

2005 PUBLIC OPINION SURVEY AND MARKET RESEARCH PROJECT

EXECUTIVE SUMMARY \*

CONDUCTED FOR THE  
SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

DECEMBER 2005

\*A copy of the full report is available at [www.valleyair.org](http://www.valleyair.org)

*True North*  
**RESEARCH**

741 GARDEN VIEW COURT SUITE 208  
ENCINITAS, CALIFORNIA 92024  
PHONE 760.632.9900 FAX 760.632.9993  
WEB [WWW.TN-RESEARCH.COM](http://WWW.TN-RESEARCH.COM)



## INTRODUCTION

The San Joaquin Valley comprises the largest air basin in California—spanning nearly 25,000 square miles from its northern point in San Joaquin County to the foot of the Valley in Kern County. Due to its unique topography and meteorology, the Valley is especially susceptible to air pollution. Bordered by mountains and shaped like a narrow bowl, the Valley’s hot summers, foggy winters and frequent temperature inversions effectively promote both the formation and retention of air pollution. The Valley meets neither the federal standards nor the more protective state standards for two key pollutants—ozone and particulate matter—and was recently designated a severe non-attainment area by the U.S. Environmental Protection Agency.

The San Joaquin Valley Air Pollution Control District (Valley Air District) was formed in 1992 to work collaboratively with the public, business, industry and agriculture to improve the air quality in the region. While it regulates stationary sources of air pollution such as factories, refineries, industrial facilities, manufacturing operations, gasoline stations and farms, the District has no authority to regulate transportation control measures to reduce emissions from mobile sources of air pollution. Because a majority of the Valley’s air pollution is caused by the day-to-day activities of residents—including driving vehicles, burning fires, and using household products that contain smog-forming chemicals—one of the District’s key strategies for improving air quality is to increase public awareness of positive air quality choices. These efforts include the Spare the Air program that alerts residents to poor air quality and encourages them to reduce their driving and use of certain household products on days that are expected to violate the Federal ozone air quality standard.

**MOTIVATION FOR STUDY** This study was designed to develop an objective, statistically reliable understanding of the public’s awareness, knowledge, perceptions and behavior as they relate to air quality, the District, and the District’s public outreach programs. In broad terms, the study was an opportunity to:

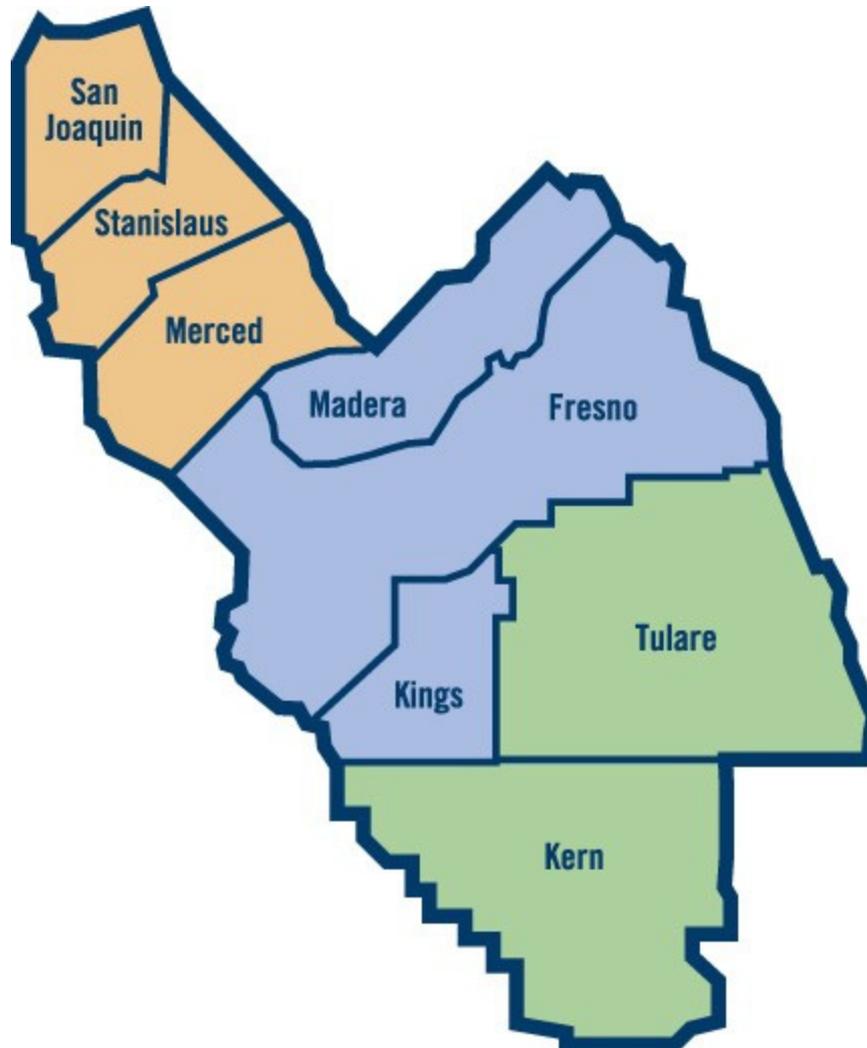
- measure the public’s awareness, opinions and behaviors as they relate to air quality
- better understand how the public views the District, its mission and its strategies
- identify the responsiveness of the public to the District’s education and outreach efforts, as well as
- gather information that can help make the public education programs more effective in the future.

