

EarthCaching

Landfills

Trash Trek

Background

Everyone creates waste through their daily activities, but usually this is thrown into the trash and promptly forgotten. However, it never truly goes away. The waste ends up in a landfill where it likely sits for hundreds of years. Even items that you would normally expect to decay and disappear quickly, such as food scraps or paper, can last longer than expected. This is because the layers of trash in a landfill press out air, depriving the bacteria of the oxygen they need to decompose material. Instead, the trash is preserved in the pile as more is placed on top. In this EarthCache, you will get a chance to see an active landfill near the Southern Illinois University Edwardsville (SIUE) campus. Filled with trash that comes from the university community and Edwardsville township, it can be seen rising north of campus with trucks delivering more material each week. **This EarthCache is best on a weekday when the trucks are most active.**

Know Before You Go!

- **Prepare for the Weather:** This EarthCache involves walking outside about a quarter to a third of a mile, depending on where you park, so be sure to dress appropriately for the weather!
- **Safety Warning:** Be careful crossing roads and use crosswalks wherever available. **There is no marked crosswalk across North University Drive** (although crossing is definitely allowed) so wait for all cars to pass if you are parked on the west side of the road.
- **Plan for an Hour:** This EarthCache should take under an hour to complete once you are at the site, though this time will vary for each participant. Plan with plenty of time in your schedule. If walking from the center of campus, this EarthCache may take two hours including the walk.
- **Seasonal Differences:** If you are completing this EarthCache in the fall or winter, the leaf cover may be quite different from what is described here. Try to use your imagination to “correct” for this.

Things to Bring

- A **GPS unit** or **smartphone** with a map program (such as Google Maps) is essential.
- **Compasses** (optional) are good to have to get your bearings.
- A **camera** (optional) will let you take pictures to submit along with your answers.
- **Binoculars** (optional) are good for seeing the landfill in detail.

View of a Landfill

This EarthCache is still on campus, but it involves viewing a structure off campus to the north. The Delyte Morris Trail is a bike path heading north from campus and the site is along that path. **If you are driving**, there are two places to park.

To avoid having to cross the road, you may park in the field to the north of the bike path, labeled “Field Parking” in the image to the right. Alternate parking is available in a gravel lot at the head of the cross-country trail just before North University Drive becomes a divided road (labeled “Alt Parking” in the image to the right). Note that these are not paved parking areas but they are regularly used and intended for cars to drive on. Be careful entering and exiting, watch for pedestrians, and use caution while driving if the ground is muddy.



From the parking areas, follow the bike path to the EarthCache at the coordinates listed below. From this location, looking to the north, you should be able to see the landfill beyond the four-way intersection. A photograph of the view is provided below.

38°48'48"N 89°59'36"W
38.813333, -89.993333



1. Describe what features of the landfill you can see from this vantage point, such as textures, colors, and structure. Being able to estimate distances outside is a useful skill. Try this estimation challenge: What is the height of the landfill today? Explain how you arrived at that number (e.g., using reference objects like the trucks on the hill or people, estimating from the angle and distance, etc.). Imagine someone coming here five years from now. If the landfill stays active, it might be considerably taller.

2. The landfill, which serves Edwardsville and several other surrounding communities, is about a mile and a half from where you stand (about the same distance from where you are now to the Engineering Building on the SIUE campus). Does this surprise you? Does the landfill seem closer to you or further away?

3. What activities affect the amount of trash that SIUE sends to this landfill? What do you think SIUE could do to reduce the amount of trash it sends to this landfill?

4. As long as the landfill is properly lined and does not leak, do you think it affects the community around it in any way? How so?

5. What problems might this landfill still experience, considering the number of nearby creeks and the exposed surface of the landfill?

6. Eventually this landfill will become too large, and it will need to be covered and shut down. The campus and town will need to find another landfill site. What environmental and/or social issues does this situation create?