MID-OHIO REGIONAL
MORPC
PLANNING COMMISSION

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NOTICE OF A MEETING
April 15, 2021

CENTRAL OHIO GREENWAYS - TRAIL DEVELOPMENT WORKING GROUP MEETING
MID-OHIO REGIONAL PLANNING COMMISSION
111 LIBERTY STREET, SUITE 100
COLUMBUS, OH 43215

AGENDA

1. **Introduction**
2. **Eco Counter Vendor Presentation**
3. **TAP Updates**
4. **Trail Town Grant**
5. **Other Business**

Make it Count:

Measuring Trail Use – New Approaches and Technologies

Louis Queruau
Client Consultant
Eco-Counter

eco counter

MID-OHIO REGIONAL PLANNING COMMISSION
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About Eco-Counter

Design & manufacture bike and pedestrian counters

Work with public agencies and organizations to develop count programs

Enable a data-driven approach to park/trail management & planning

eco counter

Eco-Counter in North America

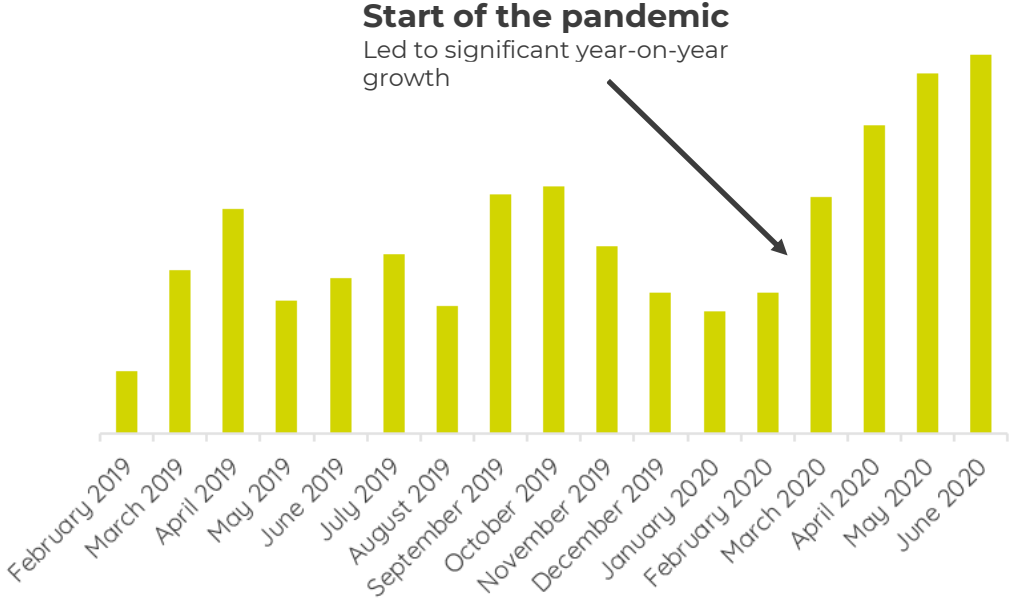
We are with you each step of the way

eco counter

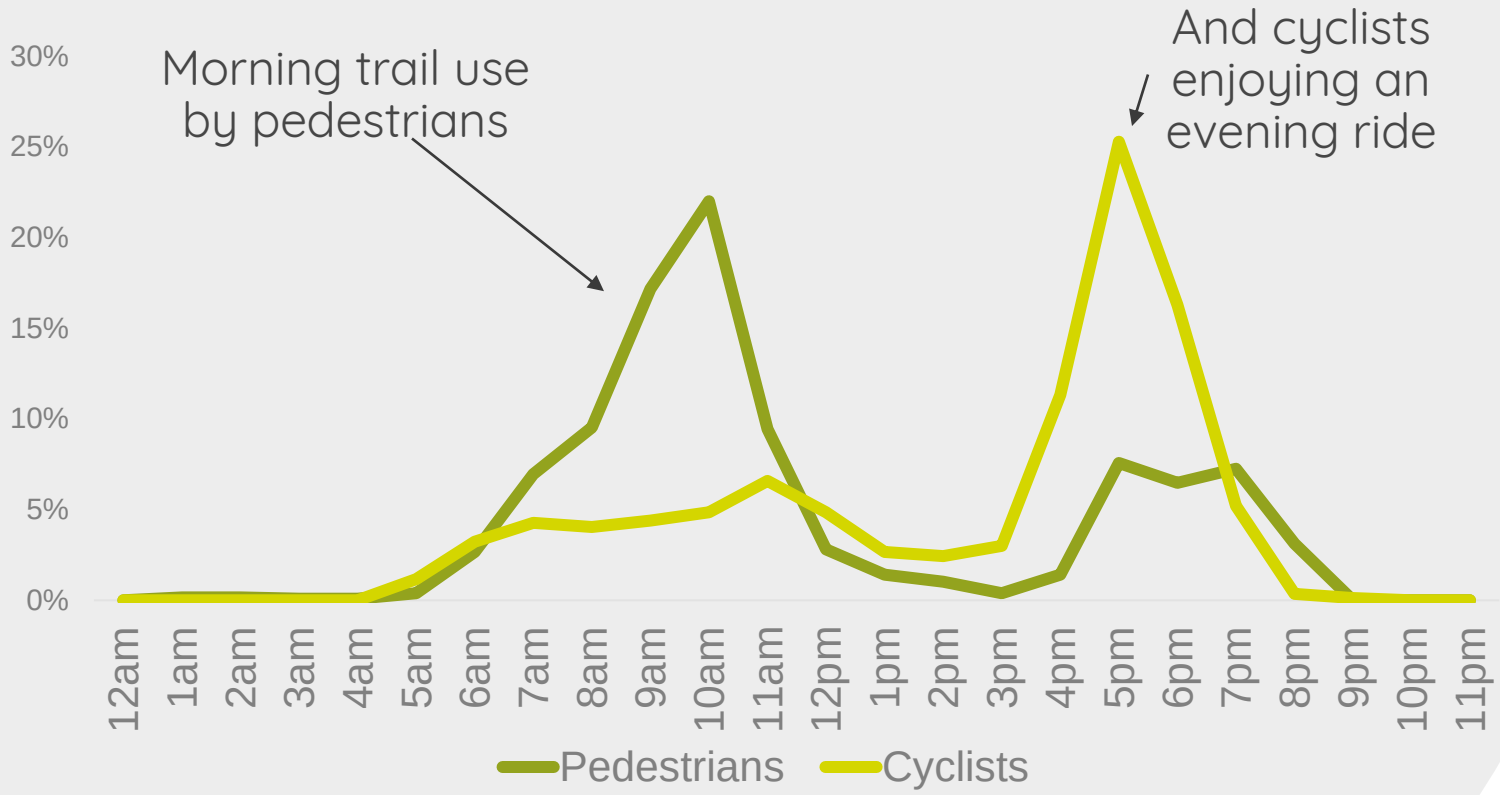
Some of the organizations we work with

An essential tool to develop & manage trails

Track visitation over time



Monitor usage during the week...



