



Environmental Characteristics of Recreational Areas: Study Update

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Acknowledgements

The background image shows a zoo entrance with two classical columns. A sign in the distance reads 'ZOO'. The scene is set in a lush, green environment with many trees and plants.

Mary Ellen Burns

Andrew Curtis, PhD

Kelly Carter

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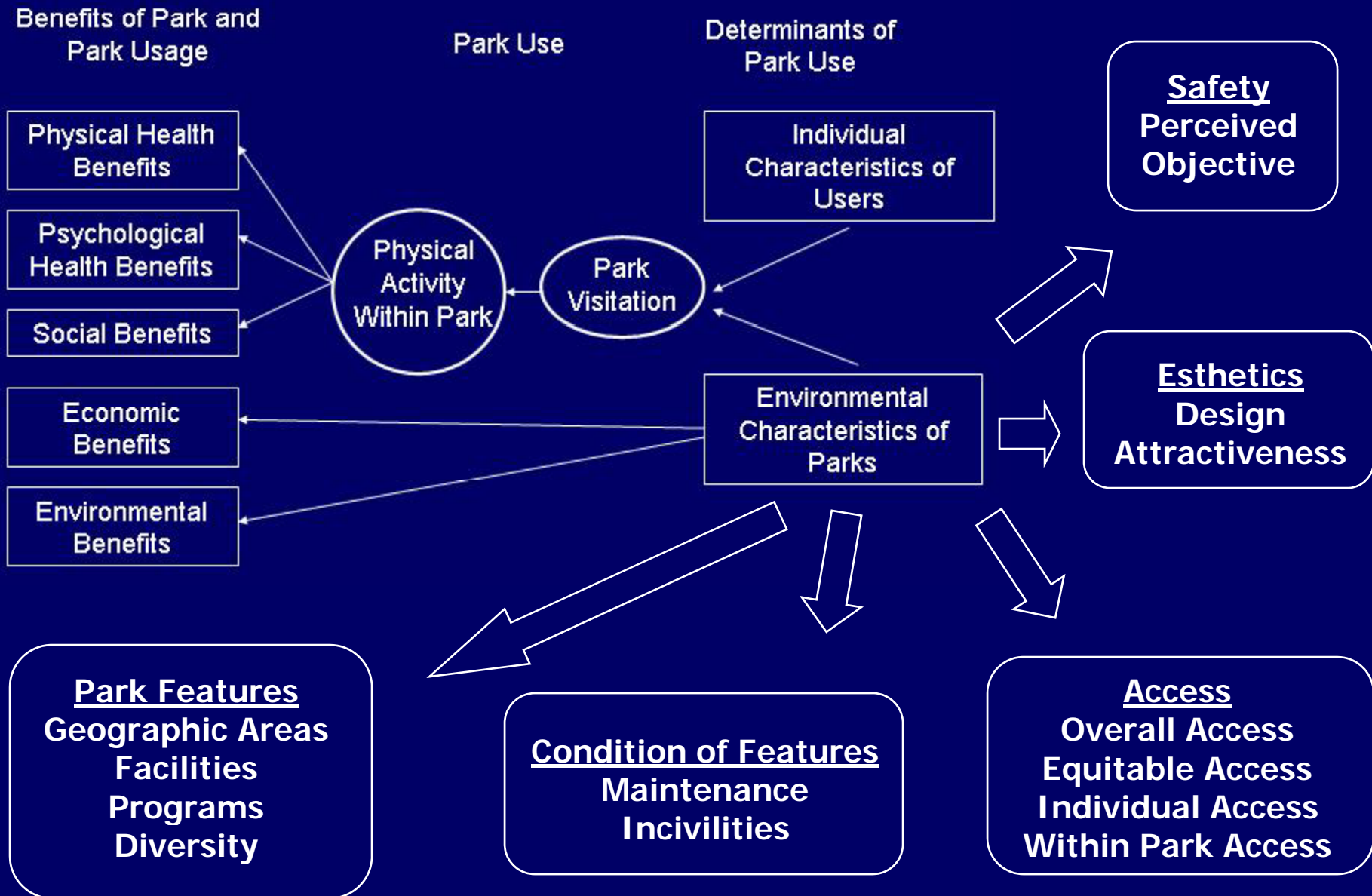
Janet Rice, PhD

