



## 29<sup>TH</sup> ANNUAL CONFERENCE & EXHIBITION

Water security and waste reduction:  
Sustainability in an uncertain climate

# CWAA NEWSLETTER

## FIRST EDITION FOR 2020

### HIGHLIGHTS:

- Message from the President
- Communique on CWAA 2020
- Summary on HLF Declaration
- Online payment guidelines
- Resources for Caribbean Water and Wastewater Utilities

## MESSAGE FROM THE PRESIDENT OF CWWA



Mark Barnett

Colleagues, Partners and Stakeholders, I greet you at a time when our world is reeling from the effects of the Coronavirus (COVID-19) pandemic, which as you know has not only affected the Caribbean, but also the world at large. The Caribbean Water and Wastewater Association (CWWA) comprises many members who are considered essential staff in the water, wastewater, solid waste and even health sectors. Therefore, I would like to take this opportunity to salute you for your unwavering dedication towards the maintenance of these sectors and ensuring the safety of our communities through your job.

In this edition of our newsletter, you will get a glimpse into some of the knowledge sharing and exciting highlights of CWWA 2019, as well as some of the other activities our membership and partners have been engaged in. We've also incorporated some timely and useful information regarding COVID-19 in your respective sectors.

Since being appointed to the helm of the CWWA in 2018, I have had the great pleasure of spearheading the launch and execution of CWWA 2019, which was the 28th edition of our Annual Conference and Exhibition. The experience has been nothing short of remarkable and I wish to place on record my gratitude to the outgoing CWWA Executive Council and Secretariat, exhibitors and sponsors, even as I welcome both new and returning members of the 2019/2020 Council. (I know that you may have questions relating to our 2020 Conference. Our Executive Director addresses your concerns herein.)

Without the support of the above mentioned, achieving what is set out in the mission statement of the Association is virtually impossible. The mandate of the organization however, does not come to a halt with the culmination of the conference.

During the period October 2019 to date, CWWA would have participated in the CARIMET Forum, completed its 2020-2022 Strategic Plan, boosted its social media presence with the launching of a Twitter account and activated its online payment system for membership dues, among many other things, all of which you can read about here.

I encourage you to stay tuned to our website: [www.cwwa.net](http://www.cwwa.net) and our social media pages to keep up to date with our preparations and future plans for the water, wastewater and solid waste sectors.

**Mark Barnett**  
**President**  
**CWWA**

## EXECUTIVE DIRECTOR'S MESSAGE ON CWWA CONFERENCE 2020



Wayne Williams

Dear CWWA Membership and Stakeholders,

Recently, we announced one of the biggest decisions the CWWA has ever had to make in its 29 years of existence to you; our members, partners, stakeholders and supporters.

We are all aware of the multitude of changes COVID-19 has forced upon us, understandably for the safety of us all, and therefore this decision was almost inevitable.

So, to address your number one question - will CWWA have a conference in 2020?" The answer is YES! Not only will we have a conference, *we will have an exhibition*, BOTH of which will be virtual!

In 2019, as part of forward thinking, the CWWA already has in its possession the tools that will allow it to ably execute the hosting of the Technical Sessions and Seminars, the Workshops, Plenary and even the two (2) High Level Fora for Water and Waste respectively utilizing a digital platform currently being used successfully elsewhere.

To you our sponsors and exhibitors, the CWWA says "Fear not!" whilst there may be some drawbacks to not meeting face to face Caribbean style, there are many business advantages of the virtual platform. Many of our companies have already experienced virtual conferencing and are excited to be a part of the CWWA's virtual experience. This includes a welcome opportunity to present videos, have live feeds, an entire interactive product and warehouse demonstration; all without leaving their place of business. Virtual tours of factories, pumps and equipment in action in the field are now available more than ever. There are so many benefits to the digital experience that it will be retained as part of a hybrid plan in future conferences and exhibitions!

So, register now! The opportunity is still ripe to become a sponsor and/or an exhibitor. All the packages can be found on our website at [www.cwwa.net](http://www.cwwa.net). There are also opportunities for groups of over ten (10) persons to join and take advantage of our previous "early bird" rate. The technical presentation schedule will be posted in the near future. The 25+ presentations cover the water, wastewater and solid waste sectors in the region. We look forward to active engagements with you in the most remote and convenient way we've ever imagined. See you there!

Sincerely,

A handwritten signature in black ink that reads "Wayne O. Williams".

