

SAVE THE BAY!! SO

HOW??????????

Negative.... but not for long!!!

Have you seen the Chesapeake Bay? It has negative changes impacting it everyday. Which means it's getting dirtier everyday. Therefore sea animals are dying that may help the bay therefore making it dirtier since they can't help anymore.

In summer, spring, and days with nice weather, people start working on their lawns.... so,when it rains lawn clippings go down the drain and other waste from gardens and lawns. One more thing that goes down the drain is fertilizer. Fertilizer helps grow grass which is good but when it gets into the bay it helps algae grow. Algae is not a help to the bay. Algae causes dead zones because it consumes the oxygen that other animals need to live. This causes mass kills of sea animals that help the bay or just live there.

Instead of just thinking about the bad things, let's think about some positive things. There are lots of ways we can help the bay but most people don't do much besides harming the bay more by polluting it. So let's figure out ways we can help our bay!!!!

THE HELPFUL THINGS WE CAN DO TO **SAVE THE BAY!!!!**

Gardens- A Useful Part in Life

Many people enjoy gardens so lets make them helpful! Rain gardens are helpful when you put them on a hill or somewhere where water naturally runs. The water then carries fertilizer and things that would help a garden but hurt a bay. So when water comes into the gardens it's able to use the water and the helpful things for the garden. So use a garden to make a difference!

Oysters- We Can Save The Day!!!

I am a janitor for the sea. I can efficiently clean the bay by filtering 50 gallons a day. But not anymore, we are sadly dying away due to diseases such as MSK and Dermo. Some people don't think it's smart to invest millions on us but if you want the bay to be clean we're here to help.

Other Ways to Save the Bay

You can help the by:

- rain barrels
- learning what causes pollution
- not throwing trash on the ground

Today help the bay and look online to find other ways we can help the bay and be a help to our environment!! Will you invest your time to help the bay???

Sooo.....

All in all remember to keep the bay clean! Everyday remember before you throw any trash on the ground that innocent fish are dying because of you. Also in a time you want to help our environment think about helping the bay!!! The bay should be a pretty place where you look at the loveliness of water and enjoy it but because people don't take care of the soon it will be dirty.

List of Sources

Learn more using these great sources

Oysters by Steve Droter

Rain Gardens : A greener approach to landscaping by Jamie Alberti

Large "dead zone" signals more problems for Chesapeake Bay by John Warrick

What You Can Do

Researchers Think Oysters Can Clean Up Chesapeake By Darryl Fears

Impacts on the Chesapeake Bay

Humans are impacting the Chesapeake Bay. From air pollution, to farm fertilizers, the amount of pollution has drastically increased. Since 1950, the pollution in the Bay has more than doubled. But some people, little by little, have been impacting the Chesapeake Bay. If everyone started, even a small change, could make a major difference.

Rain Gardens

In the summer, many people attend to their gardens. All the lawn mowing remnants and waste go down drains with rain water. Even though waste isn't being directly thrown into the bay, it goes to other waterways, those waterways will then lead to rivers. Not to mention, those rivers will eventually lead to the bay, and all of that pollution ends up in the Chesapeake Bay.

A solution to this problem, is a rain garden. Rain gardens are a way to reduce runoff. The rain garden serves as a bowl, collecting water from downspouts. The rain garden directs the water away from a storm drain.

Due to redirection of the water, it prevents the pollution to travel to the Chesapeake Bay.

Planted in a rain garden, are shrubs and mulch. Also, plants such as berm and other native plants are used in a rain garden. The use of a berm being planted in a rain garden, is to hold water during heavy rains. Meanwhile, native plants adapt to local conditions while also being easy to maintain when established. Another advantage of native plants are that they can also attract pollinators. Before rain gardens, waste consumed the bay, but due to rain gardens, waste could be soaked up by them.

Oysters Clean the Bay

Researchers believe that oysters could clean the Chesapeake Bay. Lisa Kellogg, a researcher from the Virginia Institute of Marine Science, has noticed the importance of oysters, and has been studying on nitrogen removals.

Kellogg has noticed that oysters are already cleaning the Chesapeake. Kellogg has showed that oysters were helpful cleaners by investing more than 1 million dollars to help with restoration. Oysters can clean up to twenty times of nitrogen pollution.

Chicken Farming

Farms are also becoming a factor in the Chesapeake Bay. Scientists believe that farm fields overdosed with phosphorus are a major cause of the increased pollution.

The number of chickens in farms are growing. A benefit to this is that, farmers make money for chicken manure. However, there are also bad effects that come with it. There is an excess nutrient called phosphorus that is in the chicken manure. This phosphorus makes algae grow. If the manure gets into any of the rivers, it is going to end up in the Chesapeake Bay.

