

# TRANSPORTATION EMERGENCY PREPAREDNESS PLAN

## Technical Memorandum

Prepared for



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# INTRODUCTION

## 1.0 INTRODUCTION

### 1.1 Technical Memorandum Overview

Due to the devastation caused by recent disasters such as the Thomas Fire and January 9th Debris Flow Event, Ventura County Transportation Commission (VCTC), in partnership with the Santa Barbara County Association of Governments (SBCAG), applied for and received a Caltrans Adaptation Planning grant to develop a Transportation Emergency Preparedness Plan (TEPP) for Ventura and Santa Barbara Counties. Claris Strategy, in association with Terra Firma Enterprises and CPARS Consulting, was selected to develop the TEPP.

The TEPP project goals are to:

- Develop an all-hazards transportation emergency preparedness plan
- Respond to the needs of the communities quickly and effectively
- Assist with planning for transportation needs during emergency events, especially for disadvantaged and vulnerable populations, including during evacuation warning periods
- Help support transit agency management during disasters
- Enhance emergency communication, coordination, and collaboration with all agencies

This Technical Memorandum is a supplementary document to the Transportation Emergency Preparedness Plan. This document 1) provides a summary of findings that informed the development of the TEPP, 2) identifies areas for improvement for stakeholders in both counties and 3) provides recommendations for VCTC and SBCAG to help improve and sustain the transportation emergency preparedness efforts for Ventura and Santa Barbara Counties into the future.

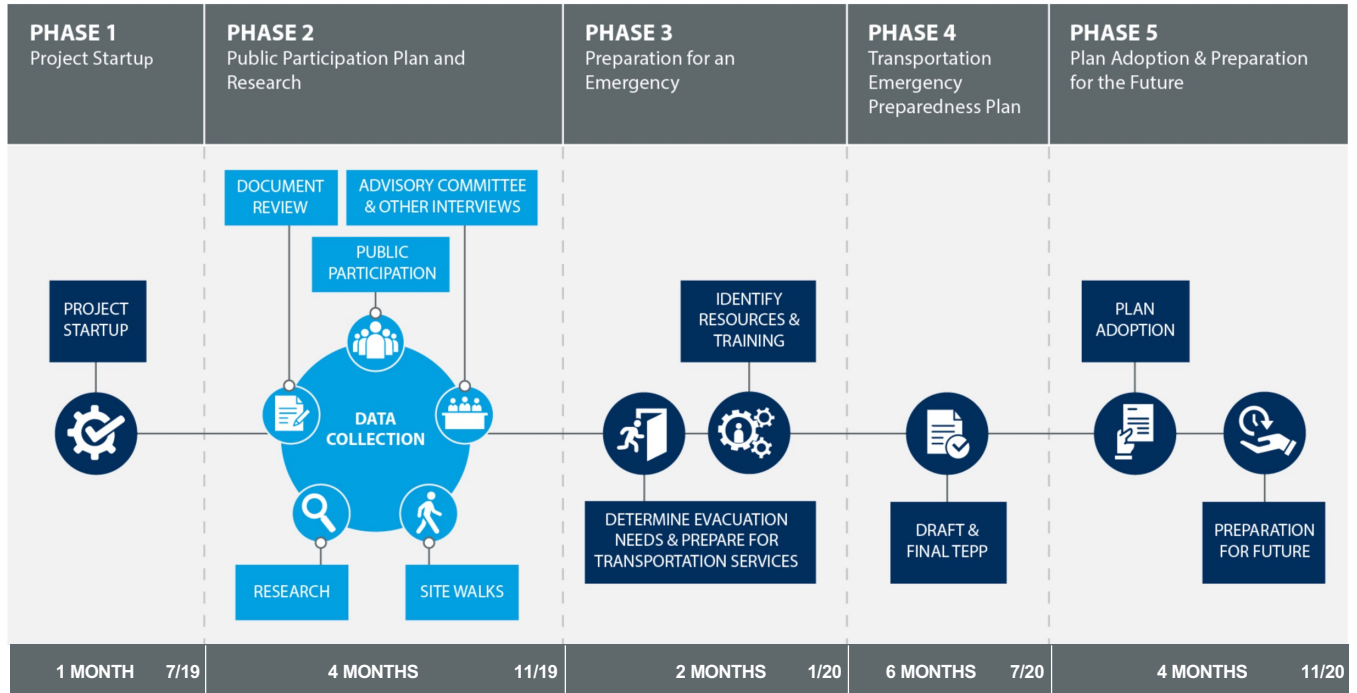
### 1.2 Project Process

The Claris Strategy team followed a multi-phased process for developing the TEPP and the Technical Memorandum. The phases, as depicted in the following diagram, were:

1. Project Startup
2. Public Participation and Research
3. Preparation for an Emergency
4. Transportation Emergency Preparedness Plan
5. Plan Adoption and Preparation for the Future

Specific to this document, Phase 2, the Public Participation and Research Phase, was central to developing the findings and recommendations. The team used multiple methodologies to assess current emergency preparedness in both Counties and research best practices and lessons learned in other related areas of the country.

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These methodologies included:

- Formation of a TEPP Advisory Committee comprised of key stakeholders with respect to transportation in both counties and facilitation of meetings to provide guidance and feedback to the project team in the development of the TEPP
- A Bus Rider survey for transit riders to provide input on their transportation needs during an emergency
- A website to inform the public of this project and to elicit input for their questions and concerns
- Group and one-on-one interviews with stakeholders in both counties
- Research of current transportation emergency standards, guidance, and planning approaches
- Research and analysis of transportation emergency plans from agencies across the country
- Site visits to RATP Dev/Roadrunner's transit operations facilities, Ventura County Sheriff's Office of Emergency Services' Emergency Operations Center, and Santa Barbara County Office of Emergency Management's Emergency Operations Center

At the conclusion of this research, a findings summary was presented to the TEPP Advisory Committee members and feedback was incorporated into the team's approach. Recommendations were developed based on opportunities identified for improvement.

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## 1.3 Assumptions

The following assumptions were used for this document:

1. This document is a supplementary document to the Transportation Emergency Preparedness Plan. The document should only be considered informational.
2. The research information contained should be considered a snapshot in time. Conditions and subsequent actions taken may have changed the currency of the information.
3. The Bus Rider Survey information contained herein was not conducted using a scientific methodology (in accordance to the scope of work) and should not be considered as a representative sampling of information from transit riders in Ventura and Santa Barbara Counties.

# FINDINGS

## 2.0 FINDINGS

### 2.1 Introduction

In this section, a summary of key findings is provided. These findings cover the following topics.

1. **Bus Rider Survey**  
A survey of bus riders in Ventura and Santa Barbara Counties on transportation needs during an emergency.
2. **Assess the Current Situation**  
Research on the current state of emergency preparedness in Ventura and Santa Barbara Counties.
3. **Research Other Agencies' Experience with Emergencies**  
Research on best practices and lessons learned from County and transportation agencies across the nation.
4. **Determine Potential Institutional Arrangements**  
Analysis of the contractual agreements for transportation agencies in place and identification of contractual agreements, memorandums of understanding, and memorandums of agreement that may benefit agencies in emergencies.
5. **Research Communication Needs**  
Research of transit intra-agency, interagency, and agency-to-public communication and identification of opportunities for improvement.
6. **Inventory and Assessment of Transportation Assets**  
Assessment of transportation asset inventories currently in place and identification of areas for improvement.

The project team researched these topics, conducted a SWOT (strengths, weaknesses, opportunities, and threats) analysis and summarized the key findings.

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## 2.2 Bus Rider Survey

A Bus Rider survey was conducted for both Ventura and Santa Barbara Counties. Various means were used to conduct the survey in order to capture as much relevant data as possible so the public's needs and concerns could be properly incorporated into ongoing and future planning efforts. These means included in-person interviews conducted at transit locations as well as an online survey which was available through the project website [tepp-vctc.org](http://tepp-vctc.org) and onboard buses in both counties.

An eighteen (18) question survey was developed. This survey was not intended as a scientific survey with random sampling, but as a means for the bus riding public to express opinions and to capture anecdotal information. Topics of information obtained included:

- Frequency of use of public transportation and the purpose of trips
- Participant's dependency on public transportation
- Availability of various types of communication systems for notification relating to service, as well as participants' preferences
- Needs for assistance during evacuations and emergencies

Surveys were produced in English, Spanish, and Mandarin. Two thousand survey cards were distributed in Ventura County and fifteen hundred survey cards were distributed in Santa Barbara County.

### 2.2.1 Survey Responses

There were 316 total surveys completed through in-person surveys and through the website. Of these surveys:

- Responses from each County

Ventura	268
Santa Barbara	35
Did not identify area	13

- Online vs. Onboard Surveys

Online	248
Onboard	68

Additional bus survey data is located in Appendix A-2: Bus Survey Charts.

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Although the survey was not intended to be a scientific study, the findings indicate possible needs for bus riders during an emergency:

1. A large number of respondents are Spanish speakers (33%). Emergency communications must be prepared and disseminated in at least English and Spanish.
2. Although many respondents use the bus as their primary form of transportation (37.5%), personal automobiles remain a more common primary mode on a daily basis (49.2%).
3. A sizeable percentage of respondents need transportation evacuation help in an emergency (35.5%).
4. Respondents with disabilities and functional needs expressed a need for evacuation help with mobility (15.8%) and small children (13.0%). Transit and paratransit agencies should be prepared to accommodate these needs.
5. During an emergency, many respondents (44%) felt there were not enough buses on their routes. This can be an indication that regular bus service is affected during an emergency. Transit agencies should revisit their continuity of operations plans to identify if this has occurred in the past and how continued operation outside of the disaster can be accommodated.
6. Respondents identified various modes of communications to learn about an emergency. This confirms the best practice that emergency notifications should use multiple means of communications to reach customers and the general public.
7. While at home, respondents prefer to be contacted via cell phones (40.1%) and computer/internet (37.5%). For these respondents, emergency notifications during non-business hours will have a much greater likelihood of success using these communication channels as opposed to broadcast and satellite/cable TV broadcasts. However, other modes of communication should also be used for the populations that are not proficient in cell phones or computers.
8. The preferred choice for evacuation notification by respondents is text messaging, most likely because of the predominance of cell phone/text usage. For emergency evacuation notification, text messages should be one of the primary methods for sending notifications. However, the small percentages that still use landlines (3.7%) should not be ignored.

