




# Making Users Count


Implementing technology for your park system

NC Parks & Recreation Directors Conference  
February 1, 2024 - Durham, NC


1




## Today's Panel




**Kara Martin**  
Client Consultant  
Eco-Counter




**Kris Nikfar**  
Greenway  
Planner  
City of Raleigh



**Lisa Kiser**  
Director  
City of Albemarle



**Abhi Muthiyan**  
Chief Technology  
Officer  
VARIDX



**Aaron Hipp**  
Professor & Researcher  
NC State University

2




## City of Raleigh Greenway Trail Counters

### Summary Facts

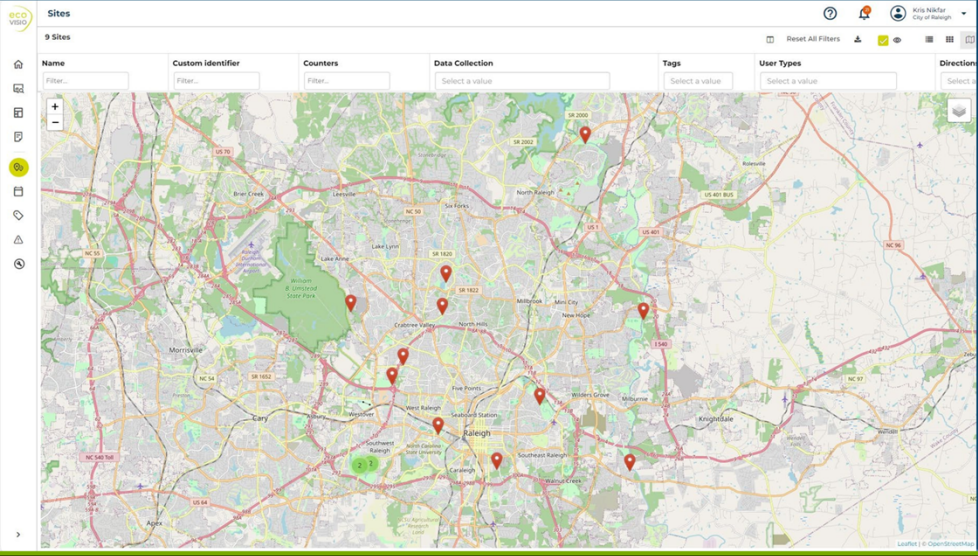
- 11 trail counters
- Located on 7 trails
- Eco-Counter Multi
- Differentiates user types
- Differentiates direction of travel
- Transmits data wirelessly



4



## City of Raleigh Greenway Trail Counter Locations



5



## City of Raleigh Greenway Trail Counters

Summary Facts

- 11 trail counters
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6

## Placer.ai Features

- Park Visitor Data and Special Events Data
  - Attendance
  - Demographics (age, ethnicity, household income)
  - Zip Codes where visitors live
  - Routes traveled to get to parks
  - Peak times of usage



7



# Lessons Learned

- Special Event Planning
- Program Planning in Parks
- Marketing and Sponsorships
- Growth Planning



8

# Sample Placer Report

### Metrics

**City Lake Park**  
815 Concord Rd, Albemarle, NC 28001

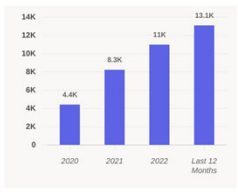
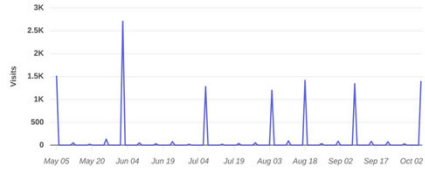
Visits	11.7K	Avg. Dwell Time	117 min
Visits / sq ft	N/A	Panel Visits	658
Size - sq ft	N/A	Visits YoY	+97.1%
Visitors	8.1K	Visits Yo2Y	+108.3%
Visit Frequency	1.45	Visits Yo3Y	+237.1%

May 5th, 2023 - Oct 6th, 2023  
Data provided by Placer Labs Inc. ([www.placer.ai](http://www.placer.ai))



