







Ocean Pollution

Mia Jakubianska

Public Speaking

I. Introduction

- **Background** on ocean pollution
- **Current** solutions
- **Alternative** solutions

TRASH



Background

- Plastic in our oceans grows by **millions of tons** ever year (1)
- Microplastics are ingested by fish (1)
- This all ends up back on your **dinner plate** (1)

(1) "Ocean Plastic Pollution from Spring 2017 Shorelines Monterey Bay Aquarium Member Magazine." Spring 2017 - Ocean Plastic Pollution - Shorelines Member Magazine. N.p., n.d. Web. 10 Aug. 2017. <<https://www.montereybayaquarium.org/members/shorelines/shorelines-spring-2017/ocean-plastic-pollution>>.



**WHAT GOES
IN THE OCEAN
GOES IN YOU.**

Since when has this been an issue?

- Ocean pollution can be traced back to **Roman times** (2)
- Studies have shown that it has **accelerated in recent decades** (2)

(2) "Marine Pollution." National Geographic. N.p., 09 Aug. 2017. Web. 10 Aug. 2017.
<<http://www.nationalgeographic.com/environment/oceans/critical-issues-marine-pollution/>>.



What impact does this have?

- 10 to 20 million tons of plastic (3)
- 5.25 trillion plastic particles (3)
- \$13 billion a year in losses from damage to marine ecosystems (3)

(3) "Global Plastic Production Rises, Recycling Lags." Global Plastic Production Rises, Recycling Lags | Worldwatch Institute. N.p., n.d. Web. 10 Aug. 2017. <<http://www.worldwatch.org/global-plastic-production-rises-recycling-lags-0>>.



Where is this an issue?

- This is a global issue that affects all the world's oceans (3)

(3) "Global Plastic Production Rises, Recycling Lags." Global Plastic Production Rises, Recycling Lags | Worldwatch Institute. N.p., n.d. Web. 10 Aug. 2017. <<http://www.worldwatch.org/global-plastic-production-rises-recycling-lags-0>>.



Why is this a problem?

Marine wildlife suffers from entanglement and ingestion of debris.

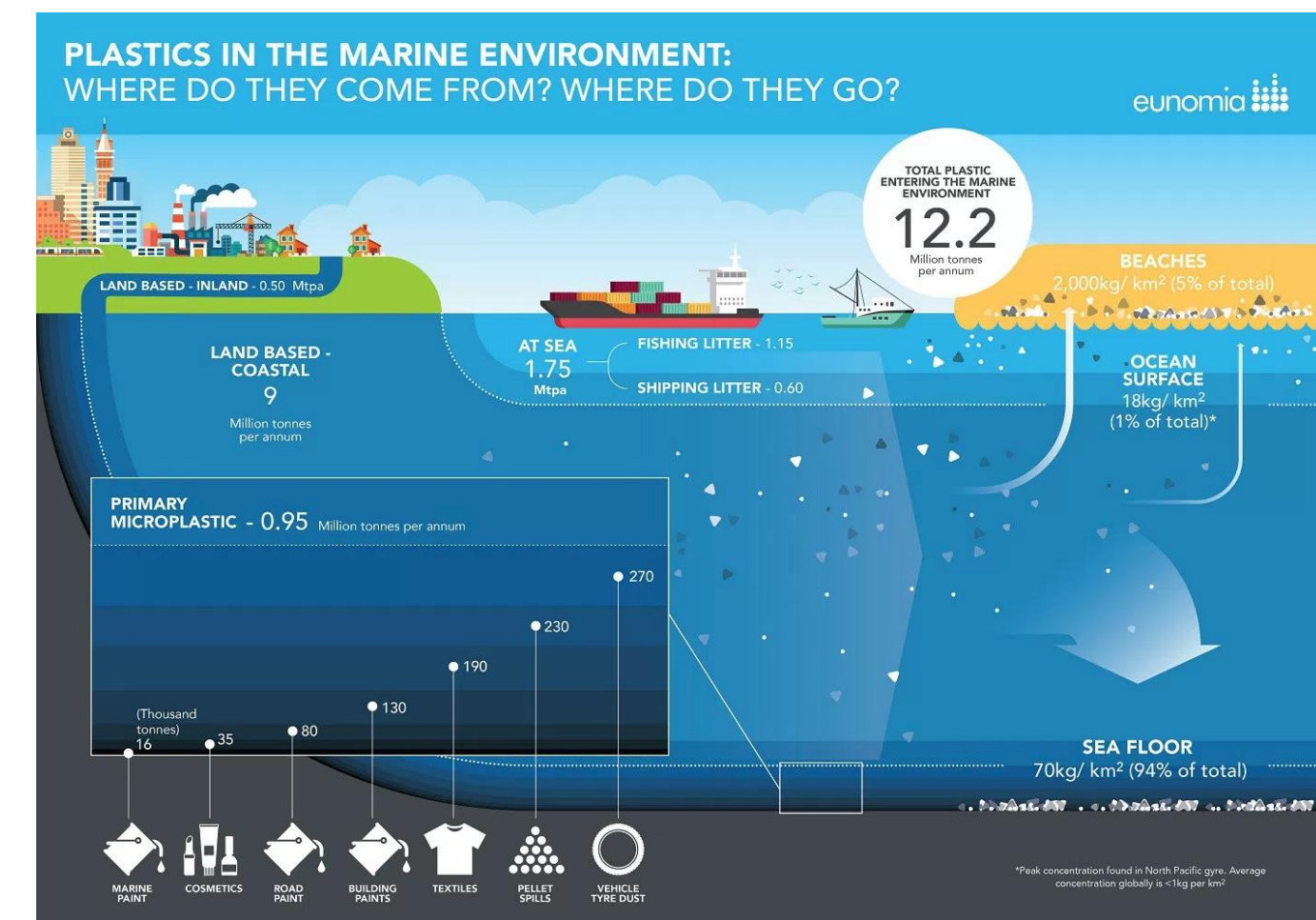
- Debris injures and **kills marine life (3)**
- Interferes with **boat safety (3)**
- Poses a threat to **human health (3)**

