved by closely defined governance and sound policy positions held by a committed and hardworking Board of Directors and executed by an equally committed management and staff, working in unison to deliver these services in an increasing challenging environment.

This report, however, makes an unusual departure from the regular annual report cycle of the CWSA in that it represents a performance review of both 2019 and 2020, two very contrasting years in the life of the CWSA. The external shocks of an historic drought and the COVID pandemic combined to ensure that many of the gains made in 2019 were effectively eroded by the end of 2020.

The CWSA's financial performance for 2020 showed a significant decline over the performance of the previous year with water & sewerage realizing a surplus of approximately \$1.0 million and the Solid Waste Unit a loss of approximately \$1 million due entirely to a Solid Waste revenue shortfall of \$900,000. This decline was due almost entirely to the negative effects of the COVID-19 pandemic on international travel and economic

activity.

Total revenue was below the 2019 figure by \$1.1 million and this figure was carried almost directly to the bottom-line surplus figure. This was due mainly to overall expenses being held at 2019 levels. The revenue loss was due mainly to a 9.4% decline in Solid Waste income, resulting from a 60% decline in the environmental levy received from both same-day and stayover visitors occasioned by the significant restrictions and falloff in regional and international travel and tourism numbers.

Total water revenue in 2020 came in at just about 2019 levels in spite of the water shortages occasioned by the historic drought in the early part of 2020 and the decline in tourism and travel numbers. These losses were eventually offset by increases in water consumption in all local sectors due mainly to the official public health requirements of the COVID pandemic.

In both 2019 and 2020, the CWSA continued its focus on attracting, training and retaining the best of the best. The human resource section of this report clearly demonstrates the breadth and depth of all our training initiatives, aimed at consistently improving the skills and abilities of our employees and demonstrates the priority assigned to performance management and rewarding employee efforts through promotions and confirmations.

The external challenges of 2020 and beyond also developed a renewed and timely appreciation for Occupational Safety and Health (OSH) and Personal, Protective Equipment (PPE) as the CWSA, like many businesses in 2020, was forced to implement health protocols aimed at protecting the lives and health of employees and stakeholders alike.

Similar service level improvements were achieved throughout the organization by leveraging our information technology/information (IT/IS) systems where much progress was achieved with the increased integration of IT in both engineering and customer service, resulting in well documented advances in almost

every area of our operations.

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 performance of all major departments and the important contribution made to national development.

During 2019 and 2020, the Solid Waste Unit also reported significant investments and improvements in several areas including its fleet upgrade and expansion and most importantly its collection services, including skip, derelict vehicle and white goods collections. Information technology was also used to introduce digital mapping of collection routes and the refinement of the data and information systems of the Unit.

While this report highlights the challenges and achievements of the past two years, it is useful to have this current performance placed in the context of the challenges and achievements over the preceding decade where in the face of increasing costs of inputs, water rates have remained constant and free water connections and waived charges continue to be accessed by the elderly and economically disadvantaged sector.

The CWSA also expanded its operations and service offerings during the past decade to include septage

treatment, water resources, SCADA and GIS Mapping Units and its online bill view presence. There has also been a measured approach to the financing of the CWSA's capital investment ensuring that external borrowings remain at affordable levels and in preparation for any required increase in demand occasioned by natural events or planned national development initiatives.

In addition to any new national initiatives, the CWSA will itself be embarking on its own developmental thrust and initiatives during the period 2021-2022 and beyond. The main priority areas include:

- ***Improving the resilience of our pipeline, plant and building infrastructure***
- ***Addressing our drought response, through increased storage and search for new sources***
- ***Keeping abreast of increases in demand from planned tourism and hotel plant expansion***
- ***More focus on the treatment and disposal of special waste***
- ***Advance plans for enhancements to sewerage collection, treatment and disposal in Kingstown***
- ***Increase collaboration with VINLEC in the Grenadines to improve the collection of fees.***
- ***Further develop electronic bill view to evolve to paperless bills.***

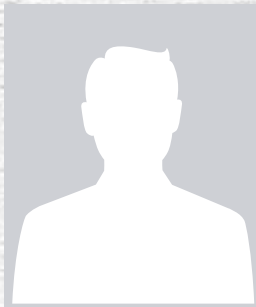


LEADERS OF THE AUTHORITY

Recognizing the persons who have contributed over the span of the Authority's life, and helped mold the company into what it is today.

BOARD CHAIRPERSONS

1970's



ROY N. EUSTACE



HENDREN
HOBBS
HUGGINS

SPECIAL RECOGNITION



HENDREN
HUGGINS
1980-1984



G. MONTY MAULE
1984-2001



KENNETH FORDE
2001-2002



CHRISTIAN
"CIMS" MARTIN
2002-2008



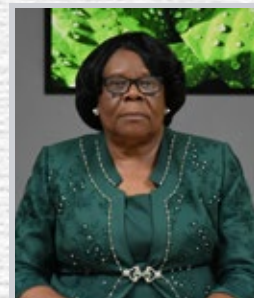
RICHARD MC
LEISH
2008-2012



MICHAEL
BROWNE
2012-2016



CLAYTON BURGIN
2016-2017



GIRLYN MIGUEL
2017-PRESENT

GENERAL MANAGERS

1970's



STANLEY BRANCH



REUBEN BAILEY



ROBERT FRANCE

1980's



ROBERT FRANCE
1980-1985



DANIEL CUMMINGS
1987-2004



RAYMOND NOEL
1985-1987



GARTH SAUNDERS
2004-PRESENT



Grant Thornton

An instinct for growth™

Central Water and Sewerage Authority

Financial Statements

Year Ended December 31, 2020

(in Eastern Caribbean dollars)





Grant Thornton

INDEPENDENT AUDITORS' REPORT

To the Directors of
Central Water and Sewerage Authority

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Report on the Audit of the Financial Statements

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Opinion

We have audited the financial statements of **Central Water and Sewerage Authority**, which comprise the statement of financial position as at December 31, 2020, 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, 2020, 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.

Partners:
Anthony Alderson – Managing Partner
Richard Pettiford
Rashyn Houston
Mekisha Feltz
Sharon Rasoul
Floyd Patterson

Audit, Tax, Advisory
Member of Grant Thornton International Ltd

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.

The engagement partner on the audit resulting in this independent auditors' report is Floyd A. Patterson.



June 28, 2021

Partners:
Anthony Alderson – Managing Partner
Richard Pettibin
Rashyn Kowalski
Madeline Feltz
Sharon Rasol
Floyd Patterson

Audit, Tax & Advisory
Member of Grant Thornton International Ltd

Central Water and Sewerage Authority

Statement of Financial Position


As of December 31, 2020

(in Eastern Caribbean dollars)

	Notes	2020 \$	2019 \$
ASSETS			
Current Assets			
Cash and cash equivalents	7	2,696,392	2,217,288
Trade receivables	8	7,064,271	7,359,223
Other receivables	9	1,365,834	1,106,805
Investment securities	10	4,392,782	3,871,396
Inventories	11	6,720,749	5,503,898
Prepayments		349,094	320,565
		22,589,122	20,379,175
Property, Plant and Equipment	12	75,391,315	75,600,111
		97,980,437	95,979,286
LIABILITIES AND GOVERNMENT'S EQUITY			
Current Liabilities			
Borrowings	13	639,963	247,443
Trade and other payables	14	3,963,812	3,171,827
		4,603,775	3,419,270
Borrowings	13	2,502,622	1,769,876
Employee Benefits	15	72,622	93,290
Obligations to Customers	16	131,321	50,085
		7,310,340	5,332,521
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		29,998,143	29,974,811
		90,670,097	90,646,765
		97,980,437	95,979,286

APPROVED BY THE BOARD OF DIRECTORS ON JUNE 28, 2021.


Girlyn Miguel
Chairman


Crawford Young
Deputy Chairman


Garth Saunders
Secretary

Central Water and Sewerage Authority

Statement of Changes in Equity

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

	Contributed Capital \$	Accumulated Other Comprehensive Income \$	Retained Earnings \$	Total \$
Balance as of December 31, 2018	41,694,220	18,977,734	28,192,298	88,864,252
Net profit for the year	0	0	1,782,513	1,782,513
Balance as of December 31, 2019	41,694,220	18,977,734	29,974,811	90,646,765
Net profit for the year	0	0	23,332	23,332
Balance as of December 31, 2020	41,694,220	18,977,734	29,998,143	90,670,097

Central Water and Sewerage Authority

Statement of Profit or Loss

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

	Notes	2020 \$	2019 \$
Revenue			
Water income		18,883,950	18,830,437
Sewerage income		656,551	654,391
Solid waste income	19	8,278,431	9,141,277
Other water and sewerage related revenue		399,617	595,524
Other income		272,640	397,405
		28,491,189	29,619,034
Operational Costs			
Production and maintenance costs	20	(17,197,547)	(16,875,533)
Selling, general and administrative expenses	21	(11,156,557)	(10,866,186)
Foreign exchange gain		0	11,082
		(28,354,104)	(27,730,637)
Operating Profit		137,085	1,888,397
Finance charges		(113,753)	(105,884)
Profit for the Year		23,332	1,782,513
The following expense is included in the foregoing:-			
Depreciation	12	3,931,257	3,875,032

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, 2020

(in Eastern Caribbean dollars)

