

The Politics of Solid Waste in Virginia Lesson Plan

Target Audience: 12th grade government students
Length: 2 days (45—minute classes)

Objectives

The students will:

1. Understand the roles and responsibilities that the government and individual citizens have in dealing with the solid waste issues in the country, Virginia, and their own locality.
2. Identify some of the products we use which are hazardous and non-hazardous.
3. Become familiar with the various ways citizens can deal with handling solid waste in their homes and localities.
4. Understand that there are economic, scientific, and environmental choices that citizens and government must make when it comes to making waste management policy.
5. Discuss and clarify choices available to local governments when locating a new landfill.
6. Identify the competing groups and interests involved in waste management decisions.

1. Overview

This lesson is designed to show the students the political and personal sides of the solid waste management issue. Students will participate in a simulation in which students assume various roles that represent members of a community, community leaders, and business leaders. During the simulation, students will advocate for or against a location for a solid waste disposal site.

2. Activities

Day 1

Activity 1

- Open the activity by distributing Handout #1: *Waste Management Quiz*.
- After the students finish the quiz, use Handout #1A: *Solid Waste Management Quiz Answers* to go over the answers with them. The answer sheet also provides a brief explanation for each question and websites to provide additional information for the teacher or students.

Activity 2

- Have the students read Handout #2: *Solid Waste Management in Virginia: What Choices Do We Have in 2009?*
- Discuss the basic facts about solid waste management using Handout #3: *Basic Waste Management Fact Sheet* with the students. During the discussion, emphasize the roles of the local government in deciding a great deal of our waste management policy.

Activity 3

- Distribute Handout #4: *What Choices Do We Have? A High School Class Simulation* and Handout #5: *Leemack County Simulation Map*. Have students read the simulation individually or as a class.
- Assign the students in the class to play the roles. You will need one student for each member of the Board of Supervisors. The rest of the students will play the other roles of citizens who have very strong and particular views about where the new landfill will be placed. Every student should have to present their views to the Board. In most local board and council meetings, citizens are limited to two or three minutes to present their opinions and make a statement to the Board
- For homework, based on the role they will play, have each student prepare a short two minute statement on where they think the new landfill should or should not be located.

Day 2

Activity 4

- Prepare the room for the simulation by placing five desks at the front of the class facing other students. A podium is also needed from which the students may speak to the board.
- The teacher should serve as the county administrator.
- At the start of the simulation, the teacher should read the brief introduction about the purpose of the meeting and the issue on which the board will be voting. Then the administrator (teacher) should call upon the students to come to the podium and address the board.
- The teacher may also want to use a stopwatch to help the students stay within their time limit when they make a presentation.
- When all of the presentations have been completed, the administrator will ask each member to vote and to explain why they decided to put the landfill in the site named. The chairman will vote last.
- It will take a minimum of three votes of the five members to select the new site.
- After the vote, ask the students would they agree or disagree with the board's decision? What role did politics, business, and citizen participation play in the decision?

3. Group Discussion

Following the simulation, conclude the lesson by discussing the following questions as a class:

1. What site was chosen? Why did each supervisor choose the site they voted for?
2. What were the major gains and the major losses in choosing the site?
3. What do you think the long and short term effects of this decision will be?
4. What role did politics play in this action?
5. How is this NIMBY (Not In My Back Yard) situation a political issue as well as an environmental one?
6. What personal and political pressures were expressed during the session?

4. Differentiation

This lesson can be used by students of any academic level. Keep the lesson at its basics for general students. Higher level students may want to do additional background research on

the other venues available for the disposal of waste. This could include the formation of regional landfill authorities, and the transporting of waste to other localities.

This lesson is ideal for interdisciplinary work with the science department. The science teachers can review the scientific problems and challenges in our solid waste, and then the government classes can use the information to make better informed decisions.

5. SOL Skills

The student will demonstrate a mastery of the social studies skills citizenship requires, including the ability to

- identify a problem, weigh the expected costs and benefits and possible consequences of the proposed solutions, and recommend using a decision making model (GOVT.1.f).

