

Creating Austin's Nature Equity Score

SUMMARY

To develop an understanding of the areas of most need in equitable access to green space in Austin, many data sets were added to a GIS map of the city. This mapping resulted in Austin's Nature Equity Score, a decision-making tool for determining priority neighborhoods in which pilot the city's Green School Parks initiative.

Introduction

As part of the Cities Connecting Children to Nature (CCCN) initiative, Austin developed a citywide plan to increase equitable access to nature. The goal of the Green School Parks component of that plan is to build nature-rich environments on school campuses in areas of Austin with low Nature Equity Scores. These School Parks will serve as a natural outdoor space for students, providing garden-based education and nature play on school grounds as a means of integrating nature experiences into school curriculum. The school parks will also serve the surrounding community during out-of-school time, increasing natural environments in areas of Austin that are park deficient and lacking in nature access.

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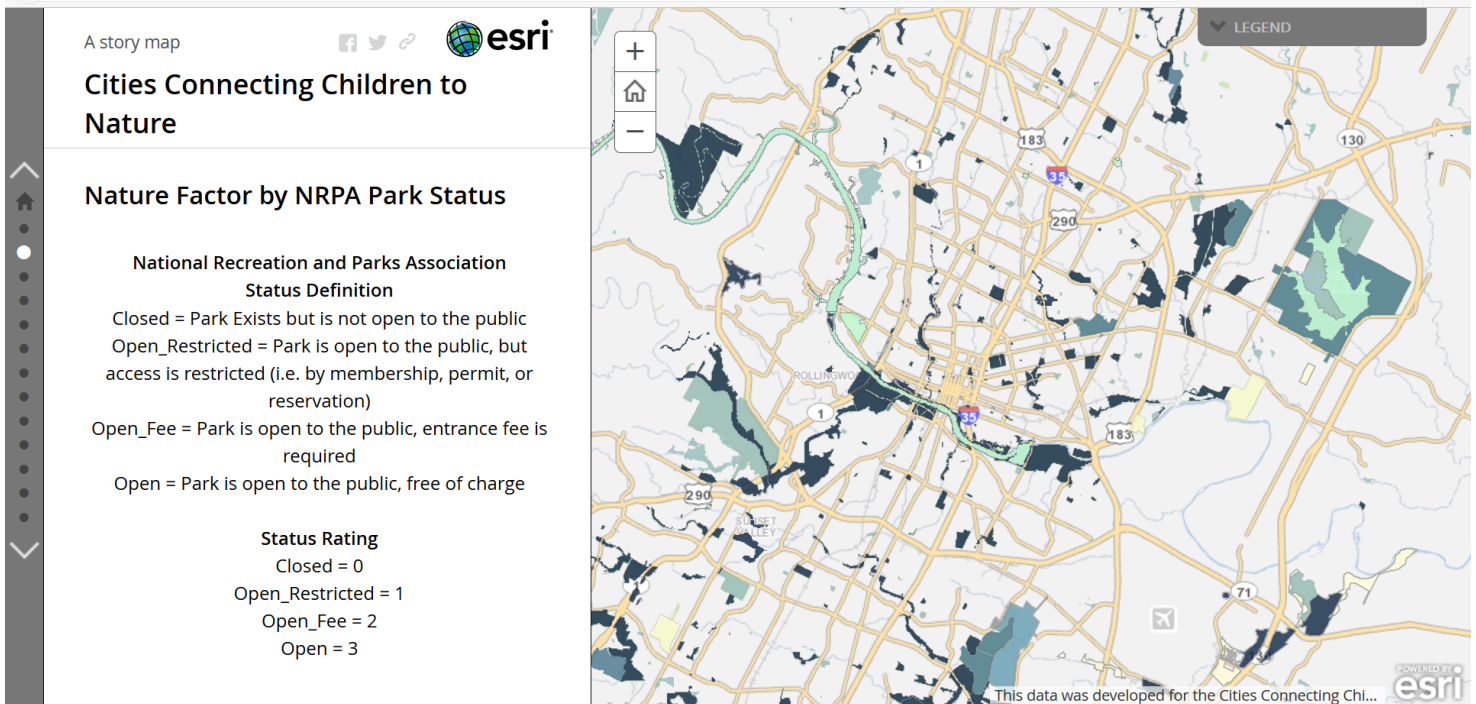
To develop an understanding of the areas of most need in Austin, two models were developed using ArcGIS. The first model measures the **nature quality** of Austin's green spaces, and the second model measures the **potential for impact** within Austin's neighborhoods.



Nature play areas build family engagement in this Green School Park to aid the community design process.

The **nature quality model** was created by:

- Using available park space data layers from City of Austin Parks and Recreation Department; other jurisdictional parks; City of Austin maintained properties;



A screen shot of the Nature Equity Score Map

Pflugerville city parks (neighboring city within Austin’s Travis County); Travis County parks; Williamson County parks; and Texas State parks;

- Assigning values for four different “nature factors”: park acreage; the National Recreation and Park Association’s Park Status; inverse available tree canopy from the 2010 Tree Census; and The Trust for Public Land land use definitions; and
- Aggregating the values to create a “nature score” for each green space.

The second model focused on **potential for impact** in the areas of most need across Austin zip codes. The data sets used for this model were:

- Median Household Income from census data,
- Child population from census data, and
- Inverse tree canopy (raster imagery).

The potential for impact factors for each zip code in Austin were aggregated to create a simple map of the areas of most need in Austin.

These two models were overlaid to reveal the zip codes with the lowest nature scores and the highest potential for impact scores. From this, the city quantifiably identified three priority areas of Austin for their citywide plan to increase equitable access.

Find Out More

Go to [Austin’s Cities Connecting Children to Nature Website](#) to find out what decisions they made as a result of their Nature Equity Score.

Interact with the [Nature Equity Interactive Map GIS Gap Analysis](#) here.