

6-6-2019

Must the Dredging of Wells Harbor Continue?

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Recommended Citation

Lamp, Griffin, "Must the Dredging of Wells Harbor Continue?" (2019). *2019 Op-Eds*. 3.
https://digitalworks.union.edu/eco228_2019/3

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Eco 228
Op Ed Assignment

Must the Dredging of Wells Harbor Continue?

For the past 50 years Wells, Maine has had a busy seaport open to both commercial and residential fishermen. Maintaining this port has proven to be a rather arduous task, as the area must be routinely dredged to sustain a safe depth within the harbor for vessel travel. This maintenance is needed because the harbor is a natural marsh and was dredged into a harbor unnaturally over the years to provide safe-haven for seafaring vessels. Intermittently, due to the relatively flat underwater landscape and proximity to the coast, storm waters and high tides fill in the harbor with sediment and lead to low depths unsafe for travel. This means that dredging must be conducted every few years to remove the dregs and return the harbor to a safe depth. The process of dredging causes massive amounts of sediment to become suspended in the harbor waters, leading to unsightly murky seawaters, and increases bacteria counts within the area.

At first, as a resident, I was highly opposed to this process and felt it necessary for the environment to reach its own equilibrium, but upon further investigation found that this dredging is a necessary evil for the area to maintain a lively fishing community. Otherwise, the harbor will fill in from storms bringing in sand and sediment, and the harbor will become obsolete.

My initial research on the topic of dredging sprouted from my work as Ocean Rescue on Wells Beach, located adjacent to the mouth of the harbor. One of my tasks in this line of work was to routinely test the waters in the area for salinity as well as bacteria levels. Throughout my five years at this place of work, I found that the only times the water was ever unsafe due to bacteria levels was either after intense storms where runoff flows into the water, or during periodic dredging operations. This fueled my initial distaste for the practice and moved me to further my research into the dredging process. My main concerns in this research were whether dredging increases pollution levels in the area from pollutants buried in the sand, and if the dredging process is beneficial for the local businesses within the harbor.

In a report by Thomas W. Custer in 2013 on dredging in the Mississippi river, it was found that even though dredging increases bacteria levels dangerous for humans, it does not affect the local wildlife as they are constantly exposed to the bacterium.¹ In this study 1,275 swallow eggs were tested across the area both before and after a dredging operation. Of the eggs studied over years of dredging, nest success of the Swallows averaged 93% and did not vary from year to year. Successfully showing that the dredging, whilst disruptive for short periods of time, did not have a lasting effect on the local bird population.

Another study by Alexandre Santos-Ferreira in 2015 focusing on pollutant removal by dredging in a Portugal port sheds light on the pollution worries as well. Vola do Conde Harbor in Portugal has a long history of industrial waste being dumped into the harbor, and over the years the contaminants have reached a dangerous level. The harbor was to be dredged in a methodical manor

to remove the contaminants to lower the chemical footprint of the area. Fourteen collection areas along the harbor were used to compare chemical levels prior to dredging to data post operation. Across the board, the chemical levels were reduced from Class 3 and Class 4 contamination levels down to a safe Class 2 level. Proving that if the dredging process is carried out diligently, it can have quite positive effects.

Not to say all instances are positive, there is always the risk of worsening the situation. In a project within New Bedford Harbor, the EPA was highlighting the dangers of possibly contacting dormant pollutants that had been settling into the soil over the years. The worry pertained to PCB's which are oily particles harmful to both the local wildlife and humans. To combat this danger, the EPA implemented temporary fishing restrictions in the area having fishermen relocate during the dredging so that the catch was not contaminated in any way, avoiding possible dangers to those consuming the product.

When looking at Wells Harbor, the only worry for pollution comes from storm runoff into the harbor, but this is parallel to the study in Mississippi which proved the pollution was not an issue. And since there is no risk of pollution, the fishing doesn't need to be relocated during the time of dredging in the harbor. The only true worry is the bacteria levels found in increased numbers during the operations. Nevertheless, these bacteria are not new to the environment and thus does not affect the wildlife and is only mildly dangerous to swimmers during the time of dredging, which is often only a few weeks every 5-10 years.

In hindsight, dredging is needed to keep the harbor operational for the local fishing businesses. If that means individuals must stay out of the water for a few days every 5-10 years that is ok, because the beach is periodically closed from large rainstorms anyway. Dredging simply stirs up the water in a similar manor to storms, not adding or removing any chemicals or bacteria.