	Note	2020 \$	2019 \$
Cash Flows from Operating Activities			
Profit for the year		23,332	1,782,513
Adjustments for			
Depreciation expense		3,931,257	3,875,032
Interest income		(119,197)	(89,670)
Finance charges		113,753	105,884
Foreign exchange gain		0	(11,082)
Gain on disposal of property, plant and equipment		(75,054)	(57,000)
Profit before Working Capital Changes		3,874,091	5,605,677
Decrease (increase) in trade receivables		294,952	(31,623)
(Increase) decrease in other receivables		(348,935)	11,198
Increase in prepayments		(28,529)	(29,561)
Increase in inventories		(1,126,945)	(226,434)
Increase (decrease) in trade and other payables		791,985	(155,731)
Increase in obligations to customers		81,236	10,164
Cash Generated from Operations		3,537,855	5,183,690
Interest paid		(113,753)	(114,774)
Interest received		117,637	53,160
Employee benefits paid		(20,668)	0
Net Cash Generated from Operating Activities		3,521,071	5,122,076
Cash Flows from Investing Activities			
Purchases of property, plant and equipment		(3,722,461)	(1,747,879)
Proceeds from sales of property, plant and equipment		75,054	57,000
Change in investments		(519,826)	(1,236,179)
Net Cash Used in Investing Activities		(4,167,233)	(2,927,058)
Cash Flows from Financing Activities			
Repayment of long-term loans		(356,486)	(1,142,890)
Proceeds from long-term loan		1,348,830	0
Net Cash Generated from (Used in) Financing Activities		992,344	(1,142,890)
Net Movement in Cash and Cash Equivalents		346,182	1,052,128
Cash and Cash Equivalents – Beginning of Year		2,217,288	1,165,160
Cash and Cash Equivalents – End of Year	7	2,563,470	2,217,288

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, 2020

(in Eastern Caribbean dollars)

1. Legal Status

The Central Water and Sewerage Authority (the "Authority") is a statutory corporation established in 1969 and continued under the revised Central Water and Sewerage Authority Act of 2007.

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.

Change in Accounting Policies

a. Accounting Change

During the year, a review of accounting for property, plant and equipment was conducted and given the complexities surrounding the assessment of the fair value of the water and sewerage systems, the Authority elected to revert to the cost model of accounting for those items. As a result, the appraisal excess of \$12,151,424, on the water and sewerage systems has been transferred retrospectively to contributed capital.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

3. Basis of PreparationCont'd

Change in Accounting PoliciesCont'd

a. Accounting ChangeCont'd

The following summarizes the effects of the accounting change mentioned above:

	Revaluation Surplus \$	Contributed Capital \$
As previously reported	18,977,74	41,694,220
Effect of accounting change from the fair value to cost model	(12,151,424)	12,151,424
As restated	6,826,310	53,845,649

b. New Standards, Amendments and Interpretations Effective January 1, 2020

The Authority has applied the following standards and amendments for the first time for the annual reporting period commencing 1 January 2020:

- Definition of Material – amendments to IAS 1 and IAS 8
- Definition of Business – amendment to IFRS 3
- Interest Rate Benchmark Reform – amendments to IFRS 9, ISA 39 and IFRS 7
- Revised Conceptual Framework for Financial Reporting

The amendments listed above did not have any impact on the amounts recognized in prior periods and are not expected to significantly affect the current or future periods.

b. New Standards, Amendments and Interpretations not yet Effective and have not been Early Adopted

Certain new accounting standards and interpretations have been published that are not mandatory for December 31, 2020 reporting periods and have not been early adopted by the Authority. These standards are not expected to have a material impact on the Authority in the current or future reporting periods and on foreseeable future transactions.

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.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

4. Significant Accounting PoliciesCont'd

c. Inventories

Inventories are valued 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.

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. Dividends are recorded in revenue when due.

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.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

4. Significant Accounting PoliciesCont'd

d. Financial AssetsCont'd

Trade ReceivablesCont'd

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.

e. Property, Plant and Equipment

(i) Recognition and Measurement

Land and buildings initially are recognised at cost and are subsequently remeasured at fair value by external independent valuers, 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 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%

Increases in the carrying amount arising on revaluation of property, plant and equipment are recognised in other comprehensive income and accumulated in revaluation surplus in equity. Decreases that offset previous increases of the same asset are recognised in other comprehensive income; all other decreases are charged to profit or loss.

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

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

4. Significant Accounting PoliciesCont'd

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.

Changes in the fair value of monetary securities denominated in foreign currencies classified as available for sale are analysed between translation differences resulting from changes in the amortised cost of the security and other changes in the carrying amount of the security. Translation differences related to changes in the amortised cost are recognised in profit or loss, and other changes in the carrying amount are recognised in equity.

Translation differences on non-monetary items, such as equities held at fair value are recognised through profit or loss and are reported as part of the fair value gain or loss. Translation differences on non-monetary items, such as equities classified as available-for-sale financial assets, are included in the fair value in other comprehensive income and ultimately accounted for in reserves in equity.

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.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

4. Significant Accounting Policies*Cont'd*

k. Employee Benefits*Cont'd*

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.

m. Income Tax

The Authority is exempt from income tax and import duties under the Central Water and Sewerage Authority Act, 1991.

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.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

a. Risk Management Objectives and PoliciesCont'd

ii) Credit RiskCont'd

	2020	2019
	\$	\$
Cash on hand and at bank	2,696,392	2,217,288
Trade receivables	7,064,271	7,359,223
Other receivables	1,365,834	1,106,805
Investment securities	4,392,782	3,871,396
	15,519,279	14,554,712

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, 2020 and 2019, without taking into account any collateral held or other credit enhancements attached.

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, 2020 and 2019, based on Moody's ratings or equivalent:

	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
At December 31, 2019					
Lower than A-	570,211	0	0	0	570,211
Unrated	1,647,077	7,359,223	1,106,805	3,871,396	13,984,501
	2,217,288	7,359,223	1,106,805	3,871,396	14,554,712

The Authority continuously monitors defaults of customers and other counterparties, identified either individually or by the Company, 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:

	2020	2019
	\$	\$
Not more than 3 months	4,970,314	4,873,245
More than 3 months but not more than 12 months	2,754,794	2,383,585
More than 1 year	5,983,421	5,417,152
Total	13,708,529	12,673,982

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

b. Risk Management Objectives and PoliciesCont'd

ii) Credit RiskCont'd

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.

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, 2020, the Authority's non-derivative financial liabilities have contractual maturities (including interest payments where applicable) as summarised below:

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

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

a. Risk Management Objectives and PoliciesCont'd

iii) Liquidity RiskCont'd

	Carrying Amount \$	Contractual Cash Flows \$	2019 1 Year \$	2-5 Years \$	More than 5 Years \$
Borrowings	2,017,319	(2,055,600)	(342,600)	(1,713,000)	0
Employee benefits	93,290	(93,290)	0	0	0
Trade and other payables	3,171,827	(3,171,827)	0	0	0
	5,282,436	(5,320,717)	(342,600)	(1,713,000)	0

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	6,496,270	450,000	8,573,009	15,519,279
Financial Liabilities	639,963	2,502,622	4,036,434	7,179,019
Interest Sensitivity Gap				
As at December 31, 2020	5,856,307	(2,052,622)		3,803,685
As at December 31, 2019	4,716,946	(1,369,876)		3,347,070

The following illustrates the sensitivity of profits to a reasonably possible change in interest rate of +/-50 bases points (2019: +/-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
2020 Effect of change due to movement	(11,654)	11,654
2019 Effect of change due to movement	(9,778)	9,778

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

a. Risk Management Objectives and PoliciesCont'd

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	33,398	0	15,485,881	15,519,279
Financial Liabilities	162,047	753,104	527,588	5,736,280	7,179,019
Currency Sensitivity Gap					
As at December 31, 2020	(16,2047)	(719,706)	(527,588)	9,749,601	8,340,260
As at December 31, 2019	(10,066)	20,538	(168,265)	9,430,069	9,272,276

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.

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, 2020		
Financial Assets	33,398	0
Financial Liabilities	1,442,739	0
Total Exposure	(1,409,341)	0
	Short-term Exposure EC \$	Long-term Exposure EC \$
December 31, 2019		
Financial Assets	122,804	0
Financial Liabilities	(528,072)	0
Total Exposure	(405,268)	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 31 December 2020 (2019: +/-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.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

5. Financial Risk ManagementCont'd

a. Risk Management Objectives and PoliciesCont'd

v) Currency Risk Cont'd

Had the ECS 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, 2020	8,102	26,379	35,985	0	70,466
December 31, 2019	503	8,413	1,027	0	9,943

Had the ECS 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, 2020	(8,102)	(26,379)	(35,985)	0	(70,466)
December 31, 2019	(503)	(8,413)	(1,027)	0	(9,943)

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.

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.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

7. Cash and Cash Equivalents

	2020	2019
	\$	\$
Cash on hand	4,000	3,700
Bank balances and demand deposits	2,692,392	2,213,588
	2,696,392	2,217,288

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

	2020	2019
	\$	\$
EUR	33,398	32,898
ECD	2,662,994	2,184,390
	2,696,392	2,217,288

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

	2020	2019
	\$	\$
Cash and cash equivalents	2,696,392	2,217,288
Bank overdraft (Note 13)	(132,922)	0
	2,563,470	2,217,288

8. Trade Receivables

	2020	2019
	\$	\$
Un-metered accounts	16,757	9,551
Metered accounts	9,518,498	8,791,070
Grenadines accounts	684,270	448,631
Sewerage accounts	58,525	50,542
Bulk water accounts	22,981	49,709
Environmental levy receivable	148,044	669,313
Government of St. Vincent and the Grenadines	3,414,562	3,541,689
	13,863,637	13,560,505
Allowance for impaired receivables	(6,799,366)	(6,201,282)
	7,064,271	7,359,223

Pursuant to an agreement with the Government, the Authority supplies water to standpipes and state-owned institutions for a consideration of \$1,100,00 (2019: \$1,100,000) per annum, payable in quarterly instalments of \$275,000 (2019: \$275,000), due on March 31, June 30, September 30 and December 31, each year.

