The Community Park Audit Tool App (eCPAT): Developing technology to promote physical activity and health through parks

National Recreation and Park Association – September 16, 2015

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Agenda

- Background and development
- eCPAT app demo
- Practice park audit
- Discussion
Key Points

- Parks are **vital resources** for physical activity and health
- Understanding the **features and quality** of parks is key
- eCPAT facilitates simple and efficient **inventorying, evaluation, and promotion** of local park resources
- eCPAT app and system can be used by **diverse stakeholders** to improve parks and community health
Background and Development
Obesity in America

- **32%** youth (2-19) in US overweight or obese
- **63%** adults in US overweight or obese

- Health-related issues (mental & physical)
- Staggering costs of medical care
- Overweight children are more likely to be overweight or obese as adults

Ogden et al., 2014; CDC, 2010; Ferraro et al., 2003; Franks et al., 2010; Yeung et al., 2010; Freedman et al., 2001
Physical Activity

- Physical activity can reduce the risk of obesity and related diseases

- Only 48% of adults and 27% of youth meet physical activity guidelines

- Parks are key settings for physical activity promotion!

Parks and Physical Activity Evidence

• **Living closer to park space** is associated with increased physical activity among adults & youth

• **Park features & other characteristics** may be just as important as proximity in encouraging neighborhood & park-based physical activity
  
  • Number & types of features (e.g., playgrounds, trails)
  • Quality of park and features (e.g., renovations)
  • Ease of accessing the park from surrounding neighborhood (e.g., street connectivity, traffic, crossings, public transportation)

Kaczynski & Henderson, 2007; Roemmich et al., 2006; Kaczynski et al., 2008; Cohen et al., 2006; Colabianchi et al., 2008; Crawford et al., 2008
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Parks and Physical Activity Evidence

- **Living closer to park space** is associated with increased physical activity among adults & youth

- **Park features & other characteristics** may be just as important as proximity in encouraging neighborhood & park-based physical activity
  - Number & types of features (e.g., playgrounds, trails)
  - Quality of park and features (e.g., renovations)
  - Ease of accessing the park from surrounding neighborhood (e.g., street connectivity, traffic, crossings, public transportation)

- Park availability & park features and quality are generally **worse in low income and/or high-minority areas**

Kaczynski & Henderson, 2007; Roemmich et al., 2006; Kaczynski et al., 2008; Cohen et al., 2006; Colabianchi et al., 2008; Crawford et al., 2008
Community Park Audit Tool (CPAT)

- Developed with and for community members through RWJF ALR grant
- Comprehensive (key areas covered) yet user-friendly (length, format, etc.)
- Concerned with presence/absence and ‘usability’ and ‘condition’ of most park elements
- Mostly yes/no responses & checklists
- Instructions contained in tool/items; guidebook with additional details
- Quick method with demonstrated high reliability for auditing parks for their potential to promote PA
- 6 pages with 4 sections

Kaczynski et al., 2012
### COMMUNITY PARK AUDIT TOOL

**Instructions**
Before you begin, review the brief training guide and audit tool and try to locate a map of the park. Then, go to the park and proceed with filling out this audit tool. The tool (6 pages) is divided into four sections that focus on different aspects of the park environment. Additional instructions are provided within each section.

**Tips for Using the Community Park Audit Tool (CPAT)**
- Drive, bike, or walk around the park to get a feel for the contents and characteristics of the park and surrounding neighborhood.
- The CPAT is organized such that questions on similar topics are grouped into logical sections and the four sections are arranged in the order that you might encounter them during your audit. However, you may need to switch between sections or pages as you complete the park audit. Therefore, it is important to review and be familiar with all of the tool sections and questions before you begin your audit.
- It is also important that you check back through the full document (6 pages) when you are finished to ensure you have completed all the sections and questions.
- Space is provided at the end of each section (and some individual questions) where you can take notes or record comments as you complete your audit. The margins or back of each page (if copied single-sided) can also be used to take notes, but please be sure that all relevant information is transferred to appropriate places on the tool and that all questions are fully answered using the format provided.
- If you see anything during your audit that requires immediate attention, contact the local parks department.

