

**Gwinnett County Sustainability Commission****Wednesday, January 18, 2023 – 4:30pm**

Gwinnett Justice and Administration Center  
75 Langley Drive, Lawrenceville, GA 30046  
Conference Room C (Second Floor)

**Present:** Laura Hernandez, Daniel Hilton, Dr. Marshall Shepherd, Robert Blatecky

**Absent:** Krupesh Patel

**1. Call to Order**

Laura Hernandez, Chairperson, called the meeting to order and welcomed everyone at 4:30pm.

- The Board of Commissioners' 2023 Final Budget includes an Environmental Sustainability Officer.
- Gwinnett County continues to uphold its commitment to sustainability, earning recertification as a Green Community at the Platinum Level by the Atlanta Regional Commission.
- The newly elected District 4 Commissioner, Matthew Holtkamp, appointed a new GCSC member, Rob Blatecky, who brings 15+ years of experience in the sustainability field.
- Chairwoman Hernandez, on behalf of the GCSC members, thanked James Nolan, previous District 4 appointed member, for his contributions to the GCSC.
- There is a scheduling conflict for next month's presenter, Rowen. February's meeting date could change.

**2. Approval of Agenda**

{Action: Approved: Shepherd; Second: Hilton; Vote: 3-0; Hernandez-Yes; Hilton-Yes; Shepherd-Yes; Absent: Blatecky; Absent: Patel}

**3. Approval of Minutes**

The November 16, 2022, meeting minutes were approved.

{Action: Approved: Shepherd; Second: Hilton; Vote: 3-0; Hernandez-Yes; Hilton-Yes; Shepherd-Yes; Absent: Blatecky; Absent: Patel}

**4. Overview of the County's Electric Vehicle Study**

Jeff Hairston, Gwinnett County Facility Construction Program Manager, and Jerry Dennis, Precision Planning, Inc., Engineering & Architectural firm, together with ecoPreserve, are conducting a study to augment the county's electric vehicle infrastructure. ecoPreserve is a consulting firm that helps organizations achieve their sustainability and resiliency objectives: <https://www.ecopreserve.net/>. Pete Westlake,

ecoPreserve Senior Consultant, presented a best practices overview of electric vehicle supply equipment (EVSE).

5. County Fleet Management Overview

Ron Adderley, Gwinnett County Support Services Deputy Director, presented an overview of the Gwinnett County Fleet Management division's current sustainability efforts, including hybrid vehicles, electric utility carts, and the responsible disposal of oil, batteries, and tires. The completion of the electric vehicle study will help guide future efforts.

6. Public Comments

- James Nolan expressed appreciation for the county's efforts with the electric vehicle charging station study on best practices and standardization and hopes that a few stations will be installed soon as a test.
- Scott Presson congratulated the GCSC on the adoption of its recommendation to hire an Environmental Sustainability Officer and looks forward to the hiring of a qualified applicant with extensive knowledge in all areas.

7. Adjournment

The meeting was adjourned at 6:10pm.

{Action: Approved: Shepherd; Second: Blatecky; Vote: 3-0; Blatecky-Yes; Hernandez-Yes; Shepherd-Yes; Absent: Hilton; Absent: Patel}



# EV CHARGING STATION CONSULTING BEST PRACTICES

JANUARY 18, 2022





MEETING  
AGENDA

TEAM INTRODUCTION

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BEST PRACTICES OVERVIEW

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FINDINGS AND RECOMMENDATIONS

