Introduction

During the summer of 2016 Public Health Madison and Dane County created an inventory of outdoor educational infrastructure at all public schools in the Madison Metropolitan School District. This information was compiled to inform the school district of existing resources at each school, including a photo inventory of all outdoor learning infrastructure, and a GIS map that spatially locates features.

The Process

As part of the Cities Connecting Children to Nature (CCCN) initiative, Madison developed a citywide plan to increase equitable access to nature. To support that plan, Public Health Madison and Dane County (PHMDC) sought to better understand the resources available on school grounds to connect students to nature. PHMDC pitched the idea to create an inventory to the Madison Metropolitan School District building and grounds supervisor, and they gained approval. PHMDC developed shared goals with the building and grounds supervisor so that they could mutually make the best use of the data.

All data collectors received visitor badges to get access to grounds, and were trained by the Environmental Health Division of the Public Health Department on the use of handheld GPS devices to geo-locate school ground features. A temporary worker was hired to do the on-the-ground assessment work, and the 49 school locations were mapped out into geographic sections to streamline visits. Once onsite, the data collector walked the grounds to identify,
photograph and locate each schoolyard’s outdoor educational infrastructure using a GPS handheld device. The data collectors also took photographs of the grounds as a whole.

PHMDC analyzed the GPS data using ArcMap GIS and created a map for each school, like the one seen above. The maps show the location of existing outdoor educational infrastructure and corresponding images from the photo inventory. The school district is now using the inventory to ensure that they include equity in their decision-making process as they identify priority areas within the city and support them with community non-profit partners as they connect children with nature on their schoolyards.

**Schoolyard Features Included in the Assessment**

Included in the outdoor educational infrastructure inventory were:

- Edible gardens
- Outdoor classrooms and music areas
- Storage sheds or storage bins
- Water spigot access
- Garden area seating
- Stormwater capture (rain gardens, rain barrels)
- Native & pollinator gardens
- Trails
- Greenhouses
- Outdoor kitchens
- Composting
- Art installations
- Community gardening areas
- Pavilions and stages
- Wildlife habitat areas (bird feeders, bat houses)
- Informational signage
- Little Free Libraries
- School forests
- Indicators of past participation in outdoor education grant programs