### Section 1: Park Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Name</td>
<td></td>
</tr>
<tr>
<td>Park Address/Location</td>
<td></td>
</tr>
<tr>
<td>Were you able to locate a map for this park?</td>
<td>No</td>
</tr>
<tr>
<td>Was the park easy to find onsite?</td>
<td>No</td>
</tr>
<tr>
<td>Date (m/d/yr)</td>
<td><strong>/</strong>/____</td>
</tr>
<tr>
<td>Approximate Temperature: °F</td>
<td></td>
</tr>
<tr>
<td>Weather</td>
<td>Clear</td>
</tr>
<tr>
<td>Start Time</td>
<td></td>
</tr>
<tr>
<td>End Time</td>
<td></td>
</tr>
<tr>
<td>Length of visit</td>
<td></td>
</tr>
</tbody>
</table>

**Comments on Park Information:**

### Section 2: Access and Surrounding Neighborhood

This section asks about factors related to accessing the park and about features of the neighborhood surrounding the park. Several questions include follow-up responses if you answered Yes. After completing all questions, provide any additional comments in the space at the end of the section. When thinking about the surrounding neighborhood, consider all areas that are visible from all sides of the park.

When rating the access and surrounding neighborhood, please use the following definition:
- Usable: all areas necessary for use (e.g., sidewalks are passable)

1. Can the park be accessed for use? (e.g., not locked/fenced, available for activity, etc.)
   - [ ] No
   - [ ] Yes

2. Are there signs that state the following (could be same sign)? (check all that are present)
   - [ ] Park name
   - [ ] Park hours
   - [ ] Park contact information
   - [ ] Park rules
   - [ ] Park map
   - [ ] Rental equipment information
   - [ ] Event/program information

3. How many points of entry does the park have? More than 5 (or park boundary is open) | 2-5 | Only 1

4. Is there a public transit stop within sight of the park? [ ] No [ ] Yes

5. What types of parking are available for the park? (check all that are present)
   - [ ] None
   - [ ] Parking Lot
   - [ ] On-street parking
   - [ ] Bike rack

6. Are there sidewalks on any roads adjacent to the park? (could be on opposite side of road)
   - [ ] No
   - [ ] Yes
   - [ ] If yes... Are they usable? All or most are usable

7. Is there an external trail or path connected to the park? [ ] No [ ] Yes

8. Are there marked bike lanes on any roads adjacent to the park? [ ] No [ ] Yes

9. Are there nearby traffic signals on any roads adjacent to the park? (e.g., crosswalk, stop light/sign)
   - [ ] No
   - [ ] Yes
   - [ ] If yes... Are they on heavy traffic roads?

10. What are the main land use(s) around the park? (check all that apply)
    - Residential
    - Commercial
    - Institutional (e.g., school)
    - Industrial (e.g., warehouse)
    - Natural

11. Which of the following safety or appearance concerns are present in the neighborhood surrounding the park? (check all that are present in the surrounding neighborhood within sight on any side of the park)
    - Inadequate lighting (e.g., absent or poor lighting on surrounding neighborhood streets)
    - Graffiti (e.g., markings or paintings that reduce the visual quality of the area)
    - Vandalism (e.g., damaged signs, vehicles, etc.)
    - Excessive litter (e.g., noticeable amounts of trash, broken glass, etc.)
    - Heavy traffic (e.g., steady flow of vehicles)
    - Excessive noise (e.g., noticeable sounds that are unpleasing or annoying)
    - Vacant or unfavorable buildings (e.g., abandoned houses, liquor store)
    - Poorly maintained properties (e.g., overgrown grass, broken windows)
    - Lack of eyes on the street (e.g., absence of people, no houses or store fronts)
    - Evidence of threatening persons or behaviors (e.g., gangs, alcohol/drug use)
    - Other

**Comments on Access or Surrounding Neighborhood Issues:**
### Section 3: Park Activity Areas

This section asks about the activity areas in the park. For each activity area type:

1. First, indicate the number (#) that are present in the park (if none, write “0”).
2. Then, respond to several subsequent questions about up to three of those particular areas. If there are more than three areas for a specific activity area type, rate the first three you encounter during the audit. If there were no activity areas of that type present in the park, move on to the next type.
3. Finally, use the space provided to note any additional comments about each type of activity area.

When rating the activity areas, please use the following definitions:
- **Useable**: everything necessary for use is present (excluding portable equipment - raquets, balls, etc.) and nothing prevents use (e.g., are there nets up for tennis courts, goals for sport fields, are trails passable, etc.)
- **Good condition**: looks clean and maintained (e.g., minimal rust, graffiti, broken parts; even surface; etc.)