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NEXT STEPS

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# TEAM INTRODUCTIONS





TEAM INTRODUCTIONS  
ECOPRESERVE



**Nate Boyd, PE**  
Project Manager



**Pete Westlake**  
Senior Consultant



**Conrad Dobrowolski**  
EV Consultant



**Jodi Brewer**  
Project Administrator

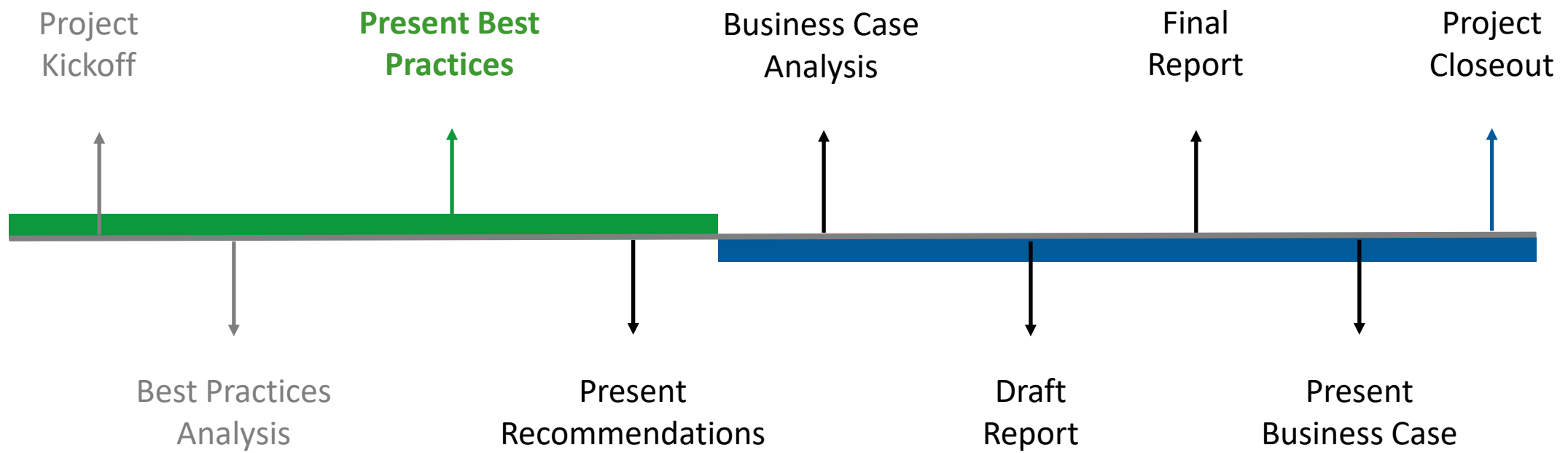




## BEST PRACTICES OVERVIEW



# NEXT STEPS PROJECT STATUS





## BEST PRACTICES OVERVIEW

# CHARGING LEVELS DEFINED

Charger	Power			Range added per Hour
Level 1	AC	120 VAC	1.4-1.9 kW	4-6 miles
Level 2	AC	240 VAC	7.7-19 kW	15-45 miles
Level 3	DC	400 VDC	50+ kW	150+ miles
Level 3	DC	800 VDC	240 kW	720 miles



## BEST PRACTICES OVERVIEW

# DATA SOURCES

**ecoPreserve conducted an analysis of the best practices used in 10 similar local governments:**

- City of Atlanta
- Cobb County
- DeKalb County
- City of Orlando
- Miami-Dade County
- Albany County
- City of Rochester
- Cuyahoga County
- City of Denver
- City of Portland

# DATA COLLECTED

## We looked at 5 areas:

- **Sites** (location types, how they select locations, etc.)
- **Procurement** (EVSE/Design services/Installation services/Maintenance)
- **Funding** (sources, partnerships, grants used)
- **Operations** (networked equipment, penalties, etc.)
- **Maintenance** (warranty vs additional maintenance)

