

*Unit XII:*

*Public Hearing and  
Citizen Action:  
A Final Look*

## **Unit XII Public Hearing and Citizen Action: A Final Look Introduction**

By having your students conduct a Public Hearing on topics of current interest, you will be enabling them to examine the issues from all aspects. This can be a powerful tool to get your students thinking and acting on environmental matters that affect their lives. It will require them to research watershed concerns that could affect them, their school, and their community. They will need to use much of the information and skills they learned in the previous 11 units. Water quality and quantity, point and non-point sources of pollution and ecological health are all topics that can be explored in the examples given in this unit.

Provided are examples of how to have your class conduct a Mock Public Hearing for issues that were of concern in the Narrow River Watershed, 1998 Robin Woods Development; the Hunt-Potowamut Watershed, Wastewater Districts; and in the Pawcatuck Watershed, 1991 United Nuclear Plant.

# ACTIVITY I: MOCK PUBLIC HEARING FOR THE [YOUR WATERSHED HERE ]

**OBJECTIVE:** Students will learn how different opinions, which have their basis in different value systems, create an issue. They will learn the importance of considering all sides of an issue before forming their own opinions. They will be able to identify and describe social and ecological considerations whether human uses of land conflict with each other and wildlife habitat needs.

**METHOD:** Students will research public opinion about a particular issue that affects water quality in the watershed by sending questionnaires to representatives of different interest groups in the community. Students will also research specific areas of background information about the issue. This activity culminates in a “mock” public hearing, in which students will role- play the interest groups, present their factual findings and opinions, and debate the issue.

**MATERIALS:** At least one copy of (**the plan/proposal, and Environmental Impact Statements for the issue to be decided** [*Robin Woods development proposal and Environmental Impact Statements*]), and other background information and resources; interest group contacts; materials for making visual aides; gavel; costumes; other props.

## BACKGROUND INFORMATION:

1. The pilot *AWEsome* program in the Pawcatuck Watershed (Rhode Island) used the United Nuclear site proposed development as the issue for this public hearing. A copy of this activity has been included for your reference. Any issue that interests your students, and affects the health and natural resources of your watershed, can be used.
2. (**which issue has been chosen for your watershed at this time and why** [*The Robin Woods development proposal (submitted by the Women’s Development Corporation) has been chosen as a current issue in the Narrow River Watershed because it encompasses several environmental issues including water quality, erosion, stormwater runoff, sewage treatment; and social issues such as low income housing.*])
3. Please refer to the enclosed activity on the United Nuclear Site for additional details on conducting this activity with students.

## Procedure:

### A. Preparation for the public hearing:

1. Discuss the role of public hearings in the democratic decision-making process. Review the definition of an issue, why they occur, and how public hearings help provide people with an opportunity to voice their different opinions. Explain to students that they will soon be able to participate in their own “mock” public hearing.

2. There is only the need to introduce the issue briefly, because students will be researching the background information and presenting it to themselves. Explain that there are several areas of background information and they should be knowledgeable about before the hearing. Divide the class into working groups, assigning one area of background information to each group to research. Areas of background information could include (**various facets of the issue including an overview, various needs/wants, and impacts** [*the Robin Woods subdivision proposal, possible water quality concerns, community needs for low income housing, the impact of development, etc.*]) Students should apply what they have learned from all previous program units in their research. Have each working group present their findings to the rest of the class. Encourage the students to make colorful, descriptive maps and/or charts.
3. Explain to students that they will be role-playing real groups in the community that have some interest in the issue. Assign several students to each interest group. Each interest group will send a questionnaire to the representative in the community. The questionnaire should be accompanied by a cover letter introducing your class project and purpose. The students should also provide information about the areas of background information to the people who receive questionnaires.
4. Have the class work together on drafting the questionnaires, cover letter, and summary of the different background areas. Make sure you give people a deadline for responding.
5. In case any questionnaires are not returned, have your students make up fictional, but realistic as possible, position statements for each interest group.
6. As students receive their questionnaires, have them prepare for the public hearing. Each interest group will present to the rest of the group: information about their interest group, their opinion about the issue, and the reasons behind their opinion. This information should be obtained directly from the returned questionnaires. Have students gather costumes and props so they can actively role play their interest groups. This will make the hearing more fun and lively.

#### **B. The public hearing:**

1. The hearing will be more exciting if you can take students to an “official” setting, such as a town hall meeting or chamber room.
2. Introduce the hearing officially; as moderator, set a tone for professional conduct, pointing out your gavel and the consequences for unruly debate behavior.
3. Briefly review the background information gathered and presented by students previously in class. Display the visual aids at the hearing.

4. Introduce each interest group; have them make their presentations. Summarize the position statement of each group on the board. What values underlie the different positions? Environmental? Economic? Aesthetic? Recreation? Other?
5. Have each interest group pose a question to another group. Groups that are “pro” (**your issue here** [*development*]) should ask questions of those that are “con”, and vice versa. Make sure that all groups get to ask one question and that all groups have to answer one question.
6. Allow a time after the question/answer period for open questions. Encourage lively debate.
7. To conclude the hearing, ask students to drop their interest group roles and discuss how they really feel about the issue and why. Ask them with which interest groups they identify most. What values do you have that make you feel the way you do?
8. Can the needs of society and the needs of the natural environment coexist? How can we meet our economic needs and still protect the quality of our natural resources?
9. What can we do to support and protect the things that we value? What can we do in the community to make our voices be heard?

**The following list of interest groups was suggested for the Robin Woods development issue given as examples above. You should, of course, provide your own list of interest groups who would be concerned about your chosen issue.**

**Possible Interest Groups to Receive Questionnaire and be Role-Played by Students**

The Narrow River Preservation Association  
P.O. Box 8  
Sunderstown, RI 02874  
(401) 783-7277  
(401) 792-9341

Coastal Resources Management Council  
Oliver Stedman Center  
4808 Tower Hill Rd.  
Wakefield, RI 02879-2476  
(401) 277-2476

Women's Development Corporation  
861 Broad Street  
Providence, RI 02907  
(401) 941-2900

Town of Narragansett  
Planning Department  
25 Fifth Ave  
Narragansett, RI  
Contact: Clark Collins  
(401) 789-1044

Narragansett Conservation Commission  
993 Point Judith Rd.  
Narragansett, RI 02882  
(401) 277-3434  
Contact: Bob Ballou

Narragansett Land Trust  
25 Fifth Ave  
Narragansett, RI  
(401) 782-0631  
Contact: Tracy Land

Southern Rhode Island Conservation District  
60 Quaker Lane, Suite 46  
Warwick, RI 02886  
(401) 822-8832

## Sample cover letter for questionnaire

Hello, my name is \_\_\_\_\_ and I am a 6<sup>th</sup> grade student at \_\_\_\_\_ School in \_\_\_\_\_ (town)\_\_\_\_\_. My class is collecting information on how people feel about **(your issue here** [*Wastewater Management Districts, such as the one put forth in Charlestown*]).