Richard Scribner, MD, MPH

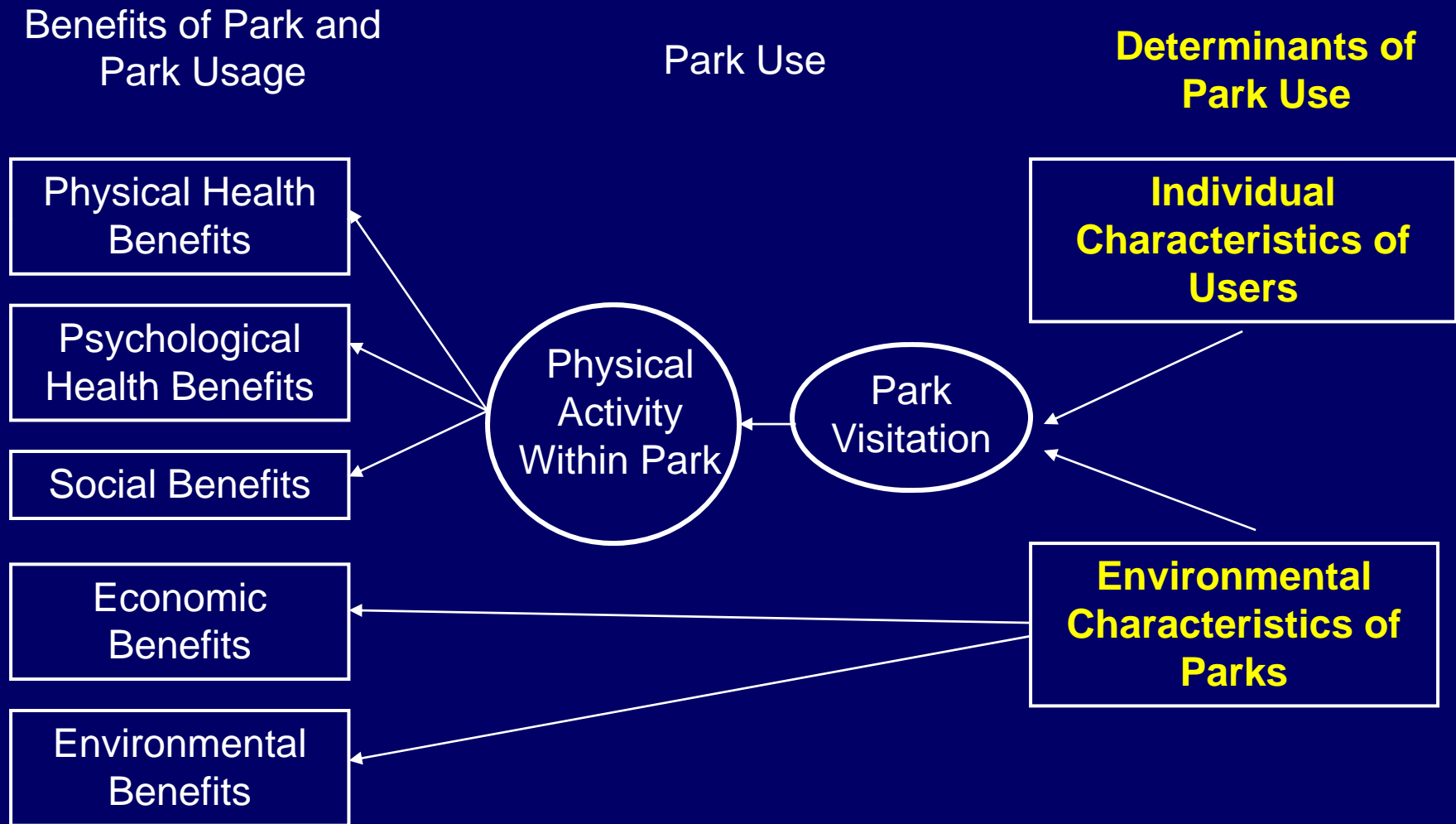
Objectives

- Develop objective measures of the physical characteristics of parks that may be associated with physical activity
- Integrate data into a comprehensive Geographic Information System (GIS)

