



A Newsletter for Water and Wastewater Treatment Plant Operators!

# THE WATERDRUM

January 2020

## Inside this issue:

Save the Date!!	1
AWWAO: About Us	2
Jonathan Riberdy	3
Celebrating 25 Years of AWWAO	4
Message from the Board	5
Ending long-term drinking water advisories	6-8
Water	9
Fact Sheet About What to Do During a Boil Water Advisory	10-11
AWWAO Operator Spotlight	12-13
Cigarette butts are poisoning the water	14-16
Hold on to your butt	17
Blast from the Past!	18

*Save the Date!!*



**25th AGM & Training Conference & Tradeshow  
February 25-27, 2020**

*The achievements of an organization are the results of the combined effort of each individual.*  
*Vince Lombardi*

**Sponsored by:**



Indigenous Services  
Canada

Services aux  
Autochtones Canada



*The meaning of the AWWAO logo as described by the artist:*

- Tree—represents Mother Earth*
- Sun—brings Life to our Environment*
- Eagle—watches over the Environment*
- Sky—ensures the Cycle of Water*

## ABOUT US

The Aboriginal Water & Wastewater Association of Ontario is an information source for water environment and Operator training and certification issues and technology. AWWAO's members include professionals from Ontario First Nations, Environmental Health Officers, Tribal Councils, Municipal Suppliers and some Government Agencies.

AWWAO is dedicated to the transfer of information and concepts regarding all areas of the water environment. As members of the American Water Works Association (AWWA), the Ontario Water Works Association (OWWA), the Water Environment Federation (WEF) and the Water Environment Association of Ontario (WEAO), we provide an invaluable network for those involved in water and wastewater industry. AWWAO, through a partnering agreement with Keewaytinook Okimakanak and Health Canada co-operates and liaises with the above noted associations, and all provincial and federal government agencies. AWWAO has a volunteer seat on many of the various association's committees.

AWWAO offers its members the opportunity to:

- ◆ Be updated and informed about issues that affect the water environment.
- ◆ Interact with persons in various fields of water expertise.
- ◆ Promote concerns of the membership through a collective voice.
- ◆ Exchange information and ideas to other members, the public and Chiefs and Council.

To date, the AWWAO consistently rank the training and certification of Plant Operators as its top priority. The attainment of Certification is widely recognized as essential to performing a good job, at a high level, in the water and wastewater treatment plant operations, and an indicator of a responsible and contributing community member.

## MEMBERSHIP

\$200.00 Membership Fee for First Nations Water and Wastewater Treatment Plant Operators per operator. This Membership entitles the Operator(s) to the AWWAO Newsletter, monthly bulletin, Annual Report and the Annual General Assembly and Training Conference cost reimbursement, if applicable.

\$400.00 Membership Fee for Non-Operator, Public Works Management, Administration and Management of a First Nation or Non-First Nation. This Membership entitles the Member to the AWWAO Newsletter, monthly bulletins, Annual Report and invitation to the Annual General Assembly and Training Conference.

Please Print

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

First Nation/Business: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

## VISION

Our Vision is to be the Association that best understands and satisfies the training, education, certification and licensing needs of Operators of Ontario First Nations. Our dedication to supporting Operators touches not only health, but safety, spirit and empowerment ... most of all knowledge.

## OBJECTIVES

- ◆ To act as a voice and forum for First Nation Plant Operators in Ontario, publish a newsletter, promote communications and networking among Plant Operators and other persons interested in AWWAO's objectives;
- ◆ Promote the importance of a safe and potable water supply and the highest standard of wastewater operations;
- ◆ Promote the development and delivery of continuing education and training programs for Plant Operators and others involved in water and wastewater treatment;
- ◆ Promote the importance of technical training in maintaining and upgrading the Operator's knowledge of proper water and wastewater operation and maintenance requirements;
- ◆ Promote the importance of involving qualified Operator's in the design, construction or upgrading of water and wastewater treatment plants;
- ◆ Promote the importance of proper training, certification and licensing of Operators;
- ◆ Promote the importance of enhanced lab testing of potable water and monitoring of wastewater effluents; and
- ◆ Promote the importance of establishing an effective Operations & Maintenance Management Plan to ensure proper care is performed for the assets.