This information from the survey helped inform the development of the Transportation Emergency Preparedness Plan. Additionally, survey data will provide some guidance for current and long-term considerations relating to emergency preparedness planning for both the transit agencies involved in the two counties, as well as Operational Area (OA) planning for County Office of Emergency Management/Services (OEM/OES) and other County departments.



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## 2.3 Assess the Current Situation

To assess the current situation, the planning team gathered information using various methods:

1. An Advisory Committee was formed comprised of stakeholders in Ventura and Santa Barbara Counties and a series of meetings were held.
2. Presentations and discussions were conducted with key transportation groups:
  - SBCAG and VCTC
  - Santa Barbara County's Technical Transportation Advisory Committee (TTAC)
  - Ventura County's Transit Operators Advisory Committee (TRANSCOM)
  - Santa Barbara Transit Operators
3. Extensive one-on-one stakeholder interviews were conducted including:
  - Ventura County Sheriff's Office of Emergency Services
  - Santa Barbara County Office of Emergency Management
  - VCTC Transit
  - SBCAG Clean Air Express
  - Santa Barbara MTD
  - Santa Maria Transit
  - Gold Coast Transit District
  - Thousand Oaks Transit
  - RATP Dev/Roadrunner
  - MV Transportation
  - Easy Lift
  - Mobility Management Partners
  - LOSSAN
  - Metrolink
  - Caltrans District 5 and Caltrans District 7
  - Ventura County Health Care Agency - EMS
  - Ventura County Human Services Agency
  - Santa Barbara County Public Health
  - Independent Living Resource Center
  - 211
  - CSU Channel Islands
  - University of California Santa Barbara
  - Ventura County Schools Self-Funding Authority
  - Ventura County VOAD
  - Santa Barbara County VOAD

### 2.3.1 Strengths

The various transit and transportation agencies, as might be expected, currently demonstrate very different states of preparedness. However, most

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of these agencies, much to their credit, have already taken many steps necessary to enhance their preparedness.

Among the strengths of the efforts of each county's transportation efforts are:

1. Good available transit resources and a history of collaboration between agencies.
2. Good communication among transit agencies including regularly scheduled meetings.
3. Well-developed connections with County OEM/OES (VCTC and SB MTD).
4. A transportation position exists in Ventura County's EOC.
5. Good coverage and strong commitment to paratransit in both Counties.
6. Most municipal transit agencies are integrated into Cities' EOCs.
7. Some transit agencies have begun to prepare Emergency Standard Operating Procedures (SOPs).
8. Databases of ADA-certified persons are kept up to date in both Counties.
9. Direct coordination between Paratransit needs and resources in an emergency in SB County.
10. Private contractors supporting transit agencies can move quickly with less "red tape."
11. Private contractors are committed to helping in an emergency.
12. Some MOUs/MOAs and informal agreements are in place between agencies.
13. Strong commitment to improvement for emergencies by VCTC and SBCAG.
14. Some transit agency staff trained in ICS/NIMS/SEMS.

### 2.3.2 Areas for Improvement

There are currently a number of areas of preparedness that can be improved within the region. These areas which need improvement include:

1. Transit emergency plans and emergency SOPs do not exist or are not up to date in most agencies.
2. Communication and coordination procedures during emergency events are not formally defined.
3. Agencies are too reliant on personal connections (i.e. methods currently used rely on personal affiliations, not protocols built into the operating systems, which would be preferred so personnel changes will not impede response capabilities).
4. Many transit agency staff have not received training for emergency events.
5. Private contractors are used extensively throughout both counties but are not obligated to respond during emergencies by their respective contracts.

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6. Emergency response to vulnerable communities is fragmented, in part because multiple databases of vulnerable communities exist in various agencies (e.g. ADA certification, EMS, social services, 211), but there does not appear to be a single point of contact for this information. This challenge is more of a County OEM/OES issue.
7. No single point of contact exists to provide a means of coordinating transportation resources including rail transport (e.g. Metrolink, Pacific Surfliner, Union Pacific), road (e.g. Caltrans, CHP, Public Works Departments), air transport, sea transport, and private sector resources.
8. Rail organizations are not directly engaged in the emergency preparedness planning process. However, during large-scale evacuations the rail organizations could be helpful.
9. Health departments' roles, responsibilities, and processes for providing emergency transportation needs of vulnerable communities in Ventura County are unclear. As an added complication, some private contractors providing transportation services in the region have direct MOUs/MOAs with health departments which may conflict with overall county transportation goals.

### 2.4 Research Other Agencies' Experience with Emergencies

Extensive interviews were conducted both within the region and elsewhere in the United States. The following is a list of those agencies and their locations. Under the Recommendations Section is a list, entitled *Implementation of Best Practices and Lessons Learned*, incorporating many of the ideas derived from discussions with the following agencies:

- Los Angeles County Office of Emergency Management
- Orange County Transportation Authority
- Access Services Los Angeles
- San Diego County Office of Emergency Management
- King County, Washington State
- San Francisco City/County, California
- City of Galveston, Texas

#### 2.4.1 Documents Reviewed

During the course of research, multiple resources were reviewed and existing plans and guidance consulted in order to improve the overall planning process. Since only general guidance is provided by the FTA, FEMA, and APTA, existing plans from agencies that share similar issues relating to Ventura and Santa Barbara Counties were researched to provide real world and best practices applications for the TEPP.

Communication and coordination of resources are central tenets incorporated into these plans for a cohesive emergency response. For Ventura and Santa Barbara Counties, both have established strong foundations for a cohesive emergency transportation preparedness approach.

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Additionally, each County's OEM/OES is receptive to improving this process and is willing to incorporate transportation partners into its approach.

Below is a partial list of the documents reviewed. A full listing is included in the Appendices:

- King County (Washington) Regional Coordination Framework (2014)
- Portland (Oregon) Evacuation Plan (2017)
- Massachusetts Statewide Evacuation Coordination Plan (2019)
- City of Galveston (Texas) Annex E Evacuation (2016)
- San Diego County Operational Area Emergency Operations Plan Annex Q Evacuation (2014)
- California State Emergency Plan (2017)
- San Francisco Bay Area Regional Mass Transportation Evacuation Plan (2011)

### 2.4.2 Best Practices and Lessons Learned

Based on the research and interviews with local and non-local agencies, following are some best practices and lessons learned that Ventura and Santa Barbara Counties and their transportation agencies should consider.

#### 1. Transportation/evacuation plans developed at County and City level with support from transportation agencies.

The County, Operational Area, and cities have the ultimate responsibility for coordinating emergency response and recovery in their jurisdictions and are responsible for developing transportation and evacuation plans. Transportation agencies such as VCTC, SBCAG, transit districts, and city transit agencies should support the development of these plans. Guidance for developing these plans can be found from sources such as the Federal Emergency Management Agency (CPG-101, <https://www.fema.gov/media-library/assets/documents/25975>) and the American Public Transportation Association (APTA Standards Development Program Recommended Practice: Regional Emergency Planning and Participation in Mutual Aid).

#### 2. Develop a cohesive transportation emergency preparedness approach with all agencies working in concert together.

This best practice ensures that all necessary and relevant agencies work together to ensure that a realistic approach to capability and planning occurs in the jurisdiction. The TEPP is a clear example of key stakeholder agencies directly involved in the development of the plan.

#### 3. Develop formal emergency plans, protocols, and Standard Operation Procedures (SOPs).

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Formal written plans preserve institutional knowledge which ensures greater capability for emergency and disaster response.

- 4. For evacuations, when possible or foreseeable, evacuate early.**  
This lesson learned (from Galveston, TX) is relevant not because the emergency is likely to be the same, but because limited roadways may inhibit the ability of remote areas to evacuate in the case of wildfires, flooding, and other types of emergencies.
- 5. Build trust with the public to overcome resistance from the community. Communicate openly, honestly, and often. Enlist allies (local press, social media, and community leaders).**  
The Government's ability to effectuate emergency response critically relies on the public's trust in that same government. Trust from the public, that may need to be displaced, needs to be cultivated.
- 6. Create Crisis Communication Plans with pre-scripted messaging.**  
Consistent messaging is very important, not only to continue building the trust mentioned above, but also to have clear statements to the public. Without pre-scripted messaging, transit agency messaging may need to be developed at the time of an emergency, which could lead to inconsistent, unclear messaging and delayed communication.
- 7. Establish MOUs/MOAs prior to the emergency**  
MOUs/MOAs and other types of force multipliers should be agreed upon in advance so that each agency knows their role, expectations, and requirements when used.
- 8. Establish primary and redundant communication channels.**  
Single points of failure or limited capacity can impede or prevent necessary response to emergencies. Communication through a single type mode or a single system makes response entirely reliant on the continued ability of that mode or system to work. If that system or mode fails, effective emergency response is at risk.
- 9. Utilize all available communication channels for public communication including traditional media, social media, apps, and websites (dark sites).**  
No single form of communication is consistently received by the public. As a result, multiple forms of communication enhance the possibility that the message being delivered is received. An advanced best practice is the use of a website that is brought up only for emergencies (i.e. dark site). When an emergency occurs, the agency redirects internet traffic to the emergency web site.
- 10. Provide regular coordinated training and exercises.**  
Training and exercises allow responders and support staff to work together in a lower stress environment to strengthen their ability to

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operate, understand each other, and rehearse their respective capabilities during an emergency.

### **11. Identify alternate transportation routes for areas isolated during disasters.**

Transportation agencies must be adaptable to varying road availability and conditions. Pre-identification of alternate routes, particularly in areas of limited access, can speed up recovery and reduce the time required to evacuate or transport people.

### **12. Understand transportation route capacities.**

During the planning process, alternatives should be developed for routes that have limited capacities. When creating emergency transportation plans, capacity data helps in the development of more executable plans.

## **2.5 Determine Potential Institutional Arrangements**

The distinction between mutual aid and mutual assistance is normally considered to be whether the provider of support anticipates payment for the provision of assistance. A Mutual Assistance Agreement will address provisions for compensation from the recipient of support to the provider of the support under the Agreement. Mutual Aid/Assistance is used when an agency has committed most of its resources and may not be able to perform those tasks necessary to complete its responsibilities and assigned duties without help from another agency. Following are types of institutional agreements:

### **1. Local Mutual Aid/Assistance**

Agreements between neighboring jurisdictions or organizations that involve a formal request for assistance. These are the types of Agreements contemplated to augment the Emergency Plans for both VCTC and SBCAG.

