Harbor Communities Time Location Study

Project Overview and Status Report

April 17, 2008

Source: Caltrans District 7

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Funded by The California Air Resources Board & the University of California Transportation Center

What is the Research Study?

Purpose:

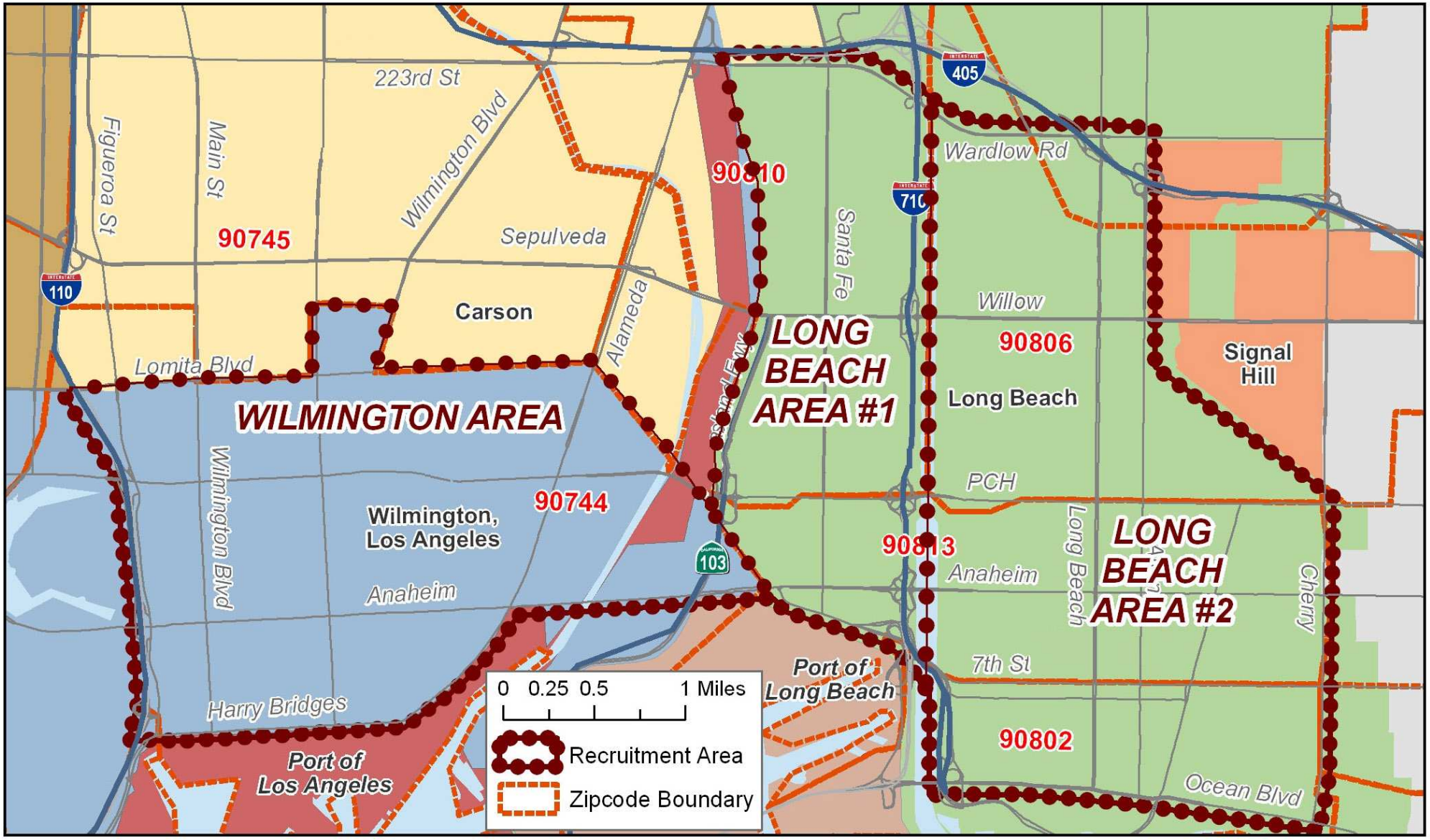
- To document the travel and activity patterns of residents living near the ports of Los Angeles and Long Beach.
- Where do residents spend time during the day?
  - Microenvironments: Indoors, Outdoors, In-Vehicle
- To generate a time activity database that future studies can use to model the exposure of residents to air pollution.