**Wayne O. Williams**  
**Executive Director**  
**CWWA**

## CWWA'S PARTICIPATION IN WEBINARS

The CWWA collaborated with a number of organisations to host and participate in webinars, aimed at forging conversations on how utilities can continue to thrive amidst the COVID-19 pandemic.

One such webinar was the '*Online dialogue on the Impact of COVID-19 on Caribbean Water Utilities*', which the Caribbean Development Bank team hosted on May 12, 2020 via Microsoft Teams.

In a detailed summary of the presentations and discussions compiled by the CBD, Mr. Ignatius Jean, Executive Director, Caribbean Water and Sewerage Association Inc. (CAWASA) who chaired the meeting and introduced the panel, applauded the Governments and utilities in suspending disconnection, and facilitating reconnection of delinquent accounts. He noted that the cost of this policy would however be borne by the utilities which, also faced with severe drought conditions, while working to ensure that customers have safe and reliable water. He also lauded the Region for being able to contain the virus. Mr. Jean acknowledged the work of the Caribbean Development Bank (CDB) for supporting the Regional Strategic Action Plan for building climate resilience in the water sector.

Meanwhile, Mr. Daniel Best, Director of the Projects Department, CDB extended a special welcome to the Hon. Wilfred Abrahams, Minister of Energy and Water Resources, Barbados. He stressed that public water supply is a priority area for CDB, as water plays as essential role in all aspects of human development. He also applauded all frontline workers and the water utilities. Mr. Best noted the challenges that the utilities faced, namely, (i) water governance; (ii) inadequate institutional, legal and regulatory frameworks and (iii) limited reform in the sector including application of adequate tariffs among others.

On Monday May 4<sup>th</sup>, Miya Water in partnership with the Caribbean Water and Wastewater Association (CWWA), organized a webinar to discuss how the Caribbean countries, and particularly the water industry, are weathering the challenges of COVID-19. The webinar, directed towards water and wastewater personnel operating in the utility sector, was followed live by more than 140 people and had more than 1,760 views on YouTube in less than 24 hours, with more than 4 million impressions on Twitter.

**Wayne Williams, Executive Director of the CWWA and moderator for the event**, introduced the webinar from Trinidad and Tobago. He remarked that even though the current pandemic has shifted many paradigms and there are

many downsides, thanks to our resilience, we are beginning to see some new upsides developing as we adapt.

**Noam Komy, Chief Growth Office of Miya Water**, spoke on **efficiency as a key component in resiliency**. He started on a positive note, reflecting on how throughout history pandemics have generated a huge change towards better water and sanitation in cities like London or Paris. Mr Komy observed that Caribbean utilities are generally stressed financially and operationally and struggle to supply quality service that is essential to combat pandemics. He remarked: "This is a time we can show to our governments, to our stakeholders, including our clients, how important a water system is". Water utilities are one of the most resilient sectors to disasters, specifically pandemics, and he emphasised the importance of reliance on local staff, training and knowledge transfer.

Presenters also included **Christopher Husbands, General Manager of Grenada's National Water and Sewerage Authority (NAWASA)** and **President of the Caribbean Water and Sewerage Association (CAWASA)** presented a Caribbean perspective on water and wastewater and **Wayne Williams** who spoke on **Caribbean utilities, COVID-19 impact and responses**.

The image shows a screenshot of the ETA Intelligent Technologies website. At the top, there is a logo with three blue circles of increasing size, followed by the text 'ETA Intelligent Technologies' and the website address 'www.eta-inc.ca'. To the right is a green globe icon with a leaf. Below the header, there is a section titled 'Water and Wastewater Innovative Technologies - from Process to Operations.' It claims that their proven technologies will significantly improve operations and business in water & wastewater. Below this, there is a list of services: 'Design, Supply, Commissioning Sustainable Treatment Solutions', 'Water & Wastewater Treatment Systems', 'Distribution & Collection Systems', 'Automation & Operations Optimization', and 'Energy Management'. At the bottom, there is a section titled 'Wastewater treatment' with three images: 'S:SELECT®' showing a close-up of a process, 'EssDe - Deammonification' showing pipes and tanks, and 'MABR Technology' showing a 3D rendering of a tank.

## SUMMARY OF 15<sup>TH</sup> HIGH LEVEL FORUM (HLF) OF CARIBBEAN MINISTERS WITH RESPONSIBILITY FOR WATER

Regional government ministers with responsibility for water met within the 28<sup>th</sup> Annual Conference and Exhibition of the Caribbean Water and Wastewater Association (CWWA) (held from October 14-18, 2019) to review the work done by partners in order to advance implementation of a Regional Strategic Action Plan for the Governance and Building Climate Resilience in the Water Sector (RSAP) and overall management and financing of water in the Caribbean.

