



# National Park Service Emerging Mobility

The transportation industry is evolving at a rapid pace, aided by advancements in mobile and battery technology, new shared mobility business models, vehicle electrification, and testing of automated technologies.

Proactively addressing these transportation trends can help parks around the country support visitors, encourage car-free trips, protect natural and cultural resources, and develop a more efficient and nimble transportation system.

NPS is exploring five key transportation trends that are currently impacting or expected to affect NPS and visitors:

- **Electric vehicles**, including electrification of transit fleets and installation of charging stations.
- **Micromobility**, which includes shared or private electric scooters, bikeshare, or other small, lightweight, wheeled conveyances.
- **Ridehailing** like Uber and Lyft, which can provide additional options and enhanced access, especially for car-free trips.
- **Traveler information technologies** that can provide visitors with information about travel conditions, congestion, parking, and trip planning to help them make more informed travel decisions.
- **Automated vehicle technologies**, which range from driver-assistance features to highly-automated vehicle capabilities.



NPS is advancing emerging transportation technologies through **implementing pilot and demonstration projects** at parks and pursuing **partnerships and information sharing**. NPS is also considering whether any changes to regulations and policy are needed to address the impact of new transportation technologies.

## Pilot Projects

NPS [implemented electric automated shuttle pilots](#) at [Wright Brothers National Memorial](#) and [Yellowstone National Park](#) in 2021. These **automated shuttle pilots**—the first-ever at a recreational public lands site in the country—allowed the NPS to test the suitability of emerging automated vehicle technologies in public lands. The NPS evaluated both pilots to assess how the automated technologies performed in park settings and to consider any potential future use cases across the National Park System.

### National Mall and Memorial Parks



E-scooters staged for use on the National Mall.  
Photo source: NPS

## Pilot Projects Goals

- Identify NPS sites where emerging mobility technologies may address existing challenges.
- Implement 5-10 projects at parks across the topics of micromobility, ridehailing, traveler information technologies, and electric vehicles.
- Collect data and evaluate lessons learned for all pilots.

NPS is also exploring **other types of emerging mobility** projects with dozens of parks. These projects may involve:

- Implementing **electric vehicle charging stations** in partnership with gateway communities.
- Partnering with gateway communities and transportation providers to establish **bike share or scooter share opportunities**.
- Establishing designated **pick-up/drop-off zones for ridehailing**.
- Using technology to display **real-time parking or transit information** in parks, online, or through mobile apps.

These projects will allow the NPS to test out and learn how emerging mobility technologies perform in park settings. The NPS will evaluate any projects and develop resources for other interested parks to learn from these experiences.



Electric automated shuttle at Yellowstone National Park. Photo source: NPS/Jacob W. Frank

## Partnerships and Information Sharing

Since 2019, the NPS Emerging Mobility Working Group has brought together staff and subject matter experts from across the agency and the U.S. Department of Transportation to explore the implications of emerging mobility technologies for resource protection, greenhouse gas emissions, safety, equity, and visitor experience.

Staff from across the NPS are also working together to explore ways to enhance the [NPS smartphone app](#) and other NPS digital products to integrate and provide visitors with trip planning and other transportation-related information.

In April 2022, the NPS signed a Memorandum of Understanding with the State of Michigan to work together to advance emerging mobility and electrification initiatives. Five NPS units in Michigan are participating in the partnership, which seeks to identify mobility challenges and opportunities that can be addressed through emerging mobility pilots in and around NPS units in Michigan.

## Partnerships and Information Sharing Goals

- Continue to leverage expertise on emerging mobility from within NPS and DOT.
- Document and share park experiences with emerging mobility and facilitate peer learning.
- Integrate transportation information into NPS digital products.

For more information on the NPS Emerging Mobility Program, visit the [NPS Emerging Mobility website](#).

<https://nps.gov/subjects/transportation/emerging-mobility.htm>