#### Activity Areas

<table>
<thead>
<tr>
<th># of Areas</th>
<th>Area 1</th>
<th>Area 2</th>
<th>Area 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Playground (#:</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distinct areas for different age groups</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Colorful equipment (i.e., 31 colors)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Shade cover for some (25%) of the area</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Benches in/surrounding area</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Fence around area (i.e., 2+ sides)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Separation or distance from road</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Sport Field (football/soccer) (#:</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Baseball Field (#:</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Swimming Pool (#:</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Splash Pad (#:</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Basketball Court (#:</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Tennis Court (#:</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

#### Fitness Equipment/Stations

<table>
<thead>
<tr>
<th># of Areas</th>
<th>Area 1</th>
<th>Area 2</th>
<th>Area 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
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</tbody>
</table>

#### Skate Park

<table>
<thead>
<tr>
<th># of Areas</th>
<th>Area 1</th>
<th>Area 2</th>
<th>Area 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Off-Leash Dog Park

<table>
<thead>
<tr>
<th># of Areas</th>
<th>Area 1</th>
<th>Area 2</th>
<th>Area 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Open/Green Space

<table>
<thead>
<tr>
<th># of Areas</th>
<th>Area 1</th>
<th>Area 2</th>
<th>Area 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Other (Fill in a type description for each)

<table>
<thead>
<tr>
<th># of Areas</th>
<th>Area 1</th>
<th>Area 2</th>
<th>Area 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useable</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Good condition</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments on Park Activity Areas:
## Section 4: Park Quality and Safety

This section asks about factors related to comfort and safety when using the park. Several questions include follow-up responses if you answered yes. After completing all questions, provide any additional comments in the space at the end.

When rating the quality and safety features of the park, please use the following definitions:

- **Useful:** everything necessary for use is present and nothing prevents use (e.g., can get into restrooms, drinking fountains work, etc.)
- **Good condition:** looks clean and maintained (e.g., minimal rust, graffiti, broken parts, etc.)

### Questions

13. Are there public restrooms or portable toilets at the park?  No  Yes
   - If yes ... Are the restrooms usable? All or most are usable  About half  None or few are usable
   - Are they in good condition? All or most in good condition  About half  None or few in good condition
   - Is there a family restroom? No  Yes
   - Is there a baby change station in any restroom? No  Yes

14. Are there drinking fountains at the park?  Yes  No
   - If yes ... How many different fountains are there? (i.e., units, not spouts)
     - Are the fountains usable? All or most are usable  About half  None or few are usable
     - Are they in good condition? All or most in good condition  About half  None or few in good condition
     - Are they near activity areas? All or most are near  About half  None or few are near

15. Are there benches in the park?  Yes  No
   - If yes, are the benches usable? All or most are usable  About half  None or few are usable
   - Are they in good condition? All or most in good condition  About half  None or few in good condition

16. Are there picnic tables in the park?  Yes  No
   - If yes, are the tables usable? All or most are usable  About half  None or few are usable
   - Are they in good condition? All or most in good condition  About half  None or few in good condition
   - Is there a picnic shelter in the park? No  Yes
   - Is there a grill or fire pit in the park? No  Yes

17. Are there trash cans in the park?  Yes  No
   - If yes, are they overflowing with trash? All or most are overflowing  About half  None or few overflowing
   - Are they near activity areas? All or most are near  About half  None or few are near
   - Are recycling containers provided? No  Yes

18. Is there food/vending machines available in the park?  No  Yes

19. If the sun was directly overhead, how much of the park would be shaded? <25%  25-75%  >75%

20. Are rules posted about animals in the park? (e.g., dogs must be leashed)? No  Yes

21. Is there a place to get dog waste pick up bags in the park?  No  Yes
   - If yes ... Are bags available? No  Yes

22. Are there lights in the park? (not including neighborhood street lights)  No  Yes
   - If yes, how much of the park could be lit? <25%  25-75%  >75%
   - Are the activity areas lit? All or most are lit  About half  None or few are lit

23. Is the park monitored? (e.g., volunteer or paid staff, patrolled by police, cameras, etc.) Unsure  Yes

24. Are there any emergency devices in the park? (e.g., phone, button, emergency directions) No  Yes

25. Is there evidence of threatening behavior or persons in the park? (e.g., gangs, alcohol/drug use) No  Yes

26. From the center of the park, how visible is the surrounding neighborhood? Fully  Partially  Not at all

27. Are there roads through the park?  No  Yes
   - If yes ... Are there traffic control mechanisms on the roads within the park? (e.g., crosswalk, stop light or sign, brick road, speed bumps, roundabouts) No  Yes