## BEST PRACTICES OVERVIEW

# SUMMARY OF INSTALLATIONS SURVEYED

	Existing L2 Installations	Planned Public L2 Installations	Years of L2 Operation	L2 Access type
City of Atlanta	270	0	6	Public, employee, & fleet
Cobb County	76	3	-	Public, employee, & fleet
DeKalb County	0	0	0	Fleet
City of Orlando	Over 100	"Make Ready" ordinance	At least 1	Public
Miami-Dade County	65	"Make Ready" ordinance	Not long	Public, employee, & fleet
Albany County	34	3	4	Public & employee
City of Rochester	36	1	9	Public & employee
Cuyahoga County	0	84	0	Public
City of Denver	56	120	-	Public & employee
City of Portland	*	*	*	Public

**Note:** installations represent only City or County owned, there are other public chargers sited in these geographies

## BEST PRACTICES OVERVIEW

# SUMMARY OF PROGRAMS

	Funding Source	Fees/Payments?	Misc Program Notes
City of Atlanta	Grant and utility	No fee	
Cobb County	Grant and utility	Free to charge	
DeKalb County	Utility	Will have a fee	
City of Orlando	Utility	Free to charge, working on pricing structure	
Miami-Dade County	-	Most public chargers are free to charge	
Albany County	Grant and utility	Free to charge, working on pricing structure	
City of Rochester	Two grants	Free to charge	
Cuyahoga County	\$4 Million Federal Congestion Mitigation and Air Quality Grant	Decided by site sponsor, advised to have some fee	5 Counties, multiple municipal entities, purchasing/design collab
City of Denver	Grant	Free to charge	
City of Portland	-	Has a fee	*Portland Bureau of Transportation manages L2 EV chargers, not City.

# BEST PRACTICES OVERVIEW

## SUMMARY OF RESULTS

		City of Atlanta	Cobb County	Dekalb County	City of Orlando	Miami-Dade County	Albany County	City of Rochester	Cuyahoga County	City of Portland	City of Denver
<b>Sites</b>	High-utilization	•	•	•	•	•	•	•	•	•	•
	Equitable deployment				•			•			•
<b>Procurement</b>	RFP for Design, O+M	•	•			•	•	•	•		•
	Purchasing cooperative	•				•			•		
<b>Funding</b>	County	•	•		•	•	•	•	•	•	•
	Grant or Utility	•	•		•		•	•	•		•
	Third-Party			•							
<b>Operations</b>	Gov't owned & operated	•	•		•		•	•	•	•	•
	Networked	•	•	•	•		•	•	•		
	Electricity Charges			•	•		•		•	•	
	Penalties for misuse		•		•	•	•	•		•	•
<b>Maintenance</b>	Manufacturer warranty	•	•		•		•	•		•	•

# SITES

- **Location types where L2 chargers are being installed**
  - County buildings, parking garages/lots, parks, libraries, recreation centers
- **Priorities for location selection**
  - High utilization
  - Gaps in availability (charging deserts, equitable distribution)
  - High-intensity zoning (mixed multi-family residential and commercial areas)
  - Public locations with longer-term parking

# PROCUREMENT

- **RFP**
  - Most common for equipment, design services, and installation services
- **Collaborative purchasing**
  - Two used collaborative purchasing (Sourcewell or State contracts)
- **Utility**
  - Two leveraged utility programs/partnerships for equipment and installation
- **Existing electrical contractors**
  - Some use existing vendors for installation and maintenance



## BEST PRACTICES OVERVIEW

# FUNDING

- **Grants**
  - Six leveraged grant funding (state and federal)
- **Government budget**
  - Five funded equipment and ongoing costs through internal project budgets
- **Utility**
  - Four used utility programs/partnerships to fund equipment, installation, and/or maintenance, one is planning for future utility program support

# BEST PRACTICES OVERVIEW

## OPERATIONS

- **Networked chargers**
  - All use networked L2 chargers,
  - In addition some have unnetworked chargers
  - Seven are currently offering free charging, however some let the vendor decide, and some are phasing in future payment requirements
- **Misuse penalties**
  - Most do not have penalties for overstaying past full charge (non-issue)
  - Some have penalties for non-EV parking (ticketing and/or towing)
- **Code/Ordinance support**
  - Three cited EV-Ready code/ordinance language in place