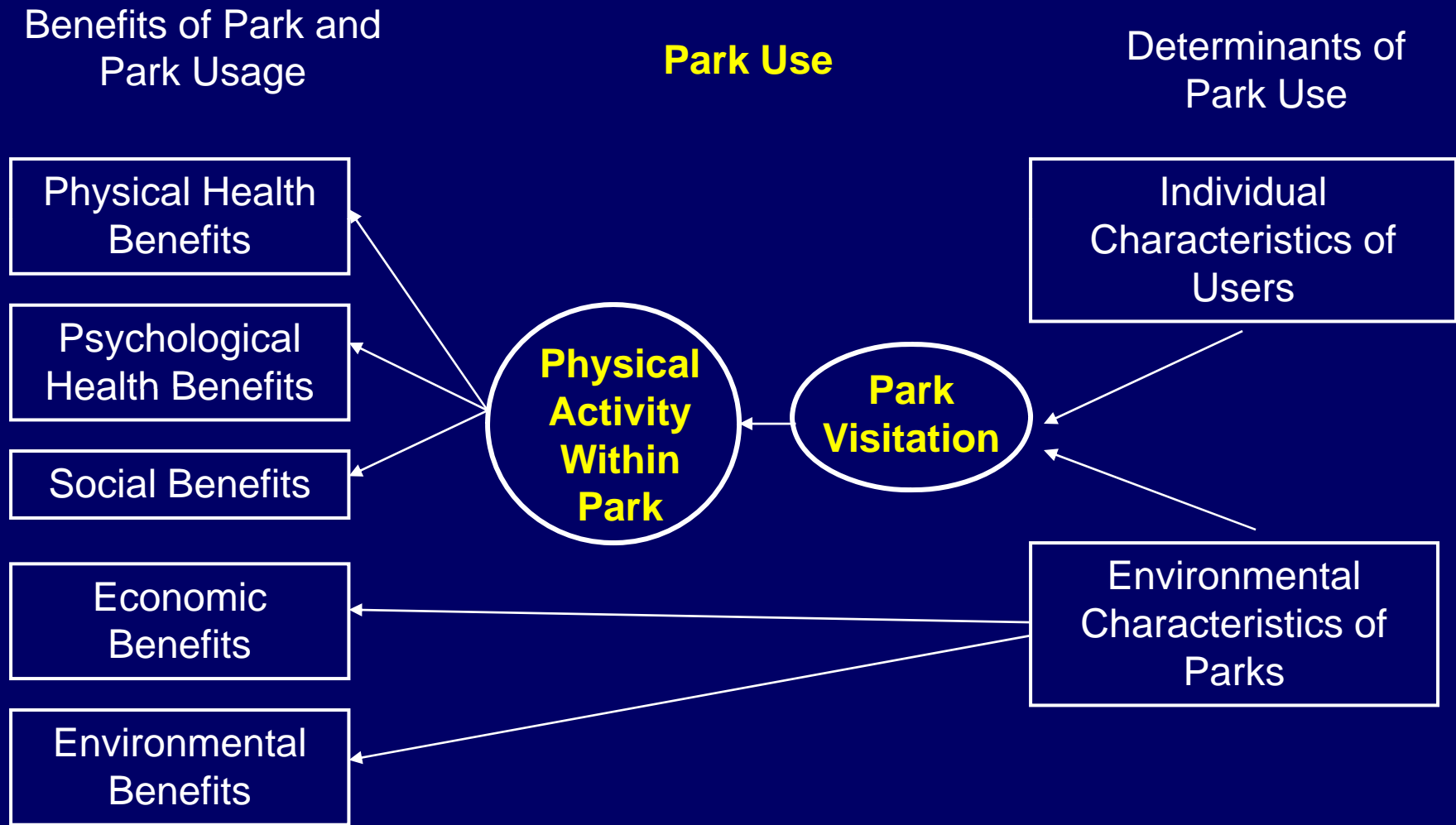
Conceptual Model



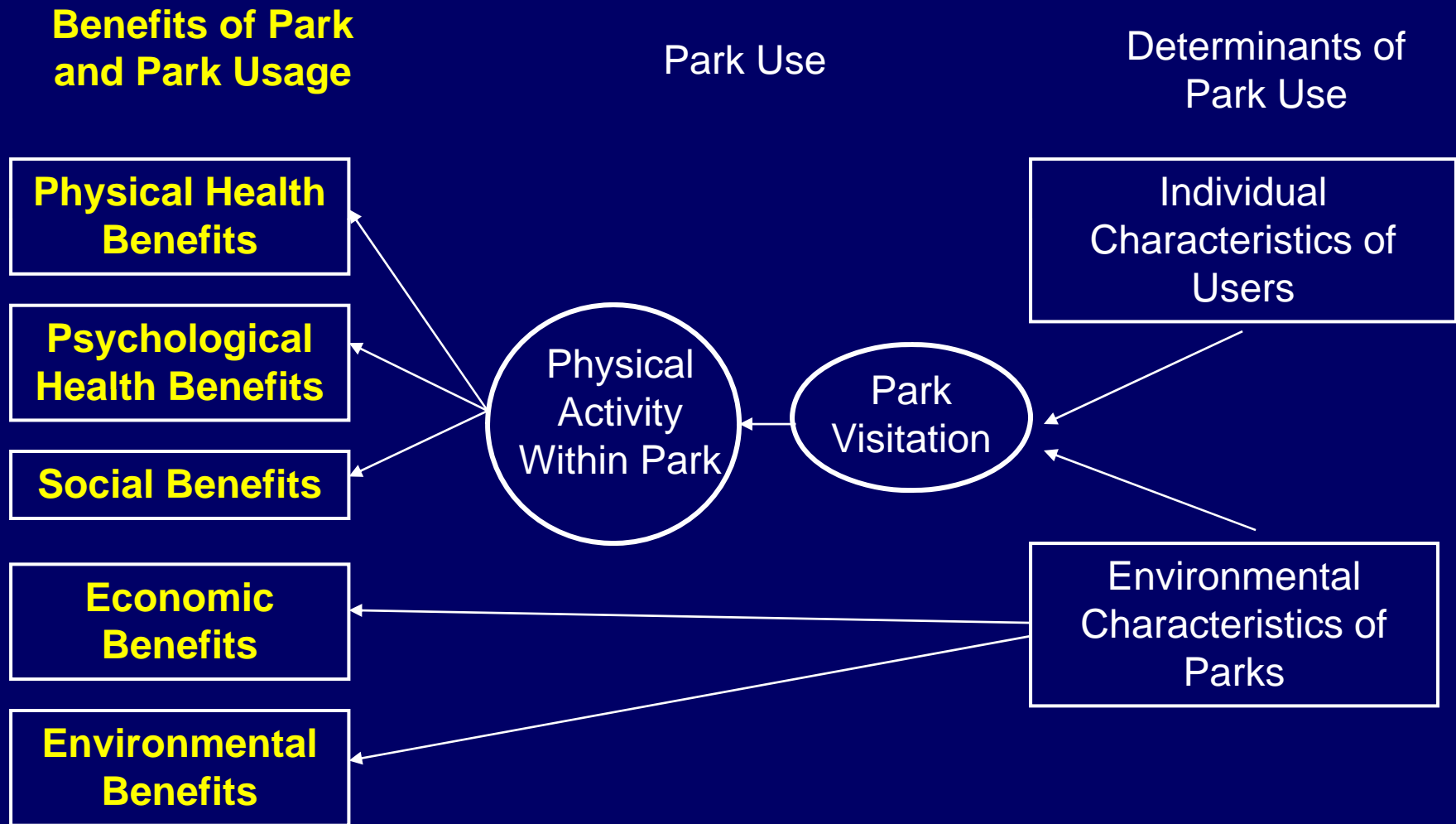
Conceptual Model of Park Benefits



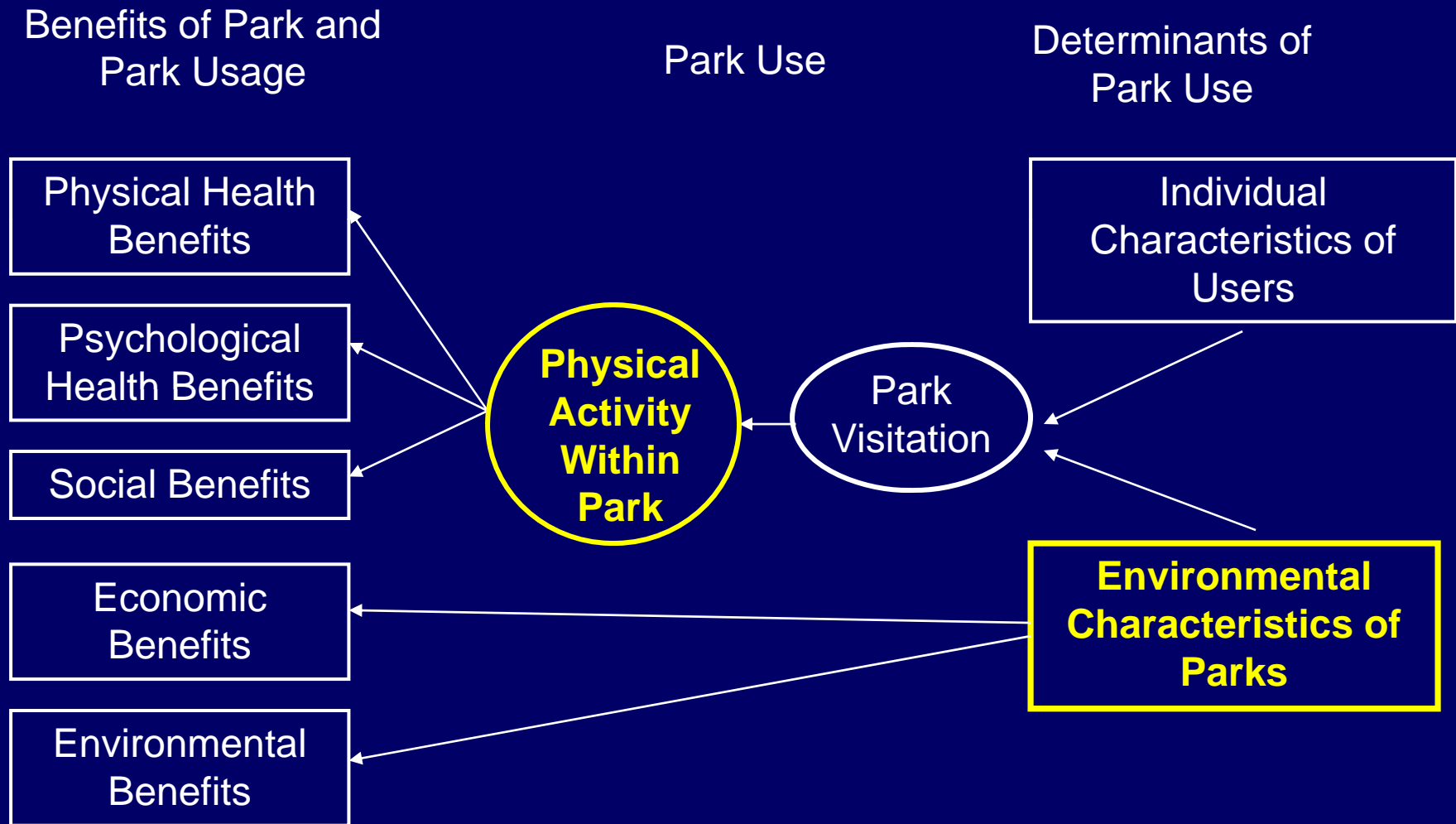
Conceptual Model of Park Benefits



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Conceptual Model of Park Benefits



Environmental Characteristics of Parks

**Environmental
Characteristics
of Parks**



Park Features
Geographic Areas
Facilities
Programs
Diversity

Environmental Characteristics of Parks



Geographic Areas

- Activity Areas
- Supporting Areas
- Overall Park
- Surrounding Neighborhood

Park Features
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Facilities
