

# GREEN TRAKS®



## Energy Tracking & Carbon Strategies

*City of Sacramento Pilot Program*

Presented by  
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Kevin Cochran, COO & SMCP



July 10, 2014

# GREENTRAKS:

- Cloud-based energy & sustainability mgmt
- Track energy consumption, GHGs, projects
- Network of energy-efficiency partners
- Manage educational and outreach programs
- Mission to be value-leader in energy mgmt



# Why is Tracking so important?

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1. Consider mission and relative potential impacts

Inside

Direct Action vs.

2%

Outside

Leadership

98%



2. Create context, measurement, and competition
3. Create additional benefit and competitive advantage



# Agenda

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1. City of Sacramento – GreenTraks Pilot Program (Phase 1)
  - Fuel tracking integration
  - Renewable natural gas project
  - Sacramento Convention Center Lighting Project
  - Sacramento City Hall Garage LED Lighting Project
2. City of Sacramento – Tracking & Engagement (Phase 2 & 3)
3. Benicia Industrial Park Case Studies
4. Create Compelling Narratives and Share Successes
5. Questions & Answers



# 1. City of Sacramento Pilot Program





# Goals

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1. Establish comprehensive tracking of the City's energy use and greenhouse gas (GHG) inventory that provides internal reporting over its fleets, facilities, and operations
2. Obtain 3<sup>rd</sup>-party validation of the City's project performance for three sample energy-efficiency projects
3. Evaluate GreenTraks performance
4. Lay foundation for Phase 2 & 3

# Fuel Tracking Integration







# Benefits

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1. Comparative analysis of fleets and mixed-fleet vehicles
2. Comprehensive and periodic GHG tracking
  - Evaluate progress against Climate Action and Regional Action Plans
  - Evaluate performance of fleet conversions and energy efficiency projects
3. Establishes recurring GHG tracking, portfolio management of energy projects, and community engagement



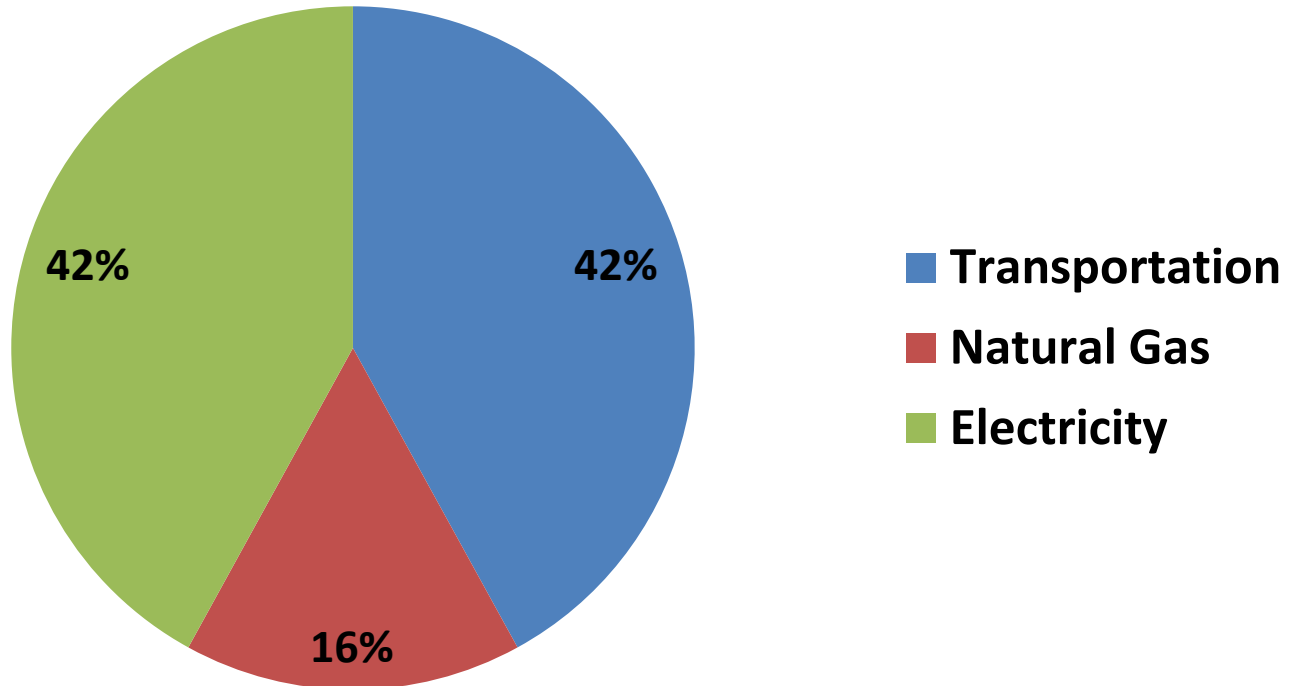
# Renewable Natural Gas Project





# Primary Energy Use – Sacramento Region

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Source: Sacramento Regional Action Plan  
Chart circa 2008



