

APPENDIX I

MASTER AIR QUALITY MITIGATION PLAN



Sutter Pointe Master Air Quality Mitigation Plan

Prepared for:
Lennar Communities

Prepared by:
HDR | **THE HOYT COMPANY**

August 25, 2008

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
1.0 BACKGROUND ON AIR QUALITY	1
2.0 BACKGROUND ON TRANSPORTATION SYSTEMS MANAGEMENT	2
3.0 PURPOSE OF THE AIR QUALITY MITIGATION PLAN (AQMP)	3
3.1 <i>CEQA</i>	4
3.2 <i>FRAQMD</i>	4
3.3 <i>Sutter County</i>	4
3.4 <i>Project Air Quality Requirements</i>	5
3.4.1 <i>Green House Gas Emissions</i>	5
4.0 PROJECT DESCRIPTION	6
Conceptual Land Use Plan	7
Phasing Plan	8
SUMMARY MEASURE LIST	9
5.0 TRANSPORTATION MANAGEMENT ASSOCIATION	10
6.0 TRANSPORTATION COORDINATOR	12
7.0 DISPLAY INFORMATION	14
8.0 GUARANTEED RIDE HOME	15
9.0 VANPOOL/CARPOOL PROGRAMS	16
9.1 <i>Personal Matching Assistance</i>	16
9.2 <i>Vanpool Program</i>	17
9.3 <i>Incentive Program</i>	17
9.4 <i>Preferential Parking</i>	17
10.0 BICYCLE/PEDESTRIAN CONNECTIVITY	18
Alternative Circulation System Map.....	19
10.1 <i>Proximity to Bike Lane</i>	20
10.2 <i>Eliminate Impediments to Bicycle/Pedestrian Circulation</i>	20
10.3 <i>Bicycle Storage</i>	20

10.4	<i>Bicycle/Pedestrian Incentive Program</i>	21
10.5	<i>Showers and Lockers</i>	21
11.0	TRANSIT	21
11.1	<i>Transit Incentive Program</i>	22
11.2	<i>Bus Shelters</i>	22
	Transit and Development Map.....	23
12.0	PARKING	24
12.1	<i>Paid Parking</i>	24
13.0	PARKING LOT SHADING	25
14.0	LAND USE AND DESIGN	25
15.0	SUSTAINABILITY	26
15.1	<i>Solar</i>	26
15.2	<i>Roofing</i>	26
15.3	<i>Energy Efficient Furnaces</i>	27
16.0	DEVELOPMENT LOCATED WITHIN 500 FEET OF THE HIGHWAY	27
17.0	DEVELOPER AND EMPLOYER REQUIREMENTS	29
18.0	CONCLUSION	30
	MATRIX	31

EXECUTIVE SUMMARY

To reduce air pollution and automobile trips resulting from development, the proponent has coordinated closely with the Feather River Air Quality Management District (FRAQMD) in order to prepare this Master Air Quality Mitigation Plan (AQMP). The air district has stated that this document will sufficiently mitigate the pollution associated with the Sutter Pointe project, and when implemented, will satisfy CEQA mitigation requirements. All feasible measures¹ have been included in this plan to ensure maximum mitigation of pollution associated with this project. This plan has also been developed in conjunction with the preparation of the Master Transit Plan for Sutter Pointe. Although it is a separate document, it can be considered a companion piece. This AQMP will be augmented with a Program Implementation Plan (PIP) and a Transportation Management Association Implementation Plan (TMAIP). These two additional plans will provide detailed implementation guidelines and be prepared prior to occupancy (Phase 1). The PIP will include detailed steps for employers and transportation coordinators on how to implement and market programs of the AQMP. The TMAIP will provide the necessary steps to administer the TMA, including TMA start-up and program development and costs. This plan may also be modified during the EIR process, or as advances in technology occur, and could include changes to measures.

The following components are addressed in this plan:

- Bicycle and Pedestrian Connectivity
- Carpooling
- Development requirements
- Building design
- Transportation Management Association (TMA)
- Transit
- Employee incentives
- Land Use
- Transportation Systems Management

This Master Air Quality Mitigation Plan (AQMP) will be the guide for development within Sutter Pointe. The function of this AQMP is to provide the master framework for the community and to outline the responsibilities and requirements of the developer and major employers in order to maximize alternative mode use and sustainable design that will result in improved air quality and circulation. The intention is to develop a community with a cohesive plan to reduce single occupant automobile trips, increase alternative mode use, and improve air quality through smart growth land use design, air quality mitigation strategies and transportation system management programs.

¹ FRAQMD BMM List. 2008

All development will be required to include specific baseline measures and strategies as outlined in this plan and there will also be options for developers to choose other measures from the Feather River Air Quality Management District's mitigation measure list, or as technology advances, propose other strategies. Some measures such as those related to marketing of commute programs, although not quantifiable at this time, will be critical in creating successful programs and services and will be included in this plan.

This Plan contains program and measure details, not project details. Subsequent development will be required to provide individual Air Quality Plans that will provide project development details such as square footage, parking and identify specifics such as exact number and location of certain amenities such as carpool spaces, bicycle storage, and pedestrian and bicycle connectivity.

Typical development necessitates a "critical mass" prior to providing infrastructure such as bicycle lanes or facilities for example commuter transit service. This Plan provides a phased approach of program implementation that will be based on providing some programs and services immediately so that residents and employees will be able to have options to use an alternative to driving alone. Sutter Pointe's regional neighbors have also been considered during the preparation of this plan and it is anticipated that some pollution and traffic generated externally may be partially mitigated due to the provisions in the Plan (i.e., commuter bus service, park-n-ride lot, carpool program, transit center, etc.).

A brief discussion follows regarding current air quality conditions, transportation systems management (TSM), the role and requirements of lead and reviewing agencies, and requirements pertaining to this project. The remaining portions of this Plan include information, measure summary sheet, measure details, supporting graphics and development standards.

The contents of the AQMP include a summary list of mitigation measures, project description, measure details, supporting graphics, and an implementation matrix.

1.0 BACKGROUND ON AIR QUALITY

Ground-level ozone, a primary ingredient in smog, is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOx) react chemically in the presence of sunlight. Cars, trucks, power plants and industrial facilities are primary sources of these emissions. Ozone pollution is of particular concern during the summer months when the weather conditions needed to form ground-level ozone - lots of sun and hot temperatures - normally occur. Ozone also aggravates asthma, damages the lining of the lungs and makes breathing more difficult.

Sutter County is located within the Sacramento Valley Air Basin (SVAB), which has been designated as a nonattainment area for ozone pollution.

The SVAB is not in compliance with standards set forth in either the Federal or State Clean Air Acts (does not meet the 8-hour ozone standard: 0.08 parts per million (ppm), averaged over eight hours). The SVAB must meet the federally mandated deadlines established by the 1990 Amendment to the Clean Air Act for compliance with the national ambient air quality standards. In the interim, the nonattainment area must demonstrate to the U.S. Environmental Protection Agency (EPA) that reasonable progress toward improving air quality is occurring.