(3) "Global Plastic Production Rises, Recycling Lags." Global Plastic Production Rises, Recycling Lags | Worldwatch Institute. N.p., n.d. Web. 10 Aug. 2017. <<http://www.worldwatch.org/global-plastic-production-rises-recycling-lags-0>>.



How does this happen?

- Plastic on land degrades with the help of UV light (4)
- In deep oceans, it breaks down into smaller particles (4)
- Commonly-used plastic never fully degrades (4)



(4) "September 5, 2014 | RWL Water News Team. "What Happens When Plastics Degrade in Water?" RWL Water. N.p., 05 Sept. 2014. Web. 10 Aug. 2017. <<https://www.rwlwater.com/happens-plastics-degrade-water/>>.



II. Current Solution

- London Protocol (5)
- Beach laws (5)
- Recycling and volunteering (6)
- International Coastal Cleanup (6)

(5) "Ocean Dumping: International Treaties." EPA. Environmental Protection Agency, 04 Jan. 2017. Web. 10 Aug. 2017. <<https://www.epa.gov/ocean-dumping/ocean-dumping-international-treaties>>.

(6) "International Coastal Cleanup." *Ocean Conservancy*. N.p., n.d. Web. 10 Aug. 2017. <<https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/>>.



Why isn't it working?

- These efforts are **not enough**
- 18 millions **pounds** removed (6)
- 10-20 million **tons** a year being dumped into oceans (3)

(3) "Global Plastic Production Rises, Recycling Lags." Global Plastic Production Rises, Recycling Lags | Worldwatch Institute. N.p., n.d. Web. 10 Aug. 2017.

<http://www.worldwatch.org/global-plastic-production-rises-recycling-lags-0>.

(6) "International Coastal Cleanup." *Ocean Conservancy*. N.p., n.d. Web. 10 Aug. 2017.

<https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/>.

2016 International Coastal Cleanup



PEOPLE: **504,583**



POUNDS: **18,399,900**

KILOGRAMS: **8,346,055**



MILES: **14,997**

KILOMETERS: **24,136**



TOTAL ITEMS: **13,840,398**



III. Alternative Solutions

There are a number of entrepreneurial, alternative solutions proposed today.