28. Are there any dangerous spots in the park? (e.g., abandoned building, pit/hole) No  Yes

29. Which of the following park quality concerns are present in the park? (check all that are present)
   - Graffiti (e.g., markings or paintings that reduce the visual quality of the area)
   - Vandalism (e.g., damaged signs, buildings, equipment, etc.)
   - Excessive litter (e.g., noticeable amounts of trash, broken glass, etc.)
   - Excessive animal waste (e.g., noticeable amounts of dog waste)
   - Excessive noise (e.g., noticeable sounds that are unpleasant or annoying)
   - Poor maintenance (e.g., overgrown grass/weeds/bushes or lack of grass in green areas)
   - Other

30. What aesthetic features are present in the park? (check all that are present)
   - Evidence of landscaping (e.g., flower beds, pruned bushes)
   - Artistic feature (e.g., statue, sculpture, gazebo, fountain)
   - Historical or educational feature (e.g., monument, nature display, educational signs, etc.)
   - Wooded area
   - Trees throughout the park
   - Water feature (e.g., lake, stream, pond)
   - Meadow (e.g., natural, tall grassy area)
   - Other

### Comments on Park Quality and Safety Issues:

Before finishing, please ensure you have answered all questions in the tool.
Using the CPAT

• Evidence about how park features influence health behaviors and outcomes

• Projects to date in both Kansas City, MO and Greenville County, SC
  • e.g., In Greenville County, the number of park playgrounds in a child’s neighborhood was significantly related to lower body mass index (BMI)
Using the CPAT

- Evaluating park quality and equality
  - Can aid in identifying and addressing disparities across your community
  - Help with decision-making and priority setting

- Led to a community-based CDC grant in Greenville County, SC
Using the CPAT

- Engaging citizens in evaluating and advocating for parks
  - Youth groups
  - Neighborhood associations
  - Community organizations

- Hands-on method to engage diverse stakeholders (e.g., residents, taxpayers, elected officials, etc.)
Using the CPAT

- Park inventory/communication system
  - e.g., City of Greenville, SC Parks Finder system
    http://gis64.greenvillesc.gov/ParksFinder

- Efficient tool to continuously collect detailed park information for internal purposes and to share with residents
eCPAT Mobile Technology

- Technology everywhere (64% own smartphone, 42% own tablet)

- Benefits
  - Reduce data error/loss
  - Reduce time/cost burden
  - Preference
  - Engagement
  - Facilitates integration (i.e. PPGIS, mHealth, social media)

- Opportunity to combine multiple technologies (photography, GIS, mobile interface, etc)

PEW Internet Research, 2015; Johannes et al., 200; Bushnell et al., 2003; Lane et al., 2006; Besenyi et al., under review
eCPAT Development

- Literature review
- Key informant interviews
- Systems requirement analysis
- Application software design
- Program coding
- Alpha (capacity) testing
- Database development

Data collection on Mobile Device + App

Server for data analysis
# eCPAT Overview

## eCPAT System Capabilities

<table>
<thead>
<tr>
<th>eCPAT Application</th>
<th>Internet not required for data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile data collection tool</td>
<td></td>
</tr>
<tr>
<td>Color graphics</td>
<td>✓</td>
</tr>
<tr>
<td>Touchscreen sensory appeal</td>
<td>✓</td>
</tr>
<tr>
<td>Instructions/definitions built-in</td>
<td>✓</td>
</tr>
<tr>
<td>Example pictures</td>
<td>✓</td>
</tr>
<tr>
<td>Camera</td>
<td>✓</td>
</tr>
<tr>
<td>GIS pinning</td>
<td>✓</td>
</tr>
<tr>
<td>Answer validation</td>
<td>✓</td>
</tr>
</tbody>
</table>

**eCPAT Database**

| Wireless data transfer                                 | ✓                                        |
| Unlimited data storage                                 | ✓                                        |

**eCPAT Web Interface**

| Manage individual/organizational accounts             | ✓                                        |
| Map resources                                         | ✓                                        |
| Print reports                                         | ✓                                        |
| Manage maintenance                                    | ✓                                        |
The electronic app version of the Community Park Audit Tool (eCPAT) was developed and tested with over 120 youth in 47 parks in Greenville County, SC.
eCPAT App Demo
Practice Park Audit
Group Activity: Practice Park Audit

- Divide into groups
- 1 tablet per group
- Take turns completing a practice park audit using the supplied pictures
- Make sure to fill out all answers (does not have to be accurate)
IMPORTANT AUDITING TIPS

• Drive, bike, or walk around the park to get a feel for what’s in the park and the neighborhood around the park.