Participant Requirements

- Residents must live in parts of Wilmington, Carson and West Long Beach or in the following zip codes:
  - **90744, 90802, 90806, 90810, and 90813**

- Must be between 21-65 years old

Study Area


223rd St
Figueroa St
Main St
Wilmington Blvd
Sepulveda
Alameda
Santa Fe
Wardlow Rd
Willow
Lomita Blvd
PCH
Long Beach
Anaheim
7th St
Harry Bridges
Ocean Blvd
Cherry
110
405
710
103
90810
90745
90806
90744
90813
90802
Carson
Signal Hill
Long Beach
Wilmington, Los Angeles
Anaheim
Port of Long Beach
Port of Los Angeles
WILMINGTON AREA
LONG BEACH AREA #1
LONG BEACH AREA #2
0 0.25 0.5 1 Miles
Recruitment Area
Zipcode Boundary

Monitoring Schedule

Week 1

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	TRAINING BASELINE SURVEY IN-HOME PM MONITORING					
		GPS MONITORING				
		TIME ACTIVITY LOG				

Week 2

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
GPS MONITORING						

Week 3

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
GPS MONITORING						

Week 4

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				FOLLOW-UP SURVEY IN-HOME PM MONITORING		

Baseline Survey

The Baseline Survey is conducted at the home of participants, and it usually lasts about one hour.

- **Types of questions:**
  - Activity and Travel Patterns, Usual Destinations (Work, School, etc.)
  - Household transportation resources and demographic information
  - Details of house or apartment relating to the potential intrusion of air pollution
- **Surveys are conducted in Spanish or English**

In-Home PM Measurements

In-Home measurements of particulate matter (PM) during:

- Baseline Survey
- Follow-up Survey

Portable monitors and measurements are confined to the room in which these interviews are conducted.

1 Condensed Particle Counter (CPC)
Measures particle counts, including ultrafine particles

2 Dustraks
Measures fine particles ($PM_{2.5}$)

Time Activity Log

Participants complete a log detailing their location from when they wake up to when the go to bed over the course of 3 days.

- The following information is asked in the diary:
  - Were you INDOORS at home, work or school?
  - Were you OUTDOORS on a walking trip, or on a bicycle?
  - Were you IN-VEHICLE in an auto/van/truck or transit?

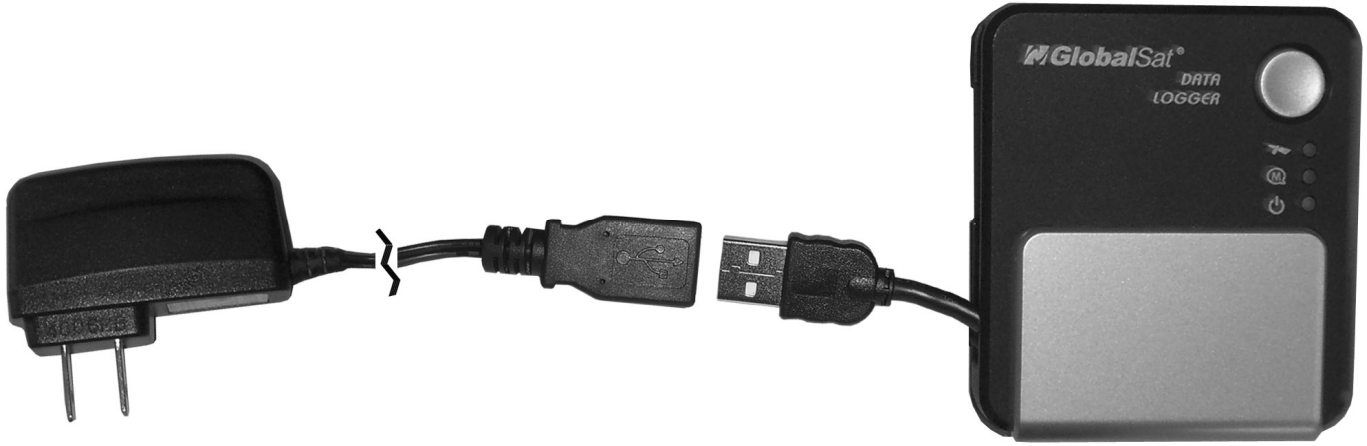
Sample from a Time Activity Log

TIME IN NEW LOCATION	INDOORS	OUTDOORS	IN-VEHICLE	NOTES
8:15 AM PM	☒ Home ☐ Work ☐ School ☐ Other	☐ Walking ☐ Biking ☐ Other	☐ Auto, Van, or Truck ☐ Transit ☐ Other	
8:45 AM PM	☐ Home ☐ Work ☐ School ☐ Other	☐ Walking ☒ Biking ☐ Other	☐ Auto, Van, or Truck ☐ Transit ☐ Other	

Monitoring With GPS

Participants carry a Global Positioning System (GPS) device during their waking hours for a 2-week period.