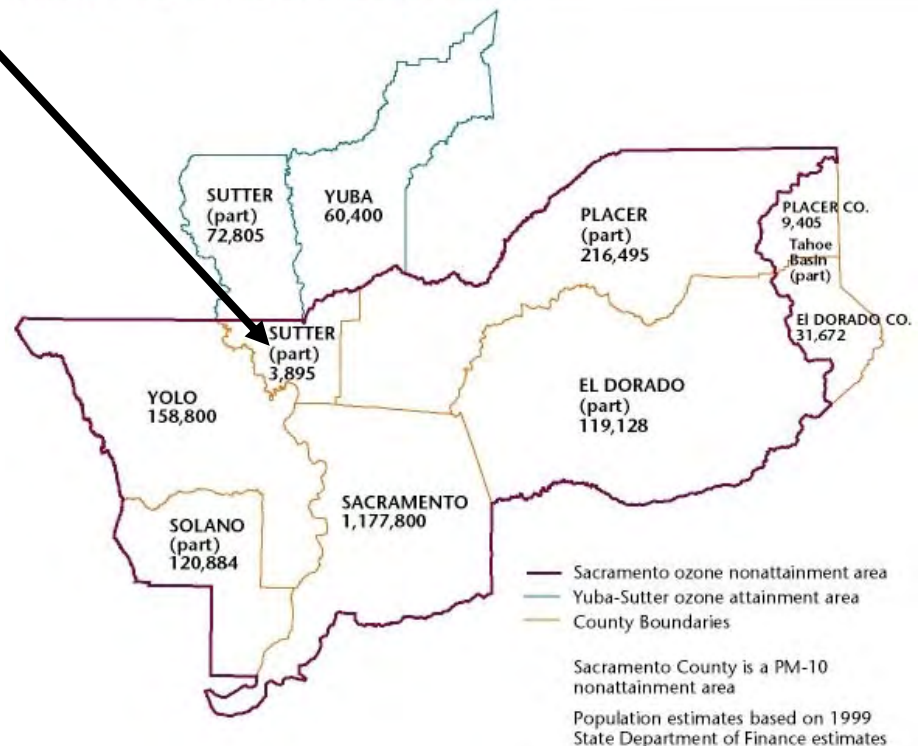
The deadline for meeting the 8-hour ozone standard is in 2013. In addition to the increased health risks associated with pollution, federal monies received for roadways and other transportation improvements may be reduced significantly if attainment is not met. Note: FRAQMD's status is either in attainment or unclassifiable for the remaining Federal standards: nitrogen dioxide, sulfur dioxide, carbon monoxide, PM2.5 and PM10.

- Nonattainment status is designated when at least one violation of a State standard for that pollutant in the area occurs.
- Attainment status is achieved when the state standard for that pollutant was not violated at any site in the area during a three year period.

Parts of Sutter County including the entire Sutter Pointe area have been designated as a nonattainment area for ozone pollution.

In order to meet the requirements of the Clean Air Act, the Feather River Air Quality Management District (FRAQMD) in consult with the EPA is creating a State Implementation Plan to address attainment and the programs to reduce emissions of ozone precursors from sources such as cars, fuels, and consumer/commercial products and activities, which include requiring development to mitigate project pollution.

FEDERAL AIR QUALITY PLANNING BOUNDARIES



2.0 BACKGROUND ON TRANSPORTATION SYSTEMS MANAGEMENT

Transportation Systems Management is a combination of services, incentives, facilities, and actions that reduce single occupancy vehicle (SOV) trips to help relieve traffic congestion and air pollution especially during peak commute periods. Transportation Systems Management (TSM) also encourages more efficient use of alternative transportation systems.

The basic premise of TSM is the maximum utilization of existing transportation resources. Typically billions of dollars are invested in roadway infrastructure and hundreds of millions of dollars invested in public transit infrastructure. Implementing transportation management strategies allows maximum utilization of these major capital investments.

The three basic goals that can be achieved through effective utilization of TSM measures are:

1. Reducing traffic – through the elimination of trips (telecommuting)
2. Reducing air pollution through converting single occupant automobile trips to an alternative mode of transportation (bus, carpool, vanpool, bicycle, walk)
3. Reducing energy consumption – (purchasing less gasoline, less wear and tear on automobiles, possible elimination or need for a second or third automobile)

The concept of effective utilization of major capital investments is very similar to what private industry has done for decades. Private businesses have always managed their assets to produce the maximum output of a fixed capital investment. For example, if an automobile manufacturer experiences more demand for their product than can be produced at an existing plant, they do not build another expensive plant, they add a second and eventually a third shift. The manufacturer utilizes its existing resources (capital investment in machinery) over a longer period of time (asset management).

Typically in the United States, the answer to relieving congestion on roads and in parking structures has been to build more roads and parking structures similar, to building another automobile manufacturing plant (non-effective utilization of capital investment). Current economics, limited resources, and the need to reduce air pollution affect the ability to build and maintain more roads or parking structures. This reality necessitates better utilization of the existing transportation infrastructure, similar to adding a second shift (effective utilization). TSM measures support this transition to a greater use of existing alternative transportation options.

Implementing Transportation Systems Management programs and/or strategies can be the solution, or at least one element of the solution of air pollution, traffic congestion, and excessive energy consumption.

3.0 PURPOSE OF THE AIR QUALITY MITIGATION PLAN (AQMP)

Approximately 60 - 70% of Sutter County's air pollution comes from mobile sources, which includes on-road and off-road motor vehicles (cars, trucks, planes, trains, tractors, combines, buses, motorcycles, boats, and so on). The population within the FRAQMD's boundaries is projected to increase to 192,700 residents by the year 2010 (a 50% increase over 1990 figures). The urban expansion resulting from this growth will result in an increase of vehicle miles driven which means that emissions from mobile sources will continue to increase. The remaining 30 - 40% of the area's air pollution is a result of stationary sources that include agricultural operations, open burning of vegetative wastes, wood burning for residential heating, manufacturing industries, electric generation industries, diesel backup generators, retail gasoline and local bulk distribution facilities, auto body shops, dry cleaners, landfills, other manmade sources emitting air contaminants, and naturally occurring sources (non-manmade emission sources, including biological and geological sources, wildfires, and windblown dust).²

Reducing the number of automobile trips and other air quality impacts resulting from development is an important component of improving air quality and in supporting the objectives of the State Implementation Plan to reach attainment. The State of California Environmental Air Quality Act (CEQA), FRAQMD, and Sutter County (and others such as the Sacramento Area Council of Governments, California Air Resources Board, and Environmental Protection Agency) have all been involved in addressing how to reduce emissions and air quality impacts associated with new development.

² FRAQMD Air Quality Trends, 2008.

3.1 CEQA

If a new development is found to have a significant impact on air quality, then the California Environmental Air Quality Act (CEQA) will require that an Environmental Impact Report (EIR) identify and evaluate any significant environment impacts of a proposed project. The analysis of significant effects must include both direct project impacts and indirect impacts. The analysis must then describe feasible measures that could minimize any significant adverse impacts. For both the operational and the construction phases, the CEQA Guide establishes significance thresholds (25 lbs/day for both NO_x and ROG, and 80 lbs/day for PM₁₀) related to elevated regional ambient ozone concentrations, a cumulative impact. Project emissions are compared to these significance thresholds, and mitigation measures are required for projects with emissions exceeding these thresholds. In the CEQA process, project operational emissions are calculated and impacts are determined in the draft EIR (DEIR) and mitigation proposed.

CEQA requires that air quality impacts be identified and if significant, mitigated.

3.2 FRAQMD

To assist in the evaluation of air quality impacts and requirements, the FRAQMD developed a policy to satisfy mitigation required by CEQA. The Urban Emissions modeling program (URBEMIS) is widely used throughout California to calculate air emissions associated with land development projects and is the only FRAQMD-approved model at this time. The data generated by URBEMIS is used to determine the level of significance of a project and the extent of any necessary mitigation. If a project is found to have a significant impact on air quality, the FRAQMD requires preparation of an Air Quality Mitigation Plan (AQMP) to detail CEQA required mitigation of a project's operational emissions impacts as reported in the DEIR (construction mitigation details may also be included in this document or separately in the DEIR). The contents of the plan is based on the Best Available Mitigation Measure list (BAMM List) provided by the FRAQMD. The AQMP is a stand-alone document separate from any other documents or plans required by CEQA or other laws, ordinances, or regulations. During the environmental review process the FRAQMD reviews the AQMP and typically endorses the document. The endorsed AQMP is then referenced in the DEIR as an air quality mitigation measure, appended to the DEIR, and at the discretion of the lead agency, may be referenced as a separate condition of approval.

