

# EarthCaching

## Natural Resources



## Major Fun at Miner Park

### Background

During the 19<sup>th</sup> and early 20<sup>th</sup> century, the Edwardsville area was the site of many coal mines. While the last mines closed down in the 1950s, remnants of those mines remain in Edwardsville and especially Glen Carbon (named after coal operations), often in locations that people pass through every day, without realizing what once took place there.

The most common consequence of closed mines is ground subsidence: the mining tunnels collapsing and causing a depression above them. Just walking around the area you can sometimes see where a mine has collapsed and lowered the ground level. While relatively frequent, subsidence is one of the least serious consequences of disused mines (unless a very large section of ground slumps enough to crack houses, roads, or infrastructure). Exposing coal seams makes it easier for groundwater to interact with sulfur and other chemicals, creating acids that leach into the water table. In addition, industrial processes can leave chemicals behind, and simply having open spaces underground can lead to interactions of chemicals and microbes that can seriously affect communities above these old mines.

Because of these hazards, older mines require remediation to make sure they are properly sealed and maintained after they are no longer used. This is an ongoing process that requires periodic checks to make sure that older problems are still under control and new ones haven't begun. The state of Illinois completed several remediation projects in and around Edwardsville and Glen Carbon. They sealed mine openings and secured coal seams to prevent leaching, but they also made sure that areas directly above the openings (where the mines were necessarily closest to the surface) were used for civic buildings so that no residences were built above unstable or acidic ground. In Glen Carbon, old mine entrances are now the site of municipal storage sheds and garages where they will remain undisturbed and where they can be easily accessed for continued monitoring.

### Know Before You Go!

- **Prepare for the Weather:** This EarthCache involves walking outside (about a quarter of a mile once you park) so be sure to dress appropriately for the weather! Sturdy shoes are also recommended as some areas are unpaved.
- **Plan for an Hour:** This EarthCache should take about an hour to complete, though this time will vary for each participant. Plan your schedule accordingly.
- **Seasonal Differences:** If you are completing this EarthCache in the fall or winter, the water levels and vegetation may be quite different from what is shown in these photographs. Try to use your imagination to “correct” for this.

## Things to Bring

- A **GPS unit** or **smartphone** with a map program 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.

## Coal Mine Visit

This EarthCache is at **Miner's Park** in Glen Carbon, about 11 minutes' drive from the Southern Illinois University Edwardsville (SIUE) campus. There are buses that can take you as well, first to Walmart (the [19 Bus](#)) and then to downtown Glen Carbon (the [13 Bus](#)) where it's only a 15 minute walk away. Lastly, there is a bike route (the Madison County Transit Nickel Plate Trail) which runs from just east of campus down to Miner's Park.

At the end of this document are several images that can help you navigate.

The EarthCache can be found at these coordinates and is pictured below:

38°45'07.5"N 89°58'50.2"W  
38.752075, -89.980603



1. Looking around you, can you identify any depressions that could be related to mine subsidence in this area? Where?



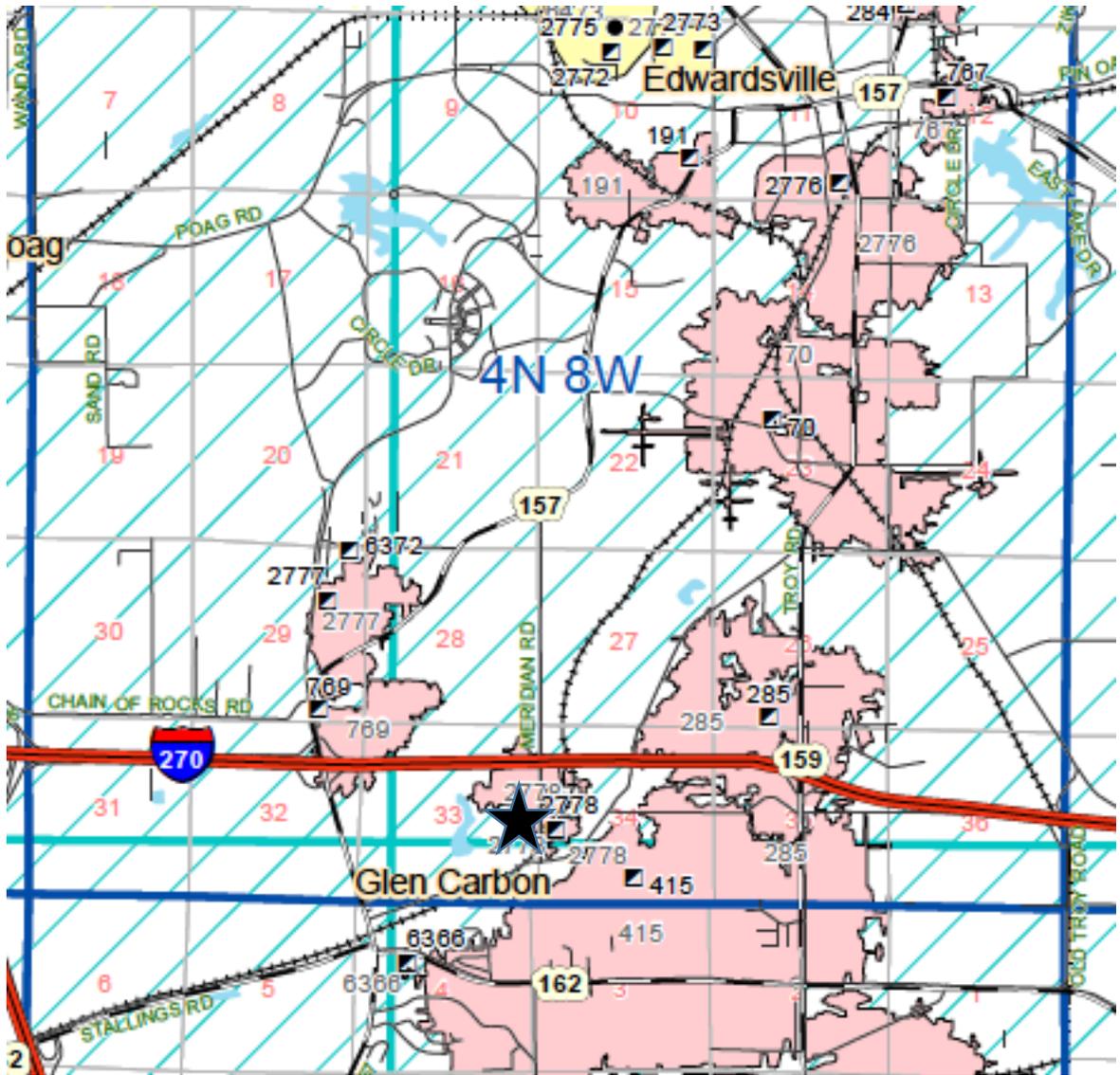


Image taken from [www.isgs.illinois.edu](http://www.isgs.illinois.edu)

*Shaded areas (pink) on this map of Edwardsville and Glen Carbon show abandoned coal mines. The location of Miner Park is shown by the black star.*



*The Madison County Transit Nickel Plate Trail is shown in orange and the route to drive into the park (and walk from the bus stop) is shown in red.*



*The 13 Bus will drop off at the end of the yellow line and you will walk through Glen Carbon along the dotted blue line.*