6. SOL Content

The student will demonstrate knowledge of the federal system in the Constitution of the United States by

- explaining the relationship of the state governments to the national government (GOVT.5a).

The students will demonstrate knowledge of organization and powers of the state and local governments described in the Constitution by

- analyzing the relationship between state and local governments and the role of regional authorities, governing boards, and commissions (GOVT.8c) ;
- evaluating the citizen efforts to influence decisions of state and local government by examining contemporary events (GOVT.8e).

7. Materials

- Handout #1: *Solid Waste Management Quiz* (this can be used as an overhead or make a copy for each student)
- Handout #1A: *Solid Waste Management Quiz Answers*
- Handout #2: *Solid Waste Management in Virginia: What Choices Do We Have in 2009?*
- Handout #3: *Basic Waste Management Fact Sheet*
- Handout #4: *What Choices Do We Have? A High School Class Simulation*
- Handout #5: *Leemack County Simulation Map*

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Solid Waste Management Quiz

1. Approximately how much waste does every American produce every day?
 - a) two to three pounds
 - b) three to four pounds
 - c) four to six pounds
 - d) over six pounds
2. In terms of percentages, which of the following categories of solid waste makes up the largest part of what we throw away?
 - a) paper and paper goods
 - b) metals
 - c) plastic items
 - d) yard wastes
 - e) food wastes
3. According to the EPA, approximately how much solid waste do Americans throw away each year?
 - a) about 100 million tons
 - b) about 200 million tons
 - c) about 250 million tons
 - d) about 400 million tons
4. Which of the following household items would not exhibit characteristics of a hazardous waste when thrown away?
 - a) Old newspapers
 - b) Aerosol cans
 - c) Dead or old batteries
 - d) Fingernail polish remover bottles
5. Which area or level of government has the principal responsibility to manage and pay for the disposal of solid waste in their community?
 - a) the federal government
 - b) the state government
 - c) the local government
 - d) all three areas share in the costs and responsibilities equally
6. When we consider the proper course of action to properly manage and dispose of our wastes, which of the following actions should we do first?
 - a) Recycle the waste products
 - b) Reduce the amount of waste generated at the sources
 - c) Incinerate the waste
 - d) Take the waste and use it as a fuel to make energy
7. According to the EPA, how many active sanitary municipal landfills are in the United States?
 - a) between 1,000-2000
 - b) between 2,000-3,000
 - c) between 3,000-4000
 - d) over 10,000

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8. Which one of the following government actions that addresses the handling of our solid waste tends to draw the most opposition by the public?
 - a) where to place the recycling containers for the public to use
 - b) mandatory sorting and recycle laws and ordinances
 - c) where to site a new landfill within the jurisdiction of the locality
 - d) whether or not to accept trash from outside localities to be dumped in the local facility.
9. True or false: It is against the law to transport solid waste from one state to another and from one country to another.
10. Idled, underutilized, or abandoned waste sites that could be recovered and made useful again are known as:
 - a) landfills
 - b) brownfields
 - c) superfund sites
 - d) condemned zones

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Solid Waste Management Quiz Answers and Explanations

1. Answer A

- According to the EPA and many state and private websites, every American produces over four pounds of solid waste every day.
- Comment: The U.S. Environmental Protection Agency (EPA) has collected and reported data on the generation and disposal of waste in the United States for more than 30 years. We use this information to measure the success of waste reduction and recycling programs across the country. This fact sheet summarizes information contained in our full report, *Municipal Solid Waste in the United States: 2007 Facts and Figures*.
- <http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw07-fs.pdf>

2. Answer A

- Paper and paper goods are the largest source of solid waste in the U.S. Look at the charts on the EPA website for a complete breakdown of how much solid waste is thrown away.
- <http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw07-fs.pdf>

3. Answer C

- In 2007, Americans generated about 254 million tons of trash and recycled and composted 85 million tons of this material—this is equivalent to a 33.4 percent recycling rate. On average, we recycled and composted 1.5 pounds of our individual waste generation of 4.6 pounds per person per day.