As of reporting date, trade receivables of \$6,799,366 (2019: \$6,201,282) 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: -

	2020	2019
	\$	\$
91 to 365 days	545,335	336,427
Over 365 days	6,254,031	5,864,855
	6,799,366	6,201,282

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

8. Trade Receivables Cont'd

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

	2020	2019
	\$	\$
At January 1	6,201,282	5,925,528
Increase in allowance for impaired receivables (Note 21)	658,456	275,754
Direct write-offs	(60,372)	0
At December 31	6,799,366	6,201,282

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

	2020	2019
	\$	\$
Movement in allowance for impaired receivables (Note 21)	598,084	275,754

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.

9. Other Receivables

	2020	2019
	\$	\$
Advanced payment to suppliers	0	89,906
Sundry receivables	99,181	133,175
Staff receivables	86,206	85,881
VAT refundable	1,180,447	797,843
	1,365,834	1,106,805

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: -

	2020	2019
	\$	\$
USD	0	89,906
ECD	1,365,834	1,016,899
	1,365,834	1,106,805

10. Investment Securities

At Amortized Cost

	2020	2019
	\$	\$
Bank of St. Vincent and the Grenadines Limited, certificate of deposit	1,641,603	1,610,626
General Employees Co-operative Credit Union Limited, certificates of deposit (Note 13)	1,888,109	1,824,260
Government of St. Vincent and the Grenadines treasury bills	400,000	400,000
CIBC FirstCaribbean Bank certificate of deposit (Note 13)	425,000	0
	4,354,712	3,834,886
Interest receivable	38,070	36,510
	4,392,782	3,871,396

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

10. Investment Securities *Cont'd*

At Amortized Cost *Cont'd*

Movement schedule of carrying values:

	2020 \$	2019 \$
Balance at January 1	3,871,396	2,598,707
Additions to portfolio of securities	425,000	1,200,000
Interest capitalised	58,316	36,179
Interest accrued	38,070	36,510
Balance at December 31	4,392,782	3,871,396

Investments are comprised of 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: -

	2020 %	2019 %
Term deposits	2.20	2.48
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.

11. Inventories

	2020 \$	2019 \$
Pipes and fittings	5,023,219	4,823,990
Mechanical spares	586,708	603,438
Other	94,126	76,470
Goods-in-transit	1,016,696	0
	6,720,749	5,503,898

Inventories recognized as an expense during the year amounted to \$2,144,577 (2019: \$1,853,293). 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, 2020

(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, 2018											
Operational assets, cost	1,472,147	12,353,179	16,175,881	78,865,332	4,631,967	7,826,579	7,224,668	5,228,995	6,625,745	3,422,158	143,826,651
Accumulated depreciation	0	6,292,454	3,115,151	32,100,557	3,387,154	7,199,675	5,889,953	3,487,146	4,627,291	0	66,099,387
Net Book Amount	1,472,147	6,060,725	13,060,730	46,764,775	1,244,813	626,904	1,334,715	1,741,849	1,998,448	3,422,158	77,727,264
NBV at January 1, 2019											
Additions	0	0	0	0	0	0	1,334,715	1,741,849	1,998,448	3,422,158	77,727,264
Transfers	0	0	101,429	2,669,479	0	0	158,559	227,363	266,222	1,095,735	1,747,879
Depreciation charge	0	(398,522)	(324,453)	(1,591,835)	(107,766)	(167,424)	0	0	0	(2,770,908)	0
NBV as December 31, 2019	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
At December 31, 2019											
Operational assets, cost	1,472,147	12,353,179	16,277,310	81,524,811	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 January 1, 2020											
Additions	16,728	0	20,211	0	0	0	1,152,524	1,681,767	1,607,833	1,746,985	75,600,111
Transfers	0	0	187,898	856,307	0	45,592	770,932	1,162,915	523,677	1,227,998	3,722,461
Depreciation charge	0	(398,522)	(325,701)	(1,636,985)	(104,581)	(143,790)	0	0	0	(1,089,797)	0
NBV at December 31, 2020	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
At December 31, 2020											
Operational assets, cost	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
Accumulated depreciation	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
Net Book Amount	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

Depreciation expense of \$3,516,574 (2019: \$3,473,253) and \$414,683 (2019: \$401,779) 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 (2019: 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, 2020

(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

	2020 \$	2019 \$
Bank of St. Vincent and the Grenadines Limited – overdraft (Note 7)	132,922	0
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	1,772,634	2,017,319
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.	1,237,029	0
	3,142,585	2,017,319
Less: current portion due within one year	(639,963)	(247,443)
	2,502,622	1,769,876

As disclosed in **Note 10**, the Authority provided a Certificate of Deposit, having a carrying value of \$1,060,109 (2019: \$1,024,259), 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: -

	2020 \$	2019 \$
Less than one year	639,963	247,443
Between one and five years	2,502,622	1,769,876
	3,142,585	2,017,319

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

	2020 %	2019 %
General Employee Co-operative Credit Union Limited	5.12	5.12
FirstCaribbean International Bank (Barbados) Limited	4.33	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, 2020

(in Eastern Caribbean dollars)

14. Trade and Other Payables

	2020 \$	2019 \$
Trade payable	1,865,827	1,164,380
Accrued liabilities	463,595	379,535
Payroll accruals	1,222,960	1,215,195
Customers' deposits	411,430	412,717
	3,963,812	3,171,827

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

	2020 \$	2019 \$
ECD	2,521,073	2,891,230
USD	527,588	258,171
EURO	753,104	12,360
GBP	162,047	10,066
	3,963,812	3,171,827

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 Sagcor 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 \$661,092 (2019: \$645,998).

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.

	2020 \$	2019 \$
Customers contributions	131,321	50,085

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(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, 2020	6,826,310
December 31, 2020	6,826,310

In 1984, 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

	2020 \$	2019 \$
Collection fee – fixed	1,493,500	1,493,500
Collection fee – variable	5,159,111	5,080,946
Disposal fees	523,999	510,768
Environmental levy – stay over	158,401	417,807
Environmental levy – cruise	426,896	1,042,264
Mustique disposal fees	176,800	205,890
Skip services	153,146	162,331
Septage service	71,009	89,416
Other	115,569	138,355
	8,278,431	9,141,277

20. Production and Maintenance Costs

	2020 \$	2019 \$
Chemicals	39,410	27,635
Depreciation expense - Plant	1,741,566	1,699,601
- Landfills	398,521	398,521
- Equipment	392,356	406,350
- Motor vehicles	984,131	968,781
Disaster preparation and relief	68,498	1,489
Drawing office and laboratory expenses	43,093	39,684
Garbage and waste collection and disposal	2,810,103	2,872,348
Insurance	182,695	161,272
Pension and medical contribution	297,581	302,480
Training	28,581	53,715
Transmission and distribution	2,105,167	1,825,658
Transportation and other equipment expenses	908,432	1,074,760
Salaries, wages, allowances, and NIS contributions	7,197,413	7,043,239
	17,197,547	16,875,533

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

21. Selling, General and Administrative Expenses

	2020	2019
	\$	\$
Administration asset expense	39,088	44,155
Advertising and public relations	114,859	288,409
Audit fees	45,081	46,025
Bad debt expense (Note 8)	658,456	275,754
Bank charges and commissions	85,217	78,229
Communications	176,265	171,782
Depreciation expense	414,683	401,779
Directors' fees	64,950	65,400
Donations	37,226	48,638
Electricity expense	327,867	361,884
Health and safety	19,615	0
Insurance	60,896	70,700
Legal fees	9,909	12,309
Miscellaneous expenses	48,646	36,374
Membership and subscription	205,601	189,688
Pension and medical	632,358	642,770
Printing, postage and office supplies	399,695	280,443
Professional fees	0	10,868
Public liability compensation	3,721	1,160
Repairs and maintenance	18,758	24,356
Salaries, benefits and National Insurance contributions	6,937,029	6,886,690
Scholarships and awards	40,300	38,200
Security services	360,049	336,587
Staff training	3,764	72,569
Travelling allowances	613,870	611,455
	11,317,903	10,996,224
Overheads allocated to projects	(161,346)	(130,038)
	11,156,557	10,866,186

22. Capital Commitments

As of reporting date, the Board of Directors had approved capital expenditure amounting to \$22,128,300 (2019: \$21,381,200).