### Visits Trend

**City Lake Park**  
Concord Rd, Albemarle, NC

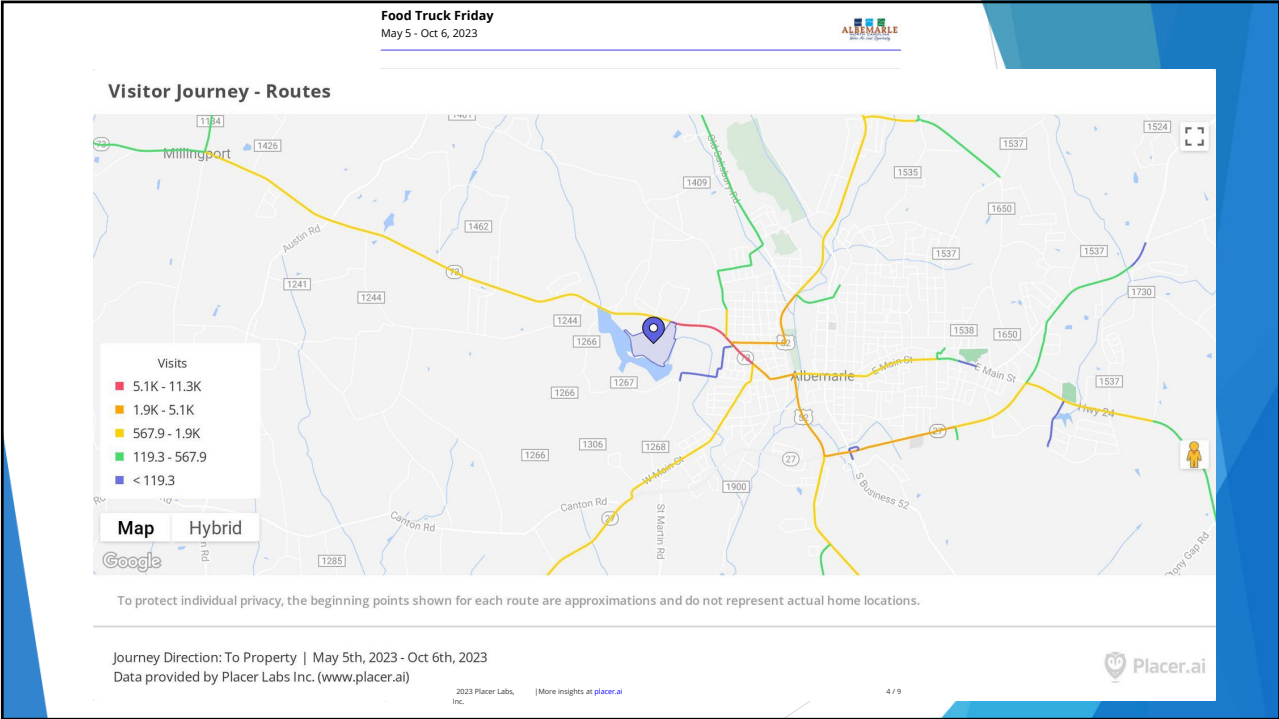


Daily | Visits | May 5th, 2023 - Oct 6th, 2023  
Data provided by Placer Labs Inc. ([www.placer.ai](http://www.placer.ai))




9





10

### Food Truck Friday May 5 - Oct 6, 2023




#### Prior / Post Compare

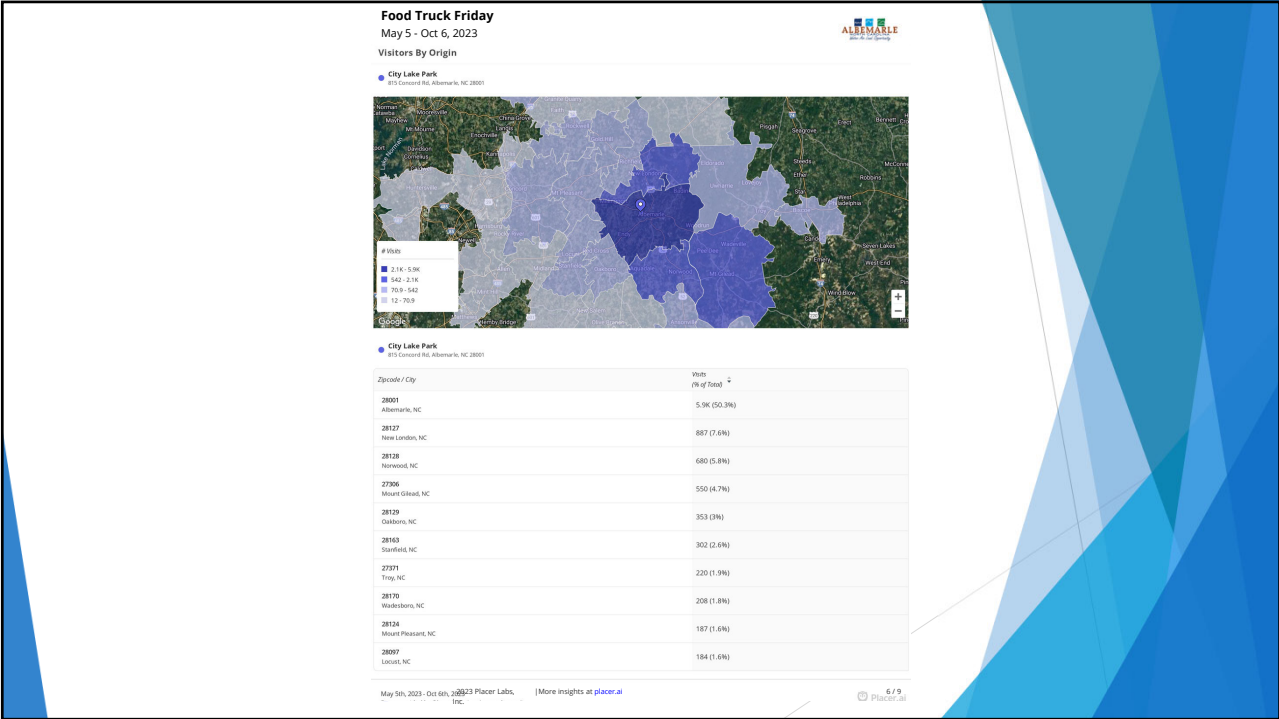
City Lake Park / Concord Rd, Albemarle, NC

Prior			Post		
Rank	Name	Foot-Traffic	Rank	Name	Foot-Traffic
1	Walmart / Leonard Ave, Albemarle, NC	1.2%	1	Badin Brews / S 1st St, Albemarle, NC	2.4%
2	Taco Bell / Highway 27 E, Albemarle, NC	0.7%	2	Walmart / Leonard Ave, Albemarle, NC	2.2%
3	Tractor Supply Co. / NC 24 27 Byp E, Albemarl...	0.6%	3	Uwharrie Brewing / N 3rd St, Albemarle, NC	1.5%
4	Family Dollar / North Main St, Norwood, NC	0.5%	4	El Ranchito Restaurante Mexicano / NC-24 18,...	0.8%
5	Crawford's Diner / N. Main St., Troy, NC	0.5%	5	Eastgate Cinemas / NC 24-27 Bypass East, Albe...	0.7%
6	Uwharrie Brewing / N 3rd St, Albemarle, NC	0.5%	6	Aldi / E Main St, Albemarle, NC	0.7%
7	Whataburger / W Franklin St, Mount Pleasant, ...	<0.5%	7	Whataburger / W Franklin St, Mount Pleasant, ...	0.6%
8	Belk / NC 24/27 By-pass, Albemarle, NC	<0.5%	8	T.J. Maxx / Leonard Ave, Albemarle, NC	0.6%
9	Modern Beauty Shop / N 2nd St, Albemarle, NC	<0.5%	9	Main Street Cup and Cone / Bird Rd, Albemarl...	0.6%
10	Walgreens / Salisbury Ave, Albemarle, NC	<0.5%	10	Applebee's / Nc 24-27 Bypass E, Albemarle, NC	0.6%