# Reduction Strategies

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## GOAL FOR FLEETS:

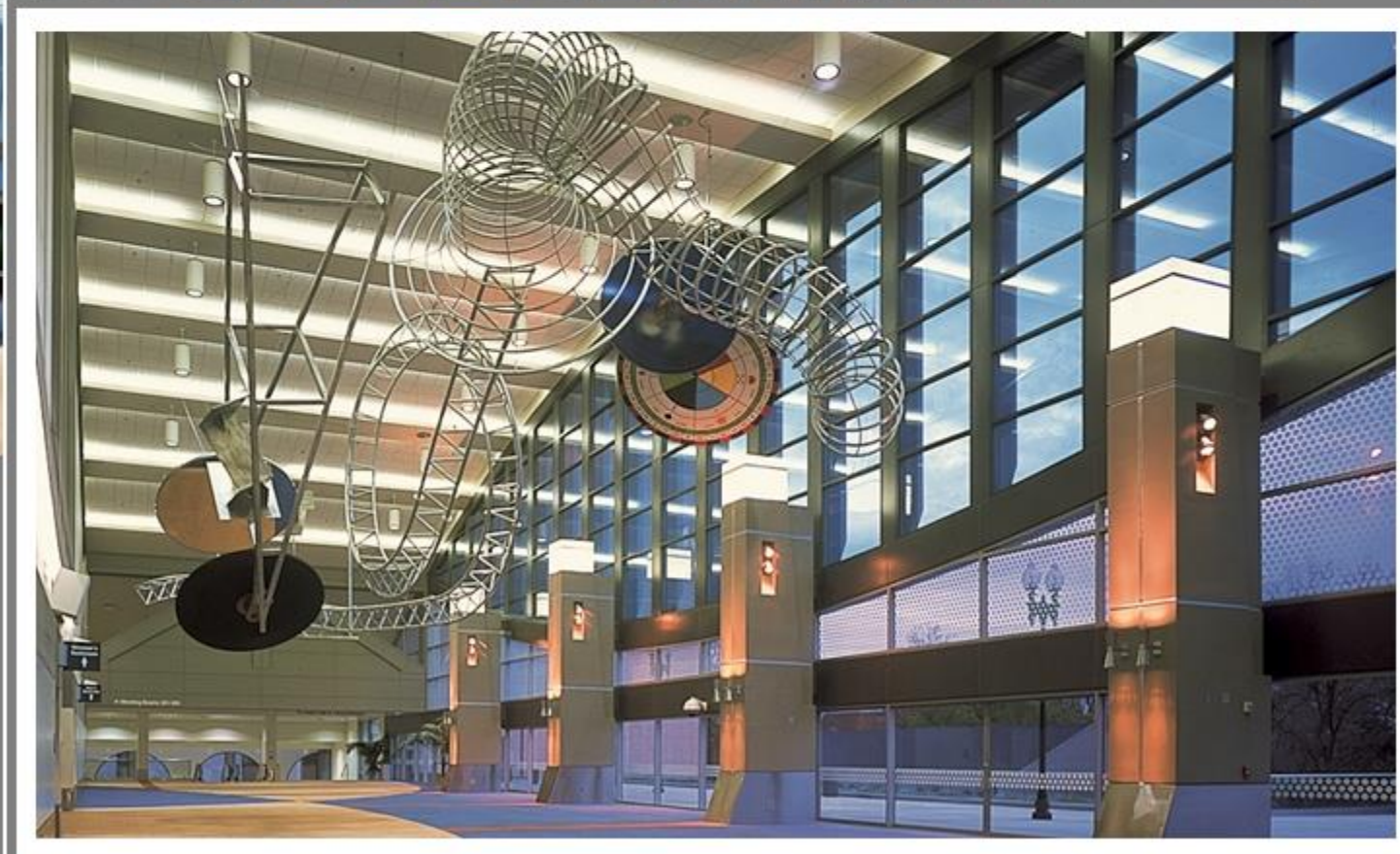
- Reduce carbon footprint and meet greenhouse gas (GHG) reduction targets in Climate Action and CSR Plans