### **2. Agency to Agency MOUs/MOAs**

This type of agreement, between individual agencies, can be utilized during regular operations, and may also contain provisions relating to emergency operations. The importance of MOUs/MOAs stems from determining in advance the method and means by which separate agencies will work together during a certain set of circumstances.

### **3. State or Regional Mutual Aid/Assistance Agreements**

This type of agreement is between differing state or regional agencies and is designed to be implemented during response to and recovery from emergencies. It defines the roles and responsibilities of each member as it relates to the requesting and supplying of resources (both material and personnel) or other resources as determined by the needs and capabilities of the agencies involved (e.g. The California Master Mutual Aid Agreement).

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Due to the unique and specific nature of transportation, mutual aid/assistance agreements between transportation agencies (e.g. TransMAC, the California Transit Mutual Assistance Compact) consider the operation and needs of these types of agencies.

#### 4. **Agreements between the Transit Providers/Authorities and their Contractors**

Strictly speaking, this is not a MOU or MOA. The contract between a contractor operating a transit system or providing transit service on behalf of the transit provider, should contemplate their role during an emergency or extraordinary circumstance. Additional commitments during emergencies or extraordinary circumstances between the contracting parties should be addressed to minimize service disruption.

#### 5. **Other Agreements**

Any agreement, whether formal or informal, used to request or provide assistance and/or resources among jurisdictions at any level of government, nongovernmental organizations (NGOs), or the private sector.

Jurisdictions should be party to agreements with the appropriate jurisdictions and/or organizations (including NGOs and the private sector where appropriate) from which they expect to receive or to which they expect to provide assistance. Authorized officials from each of the participating jurisdictions and/or organizations should collectively approve all mutual aid and assistance agreements.

Memorandums of understanding or memorandums of agreement are needed with the private sector and NGOs including community-based, faith-based, and national organizations to facilitate the timely delivery of assistance during incidents.

### 2.5.1 **Strengths**

A current strength exists for both Ventura and Santa Barbara Counties since MOUs are already in place to address specific needs in limited circumstances. Each of the transportation agencies and some of their non-transportation partners have already recognized the need for a formal agreement for mutual aid/assistance.

Within the transportation community, TransMAC is currently the only known transportation specific Mutual Assistance agreement. There are many examples of other types of agreements, for instance the California Master Mutual Aid Agreement. It is also relatively common to see Mutual Aid/Assistance agreements that deal with Public Works, Fire, Law Enforcement, Medical/Health, and Fire agencies and many others.

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## 2.5.2 Areas for Improvement

Since there is no consistent use of MOUs throughout the region, the current MOUs are fragmented and have gaps. These gaps can be reduced or eliminated by the use of a cohesive plan and a single MOU to coordinate all transportation efforts in response to an emergency or disaster.

Some transportation agencies, such as SMOOTH, a transit agency in Santa Barbara County, have multiple MOUs with various agencies. This leaves the decision on how to respond in an emergency to the transportation agency and may deprive key decision makers, such as the OEM/OES, with the necessary information to coordinate all response efforts. It could result in a delay or worse in the event resources are needed, but unavailable due to a lack of overall coordination.

Existing transit agency contracts with private contractors are ambiguous or undefined with respect to emergencies. The current contracts reviewed have little or no obligations, responsibilities, or duties relating to emergency response. Recognizing that in the past contractors have generously responded in emergencies, this area should be one in which incorporating language into the contract is an easy step to formalize the relationship.

## 2.6 Research Communications Needs

Communications capability is critical, especially during an emergency and disaster. The ability to communicate in simple, easily understood messages to response partners and the public will enhance the ability of transportation agencies to provide ongoing and restorative transit. Ventura and Santa Barbara Counties both have a transportation sector upon which to build an even more prepared communications capability with the public, transit riders, and people who rely on transportation to assist them in an emergency.

### 2.6.1 Strengths

Following are some key strengths noted from our research on transit operator communications:

- 1. All transit operators have means of communication with field units. Many have centralized dispatch centers often through private contractors.**  
Every transit operator has means (in some cases multiple means) of communicating with their operators and field supervisors. This enhances the opportunity to adjust response activities as needed to the fluidity of emergency response. As previously discussed, the use of private contractors needs to be strengthened to accommodate their written, established protocols during response activities.
- 2. A Transportation position is assigned in the Ventura County EOC.**  
The availability of a “seat” in the Emergency Operations Center for Ventura County improves the ability of Ventura to coordinate response and recovery efforts through a coordinated approach to



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transportation needs throughout the county. Santa Barbara County should incorporate such a position. The needs of OEM/OES are the driving factor in determining whether the seat needs to be filled during any activation.

3. **Information is shared regularly by OEM/OES with the transit agencies.**

Communication needs to flow constantly during emergency response and recovery. Currently one of the strong positives of the agencies working together is a demonstrated ability to keep information flowing from OEM/OES to the agencies as the situation develops.

4. **Transit agencies have a means of communicating with their ridership and with other members of the public.**

Current assessments of transportation agencies within the region indicate that the agencies have developed an ability to communicate with their riders and other members of the public and provide up-to-date information relating to changes in service as needed during an emergency or disaster.

### 2.6.2 Areas for Improvement

Communications means and capabilities are constantly improving and modifying. From the research, the following areas should be improved:

1. **Lack of emergency communication SOPs and protocols may lead to confusion and delay.**

Since not every agency has emergency communication protocols and/or SOPs, this may result in confusion and delays in response capability since it creates a situation where staff are left without direction on how to perform particular communication tasks during emergencies. A set of protocols and SOPs that are implemented and trained on will alleviate this problem.

2. **Many of the transit agencies lack pre-scripted messaging to transit riders during emergencies.**

As a recommended best practice for communication for all organizations responding to an emergency, the availability of pre-scripted messages improves and enhances the ability of the agency to communicate with its customers during what will inevitably be a confusing time. Transit agencies in general lag in having established crisis communications plans in place. If messages to be conveyed to the public however are already drafted and ready to be sent, it becomes an easier task to get simple, informative messages to the public.

3. **Limited use of available channels for communications to ridership.**

The assessment indicates that not all available types and means of communications are being used; nor are they being used consistently by each agency. The survey and best practices indicate that all forms

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of communication should be explored and utilized including internet, text messaging, phone, and other forms of communications to make sure those messages are delivered.

### **2.7 Inventory and Assessment of Transportation Assets**

An inventory and assessment of current transportation assets are essential for an effective response to an emergency or disaster. Knowledge of the potential assets available is critical to understand capacity. The inventory helps determine if additional resources are needed and assists OEM/OES to understand if resources need to be requested from NGOs, private companies, or groups outside the area.

#### **2.7.1 Current Situation**

Both Ventura and Santa Barbara County transportation agencies have undertaken an effort to accumulate a current inventory of their assets, including vehicles and fueling capacity. These lists should be updated at least annually or when any major change occurs. Examples of these lists are located in Appendix A-3.

# RECOMMENDATIONS

## 3.0 RECOMMENDATIONS

### 3.1 Introduction

The following recommendations are based on the findings, interviews, and conclusions reached during the research phase of this project relating to best practices and lessons learned in developing a strong, resilient, and sustainable Transportation Emergency Preparedness Plan.

The recommendations are categorized by the length of time anticipated to accomplish the given recommendation. The estimated lengths of time take into account several factors including complexity of the task, whether a task can be completed internally by a single agency or involves coordination between agencies, and the relative expense involved in the completion and/or implementation of the task.

It is anticipated that a short-term recommendation would be accomplished within an 18-month framework, a mid-term recommendation would require between 18 months and three years, and a long-term recommendation would take greater than three years to accomplish.

### 3.2 Short-Term Recommendations (up to 18 months)

#### 3.2.1 Continue building a culture of emergency preparedness among transit agencies.

In order for transit agencies to develop and maintain a culture of emergency preparedness, these concepts should be brought to the forefront of discussions on a regular basis. When contemplating changes in policy (SOPs, route changes, staffing, and other forms of operational changes), part of the discussions should include a conversation of the impact those potential changes may have on emergency preparedness and response capabilities.

This is a low-cost opportunity since it requires some time but no budgetary outlay to complete. It can be difficult since it requires diligence to constantly be aware of potential impacts to preparedness.

Possible forums for raising these concepts are the TRANSCOM meetings in Ventura County and the informal transit operators meetings in Santa Barbara County. An emergency preparedness topic could be placed on the agenda regularly.

#### 3.2.2 Establish a transportation position at the County OEM/OES, assign people to the position, and define roles and responsibilities.

A Transportation Seat at each County OEM/OES EOC should be established to coordinate with the various transportation agencies in the affected areas. It should be recognized that not every EOC activation will require a Transportation Seat be filled. However, having a pre-designed protocol and designated personnel for response and support of the region will provide better preparedness for each agency. The TEPP includes the definition of a Transportation Seat.

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A Transportation Seat at the Operational Area EOC will require working with the appropriate OEM/OES to confirm and validate proper roles and responsibilities for the Transportation Seat. Any SBCAG/VCTC staff designated as a primary or alternate for the Transportation Seat will need appropriate EOC/SEMS/NIMS and ICS training. The County's lead transportation agency should fill the Transportation Seat with support from transit operators. Supporting transit operators should also be trained to fill the Transportation Seat in case the County's lead transportation agency representative is unavailable or if OES/OEM deems a transit operator to be more appropriate for the task. Staff assigned to fill the Transportation Seat should be at least three people deep. Ventura County has already established a Transportation Seat at its EOC. However, designating alternates and providing formal training are important next steps.

Following are additional recommendations for the Transportation Seat.

1. Develop a formalized system of emergency communication between agencies and OEM/OES.
2. A formal protocol for communications between the various transportation agencies and their respective OEM/OES should be developed to improve communications during an emergency. This communications concept is outlined in the TEPP.
3. Consider using a Communications Coordinator.  
A Communications Coordinator would relay information between the County EOC and the various transportation agencies and could be one potential means for enhanced coordination of communications. A proposed method is defined in the TEPP in which a VCTC or SBCAG staff member could be activated to be the Communications Coordinator.
4. Use the Transportation Seat at the County EOC as the primary point of contact for all transportation resources.  
The Transportation Seat at the County EOC can be used as the primary means of coordination for all of the various agencies by creation of a single transportation point of contact. This allows for the Operational Area EOC to have one place for transportation information. This recommendation is part of the proposed Concept of Operations in the TEPP.