May 5th, 2023 - Oct 6th, 2023



11




12



13

**Food Truck Friday**  
May 5 - Oct 6, 2023




**Favorite Places**

City Lake Park / Concord Rd, Albemarle, NC


Rank	Name	Distance	Visitors
1	Olive Place Center / 780 Leonard Ave, Albemarle, NC 28001	3 mi	6.8K (84.4%)
2	Walmart / 781 Leonard Ave, Albemarle, NC 28001	3.1 mi	6.4K (78.5%)
3	Eastgate Shopping Center / 827 NC-24, Albemarle, NC 28001	3.4 mi	5.8K (71.5%)
4	Albemarle Crossing / 814 Nc-24, Albemarle, NC 28001	3.5 mi	5.8K (71.1%)
5	Center Pointe Plaza / 720 Highway 27 E, Albemarle, NC 28001	3.4 mi	5.2K (64.1%)
6	Lowe's / 814-14 NC 24-27 Bypass East, Albemarle, NC 28001	3.6 mi	4.9K (60.8%)
7	T.J. Maxx / 780 Leonard Ave, Albemarle, NC 28001	3.1 mi	4K (48.8%)
8	Food Lion Grocery Store / 833 NC-24, Albemarle, NC 28001	3.4 mi	3.9K (48.6%)
9	Uwharrie Commons / 1433 US 52, New London, North Carolina 28001	2.2 mi	3.5K (43.4%)
10	Concord Mills / 8800 Quay Road, Cox Mill, NC 28027	27.9 mi	3.5K (43.2%)

Category: All Categories | Min. Visits: 1 | May 5th, 2023 - Oct 6th, 2023  
Data provided by Placer Labs Inc. (www.placer.ai)

2023 Placer Labs, Inc. | More insights at [placer.ai](https://www.placer.ai) 9 / 9



14



**VARIDX**  
A SMART CITY PLATFORM

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919-649-6465  
Durham, NC

<https://varidx.io>




15



Smart Parks Technology

## What does Varidx Smart Park do?

- Unified dashboard for all facilities and all sensors
- Self-Service citizen dashboard
- Real-time monitoring and alerting
- Analytics for decision making
- Automate operations



Varidx.io info@varidx.io

17

Smart Parks Technology

## Smart Parks Citizen Engagement

- Interactive display in parks
- Notifications to citizens




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18

Smart Parks Technology

## Example – Smart Parks Automation @ CFDP



- Remotely close gates and update displays
- Use rules and predictive analytics to operate gates

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19

**Tiguex park**

BASKETBALL COURT STATUS

Court 1 Unoccupied

Court 2 Unoccupied

**Last hour people count**

17

Aug 14, 2022, 15:57





**Waste Management**



Trash Can Monitor

2

4

6

EMPTY NOT FULL FULL

**SUMMARY**

Total Installed Cans: 12

Working Sensors: 12

Defect Sensors: 0

Immediate Actions: 6

[Detail View](#)    List View    Map View

- Real-time monitoring
- Automate operations

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20

Smart Parks Technology

## Monitoring Fitness Equipment

Home  
Pool Area  
Workout Area  
**Equipment Room**  
Racquetball

### MAFC Equipment Room

**Weekly Summary** Treadmills

**Current Status** Treadmills

**A Available**

Treadmills 02

Bikes 02

**B Busy**

Treadmills 02

Bikes 02

**Treadmills**  
More Info

**Steppers**  
More Info

**Ellipticals**  
More Info

**Rowers**  
More Info

**Upcoming Events**

MAFC will be hosting a Yoga class this coming weekend.

To register, please click [here](#) or use Town of Morrisville Citizen's App.

For more details, [maris@townofmorrisville.io](mailto:maris@townofmorrisville.io) Call (919) 463-6900

Powered by Varidix

21

Smart Parks Technology

## Data Analytics

Varidix.io [info@varidix.io](mailto:info@varidix.io)

22



The screenshot shows the 'Albuquerque Smart City Dashboard' with the following components:

- Weather:** Albuquerque, NM, 86°F, Humidity: 34%, Wind: 5 mph. Forecast for the week: Mon (92°/71°), Tue (91°/72°), Wed (85°/69°), Thu (83°/68°), Fri (85°/68°), Sat (67°/64°), Sun (83°/62°).
- Mariposa Basin Park:** FIELD STATUS section with 6 fields (Field 1-6) all marked as 'CLOSED'.
- Tiguex park:** BASKETBALL COURT STATUS section with 3 courts (Court 1-3) all marked as 'UNOCCUPIED'.
- Navigation:** 'More Details' and 'Get Directions' buttons for both parks.

- Self-Service citizen dashboard
- Real-time monitoring and alerting

23

23

The screenshot shows the 'Automation Rules' configuration interface for 'Smart Parks Technology' by Varidx. The main heading is 'Automation Rules'.

The interface is titled 'Add New Rule' and shows a rule named 'Close fields 6-8 (Final)'. The configuration steps are:

- Select Park(s): CFDP
- Select Sensors: Fields 6-8, Moisture Sensor Condition: above, Moisture Sensor Value: 0.95, Moisture Sensor Duration: 6
- Select Email Notification: Abhi Muthiyian (abhi@samanalytic.com)
- Select SMS Notification: 9196495465
- Select Automatic Actions: Fields 6-8 - closed

- Alerting and automating operation

24

Smart Parks Technology

## Ideas - Sensors in field



Soil Moisture



Trash Can Full



Vehicle Counter

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25

Smart Parks Technology

## Ideas - More sensors



Water level detection



Disc Golf Detect



Street Magnetometer

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26

*Thank you!*  
<https://varidx.io>

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Gxukdp #QF
brirC ydub { 1r  
kwsv=2ydub { 1r



27

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 NC State  
 Department of Parks, Recreation,  
 & Tourism Management