## FACTS:

- Natural gas (CNG & LNG) is less carbon emitting than diesel
- Total cost of ownership can be less with natural gas vehicles

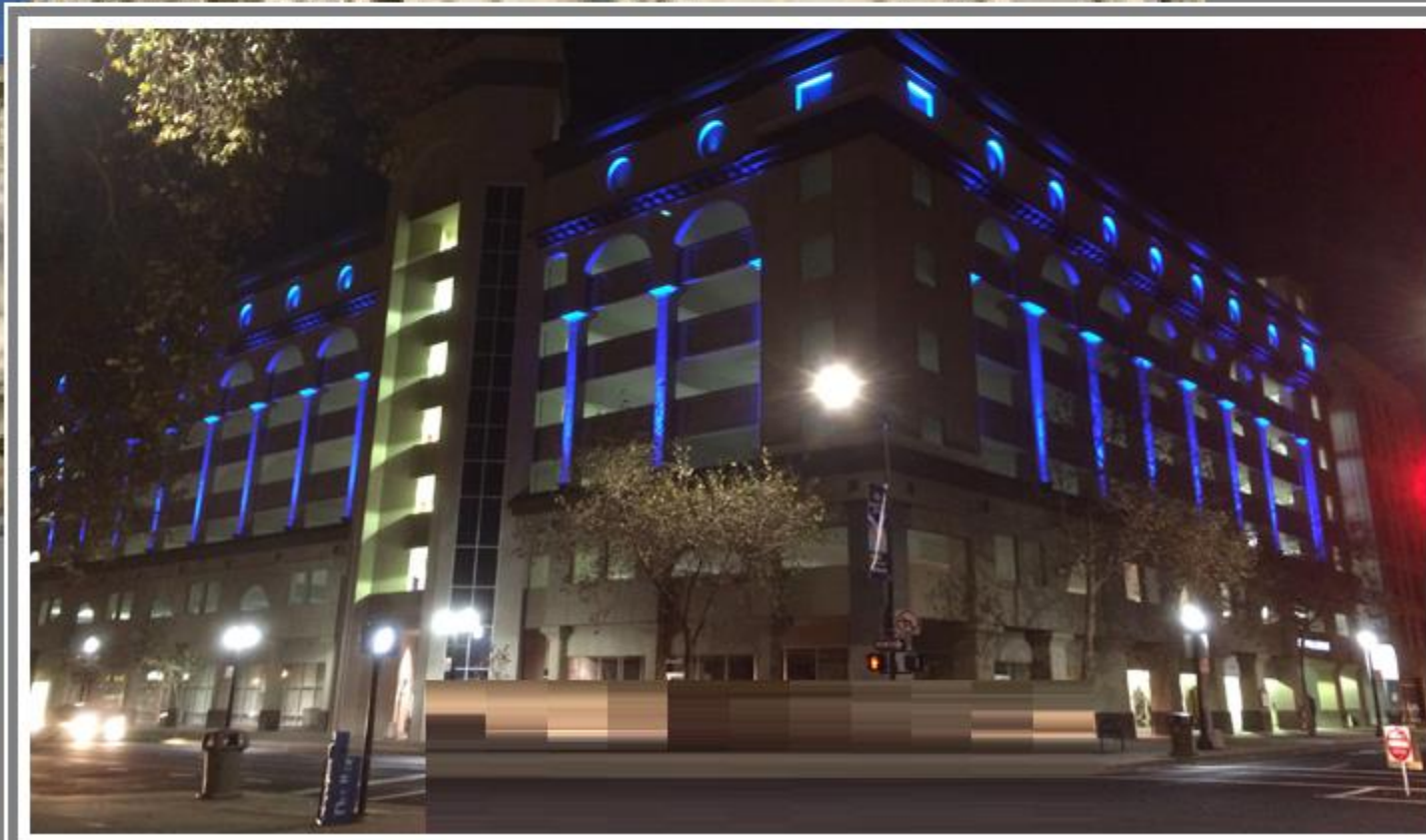


# Sacramento Convention Center





# City Hall Parking Garage



## 2. Energy Tracking & Community Engagement (proposed)







# City of Sacramento: All Phases

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Phase 1 - GreenTraks Pilot Program

Phase 2 – Expansion of Pilot Program

- Ongoing fleet comparisons & comprehensive GHG tracking
- Showcase of the City’s energy-efficiency project portfolio

