Clean Mobility Options Voucher Pilot Program

Data Collection Guide for the

Community Transportation Needs Assessment

Clean Mobility Options

California Climate Investments
Cap and Trade Dollars at Work

Contents

Program Support

For questions about this guide and to request individualized technical assistance, please contact:
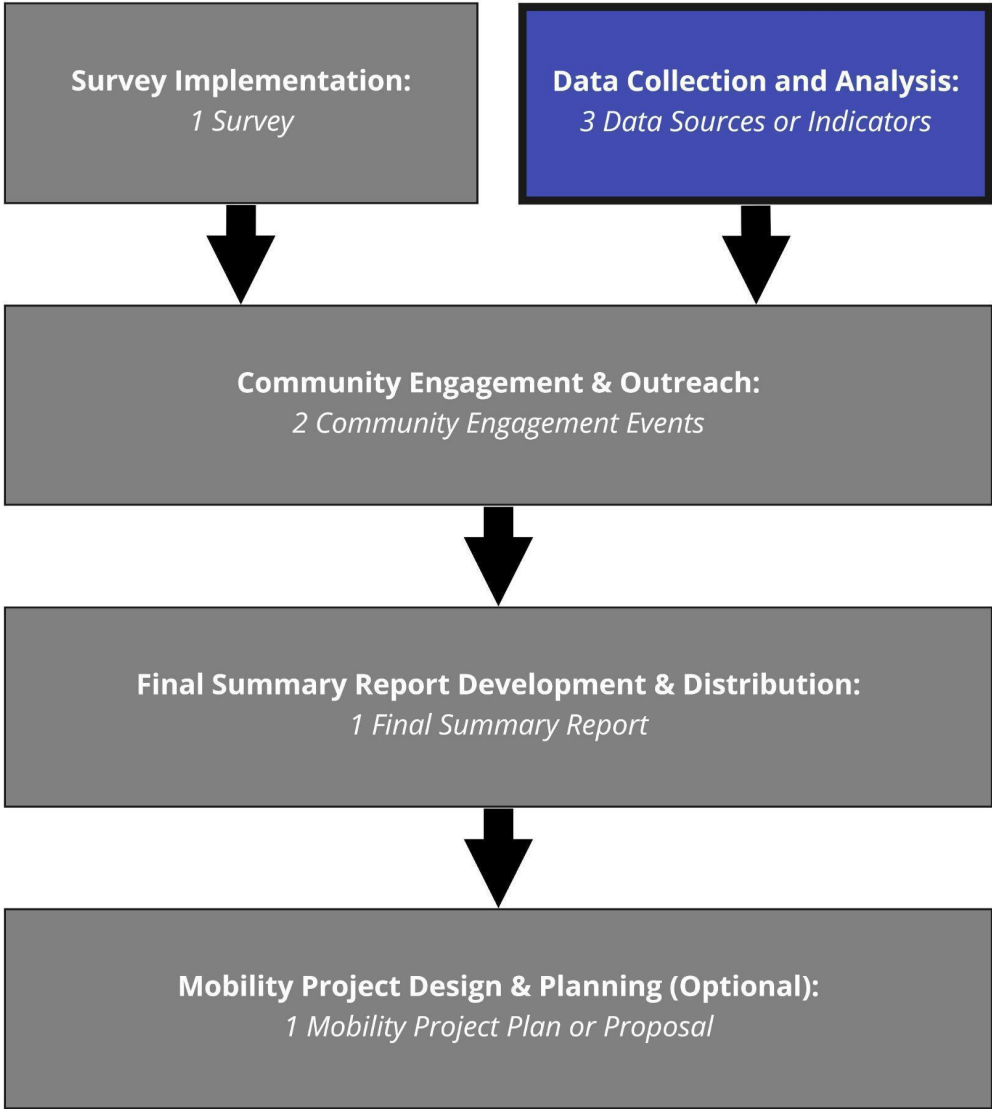
CMO Hotline: 626-744-5670