FRAQMD requires preparation of an AQMP to satisfy CEQA mitigation requirements and has developed a mitigation measure list.

3.3 Sutter County

Independently of CEQA, Sutter County recognizes that indirect emissions from land use development can significantly impact the region's air quality. The County is in the process of updating their General Plan, which addresses the need to improve air quality and is supportive of smart growth projects that reduce reliance on automobiles and vehicle miles traveled.

Whether the County of Sacramento requires the preparation of an air quality plan or if an AQMP is required through CEQA, the County is responsible for reviewing and finally approving the document.

SUTTER COUNTY is the lead agency responsible for reviewing, approving, and monitoring AQMPs

3.4 Project Air Quality Requirements

URBEMIS results included in the DEIR conclude that Sutter Pointe will have a significant air quality impact and therefore preparation of an AQMP is required to satisfy CEQA. Using the BMM list created by the Feather River Air Quality Management District as a base, the AQMP will include all feasible mitigation measures from the list as well as additional innovative strategies and other measures to the extent that they are feasible.

3.4.1 Green House Gas Emissions

Climate change issues have garnered a great deal of political momentum and it is becoming increasingly important for projects to show how they are reducing green house gas (GHG) emissions. The Attorney General's office has provided a list of measures that can reduce these emissions. When compared to the Attorney General's list, many of the measures provided in this AQMP are also found to provide a reduction in GHG emissions. Sutter Pointe will continue to endeavor to reduce GHG emissions and to comply with any future county requirements to reduce GHG emissions.

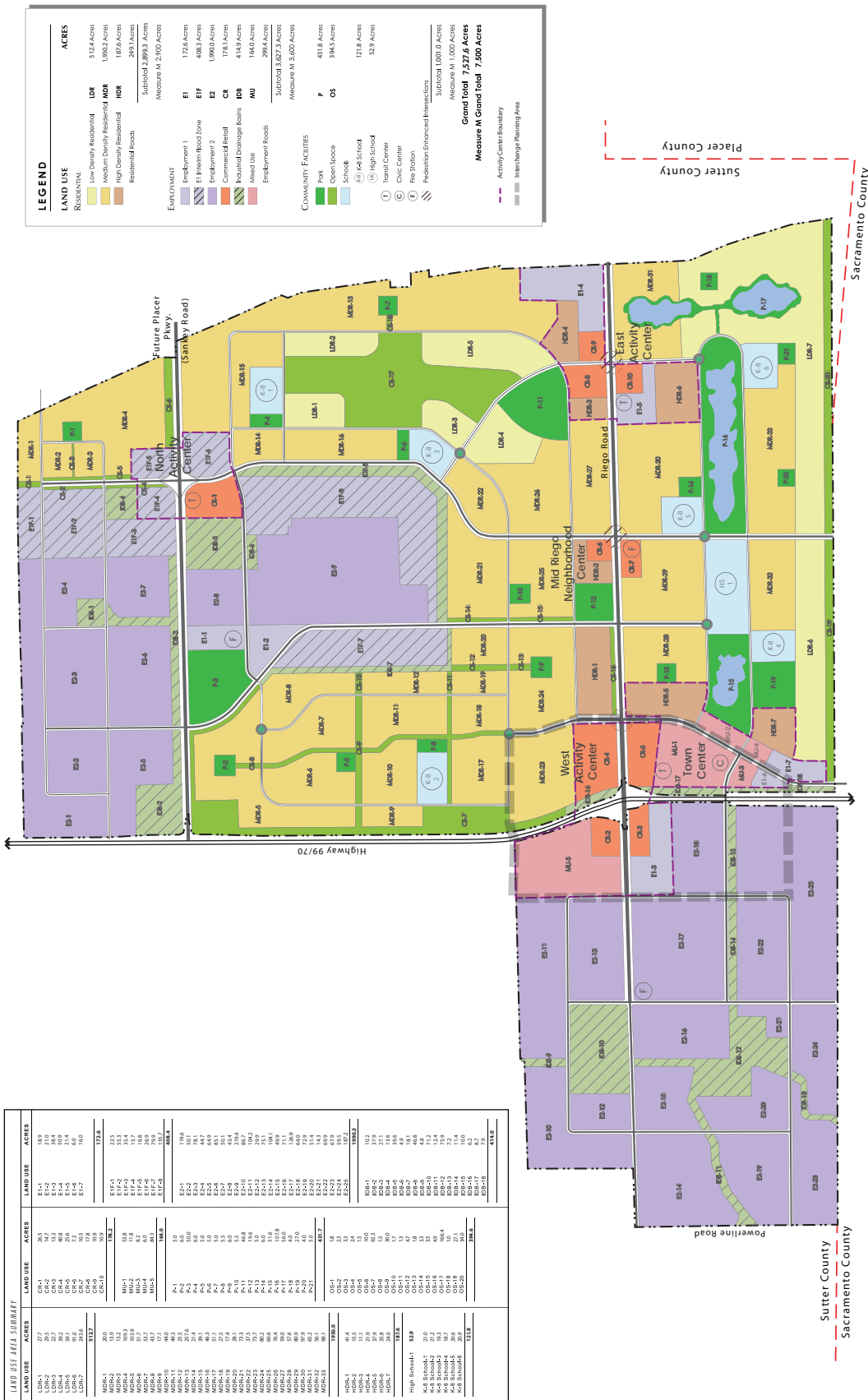
Through mitigation measures, infrastructure, building design and Transportation Systems Management (TSM), this Master AQMP includes the components necessary to achieve a decrease in automobile use and energy consumption. When this Master plan is implemented, the pollution generated by this project will be mitigated to the extent feasible and no additional mitigation will be required. Sutter Pointe's residents, employees, employers, etc. will be required to adhere to this plan. Monitoring and enforcement of this plan will be primarily conducted through the lead agency and the FRAQMD, details of which will be provided in the Program Implementation Plan (future separate document). However, monitoring and enforcement will include review of site plans to ensure adherence to building design features of this plan, and employees, and potentially residents, will be surveyed at a minimum of every other year to determine if programs and services have been implemented and to gauge program success. If participation is either lacking or if drive alone trips are not being reduced, then the TMA will take steps to improve programs.

4.0 PROJECT DESCRIPTION

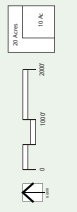
Sutter Pointe is a 7,500 acre; mixed use, master planned community, located at the southern boundary of Sutter County, off of Highway 99. Sutter Pointe is contiguous with and adjacent to significant growth areas in northern Sacramento County and southwestern Placer County. At build-out, Sutter Pointe intends to provide 3,600 acres of employment-related land uses (32,000 jobs) and 17,500 housing units (47,000 residents). The project will be developed in phases, will eventually incorporate, and is expected to reach build-out in 2029.

Please refer to the following page to view the project's Conceptual Land Use Plan. The Phasing Plan is shown on page 8.

Sutter Pointe has been master planned to include bicycle and pedestrian connectivity and amenities, transit service prior to typical development (when a critical mass has been established), land use patterns that will support alternative mode use, and a planned jobs/housing balance and retail/housing balance. Transit and ridesharing programs and services will offered to all residents and employees within Sutter Pointe through the development of a Transportation Management Association.