I am especially interested in your opinion as \_\_\_\_\_ (a person of some position in an interest group)\_\_\_\_\_. I will represent the opinion of the \_\_\_\_\_ (interest group)\_\_\_\_\_ in a model hearing about the issue. This model hearing is a part of the *Active Watershed Education Project* in the **(your watershed here** [*Hunt-Potowomut watershed*]), sponsored by the **(who the project is sponsored by** [*Southern Rhode Island Conservation District*]).

(Background information on the issue)

I would appreciate it very much if you could take the time to fill out this questionnaire and return it to me by \_\_\_\_\_.

Sincerely,

\_\_\_\_\_  
(Enclose a photograph of yourself)

**This document is a sample questionnaire which was used for the Wastewater Management Districts in the Hunt-Potowomut Watershed in Rhode Island. You may use it as a guide for the creation of your own questionnaire about your issue.**

### **Suggested Questionnaire Format**

Please answer the question in a manner that best represents the \_\_\_\_\_(interest group)\_\_\_\_\_.

Please describe the goals/purpose of the \_\_\_\_\_(interest group)\_\_\_\_\_ and your relation to or position within this \_\_\_\_\_(organization, agency, etc.)\_\_\_\_\_.

Do you live or work in the Hunt-Potowomut Watershed?

Were you aware of the Wastewater Management Districts issue before you received this letter?

If so, how would you describe your concern about it?

What watershed resources do you rely on for your livelihood?

What watershed qualities do you enjoy for recreational or aesthetic pleasure?

Which resources/qualities do you think this potential district will affect?

How? Positively? Negatively?

Do you feel the proposed idea is: the best, a good, a poor, or a \_\_\_\_\_(fill in your own description) solution to failing septic systems? (circle one)

Why?

If you did not circle “best”, what do you feel is the best approach to maintaining septic systems?

Please explain why.

Do you think there is a high, moderate, or low probability that your proposed “best” approach will happen? (circle one)

Why?

If you circled “low” or “moderate”, what might be a “2<sup>nd</sup> best” approach that may be more likely to happen?

Why?



What values/qualities/resources would you be sacrificing by settling for this “2<sup>nd</sup> best” plan?

What ways can you try to help make your “best” approach happen?

Do you think you’ll get involved?

## ***SAMPLE A***

### **This document is a sample of the Mock Public Hearing from the Hunt-Potowomut watershed in Rhode Island.**

**OBJECTIVE:** Students will learn how different opinions, which have their basis in different value systems, create an issue. They will learn the importance of considering all sides of an issue before forming their own opinions. They will be able to identify and describe social and ecological considerations where human uses of land conflict with each other and with wildlife habitat needs.

**METHOD:** Students will research public opinion about a particular issue that affects water quality in the watershed by sending questionnaires to representatives of different interest groups in the community. Students will also research specific areas of factual background information about the issue. This activity culminates in a “mock” public hearing, in which students will role play the interest groups, present their factual findings and opinions, and debate the issue.

**MATERIALS:** background information and resources (see below); interest group contacts (see below); materials for making visual aides; gavel, costumes, other props.

#### **BACKGROUND INFORMATION:**

1. The Active Watershed Education Program in the Hunt-Potowomut watershed suggests the use of the development of Wastewater Management Districts as the issue for this public hearing. However, any issue that interests your students, and affects the water quality of your watershed, can be used. For your interest, information on the United Nuclear Site proposed development which was used for this unit during the pilot project in the Pawcatuck watershed is also included here.
2. The development of Wastewater Management Districts was chosen because it addresses several water quality issues, such as sewage treatment, failing Individual Sewage Disposal Systems, drinking water contamination, eutrophication of surface water bodies, and stormwater runoff. The issue also requires the consideration of important social and economic concerns such as private property rights, town revenue and budgets, employment opportunities, recreation, natural aesthetics, and the right to privacy.
3. Specific background information on the issue and interest groups is provided below.

#### **PROCEDURE:**

##### **A. Preparation for the public hearing:**

1. Discuss the role of public hearings in the democratic decision-making process. Review the definition of an issue, why they occur, and how public hearings help

provide people with an opportunity to voice their different opinions. Explain to students that they will soon be able to participate in their own “mock” public hearing.

2. There is only the need to introduce the issue briefly, because students will be researching the background information and presenting it to themselves. Explain that there are six areas of background information that they should be knowledgeable about before the hearing. Divide the class into six working groups, assigning one area of background information to each group to research. Students should apply what they have learned from all previous program units in their research. Have each working group present their findings to the rest of the class. Encourage the students to make colorful, descriptive maps and/or charts.
3. Explain to students that they will be role-playing real groups in the community that have some interest in the issue. Since there are 10 interest groups, assign 2-3 students to each group. Each interest group of 2-3 students will send a questionnaire to the representative in the community. The questionnaire should be accompanied by a cover letter introducing your class’s project and purpose. The students should also provide information about the six areas of background information to the people who receive their questionnaires.
4. Have the class work together on drafting the questionnaires, cover letter, and summary of the six background areas. Make sure you give people a deadline for responding.
5. In case any questionnaires are not returned, fictional, but realistic as possible, position statements for each interest group are enclosed below.
6. As students receive their questionnaires, have them prepare for the public hearing. Each interest group of 2-3 students will present to the rest of the group: information about their interest group, their opinion about the issue, and the reasons behind their opinion. This information should be obtained directly from the returned questionnaires. Have students gather costumes and props so they can actively role play their interest groups. This will make the hearing more fun and lively.