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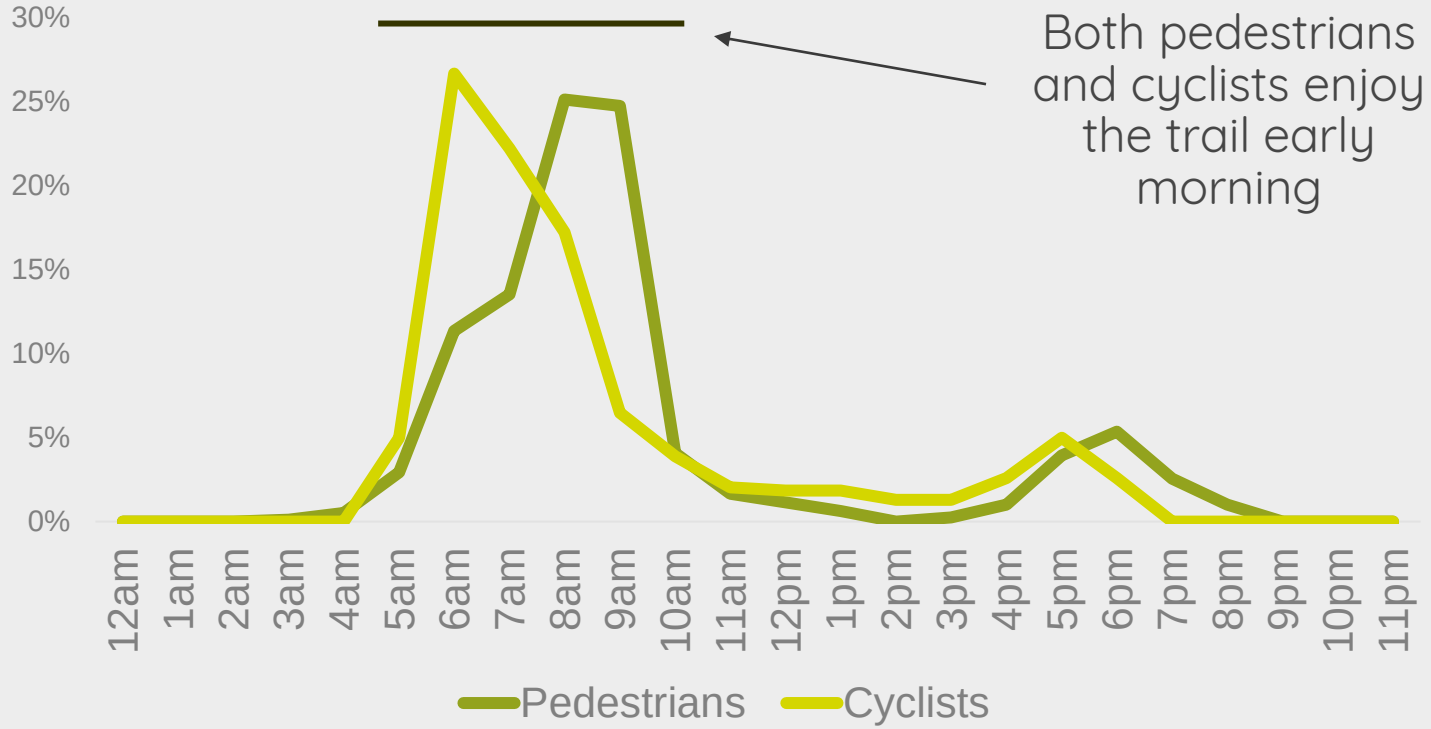
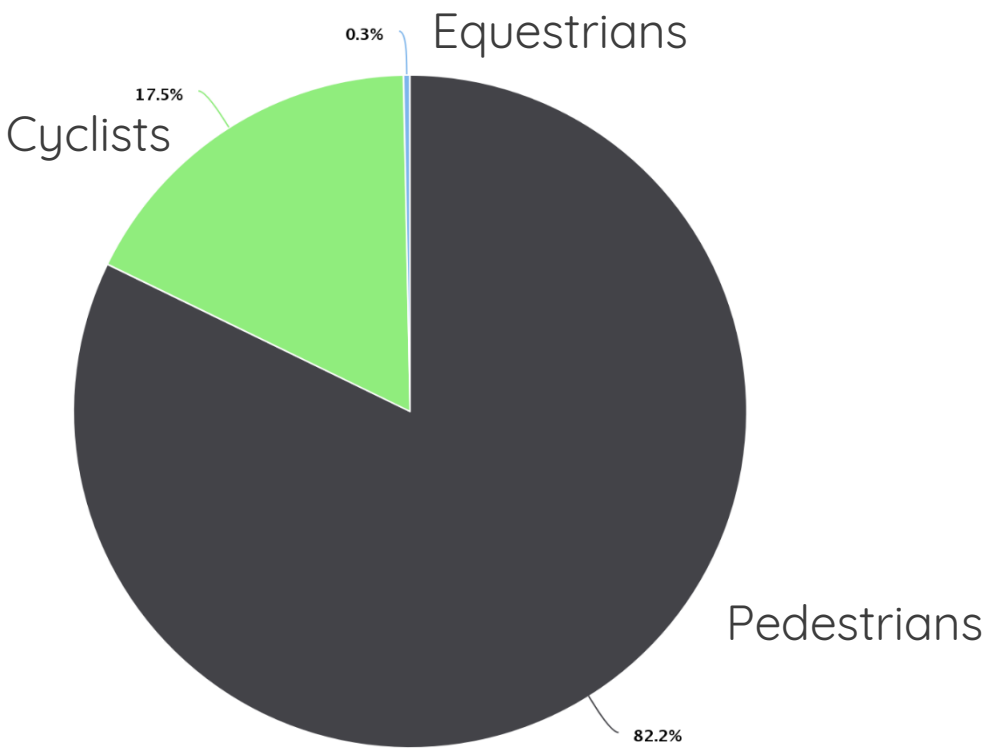
...versus during the weekend