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Diversity



Environmental Characteristics of Parks



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- Supporting Areas
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Facilities in Activity Areas

- Court, Golf Course, Green Space
- Path, Playground, Sports Field
- Stadium, Swimming Pool

Facilities in Supporting Areas

- Bench, Bike Rack, Building
- Concessions, Drinking Fountain
- Parking, Picnic Tables, Restroom
- Shelters, Signage, Water Features
- Trash Cans, Art/Monuments

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Programs

- Organized activities
- After-school programs
- Concerts, races

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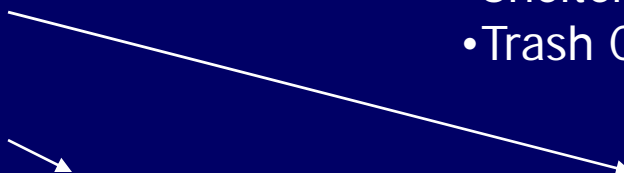
Programs

- Organized activities
- After-school programs
- Concerts, races

Diversity

- "Eyes on the street"
- Mixture of uses & users

Park Features
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**Environmental
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Condition of Features
Maintenance
Incivilities

Environmental Characteristics of Parks



Condition of Features
Maintenance
Incivilities

Maintenance

- Upkeep
- Equipment safety

Environmental Characteristics of Parks

Incivilities

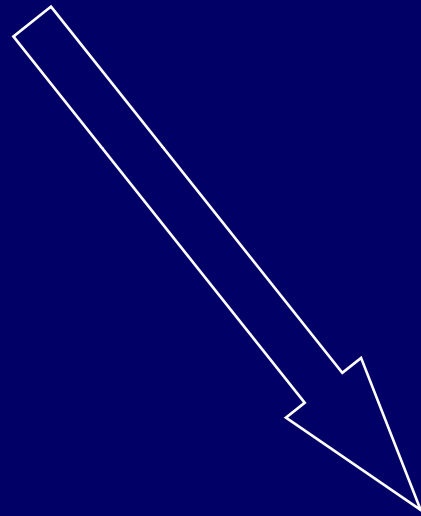
"low level breaches of community standards that signal an erosion of conventionally accepted norms & values"