Available Monday to Friday, 9AM- 5PM Pacific Time

Email: info@cleanmobilityoptions.org

Program Website: www.cleanmobilityoptions.org

Introduction

In order to apply for Clean Mobility Options Voucher Pilot Program (CMO) voucher funding, applicants must conduct a community transportation needs assessment (needs assessment) that identifies clean mobility solutions to community travel needs and preferences. **This guide is intended to help MPV applicants (and awarded CTNA voucher recipients) complete the Transportation Access Data Analysis portion of the needs assessment.** See the graphic below which shows the sequence and required components of the needs assessment process:

```
┌─────────────────────────┐   ┌─────────────────────────┐
│ Survey Implementation:  │   │ Data Collection and     │
│       1 Survey          │   │ Analysis:               │
│                         │   │ 3 Data Sources or       │
│                         │   │ Indicators              │
└───────────┬─────────────┘   └───────────┬─────────────┘
            │                             │
            ▼                             ▼
┌─────────────────────────────────────────────────────────┐
│         Community Engagement & Outreach:                 │
│            2 Community Engagement Events                  │
└───────────────────────────┬─────────────────────────────┘
                            │
                            ▼
┌─────────────────────────────────────────────────────────┐
│    Final Summary Report Development & Distribution:      │
│                1 Final Summary Report                    │
└───────────────────────────┬─────────────────────────────┘
                            │
                            ▼
┌─────────────────────────────────────────────────────────┐
│     Mobility Project Design & Planning (Optional):       │
│            1 Mobility Project Plan or Proposal           │
└─────────────────────────────────────────────────────────┘
```

The data collection process provides essential information in understanding the transportation landscape of the community. In conjunction with the outcomes and results of the survey, transportation access data sources should show insights about the community's access to transportation options, the reliability of transportation options, the safety of existing transportation infrastructure, or the affordability of transportation. Since data from online sources have different purposes, may present data in various formats, and tend to bias urban communities, it is important to be aware of what information it can and cannot provide. In addition to online data sources and data obtained from transportation agencies, the guide also goes through on-the-ground data collection methods for communities where online data sources are less reliable or have limited data available.

How to use this Guide

This guide includes a list of potential data sources to use and an explanation of various transportation access characteristics and specific indicators. The accompanying Data Collection Guide Appendix provides a thorough walkthrough of specific data sources and step-by-step instructions on how to obtain your desired data points.

The Survey Guide should be used in conjunction with the Data Collection Guide to develop cohesive goals and strategies in understanding the transportation gaps and needs of the community. Information not asked for in the survey can be supplemented by data found in the various data sources or indicators or information not found in the data sources or indicators can be collected through targeted survey questions.

The Transportation Access Data survey and indicator analysis should include a clear understanding of how the findings from the accessibility indicators impact the community and how the findings from the accessibility indicators connect to survey responses provided by the community to uncover the mobility challenges the community faces. The analysis will provide a baseline understanding of travel behavior and gaps in transportation access in the proposed project area that can then inform the Community Engagement portion of the needs assessment.

The Program Administrator recognizes the need for flexibility in the transportation access data sources given quality publicly available data may not be available for all areas such as tribal lands and rural areas. As such, applicants and Awardees are encouraged to contact the Program Administrator for guidance on using additional data sources not listed in this guide.

Data Sources

Recommended Data Sources

Listed below are data sources mentioned by the Implementation Manual and recommended by the Program Administrator. Project leads can explore each of the data sources or review the key characteristics and indicators and use the relevant data sources. The accompanying Data Collection Guide Appendix provides in-depth information on each data source and step-by-step instructions on how to use each data source.

1. Google Maps
2. US Census

3. [Census OnTheMap (LOHD-LODE)](#)
4. [EPA Walkability Index](#)
5. [AllTransit](#)
6. [H + T Index](#)
7. [Transportation Injury Mapping System (TIMS)](#)
8. [People for Bikes Bicycle Network Analysis (BNA)](#)

On-the-Ground Data Collection

With the data sources listed above, there may be limitations on how accurate or representative information is for certain communities, such as tribal lands or rural areas. On-the-ground collection methods may require more time and effort, however they may provide more accurate and up-to-date information that cannot be found elsewhere.

These strategies can be used alongside the resident surveys and used to supplement or verify information found in other data sources. Depending on how these data collection methods are conducted, if they involve community members and encourage discussion of findings, observations and experiences as related to transportation needs and mobility solutions, some of the activities listed below can also count as community engagement. Applicants and Awardees are encouraged to contact the Program Administrator for guidance or clarification on how to differentiate what activities meet the requirements for Transportation Access Data Analysis and Community Engagement.

1. Walk or Bike Audit
2. Community or Asset Mapping
3. MPO or COG
4. Local Transit Provider
5. On-the-Ground Observations

Additional Data Sources

Applicants may look at additional data sources when conducting their transportation access data analysis. The Program Administrator recognized the need for flexibility around data sources. Listed below is a sample of additional data sources that can provide supplemental information to help understand transportation challenges and gaps. They focus on indicators related to the community's access to certain services such as food, outdoor recreation, or education or that provide a different perspective on transportation needs through a health or equity lens.