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, 2020

(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	
	2020	2019	2020	2019
	\$	\$	\$	\$
Water and sewerage charges	1,100,000	1,100,000	592,154	848,248
Solid waste charges	1,493,500	1,493,500	2,822,314	2,693,439

24. Solid Waste Management Unit – Income and Expenditure

	Notes	2020 \$	2019 \$
Income from Services	19	8,278,432	9,141,277
Less: Operational Costs			
- Production and maintenance costs	25	(7,168,612)	(7,202,326)
- General and administrative expenses	26	(2,184,448)	(2,101,034)
Net Loss for the Year		(1,074,628)	(162,083)

25. Solid Waste Management Unit – Production and Maintenance Costs

	2020 \$	2019 \$
Allowance	113,714	133,720
Contra expense/transfers	254,935	307,679
Land and building expense	525,303	535,349
Motor vehicle/garage expense	1,024,445	1,154,962
Pension and National Insurance contribution	221,073	221,942
Plant and operating equipment	387,825	151,269
Salaries	1,888,864	1,888,086
Services	44,253	53,927
Supplies	42,798	30,768
Training	0	12,385
Waste management	2,665,402	2,712,239
	7,168,612	7,202,326

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

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

	2020 \$	2019 \$
Advertising, director and legal fees	33,326	28,030
Allowances	53,512	62,927
Bad debts expense	216,252	157,832
Commission expense	49,430	57,149
Communication expense	88,944	45,064
Employee benefits and National Insurance contributions	104,035	104,443
Finance expense	97,417	108,896
IT expense	121,478	112,929
Janitorial services	19,200	19,200
Miscellaneous expense	10,690	685
Office facilities and equipment	254,352	273,552
Office and other supplies	16,690	16,797
PR and marketing expense	6,732	5,861
Salaries	888,877	888,511
Security services	223,689	225,587
Training	0	5,828
	<u>2,184,624</u>	<u>2,113,291</u>
Overhead allocated	(176)	(12,257)
	<u>2,184,448</u>	<u>2,101,034</u>

27. Staff Cost

	2020 \$	2019 \$
Salaries, wages and allowances	13,534,607	13,304,801
Pension	732,261	723,567
Medical	197,678	221,683
National Insurance Services contribution	615,678	616,326
Other staff costs	138,045	99,513
	<u>15,218,269</u>	<u>14,965,890</u>
Average number of employees at reporting date	<u>282</u>	<u>280</u>

28. Subsequent Events

a. COVID-19

The COVID-19 pandemic has developed rapidly in 2020, with a significant increase in cases from December 23, 2020. Measures taken by various Governments to contain the virus have affected the country's economic activity. Management has taken a number of measures to monitor and mitigate the effects of COVID-19, such as safety and health measures including social distancing, working from home, and sourcing of inventories essential to the distribution process.

As at reporting date, the Authority has not assessed the impact, if any, on operations and financial position.

Central Water and Sewerage Authority

Notes to the Financial Statements

For the Year Ended December 31, 2020

(in Eastern Caribbean dollars)

28. Subsequent Events Cont'd

b. La Soufriere

Subsequent to year end, on April 9, 2021, La Soufriere volcano erupted and disrupted all activities in the north of the country, with 20% of the population being displaced, damages to crops, livestock and infrastructure. As the Government, business places and people reacted to deal with the health and humanitarian issues posed by the explosion, in the short-term, and because the eruption is ongoing, it is not yet possible to foresee the ultimate outcome and impact on the Authority's operations. The damages suffered on the Authority's water catchments and distribution plant have been addressed and operations restored. As of the date these financial statements were available to be issued, management is unable to assess effects of this natural disaster on its revenues, trade receivables and related allowance for impairment losses and any other income and operating expense.

PUBLIC RELATIONS & MARKETING

PREPARED BY JOAN RYAN
DEPARTMENT HEAD

COMMUNICATING WITH THE PUBLIC

The most significant aspect of the information placed on the Central Water and Sewerage Authority's Facebook page, and sent to various media houses throughout the country for release, had to do with disruptions to our water supply systems. Disruption notices to the water supply were communicated to the public in emergency situations between 1-2 hours before disruption and for scheduled disruption, 24-48 hours before the disruption took place. Customers were informed of the varied reasons for disruption, which included repair to main lines, whose size range from 12 - 4 inches in diameter. Smaller lines which service the distribution system to homes, businesses and institutions etc also came in for service repairs due to breakage for various reasons. Over the course of the reporting period, water sources and catchments had to be cleaned and cleared respectively, which also resulted in the disruption of the water supply for several hours over a twenty-four (24) hour period.

Extreme Weather

Heavier rainfalls and extreme dry conditions are two significant weather conditions for which the CWSA must communicate to the general public. Over the reporting period there were specific releases and notices which included Press Conferences as the CWSA battled with extreme dry and wet conditions. During the dry spell, notices also focused on water distribution schedules to affected communities.

Photo Displays

Photo depictions on Facebook showcased;

- *Water restoration works*
- *SWMU white goods collection*

- *Derelict removal programme*
- *Waste collection on different national holidays*
- *CWSA scholarship fund*
- *Water distribution throughout the country*
- *6th Caribbean water operators conference*
- *Water supply restoration work being done - whether in the mountains and communities*
- *Internal staff meetings*

NEWS RELEASES

Several News Releases formed part of the Information Distribution Process. The releases covered the following subject matters:

- *Tropical Storm Doria*
- *Releases from the National Emergency Management Organization (NEMO)*
- *Reduction in river flows*
- *Caribbean Regional Climate Centre's (CARICOF) drought update, etc.*

A media briefing to discuss the effects of the aforementioned drought on our water systems, was held at the CWSA's headquarters, with representatives of various media houses. The brief was also streamed live on Facebook.

OTHER COMMUNICATION/MEDIA PROGRAMMES

There were some media efforts that remain consistent throughout the years.

The sponsorship of the NBC radio news programme the third week of each month was one such effort. Prior to and following the newscast, information that the CWSA wished to impart to the public, was aired by way of advertisement.

Newspapers were monitored for any mention of the CWSA. All such articles were removed and stored for documentation. Daily monitoring of radio talk show for queries from customers was also done.

Additionally, representation was made on NBC radio talk shows, and covered the topics: derelict vehicle programme, improper solid waste disposal, early warning systems and data collection by the CWSA regarding climate conditions. Two features were done on the local television station SVG TV; an interview with Dr Cox, a Consultant with Caribbean Institute for Meteorology & Hydrology (CIMH) and the second feature was a Solid Waste video highlighting the destruction of litter bins in Kingstown. The former featurette with Dr. Cox, also featured a representative from the Water Resources Unit, that looked at the installation of climate stations and weather outlook for the Caribbean with a focused mainly on St. Vincent and the Grenadines,.

COLLABORATION WITH AGENCIES

The CWSA was represented through the department at several forums throughout the years. The focus for collaboration and discussion included, Environmental Management, Gender Mainstreaming and Climate Change, the National Development plan, and the National Assessment Team.

ASSISTANCE TO SCHOOLS

Assistance to schools throughout the state mostly focused on;

- *Sharing information through discussion sessions on hydrology and weather*
- *Water collection and distribution*
- *Water treatment and solid waste management which also included community clean-ups.*

Other assistance included;

- *Judging of schools' recycling projects*
- *Donation of prizes for different activities including graduations and sports awards*
- *Donation of pipe lines for schools' projects*
- *Purchasing of plumbing tools for the St. Clair Dacon*

Secondary School plumbing programme.

WATER STORAGE CAMPAIGN

The Public Relations department continued to place emphasis on the need for adequate Water Storage. The campaign which started in 2018, focused on raising awareness about the need for adequate storage in homes and institutions, especially in times of adverse weather conditions and disasters. This information was disseminated by way of the CWSA's Facebook page, through feather banners depicting water storage information, displayed on the grounds of the New Montrose complex, along with radio discussions.

INTERNAL RELATIONS

This function of the department is of utmost importance for the receipt of information and the dissemination of same to staff. It has therefore become necessary to be represented at meetings held by relevant departments including the Solid Waste Middle Management meeting, the Water Supervisors Meeting and the hosting of the PR departments own staff meetings as we strategize to meet the requirements of the other sections of the CWSA.

A regular outlet used for broadcasting information to staff is the Intercom system, using the desktop phones. During the reporting period, this highlighted information included Sports Club activities, Internet Service Provider related issues, uniform matters, storm warnings and safety measures for work and at home, office closures, funeral announcements for staff or relatives of staff and quarterly staff meetings.

ANNUAL STAFF AWARDS & COCKTAIL

In 2019, this event was held at the main Arnos Vale playing field. Persons honoured at this event were;

Years of Service (15 years) Awardees

- *Amando Wilson*
- *Anita Daize*
- *Augustus Myers*
- *Elvin Alexander*
- *Emoson Barnwell*

- *Garfield Joseph*
- *Kiran Bacchus*
- *Lennox Harry*
- *Lennox Peters*
- *Melissa Mckenzie*
- *Usmin Williams*

Years of Service (20 years) Awardees

- *Frederick Hooper*
- *Latoya Simon-Antoine*
- *Suzette Bradshaw*

Years of Service (25 years) Awardees

- *Asquit Homer*
- *Claudius Philmore Lewis*
- *Jose Forde*
- *Lemery Roberts*
- *Marcus Pierre*
- *Susette May*

Years of Service (30 years) Awardees

- *Devons Huggins*
- *Gaylene Matthias*
- *Hanis Roberts*
- *Kalique Lewis*
- *Suzette Phillips*

Retirees

- *Anita Daize*
- *Anthony Simmons*
- *Augustus Myers*
- *Leslie Peters*
- *Marcus Pierre*
- *Vivian Trudge*

This event was not held in 2020, due to the Covid19 Pandemic and the restrictions of mass gatherings.

UNIFORMS

The Authority through the department worked alongside Janouras Production out of Trinidad

and Tobago, The Trend; a local clothing store and One St Vincent LTD for the production of its staff uniforms

DESIGN & PRINTING

This area of the department's focus continues to expand as we embrace a more modern graphic approach to highlight various aspects of the Authority's operations. Informational Flyers, leaflets and forms were used to disseminate information to the public that captured events, programmes and special recognitions.

CWSA 50TH ANNIVERSARY CELEBRATION

The year 2020 marked the 50th year the CWSA became a Statutory Body. A committee was formed in 2019 with the focus of creating a programme of activities in recognition of this milestone. Those activities were recommended, however the advent of the Covid19 pandemic from March of 2020 prevented most of those activities, which were based on gatherings, from taking place. The design of the 50th logo was accepted and signs depicting this were produced and placed at the CWSA main compounds on mainland, namely, New Montrose Headquarters (2), Sewerage Department, Belair Compound, Belle Isle Compound and the Georgetown office.

