

CHOOSE YOUR LIFELINE

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GOES

GLOBAL OCEANIC ENVIRONMENTAL SURVEY

**Because all our pollution eventually
ends up in the Oceans.**

THE BAD NEWS

NASA's satellite imaging states that the mass of phytoplankton plants has been **reducing by 1% year on year over the last 20 years**. Research by Dalhousie University, published in NATURE, confirms a reduction of more than 40% during the last 50 years (Up to 2012). Given that plankton provide more than 70% of our oxygen and remove most of our carbon dioxide, this is **BAD** news.

Over the next 25 years we will have lost **75% of all plankton**, the oceans will become more acidic, and the ecosystems will crash. We will lose most of the whales, seals, birds and the fish, and along with them a food supply for billions of people. Life on Earth is going to change, in fact life on earth may become impossible.

It doesn't take science to tell you we cannot survive without healthy oceans, common sense tells us we need to stop poisoning them with toxic chemicals and plastic. **If we had not killed more than 50% of the plankton with toxic chemicals since the chemical revolution during the 1950's, then we would not have had elevated CO₂ and climate change.**

Did you know?

Every other breath you take comes from the world's oceans. In fact, the science indicates that 70% of the planet's oxygen is generated by plankton. The microscopic plants and animals, drifting throughout the oceans, use photosynthesis to generate oxygen and remove carbon dioxide from our atmosphere. They are the basis of our food chain and the lungs of the planet. Quite simply, plankton is the foundation of our existence, and all life on Earth depends upon plankton.

Over 10,000 tonnes of sunscreen gets dumped on corals each year. At 62 parts per trillion it is highly toxic to coral and plankton.

THE GOOD NEWS

The GOES Foundation is taking urgent action to lead the essential sea change needed to restore plankton levels and it is this action that can address ocean acidification and global warming. We're a team of thinking, breathing, well-connected human beings and we believe it is possible to prevent a catastrophic collapse of our life on earth, but we need to take decisive action over the next 10 years or it will be too late.

GOES is working worldwide to halt the poisoning of the oceans by advocating that we should all take a non-toxic approach to how we live: design out and ban all toxic chemicals, hazardous waste and plastics. By preventing toxic chemicals entering the ecosystem, we can accelerate the recovery of the plankton, health of the oceans and start absorbing more carbon dioxide out from the atmosphere.

Universal sea change requires global engagement. **AND** it's easy for you to help. Whether you're in a position of influence, sailing the oceans or you are simply eager to change a few bad buying habits and protect the world you live in, it's time to change – go non-toxic!

A 100g tube of toothpaste containing 0.5% triclosan would kill all plankton life in a volume the size of 50 Olympic sized swimming pools.

It really is all hands on deck!
But why? ↻



THE TOXIC WAVE

Whoever you are and wherever you live, there is no safe haven from the toxic wave of chemical pollution.

Start of toxic chemical pollution

1940s

With DDT

2012

NASA satellite images Plankton **dropping** at **1% year on year**

(Measurements since 1997)

2010

Plankton **40% drop** between 1950 and 2010
(Dalhousie University, Nature Volume 466, pages 591-596, 2010)

2018

90% of all large fish gone, remaining ones are toxic, mercury and PCBs

2018

25% of coral dead

2025

Wales, seals and birds **populations** start to **crash**

2025

75% of coral dead

2030

25% of all remaining fish can no longer reproduce, loss of habitat

2030

90% of coral dead

It is a grim road map towards catastrophic ocean system breakdown in 25 years. Because all pollution eventually ends up in the Oceans.

2045

Ocean pH **7.9**
Cascade collapse of Ocean Ecosystem

2050

Most whales, birds, seals and fish die. Oceans turn toxic with Cyanobacteria and dinoflagellates. **Run-away climate change.** Terrestrial ecosystem starts to fail. Point of no return for all life on Earth.

Lipstick, toothpaste, sunscreen, detergent.

When it comes to the failing health of our planet, the prevailing focus has been increasing carbon dioxide levels from burning of fossil fuels. It is important to reduce carbon emissions, but **we must also eliminate toxic chemical pollution.** The oceans are the lungs of the planet but since the Chemical Revolution in the 1950's and the production of herbicides and pesticides, the oceans are suffocating under a toxic chemical cocktail. **Marine toxic chemicals are in every type of household cleaner and personal care product.** The world now manufactures thousands of different toxic chemicals that are killing the plankton and halting their ability to produce oxygen and remove carbon dioxide from the atmosphere. It is the GOES team's strongest held belief that if we had not poisoned the oceans, we could have prevented climate change.

It's absolutely and completely impossible to overestimate the importance of photosynthesis in the maintenance and now delicate balance of life on Earth.

We are all witness to the lose of phytoplankton, the decline in oxygen production and the well published CO₂ increase – our oceans are already more acidic and climate change is accelerating at a much faster rate than previously predicted.