• The eCPAT questions are grouped in sections in the order that you might come across them in a park. However, you may need to switch between sections as you complete your park audit. Therefore, it is important to look through the tool before you begin.

• When you are finished, go back and make sure you have completed all the sections and questions.

• There is space at the end of each section where you can type comments as you complete your audit.

• Also, use the legend to the right to identify the various icons in the eCPAT and their uses.

• If you see anything that requires immediate attention, contact the local parks department.

© 2014-2015 USC School of Public Health (version 2.x)
Group Activity: Practice Park Audit

Park Info
- Park Name: NRPA demo
- Observer ID: your name

Weather
- Temp: 80
- Partly cloudy

Access
- Yes

Park Signs
- Check all that are present

Entry Points
- Only 1

Public Transit
- Yes
Group Activity: Practice Park Audit

Parking Type
- Parking Lot/Bike Rack

Sidewalks
- Yes
- All or most useable
- Curb cuts: yes

External Path
- No

Bike Routes
- Designated Lane

Traffic Signals
- Yes
Group Activity: Practice Park Audit

Land Uses
- Residential
- Commercial
- Institutional
- Natural

Safety Concerns (neighborhood)
- Graffiti
- Excessive litter
- Vacant or unfavorable buildings
- Poorly maintained properties
Group Activity: Practice Park Audit

Playground (1)
• Useable: Yes
• Good Condition: Yes
• Distinct areas: No
• Colorful equipment: Yes
• Shade cover: No
• Benches: Yes
• Fence: No
• Separation: No

Playground (2)
• Useable: Yes
• Good Condition: Yes
• Distinct areas: Yes
• Colorful equipment: Yes
• Shade cover: Yes
• Benches: Yes
• Fence: Yes
• Separation: Yes
Group Activity: Practice Park Audit

Trail
- Useable: Yes
- Good Condition: Yes
- Connected: Yes
- Distance markers: No
- Benches: Yes
- Surface: Dirt/mulch

Other: Disc golf
- Useable: Yes
- Good Condition: Yes
Group Activity: Practice Park Audit

Restroom: Yes
  • Useable: All
  • Good Condition: All
  • Family: No
  • Baby change: No

Benches: Yes
  • Useable: All
  • Good Condition: All

Picnic Tables: Yes
  • Shelter: Yes
  • Grill: Yes

Trash: Yes
  • Recycling: No

Food/Vending: Yes
  • Fruit/Veg: No
Group Activity: Practice Park Audit

Shade: 25-75%

Animal Rules: Yes
  • Bags: Yes
  • Bags available: Yes

Lights: No

Monitored: No

Emergency Device: Yes

Visible: Partially

Roads: No
Group Activity: Practice Park Audit

Safety Concerns
• Graffiti
• Excessive litter
• Poor maintenance
• Evidence of threatening behavior (drugs)
Group Activity: Practice Park Audit

Aesthetic Features
- Landscaping
- Artistic feature
- Wooded area
- Water feature
eCPAT System
eCPAT System

Public Web Interface
Search, Map, Compare, Rate Parks

Mobile App for Park Auditors

Client Data & Reports
(Future Commercial Clients)

Central Server & Database

Client Web Interface
(Park Auditors, Administrators)

Industry and User Specific Park Data and Reports

Add, Edit, Download, and Analyze Audit Data
eCPAT System

- eCPAT application
  - System requirements: Android OS

- Web interface
  - User registration
  - Download eCPAT app
  - Manage parks
  - Submit audits
Potential eCPAT Users

- Parks & Recreation (e.g., facility management)
- Parks & Public Health Researchers
- Citizens (e.g., youth groups, community advocates)
- Health Care Professionals (e.g., Park Prescriptions)
- Real Estate Agents (e.g., similar to Walk Score)
Discussion
Greenville – Spartanburg Combined Statistical Area
1.4 million residents