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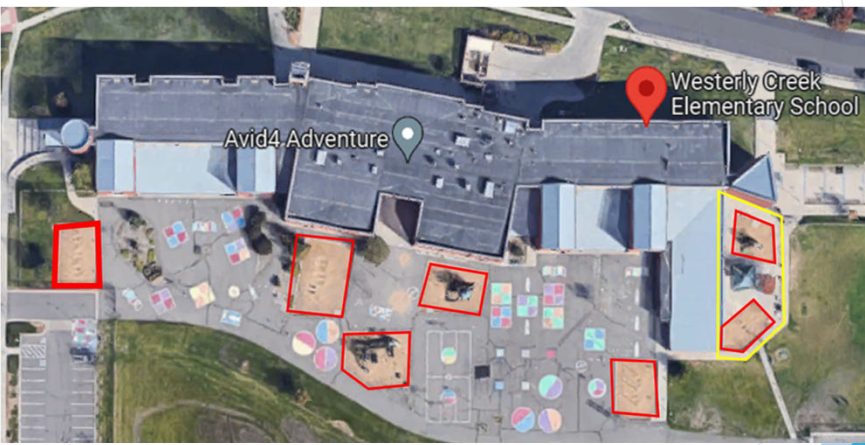
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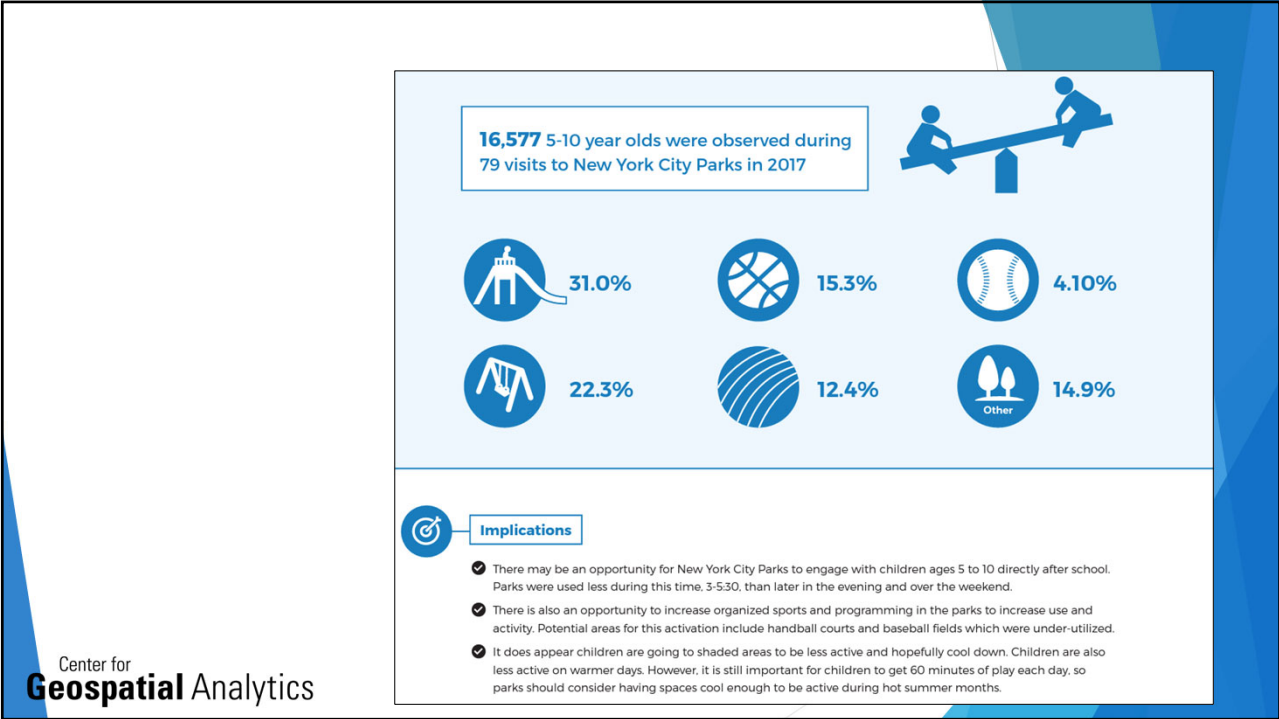
29

**Playspace usability, accessibility, and quality**



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30



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31

School included:

- “Beautiful! But closed to public.”
- “This is a beautiful playground but it is locked and cannot be accessed by the community.”

Resident comments specific to the Del Norte Family Housing playground included:

- “Old equipment and meant for the apartment complex not the public.”
- “Nice enough space but feels like it belongs to the complex vs, open to the public.”
- “Nice playground, but feels dated and inclusive only to residents of apartments.”
- “Not really easily found or much there to play on”
- “The playspace is quite small and feels exclusive to residents only. A few swings and slide.”