We must restore our oceans. It's not just about saving whales and dolphins - **WE cannot survive** if we keep poisoning them. If we don't address this, they'll become too acidic and we'll witness a cascade failure of the wider planetary ecosystem. Terrestrial life on earth will become impossible unless you have an oxygen tank on your back! At the current rates of decline, we will reach this tipping point any time in the next 25 years. It will happen quickly, be impossible to reverse, and we will have run-away climate change and mass starvation on a global scale, unless we act now.

Find out how



UNIVERSAL SEA CHANGE

The GOES Foundation is taking urgent action to lead the essential and universal sea change needed to **address climate change**. We are working worldwide to hold back the toxic wave that is poisoning our oceans.

GOES engages people and organizations at every level of society, from children to world leaders and intrepid adventurers who help by sailing over the oceans at high and low latitudes to collect our plankton samples.

GOES uses all the digital technology and AI tools it can to demonstrate the need for the urgent ban of all toxic chemicals, hazardous waste and plastics from households and industry.

We should really just take a precautionary approach, or a reality check and just stop using highly toxic chemicals. GOES will endeavour to collect thousands of samples to provide indisputable evidence to help policy makers accelerate their decision making and help get these chemicals out of our lives.

MEET THE PLANKTON

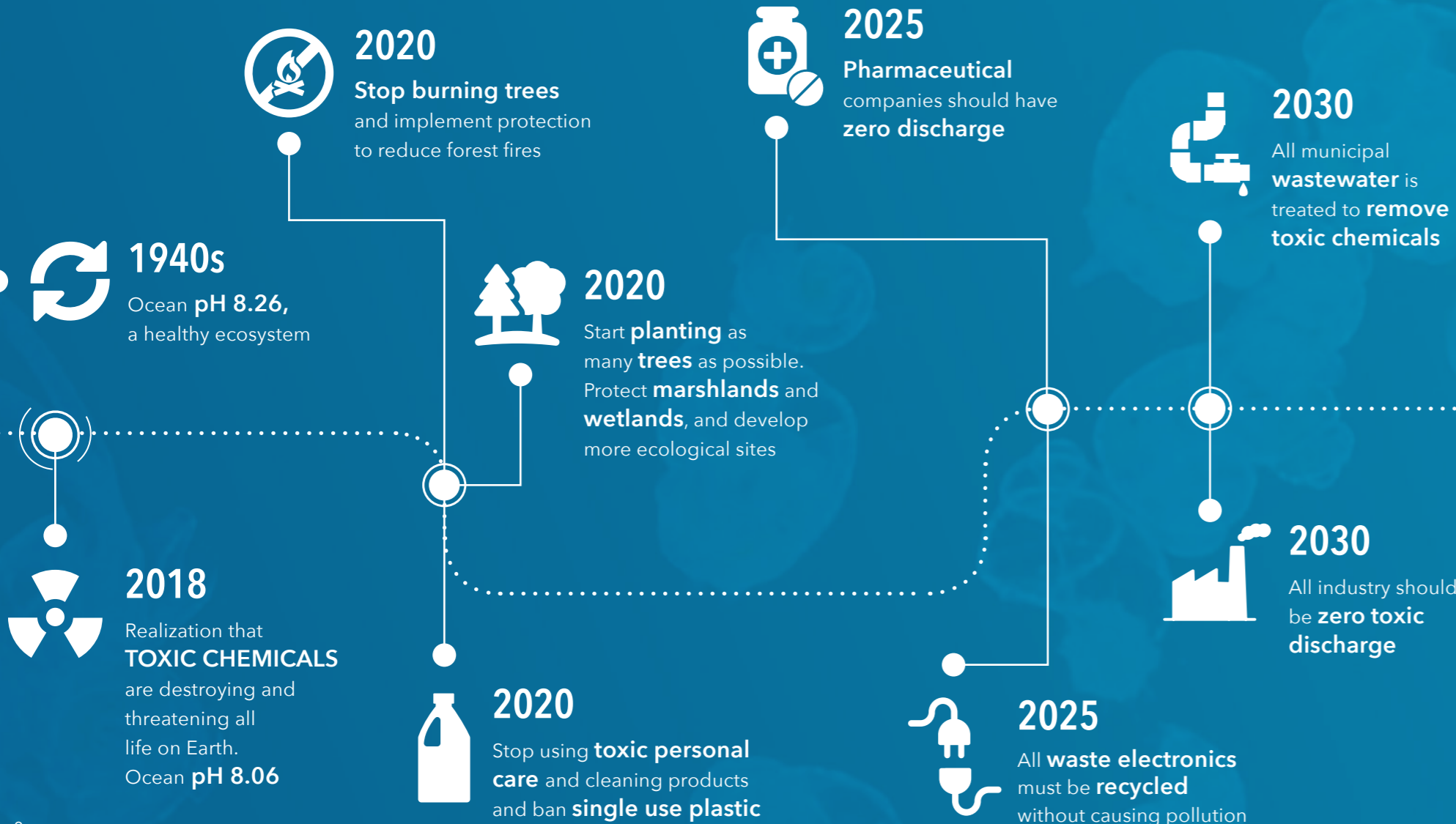
Plankton comes from the Greek word *planktos*, meaning "drifter".