By gathering and analyzing the data and comparing it to the results of related surveys where appropriate, this study provides the District with the information it needs to make sound, strategic decisions in a variety of areas, including program evaluation and development, performance measurement, planning and marketing.

**OVERVIEW OF METHODOLOGY** A full description of the methodology used for this study is included later in this report (see *Methodology* on page 49). A total of 600 randomly selected adults within the District’s boundaries (see Figure 1) participated in the telephone survey. Respondents in Fresno, Kings, Tulare and Kern counties (356 total) were administered the entire survey during the evening of a Spare the Air day. The remaining respondents (244) were sampled from San Joaquin, Stanislaus, Merced and Madera counties. Because these counties did

not have a Spare the Air event during the study period (August 15 to October 5, 2005), respondents from these counties received all questions with the exception of those that pertained to a specific Spare the Air event.<sup>1</sup> Probability-based random digit dialing (RDD) sampling techniques and monitoring of the demographics resulted in a sample that is representative of the adult population within the eight county District for questions received by all respondents. Questions specific to Spare the Air were administered to a sample that is representative of the driver population in Fresno, Kings, Kern and Tulare counties.

FIGURE 1 MAP OF VALLEY AIR DISTRICT



**ORGANIZATION OF REPORT** This report is designed to meet the needs of readers who prefer a summary of the findings as well as those who are interested in the details of the results. For those who seek an overview of the findings, the sections titled *Just the Facts* and *Conclusions* are for you. They provide a summary of the most important factual findings of the survey in bullet-point format and a discussion of their implications. For the interested reader, this section is

1. Questions 1-6 and 29 are only relevant if the interview was conducted on a Spare the Air day.

followed by a more detailed question-by-question discussion of the results from the survey by topic area (see *Table of Contents*). Additionally, a description of the methodology employed for collecting and analyzing the data is contained at the back of this report, as is the questionnaire used for the interviews.

**ACKNOWLEDGEMENTS** True North would like to thank Jaime Holt and Sheri Bohigian at the Valley Air District for their valuable input during the design stage of this study. Their expertise and insight improved the overall quality of the research presented here.

**DISCLAIMER** The statements and conclusions in this report are those of the authors, Dr. Timothy McLarney and Richard Sarles at True North Research, and not necessarily those of the Valley Air District. Any errors or omissions are the responsibility of the authors.



## JUST THE FACTS

The following is an outline of the main factual findings from the study. For the reader's convenience, we have organized the findings according to the section titles used in the body of this report. Thus, to learn more about a particular finding simply turn to the appropriate report section.

### DRIVING BEHAVIOR ON SPARE THE AIR DAYS

- The average number of driving trips taken on a Spare the Air day was 3.62.
- Individuals who reduced at least one trip for air quality reasons in response to the Spare the Air campaign reported taking an average of 6.06 trips on that day.
- Nearly five percent (4.8%) of drivers reduced an average three driving trips on the final Spare the Air event of the season in direct response to the Spare the Air campaign.<sup>2</sup>
- The most common method of reducing ones' driving was linking trips, followed by eliminating a trip.
- Shopping trips and trips to or from work were the most common types of trip reduced for air quality reasons.

### RECALL AND AWARENESS OF SPARE THE AIR MESSAGING

- Forty-three percent (43%) of respondents indicated that they recalled being exposed to news stories or public service announcements related to air quality and/or Spare the Air in the two days prior to the interview.
- By far the most commonly mentioned source for information about air quality in the Valley was television. Radio and a newspaper were mentioned far less often.
- Seventeen percent (17%) of all respondents were aware that the day of the interview was a Spare the Air day.

### AIR QUALITY IN THE DISTRICT

- Nearly half (49%) of all respondents rated the air quality in their county as either poor (29%) or very poor (20%), and an additional 31% indicated that it is fair. Less than one in five respondents stated that the air quality in their county is either good (16%) or excellent (3%).
- When asked to compare their county's air quality to most other areas in California, Valley residents were more likely to rate their air quality as worse (38%) than they were to claim it is about the same (34%) or better (25%).
- When compared to Los Angeles' air quality, however, 62% of Valley residents felt that their county's air quality was better, whereas 20% indicated that it is about the same. Just 13% of respondents shared the opinion that the air quality in their county is worse than that in Los Angeles.
- Seventy percent (70%) of residents think that their county occasionally experiences high levels of air pollution.
- Nearly half (48%) of all households surveyed indicated that at least one member of their household occasionally experiences negative health effects due to air pollution.