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32



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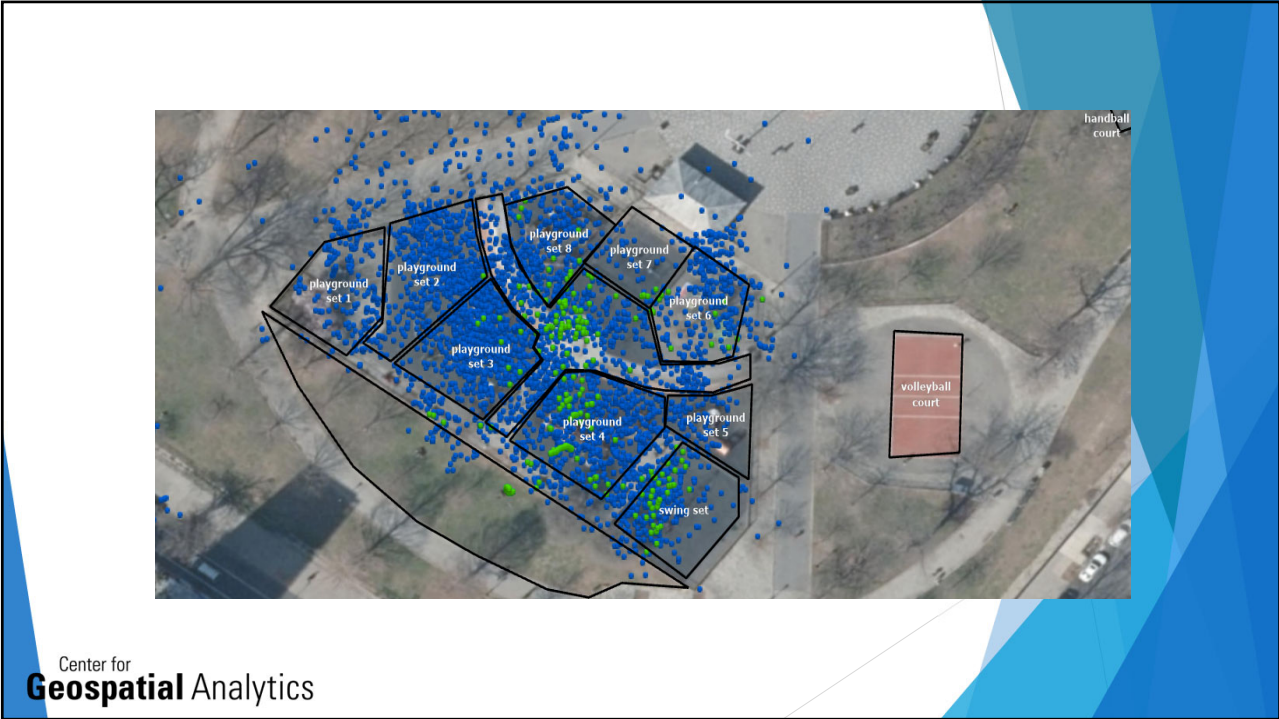
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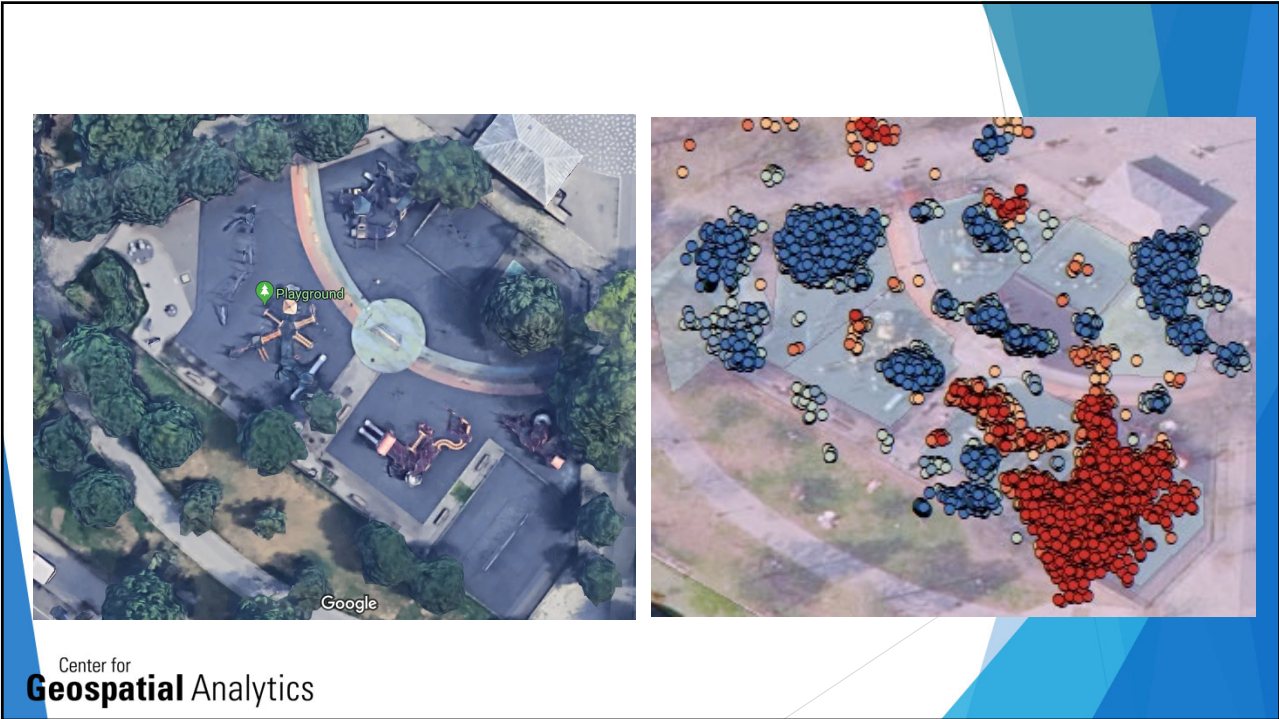
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34