Solution 1

Ocean Cleanup (7)



Solution 2

Seabin (8)



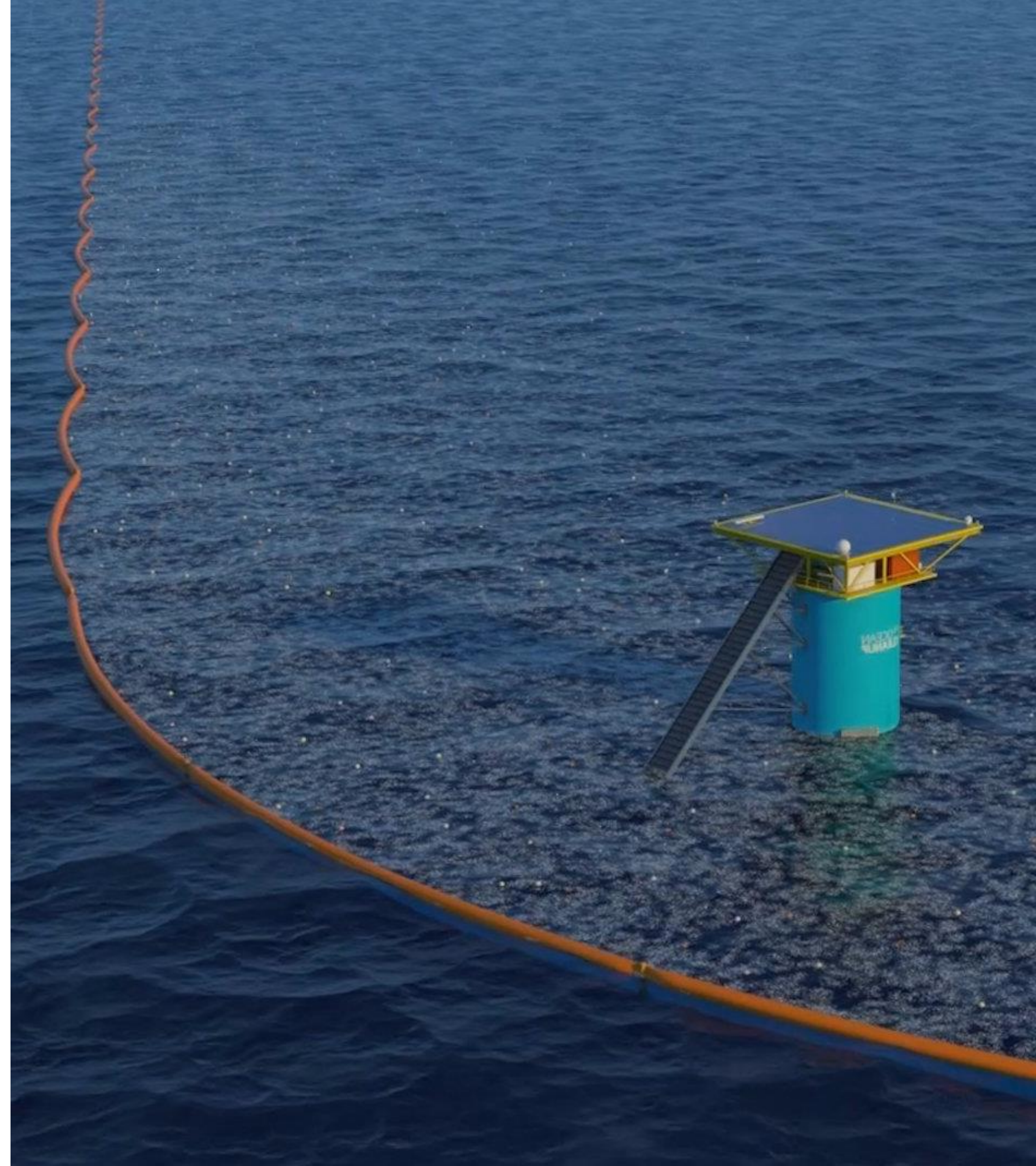
(7) "Cleanup, [Www.theoceancleanup.com](http://www.theoceancleanup.com) The Ocean. "Www.theoceancleanup.com." The Ocean Cleanup. N.p., n.d. Web. 11 Aug. 2017. <<https://www.theoceancleanup.com/>>.

