

WHAT NEW DEVELOPMENT? A ROLE-PLAYING SIMULATION

Objectives:

The student will be able to:

- ◆ list ways that development can impact wetlands and its habitants;
- ◆ present the interests of townspeople affected by development; and
- ◆ present the reasons for the state, county, or town to purchase and or change zoning laws to preserve wetland as a student learning center.

Suggested Grade Level:

9-12

Subjects:

Ecology, Drama

Time:

Approximately 2 class periods

Materials:

- copies of the illustrations of the farm and proposed development
- copies of the character descriptions
- student sheets

BACKGROUND INFORMATION

Wetlands provide a healthy habitat for many different species of plants and animals. They depend on this environment for their survival. The total percentage of wetlands is decreasing every year at a rapid rate. This depletion is caused by many factors, most all caused by humans. Humans have blocked rivers, which are the main source for the water in these areas. The dams are built to provide energy, water, and food to the inhabitants upstream. Another reason that wetlands are disappearing is development. The moist rich soil is very attractive to farmers. Most farmers do not realize the effect they are directly having on the environment. Birds and other species of wildlife that once lived in the wetland are forced to find somewhere else to live.

TERMS

biodiversity: a term used to indicate the number and diversity (genetic variation) of species on Earth.

development: a process by which the natural environment is altered to serve the needs of humans.

proposal: a plan for some activity that must be approved by one or more other people.

wetland: an area that is wet or flooded and has a water table that stands at or above the land surface for at least part of the year.

ADVANCE PREPARATION

A. Discuss with students the importance of wetlands and the diversity of organisms that live there.

B. Photocopy the illustrations of the Old Tillage Farm and the proposed development. A sketch or enlarged photocopy of both situations could also be hung on the board for marking up at the public meeting.

C. Discuss the Robert's Rules of Order for the actual town meeting.

PROCEDURE

I. Setting the stage

A. The purpose of this activity is to have students play the roles of townspeople with conflicting interests at a public hearing on a new development that may have a negative impact on local wetlands.

B. Stress how their decision could affect different aspects of the environment in the future.

II. Activity

A. Hand out the illustrations of the “Old Tillage Farm” and the proposed development.

B. Next, read the situation to the class.

C. Assign the character roles to different students (or have them draw character names). Students who don't have specific roles to play can be townspeople.

D. Give them time to develop and become their characters as well as develop their positions on the issues. Students should talk with each other in character and develop relationships with other townspeople having similar feelings.

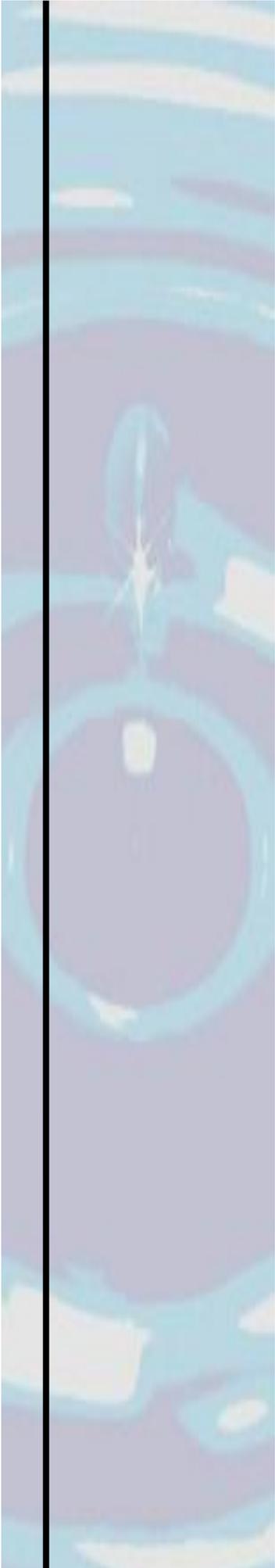
E. When it is time for the public meeting, the planning commission chair (either the teacher or an appointed student) should introduce the chair of the Waterton Zoning Board of Adjustment and start the meeting by having the developer present his proposal. Each person should take a turn presenting his/her views. The planning commission chair should decide how much exchange is allowed during the discussion. Alternatives to the developer's proposal should be sketched and discussed. The meeting should end with the chair of the Waterton Zoning Board of Adjustment reaching a decision that tries to protect the wetland ecosystems and address the needs and concerns of the community.