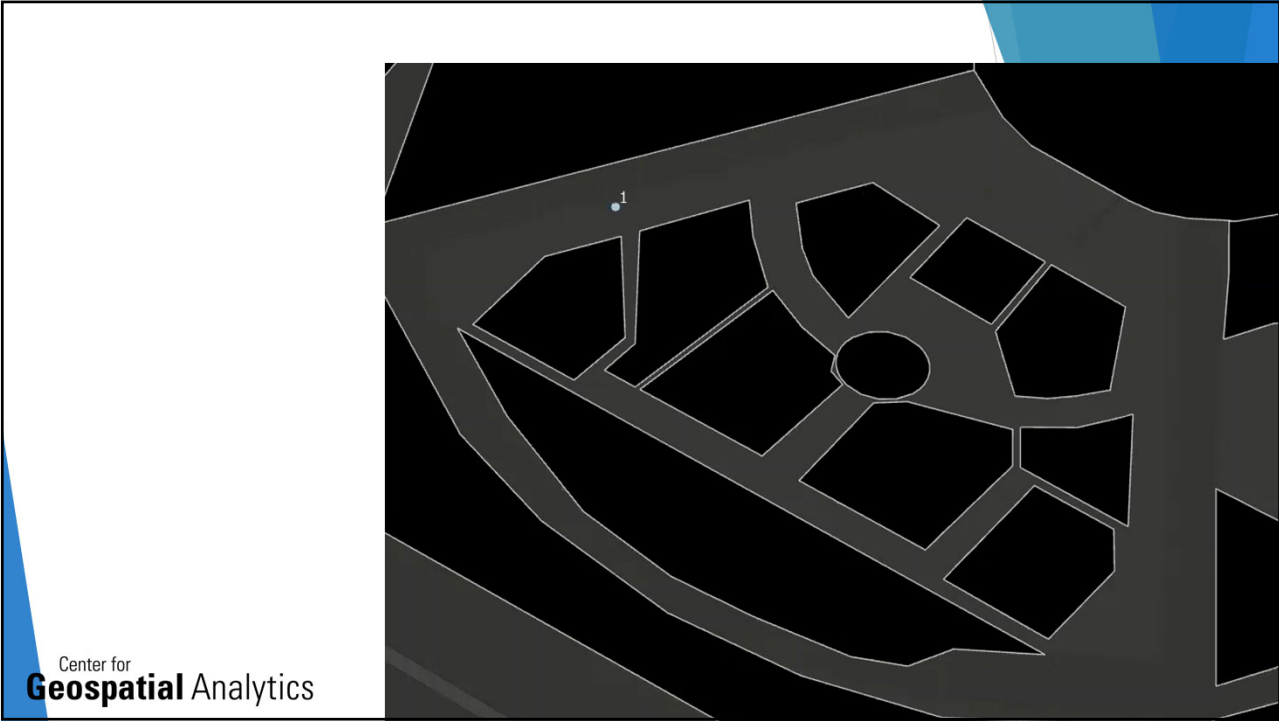




35



36



37

**49%:** At least 3/4s of a play episode within one target area

**34%:** Play within a target area and between areas

**10%:** At least 3/4s of a play episode between spaces

**7%:** Play across >2 areas

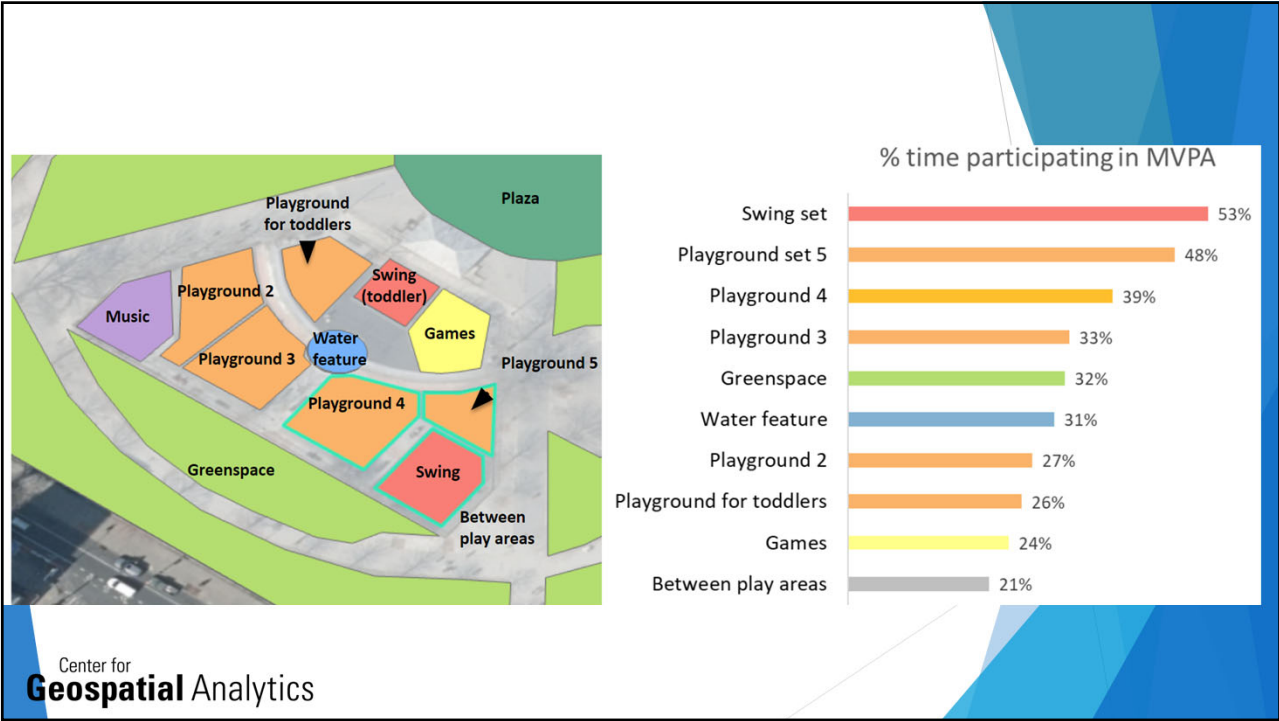
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38

Preceding place	Following place												
	Between play areas	Greenspace	Music	Playground 2	Playground 3	Playground 4	Playground 5	Games	Swing set for toddlers	Playground for toddlers	Swing set	Water feature	
Between play areas	10	1	2	3	4	5	0	5	0	5	4	2	
Greenspace	2	5	0	1	0	0	0	0	0	0	0	0	
Music	3			1	2								
Playground 2	8	2	1	3	7	2		1		3	1		
Playground 3	3			10	16	6	2	1	1	1	2	3	
Playground 4	6	1	1	1	8	11		2		1	3	1	
Playground 5					1	5					1		
Games	1		1	2	2	4	1	2					
Swing set for toddlers	1											1	
Playground for toddlers	1			4	1		2			2	1		
Swing set	3					5	1	1		4	6		
Water feature	1				1			1	1			1	