(8) "The Product." Seabin Project. N.p., n.d. Web. 11 Aug. 2017. <<http://seabinproject.com/>>.

Ocean Cleanup

- **Ocean currents** can be used to clean water
- **Large floating barriers** will remove marine debris
- Could **clean up 50% of the Great Pacific Garbage Patch** in 5 years

(7) "Cleanup, [Www.theoceancleanup.com](http://www.theoceancleanup.com) The Ocean.
"Www.theoceancleanup.com." The Ocean Cleanup. N.p., n.d.
Web. 11 Aug. 2017. <<https://www.theoceancleanup.com/>>.



Seabin

- **Localized system** that can be attached to marina or port (8)
- **Water pump** creates flow of water into bin (8)
- **Biodegradable bag** collects trash brought in (8)
- **Prevents plastics from degrading** into microplastics (8)

(8) "The Product." Seabin Project. N.p., n.d. Web. 11 Aug. 2017. <<http://seabinproject.com/>>.





Things You Can Do

- Reduce use of single-use plastics
- Recycle, recycle, recycle!
- Get involved with local environmental groups

THE FISHY BUSINESS OF PLASTIC POLLUTION



HERE'S HOW YOU CAN REDUCE PLASTIC POLLUTION

- Carry reusable shopping bags with you.
- Use a glass or metal water bottle.
- Invest in a reusable coffee / travel mug.
- Refuse plastic straws, utensils & excessive packaging.



