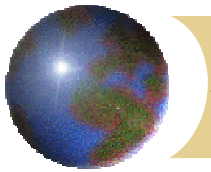


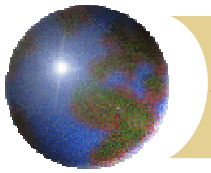
# *Phillips Neighborhood Environmental Inventory*

Shane Pittman  
MGIS Student  
University of Minnesota



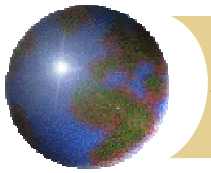
# *Outline*

- ⊕ Background
- ⊕ Project Steps
- ⊕ Results
- ⊕ Conclusions
- ⊕ Questions



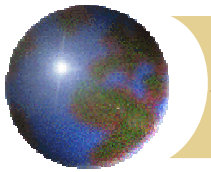
# *Background*

- GreenSpace Partners of the Phillips neighborhood in Minneapolis
  - Non-profit organization
  - Goal: Ensure that community development projects respect the community's need for greenspace
- Revive the Phillips Neighborhood Environmental Inventory
- Use as a neighborhood planning tool



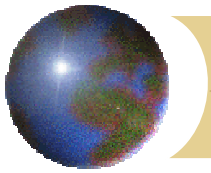
## *Background (cont.)*

- Five Categories of Data:
  - Sources of Pollution
  - Urban Greenspace
  - Transportation and the Built Environment
  - People
  - Social Infrastructure