The HLF on Water attracted agencies such as the Inter-American Development Bank (IDB), the Caribbean Development Bank (CDB), the Caribbean Community Climate Change Centre, OECS, CIMH, GWP, United Nations Environment Programme (UNEP) and the Pan American Health Organisation (PAHO). The meeting presented an opportunity for representatives at the 15<sup>th</sup> HLF of Caribbean Ministers to address policy and strategic matters with donors, technical assistance agencies and the development banks.

The conference offered an excellent opportunity to identify how challenges identified in the RSAP (s.a. governance, WRM, water service provision and demand management) have been addressed. The CDB identified its water sector priorities as building climate resilience, improving operational efficiency (i.e. Non-Revenue Water and Energy Efficiency) and building human capacity.

The IDB also highlighted its involvement in the process of moving the RSAP forward, through development of the RSAP Implementation Plan.

The Global Water Partnership (GWP) highlighted the investment gap in the water sector and opportunities for raising finance from the private and other sectors (s.a. bonds, debt transfers, rate subsidies and equity – PPP). This is critical to implement the RSAP.

The HLF-15 featured Ministerial Roundtables on “Financing & Governance” (with Ministers from Barbados & Nevis; and representatives from Jamaica, Belize and CDB) and “Innovation to Increase Resilience of the Water Sector”.

By bringing such a wide variety of stakeholders together in the same place at the same time, the event provided a unique platform for discussion, strategizing and most importantly finding solutions to the problems faced by the water sector in the region.

As water resources management in the Caribbean has always posed many challenges such as poor distribution, aging infrastructure, high leakage rate and the inability of water utility companies to be financially sustainable, among many others, the meeting sought to find collective solutions.

The meeting reviewed actions taken in support of the RSAP and also proposed actions related to climate resilience (w.r.t water governance, water resources management and water services) as well decision support, capacity-building and research and development.

Final conclusions from the HLF on Water included:

- To continue with existing initiatives supportive of the Regional Strategic Action Plan.
- To develop pre-concept notes for implementation of the Regional Strategic Action Plan.



**SIMPLE**  
Better Water for a Better Planet, our award-winning, certified, pre-engineered, packaged solutions adhere to global standards and regulations. Addressing public health concerns to protect the environment, BioMicrobics products and systems reduces contaminants and pollution plaguing most waterways.



**LOW COST**  
With proven, long-term performance, BioMicrobics systems are cost-effective, environmentally sound. These residential and commercial wastewater treatment systems maximize environmental benefits and provide opportunities for water reuse, while minimizing life-cycle operation and maintenance costs!



**ROBUST**  
Onsite, advanced wastewater ATUs are a healthy option to address the green initiatives with durable, non-corrosive, and universally adaptable components to provide tailored, customized solutions no matter what the influent parameters are and the effluent regulations needing to meet.

BioMicrobics Inc.

16002 West 110th Street  
Lenexa, Kansas 66219 USA

Get directions

Toll-Free (USA): 1.800.753.3278 |  
Office: 1.913.422.0707

sales@biomicrobics.com

### REPRESENTATIVE CONTACTS

- Bob Rebori, President, [rebori@biomicrobics.com](mailto:rebori@biomicrobics.com)
- Jennifer Cisneros, Marketing, [jcisneros@biomicrobics.com](mailto:jcisneros@biomicrobics.com)
- Joe Rebori, Manager, Sales, [jrebori@biomicrobics.com](mailto:jrebori@biomicrobics.com)

Follow along on social media.



## THE CWWA EXECUTIVE COUNCIL AND EXECUTIVE DIRECTOR FOR 2019-2020



From left to right: Ordinary Member 2020 – **Mr. Ignatius Jean**, Public Relations Officer – **Ms. Leana Bradshaw**, Vice President – **Mr. Timmy Daley**, President – Elect – **Mrs. Sara-Jade Govia**, President – **Mr. Mark Barnett**, Executive Director – **Mr. Wayne Williams**, Vice President – **Mr. Marlon Daniels**, Treasurer – **Ms. Laurayne Lucky**, Secretary – **Ms. Candice Santana** and Ordinary Member 2019 – **Dr. Halla Sahely**

