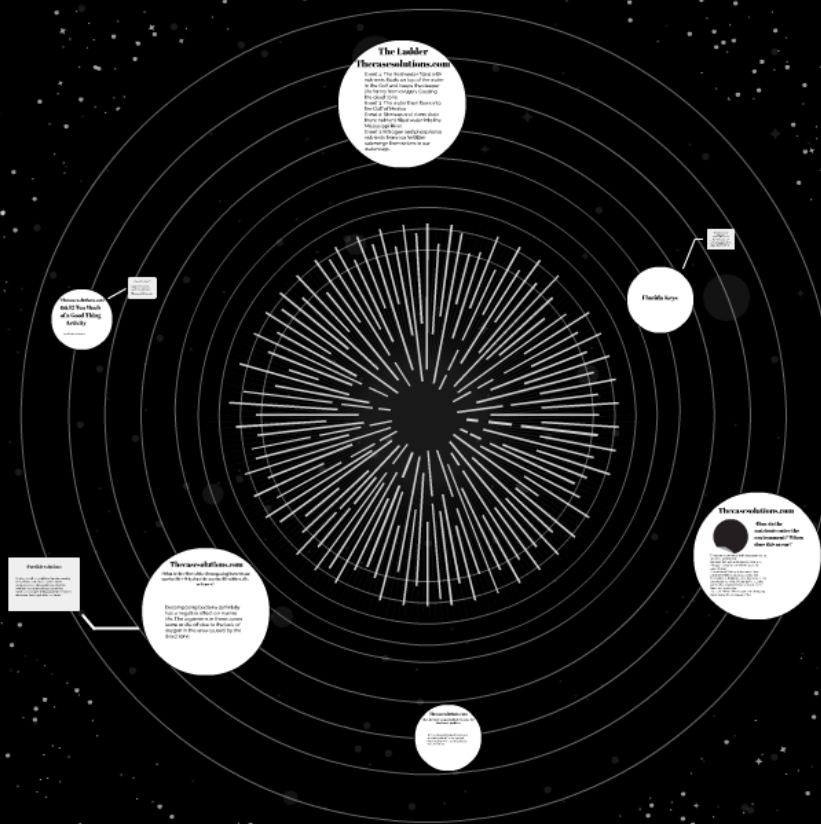


Too Much of a Good Thing? Quality as an Impediment to Innovation

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**06.12 Too Much
of a Good Thing
—Activity**

By: Christyn Ennen

What is a "Dead Zone" ?

Dead zones are described as a low-oxygen holding area in the oceans and large lakes around the world. Usually caused by the high counts of nutrient pollution by humans and or other factors.

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The Ladder

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Event 4: The freshwater filled with nutrients floats on top of the water in the Gulf and keeps the deeper life forms from oxygen. Causing the dead zone.

Event 3: The water then flows into the Gulf of Mexico

Event 2: Streams and rivers drain there nutrient filled water into the Mississippi River.

Event 1: Nitrogen and phosphorus nutrients from our fertilizer submerge themselves in our waterways.

- **Identify the types of nutrients.**

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The biggest source of excess nutrients flowing into the water is from human activities. But it can also be found through normal levels of phosphorus and nitrogen which feed the growth of a organism called cyanobacteria. Which can grow rapidly and harmful.

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•How do the nutrients enter the environment? When does this occur?

There are many ways but these seem to be the most prominent:

Sewage: Sewage adds phosphorus and nitrogen to our water which feeds the cyanobacteria.

Urban Runoff: Many toxins come from garden fertilizers and also pesticides.

Atmospheric Pollution: Very big amounts of chemicals from the US are being put into our marine environment every day every week and every year.

Industrial Waste: Many boats are dumping their waste in our oceans often.

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- **How do the decomposing bacteria cause the “dead zone” problem?**

The decomposing bacteria leaves behind much of the nutrients it was holding which contributes to the dead zone.

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- **What is the effect of the decomposing bacteria on marine life? Why does the marine life wither, die, or leaves?**

Decomposing bacteria definitely has a negative effect on marine life. The organisms in these zones leave or die off due to the lack of oxygen in the area caused by the dead zone.