Today, one in five children is obese. Obesity contributes to other health problems, such as diabetes, depression, and attention deficit disorders. Children with little access to outdoor recreational opportunities are the most susceptible, especially where there is the perception that parks, natural areas, and playgrounds are unsafe.

When the nonprofit Children and Nature Network (C&NN) received funding from the W.K. Kellogg Foundation to implement its Community Action Guide, C&NN selected three Michigan cities for its work to reconnect children with the outdoors. Kalamazoo was one of these cities, chosen to become a national demonstration model.

Lisa Panich, coordinator of the Kalamazoo Nature Center’s No Child Left Inside Initiative (NCLI), began gathering baseline data to tell the story of the city’s most underserved children. She could not find a comprehensive map showing all city, county, and school parks, playgrounds, and green spaces — information she needed to communicate with potential partners, stakeholders, and decision-makers.

**TPL’s role**

C&NN contracted with The Trust for Public Land to create a Green Community Mapping Project to illustrate the city’s needs. TPL’s use of cutting-edge Geographic Information System (GIS) mapping technology proved critical in using maps to show how many children and teenagers in Kalamazoo lack opportunities for outdoor play.

With help from the Kalamazoo Nature Center’s research department, TPL first collected the data to map all city, county, and other publicly accessible parks, green spaces,
and nature play areas. Then TPL’s GIS developers created a “vulnerability index,” taking into account factors like:

- Number of children up to 14 years of age
- Minority population
- Percent of population making less than $25,000 a year
- Population density

TPL applied buffers around existing parks, playgrounds, and recreational open spaces to determine the ten-minute walking radius around green space already available. By incorporating the vulnerability index, TPL was then able to pinpoint the locations where new parks could provide great benefit.

Project highlights
The Green Community Mapping Project showed that almost 7,000 children within Kalamazoo City and more than 28,000 outside the city limits live beyond a ten-minute walk of publicly accessible play areas. Especially vulnerable neighborhoods include Edison, Northside, the area west of Northglade School, and the area east of Asylum.

GIS analysis also helped illustrate the strengths and weakness of existing facilities. While county parks provide excellent natural play opportunities, they are generally difficult to access by foot and serve relatively few people compared to the city parks. By contrast, Spring Valley Park, Fray’s Park, and Kalamazoo Christian High School are highly accessible and offer a variety of nature-based recreation.

Results
The Green Community Mapping Project identified high-priority target areas for the NCLI Initiative’s strategic planning. The project enabled NCLI leaders to verbalize and illustrate the community’s needs, and to open up partnerships with universities, city planners, and other agencies and organizations. The City of Kalamazoo Economic Development Department is using the map to propose incorporating creekside green space into a future development. After seeing the mapping results, Downtown Kalamazoo, Inc. is interested in introducing more green space into its strategic plan. In addition, more than 50 pediatricians have pledged to start writing prescriptions for outdoor play for young patients as a form of preventive medicine.