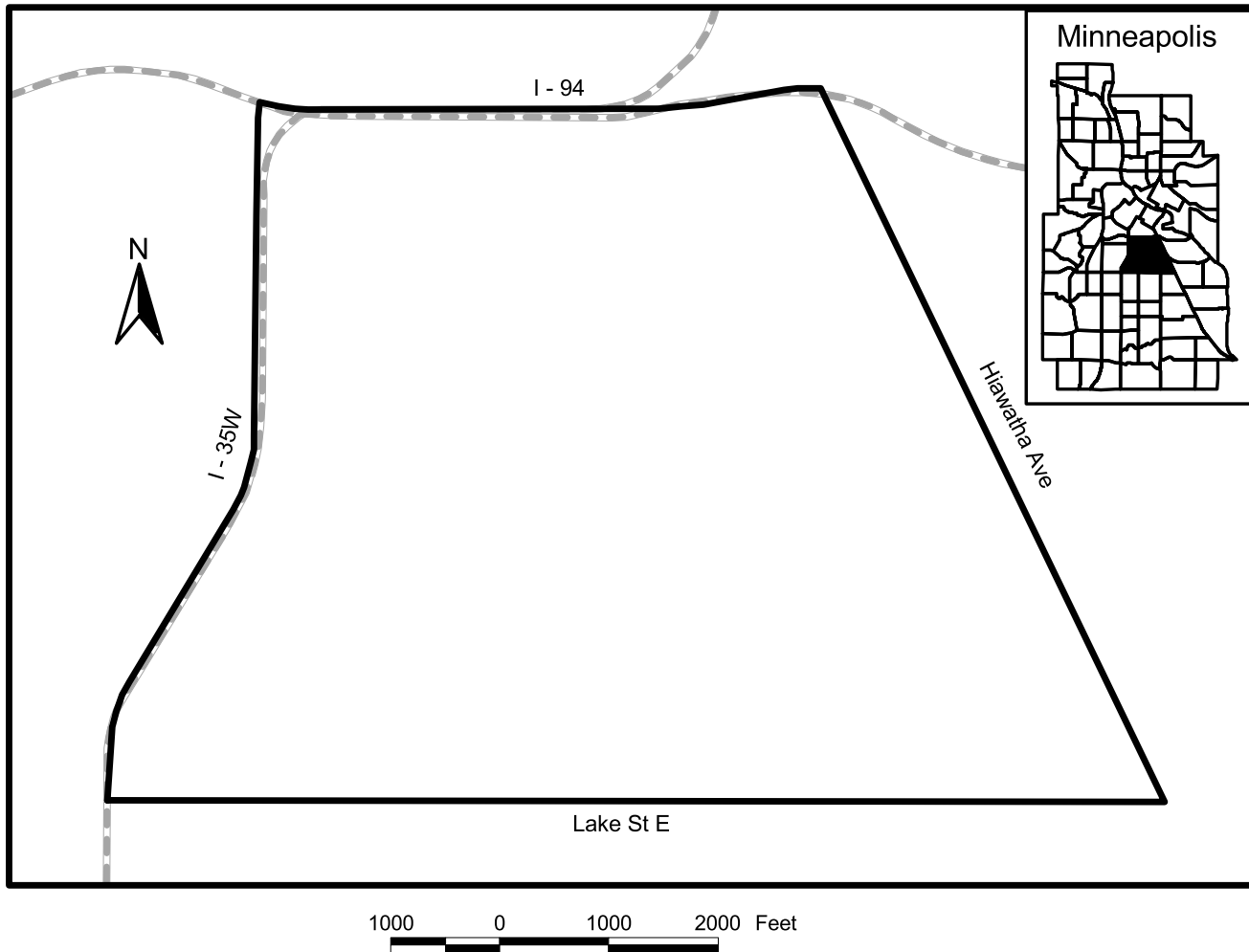


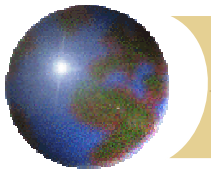
## *Background (cont.)*

- Capstone project for MGIS program
  - “GIS and the Internet: Tools for Neighborhood Access to Information”
- Research question
  - “Which type of website is more effective in the display of geographic information at the neighborhood level: a website that shows pre-constructed static maps or one that contains an interactive map server?”



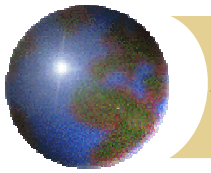
# *Project Area*





# *Project Steps*

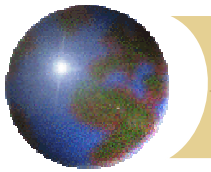
- Data Collection
- Website Construction
- User Survey



# *Data Collection*

- Salvage data from previous PNEI project
- Collect new layers
  - Online sources
  - Neighborhood contacts
  - Field collection
  - GreenSpace Partners

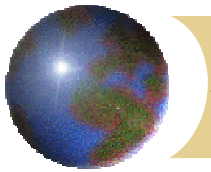




# *Website Construction*

## ● Create Internet Map Server

- Mapserver
- Map file
- Template file
- Query Results pages
- Help page
- Metadata



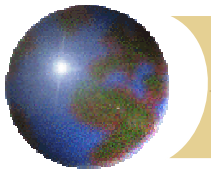
# *Website Construction (cont.)*

## ● Create Static Maps

### ■ PDF files

### ■ Eight maps

- Greenspace
- Pollution Sites & Greenspace
- Neighborhood Facilities & Greenspace
- Land Use
- Property Values
- Census 2000: Percent Non-White
- Census 2000: Percent Less Than 21 Years Old
- Census 2000: Population Density (per Square Mile)



# *User Survey*

## ⊕ Formulate questions

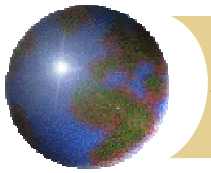
- ⊞ General Information

- ⊞ Quantitative and Qualitative

- Appearance
- Difficulty of Use
- Content
- Usefulness

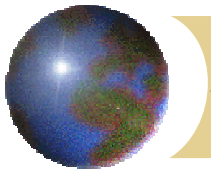
- ⊞ Overall

## ⊕ Distribute survey after website launch



# *Results*

- 20 survey respondents
- General Information
  - Varied Internet connections
    - 68.4% - High speed connection
    - 31.6% - Dial-up modem



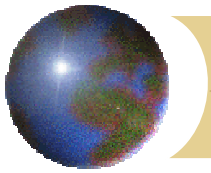
## *Results (cont.)*

### ⊕ Appearance

- ⊞ Positive reactions for both the Internet Map Server and Static Maps

### ⊕ Difficulty of Use

- ⊞ Positive reaction for Static Maps
- ⊞ Mixed reaction for the Internet Map Server



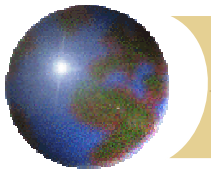
## *Results (cont.)*

### ✚ Content

- ▣ Satisfaction with the data content of the Internet Map Server
- ▣ Less satisfaction with the content of Static Maps

### ✚ Usefulness

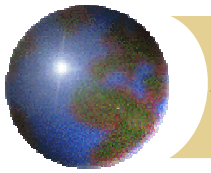
- ▣ Both the Internet Map Server and Static Maps were deemed useful



## *Results (cont.)*

### Overall

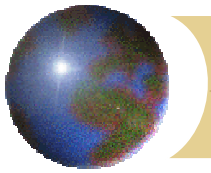
- Respondents would use the two sections of the website equally
- They indicated that the website is useful
- A majority of them estimated they would use the website less than 30 minutes a week



# *Conclusions*

- Answer to research question
  - Internet Map Server and Static Maps are equally effective
  - Complementary
- Each useful in different scenarios
  - Internet Map Server better for site-specific data
  - Static Maps better for neighborhood-scale data



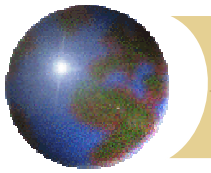


## *Conclusions (cont.)*

### ☉ Know your audience

#### ☒ Non-technical audience

- Simple is better
- Unnecessary additional features can hinder users from obtaining the full benefits of an Internet Map Server
- More complicated websites and lengthy instructions can overwhelm users and discourage them from using an Internet Map Server



# *Questions?*

PNEI Website

<http://www.socsci.umn.edu/~pitt0031>