## MISSION STATEMENT

We are a member oriented, non-profit Association, providing province-wide and year-round high-quality services and an annual forum for the First Nations Water and Wastewater Treatment Plant Operators, allowing for networking opportunities at the same time. We are committed to providing high quality information on the water and wastewater industry through the quarterly newsletter. We are dedicated to promoting, preserving and protecting the water, natural resources and environment through the education, training and networking of the Ontario First Nations Water and Wastewater Treatment Plant Operators.

The Aboriginal Water and Wastewater Association of Ontario's newsletter is published quarterly by the AWWAO at Box 20001, RPO, Riverview Postal Outlet  
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 E-mail: info@awwao.org

Advertising opportunities and/or submission or request of information, please contact the Association Coordinator.



## Jonathan Riberdy

Anii Everyone

My name is Jonathan Riberdy, I am a Water Plant Operator for Zhiibaahaasing First Nation. Zhiibaahaasing First Nation is located on the west end of Manitoulin Island on Lake Huron. I started my career in water Five years ago. I have been to many AWWAO training sessions which have helped me become the operator I am today.

I am currently a Level 2 Water Treatment, Level 1 Distribution and Supply and OIT in wastewater and wastewater collection.

Zhiibaahaasing First Nation has a small water treatment plant along with a low lift station. The current plant was built in 2013. The low lift was built in 1992. Even though our plant is fairly new there have been many issues that has led to feasibility study (near completion). Our drinking water is delivered three times a week to cisterns, that are not meant for human consumption. We are looking at the study to get water mains and relocate the plant to higher ground. With all our current issues with the plant, I have started doing water ceremonies in the community to help with the high water levels.

In the spring and fall, I perform a water ceremony with our elders as the water changes. Since we take from the lakes we should pray and give back to water. I love performing the water ceremony and teaching my kids and other kids in the community the importance of Water and how to respect it.

In the past year, I have also started working with Swim Drink Fish Canada as the Hub Manager for Rec water testing in Zhiibaahaasing First Nation Science monitoring hubs in the Great Lakes. The monitoring initiative provides knowledge on the science and changes that water goes through. It will also provide traditional knowledge for youth, to help them learn more about the importance of water. This has been a great learning experience for me!



I am very excited to sit on the AWWAO board as a director, this will provide me with more experience and help me grow as an operator.

Sincerely Jonathan Riberdy





## Celebrating 25 Years of AWWAO

It's hard to believe that AWWAO has been around for 25 years.

I can still remember how excited I was to find out I would be attending the Training Conference and Trade Show at the Niagara Falls Hilton so many years ago.

I had only been working as an Operator for a few years and was looking forward to meeting other First Nation Operators.

Over the years, I've been fortunate to attend over a dozen AWWAO Events which have been very beneficial.

The camaraderie at each of the Events is always present with the Operators sharing their stories and accomplishments.

The AWWAO certification exam prep week was a success for me, as I passed Water Treatment III. The expertise of Doug Stendahl was extremely helpful..... Thanks again Doug.

I look forward too attending future AWWAO Events.

Chi Miigwech to past, present, and future AWWAO Board members and Staff.

Ian Williams  
WT III, WD II, WWT II, WC II  
Chippewas of Rama First Nation



Chippewas of RAMA  
First Nation



## Message from the Board

On behalf of the Board, I hope you all had a Merry Christmas and a Happy New Year!!

Here we are, 2020!! This year marks the 25th Anniversary of AWWAO! I have been an AWWAO member and Operator for 11 of the 25 years and am so excited and looking forward to celebrating with everyone next month at Casino Rama in Rama, ON! The deadline to register for the Annual General Meeting and Training Conference and Tradeshow is Friday, January 17, 2020!!!!

This organization has committed to providing training for all our member operators and I trust that as many of you as possible are taking advantage of that training! Over the years, I have been a participant in the prep courses and find them so beneficial when I write my exam at the end of the week!

If any of you know of operators that have not yet become a member, give them your copy, or forward the email of the Waterdrum! Have them contact Sara or one of the directors to reap the benefits of membership!!

Jake Beedie is no longer a Director with our Board; but thankfully, Jon Riberdy, has agreed to fulfill the remainder of Jake's term! Welcome to the Board Jon and we look forward to working together to fulfill our commitment to First Nation Operators!

Sheryl St. Pierre, Director



*Water* is not  
a *Privilege*  
for the *few*.



IT IS A  
**RIGHT**  
FOR US ALL.