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**Environmental
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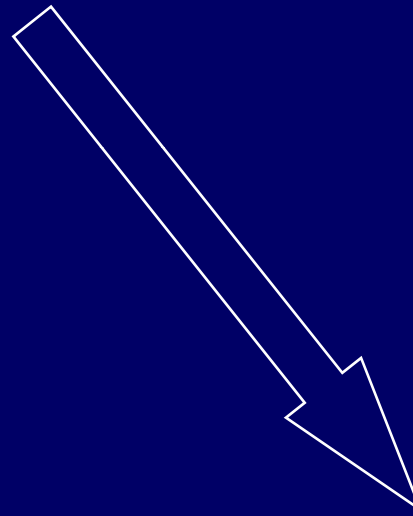


Access
Overall Access
Equitable Access
Individual Access
Within Park Access

Environmental Characteristics of Parks

Overall Access

- Distribution of parks
- e.g. parks/acre



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Equitable Access

Even distribution of parks within a city across neighborhoods



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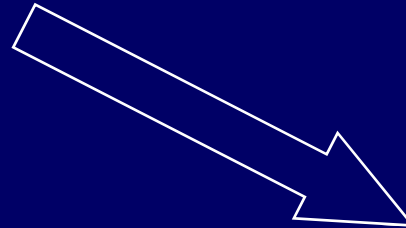
Individual Access

How far away individuals are from a park

Access

Overall Access
Equitable Access
Individual Access
Within Park Access

**Environmental
Characteristics
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Esthetics
Design
Attractiveness

**Environmental
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**Safety
Perceived
Objective**

**Environmental
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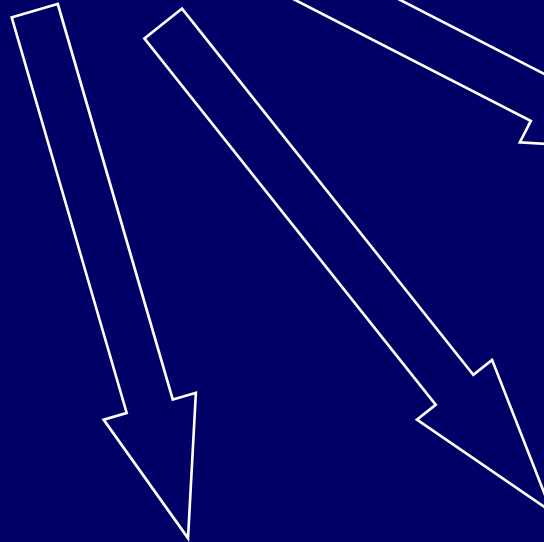
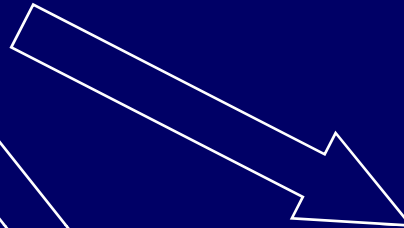
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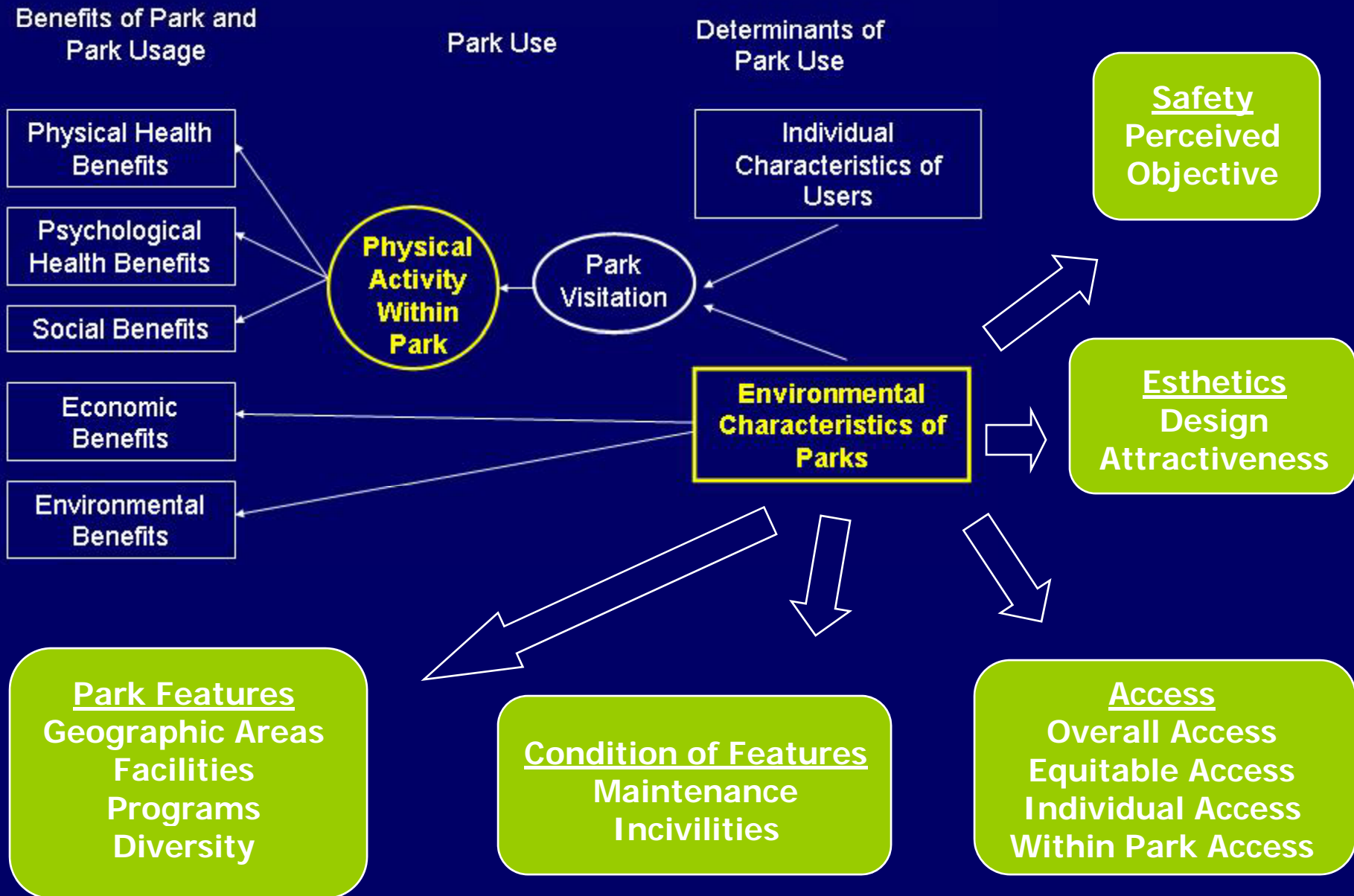
**Esthetics
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Conceptual Model



