## **River Quest 2024 Essay Contest Runner-Up**

## Embracing the Estuary

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St. Louis River Quest is an organization dedicated to teaching students about the St. Louis Estuary, the best ways to improve its health, and the challenges this river faces. These challenges may seem insignificant to those who do not live directly beside the St. Louis River, however, the effects of pollution and climate change are inevitable.

There are many issues that pose great threats to the St. Louis Estuary. Many of these are things you might have heard of like climate change, erosion, or pollution. The best solution to these problems is to stop them before they happen. Although there are countless ways to do this, the best ways are things everyone can do like making sure you are careful to not put garbage in places where it goes into a storm drain, planting trees, and picking up beach trash whenever you see it. By doing simple things like this you help preserve the St. Louis River.

When chemicals or any other unnatural liquids are put down your sink they don't get put into the lakes and streams right away, instead, they are cleaned at the Western Lake Superior Sanitary District. When the water gets into the WLSSD the large chunks of trash or other materials get filtered out. Then, the water is sent to the bacteria. The bacteria eats the bad chemicals and then gets removed from the water leaving clean water behind. However, when harmful chemicals are put down a storm drain the water does not get cleaned. This water is dumped directly into the nearest body of water. Here, that means Lake Superior, or the St. Louis River. These harmful chemicals are then threatening the health of the St. Louis Estuary.

Erosion is the gradual destruction of land because of two main reasons, water and wind. Unfortunately, we are unable to control the weather and the river, but there are a few things we can do. Erosion is less likely to happen in areas where there are lots of trees and grasses. This is because plants' root systems make it harder for the waves, current, or rain to take any dirt. We can ensure that when we cut down trees they are not cut close to the river. We can also plant trees in places where they have already been cut. This is not as principled a solution as avoiding the problem, however, it is an adequate attempt.

SNA stands for a Scientific and Natural Area. An SNA could be created because of endangered plants or animals. It could also be created if the particular forest, body of water, or other natural feature has not changed and must be preserved. These places are important because they have great educational value as well as being important to their ecosystems. If you find yourself in an SNA you should make sure to follow any instructions that are listed on signs. Some of these signs have small bristles at the bottom. These are so you can wipe your boots. The thing that poses the greatest threat to SNAs are invasive species. When you wipe your feet you are ensuring that no invasive species get into these fragile areas.

As important as it is to make sure an estuary is healthy, it is also important to make sure you are safe. Lake Superior has an average temperature of 46°F. The threshold for cold water is only 70°F. This means that when you are out in Lake Superior you are in danger of getting hypothermia. Hypothermia takes 15-30 minutes to set in. The best way to stay safe in cold

water is to huddle in a group with more people. This ensures that when you start to lose body heat it doesn't just escape. It will, instead, heat up your group. If you happen to be alone, you should curl into a ball. You also should not swim; because when you swim, you lose body heat 4 times faster. Hypothermia can make your muscles seize up. This is just as bad as it sounds, because your diaphragm is also a muscle. When it seizes, it can cause an involuntary gasp. This means that you are inhaling without trying. This gasp could cause you to drown if your head is underwater; but, this is unlikely to happen if you have a lifejacket on. A lifejacket can save your life, because it is buoyant which means it is less dense than what it is floating on. Wearing a lifejacket means that even if you are not conscious, you are still afloat. Eighty-eight percent of people who drown are not wearing life jackets.

River Quest has taught me so much about the St. Louis Estuary and the importance of a clean river. The estuary must be kept safe from oil and chemicals. Humans must do a better job of cleaning up the river, and everyone should pitch in by stopping problems before they happen. If we continue to protect SNAs and stop pollution, then we can restore and preserve the St. Louis Estuary.