## *Ending long-term drinking water advisories*



Everyone in Canada should have access to safe, clean drinking water. The Government of Canada is working with First Nations communities to:

- improve water infrastructure on reserves
- end long-term drinking water advisories on public systems on reserves
- Prevent short-term advisories from becoming long-term

### **Latest news**

#### **Recently lifted long-term drinking water advisories**

Lac Seul First Nation, ON as of January 7, 2020

Lac Seul First Nation (Ontario) lifted a long-term drinking water advisory from the Kejick Bay water treatment plant on January 7, 2020. The drinking water advisory, in effect since February 2003, was lifted after the completion of a new water treatment plant in the community.

#### **Recently removed long-term drinking water advisories**

Clearwater River Dene First Nation, SK as of October 31, 2019

A long-term drinking water advisory has been de-activated on the Landing water system in Clearwater River Dene First Nation in Saskatchewan. The Landing in Clearwater River Dene First Nation is now receiving their drinking water from another source. As the system is no longer the community's drinking water source, the advisory has been de-activated and removed from the long-term drinking water advisory tracking.

#### **Recently added long-term drinking water advisories**

Shamattawa First Nation, MB as of December 6, 2019

A drinking water advisory in Shamattawa First Nation, in Manitoba, became long-term on December 6, 2019 after being in place for more than 12 months. While Indigenous Services Canada (ISC) works with the First Nation to determine whether a short-term solution can be implemented to lift the drinking water advisory, a boil water advisory will remain in effect. ISC and the First Nation are working in partnership to advance a long-term solution that will meet the safe drinking water needs of the community. Plans to expand and upgrade the public water system are currently in early stages.



Cont'd

Little Pine First Nation, SK as of November 14, 2019

A drinking water advisory at Little Pine First Nation in Saskatchewan became long-term on November 14, 2019 after being in place for more than 12 months. The advisory was put in place in November 2018 due to mechanical and electrical issues. ISC is currently working with the First Nation to resolve the existing issues and on an expansion and upgrade project. It is not known at this time when the advisory will be lifted.

**Progress on lifting long-term drinking water advisories on public systems on reserves**

Updated January 9, 2020



**All**  
long-term drinking water advisories on public systems on reserves **lifted** by



**88** long-term drinking water advisories lifted since November 2015

**57** long-term drinking water advisories in effect

**Projects underway or completed as of September 30, 2019**



**441**

projects to repair, upgrade or build infrastructure



**59**

supporting projects and initiatives



**74**

feasibility studies and projects in the design phase

Description of progress on lifting long-term drinking water advisories on public systems on reserve as of January 9, 2020

- All long-term drinking water advisories on public systems on reserves lifted by March 2021.
- 88 long-term drinking water advisories lifted since November 2015.
- 57 long-term drinking water advisories remain.
- Projects underway or completed as of September 30, 2019:
  - 441 projects to repair, upgrade or build infrastructure
  - 59 supporting projects and initiatives
  - 74 feasibility studies and projects in the design phase

**Long-term drinking water advisories on public systems on reserves**

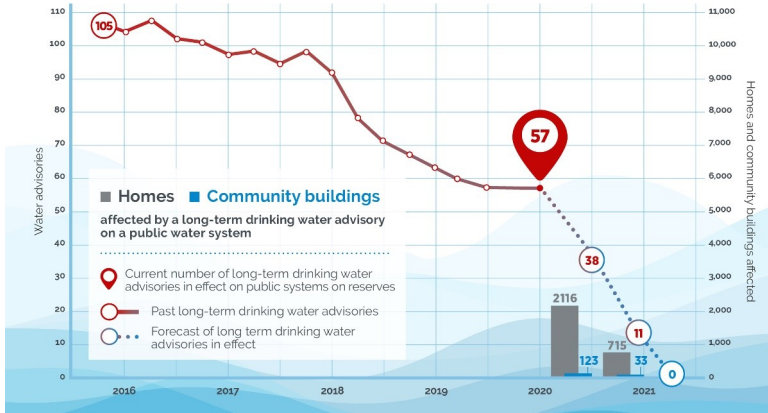
Updated January 9, 2020



**All**

Long-term drinking water advisories on public systems on reserves **lifted** by

March  
2021



*Description of long-term drinking water advisories on public systems on reserves*

This line graph depicts the number of long-term drinking water advisories in effect between November 2015 and January 9, 2020 and projected numbers of long-term drinking water advisories expected to be in effect by the end of June and December of each calendar year from 2018 through 2021. It also depicts the projected number of houses and community buildings affected by long-term advisories.