CORPORATE RESPONSIBILITY

The CWSA offered assistance by way of monetary donations to several individuals and agencies, which included medical assistance, sporting activities for organizations, social clubs, schools' graduations and sports days, fisherfolks, summer programs, religious groups, Community Christmas lighting, Vincy Mas, Fitness, Disability Organizations, Postal Cooperation. Assistance was also given by way of bags and gloves for community cleanups. Donation costs exceeded one hundred thousand dollars for the 2019 and 2020 years.

INDEPENDENCE

The department facilitated the decoration of the CWSA Headquarters and the New Montrose Complex for SVG's 40th anniversary celebrations. Some staff members also gathered for a social evening on Friday the 25th as we celebrated with music, songs and local foods.

HUMAN RESOURCE

PREPARED BY YVETTE DANIEL
DEPARTMENT HEAD

STAFF MATTERS

At December 31, 2020 our total staff numbered 296. Of this 221 represent the Water and Sewerage Section and 75 from the Solid Waste Management Unit. Once again the situation remained relatively stable as far as staff turnover was concerned.

RECRUITMENT

There were six (6) new recruits appointed on probation:

Kendol John-Driver

Fidel Rose - Engineer

Gabriel Kirby- Engineer

Zonnie Dublin- Engineering Technician

Alieke Roberts- Meter Reader

Jelano Ottley-Meter Reader

Ozay Martin- Technician Assistant (Water Resources)

ACTING APPOINTMENT

Mr. Bradley Ollivierre was appointed to act in the position of Landfill Supervisor for the Diamond Landfill

Mr. Ikara Cottle was appointed to act in the position of Landfill Supervisor for the Belle Isle Landfill

APPOINTMENT

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

CONFIRMATION

Twenty-one (21) persons were confirmed in their respective posts:

<i>Tahj Marksman</i>	<i>Joelann Malcolm</i>	<i>Tashira Patterson</i>
<i>Albert Bobb</i>	<i>Kevin Quow</i>	<i>Elvin Roberts</i>
<i>Savil Phillips</i>	<i>Kevin Woods</i>	<i>Javed Matthews</i>
<i>Jalen Miller</i>	<i>Francis Browne</i>	<i>Gabriel Kirby</i>

Kevin Glasgow Kai Toney

Roger Williams Zonnie Dublin

Kendol John Orrin Glasgow

Aud-Marie McLean

Hakeen Yearwood-Soleyn

Sachin James

PROMOTION

Mr. Terry Stapleton- Pipefitter

Lismore Jarvis- Apprentice Pipefitter

RETIREMENT

We bade farewell to

Arnold Leslie

Augustus Myers

Henry Williams

Anita Daize

Marcus Pierre

Leslie Peters

Vivian Trudge

Anthony Simmons

Peter Crooke

Charles Jack

Noel McKie

We wish them a long and happy retirement.

DEATHS

Retiree Augustus Myers (Died 31st May, 2020)

Retiree Alston John (Died 15th March, 2020)

Retiree Kenroy Ollivierre (Died 28th March, 2020)

Compressor Operator - Dexter Sam (18th September, 2020).

May their Souls Rest In Peace.

TRAINING

Employees participated in the following training programs

locally, on-line and overseas during the period under review.

- *Chlorine Emergency Response*
- *Financial Modelling Budgeting & Forecasting in Excel*
- *Inventory and Accounting Procedures*
- *Enhanced building assessment tool condition assessment tool*
- *Cyber Security-Small Islands-A Big Problem*
- *Nationally Determined Contribution Finance Initiative (NDCFI)*
- *Amateur Radio Technician Course*
- *Know Your Organization*
- *OSHA General/Construction Industry*
- *Tsunami Inundation and Evacuation Maps for Union Island*
- *ECCB Polymer Project*
- *General/ Construction Industry training*
- *International Financial Reporting Standards (IFRS)*
- *Accident and investigation training*
- *Safety and Health and the Future of Work*
- *Delivering Effective Presentations*
- *Asycuda World upgrade*
- *Health and Safety at work*
- *6th Caribbean Water Operators Conference & Exhibition*
- *ICAC Annual Caribbean Conference Of Accountants*
- *Non-revenue water*
- *Safety and Health committee risk assessment and accident investigation*
- *Drought Risk Management*
- *Health, Safety and Environment*
- *Certified Financial Controller*
- *Capacity Development Training- Caribbean Dewetra Platform*
- *HWM Non- Revenue Water (NRW) Technical Training Theory and Practice*
 - *GEF 5558 Component 2, Regional Inception*

Workshop

- *29th annual CWWA conference*
- *Basic fire extinguisher training*
- *Ergonomics Risk Assessment*
- *Improved Management and Maintenance of Water Distribution Networks*
- *Basic Safety awareness*
- *Advanced mechanic*
- *Water Distribution Class 1*
- *Laboratory training*
- *Occupational health and safety*
- *Incident Command System*
- *Water quality monitoring*
- *Preventative maintenance*
- *Disaster risk reduction and climate change*
- *Disinfection in water and wastewater treatment in the fight against COVID-19*
- *Occupational Health and Safety for water/waste water operators*
- *Water disinfection and dosing*
- *Introduction to Ground water*
- *Water loss Control*
- *Lessons learned from hurricane Katrina*
- *Water Laboratory*

LONG TERM TRAINING

Mr. Mikhail Akers, Gauging Technician, Water Resources Department commenced studies in the National Engineering Technician Diploma in Instrumentation Engineering level qualification at the University of Trinidad and Tobago (UTT) in Trinidad and Tobago from 2nd September 2019

Mr. Vialley Richards, Gauging Technician, successfully completed the Diploma in Hydrology at the Caribbean Institute for Meteorology and Hydrology in Barbados.

Engineer Bernard Maloney successfully completed the course requirements and was awarded a Master of Research Degree in Future Infrastructure and Built Environment.

Engineer Jonathan Francis successfully completed the Master of Science programme in Urban Water and Sanitation with specialization in Water Supply Engineering offered by the Delft Institute for Water Education (IHE) in Delft, the Netherlands.

Ms. Giselle Young, Assistant Accountant, Internal Audit Department, successfully completed the requirements for the Master of Business Administration Studies through the University of South Wales.

Mrs. Yolanda Hinds-Dyer successfully completed the requirements for the Bachelor of Science Management Studies (Human Resource Management) certification offered by the University of the West Indies Open Campus

Mr. Danrouy Edwards, Welder, successfully completed the Associate of Applied Science in Welding at the Ranger College in the United States of America

Ms. Ossiah Stephen, Data Entry Clerk, successfully completed the following certificates in the Occupational Safety and Health program offered by the University of the West Indies Open Campus: Managing Safety, Occupational Environment, Tools and Techniques and Occupational health and safety fundamentals.

EDUCATION GRANTS

During the period twelve (12) students who are children of employees were granted educational grants:

2020

STUDENT	PARENT
2020	
Javique Roberts	Elvin Roberts
Jerod Power	Monique Hull
Kmali Arthur	Lesroy Arthur
Che McLean	Aud-Marie McLean
Timothy Myle Jr.	Debbie Myle
Malia Culzac	Nadia Small

2019

STUDENT	PARENT
Xania Archibald	Kamall Archibald
Brandon George	Natalie George
Alando Bobb	Albert Bobb
Clarencia Caine	Clarence Caine
Ronique Davis	Ronniel Davis
Le-Anja O'Garro	Shuna O'Garro

ENGINEERING

PREPARED BY BRIAN DASILVA
DEPARTMENT HEAD

The Engineering Department within the Central Water & Sewerage Authority is responsible for:

- *Project planning, design and construction*
- *Operations and Maintenance - Water & Sewerage systems*
- *Quality control and laboratory services*
- *Septage and Wastewater treatment*
- *Water Resource Management (WRM)*
- *Geographic Information Mapping*

The department is comprised of civil and water engineers, engineering technicians in construction and hydrology, project officers, GIS and drafting technicians, water and sewerage superintendents and supervisors, pipe fitters, drivers and skilled and unskilled water and sewerage technicians.

In response to the very real threat of service disruption in an era of climate change and weather and climate extremes, the CWSA's engineering initiatives have seen a greater focus on data and information collection and documentation, closer vigilance and real time system management, increasing plant and pipeline resilience and increasing island wide storage capacity.

CAPITAL PROJECTS:

New construction in 2019 and 2020 involved laying of main pipe lines and the construction of a new storage tank at Edinboro (Fort).

The projects included the following:

- *Fair Hall Line Replacement- Phase II*
- *Pommeset Lines Improvement*

- *Belair Line Improvement*
- *Edinboro Storage Tank*
- *Mt. Pleasant/Cane End Line Improvement*
- *Francois Water Supply Project*
- *Peter's Hope, Mt. Wynne Line Extension*
- *Kilburney Improvement Project*

FAIR HALL LINE REPLACEMENT- PHASE II

This project is yet another phase of the mains replacement on the Majorca water supply system. This water system is about 70 years old and the pipelines are gradually becoming undersized and in need of frequent repairs. Approximately 3,000 feet of 3" galvanized lines were replaced with 4" ductile iron pipes in this phase. This section of pipeline was mainly laid along the Fair Hall main road. The project was completed in November of 2020 at a cost of approximately \$ 214,600.

POMMESET LINES IMPROVEMENT

This project sought to replace an old and undersized section of pipeline on the Montreal system. This line connects the tank at Belmont with the tank at Calder. Approximately 4,000 feet of 3" and 2 1/2" galvanized lines were replaced with 4" and 3' HDPE pipes. In addition, there was a 2" line that ran parallel to this line that feed the higher areas of Victoria Village that was made redundant by this new line. The first phase of this project involved the installation of approximately 1,700 feet of 110mm HDPE pipelines and associated works. The project was commissioned in August 2019. The cost of this line improvement project was \$ 185,000.