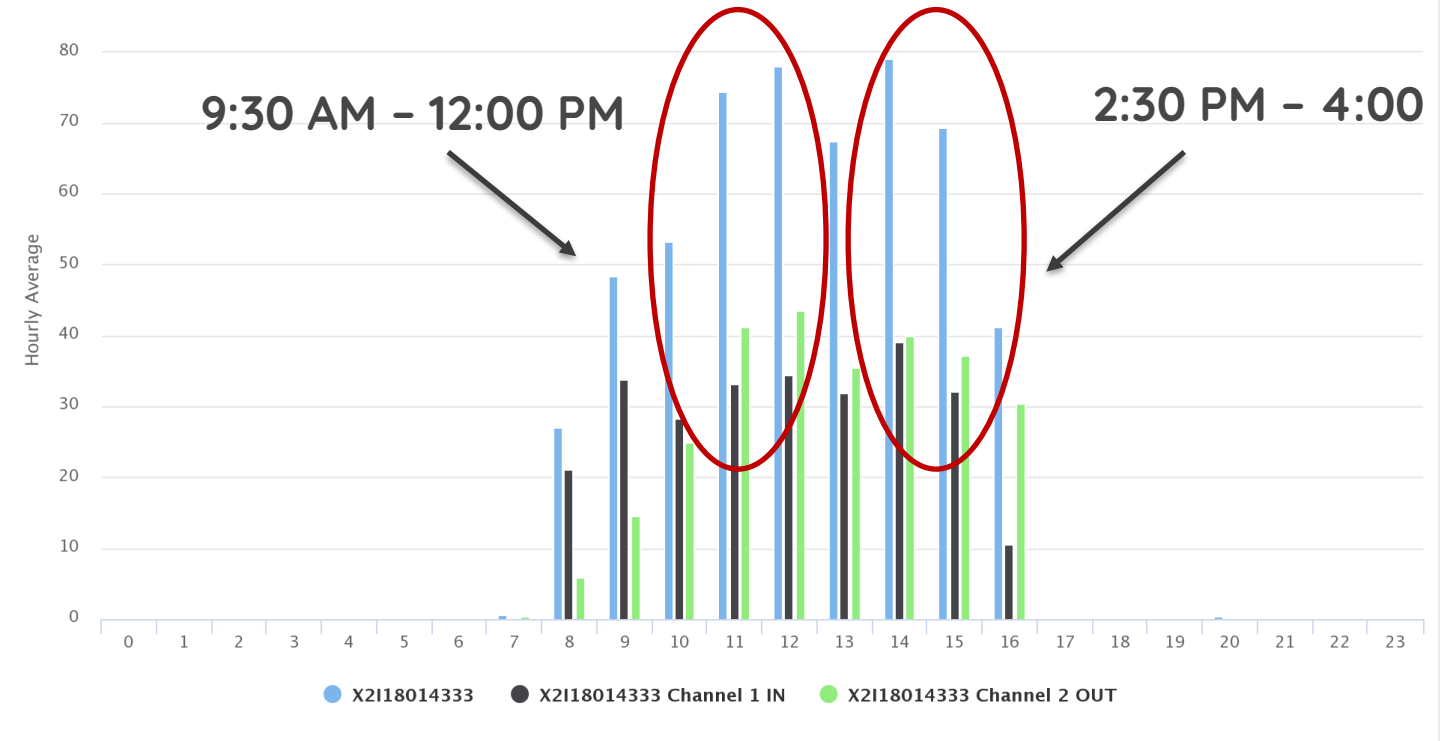


Observe modal share

Understand user groups



Justifying the hiring or deploying staff



Communicating with data

FOX9 Live News 2020 Election COVID-19 Weather Contests More

Minnesota state park visitation, trail use, fishing license sales up amid pandemic

By Rose Semenov | Published November 13 | Minnesota | FOX 9

Frontenac State Park near Red Wing, Minnesota is among the state parks to see increased park visitation over last year, according to the DNR. **(FOX 9)**

ST. PAUL, Minn. (FOX 9) - With many events and activities canceled due to the pandemic, Minnesotans are making a point of getting outside this year. Data from the Minnesota Department of Natural Resources shows park visitation, state trail use and fishing licenses sales are up compared to last year.

Overall, data from January through August shows park visitation is up seven percent from 2019. Parks visitation varies statewide, but parks closest to the Twin Cities metro and Rochester are seeing the highest visitation. Central region visits are up 70 percent. Fort Snelling, Frontenac Afton, and Wild River are among the parks with the greatest percent increase in year-to-date use.

Four-Week Dial Back FAQ

View More

What's open and closed under Minnesota's 4-week pause?

Minnesota 4-week pause: Where is the help for businesses and employees?

What Minnesota's 4-week pause means for social gatherings

What Minnesota's 4-week pause means for outdoor activities

What Minnesota's 4-week pause means for youth sports

LOCAL

Counter tracking foot traffic, bikes on Jacksonville's Northbank Riverwalk; more coming

Steve Patterson Florida Times-Union

Published 5:01 a.m. ET Nov. 18, 2020

Bicycles pass by a new "eco-counter" device that counts the number of runners, walkers and bicycles that pass by during a dedication at Corkscrew Park on Jacksonville's Northbank Riverwalk Tuesday. *Will Dickey/ Florida Times-Union*

Running or biking Jacksonville's Northbank Riverwalk has always counted as exercise.

Now, a new device is keeping count of the people who do that.

The "eco-counter" dedicated Tuesday next to Corkscrew Park under the Acosta Bridge is the city's first effort to reliably measure the number of people traveling through an area by foot or bike.

eco counter

How can data be communicated?

Meaningfully integrate survey data

Capital District Trails Plan

Advancing a Vision for Connecting Communities

56%

Of trail users were male

63%

Trail users 45 and older made up 63% of trail users

90%

Are white

80%

Trail users had obtained a bachelor degree or higher

50%

Modal split is about 50/50 bicyclists & pedestrians

66%

Drive to the trail

60%

Trail users use the trail mainly for health & exercise & 40% use the trail for non-recreational trips like commuting, visiting friends & running errands

60%

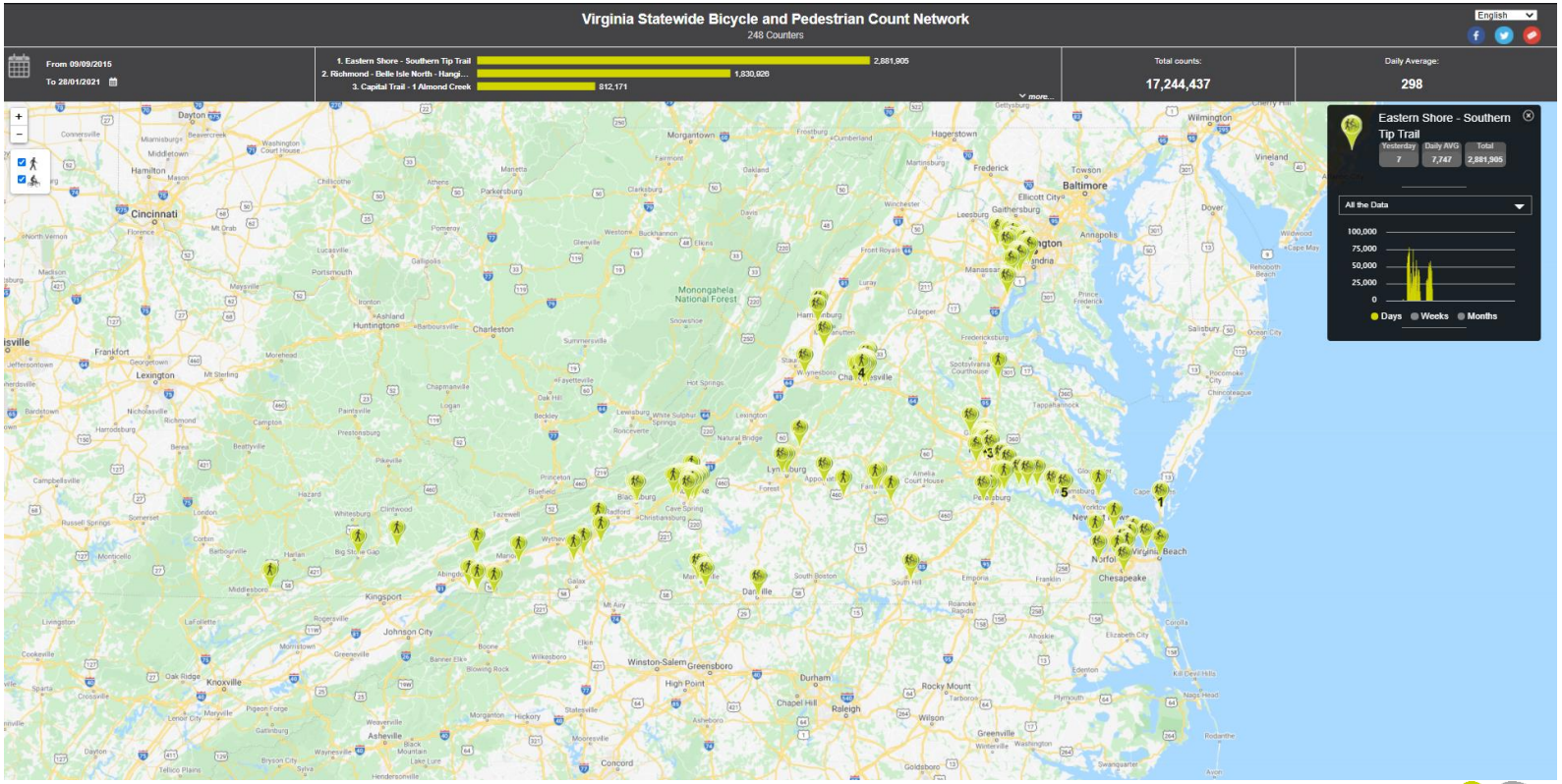
Use the trail with 1 or more other person