#### **B. The public hearing:**

1. The hearing will also be more exciting if you can take students to an “official” setting, such as a town hall meeting or chamber room.
2. Introduce the hearing officially; as moderator, set a tone for professional conduct, pointing out your gavel and the consequences for unruly debate behavior.
3. Briefly review the background information gathered and presented by students previously in class. Display the visual aides at the hearing.

4. Introduce each interest group; have them make their presentations. Summarize the position statements of each group on the board. What values underlie the different positions? Environmental? Economic? Aesthetic? Recreation? Other?
5. Assign each interest group another group to pose a question to. Groups that are “pro” the creation of a Wastewater Management District should ask questions of those that are “con”, and vice versa. Make sure that all groups get to ask one question and that all groups have to answer one question.
6. Allow a time after the question/answer period for open questions. Encourage lively debate.
7. To conclude the hearing, ask students to drop their interest group roles and discuss how they really feel about the issue, and why. Ask them with which interest groups they identify with most. What values do you have that make you feel the way you do?
8. Can the needs of society and the needs of the natural environment coexist? How can we meet our economic needs and still protect the quality of our natural resources?
9. What can we do to support and protect the things that we value? What can we do in the community to make our voices be heard?

## **Background information on Individual Sewage Disposal Systems**

### **I. Individual Sewage Disposal Systems**

A growing consensus in Rhode Island agrees that increasing volumes of wastewater are overwhelming outdated cesspools and septic systems and polluting nearby ponds and streams. In the Hunt-Potowomut watershed, many neighborhoods are serviced by individual cesspools or septic systems that were designed without much concern for water quality. Outdated, overburdened and poorly maintained, these systems are an important source of bacterial and nutrient pollution in the watershed’s surface and ground waters. When unsafe levels of fecal coliforms forced the closure of the Greenwich Bay shellfishing beds in 1992, experts pointed to runoff from the thousands of Individual Sewage Disposal Systems (ISDS) surrounding the Bay. A year-long study conducted by the US Food and Drug Administration found the Hunt-Potowomut River to one of the top six sources of fecal contamination to the Bay. In fact, it was rated second after Hardig Brook as a source of pollution.

A modern individual septic system is an efficient way to handle sewage if that system is cared for and if the area receiving overflow is properly designed. Septic systems are miniature sewage treatment plants designed to treat wastewater from sinks, baths, toilets, and washing machines. Wastewater enters a septic tank, where heavy solids sink to the bottom and grease, oils, and lighter solids rise to the top. Bacteria decompose the solid organic matter while liquids flow out through a pipe into a leachfield. The liquid effluent,

carrying disease-causing components, nutrients and other waste products, is purified by filtration and decomposed by micro-organisms in the soil. The purified wastewater then moves down into the groundwater system.

Questions to consider for research presentations:

What did Native Americans and early settlers do with their waste?

How did this change as urban areas developed?

When did people start developing ISDS?

What is an ISDS?

How do they deal with waste?

How many people in the Hunt-Potowomut watershed use ISDS?

Why can't residents use sewers?

## **II. Failing Septic Systems**

Without proper maintenance and operation, individual sewage disposal systems (ISDS) or septic systems will eventually fail. Septic system failures pose a public health risk and a potential contamination source to the surface and ground waters of the Hunt-Potowomut watershed, and to Rhode Island. A failed system is any sewage disposal system that does not adequately treat and dispose of sewage. The standard septic system installed in the 50's and 60's was metal which corrodes after years of service and consequently does not perform its intended function. Non-metallic tanks also fail.

Improper use, poor soil conditions or thickly settled neighborhoods can cause problems that can lead to expensive repairs or unsanitary conditions where partially treated waste pollutes nearby wetlands or groundwater supplies. There are four factors that influence the proper operation and life expectancy of a septic system: location, design, installation and maintenance. The Department of Environmental Management regulates the first three factors, but maintenance, which is unregulated, has been severely neglected by many homeowners. Proper maintenance includes inspecting your tank each year, pumping your septic tank once every three years, limiting the amount of water entering your tank, and avoiding the disposal of harmful materials in your system.

Sewer lines are a potential solution to failing septic systems, but they do not extend everywhere. Installing sewer lines can also be highly disruptive and extremely expensive. Maintaining and operating the wastewater treatment plant is also expensive, costing an annual average of \$258 per sewerer homeowner. In addition, much of the federal monies which were available during the 1980s for installing and upgrading wastewater treatment plants and sewer lines are gone. Because of the current economic conditions in Rhode Island and elsewhere, it is highly unlikely that the state can adequately cover the cost of sewerer neighborhoods.

Questions to consider for research presentations:

What are the four factors that determine if a septic system will operate properly?

Why do septic systems fail?

What soil types are found in the Hunt-Potowomut watershed?

How do soils affect ISDS?

What is the failure rate in the Hunt-Potowomut watershed?  
What can one do to prevent and/or correct a failing system?  
Because the watershed is fairly urban, why doesn't everyone just hook up to a sewer system?

### **III. Surface and groundwater contamination**

Failing septic systems are the largest single cause of water-related disease outbreaks in the US. Disease-causing microorganisms (pathogens) have been found to contaminate both groundwater supplies and surface waters. Wastewater that comes up to the surface can runoff to contaminate nearby surface waters. In addition, effluent can contaminate groundwater by seeping through soils without treatment. This may result in the spread of bacteria, viruses and nutrients in the groundwater.

- Even properly functioning septic systems can deliver significant amounts of nitrate to the groundwater. This can affect drinking water in residential areas relying on groundwater, especially in coarse sandy soils.
- Septic systems are a major source of nutrients which stimulate eutrophication. Many of Rhode Island's surface waters are highly susceptible to eutrophication.
- Pathogens (bacteria and viruses) can travel great distances in saturated flow and are a major threat from improperly functioning septic systems.

#### Questions to consider for research presentations:

What surface water, wetland, and groundwater resources are found in the watershed?  
How does a failing septic system impact water quality?  
How has it affected the Hunt-Potowomut River and the Hunt Aquifer?  
What kinds of contaminants come from failing septic systems?  
The majority of residents in the watershed get their drinking water from groundwater.  
Why does it matter if the watershed's groundwater resources become contaminated?

### **IV. Wastewater Management District**

The Department of Environmental Management has strict septic system regulations relating to the location, design and installation of new systems in addition to application of innovative technology and public education. In 1986, a task force was organized by RI DEM to review and recommend revisions to its septic system regulations. The Task Force found that the existing regulations were inadequate in addressing the regular maintenance of septic systems. Because the State did not have the resources available to implement and enforce such a program, it was recommended that municipalities assume this responsibility.