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39



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40





41



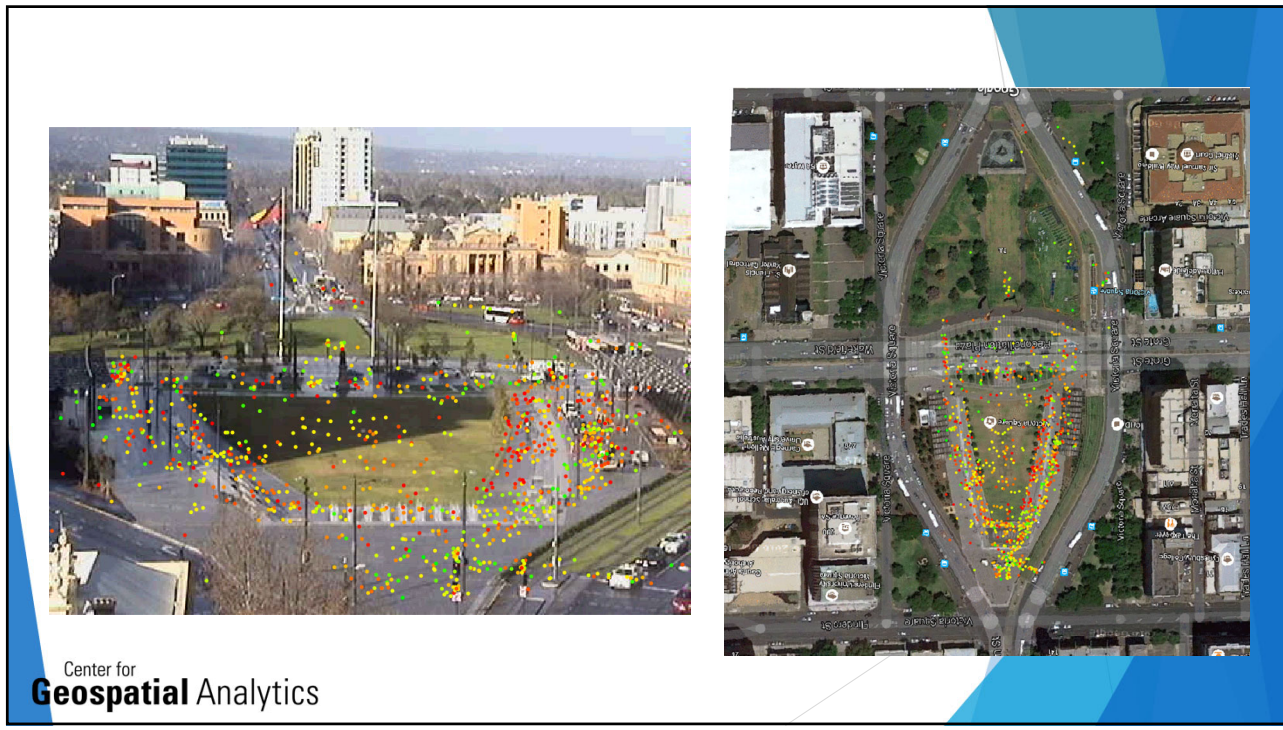
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42

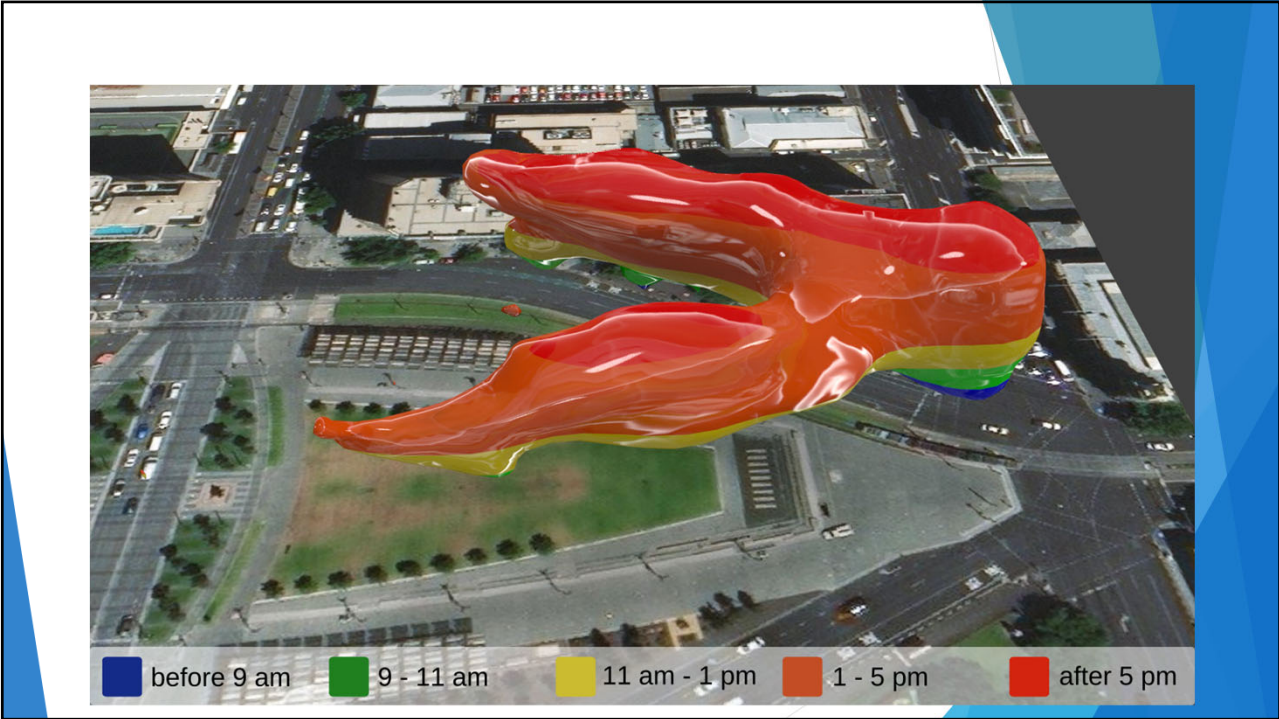




43



44



45

### WHERE & WHY

Health Matters is based in four North Carolina counties that were selected by the Centers for Disease Control and Prevention (CDC) due to high rates of obesity (>40%). These counties face significant challenges with access to healthy food and physical activity.