### **3.2.3 Conduct regular tabletop exercises to enhance awareness of disaster response needs.**

Tabletop exercises conducted during the planning phase improve knowledge of potential weaknesses within the planning and operation of an agency during an emergency. Conducting exercises is

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essential in building and sustaining an emergency culture of preparedness.

Ventura and Santa Barbara County OEM/OES have offered to include an emergency transportation component in at least one of their annual exercises.

As an annex of the TEPP, a comprehensive training program has been developed which recommends regular transportation-specific exercises. It is recommended that SBCAG and VCTC consider dedicating a small amount of funding during the annual budget process to support regular training and scenario planning.

### **3.2.4 Develop or update transit agency emergency plans and SOPs.**

Individual transit agency emergency plans and SOPs should be developed or updated on a regular basis to ensure that best practices are being followed and that information contained within the plans is current and takes into account changes in equipment, facilities, and availability of personnel. Each transit agency should assign a point person to be responsible for creating and updating these plans and SOPs.

### **3.2.5 Enhance emergency communication protocols and redundant communication channels within transit agencies.**

Emergency communication protocols should be established by each transit agency which includes the manner and means by which the agency will communicate with personnel in the field and how personnel who are not on duty shall communicate with the agency during an emergency.

Redundant communication modes should be considered, since the cell system has failed in the past during emergencies. Establishing communication protocols can be performed with current transit personnel.

1. Communicating with employees can be achieved through the use of telephone calls, email when possible, and the establishment of an emergency call line by the agency instructing employees when and where to report in the event of an emergency. Employees who became aware of an emergency through whatever means (TV, radio, or simply by experiencing it) could call the number and receive instructions.
2. Communication between dispatch and road supervisors and operators can be achieved through radio, telephone, internet, and/or SMS when possible.

## RECOMMENDATIONS

3. Transit agencies may consider implementing an emergency notification system which would send messages to multiple devices concurrently.
4. Inter-agency communications protocols should be created to enhance resilience and may be coordinated through the County EOC as well as by whatever means are required including telephone, messenger, or other necessary means as dictated by the circumstances.
5. Transit agencies should develop multiple, redundant means of communication between supervisory staff/dispatch centers and field units including two-way radio, hardline phones (Plain Old Telephone Service or POTS), cell phone and internet communication, cell phone registration for Wireless Priority Service (WPS) designation, and utilization of Automated Vehicle Locators (AVL), GPS, and Geographic Information Systems (GIS), if available, to track vehicles.

### **3.2.6 Enhance communications from transit agencies to passengers and to the public.**

Following are a list of possible communication enhancements with transit passengers and the public:

1. Create SOPs on emergency communication protocols for efficient and effective communication, including a crisis communication plan with pre-scripted messages. Communication SOPs ensure consistency and improve overall communications capability. A crisis communications plan for a transportation agency should be developed that includes pre-scripted messages that are clear and convey critical information to the public relating to availability of transportation, locations for access to transportation, status relating to system operation, and other essential information. Effective communications with the public and passengers ensure that people who need the transportation system can access it in an emergency.
2. Utilize traditional media (radio, TV) and non-traditional media (website, social media, and apps) as communication channels. Traditional and non-traditional media can provide information to the riding public, whether a passenger is new to public transportation or is an established rider who needs to be aware of service changes due to an emergency situation. Since a variety of media are now used by the public, traditional media can no longer be relied upon to reach the majority of riders. All media sources must be considered and explored as a means of reaching potential customers, particularly in an emergency, which may limit the availability of some types of media.

## RECOMMENDATIONS

3. Coordinate with other agencies including OEM/OES, cities, and 211 to deliver transit-related messages.  
Consistency of messaging and content throughout the region is necessary to enhance credibility and clarity when delivering messages to the public. Coordinating with other agencies reduces confusion and allows for better partnering with other agencies.

These messages should be created and coordinated with the OEM/OES to ensure consistent messaging.

### **3.2.7 Provide training on the FTA/FEMA/Cal OES disaster reimbursement process for all transit providers.**

A disaster reimbursement process should be established between the agencies to increase the transit operators' capability to recover spent funds in support of local and regional response efforts during the response to and recovery from a disaster.

A disaster reimbursement annex of current federal and state disaster recovery processes is included in the TEPP. This annex should be updated regularly since the application process changes frequently. All transit agency personnel who will be part of the disaster reimbursement process should be trained on the documentation processes for cost recovery.

### **3.2.8 Clarify transportation's role in monitoring, contacting, and coordinating response to the needs of vulnerable communities.**

In conjunction with County OEM/OES, transit agencies should establish protocols relating to a coordinated response to the needs of vulnerable communities. While transportation is not the lead agency that ensures the needs of the vulnerable population are met, transit agencies may need to support evacuations required by the Operational Area EOC for these populations. This recommendation is a matter of some urgency and therefore is categorized as short-term since it involves servicing vulnerable communities and ensures adequate attention to these groups.

### **3.2.9 Consider continuing regular meetings with vulnerable communities and/or the organizations that serve them as part of the sustainability effort for the TEPP.**

As part of the process for gathering information on vulnerable communities in each county, a series of meetings were held with public health organizations, VOAD members, and other NGOs. These meetings proved to be an excellent means for exchanging ideas, identifying process improvements, and coordinating resources to aid vulnerable communities in a disaster. It is recommended that these meetings be continued on a regular basis.

### **3.2.10 For private transportation resources, develop protocols and assign the Transportation Seat as the point-of-contact.**

## RECOMMENDATIONS

For the emergencies which result in activation of an Operational Area EOC, private transportation resources should coordinate with the established Transportation Seat staffed by VCTC/SBCAG personnel at the County EOC to ensure that their valuable resources are included in response capabilities and planning. Proper protocols should be developed as soon as possible.

### **3.2.11 Consider joining existing mutual aid/mutual assistance groups such as TransMAC.**

Joining an existing mutual aid/assistance group has definite advantages:

1. An existing group has an established structure and experience responding to emergencies using mutual aid/mutual assistance processes.
2. A large pre-existing group of agencies has already created a base of available assets.
3. The agreement has been vetted by multiple transportation agency's legal departments. The costs and time associated with the creation of such an agreement are avoided.
4. Ongoing information sharing keeps each member current on best practices and the most relevant information.

If an agency elects not to join TransMAC, another form of mutual assistance/aid agreement should be created to improve response capability. This recommendation is included in 3.3 Mid-Term Recommendations.

### **3.2.12 Establish roles and responsibilities of contractors in an emergency.**

Transit contractors' roles and responsibilities during an emergency are currently not addressed in their respective contracts in either county. An effort to revise the contracts to clearly establish each party's roles and responsibilities should occur. This could also include adding financial incentives and assigning contractors as Disaster Services Workers (DSWs). This is also a matter of some urgency since it can reflect the ability of agencies to respond quickly to exigent circumstances.

### **3.2.13 Develop alternate means of transportation options with private sector organizations and the military.**

Alternate means of transportation should be considered in the development of emergency transportation plans. Private sector resources may be available to create or increase transportation capacity. Contacts with private sector organizations for sea, air, and rail transport are included in the current transportation contact and



## RECOMMENDATIONS

inventory lists in the TEPP. Additional contacts should be added over time.

Also, consideration should be given to military resources when available through the Defense Support for Civil Authorities (DSCA) to further enhance transportation capability. Military resources should be included in transportation planning for these reasons. Contacts of military resources are also included in the TEPP.

### 3.2.14 Transportation Inventory List Recommendations

An ongoing, up-to-date inventory should be maintained by each designated transit agency.

Following are a list of recommendations for enhancing and updating the transportation inventory lists:

1. Consider adding additional information to the lists.  
Consider expanding the information contained in the lists as warranted by developments and need. Such expansion may include staffing resources, reserve equipment, other forms of communication, access to facilities, or other appropriate information. The more information available to the agency and its emergency partners, the stronger the possible response.
2. Maintain and add to the contact list for transportation providers.  
A contact list for all transportation providers is valuable as a single reference document in the event of an emergency. The initial development of this comprehensive list is included in the TEPP. Appropriate private and non-profit providers can be added to this list. This list should be updated on every six months to ensure that any changes do not cause a provider to be unreachable.
3. Assign the inventory lists to the transportation lead in each County for updating.  
As VCTC fills the Transportation Seat, it is updating the inventory list in Ventura County. This should continue. Once a transportation lead agency(s) is confirmed for the Transportation Seat in the Santa Barbara County EOC, this agency should be assigned the responsibility for keeping the inventory list current. At present, Santa Barbara County Public Health is performing this task. These lists should be reviewed and updated every six months.
4. Call out paratransit providers for easier identification.  
Paratransit assets should be denoted separately, so that these assets can be easily identified, because of the unique nature of the need for specialized services.

## RECOMMENDATIONS

Following are samples of the updated inventory lists that include some of the above recommendations.

### Sample Ventura County Transit Inventory List

Operator	Type of Service	Service Area	Fixed Route Buses	Fixed Route Buses Fuel	Fixed Route Owned vs	Fixed Route Direct or Contracted	Paratransit Vehicles	Paratransit Vehicle Fuel
Gold Coast Transit	Fixed Route / Paratransit	Oxnard, Ventura, Port Hueneme, Ojai	61	CNG	Owned	Direct	26	CNG/ Gasoline
VCTC Intercity	Fixed Route	Regional service in VC and to SB & LA counties	36	Diesel	Owned	Contracted, RATP Dev	N/A	N/A
Simi Valley Transit	Fixed Route / Paratransit	Simi Valley	10	CNG	Owned	Direct	12	CNG
Thousand Oaks Transit	Fixed Route / Paratransit	Thousand Oaks	11	CNG, 1 diesel	Both	Contracted, MV Transportation	24	CNG/ Gasoline
Moorpark City Transit	Fixed Route / Paratransit	Moorpark City	5	CNG	Owned	Contracted, MV Transportation	Uses Thousand Oaks Transit	
Ojai Trolley	Fixed Route	Ojai	5	2 propane, 3 dual gas and propane	Owned	Direct	N/A	N/A
Kanan Shuttle	Fixed Route	Oak Park	4	CNG	Leased	Contracted, MV Transportation	N/A	N/A