BELAIR LINE REPLACEMENT

The aim of this project is to replace and improve the distribution network in the Belair and Cane Hall areas. This work is being undertaken at this time to take

advantage of the road improvement works under the Government's "Feeder Roads Project." Approximately 4,800 feet of 4" ductile iron pipes will be installed to replace old 2.5" and 1.5" galvanized pipes. The project commenced in August 2019 and is being done in tandem with the road works which have had significant delays over the period. To date approximately 3,700 feet of 4" pipes have been installed at a cost of about \$ 313,600.00.

EDINBORO STORAGE TANK

This project involved the construction of a new 36,000 gallons capacity new reinforced concrete tank to replace the old leaking rubble masonry tank of capacity 24,000 gallons.

Construction of this tank began in September, 2019 and was completed and commissioned in May, 2020. In addition to the construction of the storage, the inlet and outlet piping arrangements were improved. The total cost of this improvement work was \$ 254,000.

MT. PLEASANT/CANE END LINE IMPROVEMENT

This project improved a section of old and undersized pipeline on the Montreal system. This line ties off the Montreal 6" main at Mt. Pleasant and feeds Cane End and some areas in Mesopotamia. Approximately 2,300 feet of 2 1/2" galvanized lines were replaced with 4" ductile iron pipes in the first instance. It forms part of lines improvement in the Marriaqua district.

Construction of began in April 2019 and work was completed in August 2019. This line improvement was done at a total cost of \$ 168,000.

FRANCOIS WATER SUPPLY PROJECT

The project entails the development of a new water supply system to supplement the Dalawaywater 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 and laying approximately 5,700 feet of ductile iron water mains. The project is

budgeted to cost approximately \$3,600,000.

Work began in September 2020 with the construction of the first intake and at the end of the year this structure was about 90 % complete and approximately \$96,800 were expended on the project.

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 the ancillary works associated with it 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.

Construction of the pipeline commenced in October of 2020 and at the end of the period approximately 3,465 feet of 6" ductile iron pipes have been installed. It is anticipated that this phase of the project will be completed by August 2021. Expenditure as at the reporting period was \$219,800.00.

KILBURNY IMPROVEMENT PROJECT

This project is another phase of the upgrade to the Majorca water supply system. It consists of the construction of a 50,000 gallons capacity storage tank at Kilburny 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 the Fair Hall, Fairbairn, Belair, Belmont and surrounding areas.

Installation of the pipelines began in September of 2020 and as at the reporting period about 3,070 feet of 8", 6" and 4" ductile iron pipes have been installed and commissioned. Some

\$ 232,800.00 have been expended. It is expected that the construction of the storage tank will begin early in 2021 and the project completed by October of the same period.

GEOGRAPHIC INFORMATION SYSTEM

The Geographic Information System (G.I.S.) Unit completed its 5th year of operations in 2019. During the year, mapping was done in Area 7 (North Windward), Area 4 (South Leeward) and Area 5 (North Leeward). The main focus was the collection of data on the distribution lines from these areas as part of phase two of the Digital Mapping Project.

At the beginning of 2019, work was done in Sandy Bay, Fancy, Overland and Magum in Area 7, and Richmond, Coulls Hill and Rose Hall in Area 5. At the end of January 2019, the work in Area 7 was completed, then mapping resumed in Area 4 at Lowmans Hill. By April 2019, Area 4 was substantially completed.

In May 2019, Mr. Leon Murray (retired) was employed on a temporary basis to assist with the mapping. This added impetus to the process and compensated for some previous setbacks. His experience and knowledge were invaluable. At the end of 2019, mapping was ongoing in Keartons and Barrouallie in Area 7. Other work accomplished during 2019 included the mapping of the 4" main line at Pomsette- Calder and the 4" main at Cane Hall.

For most of 2020, mapping was focused in the town of Barrouallie, in Area 5. This became very tedious as the majority of the lines were buried or covered. Thus, time had to be spent on excavation and clearing of pipelines and fittings to facilitate accuracy in mapping. The mapping exercise was completed in March of 2020. This was followed by the data verification phase which comprised of ground truthing and other field checks to update the system.

The third phase of the GIS Digital Mapping Project commenced in August 2020 with the input of data for the Customer Information System. This phase

is executed in partnership with the Customer Service Department where the expert knowledge of the meter readers is used to direct the process.

In October of 2020, in collaboration with the IT Department, a GIS Helpdesk was launched. The main aim of this system is to provide a structured mechanism to record and update changes to the GIS database to maintain its accuracy and relevance. Since then, the area supervisors have lodged system changes through this medium.

The GIS Unit continues to perform updates to the main and distribution lines that were mapped in phases one and two. There are also monthly updates of the GIS systems installed on the computers of the district supervisors.

WATER RESOURCE MANAGEMENT

REPORTING PERIOD JANUARY TO DECEMBER 2019 - 2020:

The Water Resources Management Unit (WRMU) of the CWSA celebrated its tenth year of operations in 2019.

Stream Gaugings	Ground Water Testing	Rain Stations File Download	Water Level Stations	Automatic Weather Stations (AWS)
2019 - 316	2019 - 1455	2019 - 5805	2019 - 12	2019 - 5
2020 - 290	2020 - 1244	2020 - 5325	2020 - 13	2020 - 5

The information displayed in the table above is crucial for design and planning at the CWSA and at the regional level, for weather forecasts and climate modelling. The 2020 data represents a reduction from the previous reporting period due to the emergence of the COVID-19 pandemic and revised work plans.

There was some equipment damage that has affected the coverage of the WRMU. These were mainly due to flooding as a result of extreme rainfall events. The water level radar sensor at South Rivers was damaged on the

21st August 2020. Followed by similar damage to the water level radar sensors at the Dalaway intake and at Convent (Spring Village) on the 29th October 2020. The unit is awaiting a response from the insurance to adequately repair or replace these stations.

Under the United Nations Development Programme (UNDP) Caribbean Disaster Emergency Management Agency (CEDEMA) project in collaboration with NEMO, one early warning station (EWS) (water level) was installed at South Rivers and two EWS (Rainfall) upgrades were conducted at Dalaway and Perseverance in the month of August 2019 to enhance the real-time monitoring capability of the WRMU.

There were some changes in the composition of the staff as Mr. Richards returned to the WRMU on the 15th July, 2019 after the conclusion of eighteen months study leave. Mr. Mikhail Akers then proceeded on study leave in August 2019. The unit wishes to congratulate Mr. Viale Richards, who presently serves in the post of gauging technician, on the successful completion of a diploma in the field of Earth Science (Hydrology).

Dr. Jonathon Cox, a specialist from the Caribbean Institute of Meteorology and Hydrology (CIMH), worked in collaboration with the WRMU staff to install three (3) EWS (Water level) that were awarded to SVG under a UNDP Project.

These GPRS/GOES Satellite stations were installed at the Kingstown-North river, Langley Park river and in upgrades to the EWS at the Dalaway intake. This work was successfully completed within a two-week period in the month of February 2020. Therefore, there are a total of seven (7) EWS rainfall and water level stations.

The WRMU welcomed its newest staff member, Mr. Ozay Martin, on the 15th October 2020 filling the post of Technician Assistant. Mr. Mikhail Akers remains on study leave as he pursues studies in the field of instrumentation engineering at University of Trinidad and Tobago (UTT).

The maximum monthly total rainfall was recorded in the

month of November 2020 at the Hermitage station with a value of 1002.1mm.

The highest rainfall intensity was recorded at the Jennings Station. It occurred during an extreme weather event with an hourly total of 51.7mm on the 29th October, 2020 at 6 pm.

INFORMATION TECHNOLOGY

PREPARED BY **MELISSA MCKENZIE**
DEPARTMENT HEAD

The years 2019 and 2020 saw further developments within the Information Technology department as it continued to provide routine and unplanned support while bringing much growth and productivity to all areas of the organization including the Solid Waste Management Unit.

Each year the Information Technology department continues to collaborate with individual departments as we shift towards a system approach to see how technology can continue to transform the organization and solve most of the challenging issues whether it be software, hardware or services.

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, bank and agency payments
- Monthly billings and postings
- Bill Printing
- Antivirus updates
- 24/2 repairs & fixes
- Installations of new and replacement hardware and software
- Individual user support

2.0 DEPARTMENTAL SUPPORT

PUBLIC RELATIONS & MARKETING DEPARTMENT

- Updating of CWSA website, to including current information on projects, Public Relations activities and e-bill service

ENGINEERING

- SCADA – Expansion and Upgrade to the SCADA software
- Water Resource Unit – Installation of new servers and software programs
- GIS – Installation of biometric/card reader
- Operations & Maintenance– Maintenance of vehicle tracking software
- Operations & Maintenance – Adaptation of Helpdesk Software for use by the department
- Electronic surveillance enhancements at all district offices and the GIS department
- Training of staff on the use of Helpdesk
- Installation of WaterCAD and Integrated Membrane Solution (IMS) for seawater Reverse Osmosis (SWRO) design software
- Implementation of equipment and facilities software module for water quality monitoring statistics

CUSTOMER SERVICE

- Improvements to e-bill view interface and service
- E-Bill - linking of multiple accounts
- E-bill service in-house training
- Electronic complaints management

ACCOUNTING

- Enhancements to the cash receipt process by the cashiers

- Service Management Invoice Transaction Number Changes
- Accounting software enhancements and updates for Accounts Receivable, Payroll, Purchase Order Management, Inventory Management, Equipment & Facilities Management and Service Management

HUMAN RESOURCES

- Expansion and upgrade of electronic time and attendance system inclusive at all district offices
- Registration and training of users

INFORMATION TECHNOLOGY

- Purchase and installation of new servers and software
- Firewall upgrade
- Backup software upgrade for servers
- Training of staff using Helpdesk

3.0 ADMINISTRATIVE - POLICY & PROCEDURES

- Re-circulation of Systems Development Life Cycle (SDLC) Policy
- Review of CWSA Disaster Recovery Plan
- Review of Backup and Retention Policy

CUSTOMER SERVICE

PREPARED BY **PHILLIP DALRYMPLE**
DEPARTMENT HEAD

The year 2020 had unforeseen challenges, from the effects of the novel coronavirus, to the worst drought ever experienced by our nation in the past seventy-two (72) years. These challenges propelled the Customer Services Department to take an indebt look into its functions and operations.