Enabling legislation that was passed in the 1987 General Assembly Session allows Rhode Island municipalities to establish Wastewater Management Districts (WWMD). The purpose of these districts would be to protect water quality and public health through regular maintenance and inspection of septic systems. This can be done on a volunteer

basis or on a mandatory basis, depending on the kind of legislation or ordinance which a municipality chooses to initiate in their town. According to the state guidelines, septic system inspection is the key component of a WWMD. Yearly inspections will determine how much material is accumulating in the septic tank and if the tank is working correctly. If the inspection reveals a malfunctioning system, the owner should be given written notice of probable cause and suggested corrective actions. The owner would then be allowed a thirty day period in which to contact DEM and acquire appropriate permits to repair the system if necessary. If a system has not failed, but needs pumping the owner would need to show proof that the system has been pumped within thirty days of inspections. If the homeowner does not comply, a fine could be levied against the homeowner.

The Wastewater Management District would be a local program. Ordinances would be written by local people, adjusted by local people, and are proposed to help local people. In addition, the maintenance program can be easily modified to fit the needs of the community.

In the fall of 1994, the voters of Charlestown approved a local ordinance requiring that all residential septic systems be inspected and pumped within the next three years. This ordinance was approved based on the fact that a volunteer approach to septic system maintenance just wasn't working. However, in June of 1995 the same voters rejected the budget of \$69,000 needed to pay for personnel and supplies to implement the ordinance. The debate continues on today. As in Charlestown, the issue of wastewater management districts is currently being debated in many cities and towns.

Questions to consider for research presentations:

Are there any current statewide regulations pertaining to septic systems?

Why doesn't DEM regulate maintenance?

Is there a local body of government in your town or city that can regulate septic system maintenance?

Do towns in the watershed need wastewater management districts?

What can a wastewater management district do to improve water quality in the Hunt-Potowomut River and to protect the watershed's sole source aquifer?

## **V. Economic Impacts**

The creation of a Wastewater Management District would have several economic impacts, for both the homeowner and the city.

First, it would be considerably less expensive for a homeowner to pump out a septic system every three years than it would to replace a failed system. In addition, septic system maintenance would be less expensive than hooking up to a sewer. The national average for yearly municipal services is \$258. The cost to pump out a septic system could cost anywhere between \$60-\$150, every three years.

Second, the cost to the city or town to implement a mandatory maintenance ordinance would be less than installing new sewer lines, and building, maintaining and operating a wastewater treatment facility. One site inspector and an administrator would be needed to successfully operate the District. It is also much cheaper to rely on septic systems than to install public sewers and assess homeowners for the expense.

Third, the economic impact of good water quality on state and local resources would be beneficial. Tourism is the second largest revenue generator in the State. A great number of these visitors use the parks, refuges, ponds, and waterways of the Hunt-Potowomut watershed and Rhode Island and thus depend on good water quality for swimming, boating, fishing and aesthetic uses. The economic impact of failing septic systems has already been felt in the Greenwich Bay watershed where the closure of the shell fisheries has amounted to an annual commercial loss of over \$4 million. The Wastewater Management District would directly affect the dollars spent by boaters, bathers, hikers, fishermen and clammers who enjoy the Greenwich Bay and its surrounding parklands.

Fourth, the quality of life would improve if septic systems operated properly thus raising the value of a property and its surrounding neighborhood.

Questions to consider for research presentations:

How much will it cost the city or town to have a wastewater management district?

Who pays for it?

Who much does it cost to maintain and/or replace a septic system?

How does water quality affect the economic health of the watershed?

How would a properly functioning septic system affect the following:

- a. employment?
- b. recreation facilities?
- c. tax revenues?
- d. community services?

## **VI. Privacy Issues**

A Wastewater Management District would grant passage to District officials onto private property for the periodic inspection of septic systems. It also strongly recommends the use of records to track all septic systems within the boundaries of the WWMD. Both record keeping and private property access have been interpreted as a blatant form of disrespect for the private property rights of town's residents. In addition, some may question the efficacy of establishing another layer to local bureaucracy. As one resident of Charlestown put it – “the vast majority of Charlestown residents are law abiding citizens and we do not need ‘Big Brother’ looking over our shoulders counting the number of times that we flush our toilets and telling use when to pump our septic tanks.”

Questions to consider for research presentations:

What personal impacts will the proposed development of a regulatory body have on a homeowner?



Is having a site inspector come to your home considered an invasion of privacy?  
Does government regulation interfere with your right to privacy?  
Can a city employee report on a homeowner's activities other than those directly related to the ISDS?  
Does government regulation really help the problem or would it be just another layer of costly bureaucracy?

**Sources of information:**

Scituate Reservoir Watershed Management Plan – Wastewater Management Districts.... A Starting Point, Report #62, State of Rhode Island and Providence Plantations, December 1987.

An Ordinance in Relation to Wastewater Management District, Chapter 210, Ordinance No. 198, Town of Charlestown, October 1994.

Maintaining Your Septic System, Natural Resources Facts – Fact Sheet # 88-2, URI, April 1988.

Septic Systems, The Land Management Project – Land Use and Water Quality Series, Fact Sheet No. 1, August 1989.

Greenwich Bay Watershed Restoration Initiative, Narragansett Bay Project, Fact Sheet 6/95.

Greenwich Bay Progress Report, City of Warwick Planning Department, October 1994.

Better Septic Systems are on the way, Peter Lord, Providence Journal, 1/8/95.

Underground Revolution, Peter Lord, Providence Journal, 4/2/95.

People's Forum, The Sun, April 7, 1995.

Council Okays Pumping Program, Amy Dunne, Chariho Times, 8/31/95.

## **SAMPLE B**

### **This document is a sample of the Mock Public Hearing from the pilot program in Pawcatuck, Rhode Island.**

**OBJECTIVE:** Students will learn how different opinions, which have their basis in different value systems, create an issue. They will learn the importance of considering all sides of an issue before forming their own opinions. They will be able to identify and describe social and ecological considerations where human uses of land conflict with each other and with wildlife habitat needs.