	Food Insecurity Rate in county*	Adults Reporting No Leisure Time Physical Activity	Percent of adults consuming <math>\le 5</math> FY per day: (with adequate fruit and vegetable consumption)**
<b>NORTH CAROLINA</b>	18%	25%	22%
<b>HALIFAX</b>	25%	35%	NO DATA AVAILABLE
<b>NORTHAMPTON</b>	23%	34%	16%
<b>LEE</b>	17%	35%	20%
<b>EDGECOMBE</b>	26%	35%	18%

\*Data from Robert Wood Johnson Foundation; \*\*Data from 2012 Behavioral Risk Factor Surveillance Systems Data \*\*\*BRFSS 2005-2009; † Health Outcome Rankings measure length and quality of life

### UPCOMING INITIATIVES

In partnership with NC Cooperative Extension, Health Matters will:

- Promote shared use agreements with signage & policy changes
- Implement Healthy Out-of-School Time standard
- Install cameras to evaluate community use of shared use agreements
- Build connections with farmers' markets, low-income shoppers & food pantries
- Promote Safe Routes To School with new bicycle trailers and programs

46





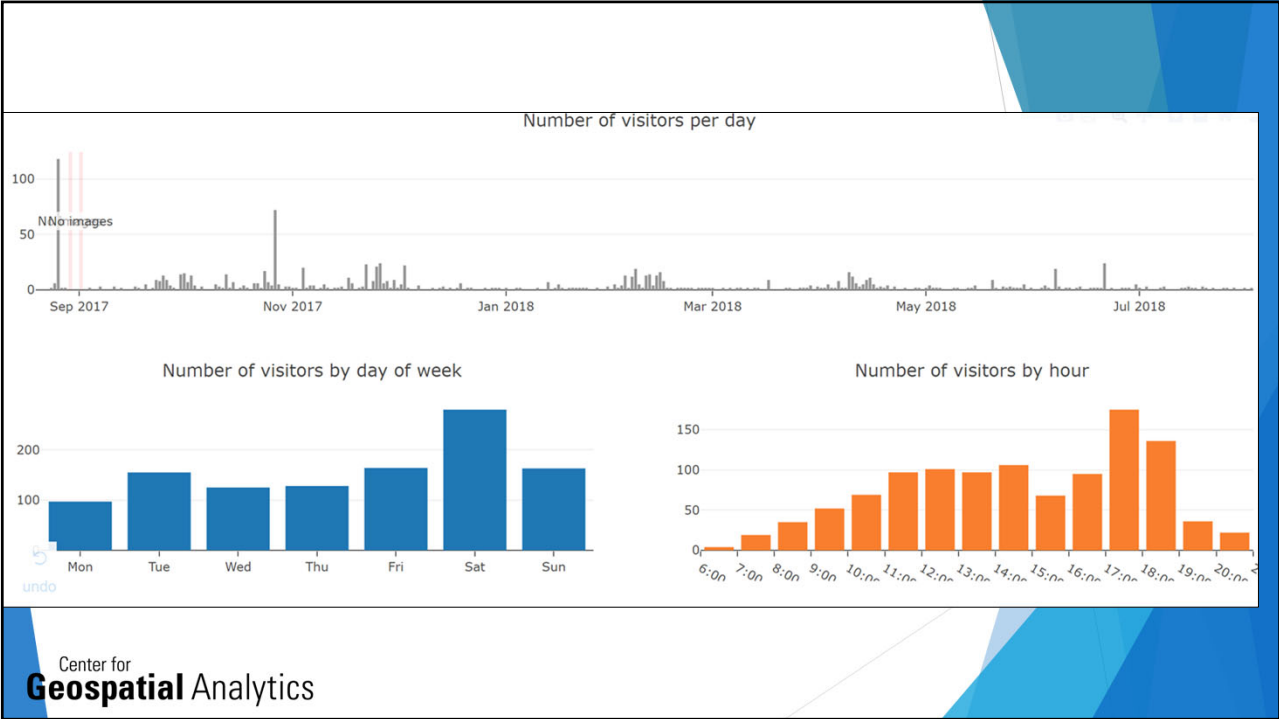
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47



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48



49



50






51

**Community Survey**  
 Your feedback is extremely important to help shape our parks and recreation facilities! We want to hear what you enjoy about our parks and play spaces, areas we can work to improve, and how we can better serve our community.  
[Click here to participate in the survey.](#)

**Community Engagements**  
 We are actively reaching out to the unique communities that make up Zebulon!

To ensure we're hearing from citizens across racial, gender, and socioeconomic lines, we're taking steps to meet people where they are and listen to their wants and needs for our parks and play spaces. Studies show that different communities engage in public research and participation at different rates so by being active in these communities, we're seeing a fuller story of how we can improve our parks and recreational activities.

Join us at the Gill St. Cookout for a day of fun, food, and community! We'll have Parks and Recreation staff there to hear from Zebulon citizens and get input on how we play and feedback on our efforts to improve Gill St. Park.



**Gill Street Community Cookout & COAT DISTRIBUTION**  
 THURSDAY, SEPTEMBER 28  
 5:00 PM - 8:30 PM  
 600 N Privette St

**Join us at the Gill Street Community Cookout!  
 TAKE FUN and FOOD (and the whole family)!**

If you can't make it to the Gill St Cookout, we also plan to hear from our community at the September and October Rock the Block concerts.

In addition, we would be happy to visit your church, civic group, or neighborhood. Please contact [zlrnk@townofzebulon.org](mailto:zlrnk@townofzebulon.org) to schedule this opportunity to engage in this effort to learn how Zebulon wants to play.

**Data-Driven Evaluations**  
 Zebulon Parks and Recreation is consulting with [Dr. Aaron Hogg](#), a professor at North Carolina State University's College of Natural Resources, to see how our parks are currently being used.

52