III. Follow-Up

A. Discuss the town meeting. Talk about issues that were brought up and how important they were to the real issue of development. How realistic was the town meeting?

IV. Extensions

A. Have students research the local governmental regulations and rules for water rights, water usage, and removal of wastewater in their



community by talking to local governmental boards and officials. Prepare a report to be presented to the class to inform fellow students of these rules and regulations.

- B. If possible have students visit a city council meeting in your area. Write a report predicting what effects a proposed development in the area may have on the environment. If one is not currently in the planning stages, go back and look into the documents of one that took place fairly recently in the students community. All public meetings are considered public property. There should be agendas and notes or minutes from those meetings on file with the district clerk in charge of that information.

R E S O U R C E S

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Thank you to the Environmental Protection Agency *Water Sourcebook* for this activity!

http://water.epa.gov/learn/kids/drinkingwater/wsb_index.cfm

STUDENT SHEET

ROLE - PLAYING GAME

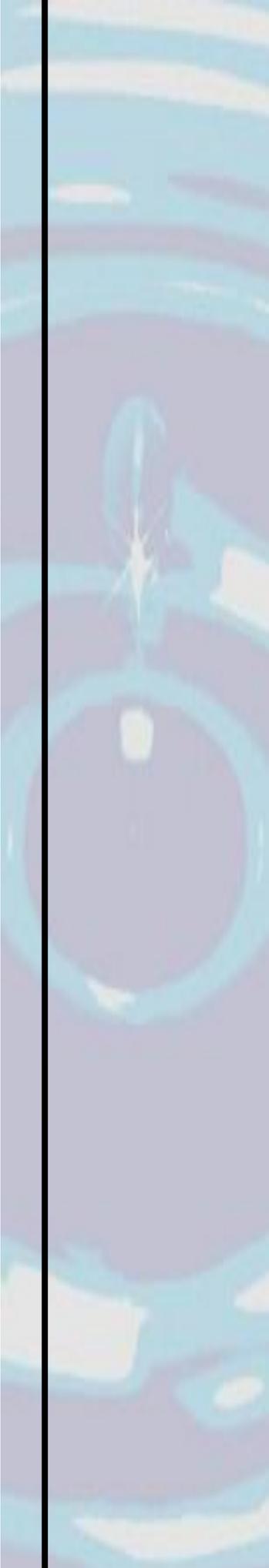
THE SITUATION

Waterton is a small rural community of 950 residents. Its village center has a general store, hardware store, and a small service station. Most people in Waterton know each other or at least know of each other. No major change or development has occurred in town up until this time—growth has been slow and incremental. Recently, however, the Old Tillage Farm was sold to a development company in order to pay inheritance taxes when Sarah Tillage died. The developer has plans to subdivide the land and build 14 new houses. The farm includes Perch Pond, a shallow pond with a large marsh and shrub swamp on its northern end, as well as a wet meadow wetland located on Creeping Creek, downstream of the pond. The proposed development calls for filling the wetland along Perch Pond to make a lawn and to dredge the pond to make it deeper for swimming. In order to reach four of the homes, a road would be built across the downstream wetland, filling in about a half acre. As currently proposed, the developer would need a variance to have this many houses built on this land. The zoning allows for five-acre lots and the farm is only 55 acres total. The townspeople are divided over the development and will discuss the site plan at tonight's planning commission meeting. This meeting is held jointly with the Zoning Board of Adjustment, which has to approve or disapprove the variance request. People have been talking and preparing for this meeting for weeks.

CHARACTER DESCRIPTIONS:

[Educator's Note: It might be more interesting to have your students make up fictional pictures (drawings) of these characters and insert them into the text on the side of each character description.]

AMY TILLAGE: You are the oldest child of Sarah and Paul Tillage and had to sell the family farm when your mother died recently. Your father died awhile ago. You hated to sell it, but you don't live in Waterton anymore. You and your siblings couldn't afford the inheritance tax without selling the farm. Unfortunately you didn't talk to the Appletrys and the Foleys before you sold the land to Alterland Development Company. Both of these neighbors were interested in buying portions of the farm. You have heard that they are upset with you. You are going to the planning commission meeting to see if



there is any information you can offer that would help protect some of the characteristics of the farm that you love—the pond where you caught small fish and frogs, the wetland adjacent to the pond where you watched ducks raise their ducklings, the wetland along Creeping Creek where you picked irises, and the woodlot where you had trails and hiding places.