**METHOD:** Students will research public opinion about a particular issue that affects water quality in the watershed by sending questionnaires to representatives of different interest groups in the community. Students will also research specific areas of background information about the issue. This activity culminates in a “mock” public hearing, in which students will role play the interest groups, present their factual findings and opinions, and debate the issue.

**MATERIALS:** At least one copy of United Nuclear Corporation’s “Wood River, Preliminary Planning Study” and other background information and resources (see below); interest group contacts (see below); materials for making visual aides; gavel, costumes, other props.

#### **BACKGROUND INFORMATION:**

1. The pilot project of the Pawcatuck Watershed Education Program used the United Nuclear site proposed development as the issue for this public hearing. Thus this issue will be presented in the curriculum as an example. However, any issue that interests your students, and affects the water quality of your watershed, can be used.
2. The United Nuclear Site proposed development was chosen because it encompasses many water quality issues, such as wetland loss, erosion, stormwater runoff, pesticide/fertilizer runoff, radioactive contamination, and sewage treatment. The issue also requires the consideration of important social and economic concerns such as town revenue, employment opportunities, recreation, rural aesthetics, and the value of special cultural sites.
3. Specific background information on the issue and interest groups is provided below.

#### **PROCEDURE:**

##### **A. Preparation for the public hearing:**

1. Discuss the role of public hearings in the democratic decision-making process. Review the definition of an issue, why they occur, and how public hearings help

provide people with an opportunity to voice their different opinions. Explain to students that they will soon be able to participate in their own “mock” public hearing.

2. There is only the need to introduce the issue briefly, because students will be researching the background information and presenting it to themselves. Explain that there are six areas of background information that they should be knowledgeable about before the hearing. Divide the class into six working groups, assigning one area of background information to each group to research. Students should apply what they have learned from all previous program units in their research. Have each working group present their findings to the rest of the class. Encourage the students to make colorful, descriptive maps and/or charts.
3. Explain to students that they will be role-playing real groups in the community that have some interest in the issue. Since there are 11 interest groups, assign 2-3 students to each group. Each interest group of 2-3 students will send a questionnaire to the representative in the community. The questionnaire should be accompanied by a cover letter introducing your class’s project and purpose. The students should also provide information about the six areas of background information to the people who receive their questionnaires.
4. Have the class work together on drafting the questionnaires, cover letter, and summary of the six background areas. Make sure you give people a deadline for responding.
5. In case any questionnaires are not returned, fictional, but realistic as possible, position statements for each interest group are enclosed below.
6. As students receive their questionnaires, have them prepare for the public hearing. Each interest group of 2-3 students will present to the rest of the group: information about their interest group, their opinion about the issue, and the reasons behind their opinion. This information should be obtained directly from the returned questionnaires. Have students gather costumes and props so they can actively role play their interest groups. This will make the hearing more fun and lively.

#### **B. The public hearing:**

1. The hearing will be more exciting if you can take students to an “official” setting, such as a town hall meeting or chamber room.
2. Introduce the hearing officially; as moderator, set a tone for professional conduct, pointing out your gavel and the consequences for unruly debate behavior.
3. Briefly review the background information gathered and presented by students previously in class. Display the visual aids at the hearing.

4. Introduce each interest group; have them make their presentations. Summarize the position statements of each group on the board. What values underlie the different positions? Environmental? Economic? Aesthetic? Recreation? Other?
5. Assign each interest group another group to pose a question to. Groups that are “pro” development should ask questions of those that are “con”, and vice versa. Make sure that all groups get to ask one question and that all groups have to answer one question.
6. Allow a time after the question/answer period for open questions. Encourage lively debate.
7. To conclude the hearing, ask students to drop their interest group roles and discuss how they really feel about the issue, and why. Ask them with which interest groups they identify with most. What values do you have that make you feel the way you do?
8. Can the needs of society and the needs of the natural environment coexist? How can we meet our economic needs and still protect the quality of our natural resources?
9. What can we do to support and protect the things that we value? What can we do in the community to make our voices be heard?

## **SAMPLE C**

**This document is an example of a mock public hearing on a theoretical development issue. It can be completed in 1 to 2 class periods.**

### **LAND DEVELOPMENT PROPOSAL: A PUBLIC HEARING**

**OBJECTIVE:** Participants will resolve local planning issues through a public participation process that builds consensus among planning board members. Groups will represent competing interests discussing proposed development plans for an area of land that will affect the Pawtuxet River watershed. They will present their point of view to a three member board responsible for making a decision at the end of the exercise.

**ACTIVITY:** Participants will be provided with the following items:

1. a USGS map of the watershed
2. a development plan
3. a list of facts about land use in the area
4. a mission statement for the group they will represent in the role play.

#### **TIMELINE:**

- 5 minutes: A problem is presented and designated groups are formed. A planning board is chosen.
- 10 minutes: Each group reads the mission statement of the group and the facts about the proposed development.
- 10 minutes: Each group chooses a leader to present the group's position on the proposed development and a position statement is formed.
- 15 minutes: Each group has 3 minutes to present the group's position – 2 minutes for a presentation and 1 minute to answer questions from the board.
- 10 minutes: Moderated open discussion.
- 5 minutes: Board leaves, makes decision, and justifies proposed action.
- 5 minutes: Recap and participant reaction to meeting.

## **GROUPS PARTICIPATING IN HEARING ON MEGAMAX DEVELOPMENT**

### **Developers**

This group represents the Scituate Chamber of Commerce, which promotes economic development in the city. Historically the group feels that only manufacturing and service industries should be encouraged. This group agrees that this site could play a key role in creating more jobs for the area. The building of a store would also provide additional tax revenues for the city to pay for the rising costs of maintaining their school system. This group identified three industries in Rhode Island that deserve special support because they provide the greatest impact to the local economy: manufacturing, tourism and fishing.

The Chamber of Commerce feels the development of the site would enhance the local economy through various business related spin-offs and through boosting property values. This group supports building a large store on the McDonald's farm.

### **The Land Use Collaborative representing Mr. and Mrs. McDonald**

This group represents Mr. and Mrs. McDonald who own the property and want to sell it if they cannot find alternative uses that will provide sufficient funds to maintain the land. This group was hired by the McDonald's as land planning and development consultants. This group recognizes the need for a well thought out plan that can lure a potential developer to buy the land, but also recognize that Scituate places a high value on its rural character and open space.

