

Lab-Yoretown Needs a Landfill MAKEUP VERSION

(modified from Oregon State University)

What We Did in Class: Students analyzed four different sites for landfill placement and ultimately decided which site was best suited. Decisions were made based on a wide variety of factors, including cost, soil, topography and proximity to infrastructure, groundwater and residential areas.

Analysis Questions

Read the article (<https://spectrumlocalnews.com/nc/charlotte/news/2022/06/06/wake-county-trash-landfill-filling-up>) and answer the following questions.

1. Why does the Wake County landfill offer free tours to the public?
2. What two item types make up the majority of the trash transported to the landfill?
3. What is the primary gas produced from a landfill? (not given in article)
4. What is the toxic liquid produced from a landfill called?
5. What would be the affect of hauling Wake County trash to a neighboring county? (not given in article)

Watch this video (<https://www.youtube.com/watch?v=DAC4oxlwthM>) and answer the following questions.

6. Where is the South Wake Landfill located?
7. When did the landfill open?
8. How many trash trucks visit the South Wake Landfill every day?
9. Describe what happens to the trash after it is emptied from a truck.
10. Describe the liner system needed for a landfill. Why is this liner system necessary?
11. How much leachate is produced at the South Wake Landfill every day?
12. How is landfill gas dealt with at the South Wake Landfill?
13. What happens to energy produced at the South Wake Landfill?
14. How do individuals affect the waste stream?
15. How can you reduce your impact on the environment through the waste you create?
16. Why are some materials not allowed in standard municipal landfills? (not given in lab)
17. Hazardous materials must be disposed of in a hazardous waste landfill. What characteristics of the hazardous waste landfill would differ from a standard municipal landfill? (not given in lab – think design & soil characteristics)
18. Landfills are often associated with NIMBY. What is NIMBY?
19. How is NIMBY associated with Environmental and Social Justice? (think about where landfills are typically located)
20. What have you learned from this makeup lab?