4. Answer A

- Note: When people throw away these general household items, they are usually exempt as hazardous household wastes. However, they still exhibit the characteristics of a hazardous waste. They should be properly disposed of and recycled when possible.
- In order for something to be considered hazardous, it must meet one of the following characteristics: ignitability (can catch on fire), corrosivity, reactivity, toxicity (poisonous).
- Most newspaper inks are more water based, and thus not hazardous.
- <http://www.deq.state.va.us/waste/solid.html>
- <http://www.deq.state.va.us/waste/hazardous.html>

5. Answer C

- Virginia is a “Dillon Rule” state which means the locality has only those powers that are given to it by the state.
- When it comes to solid waste landfill facilities, the locality must comply with many federal and state laws with regards to site selection, proper collections and disposals, managing the waste sites, and paying for it.
- The locality must comply with the Virginia State Solid Waste Management Act. (Sec 15.1 -2801-2821). Article II of the Virginia State Solid Waste Management Act requires every local government to make some legal arrangement to finance and handle their municipal wastes.

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- The more common arrangements include: forming regional landfill and waste management authorities to collectively deal with several municipalities waste arrangements; hiring a licensed private firm to manage the waste facility, collection, and disposal; or handle the waste responsibility as part of the local government's function.

6. Answer B

- The proper sequence of the hierarchy is source reduction, reuse the waste, recycle, use the waste for energy, incineration, and lastly, landfill.
- www.deq.virginia.gov/waste/householdhw.html

7. Answer A

- According to the EPA, as of 2007, there were 1754 active solid waste landfill facilities in the U.S.
- <http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw07-fs.pdf>
- Note: There are numerous sites from many private lobby and special interest groups that will state far more operating landfills than this number in the EPA report. These groups may be including private and special landfills that handle single materials such as stumps, old trees and shrubs, tires, and so forth.

8. Answer C

- All of these are not popular to some degree. But when a locality is forced to choose a new landfill site, the final action and construction will be permanent for many years to come regardless of the origin of the solid waste.
- It will be expensive and deeply controversial among the citizens for years to come. After all, once the area is declared, property values may decline, there may be a loss of new revenue from homes and businesses that could have been built there, and there will be some resentment by those most directly affected.

9. Answer False

- The commerce clause of the U.S. Constitution, Article I, Section 8 implies laws can be made for the safe and legal transportation of many things, including solid waste between the states and to other countries.
- Many localities in Virginia ship waste to other waste sites in Virginia and elsewhere. Accordingly, many states ship their waste to Virginia as well.
- <http://www.deq.state.va.us/waste/outofstatetrash.html>

10. Answer B

- These are known as brownfields. There are legal and environmentally safe ways to help makes these public, private, and government sites useful again.
- Check the following website for more information:
<http://www.deq.state.va.us/brownfieldweb/about.html>.

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Solid Waste Management in Virginia: What New Choices Do We Have in 2009?

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When I first wrote an article about solid waste management in Virginia in 1995, many citizens did not realize that every individual in this Commonwealth and the Country generated between two and four pounds of solid waste every day. For the most part, many citizens dealt with waste management in their own households. We bag our trash, take it to the curb and someone comes by to pick it up and take it away, although most people did not know where “away” was. Given this perspective, it is easy to understand why our society has serious problems in addressing the issues associated with the management of solid waste. During the period from 1995 till today, Virginia public and private managers of solid waste management facilities made significant changes in how we manage solid waste, including opportunities to affect the waste stream before the waste is created and when it leaves your house afterward.

By 2009, most households know that there are recycling programs available in their community and that, in the end; waste usually needs to go to a landfill. In fact, in Virginia, a hierarchy of solid waste management is promoted beginning with pollution prevention or source reduction (not making waste in the first place), next is reuse (reusing it for another purpose), next is recycling (converting it into another beneficial product), next is energy production (solid waste as a fuel), next is incineration (volume reduction), and finally landfilling.