Greenville County
475,000 residents

Greenville City
62,300 residents
Greenville County – 2,000 acres of park land
Greenville City – 440 acres of park land
<table>
<thead>
<tr>
<th>Park</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Butler Community Center</td>
<td>2.4</td>
</tr>
<tr>
<td>2 Cleveland Park</td>
<td>122.1</td>
</tr>
<tr>
<td>3 Croft Park</td>
<td>1.3</td>
</tr>
<tr>
<td>4 Croftstone Park</td>
<td>2.5</td>
</tr>
<tr>
<td>5 Falls Park</td>
<td>36.0</td>
</tr>
<tr>
<td>6 Gaitt Park</td>
<td>1.4</td>
</tr>
<tr>
<td>7 Covered Estates Park</td>
<td>21.0</td>
</tr>
<tr>
<td>8 Hollins Community Park</td>
<td>4.7</td>
</tr>
<tr>
<td>9 Henry Bacon McKay Park</td>
<td>0.9</td>
</tr>
<tr>
<td>10 Hessie T. Murrah Park</td>
<td>2.1</td>
</tr>
<tr>
<td>11 Hibernia Park</td>
<td>9.6</td>
</tr>
<tr>
<td>12 Kwanonis Park</td>
<td>3.0</td>
</tr>
<tr>
<td>13 Legacy Park</td>
<td>21.2</td>
</tr>
<tr>
<td>14 Linky Stone Park</td>
<td>23.5</td>
</tr>
<tr>
<td>15 Logan Park</td>
<td>0.8</td>
</tr>
<tr>
<td>16 Mayberry Park</td>
<td>4.7</td>
</tr>
<tr>
<td>17 McPherson Park</td>
<td>12.5</td>
</tr>
<tr>
<td>18 Newtown Park</td>
<td>2.4</td>
</tr>
<tr>
<td>19 Nicollington Park</td>
<td>2.5</td>
</tr>
<tr>
<td>20 Park Ave. Gym</td>
<td>1.0</td>
</tr>
<tr>
<td>21 Pearse Comm. CenterNo. Main Prk</td>
<td>5.2</td>
</tr>
<tr>
<td>22 Proctorville-Fluid Park</td>
<td>0.4</td>
</tr>
<tr>
<td>23 Railroad Mini-Park</td>
<td>1.0</td>
</tr>
<tr>
<td>24 Rockwood Park</td>
<td>1.8</td>
</tr>
<tr>
<td>25 Skyland Park</td>
<td>0.9</td>
</tr>
<tr>
<td>26 Siding Rock Creek Park</td>
<td>14.0</td>
</tr>
<tr>
<td>27 Timmons Park</td>
<td>36.6</td>
</tr>
<tr>
<td>28 Tindal Ave. Park</td>
<td>2.8</td>
</tr>
<tr>
<td>29 University Park</td>
<td>5.3</td>
</tr>
<tr>
<td>30 Vista Park</td>
<td>17.0</td>
</tr>
<tr>
<td>31 W. Greenville Comm. Ch.</td>
<td>3.5</td>
</tr>
<tr>
<td>32 Walker Park</td>
<td>0.3</td>
</tr>
<tr>
<td>33 Watts Park</td>
<td>0.7</td>
</tr>
<tr>
<td>34 W. Washington Park</td>
<td>1.1</td>
</tr>
<tr>
<td>35 Wenwood Soccer Complex</td>
<td>49.2</td>
</tr>
</tbody>
</table>

| Totals                  | 368.35  |
QUANTITATIVE
(Inventories and Service Levels)

-VS-

QUALITATIVE
(Feedback – Maintenance and Usability)
eCPAT Discussion

- What did you like about eCPAT? What would you add, improve, etc.?
- How do we integrate eCPAT with other technologies?
- Who are potential users of the CPAT/eCPAT system?
- How do we use CPAT and eCPAT for parks and recreation and community health promotion?
Moving Forward
Using CPAT/eCPAT

**CPAT**
- Projects > Development of a Community Stakeholder Park Audit Tool

**eCPAT**
- Development is ongoing
- Release date for v.1 coming soon
- Check [http://beachlab.sc.edu/](http://beachlab.sc.edu/) for updates
- Please sign up to receive email updates
- Currently seeking additional funding to enhance the tool and web interface – suggestions welcomed!
CPAT/eCPAT Workshops