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2. This is among drivers in Fresno, Kern, Kings and Tulare counties. The northern counties in the District did not experience a Spare the Air event during the data collection period.

- When asked *where* they think most of the air pollution in their county comes from, 37% indicated that it comes from sources within their county, 39% thought that it comes from other areas and is then blown by the wind into their county, and 24% were unsure.
- When asked what they think are the primary causes of air pollution in their county, 70% of respondents mentioned driving/auto emissions, 41% offered agricultural-related emissions, and 22% mentioned manufacturing or industrial emissions. No other source was mentioned by more than 6% of respondents, respectively.

## GENERAL STRATEGIES FOR REDUCING AIR POLLUTION

- Over two-thirds (69%) of respondents agreed that residents can take actions that will significantly reduce air pollution in their county, whereas 19% felt that residents could not impact air pollution and 13% were unsure.
- Among respondents who felt residents could make a difference, actions that centered on driving behavior (driving less, carpooling, using public transit, using more fuel efficient vehicles) were by far the most commonly mentioned ways that the public can reduce local air pollution.
- When provided with a list of 10 strategies and asked to rate their likely effectiveness in reducing air pollution, residents indicated that placing stricter regulations on industries that create air pollution was likely to be the most effective, followed by reducing the amount that people drive, providing financial incentives to encourage people to ride public transit, car-pool, bike or walk, and concentrating future development in areas that are well-served by transit.

## PERSONAL AIR-QUALITY BEHAVIOR

- Forty-four percent (44%) of residents indicated that they had taken at least one action *specifically* for the purpose of reducing air pollution in the 12 months prior to the interview.
- When asked to describe the actions that they took, 69% of respondents reported that they drove less, while 18% indicated that they reduced their use of barbecues and lighter fluid. A similar percentage reduced the amount of wood that they burn (18%) and/or their use of gas powered equipment (17%).
- Nearly two-thirds (64%) of respondents indicated that they were willing to take actions to reduce air pollution in the upcoming 12 months, whereas 25% were unwilling and 11% were unsure.
- When asked to rate the difficulty of various actions that residents can take to reduce air pollution, using public transit at least one day per week was viewed as the most difficult action to take, followed by carpooling/vanpooling at least one day per week, switching to a more fuel efficient vehicle, and reducing the amount that they drive at least one day per week.
- The actions that residents felt were comparatively easier to take included ensuring that their vehicle is always properly tuned, calling a hotline to determine if it is OK to burn wood, and reducing by 25%—respectively—their use of barbecues and lighter fluid, the amount of wood that they burn, and their use of household products.

## PERCEPTIONS OF DISTRICT

- Just 12% of Valley residents could correctly name the Valley Air District as the agency responsible for monitoring the air quality in their region and for implementing air pollution reduction programs.

- When asked whether they have a favorable or unfavorable opinion of the District, 60% of respondents indicated that they have no opinion. Among those with an opinion about the District, favorable opinions (29%) outnumbered unfavorable opinions (11%) nearly three-to-one.
- The minority of respondents who held an unfavorable opinion of the District generally fell into one of two camps—those who felt the District has not done enough or has not been effective enough in improving air quality, and those who felt the District has been *too* active in regulating air pollution, is using inaccurate information to justify regulations, or is being unfair in its regulations.
- Forty-two percent (42%) of respondents could recall hearing, reading or seeing a news story, advertisement or public service announcement that involved the Valley Air District in the six months prior to the interview.
- Just over half (52%) of respondents indicated that—prior to taking the interview—they were aware that there is a hotline residents should call in the winter to determine if it is OK to burn wood based on the current air quality.

## AIR QUALITY ATTITUDES

- Ninety-seven percent (97%) of residents *agreed* that reducing air pollution is everybody's responsibility—government, business and residents.
- Seventy-five percent (75%) of residents *agreed* that tougher regulations are needed to reduce the air pollution caused by manufacturing facilities, refineries and farms in the region.
- Seventy-five percent (75%) of residents *disagreed* that the actions of one person do not make a difference when it comes to air pollution.
- Seventy-one percent (71%) of residents *disagreed* that economic growth and prosperity are more important than environmental issues.
- Seventy percent (70%) of residents *disagreed* that government standards for pollution are generally too strict.
- Two-thirds (67%) of residents *disagreed* that the Valley Air District has been too aggressive in enforcing air pollution regulations on businesses and residents.