With respect to waste management, in addition to increased source reduction, reuse and recycling, the technical standards for air emissions (waste to energy and incineration) and landfilling (siting, design, construction, operation, closure, post closure monitoring and remediation) improved significantly in the last 15 years. In part, this new attention to the

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operational and technical components of waste management came about as a result of the creation of the Virginia Department of Environmental Quality (DEQ). DEQ's formation in 1991 represented a consolidation of the air, water and waste management regulatory programs as well as programs to reduce pollution and promote sound waste management policy.

The good news is that a result of the improvement management programs by federal, state and local governments including regional authorities from 1991 through 2009 significantly safer waste management facilities had come into operation.

The next questions to ask are, "What amount of solid waste are we Virginians' generating now, and how does that compare to the past?" According to DEQ, in 2004 Virginians generated 9 million tons of solid waste and by 2007, solid waste generation had increased only slightly to 9.5 million tons. During this period, the municipal solid waste component of the total solid waste stream had experienced recycling rate change from 29.8% in 2004, easily surpassing the 25% goals set by the Virginia General Assembly, to 38.5% by 2007. (DEQ, "The Virginia's Annual Recycling Rate Report, Calendar Year 2007 Summary" 1)

However, despite these improvements, several other conditions have arisen at the same time that continue to test our resolve to address waste management in a logical fashion that meets our societal, health, and environmental needs.

In order to operate financially efficient facilities, many local governments have joined forces with private companies to build and operate large landfills that include accepting solid waste from out of state. According to the Congressional Research Service, Virginia ranks second nationally in receiving out-of-state waste. (CRS "Interstate Shipment of Municipal Solid Waste: 2007 Update" Summary) While the shipping of interstate waste is protected by the commerce clause of the Constitution, significant negative citizen opposition has resulted. It should also be noted that Virginia has limited hazardous waste disposal facilities and most hazardous waste

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generated in Virginia goes to facilities in other states, a transaction also protected by the Constitution. In addition, local governments that host waste disposal facilities have enjoyed economic benefits that have resulted in improved schools and infrastructure in those communities. Landfills now can economically collect methane from landfills and create electricity or gas to use in place of other gasses or petroleum.

The issues of solid waste disposal, the cost of waste management (increased taxes or fees), the interstate transfer of solid waste and growing concerns over green house gasses (including carbon dioxide, nitrous oxide, and methane) have increased citizen concerns regarding waste management, and continue to result in efforts to block proposals to site facilities or operations, including recycling facilities.

Thus, despite the improved management and operation of solid waste facilities, the real problem continues to be, what are we going to do with all the solid waste that we generate? We want to be protected from the problems of improper waste management, but we do not want to pay for it in fees or in taxes, nor do we want the facilities necessary to provide the protection for our communities. We are now facing several waste management policy questions: (1) how will we protect ourselves from the consequences of improper solid waste management, (2) how will we manage solid waste with severely limited financial resources, and (3) how will we site our next waste management facility, whether recycling or landfill?

The most important thing we can do is to educate ourselves about the issue in our communities and in our state. We need to understand that we have the responsibility to see that our waste is managed properly. We are the only ones that can make that happen.

We spend millions of dollars purchasing products but expect our government to provide facilities to manage the waste for free, and protect our health. This is not possible.

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There is a cost associated with not managing waste properly and so there is a cost to manage it properly. But there are ways that we can keep our costs to a minimum and improve the economy as well. We can focus on reducing the amount of waste generated by buying products with less packaging (pollution prevention) and buying goods that are packaged in recycled containers that can be again recycled. By buying and using recycled content goods, we create businesses that recycle and it is generally more efficient to make products out of recycled materials than from raw materials. We must remember however, that recycling is not free. There are costs based on the costs to collect the waste, transport to the refineries, process and manufacture the materials into new products (energy use), and ship the products to markets. Recycling also generates pollution (air emissions and sludges) too and we must pay for the cost to keep the environment clean.