- In November 2015 there were 105 long-term drinking water advisories on public systems on reserves.
- As of January 9, 2020, 57 long-term drinking water advisories on public systems on reserves were in effect.
- By end of June 2020 it is projected there will be 38 long-term drinking water advisories on public systems on reserves. Approximately 2,116 homes and 123 community buildings served by a public water system will be under advisory.
- By end of December 2020, it is projected there will be 11 long-term drinking water advisories on public systems on reserves. Approximately 715 homes and 33 community buildings served by a public water system will be under advisory.
- In March 2021 it is projected there will be 0 long-term drinking water advisories on public systems on reserves. Zero homes and community buildings served by a public water system will be under advisory.

**Ensuring essential infrastructure**

The Government of Canada works with First Nations to address health and safety needs, ensure proper facility operation and maintenance, and to prevent short-term advisories from becoming long-term.

Ending a drinking water advisory is often complex, spanning multiple phases. Actions to resolve a water or wastewater issue can include:

- feasibility studies
- new system design work
- interim repairs on existing systems
- permanent repairs to existing infrastructure
- construction of new infrastructure
- Improved training and monitoring



## Water....

### How many First Nations in Canada have clean water?

There is nothing more important than **clean water**, yet at **any** given time there are more than 100 **drinking water** advisories in **First Nations** across **Canada**.

### Does Canada have a water crisis?

Lytton is just one among hundreds of First Nations that **have** suffered from a **water crisis** in **Canada**. Despite the fact that **Canada** **has** the world's third largest per-capita freshwater reserve, the **water** many Indigenous communities depend on is contaminated, difficult to access, or at risk due to faulty treatment systems.

### Is water a human right?

In Canada, there are over 100 Indigenous communities who do not have access to clean drinking **water**. In **Ontario**, 81 First Nations communities are under boil-**water** advisories, 68 of which have been classified as long-term. ... The time has come to recover our **water** sources and protect **water** as a fundamental **human right**.

### What causes water scarcity?

Climate change, such as altered weather-patterns (including droughts or floods), deforestation, increased pollution, green house gases, and wasteful use of **water** **can** **cause** insufficient supply. ... All **causes** of **water scarcity** are related to human interference with the **water** cycle.

### Why is water important?

Your body uses **water** in all its cells, organs, and tissues to help regulate its temperature and maintain other bodily functions. Because your body loses **water** through breathing, sweating, and digestion, it's **important** to rehydrate by drinking fluids and eating foods that contain **water**.

### How many First Nations in Ontario have boil water advisories?

There are 56 long-term drinking **water advisories** that remain, and we'll continue to work in partnership with **First Nations** to address **water** issues in communities and ensure clean **water** is restored those residents

### Why are there boil water advisories?

**Boil water** notices are typically issued when an unexpected condition has caused a potential for biological contamination of **water** in a public **water** system. Common reasons for a **boil water notice** include loss of pressure in the distribution system, loss of disinfection, and other unexpected **water** quality problem

### Will we ever run out of water?

**Water**, as a vapor in our atmosphere, could potentially escape into space from Earth. ... While our planet as a whole may never **run out of water**, it's important to remember that clean freshwater is not always available where and when humans need it. In fact, half of the world's freshwater **can** be found in only six countries.

### Can you wash your hands during a boil water advisory?

**Can I wash my hands during a boil water advisory?** Yes, vigorous handwashing with soap and **your** tap **water** is safe for basic personal hygiene. However, if **you** are **washing your hands** to prepare food, **you should** use **boiled** (then cooled) **water**, disinfected or bottled **water** with handwashing soap.

## Fact Sheet About What to Do During a Boil Water Advisory

### Boiling water

#### To boil water

- Fill a pot with water.
- Heat the water until bubbles come from the bottom of the pot to the top.
- Once the water reaches a rolling boil, let it boil for 1 minute.
- Turn off the heat source and let the water cool.
- Pour the water into a clean container with a cover for storage.



### Disinfecting water

If you are unable to boil your water, disinfect it instead.

