

Activity 2: The Use of a Piece of Land

Maine Geological Survey



Objectives:

To engage students in a practical exercise in land use planning; to make the students aware of the positive and negative aspects of land use laws and local zoning ordinances.

Time:

Students will need the equivalent of at least two class periods of out-of-class preparation. In-class presentations and discussion will take at least one class period; larger groups (15+) will probably need two periods.

Background:

There are a wide variety of comprehensive plans for growth and development in Maine communities. Increasingly the major issues facing citizens, collectively and individually, involve some aspect of land use, misuse, or development; these issues, and their resolution, will become more heated and divisive as our population increases and the amount of undeveloped land decreases. There are social, political, geological, environmental, economic, and even moral issues associated with the development or exploitation of almost any piece of land. Witness the furor, discussion, and behavior of local citizens over such issues as the siting of low level (or high level) nuclear waste repositories, the acquisition of land to expand a wildlife refuge area, and the collecting of minerals by amateurs using only hand tools in areas controlled by the United States Forest Service. All of these issues, and more, have resulted in arguments, strife, and even litigation. As tomorrow's voting citizens, today's school children need to practice

thinking critically about these issues and how best (if there is a best for all parties) to resolve them.

Materials:

The class will need photographs and a legal description (deed) of a choice piece of relatively undeveloped real estate in your area; this parcel should be at least 20 acres in size. A fair market value appraisal from a local real estate office will also be useful. Teachers may wish to get permission from the property owner(s) involved before starting this activity even though the deeds and market valuations are public information.

Depending on the nature of the realtor, you may wish to get more than one of these. Any other information about the land which you feel may be valuable to student discussion should be provided.

Procedure:

Once the information about the land has been briefly discussed in class, divide the class into groups of four (4) students. Each group will select, at random, a use to which the land can be put. They have a specific amount of time to research their "proposed use" and develop a case as to why the land should be used in that particular fashion; they should be encouraged to consult zoning ordinances, local studies, Critical Areas planning reports (available from the Maine State Planning Office), and other documents in the process of developing their case. The premise to be followed here is that owners of the land have to sell the land knowing that it will be developed in some manner. You may even wish to have several students become tenants in common or joint tenants and see which group can convince them to sell the land to them.

Depending on the locale, you may wish to add or delete certain options for the various buyers. A selection of options is listed below:

- A group wishes to purchase the land to establish a bird sanctuary; no hunters, snowmobiles, or all-terrain vehicles will be allowed.
- A group intends to purchase the land and build an amusement park for the tourists complete with a dirt bike race course.
- A sand and gravel company wishes to purchase the land and develop the large sand and gravel deposits underneath the top soil. They plan to install shaker screens and an aggregate mill on the site. They will employ up to 30 local people as workers for the next 15 years.
- An out-of-town development company desperately wants to obtain the property and put in 65 subsidized housing units for low income families and the elderly. This company has a lawsuit pending in another state.
- A local dairy farmer, who wants to expand into truck gardening, wants the land to raise strawberries and raspberries.
- A processor of waste oil from service stations wants the land to use as a trucking depot; he claims he will not install storage tanks or filtration units to house or process the oil.
- A legal representative for a "near eastern religious group" wishes to purchase the land for his clients to use as a religious retreat. He says it will be used for training and meditative purposes.
- A contractor wants the land to develop into house lots; each lot would be a minimum of 3 acres, could not be further subdivided EVER, and any house built on the lot would have to have a minimum of 3,500 feet of living space excluding the garage.
- The local rod and gun club wants the land for a shooting range and meeting site.

Other options will no doubt occur when you consider the selected piece of property in the context of the surrounding community or communities.

After the presentation by each group, some structured discussion by all class members is invaluable. Questions and comments can be directed to specific groups or the class as a whole. Do not be surprised to get testimonials from some students that start out "We used to live next to a _____ and you wouldn't believe the _____."

Closure to this activity can consist of the class voting as to which proposal to accept. If other teachers are available to listen to the presentations you may wish to have THEM decide who had the best presentation and which choice THEY would make. This allows the students to see the mental processes and value systems that other adults in the school have.

Special Safety Procedures:

Students not used to doing this type of role playing or modeling activity can get very worked up when their peers disagree with them. It is best to establish ground rules BEFORE the discussion starts; remind students that they are disagreeing with other people's IDEAS for the sake of discussion and learning. Individuals or personality types are NOT the focus; how to utilize the LAND is the focus.

Follow-Up:

One way to conclude this activity is to have each member of the class vote ONCE for the proposal for land use they feel is the best one; use written ballots and do not reveal the outcome. After two weeks have the students vote again; if there has been a significant change in the outcome discuss the reasons for this.

Have each student write a "sequel" to the popular choice the class picked for the land use. Time it 10 years from now. Ask students to project what has happened to the land and the people associated with it and WHY. This makes an excellent creative writing activity within a scientific discipline.

References:

Activity developed by Duane Leavitt.

Sample Images:



Sample 1. A large field and stand of pines next to a major highway. Note the refurbished set of farm buildings at the far right. What types of development could take place here?



Sample 2. A stand of pine and fields borders a medium-sized lake. What additional issues will need to be considered in the development of this piece of property?

Name _____



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Student Sheet

Purpose:

By proposing and investigating specific uses for a piece of land, you will become aware of the many different ways in which people interact with their environment. Through discussion of these different scenarios, you will learn about the complex decisions involved in using land wisely.

Materials:

Your teacher will provide you with an information packet about a piece of land in your town or school district. This packet will include the size, description, approximate value and other data about the land. In addition, photographs or slides of this property will be available for you to look at and study. You may also wish to use the library and people in your community as resources.

Procedure:

1. Listen carefully and take notes as your teacher introduces this activity and describes the property in question. After your class has had a chance to study these materials you will be divided into groups of four.
2. Each group will select, at random, ONE possible scenario for the development of this piece of land. Each group will then have a certain amount of time to research and develop reasons WHY their use of the land ought to be the one chosen by the owners. You will probably want to use the library and may want to talk to other people in the community about your development proposal.
3. After doing your library work and research, you will need to write up a short (5-10 minutes) presentation outlining all the reasons why your development plan is the best plan. This will be presented orally to the rest of the class. You may use charts, posters, graphs, or any other aids in presenting your case. You are trying to convince the rest of the class, and the owners of the land, that your plan is the best plan. Your presentation needs to be as factual yet as persuasive as possible. Do not discuss your plan with other groups in the class.
4. On a separate piece of paper, record a written summary of your proposal.
5. Present your proposal orally to the class.
6. After all groups have given their presentations you will have a chance to make comments about other proposals, and ask questions of other groups. Your teacher will indicate how the class will decide the hypothetical outcome regarding the development of this piece of property.
7. Regardless of which development proposal you worked on, what do you feel is the best development use of this property? You may elect to leave it undeveloped but **MUST** explain, in detail, your reasons for doing so. On a separate piece of paper, write the details of a solid argument defending your point of view.