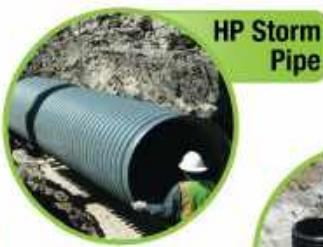
## Innovative Water Management Solutions



N-12® Pipe



Nyloplast® Structures



HP Storm Pipe



Water Quality Units



StormTech® Chambers



Septic & Potable Tanks & Septic Chambers

[www.ads-pipe.com](http://www.ads-pipe.com)

© 2020 Advanced Drainage Systems, Inc. 08/20 MH

ADS



CWWA INTRODUCES A  
**SAFE AND CONVENIENT**  
WAY TO PAY YOUR  
MEMBERSHIP DUES  
ONLINE!

**LOG ON TO ➤**

[www.cwwa.net](http://www.cwwa.net) to pay or view the attached step by step guide for details on how to use this feature



SIMPLE



EASY



QUICK

REMEMBER, YOUR TIMELY PAYMENTS HELP IN FOSTERING THE MANDATE OF THE ASSOCIATION

CONNECT WITH US [cwwatsecretariat@gmail.com](mailto:cwwatsecretariat@gmail.com) [f](#) [g](#) [t](#) @cwwa\_caribbean [www.cwwa.net](http://www.cwwa.net)

© Caribbean Water and Wastewater Association



+**(868)-645-8681**

## HERE'S HOW TO USE THE WIPAY FEATURE ON OUR WEBSITE:

- 1) Go to "Member Login" on the CWWA website ([www.cwwa.net](http://www.cwwa.net))
- 2) Sign up for an account. If you already have an account, login using your credentials.
- 3) Navigate to "User Profile" → "Renew or New Membership". This takes you to the page with all the membership plans.
- 4) Choose a suitable plan.
- 5) Fill out the membership form
- 6) Click "add to cart" and check out to make your payment. This makes a payment for the present financial year and covers the period 30th June 2019- July 1st 2020.
- 7) If you would like to pay an owed amount for past years (2017-2018 etc.), that option is also available.

Dear CWWA Member,

We take great pleasure in bringing to you an added membership benefit:

### THE CWWA'S CARIBBEAN SKILLS RESERVOIR

As the name suggests, the CCSR is a pool of information about the skills and competencies of our membership. The benefits are mutual to you and the sector of which you are a part. The CCSR is a database, but more importantly a platform bringing a myriad of job-related possibilities and other capacity-building opportunities to you. (Key benefits are listed in the flyer). Additionally, harnessing the skillsets you possess enables sector heads to understand the present career availability in the water and waste sectors in the region and in so doing help identify gaps in skills required. Filling these gaps can then be facilitated through training and other offerings of the CWWA and its partners, both in the public and private sectors, regionally, and internationally. This is where the CCSR platform holds its core significance; once opportunities related to your area of expertise

come to our doorstep, we are ready and in place to choose you to represent us while you earn additional CV worthy experience! That is, on the condition that you have provided us with your information via the survey below. The CWWA is, therefore, providing you with a marketing strategy for your personal career advancement through increased visibility regionally and internationally. Above all, you are able to be part of a community of practice in your sector. And it gets even better! This service is made available to you free of additional charges and forms part of your membership benefits! All you have to do is click the link below, enter your information, submit and you're good to go!

## INTRODUCING THE CWWA SKILLS RESERVOIR

*Make your skills and competencies known to us! We at the Caribbean Water and Wastewater Association are interested in you!*

The CWWA's Caribbean Skills Reservoir (CCSR) is intended to:

- Connect you with employers/vacancies in the water/waste sectors regionally & internationally!
- Expose you to a myriad of new career opportunities!
- Create opportunities to increase your personal financial earning
- Boost your CV and give you a competitive advantage
- Add experience in your field
- Increase your sphere of influence (or interest)
- Enable you to be part of a community of practice



## Wants you!



Access to these benefits are easy and simple. Simply fill out the survey below with all the relevant information and submit to us and you're set!



[www.cwwa.net](http://www.cwwa.net)

## CHALLENGES OF CARIBBEAN WATER UTILITIES IN TIME OF COVID-19

By Evan S. Cayetano

**I**t is without a doubt that in this time of the COVID-19 water utilities responsible for public water supply are under increasing pressure to continue to provide this critical commodity. Even without a pandemic, water supply for utilities across the Caribbean has been challenged. These challenges have been well documented in various studies on water supply and the water sector in the Caribbean, simply google ‘water supply in the Caribbean’. There are also many studies on this topic which are unpublished.

