

Benefits of Wetlands and Forests:

1. Trees provide oxygen that people need and people provide CO₂ that trees need. We are partners in breathing with trees. No trees, no people.
2. Trees lower the temperatures in surrounding communities.
3. Trees and wetlands absorb flood waters. One tree can absorb 100 gal of water per day and evaporate it.
3. Trees and wetlands buffer storm surges and other types of flooding. Trees and wetlands protect the community.
4. Wetlands filter polluted water, cleansing it as it flows, protecting ecosystems.
5. Wetlands reduce erosion and stabilize shorelines.
6. Trees sequester CO₂ in the soil and in the tree branches and leaves.
7. Forests and wetlands provide a source of food, shelter, and a breeding ground for a diverse range of wildlife that thrive in this type of environment. With the loss of habitat, animals live closer to communities and animal born viruses spread faster.
8. Forests provide a variety of Medicinals.
9. Forests and wetlands provide opportunities for educational and recreational activities and clean the water for these uses.
10. Wetlands and forests create beauty and places to relieve humans from stress and recover from this stressful world humans have created.
11. When I first moved to Graniteville, we had a wide variety of birds singing every morning. Now that both the freshwater wetland and forest are gone, there are very few birds left. The chain of life has been broken and now there are consequences. Now we have lots of bugs without predators. Let's learn from our mistakes.

Dangers of Climate Change

In this part of the country, climate change includes sea level rise, torrential rain flooding and storm surge flooding. The seas are rising faster than scientists have previously acknowledged. The ice in Greenland is mostly gone. The Permafrost is now exploding methane, a greenhouse gas more powerful than CO2. The ice shelves in the Antarctic are falling into the ocean in what is a feedback loop. The more the ice melts, the more the oceans rise. With less ice, oceans absorb higher temperatures. With higher temperatures, more ice melts.

In other parts of our country and world, things are worse. Tornado clusters, fire storms, dead pelicans in southern California, beached whales, stronger storms, hotter temperatures, we cannot wait any longer to protect people. We must make natural protection a priority now.

How to Protect People from Effects of Climate Change

1. Stop destroying wetlands and forests, no matter how much money is involved.
2. When projects are under review by NYC Department of City Planning or by NYS Department of Environmental Conservation, consider the effects of climate change before the project is approved.
3. Before approval, check for underground streams, especially in Staten Island. Old Place Creek goes underground at South Ave. It goes northeast to Maple Parkway about a mile away. During Hurricane Ida, 4 homes on Maple Parkway had to be evacuated. Old Place Creek went right under those homes and a crack was formed in a bearing wall. This was confirmed by a hydrologist and by a NYSDEC map.
4. Learn from other States and other countries who are addressing the effects of climate change. Venice solved the problem of flooding in St Mark's Square through various means including a series of retractable locks and by

addressing the erosion of the barrier reef island. It was eroded by large boats navigating too close to that island. And they now have a lookout post, in the water, far from Venice, to warn of an oncoming storm surge. There are many other examples such as these.

5. And of course, no more drilling for non-renewable energy sources. I remember talk of climate change in the 1970s. I studied it in the 1980s. It's more than 50 years since then and we are still debating its validity and still not doing much to protect people.

Unfortunately, it is now very late in the game. So, destroying a forested wetland or any other type of wetland to install renewable energy technology will not help vulnerable communities before there is another storm surge and the inevitable sea level rise. Long-term thinking with installation of renewable energy sources must not be at the cost of the destruction of natural green infrastructure.

What planning are we doing for this eventuality?