## BEST PRACTICES OVERVIEW

# MAINTENANCE

- **Manufacturer warranty**
  - All utilize manufacturer warranties
  - Some have extended warranty agreements or replace equipment once warranties are expired
- **Other maintenance**
  - Some utilize existing electrical contractors to service equipment past warranties

## BEST PRACTICES OVERVIEW

# QUESTIONS ADDRESSED

- Why are larger locations not planning future sites?
  - Large established areas are asking that business take over installs.
- Can Fleet locations be collocated with Public locations?
  - Can be collocated based on operational decisions, however, difficult to mix them since operations can't always wait for access, however, can share power supply, size transformer appropriately for future need.
- Can chargers modulate between L2 & L3?
  - L3 Can modulate down based on the car, but typically this would be reserved as a L3 site because of the significant investment.



## BEST PRACTICES OVERVIEW

# QUESTIONS ADDRESSED

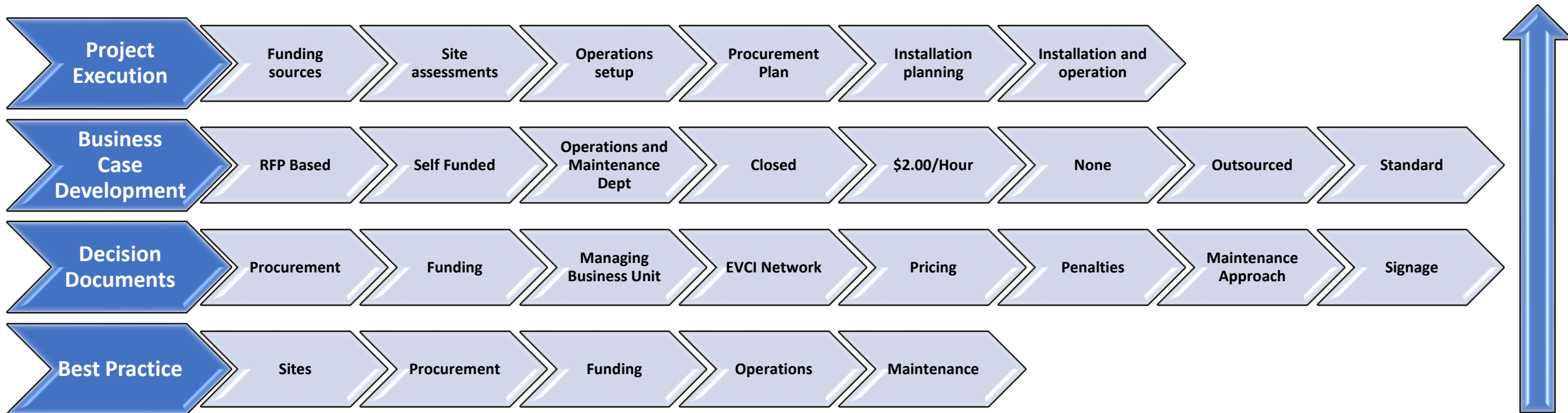
- What is the utilization of charging stations?
  - Level 2 is very low, in some cases not able to cover network and maintenance costs.
  - Suggest install one charger in a location and plumb others, monitor and increase as needed.
- How does increasing range impact the need for chargers?
  - It will be quite some time before range is high enough and density of L3 is significant enough to avoid level 2.



NEXT STEPS



# NEXT STEPS APPROACH



NEXT STEPS

# UPCOMING TASKS

## 1. Best Practices Study

- Draft complete

## 2. EVSE Business Case

- Analyze economic value of EVSE, including costs, benefits, needed resources, and ownership approaches for public-facing L2 chargers
- Prepare draft and present Business Case report

## 3. Site analysis

## 4. Budget Review





THANK YOU!