The producers of the products we buy are sensitive to what we want, so we can affect the content and packaging associated with products. While we can affect the generation and the recycling of solid waste, until we promote the reuse and recycling of much more solid waste, we still need to manage the millions of tons of solid waste that are still generated and need to be managed safely.

Therefore our next responsibility is to provide the facilities that are needed to manage our waste responsibly. This includes the siting of waste to energy facilities and landfills that are needed by the local government. State law and regulations now provide for extensive public participation in the development of solid waste management plans and in the decisions associated with the alternatives for management and the siting of facilities.

Citizens need to participate in the planning and decision making process of their state and local government. If you have the time and resources, participate on advisory committees

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for you local government. Your participation will insure that issues important to your community are addressed in the planning stages.

Just like the three most important factors in real estate are “location, location, location,” to insure that waste management is done properly, the three most important factors for citizens are “participation, participation, participation.” In addition, your participation will assure that the appropriate decision making information is developed and considered.

We are a free society, but we cannot ignore our responsibility to manage our waste responsibly to protect our health, environment, and enhance our economic system. If we do not act responsibly now, what will become of us in the next twenty years? Our children will have to face this problem, but they will have fewer choices, resources, and land space than we now have to solve the problem.

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WORKS CITED

McCarthy, James. *CRS Report for Congress, Interstate Shipment of Municipal Solid Waste: 2007 Update*. Washington, D.C.: Congressional Research Service, 2007.

Virginia Department of Environmental Quality. *The Virginia's Annual Recycling Rate Report, Calendar Year 2007 Summary*. Richmond, Virginia: Virginia Department of Environmental Quality, 2008.

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- According to the EPA and Virginia Department of Environmental Quality (DEQ), every one of us produces between four to five pounds of solid wastes every day.
- According to DEQ statistics, in 2004, Virginians produced 9 million tons of solid wastes. By 2007, Virginians increased that amount to 9.5 million tons.
- By 2007, Virginians were recycling about 38.5% of their solid municipal wastes.
- The largest component of the solid waste stream is paper and paper goods.
- In order for a waste product to be classified as hazardous, it must meet at least one of the following criteria: ignitability (explodes or catches on fire), corrosivity, reactivity, and toxicity (poisonous or infectious).
- Most of the solid waste landfill facilities have three main components: collection, transfer, and proper disposal of wastes.
- Solid waste management is a classic study of federalism. Federal, state, and local laws and ordinances have a multitude of requirements and laws that apply to the disposal of solid wastes.
- The land that is used for landfills is usually the same land that could be used for residential and commercial development.
- By 2004, Americans were recycling or reusing about one-quarter of our solid trash.
- The current hierarchy of ways to manage solid wastes in Virginia is source reduction, reuse and recycle, energy production, incineration to reduce volume, and then land filling.
- The federal government monitors and regulates the disposal of nuclear wastes. It also sets some of the standards for the states and localities to follow in the disposal of solid wastes.
- The Department of Environmental Quality sets the standards for the storage, handling, and disposing of solid wastes.
- For industrial wastes, the generator is primarily held accountable for the proper disposal. There are federal and state laws that apply to these wastes.
- Non-hazardous solid waste disposal and transport is principally the responsibility of the local government to plan for the funding and the implementation by themselves or by using private business contractors.

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- The EPA requires that all municipal solid waste facilities have a minimum of two liners to contain the liquids from leaking out into the groundwater. The first must be an approved clay liner. The second must be an approved impervious membrane liner.
- A great deal of waste is transported between the fifty states. A lot of waste is also shipped to other countries. This action is permitted by the Constitution's commerce clause and through mutual interstate and foreign trade agreements.
- Comment: There are several outstanding government websites that are filled with charts, graphs, and data about the politics and science of solid waste management. All of these websites are common domain and can be used for school.