Phase 3 – Climate Action Partners Program

- Sacramento Energy Efficiency Leaders
- ENERGY STAR Portfolio Manager
- Energy-efficiency project evaluations
- Community website promotion



# Fuel Integration and Ratings

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- How do you compare different fleets?  
...GreenTraks metrics

## RAMP Rating

- **R** ecorded
- **A** verage
- **M** iles per **O** n
- **P** ound of CO<sub>2</sub>e **I** nvestment

## CROI

- **C** arbon
- **R** eduction

# Portfolio of Energy Projects

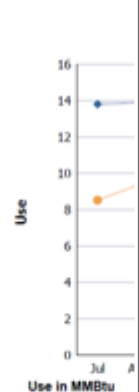
## GREENTRAKS

- ACME CO. implemented a variety of energy-saving measures, including these installations:
- Interior facility LED
  - Vented server/router storage cabinet
  - Window tinting installed in CFO and CEO offices

After eight months since the project completion and installation of the above energy-saving measures, the annualized financial results from these improvements are as follows:

ACME CO.	
Project Cost	\$ 4,300.00
Projected cost-avoidance/ year	\$ 2,394.62
Discount rate	6%
3-Year ROI	142%
Payback years	2.0
IRR (5 yr)	83%

Significant reductions were achieved by ACME CO., reducing its usage and greenhouse gas emissions by 36.2% and reducing 6.5 metric tons of CO<sub>2</sub>e over the past eight months (9.75 MTCO<sub>2</sub>e annualized).



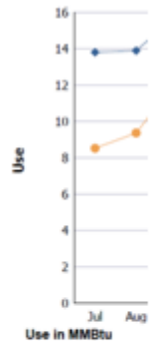
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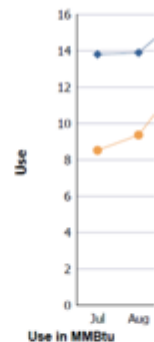
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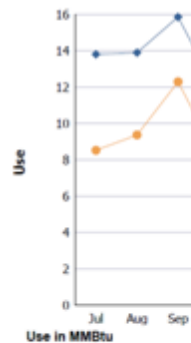
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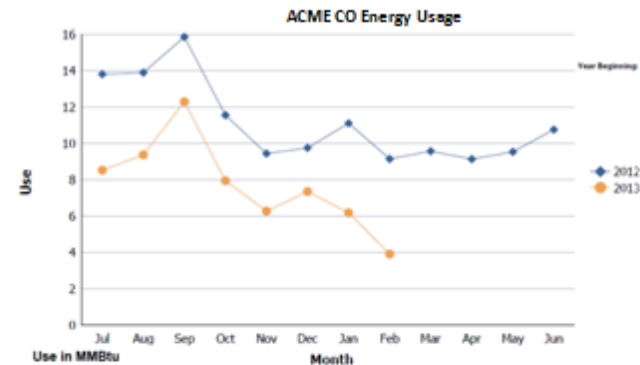
## GREENTRAKS Performance Summary

- ACME CO. implemented a variety of energy-saving measures, including these installations:
- Interior facility LED retrofit
  - Vented server/router storage cabinet
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## GREENTRAKS

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# 3. Benicia BRIP Case Studies





# Case Study: Dunlop Manufacturing

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SITUATION: *Organization targeting energy savings*