February 08, 2008



CONCEPTUAL LAND USE

SUTTER POINTE
Measure 'M' Group



SUMMARY MEASURE LIST

Program Implementation Plan

TMA

- Sutter Pointe Transportation Management Association (TMA):
 - Commuter transit service
 - Local transit service
 - Vanpool program
 - Guaranteed ride home program
 - Carpool matching program

- Required Infrastructure:
 - Bus shelters
 - Class I and Class II bikeways
 - Wide sidewalks separated from the roadways with landscaped buffers
 - Eliminate barriers (create bicycle/pedestrian connectivity between residential and commercial development)
 - Shaded connectivity paths from commercial/retail/industrial development to bikeways, sidewalks, transit stops
 - Park-n-ride lot
 - Transit centers

- Project Requirements:
 - Major employers (over 100 employees) prepare project specific Air Quality Plans
 - Energy efficient building design
 - Employee Transportation Coordinator – promote TMA programs and services
 - Permanent displays of Alternative mode information (employment centers, residential sales office, Town Center, transit centers)
 - Employee incentive programs (carpool, transit, bicycle, pedestrian)
 - Designated employee carpool spaces
 - Bicycle storage for employees and visitors (class I and class II)
 - Showers and clothing lockers for employees

5.0 TRANSPORTATION MANAGEMENT ASSOCIATION

Transportation Management Associations (TMAs) are private, nonprofit organizations run by a voluntary board of directors typically with a small staff. They help businesses, residents, developers, building owners, local government representatives, and others to work together to collectively establish policies, programs and services to address local transportation problems. The key to TMAs lies in the synergism of multiple groups banding together to address and accomplish more than any employer, resident, building operator or developer could do alone.

Sutter Pointe will create a Transportation Management Association (TMA) with the primary goal of providing alternative mode use programs and services to residents, employers, and employees, and managing transit services. The Sutter Pointe TMA elements will include a variety of mobility enhancing and rideshare programs, including the Guaranteed Ride Home program, vanpool subsidy program, area-wide transit marketing, carpool, and bicycle options. The TMA will also be a resource to residents and businesses on transportation and air quality issues.

The Sutter Pointe TMA staff would reach out to builders, future residents, and employees prior to build-out or occupancy. The TMA would work specifically with the home builders to provide all interested homebuyers/tenants with information about the programs and benefits (commuter shuttles/transit options, bicycle amenities, Guaranteed Ride Home program, etc.) before and at the point of sale or lease. Marketing of various commute alternatives is especially effective when presented to residents, employers, and employees prior to their move into Sutter Pointe. The TMA would be focused exclusively on the concerns and needs of Sutter Pointe.

A TMA would have the unique advantage of access to all builders and construction projects, resident occupants, and employers/employees. This advantage could allow for greater marketing and outreach successes due to the direct approach. The hope is that by providing the opportunity early in the process people will know about it right away, take advantage of it sooner, and become supporters of the programs right away. Early success will pave the way for additional participants. Furthermore, the TMA will host Transportation Fairs and other promotional events tailored specifically to residents, employees and shoppers. The TMA will eventually be housed on-site at the transit center.

TMA services will be provided in phases. Prior to occupancy, services such as the Guaranteed Ride Home Program and interim transit service/transit supporting service would be organized. The need for an official non-profit corporation would not have to

be set up initially. Incorporation and more costly programs could be deferred until appropriate funds were available through the funding mechanism.

A Community Facilities District (CFD), or similar financing mechanism, will be created to fund the TMA. The Urban Services Financing for Sutter Pointe will outline exactly how funding will be provided. A TMA Implementation Plan will be created prior to occupancy of Phase 1, which will detail phasing of services, timing of incorporation, and will provide additional details on services and programs.

The TMA would provide the support necessary to achieve pollution and trip reduction goals:

- Manage Sutter Pointe's transit service/interim commuter service (vanpools/shuttles)
- Transit program/route development
- Meetings and coordination with community and transit agencies to plan, implement, or change local service or to advocate for regional service
- Transportation Coordinator training
- Bicycle programs
- Summer smoggy season transportation fairs
- Marketing products and outreach/public relations
- Telecommuting promotions
- Bike to Work Event
- On-site meetings and events with developers, owners and residents
- Kiosk placement and information management
- Web page development and maintenance
- Commuter Center
- Newsletter articles and e-mail promotions
- On-line commute survey
- Walk-to-school program
- Subsidy or incentive programs
- Clearinghouse of information – create air quality tips sheet with information such as:
 - Refuel in the evening and never top off (Putting gas into your vehicle releases Volatile Organic Compounds (VOCs). Throughout the day, these VOCs mix with oxides of nitrogen (NOx), "cook" in the summer sun, and form ground-level ozone. Lower temperatures in the evening decrease the opportunity for VOCs to create ozone).
 - Link trips (this saves vehicle miles traveled)
 - Use electric lawnmowers (reduces pollution, gas spillage which pollutes our water supply, reduces noise pollution).

- Commuter Club (online TMA program that links users to carpool matching and other TMA services such as the Guaranteed Ride Home program).

6.0 TRANSPORTATION COORDINATOR

Crucial to the success of Sutter Pointe's pollution reducing efforts is the marketing and implementation efforts made, and through employer/management support of this Plan. In order to ensure that the programs and incentives found in this Plan are offered and marketed to employees within Sutter Pointe, project Transportation Coordinators (TC) will be required and will have the primary responsibility for implementing this Plan and coordinating with TMA staff.

Transportation Coordinators play the key role of liaison between the TMA and the employees/employers. Each project (or employment center) will be responsible for providing a Transportation Coordinator to work with the TMA to disseminate information and in some cases to manage employee incentive programs. The Transportation Coordinator can be an employee with other duties. Only employers with 500 or more employees would be required to designate a half or full time person for this position. Typically the office manager, property manager, or someone within the organization who is interested in air quality or volunteer activities, fits the Transportation Coordinator duties into their work schedule. Duties usually include checking in with the TMA's Executive Director via email, disseminating flyers or program information, attending occasional meetings or participating as a TMA Board Member.

Transportation Coordinators (TC) will also have the responsibility of implementing the measures in project specific Air Quality Plans.

The TC will provide the following services and functions in coordination with the TMA:

1. Assist in the implementation of TMA programs. The TC will coordinate with TMA staff for program implementation such as the Guaranteed Ride Home Program and for information dissemination such as current bicycle maps, shuttle schedules, promotional incentives, and when appropriate, transit schedules.
2. Develop and maintain relationship with the TMA staff.
3. Coordinate and manage various aspects of the Master Plan that require periodic updates or monitoring such as Guaranteed Ride Home Program registration, carpool registration, parking assignment and enforcement, locker assignment and enforcement.
4. Provide information and resource materials on the full range of transportation choices available (list of materials and/or materials provided by the TMA).
 - Transit information – routes/schedules
 - Bicycle information such as bicycle route maps
 - Carpooling/vanpooling information
5. Develop relationships with large office park or industrial campus tenant employees by on-site visits, transportation fairs and emails; promoting TSM and air quality programs.
6. Assist TMA in conducting commute mode survey.
7. Promote telecommuting (working from home, which eliminates trips) and flextime (work schedules are flexible to accommodate carpooling or taking transit) where appropriate.
8. TC contact information must be forwarded to the TMA and the FRAQMD. If the person performing the duties of the TC changes, the TMA and the FRAQMD must be informed.

7.0 DISPLAY INFORMATION

Prior to occupancy, all employees and residents will have available to them information that promotes improved air quality. Residential leasing or sales offices will display information such as transit information, transit schedules (when appropriate), ridesharing programs, bicycle commuting programs, and other TMA or FRAQMD programs.

Employers will be required to provide a permanent display in employee common areas (typically where OSHA information is posted) with pertinent alternative mode information.



An outdoor kiosk, managed by the TMA will be located within the Town Center. Visitors as well as residents or employees will benefit. Information will be updated as necessary (at a minimum annually) by the TC (this information will also be distributed to employees when they are newly hired). The following are the types of information that will be provided:

- Transit maps and schedules, and transit pass subsidy program
- Regional ridesharing programs
- Bicycle commuting programs and route maps
- TMA programs (Guaranteed Ride Home, Carpool Matching)
- TC contact information

8.0 GUARANTEED RIDE HOME

When asked what would convince them to share the commute, the number one answer among Sacramento Valley Air Basin commuters was “a Guaranteed Ride Home program at work.” Guaranteed Ride Home, or GRH as it is commonly referred to, is an essential element to any alternative commute program.