Websites for further information:

- <http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw07-fs.pdf>
- <http://www.deq.state.va.us/waste/solid.html>
- <http://www.deq.state.va.us/waste/hazardous.html>
- <http://www.deq.virginia.gov/export/sites/default/waste/pdf/swreport2007.pdf>
- http://www.deq.virginia.gov/export/sites/default/recycle/pdf/AnnualReport_RR2007_Final.pdf

Another outstanding source is *Municipal Solid Waste Generation, Recycling and Disposal in the United States: Facts and Figures for 2007*. This is one of the most recent documents with a lot of data and facts about the politics and science of solid waste management.

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What Choices Do We Have? A High School Class Simulation

You are the citizens of Leemack County, Virginia. Leemack County is a modern Virginia locality that has a good mix of urban, suburban, and rural areas to live in. It has a population of just over 100,000 people. The population growth rate for the past ten years has averaged just over three percent a year. The per capita income for this county's population is better than the State and National average.

Leemack County features an excellent public school system. There is an elementary school in every magisterial district. The County's middle and high schools are located in District D.

Leemack County has a fairly diverse economy and workforce. There are several different stable industries located in the industrial parks. The County also has a reasonable real estate tax rate along with competitive business taxes. A number of prospective businesses have inquired about coming to Leemack County. In addition to adding more jobs to the County's current workforce, they would like to transfer over 100 of their company's employees with them. This would require good housing at all price ranges as well as the amenities of good schools, roads, shopping venues, recreation and parks.

The county currently runs the local 500 acre landfill facility in District C. The appointed County's Waste Management Director and County Administrator have announced to the Board of Supervisors that at the current rate of waste being disposed into the facility, it will be at capacity within two years. Federal and state laws require that a new facility be named at this meeting. The Virginia Department of Environmental Quality has given preliminary approval for three potential sites within the county. Once this new location has been voted on, the government will have to move right away to prepare the new landfill for operation when the current one reaches capacity.

The County Administrator also informs the board and citizens that the longer the county delays in building the landfill facility, the more expensive it will be as time goes on. The administrator also suggests that the Board increase the tipping, weekly pick up, and heavy bulk collection fees to help pay for the new facility. These increased fees may also force the citizens to slow down the amount of wastes they are throwing away and thus lengthen the life of the current landfill.

There have been some attempts to form a regional authority with surrounding jurisdictions to collectively deal with disposing of the wastes. In the future, this may help create a larger and more efficient means of dealing with the local solid and municipal wastes. In the meantime, the Board is still required to name the new site at this meeting in order to be in compliance with the law. Failure to do so could mean fines imposed on the Board for failure to comply with State laws.

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Site 1 is located in District A. District A is considered the most luxurious part of the county. There are over 1000 homes in the district with values between 250,000 to over 3 million dollars. The large private golf course in the district is a prime attraction for many executives and higher income people who live in the county. The Board has actively tried to secure major tournaments to be played there. All of the residential areas are well planned and attractive. The proposed 500 acre site is located near the center of the district. The site has the highest approval rating by the EPA and the DEQ for a new landfill. The proposed site is located within a half mile of the golf course, and between one to two miles of the main residential areas. The homes located nearest the landfill could lose some property values. This same site has been approved for building new residential housing and small shopping areas that could generate a lot of new real estate and business revenue for the county. Over 400 housing lots have already been suggested by the various real estate and land developers. Locating the new landfill here instead would end these plans.

Site 2 is located in District C. The current landfill is located just within the district's borders. Most of the people who live in the district are lower – to – middle income families and they work in the various small businesses and industries throughout the county. Most of the homes in District C have a price range less than 100,000 dollars. The new 500 acre proposed site could devalue some homes nearest the landfill. Conflicting with the new proposed site within District C is a new economic opportunity. The county has spent a lot of time and money to develop a lake front property and recreation area. The county government has received permission from the EPA, DEQ, and Corps of Engineers to partner with state business groups and local developers to dam up some of the streams and rivers and it passed the environmental impact statements. Some of the residents living in houses near the new proposed resort would benefit with an increase in home value if eminent domain were declared. If Site 2 is selected for the new landfill, the new lake resort could not come about as the landfill would be too close to the enlarged watershed area. Site 2 is rated as the second best site. On the positive side, this new landfill would be built so that the methane gases from the trash deposited there could help fuel the nearby industrial parks. This could save the businesses some energy costs.