GOES will be promoting the development of non-toxic, green, ocean and human-friendly alternatives.

Everyone needs to be aware of the harm these chemicals can do to their own health and that of the Oceans. It could make all the difference to the planet if we just **STOP** buying toxic cosmetics containing plastic beads, cosmetics containing oxybenzone or soap or toothpaste with triclosan.

We have the next 10 years to get systems into place and stop polluting our environment. Failure to achieve this task is not an option.



2030-2050
Ocean recovery time, **ban all whaling** and deep **ocean fishing**

2050
Oceans restored to the same condition as 1940's. Life on Earth goes on in a **NON TOXIC ENVIRONMENT.** Ocean pH back to **pH8.26**

IT'S TIME TO CHANGE


Urgent universal sea change requires global engagement.


Every voice and every action counts! Everyone can get involved and contribute towards the urgent and global transformation required to eliminate pollution, protect marine biodiversity, and help address climate change. Whether you're sailing the oceans, in a position of influence, eager to shop better and safer or learn about and protect the world you live in, it's easy to engage with GOES.


CHOOSE YOUR LIFELINE


Engage with GOES Foundation today and you are ready to take action. There is always more to learn and do.

But where do you start?

 The GOES team want you to just start **reading, learning** more and taking small steps to make your buying habits and lifestyle non-toxic. We are sure that once you start, you'll feel better and be compelled to do more to help others eliminate ocean toxic chemicals from their lives. Your actions are the sea change!

 **Are you a change maker and influencer?** Wherever you are, GOES will help you demonstrate your true commitment to doing everything within your power to help protect humanity now and in the future. Be a **GOES Ocean Safe** – sector, industry, organisation, business, site, office, factory, café – committed to only using ocean safe products at work.

 **Ocean sailors** have an essential role to play. As part of a worldwide team you are uniquely placed to undertake fundamental research to raise the alarm for everyone on the damage being done and help GOES get the message out around the globe.

Choose your lifeline today 

GOES LIFELINES



Education

Plankton-inspired living

Through public awareness and easy access educational and learning resources, GOES inspires, mobilises and supports adults and children to change the way they live, and to choose the least toxic products to eat, clean or use in the shower.



Sampling

Plankton citizen science

It is the ocean sailors around the globe who traverse the open seas who make the GOES project utterly unique. They are at the heart of our research community and their contribution to the GOES metadata which will inform us on the presence of specific persistent chemicals. The GOES Global Oceanic Environmental Survey is our practical and immediate response to the often financially, logistically challenging scientific surveys. By harnessing the ocean-loving enthusiasm of the international sailing community and providing them with plankton sampling kits, GOES will collect thousands of vitally important samples of plankton from remote places all around the globe.

With our established network of internationally accredited testing laboratories, we analyse the plankton and quickly communicate the findings with a continually updated world map. Accessible to everyone, the GOES ongoing survey demonstrates levels of chemical pollution. In turn we can assess the impact on the reproductive capability of plankton and, therefore, the planet's health.



Advocacy

Speak plankton to everyone, including those in authority!

GOES exists to communicate the urgent need for a change in the global procurement and use of ocean toxic chemicals at every level of society. By engaging with key players in industry, government, science, media and education, we equip those who can make industrial and social change with the information they need to make informed decisions.

ALL HANDS ON DECK

The GOES team have a huge breadth and depth of knowledge and practical experience and expertise encompassing all aspects of the science and its real-world application, from the environmental to the social, economic and the political.



Leading, internationally acclaimed marine biologist, **Dr Howard Dryden**, takes the helm as Chief Scientific Officer of GOES. As an academic and successful business man, Howard's 30+ year career has been focused on one vision – to make the aquatic environment safer and cleaner for humans and all the other organisms on which our life depends.

Dr. Dryden has exceptional knowledge and experience of combining biology, chemistry and physical sciences and their application to the real world impact of chemical pollution. His work ranges across every aspect from the supply of safe clean drinking water to fish farming, industrial wastewater management and large-scale environmental disaster control. When he isn't working, advising on water policy or speaking at conferences around the world, Howard is sailing its coastal and open oceans!

Howard, along with his team of marine biologists, and an experienced globally-connected group of policy makers, communication experts and management consultants are the driving force behind GOES.

Alongside those who work with us, GOES will mobilise its ethical, scientific, economic and political influence to create ecologically sustainable, healthy oceans.

JOIN OUR GLOBAL TEAM TODAY



Calling all thinking, breathing human beings!

Join our growing team of partners and supporters. Wherever you are and whatever you do, please get in touch with us. Whether you are an interested individual or part of an organisation, please contact us.

Together we can create the sea change needed to hold back the toxic wave and safeguard the health and well-being of every living creature, from people to plankton and everything in between.

This brochure has been printed on 100% recycled paper, using Ocean Friendly Marine Safe inks.

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