In California, surveys have shown an increase in ridesharing of 15 percent (15%) to 20 percent (20%) when a GRH program is made available to them.

GRH is a program designed to provide a free ride home, to any individual registered in the employee alternative commute or rideshare program, in the event of a personal emergency or if the individual needs to work approved, unexpected overtime. Eligible participants include those who primarily commute via an alternative: carpool, vanpool, transit, bicycle, or by walking. GRH provides those who use an alternative commute option with the assurance that if they register in the program, should an emergency arise, they will have the peace of mind knowing that they always have a way to get home. Also, if any individual registered in the GRH program has to work unexpected overtime (unexpected defined as not knowing prior to arriving at work) or if their carpool partner has to leave work, they will be provided with a guaranteed ride home.

The GRH Program is a free service provided through the TMA. Typically a taxi provides the service and is able to provide prompt and reliable rides home. Until Sutter Pointe has taxi service available, possibly a TMA staff member, transit (shuttle) driver, or other authorized driver may provide the service.

It is the responsibility of each employer, or employment center, (via the TC) to provide the following:

- Distribution of GRH information to all employees
- On-going cooperation with the TMA to market and provide GRH services
- Posting information

GRH materials will eventually be provided online through the TMA’s “Commuter Club”.

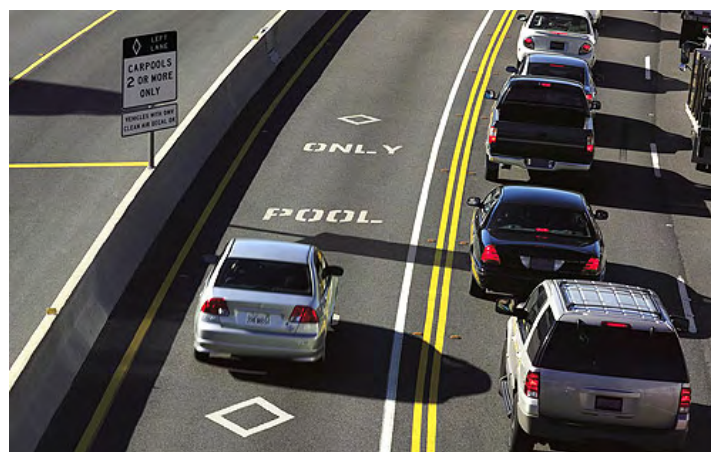
9.0 VANPOOL/CARPOOL PROGRAMS

Forming carpools and vanpools is an important step in reducing the number of commute trips into and out of the area. Carpools and vanpools help reduce traffic congestion on surface streets and, typically, reduce commute time (especially on freeways with High Occupancy Vehicle lanes – carpool lanes).

9.1 Personal Matching Assistance

To assist in the formation of carpools/vanpools, the TMA will be actively engaged in the creation process through target marketing and by “matching” riders through creating a database list of interested parties and “matching them up”. Eventually the TMA will offer the information online and create a program called “Commuter Club”. Commuter Club is currently offered through the TMAs in the Sacramento region. Employees or residents are able to register online and become “Commuter Club Members”. Benefits of belonging to the Commuter Club include access to information on how to make better choices when planning commute trips. Commuters will be able to get up-to-the minute information about traffic conditions, public transportation options, ridesharing, and bicycling anytime, anywhere throughout Northern California.

Projects will be required to allow the TMA and/or the TC to hold periodic carpool promotions, such as carpool/vanpool parties (typically held during the lunch hour). These parties allow those interested in forming carpools/vanpools a place to come together and get matched up. Another option is through advertising. If you do not have someone at your workplace that you can carpool with, the TMA will post “carpool/vanpool want ads” on their website. Large projects with intranet or employee newsletters will be required to post “carpool/vanpool want ads” to encourage formation.



Carpoolers utilizing carpool lane.

9.2 Vanpool Program

Until transit service is available, the TMA will likely develop a vanpool program to support the interim need for commuter services. The vanpool program may include fleet purchase, management, and subsidy provision, route establishment, and development of ridership participation requirements.

TMA staff will include Factors for determining vanpool viability includes:

- The concentration of interested and potential participants on a commute corridor.
- The availability of additional vanpool participants.
- The coordination of work schedules (e.g. 8, 9 or 10 hour days) and workday hours.
- Ridership goals.
- The logistics for participants and the vanpool in terms of pickup points and work locations.

9.3 Incentive Program

Future projects of Sutter Pointe that exceed thresholds for pollution or employ more than 100 employees will be required to provide a carpool incentive program. This could include a cash subsidy, gas card, prizes, time off, etc. It would be up to the individual developer/employer to decide how their program would work.

Projects exceeding thresholds for pollution would also be required to prepare an Air Quality Plan specific to their project and would include program details.

9.4 Preferential Parking

As an incentive to rideshare, one effective measure is to reserve the most preferred parking spaces for exclusive use by carpools/vanpools. Preferential parking not only provides the direct benefit of convenience to employees, but also provides a certain degree of prestige as reserved, prime parking spaces are normally only given to upper management.

With Gas prices at \$4.00/Gallon and Climbing, Carpool Programs will be more important than ever to Sutter Pointe's residents and employees.

Ten percent (10%) of all employee parking spaces at Sutter Pointe's employment (office/industrial) areas will be reserved for carpools/vanpools. These spaces will be located as close to the building entrances as possible to provide maximum benefit and convenience to those who use an alternative mode of transportation. Shaded and/or covered carpool spaces would provide an additional benefit and should be considered.

The TC will promote carpooling and spaces, if necessary, and be responsible for assigning the spaces, monitoring usage/demand, and recommending necessary changes.

10.0 BICYCLE/PEDESTRIAN CONNECTIVITY

Sutter Pointe has created an extensive bicycle and pedestrian system. Class I (separate bicycle path or multi-use path) and Class II bike lanes (on-street bikeway designated by striping) as well as wide sidewalks separated from the roadway by landscaping are found throughout the project. Connectivity between housing, employment centers, retail, parks and schools will allow convenient bicycle opportunities.

