



UNDERSTANDING YOUR ESTUARY

Level IB- DISCOVERING YOUR ESTUARY'S PAST

Because estuaries are located between a river and a Great Lake, they were ideal sites for lumber mills. Logs could be driven down river, into the estuary, then shipped to market. Sawmill near the Fish Creek Estuary, Ashland, Wisconsin, circa 1880.

GOAL

Increase student's understanding of how the estuary's natural resources influenced historic and culture events that occurred there

OBJECTIVES, students will...

1. Understand how the estuary's resources have influenced historic and cultural use of it from Pre-European settlement to today and how that use affected the estuary
2. Brainstorm future issues that may affect the estuary
3. Create an **ESTUARY PROFILE** documenting the estuary's past and present uses

SETTING

Classroom

MATERIALS

Access to historic reference books, newspaper articles about the estuary.

Historic and current maps of the estuary area.

Visit <http://www.ecb.org/wisconsin/people.htm> for information on Wisconsin's Native American and European heritage.

BACKGROUND

Every estuary has its own special heritage based on the natural and cultural influences that shaped it.

Estuaries were important in Wisconsin's development. Because they are an interchange between an inland river and a Great Lake, estuaries were often part of the "water highway" that served as transportation corridors in Wisconsin's early history. Estuaries are gathering places for fish and waterfowl and served as prime hunting and trapping grounds. The plants growing in estuaries, like wild rice, provided food.

ACTIVITIES

Students may work together in teams or as a class to research the history of the estuary during the following “eras”. Students will need to compare their findings in order to answer some questions. A summary of findings should be recorded on the **ESTUARY PROFILE** form attached to this unit.

Era: Pre-European Settlement

Native American people have settled the shores of Wisconsin’s Great Lakes for centuries. Estuaries were like a supermarket for them. Wild rice, fish, ducks, deer, and moose provided food. Beaver, muskrat, and mink that lived in the estuary gave warm fur for clothing. Its plants offered food and medicine.

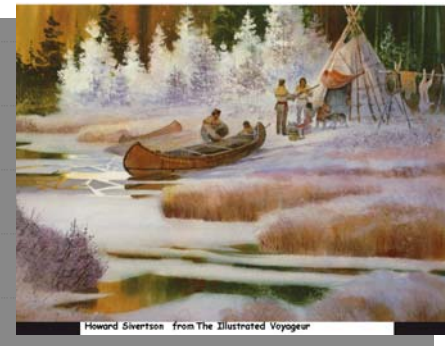


For centuries Native Americans have harvested wild rice growing in Wisconsin estuaries as an important source of food.

Research answers to the following questions:

- 1. What Native American tribe(s) lived near the estuary prior to European settlement?**
- 2. How did they use its resources?**
- 3. What has changed the way Native American people use the estuary’s resources today?**

Sources to consult: Local tribal historians, Native American websites, reference books on Wisconsin history or local histories



Estuaries were home to furbearing animals, like beaver, whose fur was in high demand from the mid 1600’s-1840.
Limited edition print by Howard Sivertson, Grand Marais, Minnesota artist

Era: Early European Settlement (1600’s – late 1800’s)

Estuaries are home for fur bearing animals like beaver. Between the late 1600’s to the mid-1800’s, Europeans traded with Native American tribes for fur. Beaver fur hats were the fashion rage in Europe.

When fashion changed, the fur trade era ended. Europeans began settling along the shores of Lake Michigan and Lake Superior. They came to log the region’s vast forests. Once the timber was cut, they stayed to farm the land.



Vast acres of timber were “cut-over” during the logging era. Soil eroded from upland areas, flowed down rivers, and choked estuaries with sediment.

Research answers to the following questions:



Estuaries and coastal wetlands were often drained or channelized to help create more cropland.

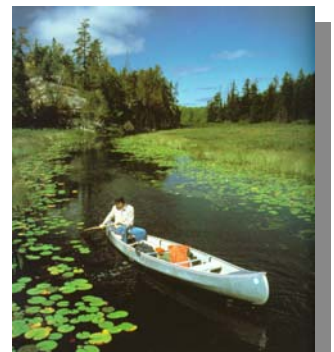
1. **What European immigrant groups settled lands near the estuary? Why did they come there?**
2. **How did European immigrants use of the land affect the estuary?**
3. **How did their use of the estuary differ from the Native American's?**
4. **During the European settlement period, how did the use of land surrounding the estuary change? What impacts of their land use still affect the estuary today?**

Sources: Reference books on Wisconsin history, local history books, or your local historical society. Contact the State of Wisconsin Historic Society for help with information about your area <http://www.wisconsinhistory.org/teachers/>.

Era: 20th-Century and Beyond (1900 to present)

Estuaries are still valuable natural resources. Today, some estuaries are in public ownership and protected. Others are threatened by pollution, changing land use, and development. Research answers to the following questions:

1. **How do people today use the estuary?**
2. **How does it differ from the way Native Americans or European immigrants may have used it?**
3. **During this time period, how has use of the land within the estuary's watershed changed? How will those changes affect the estuary?**
4. **What are the issues or problems are facing the estuary today?**



Today, Wisconsin's estuaries provide many benefits including recreational enjoyment

Sources of information: Observation of current estuary uses, newspaper articles pertaining to estuary uses and issues, oral histories or interviews of local residents who have observed changes in estuary use.

Note: A helpful guide to getting started in conducting oral histories can be found at: <http://www.lib.berkeley.edu/index.html>.

LEVEL IB- ESTUARY PROFILE



GENERAL INFORMATION

Estuary Name: _____

Location: county, nearest city/town, general region of Wisconsin:

Name of the watershed that drains into the estuary: _____

Name of the river that drains the watershed and flows through the estuary to the
Lake: _____

Name of the Great Lake the estuary is located on: _____

HISTORIC-CULTURAL PROFILE

Briefly describe how humans have used the estuary during each of the following time periods AND how their use affected the estuary. Use additional pages if needed.

- 1. Pre-European Settlement:**

- 2. Early European Settlement (1600's – late 1800's)**

- 3. 20th Century to Present: (1900 to Present)**

- 4. How do you think people will use the estuary in the future and what will be the affect of their activities on the estuary?**