#### If tap water is clear:

- Use unscented bleach (bleach that does not have an added scent).
- Add 1/8 teaspoon (8 drops or about 0.75 milliliters) of unscented household liquid bleach to 1 gallon (16 cups) of water.
- Mix well and wait 30 minutes or more before drinking.
- Store disinfected water in clean container with a cover.

#### If tap water is cloudy:

- Filter water using clean cloth.
- Use unscented bleach (bleach that does not have an added scent).
- Add 1/4 teaspoon (16 drops or 1.5 milliliters) of unscented household liquid bleach to 1 gallon (16 cups) of water.
- Mix well and wait 30 minutes or more before drinking.
- Store disinfected water in clean container with a cover.

Remember that containers may need to be sanitized before using them to store safe water.

#### To sanitize containers:

- Use unscented bleach (bleach that does not have an added scent).
- Make a sanitizing solution by mixing 1 teaspoon (5 milliliters) of unscented household liquid bleach in 1 quart (32 ounces, 4 cups, or about 1 liter) of water.
- Pour this sanitizing solution into a clean storage container and shake well, making sure that the solution coats the entire inside of the container.
- Let the clean storage container sit at least 30 seconds, and then pour the solution out of the container.
- Let empty container air dry OR rinse it with clean water that has already been made safe, if available. Never mix bleach with ammonia or other cleaners. Open windows and doors to get fresh air when you use bleach.

#### Water filters

Boil tap water even if it is filtered. Most kitchen and other household water filters typically **do not** remove bacteria or viruses.

*Cont'd*

**Preparing and cooking food**

- Wash all fruits and vegetables with boiled water that has cooled or bottled water.
- Bring water to a rolling boil for 1 minute before adding food to cook.
- Use boiled water when preparing drinks, such as coffee, tea, and lemonade
- Wash food preparation surfaces with boiled water.

**Feeding babies and using formula**

- Breastfeeding is best. Continue to breastfeed. If breastfeeding is not an option:
- Use ready-to-use baby formula, if possible.
- Prepare powdered or concentrated baby formula with bottled water. Use boiled water if you do not have bottled water. Disinfect water for baby formula if you cannot boil your water (see above for directions on how to use bleach to disinfect water).
- Wash and sterilize bottles and nipples before use.
- If you cannot sterilize bottles, try to use single-serve, ready-to-feed bottles.

**Ice**

- Do not use ice from ice trays, ice dispensers, or ice makers.
- Throw out all ice made with tap water.
- Make new ice with boiled or bottled water.

**Bathing and showering**

Be careful not to swallow any water when bathing or showering.

Use caution when bathing babies and young children. Consider giving them a sponge bath to reduce the chance of them swallowing water.

**Brushing teeth**

Brush teeth with boiled or bottled water. Do not use untreated tap water.

**Washing dishes**

Household dishwashers generally are safe to use if the water reaches a final rinse temperature of at least 150 degrees or if the dishwasher has a sanitizing cycle.

To wash dishes by hand:

- Wash and rinse the dishes as you normally would using hot water.
- In a separate basin, add 1 teaspoon of unscented household liquid bleach for each gallon of warm water.
- Soak the rinsed dishes in the water for at least one minute.
- Let the dishes air dry completely.

**Laundry**

It is safe to do laundry as usual.

**Pets**

Pets can get some of the same diseases as people. It is a good idea to give them boiled water that has been cooled.



## AWWAO OPERATOR SPOTLIGHT

Desmond Jourdain is from Mitaanjigamiing First Nation, which is a small First Nation community near Fort Frances, Ontario. Desmond has been working in and around Mitaanjigamiing First Nation since 1995, to present date. Desmond first started employment as a Seasonal construction laborer; assisting in building new housing and other community buildings over the years.



In 1999, Desmond was hired as the full-time “Operations and Maintenance” worker, a major part of the job was working in the “Pumphouse” that the community had. As a new employee, Desmond became interested in becoming a new water treatment plant operator. Desmond worked with the former operator Fred Major, who had operated the communities’ small green sand filtration plant. Fred’s’ plant was very small, maybe a 20’ by 30’ building, but Fred showed great pride in his building and water treatment process. Desmond continues to learn from his mentor Fred Major to this day, and always remembers this knowledge.

In 1999, Stanjikoming First Nation (as it was known at the time) received approval to build a new Class 2 Water Treatment Plant Facility. As a Water Treatment Plant Trainee, I’d had the opportunity to help build the water treatment plant that is currently in the community. That facility was completed in 2001.