# RECOMMENDATIONS

## Sample Santa Barbara County Transit Inventory List

Operator	Type of Service	Region	Service Area	Fixed Route Buses	Fixed Route Buses Fuel	Fixed Route Owned vs Leased	Fixed Route Direct or Contracted	Paratransit Vehicles
Chumash Casino Resort	Fixed Route	SB Mid County	Chumash	20				
City of Lompoc Transit (COLT)	Fixed Route	SB Mid County	Lompoc	31	Diesel, Gasoline			N/A
Clean Air Express	Fixed Route	SB South County SB North County	Santa Maria, Lompoc, Solvang, Buellton, Goleta, City of Santa Barbara	20	Diesel	Owned	Contracted, American Star	N/A
Easy Lift	Paratransit	SB South County	Winchester to Carpinteria	N/A	N/A	N/A	N/A	33
Guadalupe Transit	Fixed Route	SB North County	Guadalupe			Owned	Contracted, SMOOTH	
Jump on the School Bus	School Bus	SB South County		23				
Santa Barbara Airbus	Fixed Route Charter	SB South County	Goleta, City of Santa Barbara, LAX	16				3
Santa Barbara MTD	Fixed Route	SB South County	City of Santa Barbara, Goleta	114	Diesel	Owned	Direct	N/A

## Sample Transportation Contact List

Organization	Transportation Type	County	Service Area	Organization Type	Primary Contact	Secondary
City of Lompoc Airport	Air	Santa Barbara	Lompoc	Public		
Santa Barbara Airport	Air	Santa Barbara	Santa Barbara	Public		
Santa Maria Airport	Air	Santa Barbara	Santa Maria	Public		
Caltrans District 7	Road	Ventura	Ventura	Public		
Santa Ynez Valley Airport Authority	Air	Santa Barbara	Santa Ynez Valley	Public		
Vandenberg Air Force Base	Air	Santa Barbara	Vandenberg AFB	Military		

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## 3.3 Mid-Term Recommendations (18 months – 3 years)

These recommendations are considered mid-term which may involve a greater outlay of time and resources or a greater amount of coordination between agencies.

### 3.3.1 County OEM/OES should update transportation and evacuation plans. Transit and other agencies should provide guidance and options.

The agencies involved in this initiative, including VCTC and SBCAG, should provide guidance and assistance to their respective County OEM/OES to facilitate and strengthen emergency planning for transportation and evacuations. This is a mid-range recommendation because of the time necessary and the limited ability of the transportation agencies to control this recommendation.

### 3.3.2 Consider developing an emergency contingency fleet to enhance emergency response capabilities.

Transit agencies should consider developing a contingency fleet that may be used in emergencies. This fleet could be derived from reserve vehicles currently in operation, vehicles scheduled for replacement, and purchases of new vehicles specifically for emergency operations. Diesel-powered vehicles are particularly useful for a contingency fleet since they have greater range than CNG and electric vehicles and the fueling stations are more available.

The contingency fleet would be required to meet Innovative Clean Transit (ICT) requirements if created through new purchases. The restriction of the FTA for a contingency fleet of no more than 20% applies only to fleets of 50 or more buses, while agencies with smaller fleets may exceed the 20% restriction, if they have a fleet management plan and can articulate the need for more than 20% contingency fleet.

### 3.3.3 Explore the opportunity for coordinating and/or consolidating vulnerable population databases. Consider VC Human Services Agency's new system.

Although each agency currently maintains its own database of vulnerable populations that may require transportation help during an emergency, it may be feasible to coordinate those databases into a single coordinated database to allow for a more comprehensive means of tracking, especially in time of emergency. This would be an opportunity that will need to be investigated for costs effectiveness and practicality.

### 3.3.4 Define emergency overrides for paratransit trips during emergencies within and between Counties.

Currently within Ventura County, paratransit trips between the western and eastern part of the County require a transfer point. Passengers must transfer between paratransit companies' vehicles.

## RECOMMENDATIONS

The criticality of paratransit trips during emergencies and the current system for transfers within and between counties should be reviewed and a system of overrides should be investigated to ensure a safe and convenient use of paratransit services during emergencies.

### **3.3.5 Develop emergency response language in contractual agreements.**

Those agencies that operate with contractors for the provision of services (operational, maintenance, and staff support) should consider developing language in their contracts that address these services during times of disaster or emergency (whether declared or otherwise). A review of contracts containing emergency provisions and *force majeure* clauses should be performed to clarify which terms apply and the conditions under each term is applicable.

### **3.3.6 Explore registering contractors as DSWs.**

Transit agencies should consider registering contractors as DSWs. Through DSW registration, contractors' capabilities to perform their contractual duties are enhanced in an emergency. Government workers are by statute Disaster Service Workers and take an oath to that effect upon hiring.

### **3.3.7 Establish mutual aid/mutual assistance agreements between transportation agencies and other agencies.**

If the transit agencies choose not to join TransMAC, a longer-term, but necessary solution is establishing transit mutual aid/mutual assistance agreements between agencies. However, this is a longer-term process that requires extensive resources and employee time. A transit mutual aid/assistance agreement created on a county level eliminates the need for each agency to create and maintain individual agreements with every other agency. These agreements are especially beneficial for establishing the rules for mutual aid/mutual assistance and are very helpful when applying for federal and state disaster reimbursement when available.

### **3.3.8 Explore options for engaging private sector companies.**

The utilization of the private sector greatly enhances a region's ability to respond to and recover from emergencies and disaster occurrences. While not directly within the scope of a transportation agency's responsibility, possibilities for engaging these additional resources exist that may be explored. It is the responsibility of County OEM/OES to determine the appropriate approach to engage the private sector for the region.

### **3.3.9 Formalize the role and responsibilities of health care agencies and human service or social service agencies in meeting transportation needs of vulnerable populations.**

Health care, human services, and social services agencies deal regularly with vulnerable populations. To strengthen and enhance the capability to respond to emergencies, a strong communication link

## RECOMMENDATIONS

should be developed to ensure that vulnerable populations' needs for transportation are met by cross-agency information sharing.

Additionally, these agencies should clarify the roles they play in determining transportation needs for vulnerable populations by communicating the need and coordinating the response.

### **3.3.10 Consider forming a transportation subcommittee as part of the County OES/OEM planning efforts.**

A transportation subcommittee, similar to one in the San Diego County Operational Area, should meet on a regular basis to help sustain transportation emergency preparedness. Meetings should be used to exchange information, identify contacts, establish lines of communications, develop protocols, and provide training.

### **3.3.11 Enhance transit interagency communications.**

In addition to the use of cell phones (texting and voice) and email, interagency communication between transit agencies can be enhanced.

1. Create interagency emergency communication SOPs that designate points of contact, needs, and priorities. Once transit agencies have been trained on the TEPP, have participated in exercises and have responded to emergencies, VCTC/SBCAG and participating transit agencies can help develop a set of SOPs that establish points of contact, emergency response priorities, methods of communication (e.g. email, phone, website, radio), and response procedures.
2. Develop alternate communication methods including radios, satellite phones, and amateur radio to build redundancy. As an example, water agencies in Los Angeles and Orange Counties have implemented a two-way radio network for use in emergencies. An interagency transit radio system could connect the OEM/OES EOCs, VCTC and SBCAG EOCs and dispatch centers of the participating transit agencies.

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## 3.4 Long-Term Recommendations (3+ years)

These recommendations may require higher expenses, capital budget requirements, or extensive amounts of time and coordination to accomplish (including staffing costs).

### 3.4.1 Develop a more cohesive mutual aid approach by forming a regional planning committee to decide on protocols for large-scale emergencies.

This could include all agencies that have a role in the emergency response efforts throughout the region. It is anticipated that this may take extensive coordination and time to accomplish. This bi-county effort would be led by County OEM/OES.

### 3.4.2 Utilize technologies to enhance current transit interagency communication.

Interagency communication between transit agencies can be enhanced by utilizing available technologies including traffic congestion, GIS, AVL, and GPS vehicle tracking at County Operational Area EOCs. Available technologies such as Caltrans Quickmap ([http://quickmap.dot.ca.gov/?utm\\_medium=email&utm\\_source=govdelivery](http://quickmap.dot.ca.gov/?utm_medium=email&utm_source=govdelivery)) are available resources that can provide a more comprehensive picture of transportation at a local, county, and regional level. A significant technology effort would be required to combine available information from transit agency platforms into a single source.

### 3.4.3 Define the VOADs' role in identifying transportation needs and resources with respect to vulnerable communities.

VOADs are commonly overlooked, but are critical to overall comprehensive planning and resource development. The non-profit and private sectors hold vast amounts of resources that can be available in emergencies and disasters. However, to effectively use those resources, VOADs' roles need to be developed in advance of the actual emergency or disaster.

The VOADs' roles in coordinating with non-profits are well-defined in both Ventura and Santa Barbara Counties. The VOADs can also play a role as a conduit for connecting potential transportation resources from faith-based organizations with vulnerable populations. The VOADs relationships with the private sector are still being defined.

If the VOADs are interested in developing this role, VCTC and SBCAG can provide support in this effort by helping identify relevant resources and developing protocols for requesting these resources.