Regarding water supply service, the challenges include i) aging equipment and pipes with limited renewal of the water supply infrastructure most of the newer pipelines are associated with housing development extensions of the pipeline; (ii) lack of a comprehensive asset management strategy and lack of adequate maintenance resulting in water treatment plants and related production facilities operating below design capacity; (iii) unmetered consumption and (iv) high energy costs for most utilities. These problems have led to: (i) a gradual deterioration of the networks, with physical losses of production and high levels of Non-Revenue Water (NRW); (ii) unreliable supply, with significant shortfall in potable water supply during the dry periods; and (iii) low electromechanical efficiency of equipment, which, combined with the current operation and maintenance (O&M) practices and the high energy costs, increases operating costs.

The main causes for these problems are: i) lack of preventive maintenance over assets critical for the operation; ii) lack of a long term strategy for optimizing the life cycle of the physical assets; iii) lack of processes and practices for operating and maintaining facilities; iv) lack of capacity building programs; v) inefficient data handling systems for operation monitoring; and vi) lack of institutional learning strategies. Underlying these causes are also critical governance issues.

With COVID-19 upon us, there is now an even greater demand for adequate and sustained water supply. Water supply is an essential service under the COVID-19 emergency or disaster response all countries in the Caribbean have instituted. The call for adequate water supply is implicit in the call for the population to practice good hygiene. While communities that have not had reliable water supply are asking how can they comply with the requirement for good hygiene without this vital commodity, governments are increasing water trucking services and doing their best to give people assurance of water supply. But water trucking, while it is necessary to attend to immediate needs, is inefficient and costly.

It is therefore critical for water utilities to improve the efficiency of their existing operations. It is also critical for governments to assign the financial support required to meet the needs of those in the population with unreliable and no service. Pre-COVID, the Caribbean Water and Wastewater Association (CWWA), with assistance from development partners including the IDB, CBD, PAHO, UNEP and others had prepared the Regional Strategic Action Plan for the Water Sector in the Caribbean (RSAP). This document, adopted by the High-Level Forum of Ministers Responsible for Water at the 2019 CWWA Conference, was largely in response to the realities of climate change to improve resilience of the utilities’ water supply infrastructure. As mostly Small Island Developing States (SIDS), Caribbean countries are impacted by climate change by reduced water resources due to longer drought periods, increased storms and hurricanes, saline intrusion into aquifers due to over abstraction and sea level rise.

With COVID-19 now upon us, the CWWA is rising to the occasion and through its coordination mechanism is organizing to provide for support among utilities, sharing information and best practices, as well contemplating adjustments to the RSAP. Critical topics in a first dialogue held on April 3, 2020 include Personal Protective Equipment (PPE) Requirements, Availability and Preparation for an Outbreak in the Workplace; Good Hygiene and Sanitation for Workplace and Treatment Facilities, Including Housekeeping Protocols/Routines/Sanitizing; and Supply Chain Management of Treatment. Associated development partners are also involved with CWWA to understand the needs and to assist with development of strategies and capacity building interventions. The critical role of the general population is very much recognized and the CWWA, with support of its partners, are committed to public messaging to improve the publics’ understanding of the issues affecting the water sector in general, and particular focus on improving the efficiency of water supply in this time.



## CWWA REPRESENTED AT CARIMET FORUM

CWWA fielded a representative at the Caribbean Marine Energy Technology (CARIMET) Forum, held in Grenada on November 6 and 7, 2019.

Executive Director of CWWA, Mr. Wayne Williams attended the forum, which was aimed at advancing the agenda and improving the environment for a cost-reduction strategy for marine renewable energy, with focus on the establishment of practical Research and Innovation priorities, for the next five to ten years. These will be supported by measures for coordinating activity across various governments, implementing agencies, universities, funding institutions and other key stakeholders.

CWWA welcomed the opportunity to participate in this forum, which coincides with its agenda to promote sustainable development. Through collective leadership, CWWA positively influences and welcomes advancements in technology, education, science & regional policies.

CARIMET was hosted by the Caribbean Community (CARICOM) in collaboration with the Government of Grenada and the Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE).



## INTERN BOASTS OF CWWA CONFERENCE EXPERIENCE

The 28<sup>th</sup> Annual CWWA Conference and Exhibition saw the involvement of a Media Intern, who was recruited via a competitive selection process.

Applicants were required to submit a video presentation on the theme for the 28<sup>th</sup> conference - ‘Securing the Caribbean’s Future: Financing the Water and Waste Sector.