Site 3 is located in District D. This district has a diverse population mix with lower, middle, and upper middle income homes in the residential areas. Within the district are many large farms. The 600 acre site would be located within a mile of both the high school complex and the middle school grounds. The proposed site would also be next to several farms. Many of these farms have been in the families of the owners for generations. A lot of the acreage would have to be declared eminent domain and the farmers would also have to keep livestock a safe distance from the land next to the facility. Several of the middle – to upper – income homes near the proposed site may lose value as well. If the new facility is located in District D, new roads would have to be built to get the trash vehicles to and from the site. These roads would go past the schools. Naturally, the roads would be used for other purposes as well. Site 3 is rated the third best choice.

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Note: These roles are merely suggestions. Teachers are encouraged to change them as they see fit. The students are encouraged to get into the role playing. Students could really play up the parts (dress like farmers, factory workers, well – to – do business people, parents of school children, etc). You will need only one person to play each of the roles of the supervisors. You may have multiple students play the other roles as needed. (In other words, you may need more than one resident of the various districts who oppose the site in their backyard, more than one developer, a couple of business executives, and so on...) The teachers can choose to assign these roles, or they can be chosen by lot. Supervisors do not vote until the end of the simulation. The Board Chairman votes last. Three of the supervisors must vote for the same site in order to be chosen.

Supervisor for District A

The supervisor owns one of the most expensive homes in the county. He/she is a prominent business person and owns a business that employs over 100 people. Additionally, this supervisor is on the board of directors for many of the businesses, banks, and the golf club. He/she has many contacts to bring in additional business into the community. This supervisor has children in the elementary, middle, and high schools. He/she is up for reelection.

Supervisor for District B

The supervisor is a very prosperous farmer. He/she owns a 1000 acre farm which features various crops and livestock production. The supervisor employs ten people on the farm. He/she is very concerned with where the new site will be, and has tried to keep tax rates low and wants to keep a good mix of suburban and rural lifestyles in the county. The supervisor has been on the board for five previous terms and has served the longest of any of the members. His children are all grown and went through the school system.

Supervisor for District C

This supervisor is fighting to keep the new landfill out of this district. He/she points out they already have one landfill, and they do not need another one. Throughout this supervisor's life, he/she has worked in many of the factories, and is currently a foreman in one of the bigger industries. The supervisor is well aware that the new lake resort would be a real economic boom for the people in the district, and could lift the lifestyles and economic well being for many of the residents. However, putting another landfill in the district would end these hopes and lower property values in the vicinity. The supervisor has two children in the high school. Most of the voters in the area are lower to middle income hourly workers. This supervisor is up for reelection. There are two candidates that have announced they will run against this incumbent supervisor.

Supervisor for District D

This first term supervisor is a college professor of sociology at the local community college. The supervisor owns a 150,000 dollar house in the area near the large park. He/she is a strong supporter for many educational and environmental issues. The supervisor has three pre-school age children. Naturally he/she opposes locating the landfill in their district. He/she had strong

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support for election from the teachers and PTA groups. He/she fear the new landfill could be a potential threat to the health and environment of the school areas.

Supervisor for District E

This supervisor is a pro-business advocate. The supervisor wants to see more business and higher quality of homes and buildings in the area. The supervisor is a small business owner. He/she opposes tax increases and wants to cut business taxes. He/she is married and does not have children. The supervisor owns a home and land valued around 500,000 dollars. His small business employs five people.

Home Owners in District A

These people strongly oppose putting the landfill in their district. They point out that they can and will move out if the landfill will cause their property values to fall or if their quality of life decreases. They also make it known that the proposed site could be used to develop hundreds of new homes valued at millions of dollars. This would greatly increase tax revenues. A new landfill in District A would result in a big loss of the most prosperous landowners and business people. They feel if the landfill is sited in District A, they can and will move out of the County, and the revenues from the government would decrease significantly.