To ensure the organization's sustainability, measures were implemented aimed at benefitting our valued customers and the nation on a whole. This was accomplished mainly, by teamwork.

COVID-19 PANDEMIC

In light of the Covid-19 pandemic, the CWSA promptly implemented measures to ensure the safety of all its staff, customers and the general public, by erecting hand washing stations at all its offices. At the Main Office, social distancing markers were placed on the floor and the number of customers allowed inside was reduced, a glass barrier was erected at the cash section and all frontline employees were provided with personal protective equipment, thermometers were also purchased and were being used.

E-BILLVIEW

The E-Bill view service was further upgraded to allow registered customers to view their account history for an entire year.

The department embarked on a sensitization drive to encourage customers who were not yet electronically registered to sign up for the service, which was more environmentally friendly and was consistent with the organization's objective to move from generating a physical bill to an E-bill service.

YOUTH EMPOWERMENT

The CWSA continued to strengthen its workforce and provide stable employment to young and motivated individuals. During the reporting period three new Meter Readers were recruited. (photo of Meter Readers to be inserted). Meter Readers are trained to identify anomalies while performing their duties. The Meter Readers collaborated with the GIS Unit to assist with the customer service data entries into the GIS database and also with the verification process.

RETIREMENT, PROMOTION AND APPOINTMENT

The department expressed its heartfelt gratitude to two of its stalwarts who retired:

Ms. Leslie Peters – Customer Services Supervisor who served for 47 years of commitment

Mr. Vivian Trudge – Senior Pipefitter who served for 39 years commitment

Mrs. Kurlene Anderson who holds a BSc in Business Management Studies was promoted to the position of Customer Services Supervisor.

Mrs. Yolanda Dyer who recently completed her BSc in Business Management Studies was appointed Senior Customer Services Clerk.

DROUGHT CONDITIONS

The 2020 drought was the worst recorded in 72 years. It grievously affected all the sources. As a result, the Truck Borne team was activated. The team distributed water to all affected communities and by extension the Grenadine islands of Bequia, Canouan and Mayreau.

To ease the strain, the CWSA collaborated with the Paget Farm Desalination Plant to distribute water to residents and public buildings throughout the island of Bequia.

COMPLAINTS

The helpdesk software was installed to improve

communication between the customer service staff and technical staff. It assists with tracking all outstanding complaints and has the capability of generating reports to improve the efficiency and effectiveness of addressing complaints.

WATER SOLD TO SHIPS

The following tables and graphs reflect the respective trends of water sold to ships and new service connections for a five-year period.

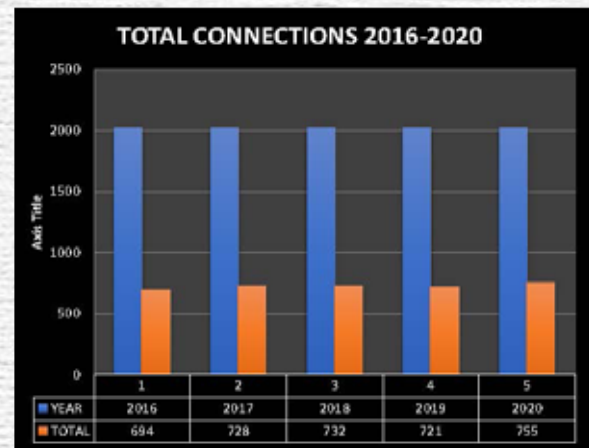
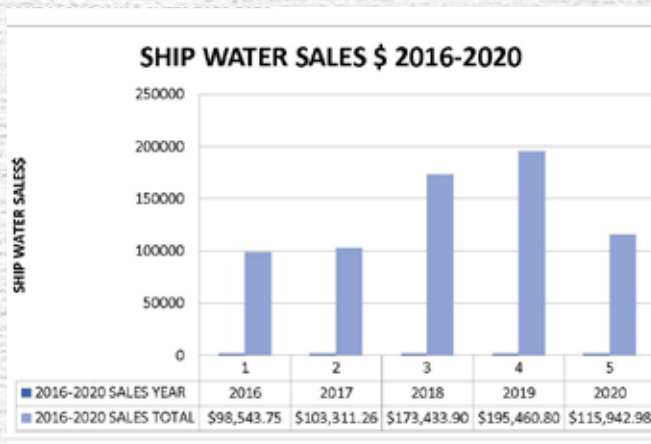


FIGURE 6. SHOWING TOTALS

2016 - 2020 SALES	
Year	Total
2016	\$98,543.75
2017	\$103,311.26
2018	\$173,433.90
2019	\$195,460.80
2020	\$115,942.98
TOTAL	\$686,692.69

FIGURE 7. SHOWING SALES 2016-2020



NEW SERVICE CONNECTIONS

TOTAL NEW CONNECTIONS 2016-2020

2016-2020 TOTAL CONNECTIONS	
Year	Total
2016	694
2017	728
2018	732
2019	721
2020	755
TOTAL	3630

SOLID WASTE MANAGEMENT REPORT



PREPARED BY WINSBERT QUOW
DEPARTMENT HEAD

20¹⁹₂₀



This report covers the two years 2019 -2020 and will detail some of the progress made by the Solid Waste Management Unit (SWMU) in our continuing efforts to offer a high-quality solid waste management service to the people of St. Vincent and the Grenadines. The year 2020 posed some unique challenges with the declaration of a global Corona Virus pandemic in March and the subsequent travel restrictions and operations protocols that were implemented as a result. The travel restrictions

resulted in a significant reduction in operating revenue for the SWMU. Approximately \$500,000 less was collected in 2020 for January to September when compared with the same period 2019 for cruise and stayover visitors' levies, and this gap is expected to widen by the end of 2020. Additional PPEs and sanitizing agents had to be procured for all staff and the requisite training had to be conducted to educate our employees on their proper use.

Despite these unique challenges we were still able to maintain our basic service standards while also providing support to other government departments such as the Public Health Department and NEMO in the fight against the spread of the coronavirus.

2.0 FLEET UPGRADE AND EXPANSION

In 2019, a JCB 1CX skid steer backhoe was procured and assigned to the Diamond Landfill as a replacement for a similar unit. The versatility of this equipment allows it to perform multiple functions at the landfill including the preparation of compost, trenching, scrap metal sorting and the occasional pushing of the garbage when the main equipment is down for repairs.



In August 2020, the SMWU added a third skip truck to its collection fleet, increasing its skip collection capacity by over 30%. This truck is a 2020 model Isuzu with a Cayvol hydraulic bin lift with a maximum capacity of 12 tons. With this new skip truck, the SWMU will be able to service its current private customers and community and institutional collection

points more efficiently while reducing the risk of mechanical failure of all of the units owing to overuse. The SMWU will also be able to grow its private customer base, being mindful to achieve and maintain a manageable number of private customers.

In October 2020, A Liebherr 636 Crawler Track Loader was received and delivered to the Diamond Landfill. This unit is designed specifically for landfill operations and will complement the Track Bulldozer at the site. These are the two primary pieces of equipment needed to maintain the basic standards of operation at the landfill in the areas of pushing, compacting and covering the waste.

Also, in 2020, a Toyota Hilux pickup was acquired and assigned to the Garage operations. This service vehicle was a welcomed addition to the fleet to adequately meet the transportation needs of the Garage staff who traverse rigorous terrains and long distances to perform equipment maintenance activities.

3.0 SKIP SERVICE

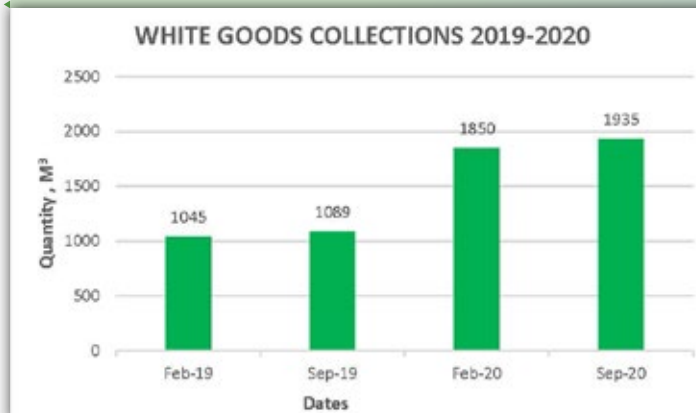
The SWMU deploys some sixty (60) skips within its waste collection operations servicing commercial customers, government institutions and community collection points. On average 220 skip movements are made each month of which approximately thirty percent (30%) of these movements are attributed to commercial customers. At the end of 2020, there were seventeen (17) commercial customers established through a monthly collections contract.

In 2019, the SWMU undertook a programme that resulted in the refurbishment or fabrication of some twenty (20) skips. This was deemed necessary to improve the aesthetics and integrity of the skips and to allow for the growth of our customer base. At the end of 2020, the commercial skip rates were also reviewed because some of the rates remained unchanged since 2003 and the analysis revealed that the service was not financially self-sustaining. As a result, new commercial rates were proposed and approval was

sought for implementation in 2021.