19%

Accompanied by a child

eco counter

Communicate the data to the public



eco counter

Who We Count

Eco-Counter Features

- Most are battery powered
- Wireless data transmission
- Can detect direction of travel
- Completely waterproof/weatherproof
- Eco-Visio software comes with the counter

Pedestrian Counters

PYRO-Box

PYRO in wooden post

PYRO in recycled post

Custom housing PYRO

PYRO in aluminum post

eco counter

PYRO-Box – People Counter

- Counts cyclists and pedestrians with no differentiation
- Infrared PYRO sensor detects body heat
- Able to tell direction of travel
- 10-year battery life

PYRO – Post – People Counter

- Counts cyclists and pedestrians with no differentiation
- Wooden or recycled post
- Infrared PYRO sensor detects body heat
- Able to tell direction of travel
- 10-year battery life

eco counter

Cyclist counters

ZELT Loops - Cyclist counters

- Permanent installation: perfect for measuring long-term trends
- Able to detect direction of travel
- Battery powered with 2-year battery life
- Invisible – eliminates risk of vandalism
- Works in all weather conditions
- Can be installed in any type of ground (asphalt, concrete, gravel, soil)

eco counter

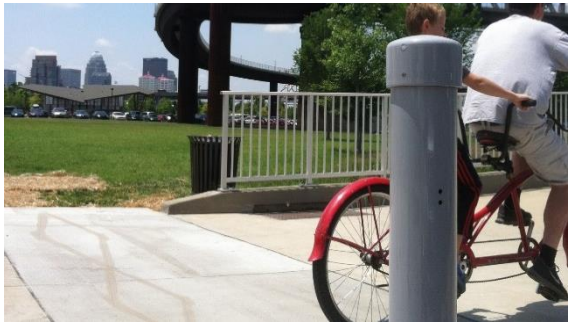
Pneumatic TUBES - Cyclist counters

- Mobile & temporary: Perfect for before-and-after studies
- Quick install time (~30 minutes)
- Able to detect direction of travel
- Automatic data transmission available
- Battery powered with 10-year battery life

eco counter

MULTI – Pedestrian & Bicycle Counters

Jeff Davis Trail, TX



Louisville, KY

Brisbane, Australia

Vallée de Loire, France

Boston, MA

South Lake Tahoe, CA

eco counter

MULTI – Pedestrian + Bike Counter

- Differentiates between cyclists and pedestrians
- Infrared PYRO sensor + electromagnetic ZELT loops
- Great for long-term permanent counting sites
- Able to determine direction of travel
- 2-year battery life

eco counter

Mobile MULTI – Pedestrian + Bike Counter

- Mobile counter
- Flexible solution for a variety of situation and sites
- Differentiates between cyclists and pedestrians
- Combination of Infrared PYRO + Tube sensors
- Able to determine direction of travel

eco counter

Eco-Display Counter - Bike + Pedestrian Counter

- Displays cyclists and/or pedestrian counts in real time
- Infrared PYRO sensor + electromagnetic ZELT loops
- Great for long-term permanent counting sites
- Requires electricity

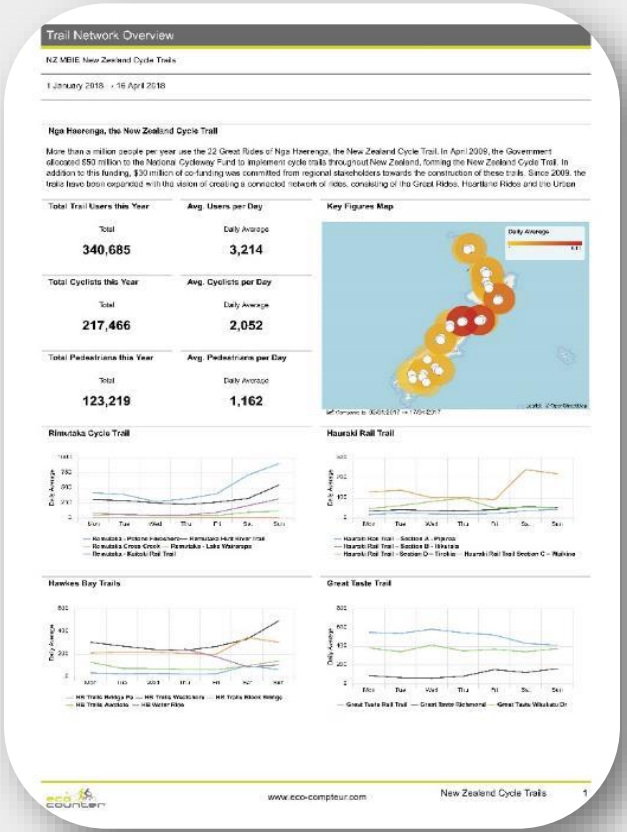
eco counter

Eco-Visio data analysis software

- Included with every counter
- Option for data to be automatically transmitted to the software daily
- Create graphs, charts and reports