1. [AAA Gas Cost Calculator](#)
2. [Food Access Research Atlas](#)
3. [Park Access Tool](#)
4. [California School Campus Database](#)
5. [Zero Emission Vehicle and Infrastructure Statistics](#)
6. [The California Healthy Places Index](#)
7. [National Equity Atlas](#)
8. [Transportation Disparities Mapping Tool](#)

Key Characteristics and Indicators

Before starting the transportation access data analysis, applicants should be aware of how the intersection of **accessibility, reliability, and affordability determines mobility patterns**. Transportation planning and mobility solution finding is not a one-size fits all approach. These three characteristics, along with invaluable community input, can help project teams prioritize which data to collect, how to collect the data, and which engagement methods to use during the community engagement process of the needs assessment. Below we discuss these three characteristics and how they can help with the transportation access data analysis. Each of the key characteristics include specific indicators, corresponding questions and relevant data sources to support your assessment.

Accessibility

Accessibility measures access to opportunities and vital services in a given area. For instance, an area where transportation options connect more seamlessly to jobs, education hubs and vital services like healthcare and food is deemed more accessible than an area that requires vehicles to access vital services. Consider the following accessibility indicators:

Transportation Options	Communities that have multiple transportation options available such as public transit, personal vehicles, bike/scooter share, and rideshare that reach a wide geographic range or multiple routes that reach vital services show increased accessibility.
Questions: ● Which transportation options are currently available? ● What types of options are available for vital services for commuting and recreation? ● What is vehicle ownership per household? ● What shared mobility services already exist within the community?	
Relevant Data Sources: ● US Census ● AllTransit ● MPOs/COGs ● Local Transit Providers	

Walkability	Communities with transportation infrastructure such as well-paved and wide sidewalks and crosswalks, shade trees, adequate street lighting, nearby public transit stops, and close proximity to community amenities tend to be more walkable.
Questions: ● How walkable are different neighborhoods or regions? ● What is the quality of the sidewalk and street infrastructure? ● How safe is walking? Are there intersections or streets that see more pedestrian collisions than others?	

Relevant Data Sources:
- [EPA Walkability Index](#) (part of the [Smart Location Mapping](#) toolset)
- On-The-Ground Observations
- Walk Audits
- [Transportation Injury Mapping System (TIMS)](#)

Job Access	Communities where job opportunities are nearby and commutes are shorter increase job access to those with limited transportation options.

Questions:
- How close are job opportunities relative to where people live?
- How long does it take for people to commute?

Relevant Data Sources:
- [Census OnTheMap (LOHD-LODE)](#)
- [AllTransit](#)
- Surveys

Unbanked Options	Not all community members have a bank account, debit card or credit card. Additional payment options for users who prefer to or are only able to use cash makes transportation services more accessible.

Questions:
- What options are available for unbanked community members to access mobility options?
- Are those options readily and publicly available?

Relevant Data Sources:
- Local Transit Providers

No Smartphone Options	Not all community members have access to smartphones or are able to or comfortable using smartphone applications. The availability of additional options for users such as a separate transportation card, a toll-free phone number, in-person assistance or kiosks can increase accessibility.

Questions:
- Are there options for community members without smartphones to access mobility options?

Relevant Data Sources:
- [US Census](#)
- Local Transit Providers

Safety

Safety is also an important element in accessibility – some residents' overall access to opportunities and vital services may diminish because they do not feel comfortable walking on a street, taking a particular route, or being in a particular place at a particular time. Consider the following safety indicators:

Public Transit Safety	Public transit that provides well maintained transit stops and stations, safe surrounding areas, and procedures to address harassment or potential injury increases safety of its users and increases accessibility.

Questions:
- Are there travel challenges for people based on factors such as gender or age?
- How safe are areas around bus stops or other transportation hubs and/or routes to transportation options?
- Are routes and areas to and around transportation options well-lit and surrounded by shade?

Relevant Data Sources:
- On-the-Ground Observations
- Local Transit Providers
- MPOs/COGs

Bike Safety	Communities that have designated and protected bike lanes allow bike users to feel more comfortable and confident riding in the streets and reduce the number of bicycle injuries and fatalities. Increased bike safety also encourages younger children, older adults and more women to bike.

Questions:
- Are there designated and/or protected bike lanes that make it safe for cyclists?
- Are streets and sidewalks in good repair?
- Are there high levels of bicycle incidents? Bicycle fatalities?
- Are there convenient and sturdy bike racks near community amenities? Are they in well-lit and high trafficked areas?
- Is there signage about safety? "Share the Road," "Bike may use full lane" etc.

Relevant Data Sources:
- Bike Audit
- People for Bikes Bicycle Network Analysis (BNA)
- Transportation Injury Mapping System (TIMS)

Crime and Injury	High levels of crime and traffic incidents affect how safe community members feel in certain locations or using certain transportation options.