Desmond’s job title has changed throughout the years but one thing has remained consistent; his responsibility for the water treatment plant, ensuring that residents have safe and clean water in accordance with federal, territorial and municipal legislation, policies and standards.



Desmond Jourdain

Desmond takes great pride in maintaining and operating the communal water treatment and distribution system. Desmond is the only fully trained Water Treatment Plant Operator in his community and is very diligent in his duties. Desmond often works many overtime hours and works throughout the holidays to ensure clean, safe water for community members. Desmond is presently certified to a Class (3) three of four water treatment: Class (2) two of four water distribution, Water Quality Analyst and Waste Water One.



Cont'd

In addition to these duties, Desmond has been trained to operate the community's Fire Truck; he is licensed as a Class B – school bus driver; surface miner certified; chainsaw certified; and is presently attending all Circuit Rider Trainings to better himself for the community.

As "Operations and Maintenance" employee, Desmond is a liaison for Mitaanjigamiing. Desmond meets and greets all sorts of great people from the surrounding communities and government representatives. Desmond has maintained a positive working relationship with MTO and MNR representatives throughout the years.

In 2020, Mitaanjigamiing First Nation will be conducting upgrades to this water treatment plant; and Desmond plans to be an active participant in this process. Desmond has already been working with the various Consultants and Engineers in determining the deficiencies and identifying prevalent issues with the water treatment and distribution system. Hopefully, these upgrades will keep up with the growing community needs.



**Mitaanjigamiing: "Where a smaller lake flows into a bigger lake."**

## *Cigarette butts are poisoning the water*

Gabrielle Parent-Doliner, Swim Guide Editor  
October 7, 2015

At a recent **Great Canadian Shoreline Cleanup** on **Woodbine Beach** in Toronto, Swim Guide volunteers came face to face with the butt. Many butts in fact. In just one hour, spent in only one small section of the beach, the clean up volunteers filled a trash bag with cigarette butts.

It's important to note that the cigarette filters we found on the beach were all picked up within a few paces of a garbage can.



Littering, in the not so distant past, used to be socially acceptable. People littered openly. To let the remnants of our takeout lunch fall to the grass in a park, or to watch someone toss a coffee cup out of a car window was no big deal.

But something happened. Thanks to education, slogan campaigns, and a change in attitudes littering has decreased over the last 40 years. The idea of littering (at least in front of others) now horrifies most people. And when people leave their trash behind it upsets us, maybe even enough to say something.

Except when it comes to cigarettes.

A startling **65% of cigarettes** smoked every year in the US are dropped, flicked, or stomped out onto the ground. The global average of smoked cigarettes that are litter is estimated to be two-thirds. That's the butt of 2 out of every 3 cigarettes smoked, tossed on the ground.

Wowza.

There is no single item in the WORLD that is littered with such abandon as cigarette butts. There are 5.6 trillion filtered cigarettes smoked annually and 4.5 trillion cigarettes are littered worldwide every year. That is some serious littering.

Cigarette butts are everywhere. Take a walk down any street, through any park, down any beach. The ground is covered with them. And the littering does not happen under the cover of the night. Smokers openly take their last puff and drop their butts to the ground, as unconcerned by their behaviour as the people who watch them do it.

Turns out the no-big-thing cigarette butt flick has sobering consequences.



Cont'd

What do cigarette butts have to do with our waters?

Cigarettes and cigarette butts are consistently the number one item collected during beach and recreational area clean-ups, as well as during urban litter collection. In fact, they make up 35-50% of all litter collected.

Worse, an estimated **80% of butts** on the ground find their way into our waterways.

There is an enormous body of research that shows what smoking does to our bodies, as well as to the bodies of the people who inhale second and third hand smoke. However, research on the impact all those smoked and tossed cigarettes has on our environment is brand new science.

What we do know, thanks to scientists working hard to find answers, is that cigarette butts leach toxins and threaten both salt and freshwater marine environments.

The cigarettes flicked onto the sidewalk by smokers on a coffee break at work, outside of restaurants, and waiting for a bus don't stay put. These butts make their way into our waterways following wet weather events and snow melts affecting the marine environment. Spring thaw is a particularly notorious time for flushing mass amounts of littered butts into our waterways.



When a cigarette butt hits the water it starts to leach into the environment the **assortment of toxins** that gave them the nickname “cancer sticks;” over 4000 chemicals, 69 of which are known carcinogens, and many of which are poisonous.