This group is concerned about the environment and the quality of the Pawtuxet River that lies adjacent to the property. This group would like to see a compromise where recreation and economic development could occur together. Wetlands and streams are protected by this group's plan with a sensitive design that minimizes impacts and incorporates them into valuable site amenities. Best management practices will address the permanent handling of storm water runoff away from streams and wetlands into special lagoons.

### **City Chamber of Commerce**

This group represents the Chamber of Commerce, which is composed of representatives from local businesses in the area such as restaurants, hotels, stores, and services, who are concerned about the prospects for future business.

This group feels that the proposed development is bound to bring more customers into the area. The group representing the McDonald's figures 100 customers on average would visit the store each day and bring in an estimated \$50,000 to other stores and restaurants in the area. Thus, the store would be a unique asset for the town.

### **Pawtuxet River Authority**

The Pawtuxet River Authority is a public benefit corporation created in 1971 to protect and improve the Pawtuxet River, one of the largest watersheds in Rhode Island. This

group is funded by the towns of Coventry, West Warwick, Scituate, Cranston, and Warwick. The Authority is the governing body authorized to administer, seek funding, appoint staff, acquire land and establish policy for the river, to the improvement and betterment of the participating communities. This group monitors flood and water pollution control, works with state and local officials and other organizations, writes pollution reports, develops scenic and recreational resources along the river, and works to preserve land, wetlands, and water in the Pawtuxet River watershed.

This group supports a balance between economic development and protecting the water quality of the Pawtuxet River. It understands the need for towns to increase their economic base, but also support activities that do not lesson the environmental quality of the river. This group does not promote development of the site and prefers land uses that cause minimal impact on adjacent wetlands and rivers.

### **RI Canoe Association**

As a conservation group, concerned about the scenic and environmental quality of the watershed, this group agrees with the Nature Conservancy and thus opposes the development.

### **The Nature Conservancy**

This group represents a private non-profit group which is dedicated to the preservation of natural habitats. This organization secures funds from various sources for the purchase of land or development rights in order to protect unique and important natural habitats for plants and wildlife.

A wetland exists on the site where Rhode Island's Department of Environmental Management has not yet comprehensively examined the site to delineate wetland boundaries and to take an inventory of possible threatened or endangered species. This group thinks possible animal and plant communities existing on the farm are worthy of protection.

Near the wetland an ephemeral (seasonal) pond is home to a population of Marbled Salamanders, a species of "special concern". There are numerous other kettle hole ponds on the property, many less than ¼ acre in size and ephemeral, which are vital for the breeding ecology of many amphibians. Unfortunately, wetlands that are less than ¼ acre do not qualify to have the 50 foot buffer zone of land around them protected, even though the immediate upland area around an ephemeral pond is essential habitat for the amphibians in the adult stage of their life cycles. A compromise design that keeps a large part of the property as open space could incorporate these wetlands as "valuable site amenities". This group fears this means turning them into year round "duck ponds" surrounded by parking lot, which are useless to most wildlife, especially if they become eutrophicated (algae blooms) from nonpoint source pollution runoff.

## PAWTUXET RIVER AUTHORITY

### **Pawtuxet River Authority**

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This group supports a balance between economic development and protecting the water quality of the Pawtuxet River. It understands the need for towns to increase their economic base, but also support activities that do not lesson the environmental quality of the river. This group does not promote development of the site and prefers land uses that cause minimal impact on adjacent wetlands and rivers.

Questions to ask your group in preparation of your statement to the student planning board:

What are the environmental impacts of development?

Would the water quality reduce from nonpoint source pollution runoff?

Do people use the river now who enjoy the scenic quality of the river?

Does the river lose aquatic habitats by development of McDonald's farm?

What about the economic issues? Are they your group's priority?

Could an alternative proposal be designed to reach a compromise with other groups?

Tasks:

Prepare a short statement explaining your group's position using facts. Make sure you include your reason for not developing McDonald's property.

Pick a spokesperson to present your group's statement to the public and the student planning board?

Think of questions you might want to ask other groups and the student planning board.



## THE NATURE CONSERVANCY

### **The Nature Conservancy**

This group represents a private non-profit group which is dedicated to the preservation of natural habitats. This organization secures funds from various sources for the purchase of land or development rights in order to protect unique and important natural habitats for plants and wildlife.

A wetland exists on the site where Rhode Island's Department of Environmental Management has not yet comprehensively examined the site to delineate wetland boundaries and to take an inventory of possible threatened or endangered species. This group thinks possible animal and plant communities existing on the farm are worthy of protection.

Near the wetland an ephemeral (seasonal) pond is home to a population of Marbled Salamanders, a species of "special concern". There are numerous other kettle hole ponds on the property, many less than  $\frac{1}{4}$  acre in size and ephemeral, which are vital for the breeding ecology of many amphibians. Unfortunately, wetlands that are less than  $\frac{1}{4}$  acre do not qualify to have the 50 foot buffer zone of land around them protected, even though the immediate upland area around an ephemeral pond is essential habitat for the amphibians in the adult stage of their life cycles. A compromise design that keeps a large part of the property as open space could incorporate these wetlands as "valuable site amenities". This group fears this means turning them into year round "duck ponds" surrounded by parking lot, which are useless to most wildlife, especially if they become eutrophicated (algae blooms) from nonpoint source pollution runoff.

Questions to ask your group in preparation of your statement to the student planning board:

- What are the environmental impacts of development?
- Would the water quality reduce from nonpoint source pollution runoff?
- Do people use the river now who enjoy the scenic quality of the river?
- Does the river lose aquatic habitats by development of McDonald's farm?
- Do animals and plants exist on the farm? Are they on the endangered species list?

What about the economic issues? Are they your group's priority?

Could an alternative proposal be designed to reach a compromise with other groups?

Tasks:

Prepare a short statement explaining your group's position using facts. Make sure you include your reason for not developing McDonald's property.

Pick a spokesperson to present your group's statement to the public and the student planning board.

Think of questions you might want to ask other groups and the student planning board.

### **THE LAND USE COLLABORATIVE REPRESENTING MR. AND MRS. McDONALD**

#### **The Land Use Collaborative representing Mr. and Mrs. McDonald**

This group represents Mr. and Mrs. McDonald who own the property and want to sell it if they cannot find alternative uses that will provide sufficient funds to maintain the land. This group was hired by the McDonald's as land planning and development consultants. This group recognizes the need for a well thought out plan that can lure a potential developer to buy the land, but also recognize that Scituate places a high value on its rural character and open space.