Home Owners in District C

These citizens are mostly middle and lower income citizens who live in the areas near the proposed site. Some of them own homes or live in apartments near the proposed lake resort area. The proposed lake resort could be a once-in-a-lifetime opportunity to make a good profit on their homes if the county follows through with the plan. A new landfill would not only end these possibilities, but it could wind up lowering property values instead. These people feel they already have a landfill, and it isn't fair they should have a second one in the district. They feel other people should share in the burden on dealing with everyone's trash.

Farmers and Home Owners in District D

These people are the farmers and residential homeowners who live near proposed site 3. The farmers point out that they and their families have owned the land for generations, and it would seriously affect their livelihood if they have to sell out to provide for the landfill. It could also affect the welfare of grazing lands for livestock and potential crop production. The home owners do not want the landfill near their homes as they feel they would lose property value. They also feel the landfill could threaten the health of the people living near it.

School Parents and Patrons

These people oppose locating the landfill near the high school and middle school. They point out that there could be potential threats to the health and safety of the children who attend schools near the proposed sites. The trash trucks would also have to go by the schools on a daily basis. Some of the patrons suggest the site would be better used as the site of a new school if needed, or even a larger and better school stadium. The parents also complain the children need to be kept safe and not be exposed to potential hazards associated with being close to a landfill.

Name _____
Period _____ Date _____**Business Owners**

Several of the business owners are very concerned with the site of a new landfill. They do not want it located where it could interfere or place expensive costs on their businesses. In their minds, they may move their families out of the county if the landfill is located near them. They also want to see the lake area developed as it could bring in more revenue and business. They also oppose any new regulations that could increase their costs to dispose of municipal wastes.

Real Estate Developers

These people want to see an increase in the number and quality of homes in various price ranges. They do not want to lose the opportunity to develop the more expensive homes. They also have worked hard to make the potential lake resort a new source of recreation and business for the county.

Environmentalists

These people propose that in addition to locating the landfill in site 1, they want to see more mandatory recycling and sorting of trash. Additionally, they want the county to use more recycled goods, even though this may cost more money to everyone. They do not want the landfill near the schools or the proposed lake resort. Site 1 is the best place for the landfill as the chances for leachate going into the groundwater is the lowest of the three sites.

Lake Resort Patrons

These people are willing to put money into the lake development project. The new site would cost millions to create the lake and the initial guest lodges and marinas. Eventually these costs could be recovered with tourist money. If the landfill is sited in District C, the DEQ and EPA regulations would make the project almost impossible to carry out.

Name _____
Period _____ Date _____**Statement and Address to the Board by the County Administrator:**

Good afternoon. Members of the board, we are facing a big decision today. As a board, we are required by the Virginia Department of Environmental Quality and federal EPA laws to determine a future landfill site today. This new solid waste facility will be an expensive project. If our citizens continue to put the same volume of waste into the landfill, it will reach capacity within two years. We cannot put this decision off any longer.

The DEQ has given its preliminary approval to three sites. One is in District A, another is in District C, and the third is in District D. Needless to say, the decision will not be an easy one. Once you as a board have chosen the site for the future landfill, we can move forward to begin preliminary work to build the new facility.

We are trying to arrange a regional landfill authority arrangement with our neighboring communities. Until that happens, we will have to make sure our solid waste disposal needs will be taken care of.

Other items we need to consider include increasing tip fees, establish sorting and mandatory recycling procedures, and then increasing other fees to use for the landfill. Not only will this increase some revenue, it may lengthen the life of our landfill for awhile.

Before we vote, we are required to have a public hearing on the proposed sites. Each person will have a maximum of two minutes to make their views known to you.

Our first speaker will be _____. *(Then establish an order of who will speak, and make sure they keep their remarks to about two minutes or so.)*

At the end of the open forum, the administrator asks each board member to vote on one of the three sites. They have one minute to explain why they voted for the site. The chairperson votes last. There must be three votes of the same site to name the district.

Map of Leemack County, Virginia