Algae made from the phosphorus in chicken manure is increasing more in the bay. Algae growth causes dead zones. A dead zone is an area that is no longer inhabitant for aquatic animals, leading to deaths. Dead zones happen when the sunlight and air are blocked due to the algae.

Chemical Pollution

Chemicals affect the fish inside of the Chesapeake Bay. Chemicals such as, PCB and PAH get into the fish we eat. Nitrogen and phosphorus from sewage can also cause algae growth. There is more than 700 species of algae in the Chesapeake. Due to all the algae, dead zones are occurring

through many different ways. Did you know that dead zones cover more than a cubic mile?

Increased Pollution

As you can see, humans have impacted the Chesapeake Bay for decades, and it is *still* polluted. Impactions on the bay have occurred, negatively and positively. Pollution is highly increasing, the bay is at risk of dead zones. Algae is growing. Some people are attempting at a healthier Chesapeake Bay, but others pollute it, destroying their hard work. Despite the negative impactions, that doesn't mean we can't try to have a healthier bay.

List of Sources

Air Pollution by Steve Droter and Olivier Giron

Researchers Think Oysters Could Clean Up Chesapeake by Darryl Fears

Large 'dead zone' signals more problems for Chesapeake Bay by Joby Warrick

Pollution down, but Chesapeake Bay no healthier - yet by The Baltimore Sun

Rain Gardens: A greener approach to landscaping by Jamie Alberti

Maryland's Chicken Pollution Highlights Global Issue by Steve Baragona

Do You Want To Keep The Chesapeake Bay Clean? Please Do!

Filthy water doesn't look good, right? It also isn't good!

How The Chesapeake Bay Gets Polluted

Sometimes when you're holding trash and you can't find a trash can, don't you just want to drop it in the storm drain? Well STOP! You know that the storm drain goes to the bay! You are polluting the bay! If everyday someone did that, the bay would be filthy. Don't you just love pretty water and not water full of YOUR trash? The bay is not your trash can! Don't even dump trash anywhere near a storm drain!

If you don't pollute the streets, do you pollute the air? I am glad you don't pollute the streets, but polluting the air is just as bad. Air pollution still gets to the bay. You cause those air pollutions. You use cars, houses, gases and factories. Those all pollute the air. After chemicals are in the air, they can go to the waters, such as the bay. Although forests can absorb many air pollutions, it's not enough to keep the bay from getting chemicals in it.

Did you know that ground and street pollution still effects the bay? Do you live in a city, work on a farm or put fertilizer on the ground? Well if you do, than you pollute the ground.

When you treat your garden, that fertilizer gets in the drain and goes to the bay. Whenever the ground gets polluted, it washes up with other waste and gets in the waterways which then is going to end up in the bay.

Be careful what you put on the ground!

What Happens When You Pollute The Chesapeake Bay

Two types of chemicals that are getting in the bay are PLBS and PHAS. After the chemicals get in the bay, the fish and other sea creatures eat them not knowing what they are. Once the fish eats it, the fish gets contaminated. When we eat them, we are putting toxins in our body. Toxins are not good for us. We are putting our body at risk. Stop polluting the air! It is better for yours, and the fishes health.

Dead zones are when there are places on the bay, where it blocks air and sunlight from getting in the water. Therefore many sea creatures can not survive in or under dead zones, not in that water they would die.

Dead zones are formed when there's a lot of algae in one place. Algae is a green plant that is bad for the ocean. Algae is like moss.

Dead zones cover more than a cubic mile across the water. They are big areas. That concludes that there are a lot of places on the Chesapeake Bay where sea creatures can not survive.

Help Keep The Bay Clean!

To help storm runoff from taking ground pollution to the bay, you can get a rain garden. Rain gardens stop storm runoff from getting into the drain.

A rain garden has mulch and plants in it, it's like a bed of plants. The mulch and plants help soak up storm runoff so it will not get to the bay.

If you can not get a rain garden, then you can get a rain barrel. Rain barrels help in the same way. They are just barrels that your gutter leads to, so that the storm runoff from the roof would go in it.

If you want to save fish and help your health than keep the water clean!

I hope you stop polluting the bay!

Large 'dead zone' signals more problems for Chesapeake Bay by Joby Warrick

Air Pollutions by Steve Droter and Olivier Giron; Adapted by BBES Staff

Program Helps Keep Waste Away From Bay by Elyse Chil and Tipton

Rain Gardens: A Greener Approach To Landscaping by Jamie Alberti

Dear,world

Did you know that in 2011 had a record for the most pollution in the bay? Also if you spray to much fertilizer in flowers it could get in the bay and pollut it.

Companies give chickens to farmers to take care of them.But the companies take care of everything but manure.