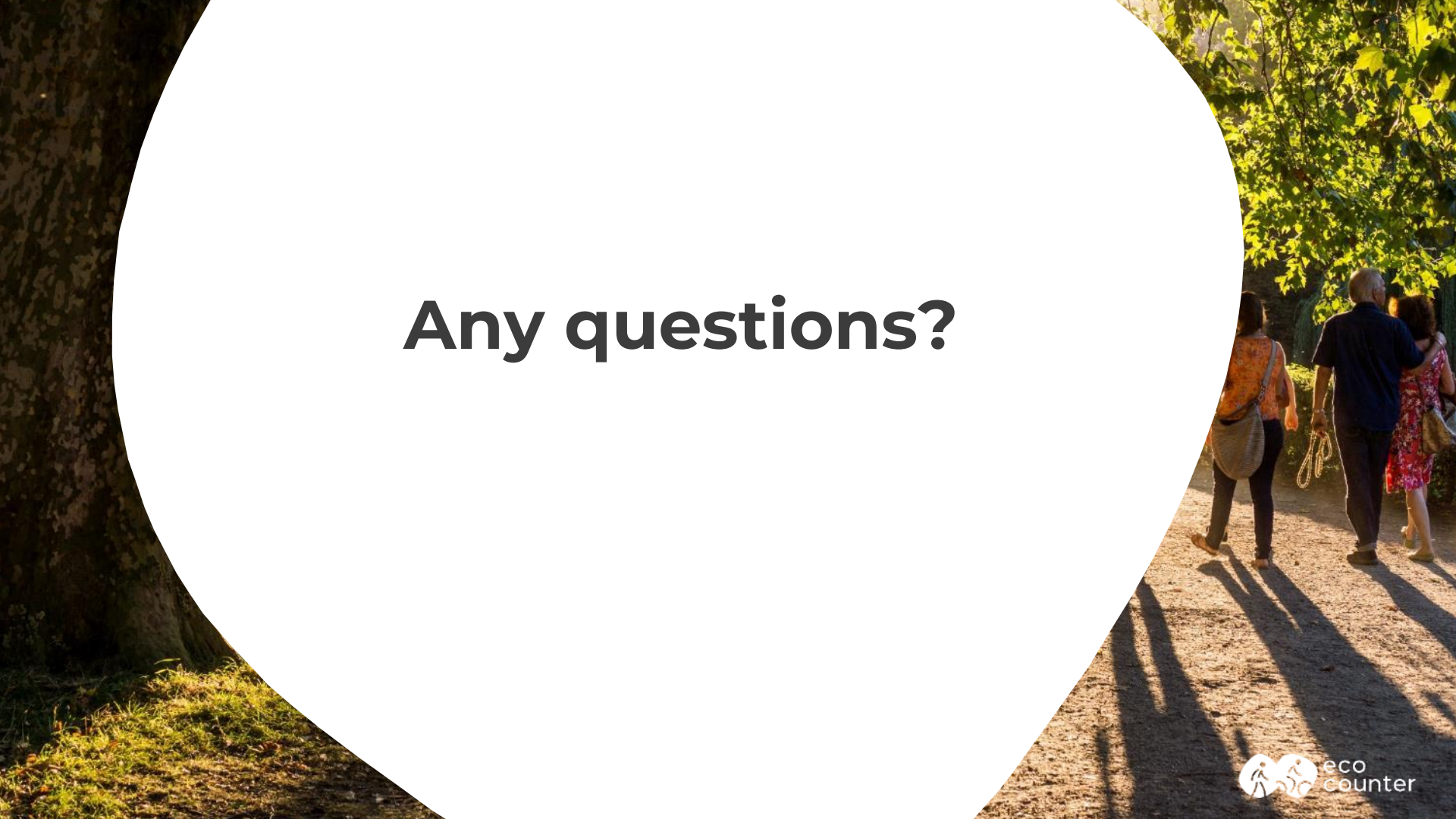
eco counter

Eco-Visio reports



eco counter

Any questions?



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Central Ohio Greenways
Trail Monitoring Program
Equipment Update 2021

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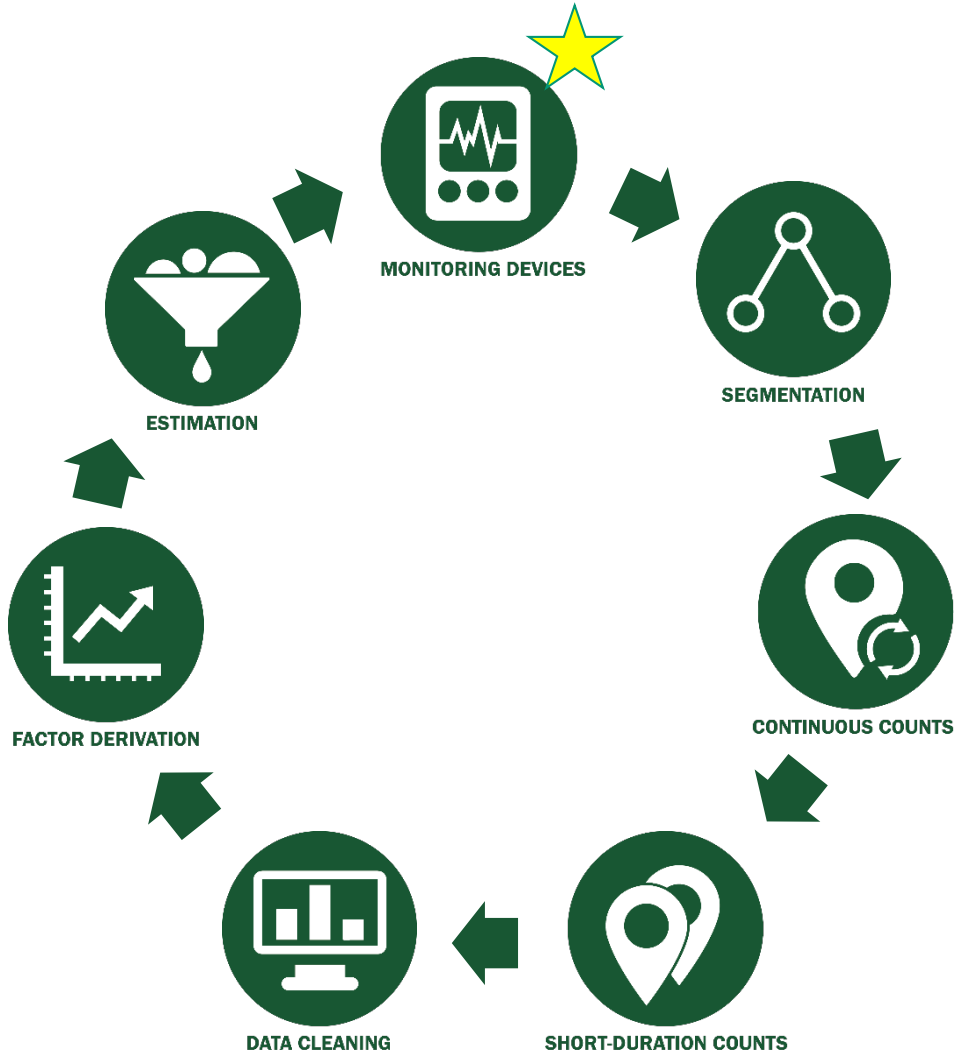
Monitoring Strategy Overview

The current approach used to monitor non-motorized activity along trails within Central Ohio, generally follows guidelines and procedures outlined in Chapter 4 Traffic Monitoring for Non-motorized Traffic of the *Traffic Monitoring Guide* (TMG; FHWA 2013). It is designed to produce estimates of:

- Average Annual Daily Trail Traffic (AADTT)
- Trail Miles Traveled (TMT)

Monitoring Strategy Overview

1. Selection of Monitoring Devices
2. Segmentation of the trail network for purposes of short-duration monitoring
3. Selection and Installation of continuous reference monitoring locations
4. Short-duration monitoring on segments without continuous monitors
5. Data cleaning, quality assurance, and adjustment
6. Derivation of factors for extrapolation
7. Estimation of Average Annual Daily Trail Traffic (AADTT) & Trail Miles Traveled (TMT)