Specific Aims & Progress to Date

Identify a set of characteristics of parks that may be related to individual physical activity.

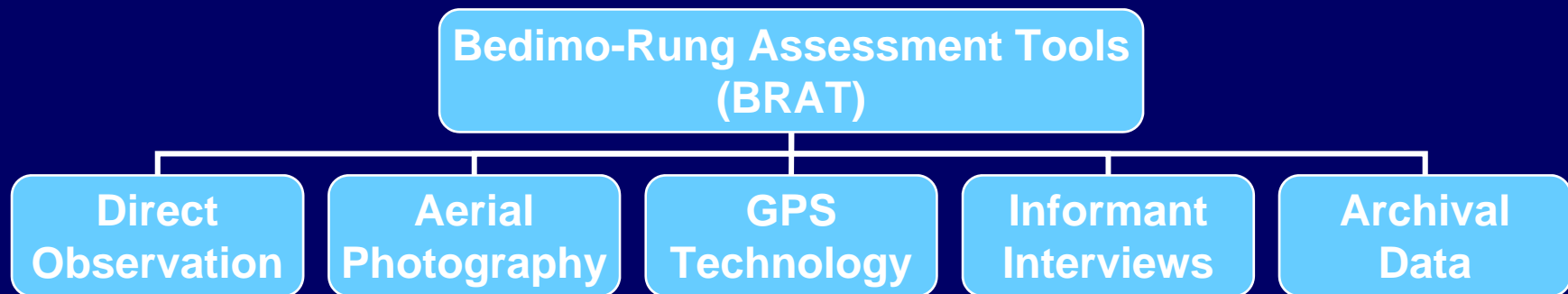
- **Brainstorming meeting with Expert Advisory Panel**
- **Continuous process of refinement with Team Members**

Develop a “Master Data Collection List” of these desired characteristics

Approximately 200 items, including items in:

- in 8 Activity Areas
- 13 Supporting Areas
- the Surrounding Neighborhood
- & in the Overall Park

Identify appropriate methodologies with which to implement data collection



Direct Observation

- Use of observers in the field who visually identify and evaluate items on BRAT
- Instrument developed
- 2 rounds of testing completed
- Entering data and refining instrument

Aerial Photography

- To identify boundaries of parks and locate them within a coordinate system; identify relevant features within the recreational areas
- Currently in the process of collecting the maps and devising a protocol for use with GPS units