They're are different ways to protect the bay.One way is to go on a boat or just pick up the trash if it's laying on the ground

Trash goes down the storm drain.you can help but if you don't you can destroy the animal community.

By Tavion G.

Chesapeake bay

In DANGER!!!!

Have you ever wondered where the trash from the sewer goes? When it rains all the trash from the street goes in the sewer then it goes in the bay. So when there's trash in the bay innocent animals suffer because they get stuck and eat things that they are not supposed to eat.

How manure is **hurting the bay**

There are too many chickens in one place that means more manure than 4 cities can produce. This is bad

because when manure gets into the bay it causes algae to grow and algae consumes the oxygen that animals need and that creates dead zones. Did it hurt when you fell in the bay because i got you hooked!!!!!!

By:Melanie .R

Sources

- **Maryland's chicken pollution highlights global issue**
- **Program helps keep waste away from bay**

THE CHESAPEAKE IS STILL POLLUTED

February 8, 2018

Hemin L.

It all begins at farmlands by the Bay's coastline when farmers begin their early morning procedures, dumping chicken manure into crops. Then when showers of rain pour down and the ground,- the ground that is full of manure, goes straight into the Bay.

The reason why this is polluting the Bay is because manure has a special nutrient called phosphorus that when it goes into the Bay, it feeds algae which causes dead zones. Dead zones are areas where sea creatures will die because of lack of sunlight caused by algae blooms which were fed by the phosphorus mentioned before.

Not only is water pollution harming the bay, but also the air can be harmful to the Bay. Factory smoke can cause air pollution, which can affect the water. This can contaminate Marine life.

The last reason why the bay is polluted is because of the dangerous objects being littered into storm drains that lead to water systems that eventually go into the Bay. When Summer comes, people begin spending more time outside. They begin doing important tasks like mowing their lawns, fertilizing unwanted plants, and cutting unnecessary weeds. Then, when Summer storms come, they wash away several objects that sometimes gets flushed into storm drains. Objects like dirt, lawn clippings, weed, and even paint can get into storm drains. These objects get into lakes, rivers, and streams that go into the bay. These objects can harm the Chesapeake in a way.

People are trying to help the bay but things don't seem to be better, yet.

Copyright (c) by REM 4 news radio.

Do you know what goes into the Chesapeake Bay? No well i do. What goes into the Chesapeake Bay is bad for the bay .

One thing that goes into the Chesapeake Bay is gas it comes from power plants facilities and cars. This can happen because pollution can travel thousands of miles to get to the Chesapeake Bay to make pollution and that is bad for the bay.

Air pollution is also caused by air bone nitrogen and it is the largest sources of air pollution and it is affecting the Chesapeake Bay . And nitrogen and chemicals are two kinds of airborne pollution and that is also affecting the Chesapeake Bay. Excess nitrogen can cause the growth of algae that can block the sunlight from reaching underwater.

Also what can cause pollution in the Bay is chicken manure it can get into the Chesapeake Bay by waterways and when it gets to the bay it causes pollution in the bay and another way that the Bay gets polluted is by pollution on the road and when it rains the water takes the trash into runoff and that goes to the bay. There's a lot of poop and it is good for the plants but when there is to much it goes into waterways. So now you know so when you learn about this you know what to say.

List of Sources

Air Pollution By Steve Droter and Olivier Giron

Maryland's Chicken Pollution Highlights Global Issue By Steve Baragona

Rain Gardens A green approach to landscaping By Chesapeake Bay

Negative Impacts On The Chesapeake Bay!

Hi I'm gonna explain the negative impacts on the bay on over the years. But all of these impacts on the bay are caused by mankind.

A lot has happened to the bay like a lot of algae and phosphorus are making serious "dead zones".

Storm drains collect rain but also collect trash on the streets. It's called a storm drain because when it's raining it sucks up all the rain and all the trash goes into the bay to making "dead zones" and some chicken manure!

Chicken manure getting messy!!!

Phosphorus are inside of chicken manure and when it rains on the farms it washes up in the rivers which lead into the Chesapeake Bay. Phosphorus make algae grow which hurts the bay a lot. And all of this is killing the the fishes inside the bay. They do use the chicken manure for the

crops but it's too much manure! Also the manure goes in storm drains because of rain too.

To many "dead zones" for the bay and I want you too to help clean the bay! And there's already a group of people trying to help the bay and you could find the website and join them!

The sources that I used

- 1. Large "dead zones" signals more problems for Chesapeake Bay by Joby Warrick*
- 2. Program helps keep waste away from bay by Elyse Chill*
- 3. Maryland's Chicken Pollution highlights Global Issue by Steve Baragona*
- 4. Pollution down, but Chesapeake Bay no healthier-yet by it doesn't say*
- 5. Air pollution by Steve Droter and Olivier Giron*