Global Positioning System (GPS) Device

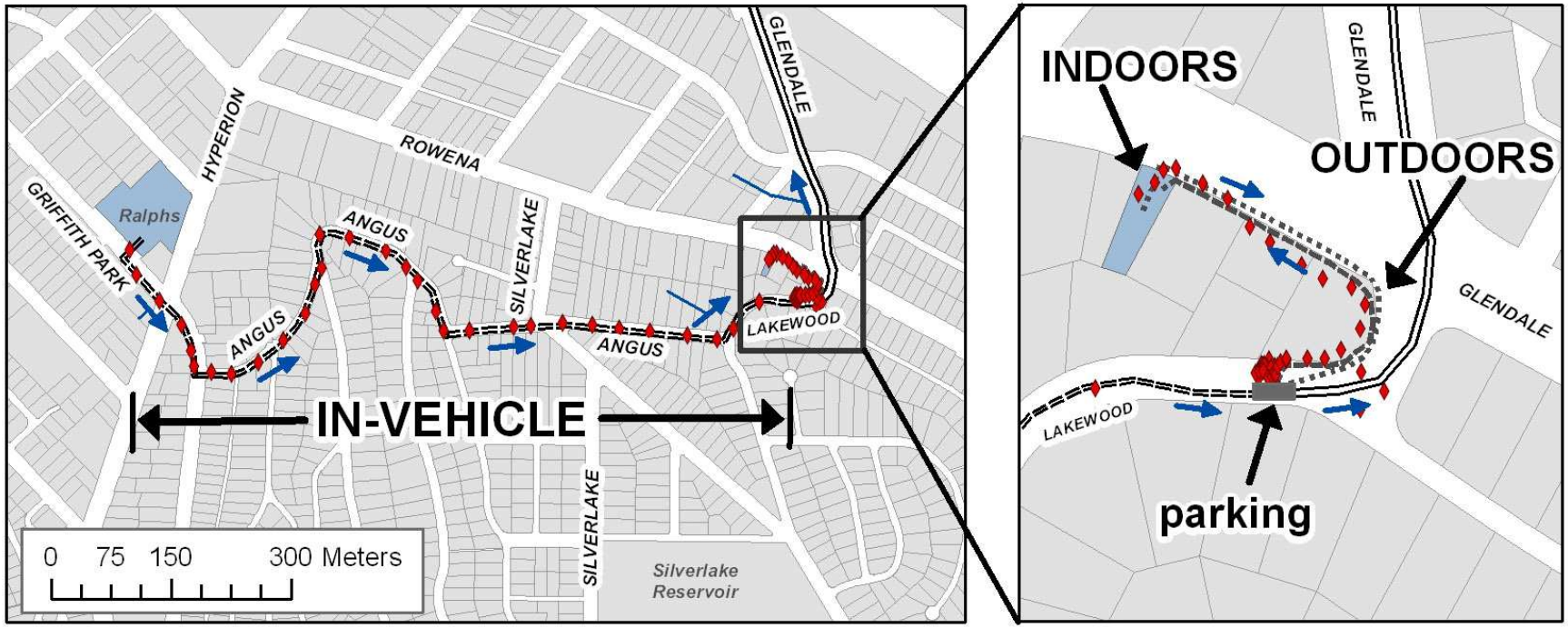


Follow-Up Survey

The follow-up interview (less than 1-hour) is conducted within 2-4 weeks of completing monitoring with GPS device.

Goal: To clarify unclear patterns or potential unreported trips

Sample analysis of GPS Data: In-Vehicle, Outdoors, Indoors



Confidentiality and Privacy

- Any information that can be identified with participants will remain confidential
- Participants are assigned an anonymous identifying code
- Survey and diary information are delivered by research staff soon after data collection to the UCLA Secure Data Facility
- Only authorized researchers have access to the data for research purposes
- Data with subject identifiers will not be released
- Participants may refuse to answer any questions and still remain in the study

Why Participate?

Participants receive the satisfaction of participating in air pollution research that could influence air pollution policy.