Questions:
- How safe are different transportation options?
- Are there security cameras?
- Is there a high rate of crime or violence in or near the project area?
- Are there high levels of traffic incidents?
- What is the level of pedestrian or bicycle fatality?

Relevant Data Sources:
- Transportation Injury Mapping System (TIMS)

● City or County Open Data Libraries	

Overpolicing	Community members that feel overpoliced may not feel comfortable walking, biking, taking transit or driving in their community. This may disproportionately impact Latino, Black, and unhoused community members.
Questions: ● Do residents feel overpoliced when walking, biking, or taking transit in their communities?	
Relevant Data Sources: ● CMO CTNA Survey Guide	

ADA Accessibility

Finally, applicants should also consider how accessible particular areas are to individuals of all backgrounds. Pay close attention to the following indicators and considerations of the **Americans with Disabilities Act (ADA)**:

Physical Abilities	Transportation services are often designed with the average, able-bodied individual in mind. Transportation services that are accessible for different bodies and physical abilities increase ADA accessibility.
Questions: ● What physical abilities are required for different types of transportation options? ● Is there wheelchair access? How about access to elevators? ● Are there benches or seats available near bus stops or transit stations?	
Relevant Data Sources: ● On-the-Ground Observations	

ADA Service	ADA requires certain accommodations to ensure that community members with disabilities are able to use transportation services.
Questions: ● Where elevators are available? Are they frequently out of service? ● If so, how does this affect people with limited mobility or families with strollers, etc.? ● Are there ramps and ADA compliant parking spaces?	
Relevant Data Sources: ● On-the-Ground Observations	

Street Quality	Street quality near transportation options such affects ADA accessibility. When pavement of streets and sidewalks near transportation options is well maintained, wide with ramps they support the needs of disabled individuals.

Questions:
● What is the quality of street pavement for routes typically used for accessing transportation options?

Relevant Data Sources:
● Walk Audit

Reliability

Reliability measures how much people can depend on different transportation options to safely and conveniently move around their community. For instance, an area can have plenty of transit nearby, but if it is constantly dirty, broken, or residents don't know about it, then it may not be reliable. When reviewing the **reliability** of transportation options, applicants should consider the following indicators:

Transit Routes	When community members are aware of available transportation services and routes include multiple stops and cover different areas of the community or region, transportation reliability is increased.

Questions:
● Do community members know about transportation services?
● Are transportation services and routes limited?

Relevant Data Sources:
● Local Transit Providers
● AllTransit

Transit Frequency	Public transit that have more frequent services with shorter wait times, that come on time, and have limited technical challenges increase the reliability of their service.

Questions:
● Are transportation services frequently late?
● Do community members trust the services to be available when required?
● Do transportation services break down often?
● Are travel and wait times equally as long?

Relevant Data Sources:
● Local Transit Providers
● On-the-Ground Observations
● Surveys

Transit Quality	Transit stations or bus stops where nearby streets or sidewalks are closed, sidewalk infrastructure is poor, or there is other construction that causes delays or unnecessary noise affect the reliability of that specific transit stop.

Questions:

	● Are streets or sidewalks often closed or inaccessible because of poor infrastructure? ● How well-maintained are the transit stops or stations? ● How well maintained are the spaces within the bus or transit system?
Relevant Data Sources: ● On-the-Ground Observations	

Affordability

Finally, affordability measures the cost of mobility in comparison to people's income and other needs (healthcare, school, food, etc.) in the household. When reviewing the **affordability** of transportation options, applicants should consider using the indicators to explore the answers to the following indicators:

Transportation Costs	Transportation costs are usually the second highest household expense after housing. Lower transportation costs for all modes of transportation increase the affordability and accessibility of different transportation options.
Questions: ● How much does it cost for different modes of transportation (walking, biking, driving, scooters, mopeds, transit – including shared options)? ● Are costs the same for everyone regardless of sex and age?	
Relevant Data Sources: ● Local Transit Providers ● MPOs and COGs	

Driving Costs	When vehicle and driving costs are high, many low-income community members cannot afford multiple personal vehicles per household and must find alternative transportation options such as carpooling, walking, biking, or taking public transit.
Questions: ● What is the cost for driving a vehicle?	
Relevant Data Sources: ● AAA Gas Cost Calculator ● H + T Index	

Median Household Income	Median income for a community can show how much expendable income the average community members can spend on transportation. Lower median income forces community members to spend more of their income on transportation needs.
Questions: ● What is the median income for the average household in the community?	

● What percentage of people's income is spent on transportation?

Relevant Data Sources:
- [US Census](#)
- [H + T Index](#)