This group is concerned about the environment and the quality of the Pawtuxet River that lies adjacent to the property. This group would like to see a compromise where recreation and economic development could occur together. Wetlands and streams are protected by this group's plan with a sensitive design that minimizes impacts and incorporates them into valuable site amenities. Best management practices will address the permanent handling of storm water runoff away from streams and wetlands into special lagoons.

Questions to ask yourself in preparation of statement to student planning board:

What are the economic benefits of a large store?  
How many jobs would be created?  
How much revenue would the town receive due to a new store?

Is water quality important?  
What types of endangered species live on the land?  
Do people use the river for recreational purposes?  
How many people canoe along the river?

What alternatives could be designed to reach a compromise with other groups?

Tasks:

Prepare a short statement explaining your position using facts. Make sure you include your reasons for a medium position that protects a healthy environment while allowing some economic development.

Pick a spokesperson to present your statement to the public and the student planning board?

Think of questions you want to ask other groups or the student planning board.  
Suggest an alternative that provides economic development and protects the environment.

Diagram 1

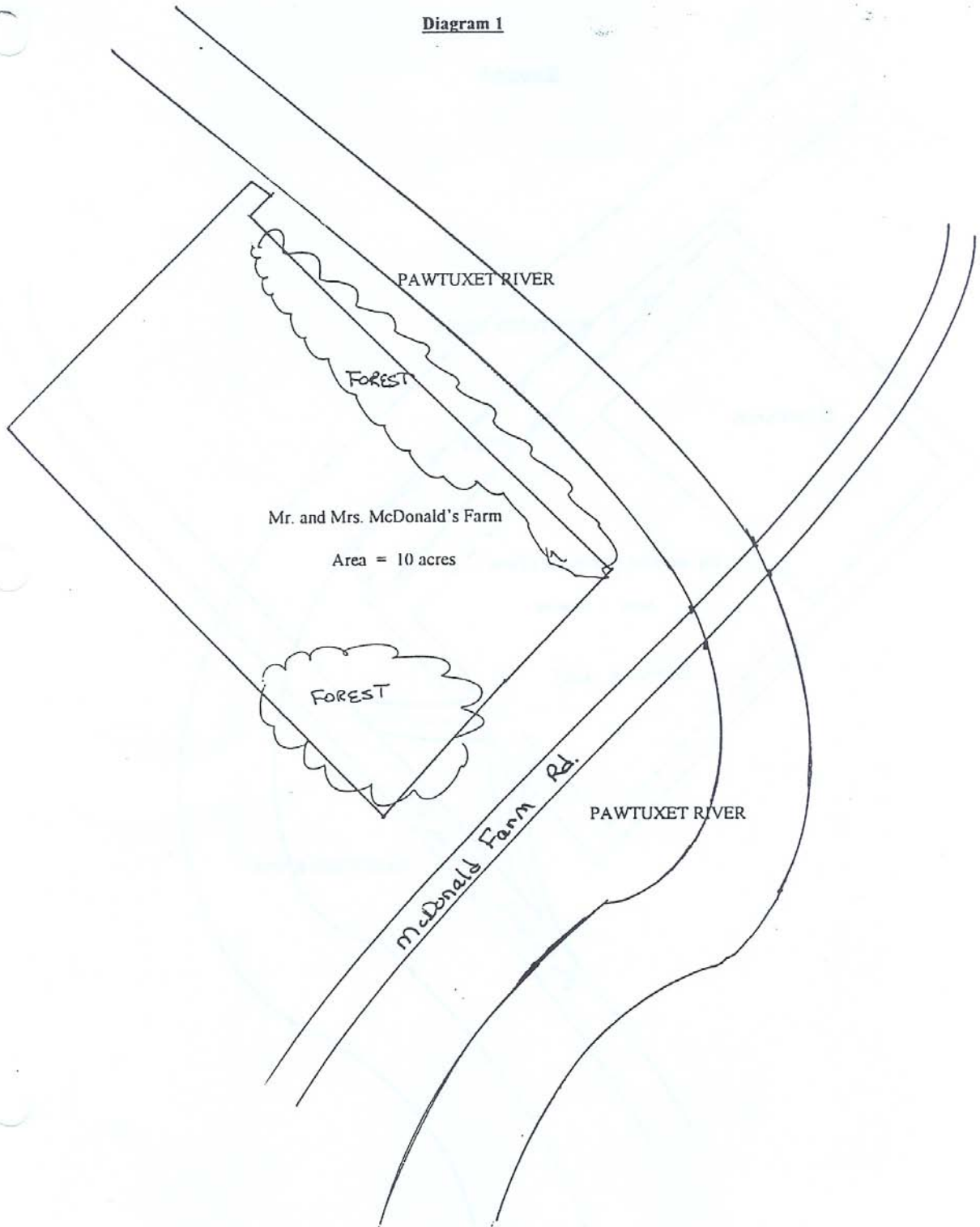
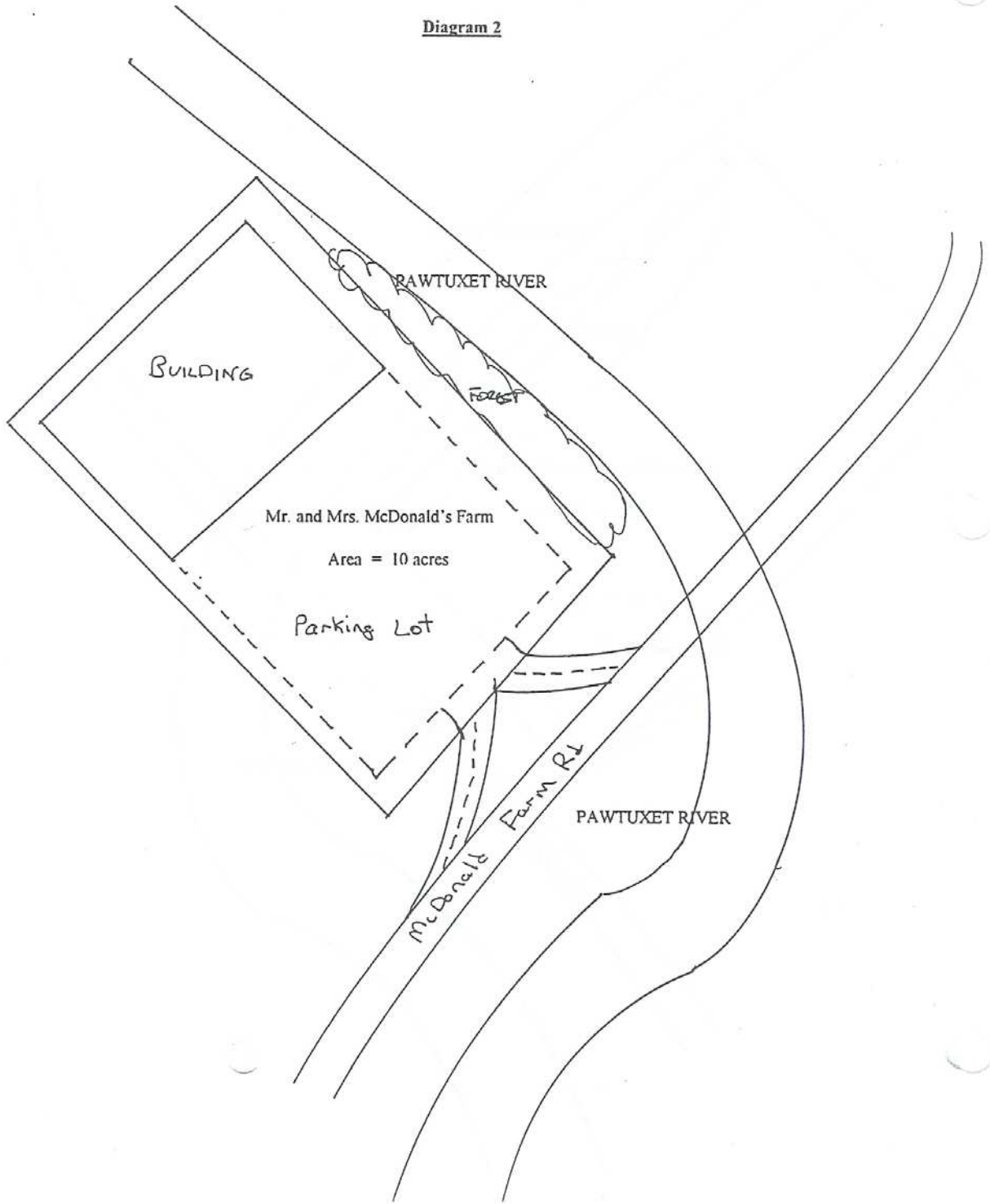