4.0 WHITE GOODS COLLECTION

In 2019 and 2020, the SWMU continued to fulfil its commitment to offering a twice-yearly island-wide whitegoods collection service on mainland St. Vincent. Data from the four (4) whitegoods collections performed over the two years is shown in the table below.

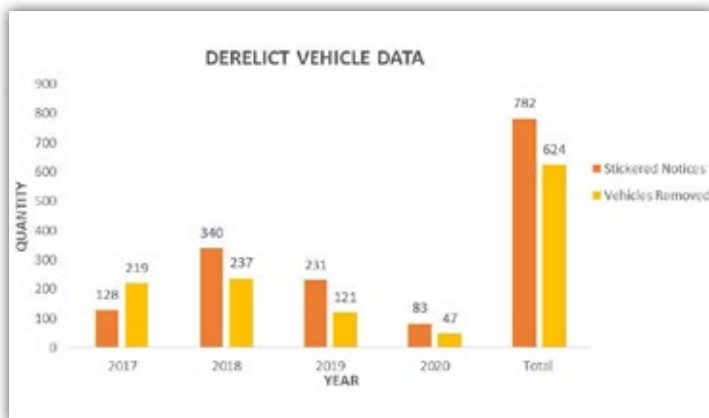


The total collected for 2020 (3,785 m³) was significantly higher than the total collected for 2019 (2,134 m³) with both years recording the highest and second-highest totals respectively since the programme began in 2011. The collection performed in September 2020 coincided with efforts spearheaded by the National Emergency Management Office (NEMO) to sensitize the public on disaster preparedness, and also with the Ministry of Health's efforts to reduce the proliferation of mosquitoes in the wake of a local dengue fever outbreak. The convergence of these three activities resulted in a more enthusiastic public response in accessing the whitegoods service.

5.0 DERELICT VEHICLE PROGRAMME

The end of 2020 marked three and a half years since the SMWU started collaborating with the Public Health Department and the Police to effectively resolve the environmental challenge posed by derelict vehicles. The progress and success of the programme can be

judged as fair considering that some 624 vehicles were removed from public spaces during the period. The year-by-year impact of the programme is shown in the graphic below



The derelict vehicle programme was suspended in December 2019 and only restarted in October 2020. This delayed restart was because the Police and the Public Health Departments were heavily involved in coordinating the national response to the Corona Virus outbreak from security and public health perspectives.

The SWMU has also procured a metal baler which was received and installed at the Diamond Landfill site on November 3rd, 2020. This unit will be used to process scrap metal into cube-shaped bales in preparation for export. Some private scrap metal dealers have already expressed interest in purchasing the bales once the operations have started.



6.0 LITTER REDUCTION PROGRAMME

In October 2013 the SMWU collaborated with a private recycling company, All Islands Recycling Inc

(AIR INC.), to install and maintain Thirty-Four (34) litter bins in seventeen (17) locations throughout Kingstown. These bins were installed in pairs with the original intent for one bin to be used for general litter and the other to be used for recyclable material such as PET bottles and aluminum tins. However, it was later realized that the public was not yet conscientious enough to make the effort to separate recyclables from non-recyclables, so both bins were used for all types of waste. The second observation was that the bins were unable to withstand the rigorous conditions associated with heightened crowd activity in Kingstown at times like Carnival and Christmas. Notwithstanding these observations, the bins outperformed expectations by generally achieving the goal of significantly reducing litter throughout the city.

AIR INC. initiated to replace these bins in 2019 with bins that were of a more robust design, having been tested to withstand 500lbs of force as opposed to just 15lbs attributed to the initial bins. The SMWU once again committed to partner with AIR INC. in the installation, collection and maintenance of the new litter bins. Thirty-three (33) of the new bins were installed throughout Kingstown in October 2019 in time for the nation's celebration of 40 years of independence. In response to the ongoing challenges of improper use of the bins by private commercial entities and vandalism, the SMWU continues to use the media to sensitize the public. The SWMU also continues to engage with law enforcement agencies in an attempt to influence positive individual and corporate behavioural changes.



7.0 DIGITAL MAPPING PROGRAMME

In May 2019, the SWMU embarked on a digital mapping exercise of its collection routes which is being spearheaded by Engineering Technician, Tahj Marksman. The goal of this is to improve efficiency, public relations and customer service by creating an easily searchable database of the key elements of the waste collections operations to support decision-making. The software Quantum Geographical Information System (QGIS) is being used to collate the field data that is collected and to create a user friendly and exportable digital support tool. The data that is being collected and digitally mapped include:

- *The current collections districts and routes within those districts.*
- *The collection days and times for all collections routes as well as the contractors that service those routes.*
- *The location, size and assigned number of all skips used within the collections network. Data on the category of waste collected in each skip is also recorded, as well as the payment scheme assigned to each commercial skip customer.*
- *The location of all of the litter bins in Kingstown that are serviced by the SWMU.*
- *Household data acquired from the Physical Planning Unit.*

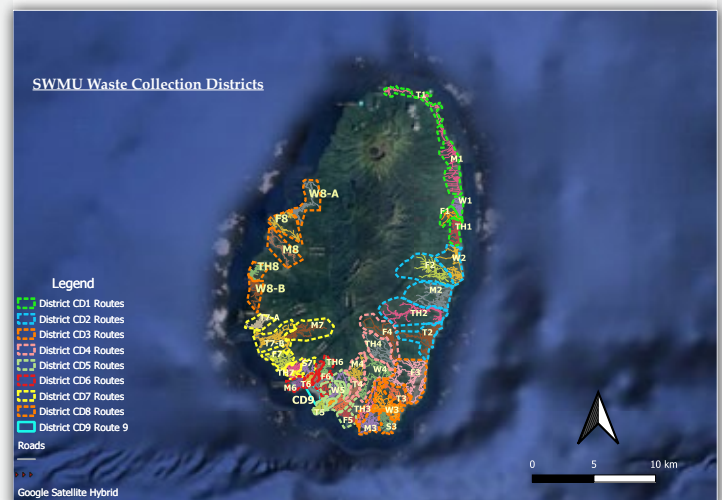
With this data, the SMWU will be able to easily make useful analysis such as the number of households in each of our nine (9) collection districts as well as estimating the waste quantity generated by each collection district or collection route. By cross-referencing the household data with route data, attributes such as name, route, schedule, time and contractor were assigned to each household (over 40,000 records). Data created from this layer can be exported and used to search for collections information for a particular customer based solely on imputing their names. Additionally, the SWMU will be

able to extract and analyze information that allows for collection route optimization.

At the end of 2020, the SWMU had progressed to the testing phase of the programme after working along with the GIS unit of the CWSA to collect enough data to perform meaningful analyses. As issues are identified during this next phase, the SWMU will make the necessary tweaks until the programme is determined to be adequate for department-wide use.

8.0 DIAMOND LANDFILL WALL FENCING PROJECT

In our continuing efforts to improve security and the Diamond Landfill site by restricting entry of unauthorized personnel, a project was undertaken in 2020 to replace a portion of the chain-linked fencing with reinforced concrete blockwork. A 6" reinforced concrete block was approximately 1000 feet long by 10 feet high was constructed along the south-western border of the landfill site. The project also included the construction of a 640 square foot concrete pad at the main entrance of the heavy equipment shed on site. This was to create a more functional area for the servicing and daily washing of the equipment. The project started in February and was completed in August at a total expenditure of \$187,900 of the \$250,000 budget.



9.0 DISPOSAL STATISTICS

There was an overall 4 % increase in the total waste disposed at the five landfills managed by the SWMU between 2019 and 2020. The largest increase of 7.2% was realized at the Diamond Landfill while the largest decrease of 13.9 % was shown at the Belle Isle landfill. The table below shows the waste disposed at each landfill for 2019 and 2020.

Landfill	TOTAL WASTE (M3)		
	2019	2020	+/- %
Diamond	167,366	179,357	+ 7.2
Belle Isle	17,605	15,165	- 13.9
Bequia	7,025	7,042	+ 0.2
Canouan	21,373	20,682	-3.2
Union Island	2,504	2,286	-8.7
TOTAL	215,870	224,532	+ 4.0

10.0 REMEMBERING AUGUSTUS MYERS

Augustus Myers started working at the CWSA in 2004 and was confirmed as a truck attendant in the collections department of the SWMU on March 1st, 2006. He was eventually transferred to the post of Spotter at the Belle Isle landfill with duties of assisting with the daily requirements for maintaining the standards for the waste disposal operations. He rose to become one of the most proficient chainsaw operators within the CWSA, which is a critical skill needed to support the SWMU's charcoal production process and the organization's disaster preparedness and response efforts. At the annual staff dinner in December 2018, he was honored by the CWSA with an award for rendering 15 years of faithful service to the organization.

Augustus Myers retired in 2019 but sadly passed away in June 2020 after suffering a critical illness. He was laid to rest on June 14th, 2020. Many of his co-workers attended the funeral to say farewell to a man who inspired them by performing his humble task with great skill and enthusiasm, expressing concern even

during his last days for the proper operation of the chainsaw. His approach to his work reminds us of a quote by the late Dr. Martin Luther King Jr:

"If it falls to your lot to be a street sweeper, sweep streets like Michelangelo painted pictures, like Beethoven composed music, like Leontyne Price sings opera, or like Shakespeare wrote poetry. Sweep streets so well that all the host of heaven and earth will have to pause and say: Here lived a great street sweeper who did his job well."

The professional legacy that Augustus Myers has left is one who did his job well, with skill and dedication. May his soul rest in peace!



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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.