## ACTIONS TAKEN

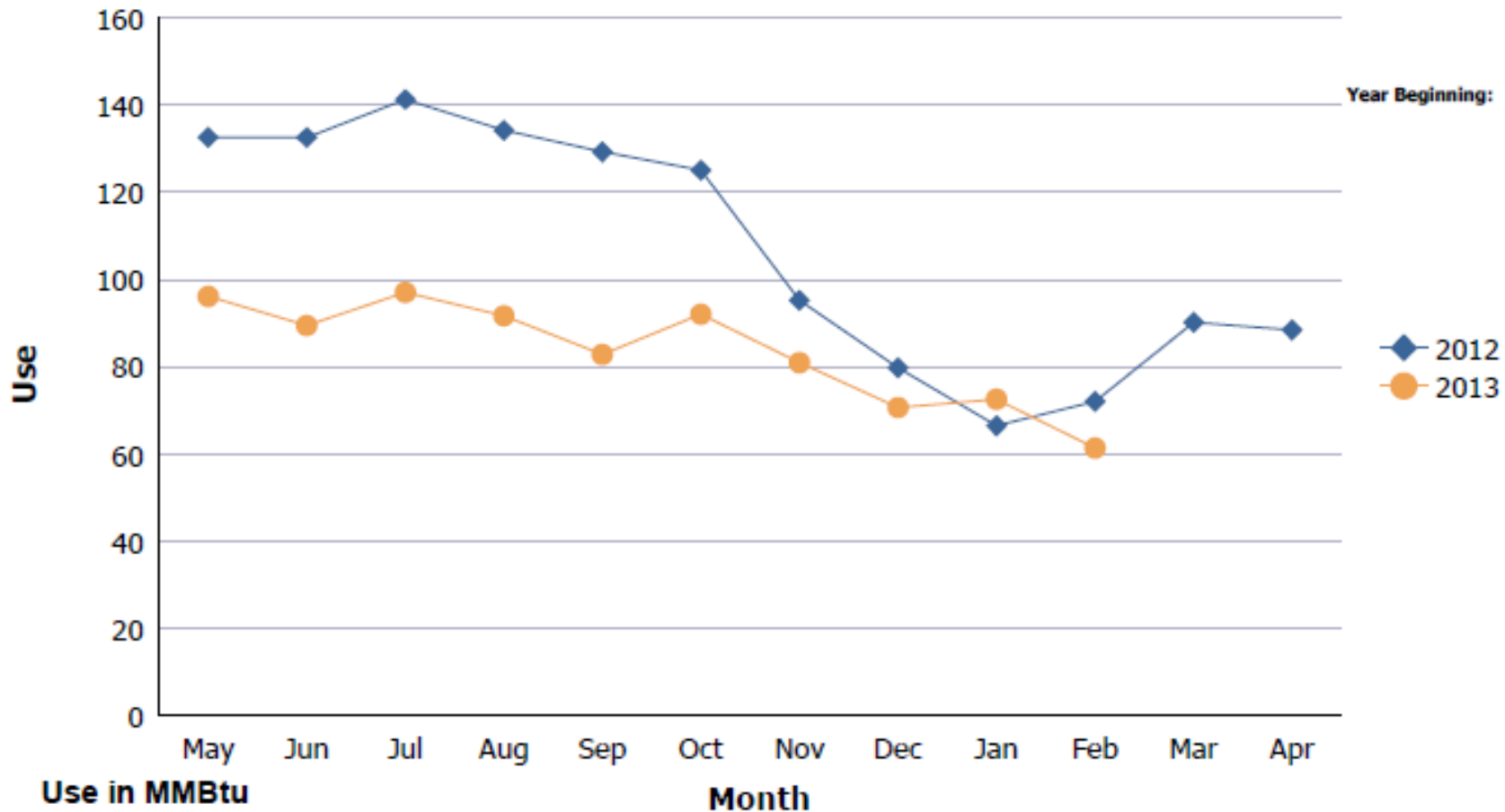
- Implemented energy-saving measures:
  - Air compressor retrofit
  - LED lighting upgrade
- Initiated full-service energy tracking to establish baseline and continuous reporting





# Case Study: Dunlop Manufacturing

## PERFORMANCE RESULTS





# Case Study: Dunlop Manufacturing

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## PERFORMANCE RESULTS

- Significant reductions in usage and greenhouse gas emissions by 17.8% and reducing 54.0 MTCO<sub>2</sub>e in 10 mo
- Favorable financial results:

Project Cost	\$46,000.00
Projected cost-avoidance/ year	\$26,500.00
Interest rate	6%
3-Year ROI	154%
Payback years	1.8
IRR	73%



# 4. Create Compelling Narratives and Share Successes





# Elements of Compelling Narratives

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- Track and provide actual, prior project data
- Include periodic technology reviews
- Share project performance results & benefits
  - Reduction in Energy Consumption
  - Return on Investment
  - Reduction in Carbon Emissions
- Effective storytelling => effective change





# Sharing Success Metrics

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Examples: ROI, IRR, CROI, Market Interest Rate, etc.

1. **Metrics = Baseline and context**
2. **Metrics = Credibility**
3. **Metrics = Reduce fear**
4. **Metrics = Support financing**
5. **Metrics = Promote action**







# Accelerate Adoption & Success

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- Time is scarce and attention spans are short
- Clear, concise, and complete project messaging
- The majority of vendors and customers don't track
- Change occurs when leaders tell a compelling story
- Your project results are the story!
- GreenTraks will help you tell it.



# Questions & Answers

*Thank you!*



# Contact Us

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## GreenTraks

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