Monitoring Devices

MONITORING DEVICES

SEGMENTATION

CONTINUOUS COUNTS

SHORT-DURATION COUNTS

DATA CLEANING

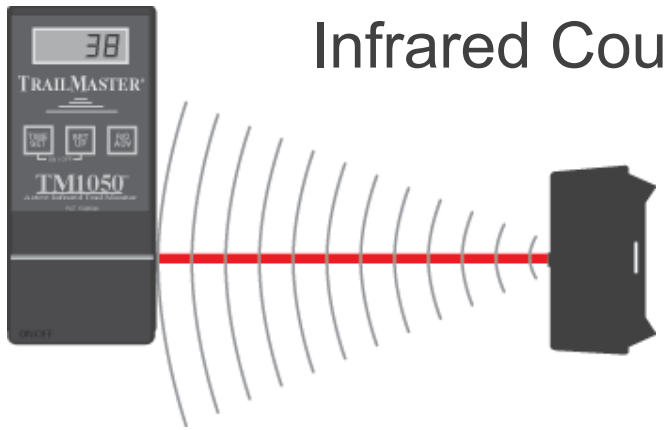
FACTOR DERIVATION

ESTIMATION

Trafx Passive Infrared Counters

Eco Counter Pyro Box (passive infrared) Counters

TrailMaster Active Infrared Counters



Monitoring Segments

MONITORING DEVICES

SEGMENTATION

CONTINUOUS COUNTS

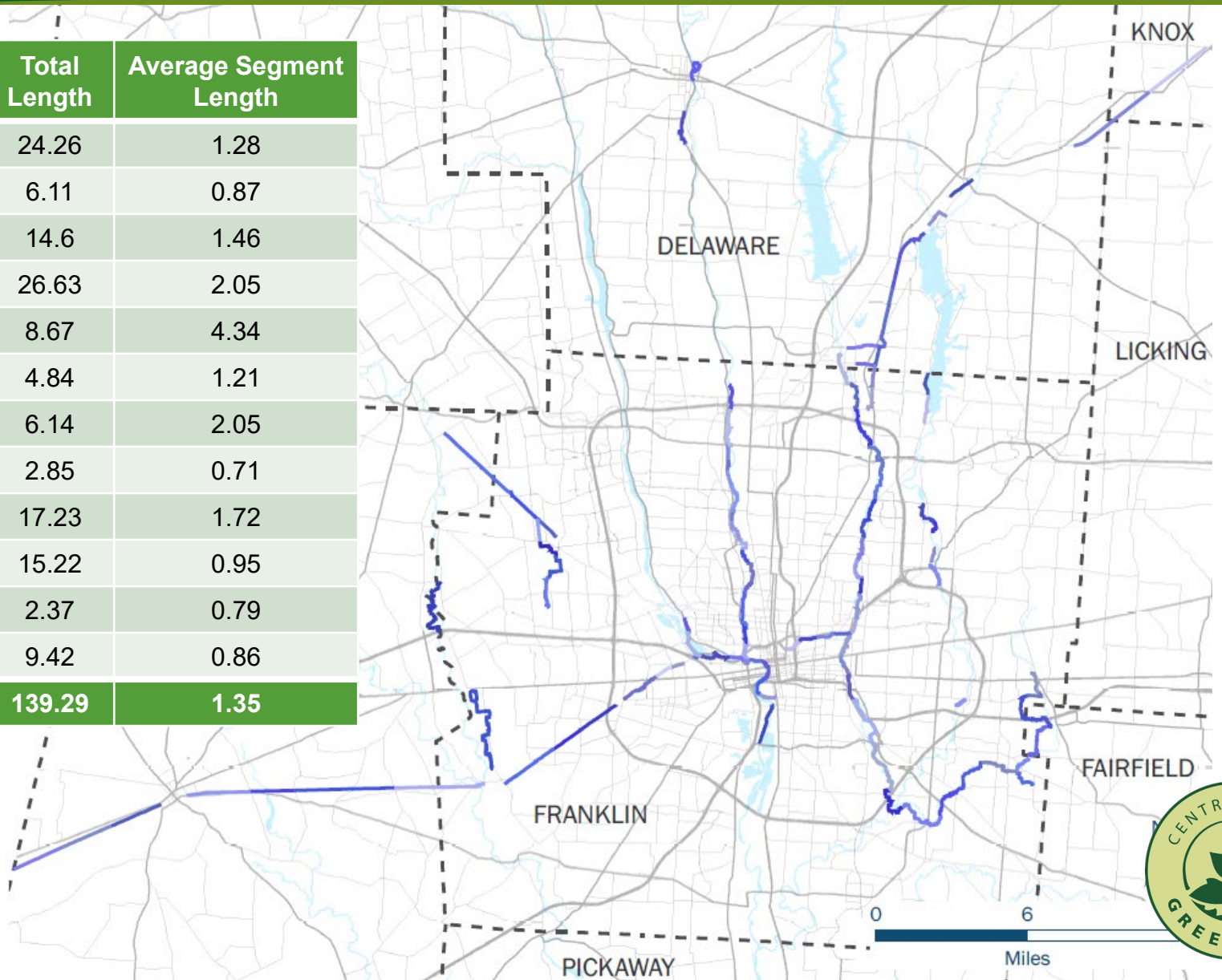
SHORT-DURATION COUNTS

DATA CLEANING

FACTOR DERIVATION

ESTIMATION

Trail	Segment Count	Total Length	Average Segment Length
Alum Creek Trail	19	24.26	1.28
Big Walnut Trail	7	6.11	0.87
Blacklick Creek Trail	10	14.6	1.46
Camp Chase Trail	13	26.63	2.05
Darby Creek Trail	2	8.67	4.34
Hellbranch Trail	4	4.84	1.21
Heritage Trail	3	6.14	2.05
I-670 Connector	4	2.85	0.71
Ohio to Erie Trail	10	17.23	1.72
Olentangy Trail	16	15.22	0.95
Rocky Fork Trail	3	2.37	0.79
Scioto Trail	11	9.42	0.86
Total	**103**	**139.29**	**1.35**



Continuous Count Stations

MONITORING DEVICES

SEGMENTATION

CONTINUOUS COUNTS

SHORT-DURATION COUNTS

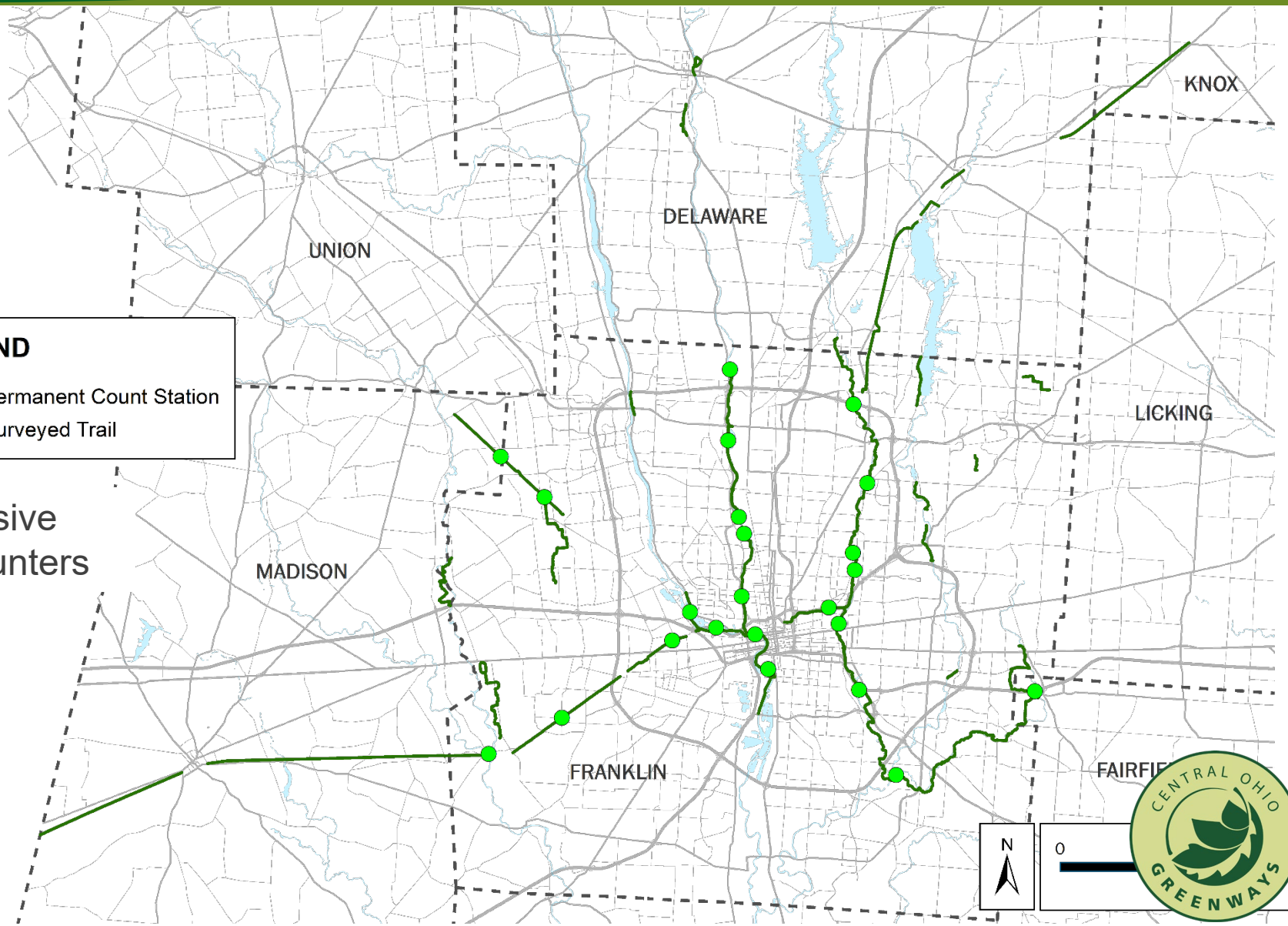
DATA CLEANING

FACTOR DERIVATION

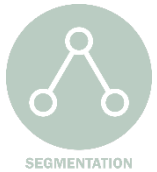
ESTIMATION

~20
Segments

Trafx Passive
Infrared Counters



Continuous Count Station Equipment



Count Site	Equipment Age
1001 - Camp Chase Trail at Darby Creek	4
1003 - Camp Chase Trail at Galloway Rd	2
102 - Scioto Trail at River's Edge	4
103 - Scioto Trail at Grandview Ave	2
106 - Scioto Trail at North Bank Park	13
109 - Scioto Trail at Scioto Audubon	4
207 - I-670 Trail at Nelson Rd	4
304 - Alum Creek Trail at S. of I-270	4
306 - Alum Creek Trail at Easton Soccer Fields	6
308 - Alum Creek Trail at Ballyvaughn Dr	6
310 - Alum Creek Trail at Clifton Ave	8
313 - Alum Creek Trail at S. of I-70	4

