

Eagle Scout Projects

The Forge Charitable Adventures

Construction Projects

Clear and construct new hiking and single-track trails

Working with The Forge Charitable Adventures, candidates will be assigned a section of land on which to build one or more trails for single-track biking, or trail running. Responsibilities would include but not be limited to: surveying the land to minimise effects on wildlife, clearing invasive plants, hauling materials to site locations, spreading mulch (for some types of paths), and installing trail markers.

Trail Signage Creation & Installation

Work with The Forge Charitable Adventures to design a master style for running/hiking and biking trail markers to be used throughout the north-side of the park. This project would also include the production and deployment of a base series of signs.

Build and Install Information Kiosks

Identify a location(s) to build and install new information kiosks for trail maps and other park information to complement the kiosks already installed in the park.

Build and Deploy Wildlife Housing

Brown Bats: The little brown bat species is quite common in Illinois and has experienced a severe decrease in population due to white noise syndrome (WNS). Building bat houses would establish a safe living environment for the bats as well as allow for scouts to place cameras and check on bats to see if white noise syndrome is present on any bats. Link to national organization combating WNS:

<https://www.whitenosesyndrome.org/>

As seen on the provided [map](#), WNS has been found to be present in Illinois (since 2012-2013) near Lemont. If it spreads to the quarry ecosystem, it would quickly kill many of the bats living there. Considering it has been six years since WNS first showed itself here, it wouldn't be surprising to find out that WNS has spread further throughout Illinois.

Bird Houses: For birdhouses, scouts would need to research the native bird species in the quarries region, their nesting habits, food / water requirements, and optimal housing structures. Once all of the research is complete, scouts could then construct their birdhouses and keep tabs on them to see if birds actually roost.

Bee boxes: Research optimal [native wildflowers](#) to plant for the bees to pollinate as well as optimal box placement to allow for ready access to water whilst being away from (future) crowded busy areas. Depending on the number of boxes constructed, the honey could be harvested and sold at the Forge or something of the sort to raise funds for future conservation efforts. [Bee specific information:](#)

- Good bee plants include asters, beebalm, wild roses, Joe Pye weed, great blue lobelia, white indigo, lead plant, blazing stars, beard tongue, bellflowers, hollyhocks, monkshood, snapdragons, sunflowers, foxglove, mints, tomatoes, butterfly weed, goldenrod, larkspur, milkweeds, herbs and many more bee-utiful flowers.
- Try to use native plants and not cultivars of native plants.
- Exotic plants such as butterfly bush can provide food for bees and butterflies; however, native plants provide food for a greater diversity of bees.
- Bees also appreciate a large area to graze, so plant four-foot wide masses of the same flower.
- Allow spaces between masses of flowers to provide shelter from wind and cold.

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Build & Install Planter Boxes

There are five public parking lots overseen by The Forge Charitable Adventures that would benefit greatly from the addition of style-appropriate planter boxes. Working with TFCA, determine design style and location for placement as well as the types of plants and wildflowers to be planted.

Build & Install Outdoor Fitness Equipment

Build and deploy outdoor workout equipment at several points along the north-side loop trail for open use by community members ([Fit-Trail style](#)).

Build and Deploy Public Furniture

The property features more than 5 miles of walking, running and biking trails (and we're always adding more). With all those trails, people need places to sit and relax, take in the sights, observe nature, and relax. Scouts can work with The Forge Charitable Adventures to choose locations at which to build and deploy benches and picnic tables.

Restoration Projects

Invasive Species Removal

There are more than 200 acres of open land at The Forge that are overrun by Buckthorn, Honeysuckle, Tree of Heaven, and other invasive tree and plant species. Our goal is to eliminate them and re-introduce native plants and grasses over the next decade. Scouts can choose to clear

Land & Wildlife Surveys

Scouts could be assigned to specific sections of the park and do ecological surveys. They could rope off sections (ie. an acre), catalogue plant life, mark trees and other native plants, and look for invasive species. Scouts could then use this survey data to create plans to improve / maintain the ecology of their respective area (removal of invasive species, clearing of excess dead trees, etc.) and make them a reality. Over time, they can continue monitoring their area and see the effects on the ecology. Survey data will be shared with the Forge so that the Forge can assist in conservation efforts and maintain them in the future.

Water Surveys

Scouts would go to the various quarries and take water samples in order to test for contaminants and water quality. Depending on the state of the water, scouts could then do research and formulate plans to remedy issues found and then put them into action. In addition to water surveys, surveys of aquatic life and possible reintroduction of native wildlife / removal of invasive species (ie. addition of native freshwater mussels to improve water quality, removal of excess carp, addition of bass and other quarry specific fish, etc.) could prove to be beneficial as well.

Wildflower / Native Plant Gardens

Scouts can research [native wildflowers](#)/plants and then plant them throughout the property. Due to the scope of the total land area, this would be another project that would be benefited by zoning off specific areas of the Forge. Certain species of Illinois wildflower are endangered in Illinois (such as black snakeroot) and restoration of these endangered plant species would help to restore the natural ecology of the region. In addition, these wildflower gardens would attract beneficial pollinating insects such as bees and butterflies, further helping the local ecosystem. After construction is complete and flowering has

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begun, scouts can return and keep logs to see if the plant life is surviving well and if pollinators are present in the area.

Technology Enabled Education Projects

Historical Walking Tour

The I&M Canal, Shipping Canal, Lemont Quarries, and downtown Lemont are rich in history. We would love to engage multiple scouts in projects to create a series of historic walking tours that would introduce community members to that history. Stories would be told digitally (on our website www.quarrytales.com), and triggered by scanning a QR code placed on signs placed along the trails.

Wildlife (Plant & Animal) Education Tour(s)

Similar to the walking tours, scouts could create a series of signs visitors could scan to be taken to a web page to learn about the plant and animal life in the quarries. The website pages would include photos, videos, sound recordings, and other information that would educate visitors about the wildlife surrounding them.