## RECOMMENDATIONS



# RECOMMENDATIONS

## SITES

1. We recommend that all sites be assessed in the following order of priority
  - i. Locations where the existing power supply will handle projected charging stations without upgrades should be considered first.
  - ii. Locations where the public is likely to dwell longer (at least 1-2 hours) - or perhaps where you might want to attract a longer dwell time such as public destinations (museums).
  - iii. Consider where an equitable solution might be required - this way you are ahead of the issue as equity becomes more relevant.
  - iv. Locations where you can share the installed stations with fleet vehicles (i.e., a public park could be used overnight for Parks and Rec fleet vehicles and during the day for patrons).

## RECOMMENDATIONS

# SITES

2. We recommend, where possible, installing additional “make ready” infrastructure in order to easily expand charging locations. This will be more economic if put in place when you put your first charger in the ground.
3. We recommend co-locating public/employee charging with fleet and e-mobility (bikes, scooters) when possible, especially when use times don’t overlap.
4. Consider locations that will provide benefits to the local economy (locating near local businesses to encourage additional visitation).
5. Consider ADA access to EVSE and locating chargers next to existing ADA spaces.

## RECOMMENDATIONS

# PROCUREMENT

1. We understand that your procurement process can take a large amount of time and effort to execute. We recommend that developing procurement methodology be one of the first steps in this process:
  - i. We recommend obtaining a single resource for both equipment and installation, allow the primary to sub out the work as needed.
  - ii. You should consider any piggy-back opportunities (Sourcewell or State of Georgia contracts).
  - iii. Consider Buy America and Buy American in your RFP. You may need to require this to take advantage of Federal funding, however, both of these requirements may severely restrict supply and negatively impact your timeline.
  - iv. We have gathered several sample RFPs to use in your effort.



## RECOMMENDATIONS

# PROCUREMENT

2. Georgia Power has a Make Ready program that currently has a waiting list. The County should consider getting on the waiting list for appropriate locations since Georgia Power is applying for additional funding soon.
3. Should leveraging an existing contract not be possible, you may wish to establish a purchasing coalition with neighboring counties/cities. This can assist with finding alternative funding sources and procurement.

## RECOMMENDATIONS

# FUNDING

1. Since Gwinnett is installing L2 chargers there are limited sources for grants. Therefore, the funding source would be limited to capital purchase or leasing.
  - i. The decision for this will depend largely if you would rather this be a one-time capital expense or an ongoing operational expense.
  - ii. We recommend this decision be completed in conjunction with the maintenance approach.
  - iii. Installing networked chargers will allow you to collect data that may be required by funding sources.
2. Carefully consider the contingency on project budgets, particularly the site work which will incur most of the cost. Equipment locations within a parking area should be analyzed for cost differentials.



## RECOMMENDATIONS

# FUNDING

3. There are opportunities with third parties to offload the cost of installation by monetizing locations through advertising.
  - i. This would require having the capability to allow advertising at the site location. As an example, Volta provides the installation of charging stations, however, they are very specific on where these locations must be in order to attract appropriate level of marketing.
  - ii. While this is not likely to become a strong revenue stream, it could offset the cost of installation and maintenance.
  - iii. There are opportunities to allow for a blend of primary and secondary locations, in which case, as long as Gwinnett provides a prime location for marketing, then vendors would also install less-desirable locations through the same agreement.



# RECOMMENDATIONS OPERATIONS

1. Many of the organizations we spoke with do not charge for the using EVSE.
  - i. Carefully consider the network fees to determine if the amount charged can reasonably cover expenses, or account for it in your operating expense.
  - ii. Most Level 2 charging stations do not generate enough revenue to offset the network fees and it becomes less economic and more problematic to charge for charging.
  - iii. Regardless of the decision to charge fees, we recommend that all charging stations be networked to monitor the usage and health of the charging stations and open flexibility in the future to implement fees.