JOHN APPLETRY: You and your wife, Molly, own the house and orchard across the road from the Tillage Farm. You are outraged at the developer's plans for the farm. You don't blame Amy Tillage for selling the place, but you are somewhat hurt that she didn't think to find out if you were interested in some of the land. You had asked Sarah once about leasing her corn field and putting some more apple trees in there. Your kids played in and explored the wetland and pond beyond the cornfield—catching insects and having cattail sword battles when they were little, hunting ducks when they were older. You are attending the planning commission meeting to comment on the site plan for the project. You are opposed to agricultural land changing to high-density suburban residences.

BILL DOZER: You are a representative from Alterland Development Company and the project manager for the Tillage Farm site. You are from a city far away and feel this may work against you in such a small, close-knit community. You have invited Peggy Perc to the meeting as she is from the neighboring town and is an Alterland Development Company investor. Your plan calls for 14 houses to be built on the Tillage Farm. You have proposed more than you need to build in order to give yourself a better negotiating position. Since Waterton is a small community with no industry, you feel your housing plan can help the area by adding to the tax base. You are aware that filling the wetlands will probably be an issue, but you have a backup strategy: You could build another pond down by the road to replace the wetland you fill. A pond by the road would be good for fire protection and is certainly more useful in your mind than the area through which the road will pass. That area doesn't even have water in it in August.

PEGGY PERC: You live in a neighboring town and are an investor in Alterland Development Company. Bill Dozer has asked you to attend the Waterton planning commission meeting with him. Bill wants your sense of what the planning commission members and the zoning board of adjustment members are thinking after he makes his proposal. He thinks that since you are from the area, you will have a better feel for how people are reacting. Actually, you already know what some people are feeling because when you stopped in the Waterton General Store for your Sunday paper, you heard discussions. You know the Appletrys are mad and the Foleys are upset. You also know that Phoebe Byrd will be ready to speak about the wetland issues that will come up at the meeting. You think that Bill ought to be ready with different development proposals that will use less land. You think that the



project will still make money for the company even if he builds fewer, more-expensive houses.

MARY FOLEY: You and your husband, Peter, own the horse farm across the road from the Tillage Farm. Like the Appletrys, you and Peter would also have tried to buy some of the farm. You are interested in owning the wooded area north and east of Perch Pond. It would give you more land on which to ride your horses. You are hoping that there is still a chance for you and the Appletrys to buy some of the land, especially if the development company is not allowed to build all the houses it has proposed.

SUSAN BREADLOAF: You own and run the general store in town. You have heard many discussions around the coffee pot at your store about the plans for the Tillage Farm. You know that the Appletrys and Foleys are really upset about the proposed development and are going to fight the project. You aren't sure what to think about it. You don't like to lose farmland or see places like Perch Pond become off-limits to the local kids. Your son used to go to the pond with the Appletry kids when he was younger. But your son will finish high school soon and you haven't saved much money for college, so you would love to have the added business more people would bring.

DICK RHODES: You are the road commissioner for Waterton and have lived in the town all your life. You haven't been too involved in the discussions about the proposed development on the old Tillage Farm, but you have heard about the Appletrys and the Foleys being upset. Your friend, Willy Variance, is the chair of the Zoning Board of Adjustment, so you have seen a draft of the site plan. You think it would cost a lot of money to fill in the wetland in order to put a road through it. The cows cross the stream at the wooden bridge below the wetland, and you think that is where a road should be built.

PHOEBE BYRD: You are a member of the area Audubon chapter and a local expert on plants and animals. You were horrified to learn about the development planned for the Old Tillage Farm, especially the amount of wetland to be filled. You haven't been to Perch Pond and the adjacent marsh for a while, but you do know that a marsh wren, a rare bird, has nested in this wetland at least once. You will talk at the planning commission meeting to explain how important wetlands are and to ask that the commission not allow the project as it is planned.

HANK BOARDMAN: You do logging as well as operate a portable sawmill. You are familiar with the Old Tillage Farm because you cut some trees for

firewood for Sarah Tillage. You think that the developer ought to be able to do as he chooses with the land although you don't like the idea of so many new people coming into town. Since you might get work clearing land or working on the custom houses, though, it might be good for you.

WILLY VARIANCE: You are the chair of the Waterton Zoning Board of Adjustment, and your group must decide if Alterland Development Company will be allowed to build 14 houses on the Old Tillage Farm. You have heard that many people are coming to the meeting to hear the plans and to make comments about them. You are ready to listen to everyone's comments and try