What's more, a cigarette filter can continue to leach toxins for over 10 years. Things like acetone, acetic acid, ammonia, arsenic, benzene, butane, cadmium, carbon monoxide, formaldehyde, hexamine, lead, naphthalene, methanol, nicotine, tar, toluene, the list of toxins and poisons goes on.

Pesticides, herbicides, insecticides, fungicides and rodenticides (it still goes on...)

The impact : Cigarette butts in the water

A **ground breaking study** conducted by San Diego State University on the effects of discarded cigarettes on marine life showed that one cigarette soaked in the water for 96 hours leached enough toxins to kill half of the fresh or saltwater fish exposed to it. The study is the first of its kind, and has spurred more research into the public health and environmental side effects cigarette butts have when they hit the water.

But it's not just the toxins that are so worrisome. Cigarette filters, which are primarily made of plastic, are wreaking havoc on the marine environment. Cigarette butts and fragments have been found in the stomachs of marine life, and in addition to the exposure to toxins, the butts can cause blockages leading to starvation and death.

*Cont'd*

The butts are also adding considerable weight to the **microplastic and microfibre** pollution plaguing our seas. Plastic doesn't biodegrade. It breaks down to smaller and smaller pieces, but it doesn't ever disappear from the ecosystem

Like research on the impact of cigarettes on the marine environment, microplastics research is also still budding. The full impact that consumption of and exposure to microplastics is having on aquatic environment is not yet known. There is, however, enough research to paint a very dire picture of what the continued and increased presence of microplastics means for the future of our fresh and marine waters. Considering the significant percentage that cigarette filters make up of plastic pollution, stopping cigarette litter is imperative to addressing the microplastics problem.

**What are we going to do about this?**

Addressing the plastic and toxic pollution the butts leave behind is so urgent that banning cigarette filters is now proposed by municipalities and states, such as California. Calls are also being made to have cigarettes labelled as toxic waste so that more serious rules would be put in place to prevent them from making their way into the environment.

Still, it's hard to forget that the source of this problem is human behaviour. It is worth repeating that two thirds of all cigarettes smoked are littered. Starting October 1, 2015 France instigated a 68 Euro (76\$) fine for smokers who drop their butts on the street. Similar laws, and bylaws, exist in cities around the world.



While littering behaviour was reduced by a number of activities, such as campaigns and education, and an ease in the proper disposal of trash, the real game changer lies with an individual's own sense of responsibility for their cigarette litter.

85% of littering is the result of individual attitudes.

The solution is simple: stop throwing your cigarette butts on the ground. Stop ashing out on the beach. If you see someone flicking a butt, get mad. Because butts are a big, big deal.

**Facts about cigarette litter**

Cigarette litter begets more cigarette litter. In other words, if there are butts on the ground smokers are more likely to follow suit and litter their butt.

**Most litter occurs within 5 meters of a garbage receptacle.**

**The majority of cigarettes are littered within 10 feet of an ashtray.**

When asked **why they litter** their cigarette butts, many smokers say they feel compelled to, stating: 'What else am I going to do with them?'

## Hold on to your butt

Since its inception, the Vancouver Island Chapter of the Surfrider Foundation has been holding monthly beach cleanups along the South coast of Vancouver Island. A wide variety of debris is gathered at cleanups; however, cigarette butts dominate shoreline survey results on our urban shores. They are repeatedly the number one type of debris gathered (by count).

Cigarette butts are also found littering streets, sidewalks and public spaces. These butts not only pose a waste management challenge for local governments, they also can find their way to the marine environment as run off in storm drains. In the marine environment, they pose a significant threat to marine life.

### The Environmental Impact of Cigarette Butts:

1. Cigarette butts are the single greatest source of ocean pollution. More than **5 trillion butts** are improperly disposed of in our environment each year.
2. Cigarette butts **leach toxins** when wet, posing a threat to marine life.
3. Cigarette butts take over **25 years** to decompose.
4. When not properly extinguished, cigarette butts pose a **significant fire threat**.
5. In 2018, more than **500,000** cigarette butts were removed from local beaches by the Great Canadian Shoreline cleanup.

## Help Us Kick Butt!

**Let's make cigarette butt littering socially unacceptable and share the education! Become part of the solution instead of being part of the pollution!**





# Blast from the Past