## RECOMMENDATIONS

# OPERATIONS

2. Communication is needed when updating changing fee structures.
  - i. Recommend having clear expectations from the start "Charging will be free until 20XX when a fee of \$X.XX will be implemented"
3. Consider any required ordinances that will support towing or ticketing for "ICEing" locations.
  - i. Our recommendation is that you ensure signage installed posts penalties for ICE vehicles parked in a charging location.
  - ii. Unless and until you determine that Level 3 chargers will be installed, penalties for staying beyond the full charge will not be relevant.

## RECOMMENDATIONS

# OPERATIONS

4. Consider logistics of moving a car once is fully charged or the maximum time has been met as other spots may be limited depending on the location.
  - i. Consider efforts to help change the behavior for employees who are usually parked all day that now must move their car during a lunch break.
5. Consider purchasing EVSE with retractable cables because people are unlikely to wrap them after use which could lead to equipment or cable damage.
6. We recommend having a dedicated staff member or other point of contact overseeing the program who has the resources to take maintenance calls and coordinate potential repairs.

## RECOMMENDATIONS

# MAINTENANCE

1. We recommend that an extended warranty be purchased in order to cover the useful life of the equipment. This does not cover for abuse or accident.
  - i. As an alternative, you may consider entering into a contract for installation and maintenance of the equipment. This will offload the burden of maintenance to a third party.
2. We recommend setting aside funding to cover repairs that occur between the warranty period and end-of-life.
  - i. A contracted electrician can provide ongoing maintenance, or there are organizations who would install and maintain for a service fee per month (Juicebox).
  - ii. If Gwinnett intends to use County staff for ongoing maintenance, ensure that there is sufficient manpower and training.

# Gwinnett County Fleet Management

January 2023



Gwinnett





# Fleet Management

- Purchases and maintains >3,000 vehicles and pieces of equipment
- Utilizes onsite parts operation
- Manages 11 fuel sites
- Dispenses >6 million gallons of fuel annually
- Manages surplus sales