# APPENDICES

## A. APPENDICES

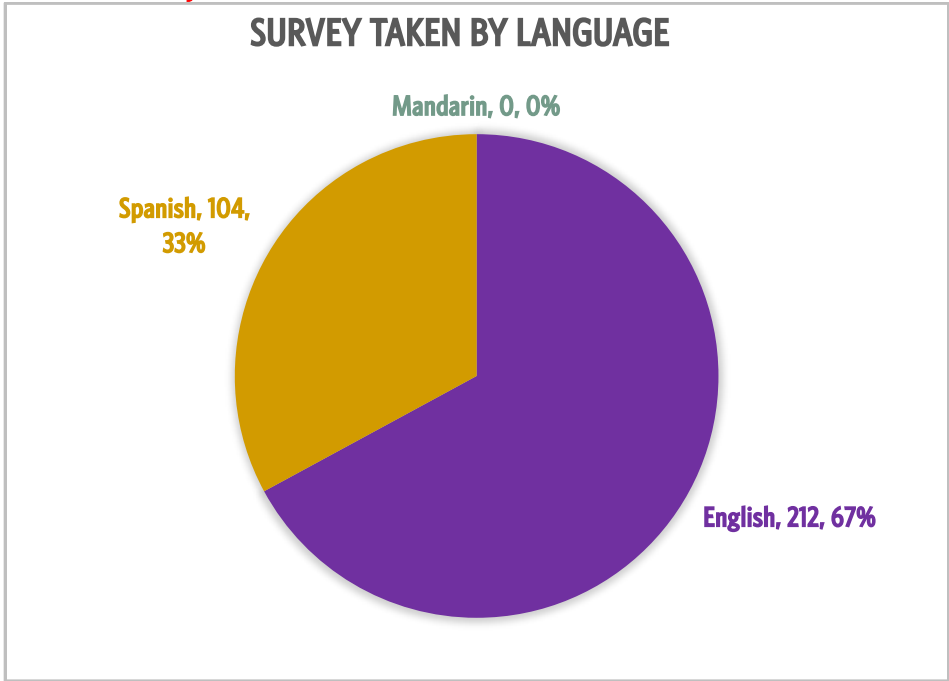
### A-1 Acronyms

<b>ADA</b>	Americans with Disabilities Act
<b>APTA</b>	American Public Transportation Association
<b>AVL</b>	Automated Vehicle Locator
<b>CHP</b>	California Highway Patrol
<b>CNG</b>	Compressed Natural Gas
<b>CSU CI</b>	Cal State University Channel Islands
<b>DCSA</b>	Defense Support for Civil Authorities
<b>DSW</b>	Disaster Service Worker
<b>EMS</b>	Emergency Medical Services
<b>EOC</b>	Emergency Operations Center
<b>ESF</b>	Emergency Support Function
<b>FEMA</b>	Federal Emergency Management Agency
<b>FTA</b>	Federal Transit Administration
<b>GETS</b>	Government Emergency Telecommunications Service
<b>GIS</b>	Geographical Information System
<b>GPS</b>	Global Positioning System
<b>ICS</b>	Incident Command System
<b>ICT</b>	Innovative Clean Transit
<b>LOSSAN</b>	Los Angeles-San Diego-San Luis Obispo Rail Agency (Pacific Surfliner)
<b>MOU/MOA</b>	Memorandum of Understanding/Memorandum of Agreement
<b>NGO</b>	Non-Governmental Organizations
<b>NIMS</b>	National Incident Management System
<b>OA</b>	Operational Area
<b>OES/OEM</b>	Office of Emergency Services/Office of Emergency Management
<b>POTS</b>	Plain Old Telephone Service
<b>SB MTD</b>	Santa Barbara Metropolitan Transit District
<b>SBC</b>	Santa Barbara County
<b>SBCAG</b>	Santa Barbara County Association of Governments
<b>SBCOEM</b>	Santa Barbara County Office of Emergency Management
<b>SEMS</b>	Standardized Emergency Management System
<b>SOP</b>	Standard Operating Procedure
<b>SWOT</b>	Strengths, Weaknesses, Opportunities and Threats
<b>TEPP</b>	Transportation Emergency Preparedness Plan
<b>TRANSCOM</b>	Transit Operators Advisory Committee (Ventura County)
<b>TransMAC</b>	Transit Mutual Assistance Compact
<b>TTAC</b>	Technical Transportation Advisory Committee (Santa Barbara County)
<b>VC</b>	Ventura County
<b>VCSOES</b>	Ventura County Sheriff's Office of Emergency Services
<b>VCTC</b>	Ventura County Transportation Commission
<b>VOAD</b>	Voluntary Organizations Active in Disaster
<b>WPS</b>	Wireless Priority Service

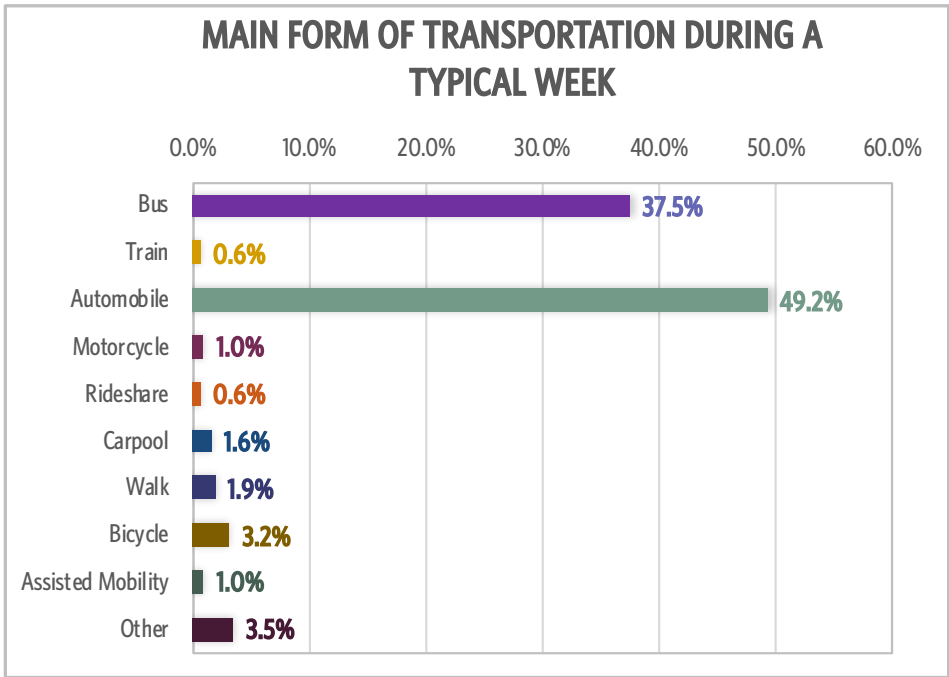


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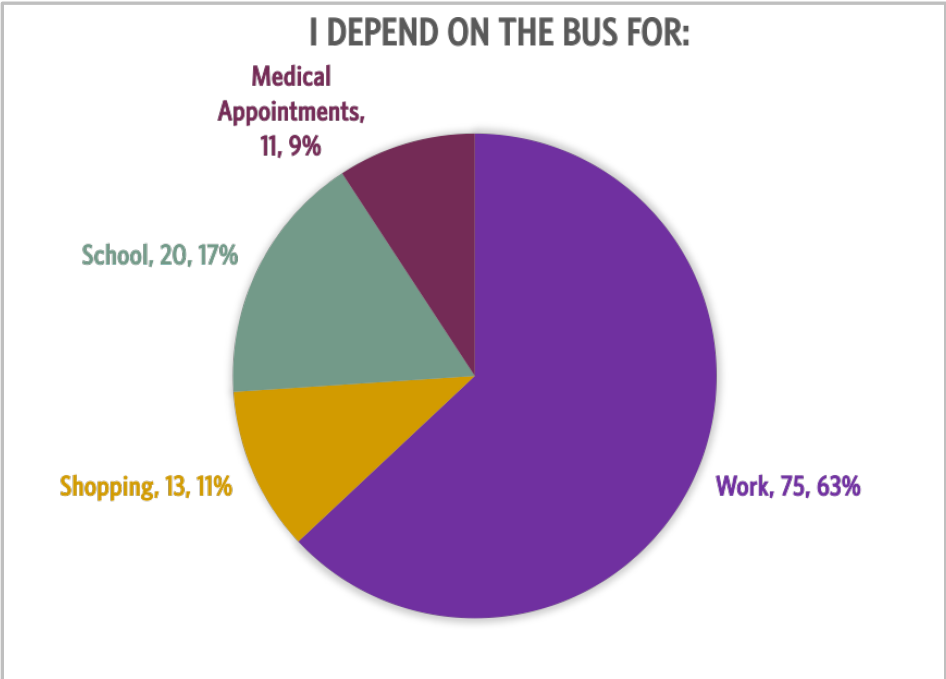
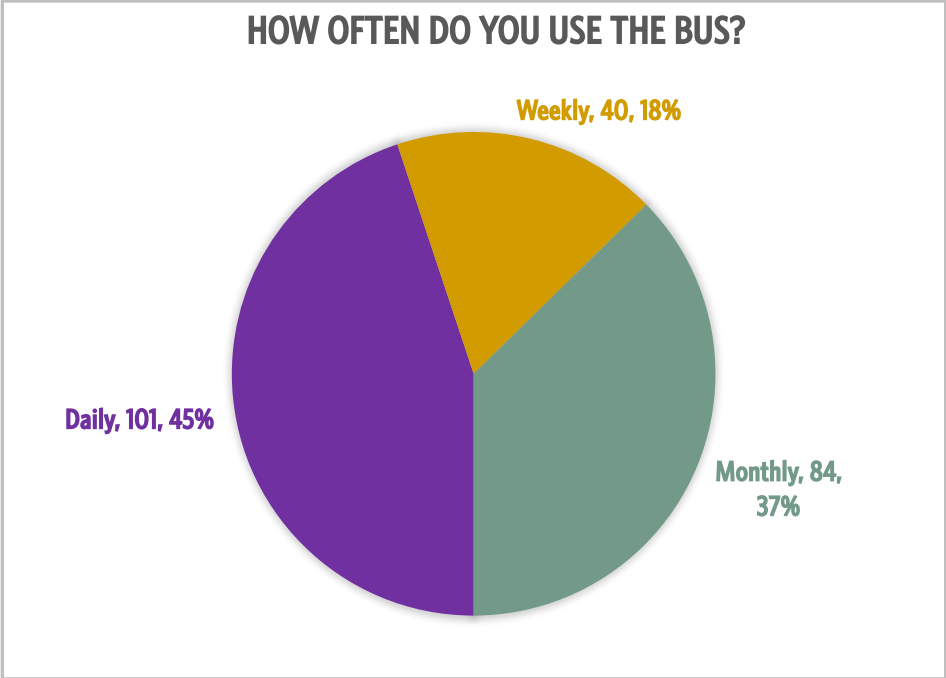
## A-2 Bus Survey Charts