Count Site	Equipment Age
316 - Alum Creek Trail at Brittany Hills	6
402 - Blacklick Trail at Three Creeks	4
412 - Blacklick Trail at Blacklick Woods	4
503 - Olentangy Trail at Worthington Hills	7
506 - Olentangy Trail at Antrim Park	13
511 - Olentangy Trail at OSU Wetlands	13
515 - Olentangy Trail at 5th Ave	13
517x - Olentangy Trail at Goodale Ramp	4
801 – Heritage Trail at Heritage Trail Metro Park	?
803 – Heritage Trail at Cosgray Rd	7

CENTRAL OHIO GREENWAYS

Short Duration Counts

MONITORING DEVICES

SEGMENTATION

CONTINUOUS COUNTS

SHORT-DURATION COUNTS

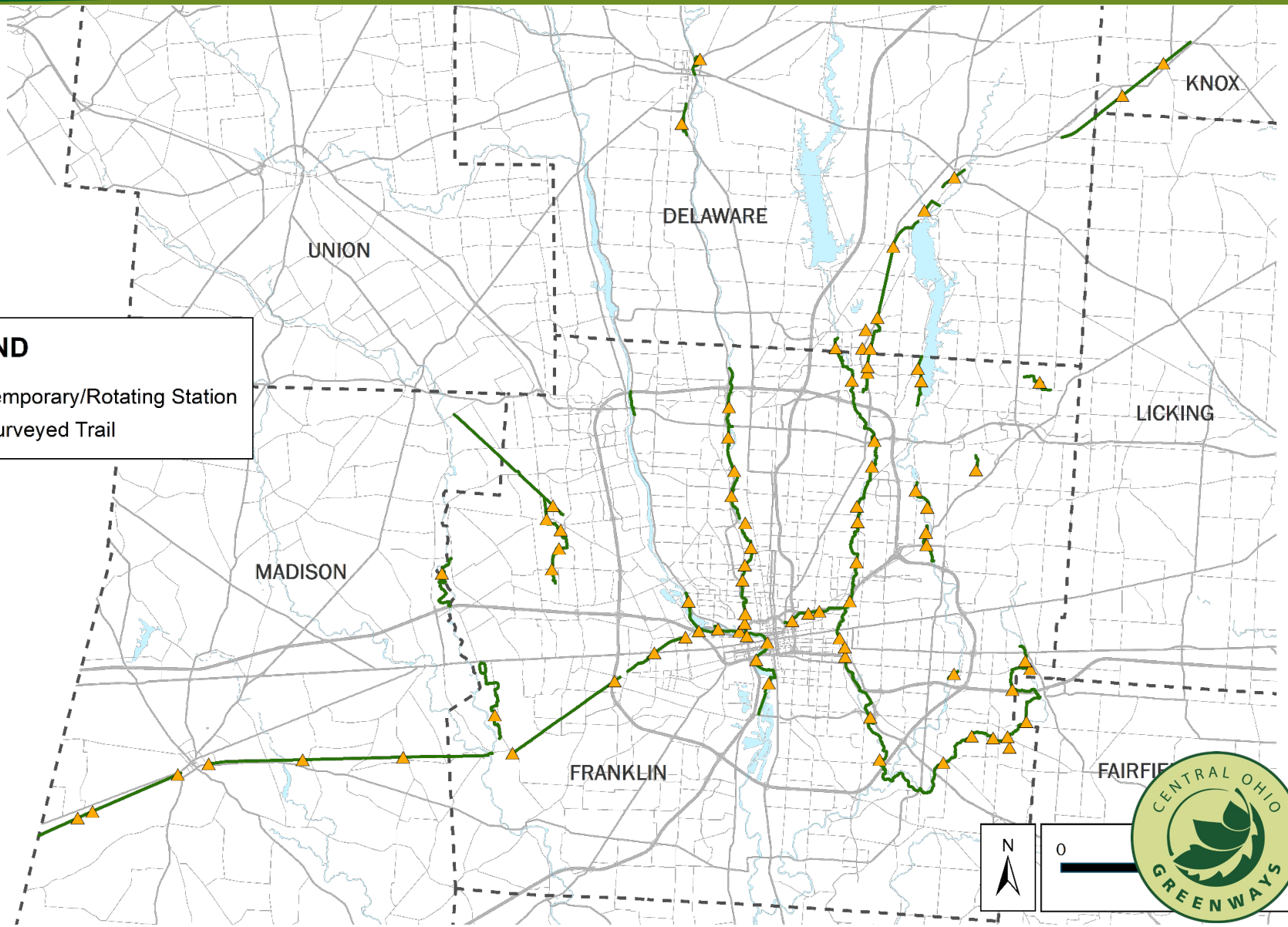
DATA CLEANING

FACTOR DERIVATION

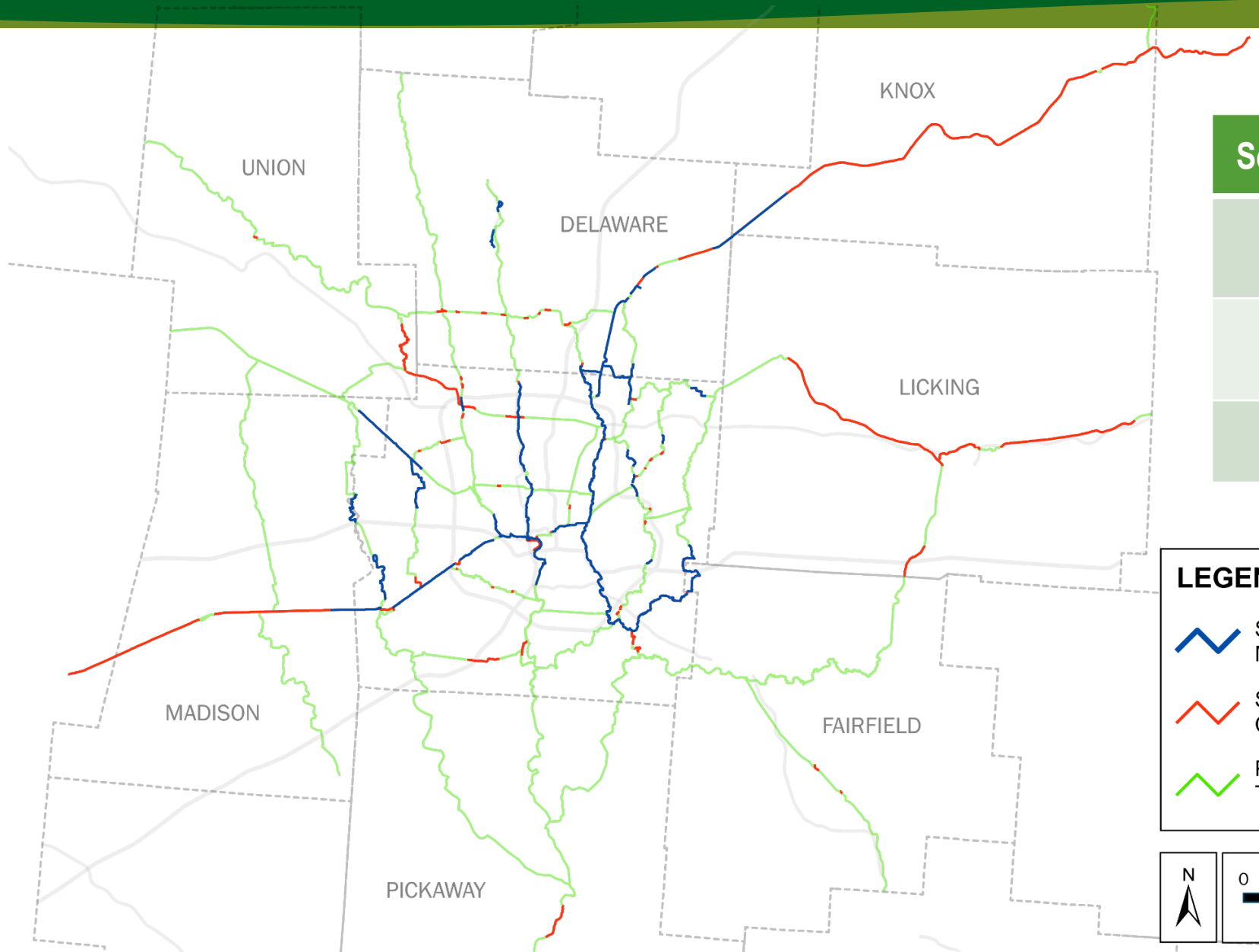
ESTIMATION

80+
Segments

Eco Counter
Pyro Box (passive infrared) Counters



Trail Monitoring Area Expansion



Segment Status	Total Miles
Currently Monitored	130