# Acquisition

- New units
- Replacement process
- Vehicle Intake



# Maintenance

- 3000 Units
- 26 Technicians
- Light Shop
- Heavy Shop
- Fire Shop





# Asset Disposal

- Internet Auction
- Other property

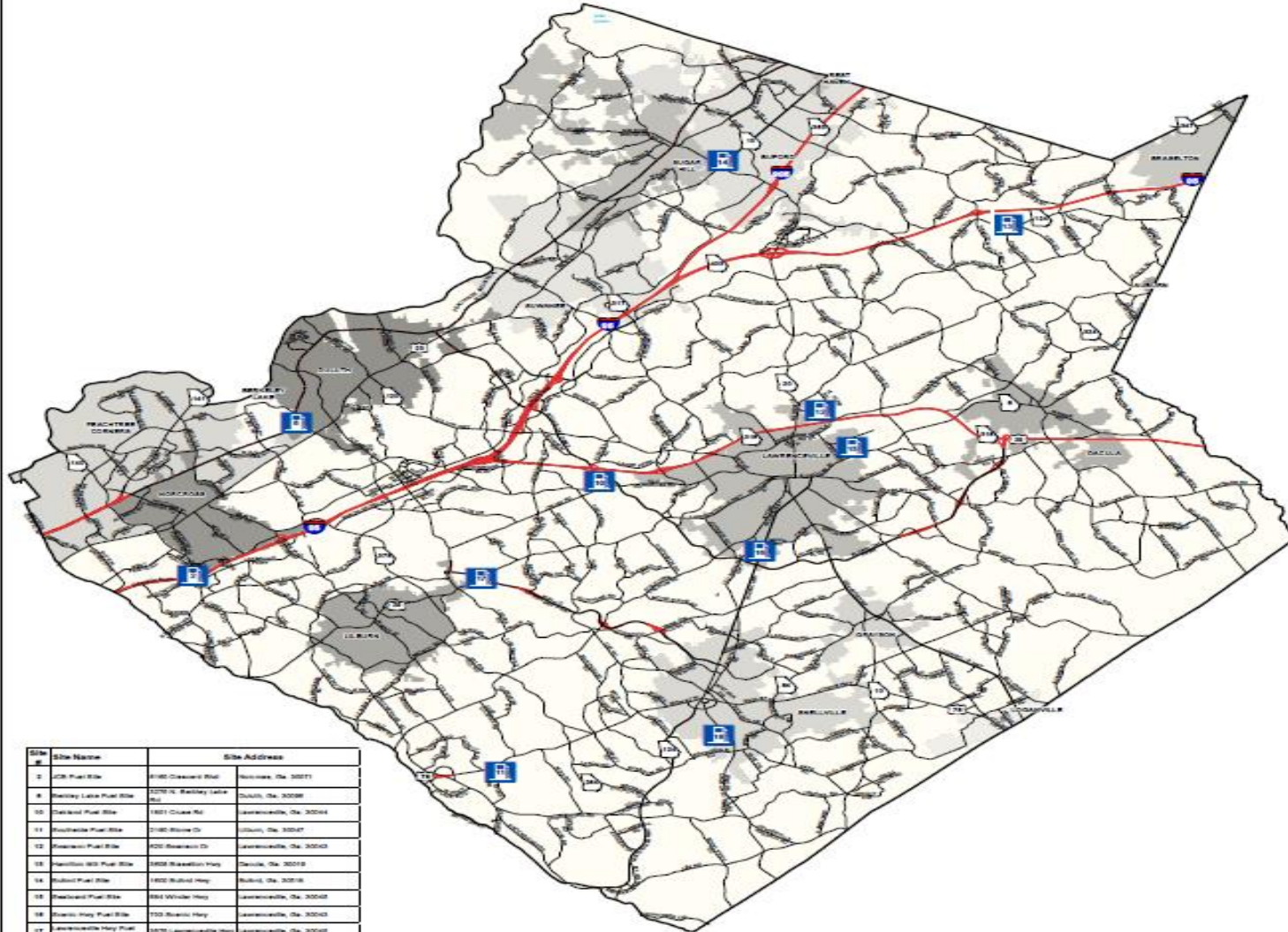


- [www.govdeals.com](http://www.govdeals.com)
- [www.publicsurplus.com](http://www.publicsurplus.com)



# Fuel Management

## GWINNETT COUNTY FUEL SITES



Site #	Site Name	Site Address
1	CCP Fuel Site	6180 Cleveland Rd Lawrenceville, Ga. 30043
2	Wendy Lake Fuel Site	3276 N. Wendy Lake Rd Lawrenceville, Ga. 30046
3	DeKalb Fuel Site	1801 Crane Rd Lawrenceville, Ga. 30044
4	Northside Fuel Site	7180 Stone Dr Lawrenceville, Ga. 30047
5	Lawrenceville Fuel Site	420 Riverside Dr Lawrenceville, Ga. 30043
6	Hamilton Hill Fuel Site	3808 Hamilton Hwy Decatur, Ga. 30031
7	Robert Fuel Site	602 Buford Hwy Atlanta, Ga. 30318
8	Richard Fuel Site	880 Windsor Hwy Lawrenceville, Ga. 30043
9	Kenon Hwy Fuel Site	733 Kenon Hwy Lawrenceville, Ga. 30043
10	Lawrenceville Hwy Fuel Site	1670 Lawrenceville Hwy Lawrenceville, Ga. 30043
11	Wendy Hwy Fuel Site	2820 Wendy Hwy Lawrenceville, Ga. 30043

# Fuel Management

- Dispensed 6,000,000 Gallons in 2022
- Provides for County Vehicles
- Gwinnett County Board of Education

# Sustainable Efforts

## Current

- Purchased Hybrid vehicles
- Purchased electric utility carts
- Oil, batteries, and tires disposed of responsibly



# Discussion