### 1. General questions on bus usage

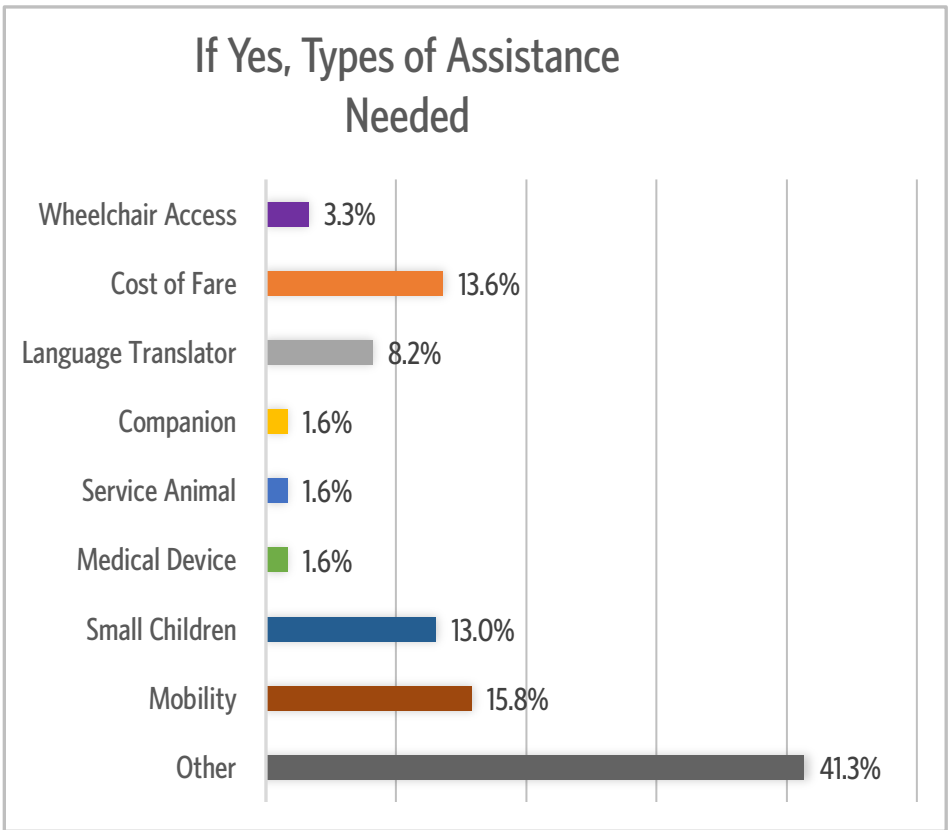
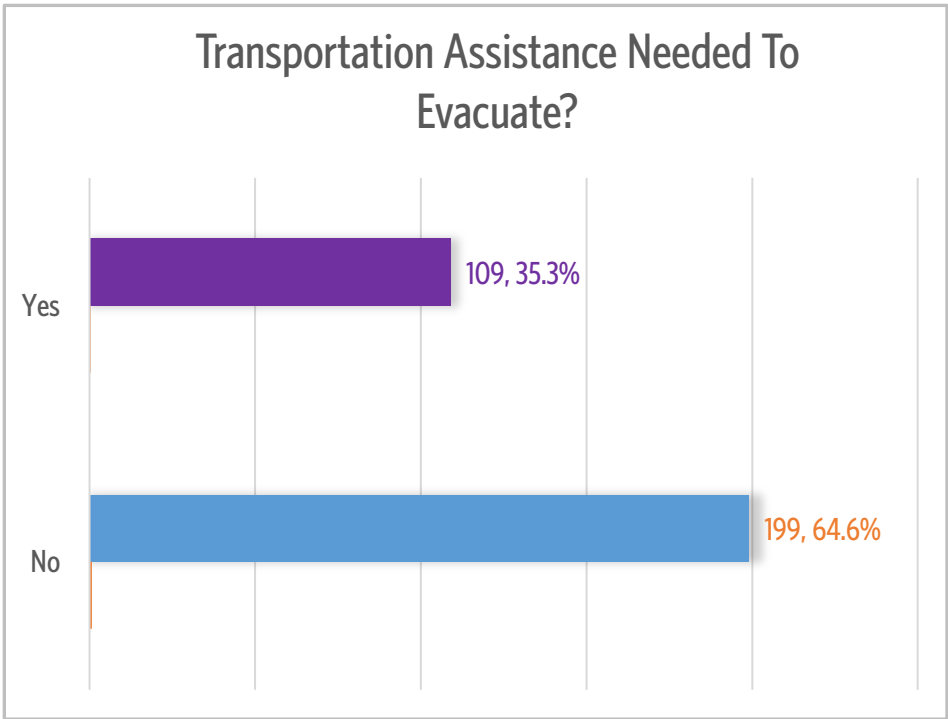


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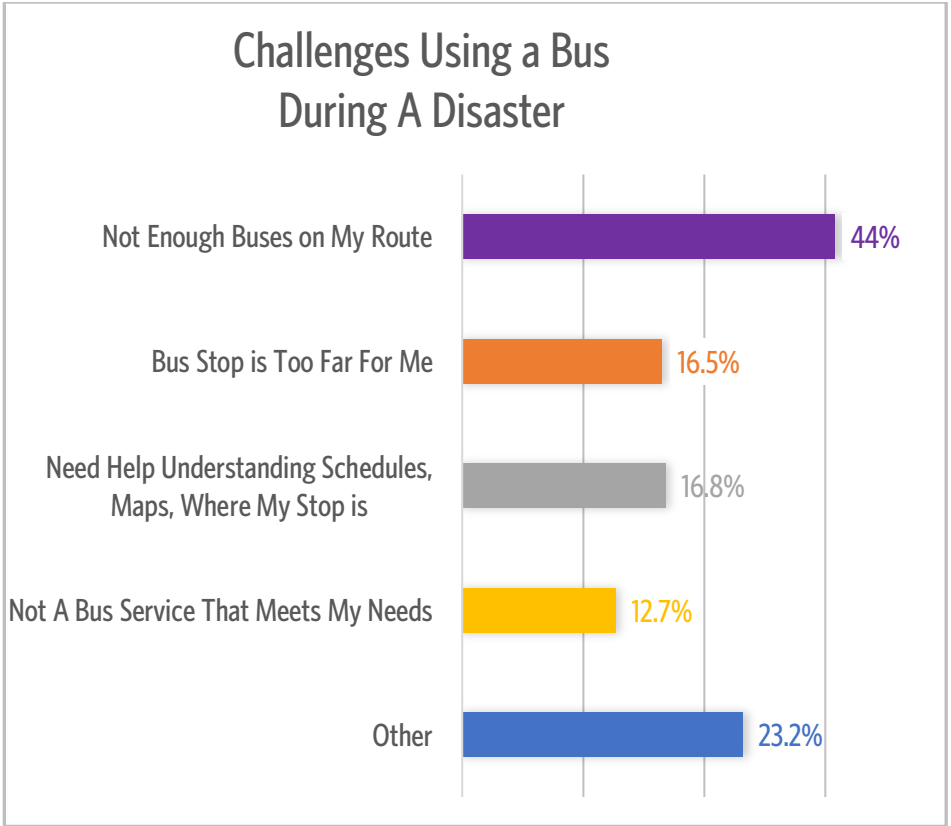


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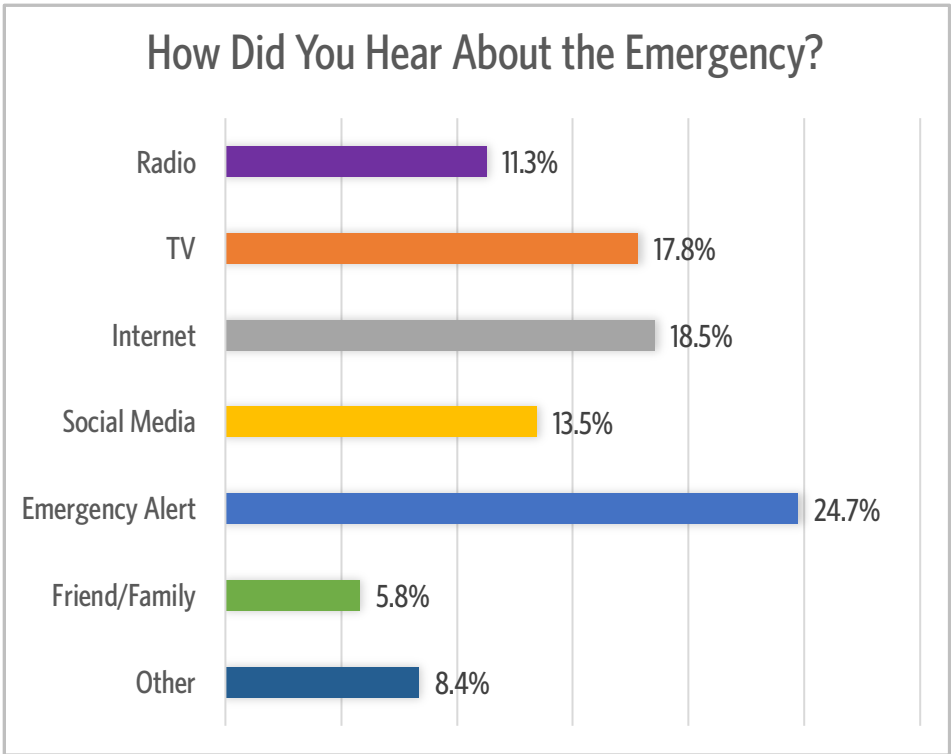
## 2. Questions on assistance during an emergency