Diagram 2





## ACTIVITY II: CITIZEN ACTION SKILLS

**OBJECTIVE:** To give students tools and encouragement to enable them to act on their opinions about water quality issues in the watershed.

**METHOD:** Students will learn citizen action skills by participating in a mini-conference of workshops that focus on training them in different citizen action skills. Students will then develop and implement their own citizen action plan.

### **BACKGROUND INFORMATION:**

1. According to Hungerford et al., in "Investigating and Evaluating Environmental Issues and Actions", there are four principal methods of citizen action:

I. Persuasion: convincing others that a certain action is correct; includes writing letters to newspaper editors, designing posters, or participating in discussions and debates

II. Consumerism: buying something that agrees with your philosophy or not buying something that represents an action or idea that you disagree with; particularly effective if a group of people get together to take action, such as in a boycott

III. Political Action: bringing pressure on political or governmental agencies or individuals in order to persuade them to take positive environmental action; includes writing letters to national, state, and local legislators, voting, participating in demonstrations and rallies, or joining organizations to push bills through the legislature

IV. Ecomanagement: taking physical action with respect to the environment; includes picking up litter, putting up bird nesting boxes, starting a recycling program, or helping an organization buy and preserve an ecologically important piece of land

2. Hungerford et al. have identified fourteen questions that seem important to ask before proceeding with an environmental action:

- ◆ Is there sufficient evidence to warrant action on this issue?
- ◆ Are there alternative actions available for use? What are they?
- ◆ Is the action chosen the most effective one available?
- ◆ Are there legal consequences of this action? If so, what are they?
- ◆ Will there be social consequences of this action? If so, what are they?
- ◆ Will there be economic consequences of this action? If so, what are they?
- ◆ Do my personal values support this action?
- ◆ Do I understand the beliefs and values of others who are involved in this issue?
- ◆ Do I understand the procedures necessary to take this action?

- ◆ Do I have the skills needed to complete this action?
- ◆ Do I have the courage to take this action?
- ◆ Do I have the time needed to take this action?
- ◆ Do I have all the other resources (other than above) needed to make this action effective?
- ◆ What are the ecological consequences of this action?

**PROCEDURE:**

1. Organize a mini-conference for the students. Invite specialists to present workshops on different citizen action methods or skills. The following is a list of suggested workshop topics:
  - ◆ letter writing: to newspaper editors, politicians, CEO's
  - ◆ designing educational posters
  - ◆ producing educational videos
  - ◆ organizing boycotts
  - ◆ researching the environmental effects of consumer products
  - ◆ the legislative process – how laws are made
  - ◆ recycling options
  - ◆ "Watershed Watch", Rhode Island's citizen volunteer water quality monitoring program -water quality testing
  - ◆ household hazardous waste
  - ◆ organic or integrated pest management lawn and garden care
  - ◆ water conservation techniques for the home
2. After the conference, work with students to help them develop individual or group action plans. Focus on the issue you selected, unless students have their own ideas about a particular issue and action which interests them.
3. Explaining the four methods of citizen action may help students choose their actions. Make sure students consider the fourteen questions as they develop their plans.
4. Examples of possible action plans in regard to the United Nuclear Site:
  - ◆ writing letters to the United Nuclear Corporation
  - ◆ writing letters to the Charlestown and Richmond Town Councils
  - ◆ attending Charlestown and Richmond town meetings or other public hearings about the site proposal
  - ◆ researching the effects of different golf course management practices
  - ◆ designing posters or flyers to educate people about the issue
  - ◆ producing videos to educate people about the issue
  - ◆ researching state and town regulations on erosion control measures for construction sites, stormwater management, or other issues, and lobbying for changing regulations or establishing new regulations
  - ◆ conducting a citizen survey to gather more opinions about the issue

5. Work with students to evaluate the effects of their actions. What went as expected? What would you do differently next time?