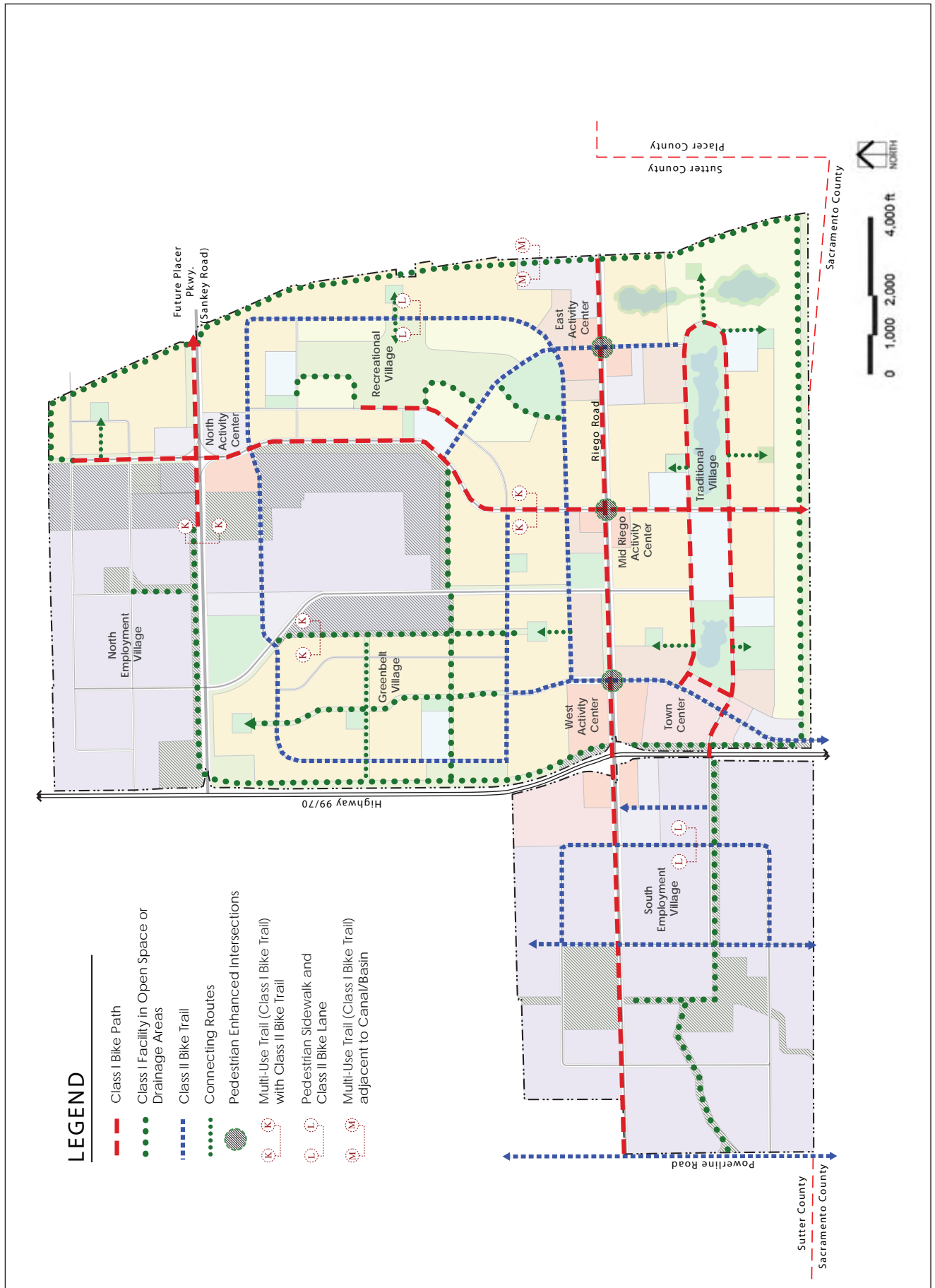
In addition to planned infrastructure, projects will be required to support bicycling and walking to work or other destinations through providing amenities or incorporating convenient access to/within their project site:



Bicycle commuters riding to work.

The map on the following page shows planned Class I and Class II lanes.

ALTERNATIVE CIRCULATION SYSTEM



LEGEND

- Class I Bike Path
- Class I Facility in Open Space or Drainage Areas
- Class II Bike Trail
- Connecting Routes
- Pedestrian Enhanced Intersections
- Multi-Use Trail (Class I Bike Trail) with Class II Bike Trail
- Pedestrian Sidewalk and Class II Bike Lane
- Multi-Use Trail (Class I Bike Trail) adjacent to Canal/Basin

10.1 Proximity to Bike Lane

Projects that are located adjacent to a Class I or Class II bike lane will be required to provide an adequate connection to that lane. This could include striping in a parking lot, signage, or a Class I connection. The project will be required to identify planned connections and provide such plans to Sutter County as part of the development process (map review). Projects located adjacent to a planned Class I bicycle lane will be required to cooperate by dedicating land and possibly constructing the lane within their project boundaries.

10.2 Eliminate Impediments to Bicycle/Pedestrian Circulation

Sutter Pointe will be designed to maximize bicycle and pedestrian connectivity between residential uses and commercial/retail land uses. Any uses that may impede pedestrian or bicycle circulation, such as berms, gates, walls, or other structures will be discouraged, except in areas where the design of the community requires such structures.

If residential development is separated from retail/commercial by a soundwall, openings and connections to such development must be provided to allow for bicycle and pedestrian travel. However, grid style or direct, open connectivity will be planned whenever possible. Commercial development concerned with delivery vehicles and pedestrian traffic will need to plan for the connectivity to occur and make site adjustments accordingly.

10.3 Bicycle Storage

Having a secure place to store bicycles is a concern for those who would like to bicycle to work. Class I lockers, fully enclosed and locked units, provide the optimum storage for bicycles. In a locker, a bicycle is completely protected from the elements and theft. Class II (frame locking style) racks are those that one would chain a bicycle to and are usually in front of building entrances. Frame locking racks are convenient, but provide limited theft protection.



Sutter Pointe's commercial projects will provide 20% more Class I and Class II bicycle parking than Sutter County Zoning Code requires. Current code states that storage will equal 3% of the amount of parking provided. Fifty Percent (50%) of the storage spaces will be Class I with the remaining spaces Class II (frame locking style). Restaurants, medical centers, and retail centers will be required to provide less storage: 2% of parking spaces provided. Seventy-five Percent (75%) of the storage spaces will be Class I with the remaining spaces Class II.

10.4 Bicycle/Pedestrian Incentive Program

Projects that exceed thresholds for pollution or employ more than 100 employees will be required to provide a bicycle/pedestrian incentive program. This could include cash subsidies, meal/food vouchers, prizes, time off, etc. The program would be created and reviewed as part of development process.

10.5 Showers and Lockers

Projects that exceed thresholds for pollution or employ more than 250 employees will be required to provide a shower and clothing locker facilities for both genders. The number of showers and lockers provided will be reviewed on a case-by-case basis. Generally one shower and ten locker facilities will be required for every 250 employees. This measure will be optional for retail employers.

11.0 TRANSIT

A Conceptual Transit Plan has been developed for Sutter Pointe. It includes plans for phased transit service, which will begin only as soon as 50 interested riders have been identified. This is not typical. Usually transit service begins only after a certain number of homes have been developed and funds to fully off-set costs associated with transit are available. Sutter Pointe, through the TMA (in Phase 1 or 2 of the TMA development), will utilize vanpools to meet these immediate transit needs. Commute and/or local service routes and timing will be determined through the TMA. On-going transit funding will be provided through a permanent funding mechanism such as a community facilities district.

Yuba-Sutter Transit will likely be contracted with to provide commuter service to Downtown Sacramento and will also serve Sutter Pointe for those commuters originating in Sutter County.

Yuba-Sutter Transit has seen a significant increase in ridership that can be attributed to rising gas prices. April 2008 figures for commuter services are up 31% over the prior year – local service is 15% higher than the prior year's ridership numbers.

Roseville Transit will likely be contracted with to provide commuter service into Placer County. Because Sutter Pointe will be an employment destination, transit service from Placer County and Sacramento County is anticipated to be provided by reverse commuter service.

Sutter Pointe is also planning for future light rail or BRT service by reserving for future right-of-way, land on Riego and Sankey Roads. Three Transit Centers will be located throughout Sutter Pointe and will include park-n-ride lots for carpoolers/vanpoolers and transit riders.

