

# What is the es-chew-air-ee?

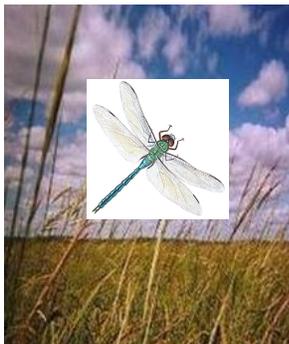
Okay, it's really spelled 'estuary'. But what is this freshwater wonder anyway? *A freshwater estuary is a place where two chemically different bodies of water meet and mix.* Many estuaries are found where rivers empty into the Great Lakes. They are important homes for animals and plants, and a special place for people and industry. In our community, we have the St. Louis River estuary. Estuaries all have a few things in common.



**A Mixing Bowl:** This is a sheltered place at the mouth (or end) of the river, where water moves slowly and spreads out. Cold water from the Great Lake mixes with warmer water from the River. Look at the map of the St. Louis River estuary on the other side of this page. What part of the river do you think is the 'mixing bowl'?



**A Mixer:** The mixer pushes lake water up into the estuary so that it mixes with the river water. In the St. Louis River, our mixer is the *seiche*. The seiche (say "say shh") happens when wind or air pressure makes the water in Lake Superior rock back and forth like a giant bathtub. The seiche can push lake water 20 miles up the St. Louis River. It makes the river flow backwards!



**A Home for Life:** The safe waters of the estuary, protected from wind and waves, make great homes for plants, birds, fish, and bugs. People like estuaries too. Maybe you went fishing, canoeing or harvested wild rice in an estuary! Protection is also good for ships, who use our estuary to load and unload grain, coal, and many other useful things. Where do animals find shelter in our estuary? Where do ships dock? Use the map on the other side of this page to make your best guess.



**The Lake Superior National Estuarine Research Reserve** in Superior, WI, is dedicated to research, stewardship, and education on the St. Louis River Estuary and surrounding forests, rivers and lakes. Check us out at [lakesuperiorreserve.org](http://lakesuperiorreserve.org) for more or like us on 

Find more resources for learning at <https://coast.noaa.gov/estuaries/>



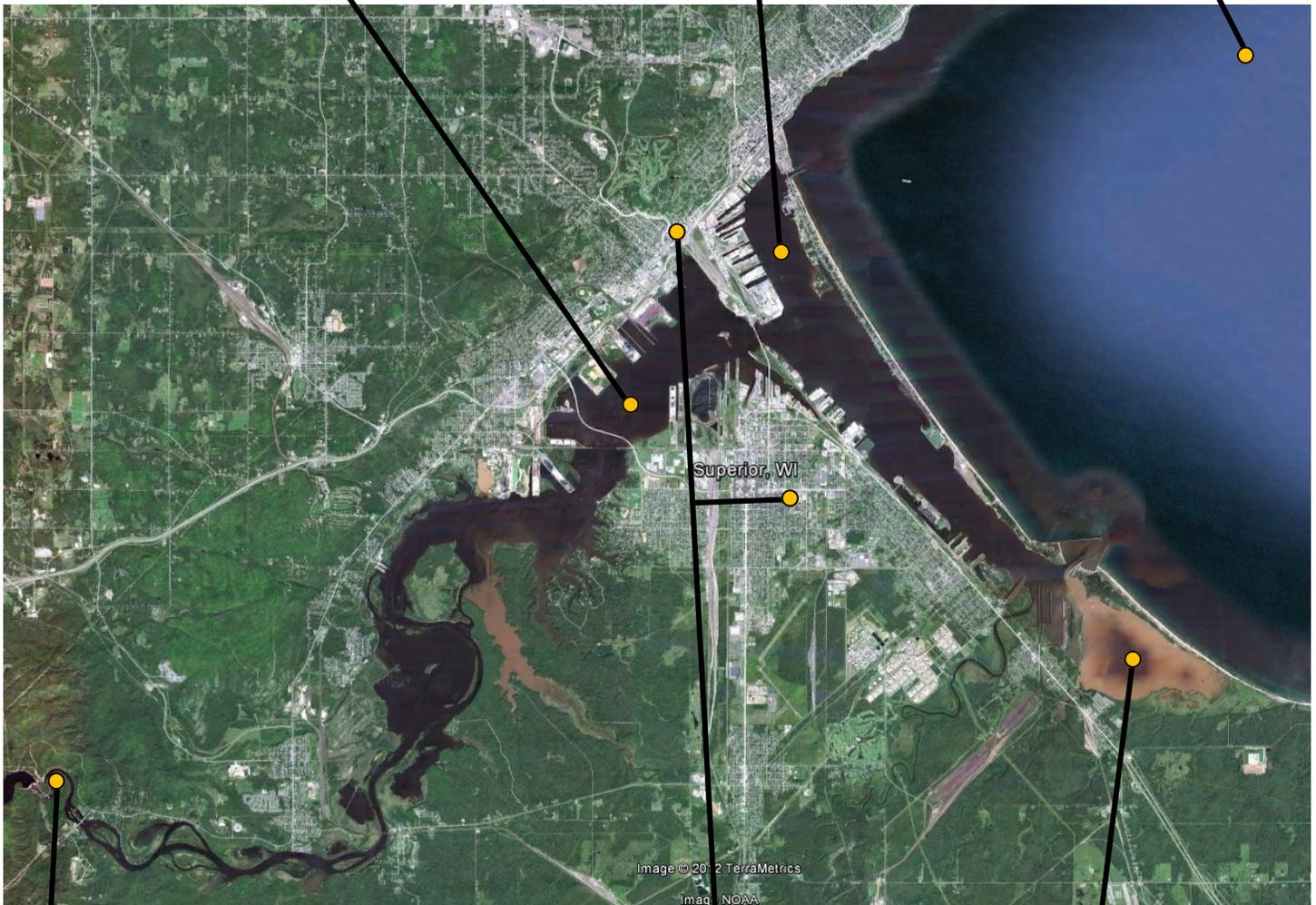
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**We live on a mighty river!** The St. Louis River is the largest river that flows into Lake Superior in the United States. The estuary, or rivermouth, is 12,000 acres. People depend on the estuary for recreation (like fishing or canoeing), industry, shipping, and the beautiful views our home is famous for. Plants and animals need it for food, shelter, a place to have babies and stop on long migrations.

**St. Louis River** water is warmer than Lake Superior and carries tiny particles of dirt and plants that make it look brown. Many plants grow here, where there are many nutrients and they are protected from wind and waves.

**The Twin Ports** of Duluth and Superior is the largest and busiest harbor on all of the Great Lakes!

**Lake Superior** water is cold and doesn't have many nutrients or plants.



**Lake Sturgeon** babies were recently found here by Fond du Lac tribal re-searchers. This may be the first time the giant fish have spawned, or laid eggs, in the river for over 100 years!



**One source of pollution** in the St. Louis River estuary is water that runs off of hard city surfaces, carrying salt, oil and dirt to the river. People are working hard to “Slow the Flow!” so that dirt and pollution settle out before reaching the lake.

**Allouez Bay** is home to many kinds of birds, especially during spring migration. Wild rice, called manoomin in Ojibwe, is being restored to this protected bay.