Ms. Khadija Stewart said that she applied because “Apart from every human being I know literally sending me this internship at least three times a day and constantly pressuring me to apply, I saw this as a window of opportunity to enhance both my personal and professional career.”

She added that “One of my goals for 2019 was to challenge myself and continuously step out of my comfort zone so that growth can occur.”



*Khadija Stewart*

She explained that “This internship allowed me the opportunity to dive straight into the water issues of my Region and country. I [was] allowed to fully understand how Region specific issues such as climate change, financing, natural disasters and drought are thought about and dealt with and [I was able to] share it with citizens.”

Stewart highlighted that “Too many times conferences, seminars etc occur and the information is not translated to the regular man on the street, this was my chance to showcase the amazing work CWWA is doing in the Region as well as the many other organisations that were present and share the knowledge I gained at the conference with everyone else.”

The CWWA was happy to have Ms. Stewart apart of its 2019 conference and was satisfied with her work and dedication.

**FLORIDA AQUASTORE®**  
Design-Construct Wastewater Treatment

**DESIGN CONSTRUCT**  
WASTEWATER TREATMENT

**Large Plants**  
50,000 GPD - 10 MGD

**EXTENDED AIR**  
SBR | MBR

**Pre-Packaged Plants**  
5,000 GPD - 50,000 GPD

Phone 561.994.2400 • [www.florida-aquastore.com](http://www.florida-aquastore.com)

## KNOWLEDGE CORNER

Resources for Caribbean Water and Wastewater Utilities during the COVID-19 pandemic:

<https://www.awwa.org/AWWA-Articles/coronavirus-and-water>

<https://www.wef.org/news-hub/current-priorities/coronavirus/>

## WATER CONSERVATION

Fill a one liter bottle with water and sand and place it safely into your toilet tank. In an average home, the bottle may help to save five gallons or more of water every day without harming the efficiency of the toilet.



## WASTEWATER TREATMENT

This is the process of removing physical, chemical and biological contaminants from wastewater, with the aim of producing environmentally safe water that is suitable for disposal or reuse.

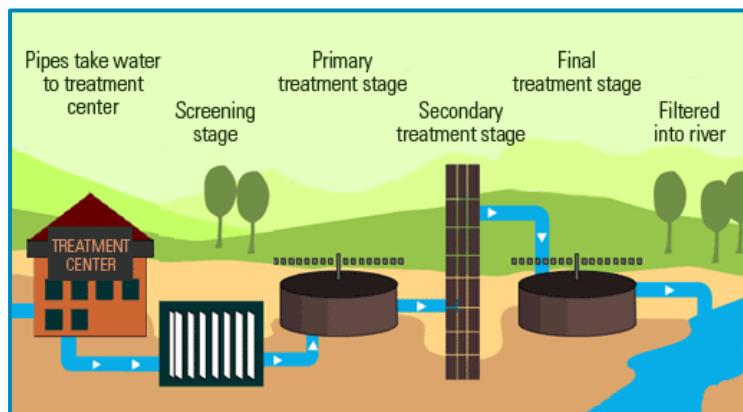
Wastewater treatment generally involves 3 stages - Primary, Secondary and Tertiary treatment.

Primary treatment (physical) consists of the removal of material (mostly inorganic) that will either readily settle out by gravity (sand, grit, rags, plastics, wood), or float (Fats, Oil and Grease). The settled and floating materials are removed and the remaining liquid is transferred to the next stage of treatment.

Secondary treatment (biological) removes dissolved and suspended biological matter. Secondary treatment is typically performed by water-borne micro-organisms in a managed habitat. Secondary treatment includes a separation process to

remove the micro-organisms from the treated water prior to discharge or further (tertiary) treatment.

Tertiary treatment includes disinfection either chemically or physically (for example, by lagoons and microfiltration) prior to discharge into a creek or river where it can be used for the irrigation of agriculture or sporting fields, or to be reused as drinking or industrial water.



## SOLID WASTE MANAGEMENT

Separation of waste is one of the first steps of solid waste management.

Here are two methods of solid waste management:

**Recycling-** Recycling serves to transform the wastes into products of their own genre through industrial processing. Paper, glass, aluminum, and plastics are commonly recycled. It is environmentally friendly to reuse the wastes instead of adding them to nature.

**Composting-** It involves decomposition of organic wastes by microbes by allowing the waste to stay accumulated in a pit for a long period of time. The nutrient rich compost can be used as plant manure.