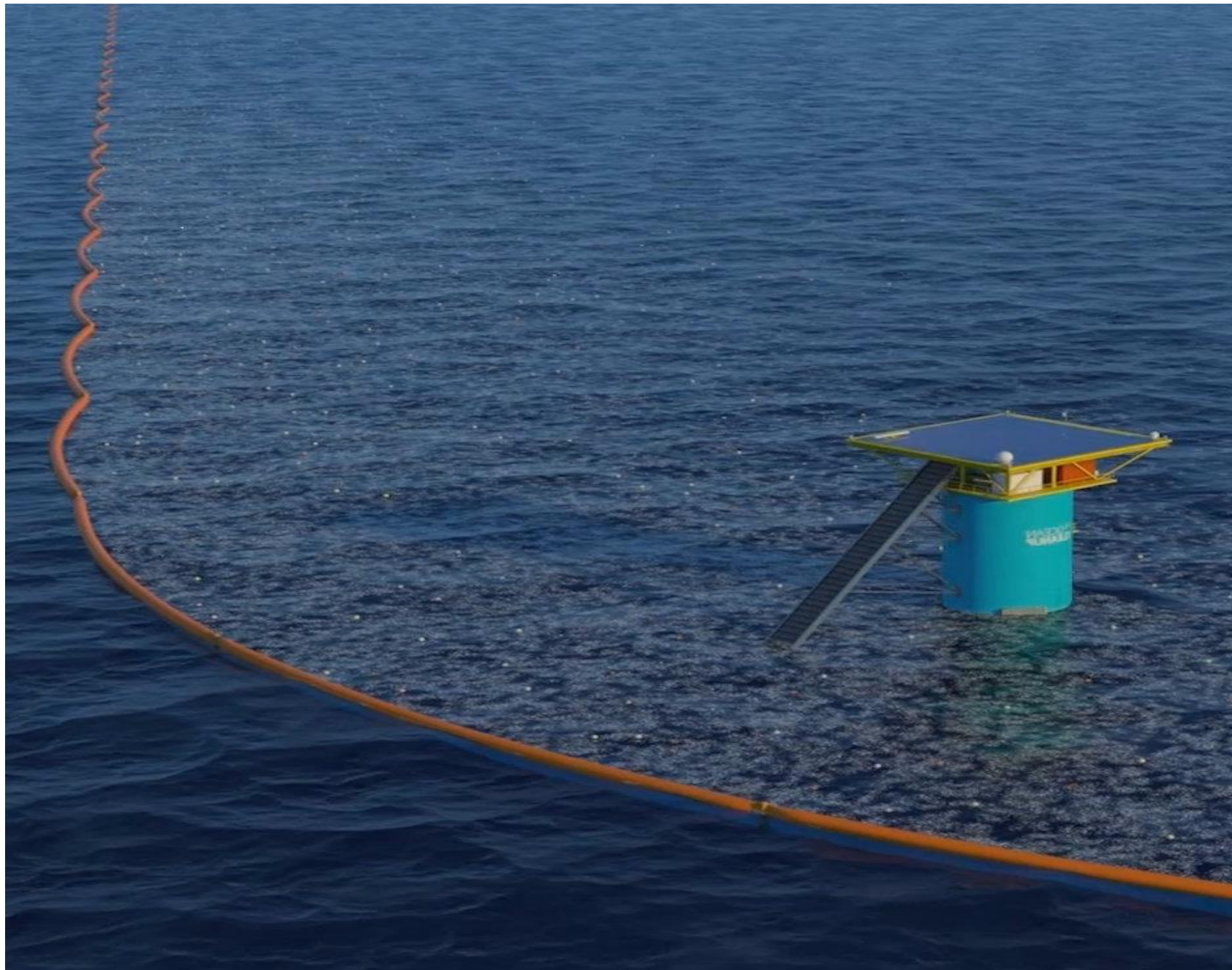
IV. Conclusion

- Ocean pollution **impacts the lives** of everyone in our ecosystem
- **International treaties** begin to address the issue



IV. Conclusion

- Ocean pollution **impacts the lives** of everyone in our ecosystem
- **International treaties** begin to address the issue
- **Ocean Cleanup** and **Seabin** collect debris at higher volumes and more efficiently



IV. Conclusion

- Ocean pollution **impacts the lives** of everyone in our ecosystem
- **International treaties** begin to address the issue
- **Ocean Cleanup** and **Seabin** collect debris at higher volumes and more efficiently
- **Recycling** and **volunteering** are ways to make an impact





Thank you!



Works Cited

- (1) "Ocean Plastic Pollution from Spring 2017 Shorelines Monterey Bay Aquarium Member Magazine." Spring 2017 - Ocean Plastic Pollution - Shorelines Member Magazine. N.p., n.d. Web. 10 Aug. 2017.
<<https://www.montereybayaquarium.org/members/shorelines/shorelines-spring-2017/ocean-plastic-pollution>>.
- (2) "Marine Pollution." National Geographic. N.p., 09 Aug. 2017. Web. 10 Aug. 2017.
<<http://www.nationalgeographic.com/environment/oceans/critical-issues-marine-pollution/>>.
- (3) "Global Plastic Production Rises, Recycling Lags." Global Plastic Production Rises, Recycling Lags | Worldwatch Institute. N.p., n.d. Web. 10 Aug. 2017.
<<http://www.worldwatch.org/global-plastic-production-rises-recycling-lags-0>>.
- (4) "September 5, 2014 | RWL Water News Team. "What Happens When Plastics Degrade in Water?" RWL Water. N.p., 05 Sept. 2014. Web. 10 Aug. 2017.
<<https://www.rwlwater.com/happens-plastics-degrade-water/>>.

Works Cited

- (5) "Ocean Dumping: International Treaties." EPA. Environmental Protection Agency, 04 Jan. 2017. Web. 10 Aug. 2017. <<https://www.epa.gov/ocean-dumping/ocean-dumping-international-treaties>>.
- (6) "International Coastal Cleanup." *Ocean Conservancy*. N.p., n.d. Web. 10 Aug. 2017. <<https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/>>.
- (7) "Cleanup, [Www.theoceancleanup.com](http://www.theoceancleanup.com) The Ocean. "Www.theoceancleanup.com." The Ocean Cleanup. N.p., n.d. Web. 11 Aug. 2017. <<https://www.theoceancleanup.com/>>.
- (8) "The Product." Seabin Project. N.p., n.d. Web. 11 Aug. 2017. <<http://seabinproject.com/>>.