- Contact us for more information about CPAT/eCPAT workshops for your community

Greenville, SC

Kansas City, MO
Key Points

• Parks are **vital resources** for physical activity and health

• Understanding the **features and quality** of parks is key

• eCPAT facilitates simple and efficient **inventorying, evaluation, and promotion** of local park resources

• eCPAT app and system can be used by **diverse stakeholders** to improve parks and community health
Partners & Support

Robert Wood Johnson Foundation
South Carolina Clinical & Translational Research Institute
City of Greenville Parks & Recreation
National Recreation and Park Association
University of South Carolina
LiveWell Greenville
Greenville County Rec Parks • Recreation • Tourism
Children’s Mercy Weighing In
MU Parks

Contact Us

Andrew Kaczynski, PhD, University of South Carolina
atkaczyn@mailbox.sc.edu

Sonja Wilhelm Stanis, PhD, University of Missouri
sonjaws@missouri.edu

Gina Besenyi, PhD, Georgia Regents University
gbesenyi@gru.edu

Dana Souza, Director, City of Greenville Parks, Recreation, & Sustainability
dsouza@greenvillesc.gov
Web interface Demo
View Profile

My Profile

<table>
<thead>
<tr>
<th>Name</th>
<th>Ecpat Administrator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Address</td>
<td><a href="mailto:kanwan@osscube.com">kanwan@osscube.com</a></td>
</tr>
<tr>
<td>Organization Name</td>
<td>USC</td>
</tr>
<tr>
<td>Organization Type</td>
<td>Academic/Research</td>
</tr>
<tr>
<td>City Name</td>
<td>Columbia</td>
</tr>
<tr>
<td>Country Name</td>
<td>United States</td>
</tr>
<tr>
<td>State/Province Name</td>
<td>Province</td>
</tr>
<tr>
<td>Postal Code</td>
<td>29201</td>
</tr>
<tr>
<td>Street Address</td>
<td>USC, Columbia</td>
</tr>
<tr>
<td>Street Address 2</td>
<td>Public Health Building</td>
</tr>
</tbody>
</table>
Manage Parks

![eCPAT: Community Park Audit Tool](image)

### Park Listing

<table>
<thead>
<tr>
<th>Name</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Country</th>
<th>Status</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finlay Park</td>
<td>34.007227</td>
<td>-81.041329</td>
<td>United States</td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>Memorial Park - Test</td>
<td>34.002357</td>
<td>-81.042430</td>
<td>United States</td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>test</td>
<td>89</td>
<td>78</td>
<td>Australia</td>
<td>Active</td>
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<tr>
<td>test 1</td>
<td>66</td>
<td>54</td>
<td>Belgium</td>
<td>Active</td>
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<tr>
<td>test 12345678</td>
<td>67</td>
<td>67</td>
<td>Italy</td>
<td>Active</td>
<td>Edit</td>
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<tr>
<td>testoosscube1</td>
<td>56</td>
<td>43</td>
<td>Belgium</td>
<td>Active</td>
<td>Edit</td>
</tr>
</tbody>
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---

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eCPAT Submissions

eCPAT Submissions Listing

<table>
<thead>
<tr>
<th>S.No</th>
<th>Park Name</th>
<th>eCPAT Submission</th>
<th>Submission Date</th>
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<tbody>
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<td>1</td>
<td>testscube1</td>
<td>Audit Report</td>
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<td>4</td>
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<td>5</td>
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<td>6</td>
<td>test</td>
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<td>2015-09-01 06:31:18</td>
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<tr>
<td>7</td>
<td>test</td>
<td>Audit Report</td>
<td>2015-09-01 05:34:23</td>
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<tr>
<td>8</td>
<td>Finlay Park</td>
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<td>2015-09-01 05:33:42</td>
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<tr>
<td>9</td>
<td>Memorial Park - Test</td>
<td>Audit Report</td>
<td>2015-09-01 05:29:21</td>
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<td>11</td>
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<td>15</td>
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<td>Audit Report</td>
<td>2015-09-01 04:14:10</td>
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Edit Profile

First Name: Ecpat
Last Name: Administrator
City: Columbia
Country: United States
Postal Code: 29201
Organization Name: USC
Organization Type: Academic/Research
Street Address: USC, Columbia
Street Address 2: Public Health Building
Change Password

Change Password

Old Password

New Password

Confirm Password

Submit  Cancel