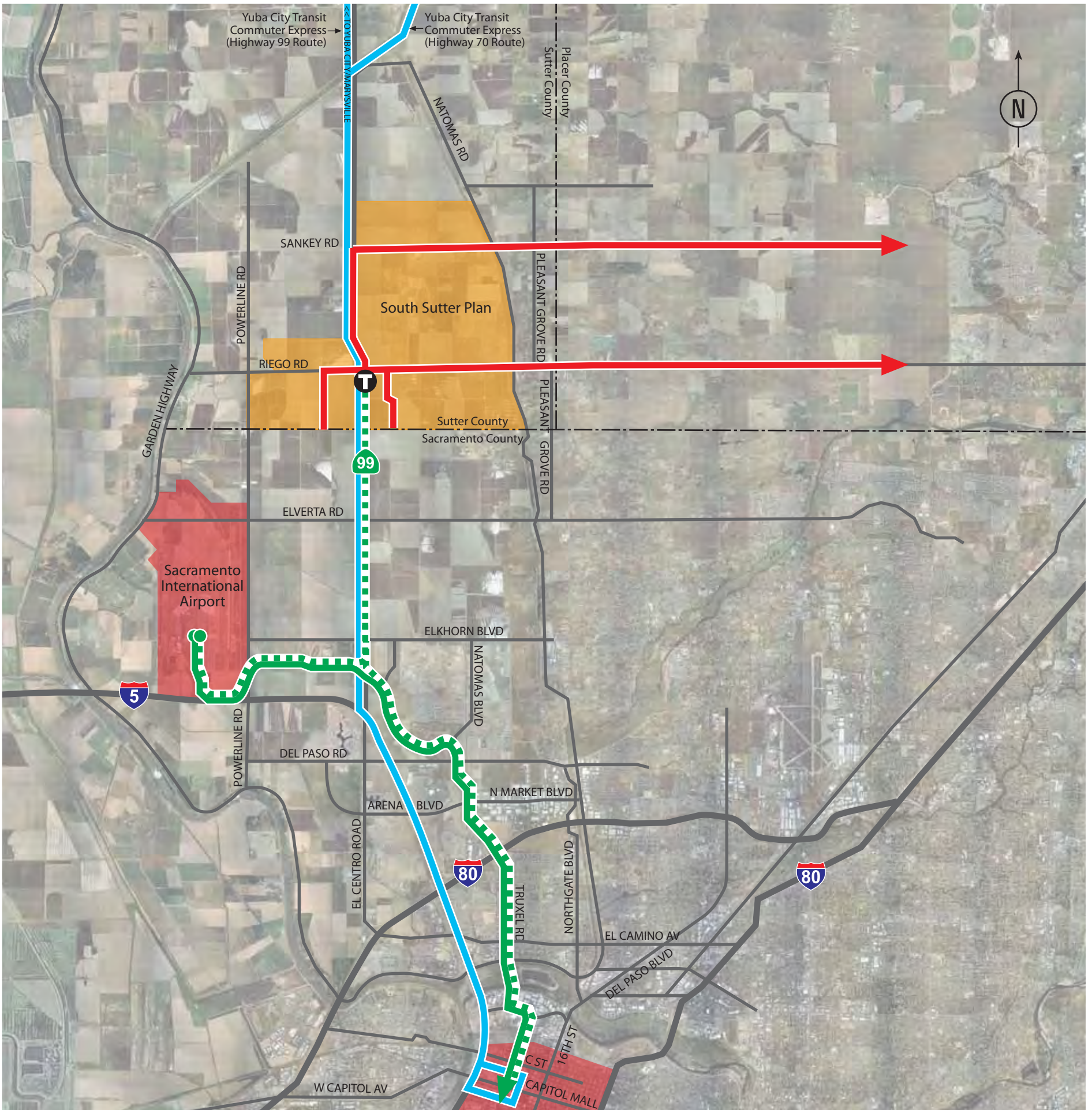
11.1 Transit Incentive Program

Projects that exceed thresholds for pollution or employ more than 100 employees will be required to provide a transit incentive program. This could include a transit pass subsidy, prizes, time off, etc. The program would be created and reviewed as part of the project's development process.

11.2 Bus Shelters

Development occurring at planned transit shelter locations will be required to provide pedestrian connections to the shelter (including signage), space and wiring for electricity for the shelter. The TMA will be responsible for reviewing and approving shelter design and possibly construction (transit provider may wish to construct shelters).

TRANSIT AND DEVELOPMENT MAP



LEGEND

<p> Yuba City Transit Commuter Express Routes (Yuba City/Marysville to Downtown Sacramento)</p> <p> Downtown Sacramento/Natomas/Airport (DNA) Light Rail Route</p>	<p> Potential Bus Rapid Transit Corridor (BRT)</p> <p> Potential Light Rail or BRT extension to South Sutter</p>	<p> Transit Center</p>
--	--	------------------------

12.0 PARKING

The amount of parking provided at a site is directly related to the employee modal choice. If there is an abundance of free parking and parking is designed to attract automobiles (parking spaces/lots in between street and building entrances) it makes it easier to drive to work. However, placement of parking in partnership with limiting parking amounts and incorporating alternative mode use infrastructure provides an incentive to carpool, bicycle, or walk to work.

Projects that employ more than 100 employees (major project) will be required to provide minimum amounts of parking and develop sites to support mobility options. Parking ratios will be determined by Sutter County, and eventually Sutter Pointe when it incorporates. Developers will work with the TMA to ensure that mobility supportive design is adhered to; parking lot and site design of major projects will be reviewed by the TMA.

12.1 Paid Parking

Free employee parking is a disincentive to use public transportation. A monthly transit pass is an out of pocket expense. All other things being equal, it is unlikely that employees would choose to pay to ride transit rather than to drive and park for free.

One way to level the playing field is to charge for employee parking so that parking a single occupant vehicle (SOV) does not have a significant financial advantage over taking public transportation or other mobility options.

If a building owner decide to charge its tenants parking fees in order to create a disincentive for employees to drive alone to work, Sutter County should expedite (and Sutter Pointe will when incorporated) the approval process for development.

If employees are required to pay to park but their parking fees are subsidized by their employer, then a parking cash out program will be implemented. A parking cash out program provides the employee, who does not drive alone to work, with monies equal to the amount of the subsidy paid to the employee who drives alone and parks. State law requires employers of over 50 employees, who subsidize employee parking to provide this program to help create a level playing field with the automobile. If the criteria is met, the program will be implemented according to state law requirements (Assembly Bill 2109, Katz; Chapter 554, Statutes of 1992).

13.0 PARKING LOT SHADING

Providing shading in parking lots reduces the heat island effect and improves air quality. In addition to providing the required shading, trees will be planted to maximize growth for a larger, faster growing canopy. Sutter County requires that projects provide shading – 40% shading for parking areas with 5-24 spaces and 50% shading for parking areas with 25 or more spaces.

Sutter Pointe will require commercial and retail development to exceed shading requirements by a minimum of 10% and plant low emission trees. A low emitting tree list is provided on FRAQMD's website. Because of the nature of Industrial development, industrial land use areas will not be required to provide additional landscaping or shading.

14.0 LAND USE AND DESIGN

Sutter Pointe will incorporate sound land use and design measures that will encourage alternative mode use and reduce energy consumption:

- Provide an assortment of housing styles/villages that encourage pedestrian travel – homes with porches built closer to street and with alley loading and unloading, or recessed garages or garages located in the rear of the home.
- Incorporate mixed-use development – ground floor retail/housing structures and/or office/retail/housing.
- Provide retail/restaurants/mixed-use within designated industrial areas.
- Require retail areas to have store fronts and/or entrances facing the street with parking in the rear to promote pedestrian/bicycle activity.
- Eliminate large set-back landscaped areas separating development from the sidewalk, and require connecting pedestrian pathways between landscaped set-back and the sidewalk.
- Villages will serve as focal points with schools and recreation within walking distance, and they will include amenities such as separated sidewalks, benches and lighting.

15.0 SUSTAINABILITY

Sutter Pointe will require development to utilize energy efficient materials and incorporate energy efficient practices whenever feasible. Examples include contracting with delivery, security or other services that utilize electric or low emission vehicles; contracting with landscapers who operate equipment that complies with the most recent CARB certification standards; exceeding Title 24 requirements, complying with EPA/DOE Energy Star building standards, or becoming LEED certified (or equivalent).