Participants also receive $50 in grocery gift cards, which are provided in the following amounts:

- $15 upon completion of the Baseline Survey and In-home Particulate Matter (PM) Measurements
- $15 upon completion of the Time Activity Log and GPS Monitoring
- $20 upon completion of the Follow-up Interview

Project Status

- Began study on February 17
- Participants to date: 20
- Outreach and recruitment ongoing
- Goal of 40 - 60 Participants by June 30, 2008

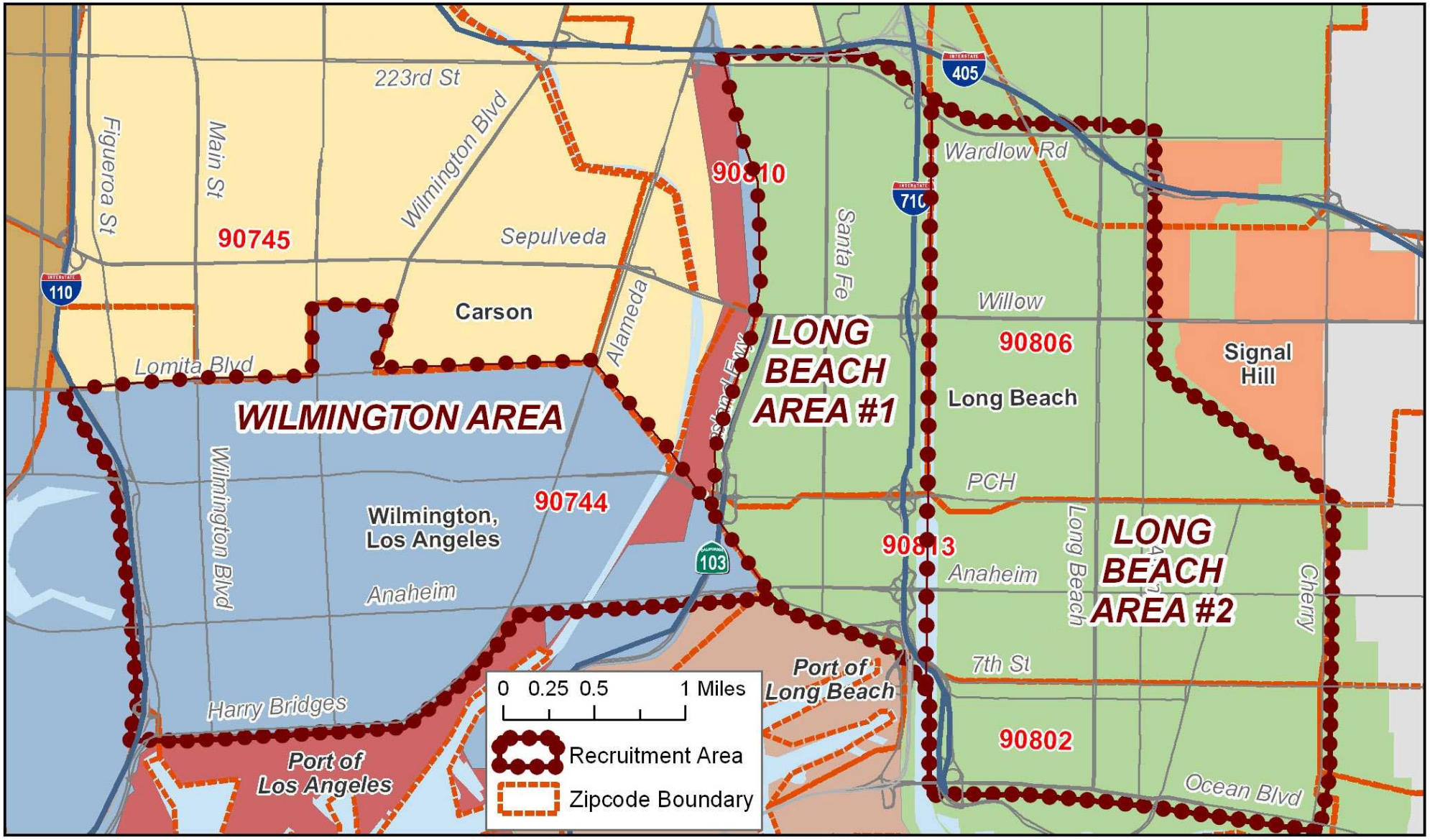
Recruitment Efforts

Phase 1. *Work with community organizations*

Phase 2. *Draw upon past monitoring participantion lists*

Phase 3. *Contact potential participants through targeted mailing*

Study Area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Wardlow Rd
Willow
90806
Long Beach
Signal Hill
PCH
90813
Anaheim
Long Beach
LONG BEACH AREA #2
Cherry
7th St
Port of Long Beach
90802
Ocean Blvd
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Recruitment Area
Zipcode Boundary

Thank You!

For additional information

please contact

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at 310-467-6788.