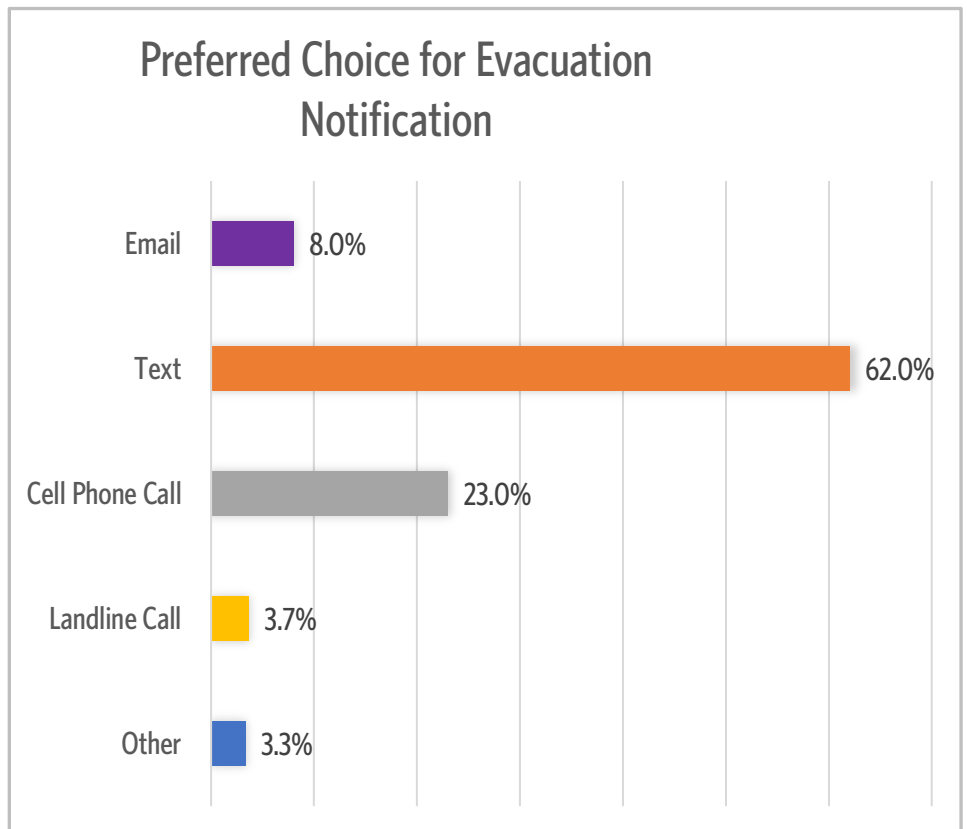
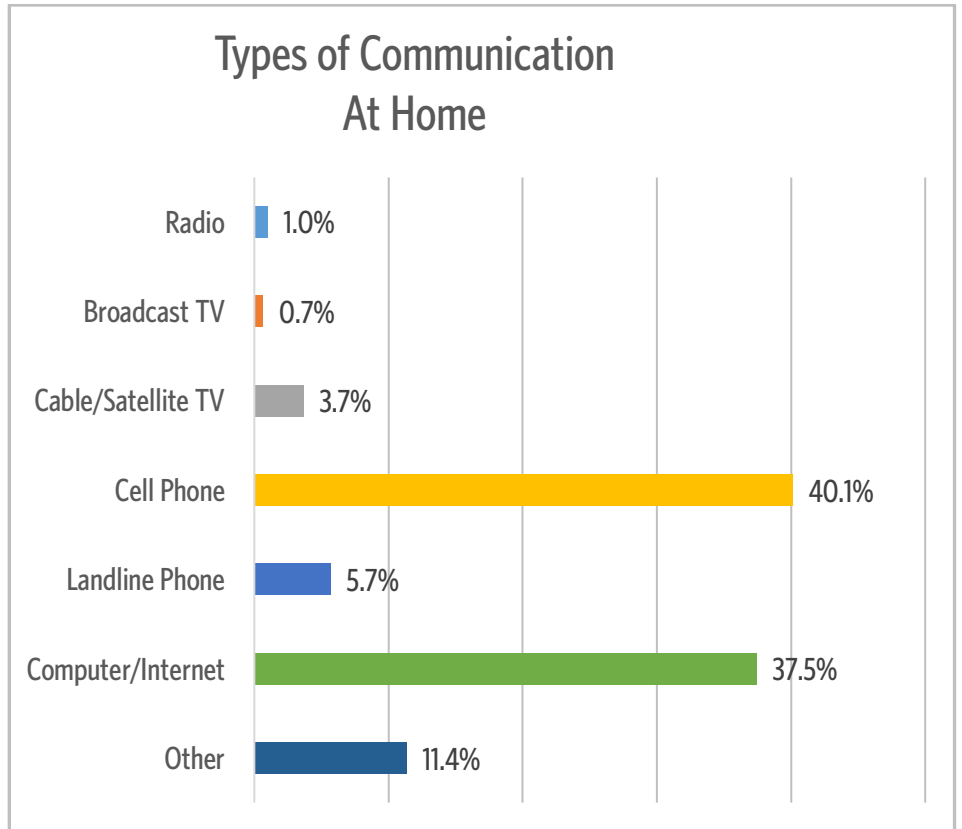
APPENDICES



3. Questions on emergency communication



## APPENDICES



# APPENDICES

## A-3 Samples of Existing Inventory Lists Ventura County Transit Inventory List

Public Operators						
Operator	Gold Coast Transit	VCTC Intercity	Simi Valley Transit	Thousand Oaks Transit	Moorpark City Transit	
Type of Service	fixed route & paratransit	fixed route	fixed route & paratransit	fixed route & paratransit	fixed route & paratransit	fixed route
Service Area	Oxnard, Ventura, Port Hueneme, Ojai	regional service in VC and to SB & LA counties	Simi Valley	Thousand Oaks	Moorpark City	Ojai
Fixed Route						
Number of Buses	56	36	10	11	5	
Fuel	CNG	diesel	CNG	CNG, 1 diesel	CNG	2 propane
Owned vs Leased	owned	owned	owned	both	owned	owned
Direct or Contracted Service & operator	direct	contracted, RATP Dev	direct	contracted, MV Transportation	contracted, MV Transportation	direct
Dial-a-Ride		NA			NA	NA
Number of Vehicles	26		12	26	Uses TOT	
Fuel	CNG/gasoline		CNG	CNG/gasoline		
Owned vs Leased	owned		owned	both		
Direct or Contracted Service & operator	contracted, MV Transportation		direct	contracted, MV Transportation		
Fleet Cars						
Fleet Cars w/ WC Capacity	2	0	0	0	0	0
Fuel	gasoline	NA	gasoline	NA	NA	NA
Back up generator	yes	for servers only	yes	TOTC and MSC	See TO	
Generator hour capacity	runs on diesel, as long as available		21	Minimum 24 hours		NA
Fuel location	1901 Auto Ctr Dr, Oxnard	240 S Glenn Dr, Camarillo	490 W Los Angeles Ave, Simi Valley	1993 Rancho Conejo Blvd., TO	See TO	408 S. S
Back up fuel location	Patton Court (CNG)	76 on Las Posas (generally)	TOT	Any fuel station that accepts credit cards	See TO	Shell ar
Contacts			21			
Emergency Contact 1	Margaret Heath-Schoep	Martin Erickson	Ben Gonzales	Mike Houser	Shuan Kroes	Ellen D

## Santa Barbara County Transit Inventory List

South County Transportation Information												
Company	Based In	Primary Contact	Secondary Contact (Includes Personal Cell Numbers)	Contact Email	Total Fleet	Vehicle Count	Sitting	Standing	W/C	Wheelchair Ac		
Easy Lift	Santa Barbara				26	1	20		0			
						1	14		0			
						5	3		2			
						3	6		0			
						8	3		1			
						2	4		3			
Santa Barbara City Metropolitan Transit District	Santa Barbara				107	6	4		1			
						40	37	44	2			
						15	38	31	2			
						15	38	38	2			
						14	26	31	2			
						3	28	4	2			
Santa Barbara Transportation (Student Transport America)	Goleta					20	14	13	1		Multiple buses. W/C=5 + 2 pass	
Santa Barbara Airbus	Santa Barbara				19	8	56		6			
						1	47		0			
						3	21-23		0			
						7	52		0			
VCTC Coastal Express	Ventura											
Jump on the School Bus	Santa Barbara				23	6	42	6	0	Wheelchair l buses. Does r W/		
						1	42	6	3			
						2	22	8	0			
						2	16	4	0			
Roadrunner Shuttle	Oxnard		1	12	3	0						

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## A-4 Organizations Interviewed

- Access Services Los Angeles
- Caltrans District 5
- Caltrans District 7
- CHP
- City of Galveston, Texas
- City of Lompoc Transit
- CSU Channel Islands
- Easy Lift
- Gold Coast Transit District
- Independent Living Resource Center
- Interface (211)
- Island Packer
- King County Emergency Services, Washington
- Los Angeles County Operational Area
- LOSSAN
- Metrolink
- Mobility Management Partners
- MV Transportation
- Orange County Transportation Authority
- RATP Dev/Roadrunner
- San Diego County Operational Area
- San Francisco County Operational Area
- Santa Barbara Airport
- Santa Barbara County Office of Emergency Management
- Santa Barbara County Public Health
- Santa Barbara County VOAD
- Santa Barbara Harbor
- Santa Barbara MTD
- Santa Barbara Public Works
- Santa Maria Transit
- Santa Ynez Valley Transit
- SBCAG Clean Air Express
- Thousand Oaks Transit
- TRANSCOM
- TTAC
- Union Pacific
- University of California Santa Barbara
- VCTC Transit
- Ventura County Department of Airports
- Ventura County Health Care Agency - EMS
- Ventura County Human Services Agency
- Ventura County Schools Self-Funding Authority
- Ventura County Sheriff's Office of Emergency Services
- Ventura County VOAD

# APPENDICES

## A-5 Reference Documents

1. 2019 Public Transportation Fact Book. American Public Transportation Association (April 2019).
2. An Analysis of Los Angeles Metro Short-Term Transit Ridership Changes: A Thesis Presented to the Faculty of California State Polytechnic University, Pomona. David Omar Pena (2017).
3. APTA Standards Development Program Recommended Practice: Emergency Communication Strategies for Transit Agencies. American Public Transportation Association (December 31, 2009)
4. APTA Standards Development Program Recommended Practice: Regional Emergency Planning and Participation in Mutual Aid. American Public Transportation Association (November 7, 2019).
5. APTA Standards Development Program White Paper: Securing Control and Communications Systems in Transit Bus Vehicles and Supporting Infrastructure. American Public Transportation Association (July 7, 2019).
6. California State Emergency Plan (2017).
7. City of Galveston (Texas) Annex E Evacuation (2016).
8. City of Portland, Annex D | Evacuation Plan (October 2017).
9. Command-Level Decision Making for Transit Emergency Managers. The National Academies Press (2013).
10. Commonwealth of Massachusetts Statewide Evacuation and Coordination Plan (January 2019).
11. Communication with Vulnerable Populations: A Transportation and Emergency Management Toolkit. The National Academies Press (2011).
12. Community Lifelines Toolkit Version 2.0. FEMA (November 2019).
13. Comprehensive Preparedness Guide (CPG) 101: Developing and Maintaining Emergency Operations Plans, Version 2.0. Federal Emergency Management Agency (November 2010).
14. King County (Washington) Regional Coordination Framework (2014).
15. Legal Issues in Public Transit Emergency Planning and Operations. The National Academies Press (2013).
16. Massachusetts Statewide Evacuation Coordination Plan (2019).
17. Planning Considerations: Evacuation and Shelter-in-Place. Department of Homeland Security (July 2019).
18. Portland (Oregon) Evacuation Plan (2017).
19. Public Transportation Emergency Mobilization and Emergency Operations Guide: Appendix B--Survey of U.S. Public Transportation Systems. The National Academies Press (2005).
20. San Diego County Operational Area-- Emergency Operations Plan Annex Q Evacuation (2014).
21. San Francisco Bay Area Regional Mass Transportation Evacuation Plan (2011).
22. State of California Emergency Plan. Cal OES (October 1, 2017).
23. The 2018 Woolsey Fire: A Catalyst for Change. Los Angeles Emergency Preparedness Foundation (November 2019).