15.1 Solar

Sutter Pointe will implement a pilot solar program. Solar will be offered as a standard feature on a pre-determined percentage of homes for Phase I, and available as an upgrade on all homes during Phase I. If the program proves successful (identified by the builders as a desired feature), then the program will continue be included as additional phases of residential development occur. If solar is provided as a standard feature or standard option, Sutter County should expedite the approval process for development.

Priority or expedited processes should also be given by the county to developers utilizing solar on other land uses.

This feature is intended to reduce electric energy consumption and to provide a sustainable energy source. If other technologies are identified at the time of development that are more appropriate than solar, then another sustainable program may replace the solar program.

15.2 Roofing

Design elements are incorporated into Sutter Pointe to reduce energy consumption by the project, therefore providing an air quality benefit. All non-residential buildings (25,000 s.f. or more) within the project will install Energy Star (or equivalent) cool roofing systems. The advantage of light-colored roof systems include cooler building temperatures, which in turn equates to lower energy costs and reduced energy consumption. The Florida Solar Energy Center has measured cooling energy savings of up to 60 percent (60%) where white roof coatings were applied versus a dark roof system. Computer modeling also indicates that lightening the colors of roof systems, in conjunction with tree planting, could also lower the average summer afternoon temperature by 5° F. Instead of being absorbed by the roof and increasing the temperatures inside the building, cool roofs reflect the majority of solar radiation that hits the roof.

This feature is intended to reduce electric energy consumption. If other technologies are identified at the time of development that are more appropriate or cost effective then they may be used to replace the cool roofing program.

15.3 Energy Efficient Furnaces

Natural gas burners, used in furnaces, are the primary energy source for manufacturing, industrial processing and space heating, commercial and residential space heating and hot water. U.S. homes, businesses, industries, and power generators burned nearly 23 trillion cubic feet of natural gas in 2000, generating 22.6 quadrillion British Thermal Units (BTUs) of energy and emitting nearly 22 million metric tons of NO_x.

Sutter Pointe will require installation of energy efficient furnaces. Installing energy efficient equipment is one example of how Sutter Pointe can reduce emissions and become a sustainable development.

16.0 DEVELOPMENT LOCATED WITHIN 500 FEET OF THE HIGHWAY

Particulate matter is found in the air. Some sources of fine particles include emissions from diesel trucks, motor vehicles, power plants, wood burning fireplaces, and dust from paved or unpaved roads. Health studies have shown a significant association between exposure to particulate matter and aggravation of respiratory and cardiovascular disease. Individuals particularly sensitive to fine particle exposure include the elderly, small children and those inflicted with existing heart and lung diseases.

In 2005, the California Air Resources Board developed a guideline stating that residential development should not be constructed within 500 feet of a freeway and that housing or land uses targeting sensitive receptors (children or seniors) should be restricted. The impetus for creating the guideline was Environmental Justice – to protect California’s children, seniors, and other vulnerable populations against air pollution and other public health issues. Ultra-fine particles (PM₁₀) from diesel truck emissions have been shown to be harmful to these groups if they are housed within 500 feet of a highway/freeway.

To address the CARB’s concerns, the FRAQMD has authorized use of the Sacramento Metropolitan Air Quality Management District’s (SMAQMD’s) protocol to determine cancer risk and if a project’s cancer risk necessitates preparation of a Health Risk Assessment (HRA). The results of the protocol would be analyzed and forwarded to the Lead Agency (Sutter County). Sutter Pointe will assess cancer risk using the SMAQMD’s protocol, and if necessary, conduct a HRA and forward the results to Sutter County and determine appropriate mitigation.

Reducing PM10 exposure to sensitive receptors is recommended to mitigate cancer risk. Current land use design for Sutter Pointe indicates that residential development will occur within the 500 feet of Highway 99. Regardless if mitigation is required, Sutter Pointe will include strategies to reduce PM10 exposure. Approved strategies such as tree planting and home air filtration systems will be implemented, if necessary, to mitigate or reduce impacts associated with PM10 exposure.

Air filtration could be the best method for reducing indoor air pollutants such as particulate matter that may enter homes from the freeway. Necessary components of successful home air filtration systems include sealed airflows, ensuring that intake is downwind from the freeway, and continuous fresh airflow. If installed a warranty, maintenance program and homeowner training, which would be in place prior to occupancy.

Shrub and tree planting in a way that would carry pollution up and over homes is an important factor in reducing indoor highway pollution.



Illustration of trees reducing air pollution impacts on residents.

Proper planting of coniferous low emitting trees can help to mitigate air pollution impacts on residential land uses. Shrub and tree planting can also assist to mitigate other pollution impacts. An assessment of current and historical prevailing winds at the site may be necessary to determine factors relating to the best approach for tree planting. Sutter Pointe will plant trees, etc. as a buffer between Highway 99 and development.

Another strategy to mitigate cancer risk is to move the land uses away from the risk. Sutter Pointe will eliminate potential cancer risk associated with PM10 from sensitive receptors by restricting development of senior housing and child care centers within 500 feet of Highway 99.

17.0 DEVELOPER AND EMPLOYER REQUIREMENTS

As development occurs, subsequent specific Air Quality plans may need to be prepared. Projects employing more than 100 employees (including office parks, retail centers, and industrial centers, hospitals) will be required to prepare specific AQ plans. Plans will be submitted to the FRAQMD for review and to Sutter County for review and approval. Plans will use this document as a guide. Plans will include specific information such as number and location of bicycle storage units, parking spaces, carpool parking spaces, and contact information.

Subsequent development may also be required to report on the exact levels of pollution that their project may generate during operation and construction and provide additional mitigation. Projects that will be required to report on pollution levels are those that would exceed thresholds for pollution. Utilizing an approved FRAQMD protocol, a developer can determine if a project is likely to exceed thresholds for pollution. Once a determination is made, FRAQMD recommends using the Urbemis modeling program to determine exact pollution levels (FRAQMD should be contacted at the time of development to ensure that Urbemis is still the preferred program). If levels of pollution are shown to exceed thresholds set by the FRAQMD, then the development will provide mitigation as required by current FRAQMD policy.

CEQA Thresholds - (Mass Emission, pounds per day)

Project Type	Ozone Precursor Emissions		Respirable Particulate Matter Emissions
	NO _x	ROG	PM10
All	25	25	80

FRAQMD, Board of Directors, Approved Indirect Source Review
Thresholds of Significance

18.0 CONCLUSION

All measures in this Master Plan shall continue to be implemented by existing and/or future landowners and employers. Periodic monitoring will be conducted by the TMA (where appropriate), Sutter County staff, and FRAQMD staff, (and eventually by the incorporated area's planning department) by telephone or by on-site visits, to ensure that measures in this Master Plan are being implemented. The Master Trip Reduction and Air Quality Plan for the Sutter Pointe development is consistent with the emission reduction goals provided by the FRAQMD. At build-out Sutter Pointe will have established a walkable, alternative mode friendly community that will be an example for others to follow. Requirements within this plan may evolve as new technologies are made available. The TMA in consult with the Measure M Group, FRAQMD or the city government (after incorporation) would have the authority to update this document to incorporate or reflect changes in technology or cost effectiveness.

Mitigation measures in this plan and the full implementation of this plan will be phased. Initial programs and services will be provided upon occupancy. The matrix on the following page identifies the trigger points for key elements of this plan and other related plans.

MATRIX

Major Program Phasing - Matrix	Prior to Occupancy	Phase 1	Phase 2	Phase 3	Phase 4	Map Review
Pre-TMA and Initial Program Development	✓	✓				
TMA Start-Up				✓		
TMA Legal Formation					✓	
Vanpool Program (transit support)		✓				
Transit Needs (community meetings)		✓	✓	✓	✓	
Develop TMA Implementation Plan	✓	✓				
Develop AQMP Program Implementation Plan	✓	✓				
Assess need to update AQMP and update					✓	
Update Transit Plan				✓		
Monitor Project Land Use/AQMP Compliance						✓