Not Currently Monitored	120
Not Yet Built	400+

LEGEND

- Segment Currently Monitored
- Segment Not Currently Monitored
- Proposed/Future Trail Segment

N

0 9.5 19

Miles

CENTRAL OHIO GREENWAYS

Trail Monitoring Equipment Needs

Continuous Count Stations

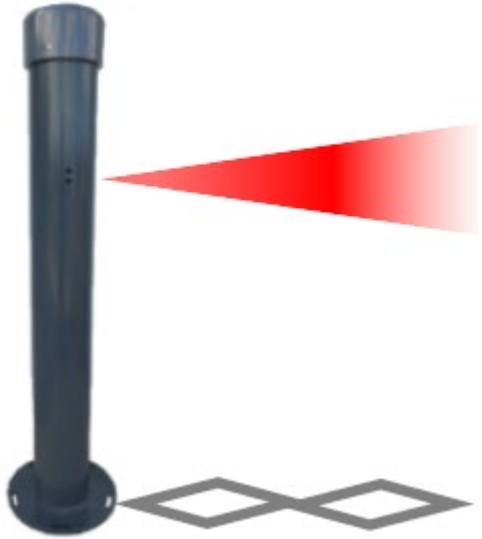
eco counter

Multi-Use Counters MULTI in an Urban Post

Discretely measures cyclist and pedestrian usage in an urban environment

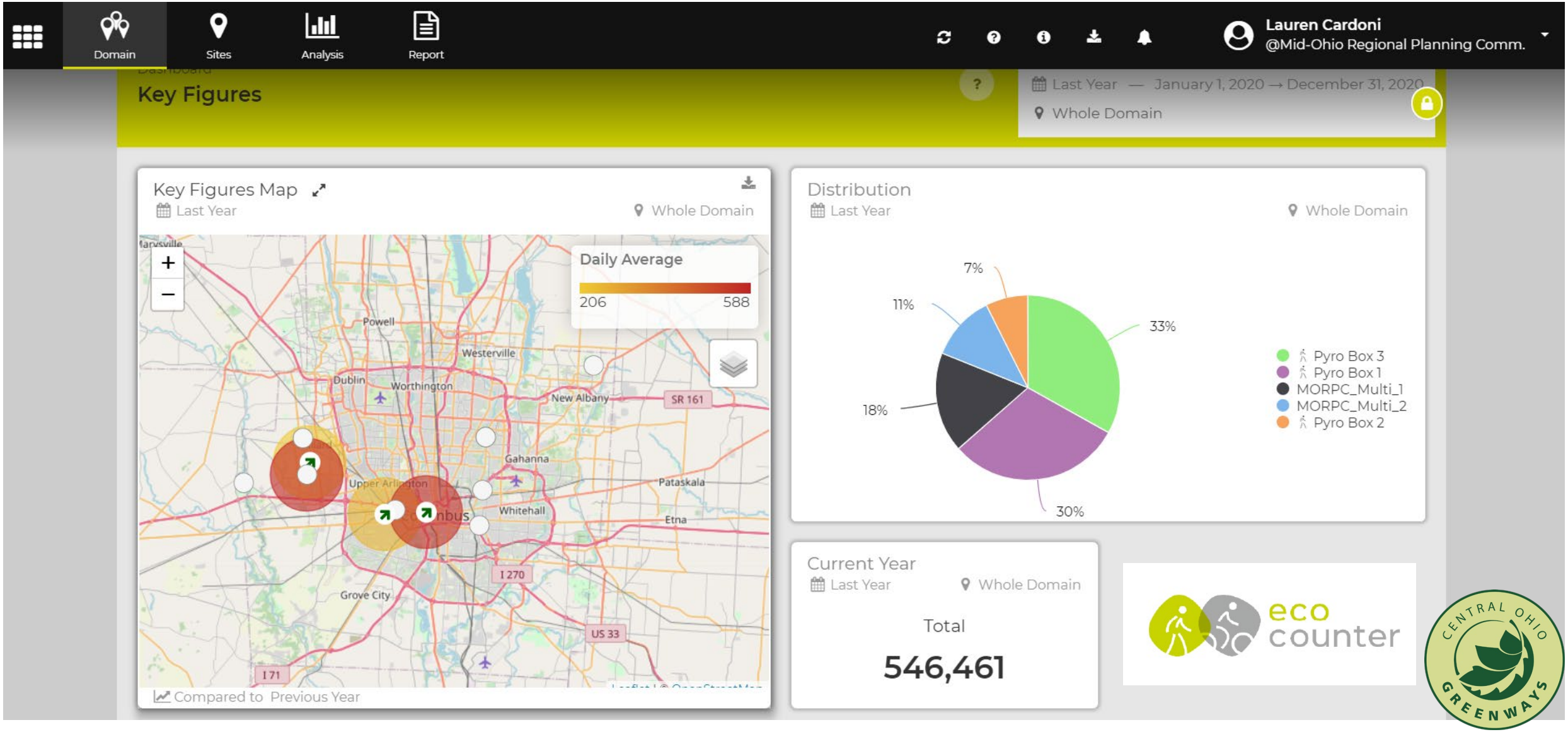
- Differentiates user type
- Records direction of travel
- 1 – 2 year battery life
- 11 months of data memory
- $5,700 per unit
  - Up to 15’ range
  - Direction detection
  - (not incl. installation)

Cyclists and pedestrians are counted and differentiated on a shared use path



CENTRAL OHIO GREENWAYS

Trail Monitoring Program Management



Trail Monitoring Program Management