Area of trees, pond, path and park boundary “digitized” as features

Trees

Pond

Digitized Path

Park Boundary

Residential
Area

All Layers



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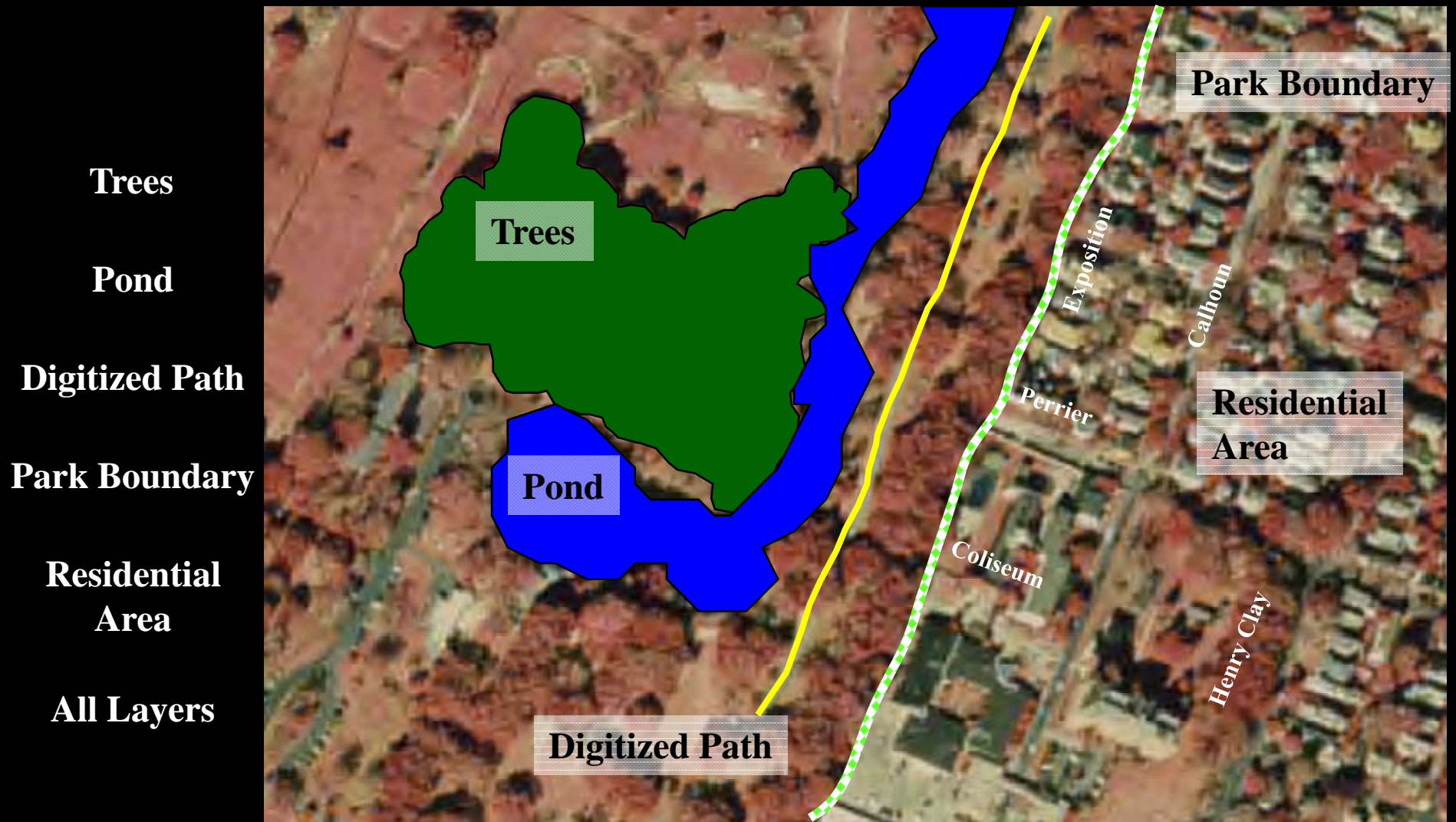
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GPS Units

- Global Positioning System device
- Hand-held unit
- Captures exact spatial location of relevant environmental features
- Instrument developed
- One round of testing
- Waiting on these results for comparisons with DO

Informant Interviews

- Interviews with key personnel knowledgeable about specific parks
 - Park directors
 - Recreation agency directors
- Face-to-face or telephone interviews
- **Instrument developed**

Archival Data

- Objective data that has already collected from other sources
- Identification of sources and variables
- Sources:
 - NOPD (crime data)
 - Census (demographic data)
 - New Orleans list of abandoned housing (housing data)
 - DOT (traffic data)

Tasks Remaining

- Complete development & testing of instruments in Test Park
- Compare methodologies
- Refine protocols
- Test in 3-4 similar parks
- Evaluate reliability of instruments
- Merge all data into GIS
- Describe recreational areas

