

STAFF REPORT



MEETING DATE:	2/28/12
SUBJECT:	Personal Services Agreement - North State Transportation for Economic Development Study
AGENDA ITEM:	8
STAFF CONTACT:	Daniel Wayne

STAFF RECOMMENDATION:

It is recommended that the board authorize the executive director to negotiate minor scope of work adjustments as necessary and execute a personal services agreement (PSA) with System Metrics Group for completion of the North State Transportation for Economic Development Study, not to exceed \$213,750 over a two year term.

DISCUSSION:

The North State Transportation for Economic Development Study aims to stimulate economic activity and increase prosperity in the sixteen-county North State region as a function of future planned transportation infrastructure investment. Results will be used to facilitate local decision making processes, encourage coordination between transportation planning and economic development stakeholders, and demonstrate to state and federal funding partners the value of discretionary transportation investments in the North State.

As directed by the board in December, a request for proposals was distributed to prospective consultant firms. Four proposals were received. A proposal evaluation committee consisting of representatives from the North State Super Region, the economic development community, and agency staff reviewed and scored proposals based on technical approach, project management/experience, and overall value. System Metrics Group ranked highest. It is anticipated that the project will be complete by mid-2013.

ALTERNATIVES:

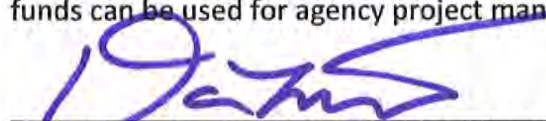
The board may decline to approve the contract or stipulate specific modifications and/or amendments.

OTHER AGENCY INVOLVEMENT:

Regional transportation planning agencies representing the sixteen-county North State Super Region are participants in this study. The California Department of Transportation's Office of Regional & Interagency Planning serves as grant administrator and is providing technical assistance. Various stakeholders representing the North State's economic development community are directly involved or otherwise informed of the study. The Technical Advisory Committee (TAC) concurs with the staff recommendation.

FINANCING:

This effort is funded 100% through a \$225,000 State Planning & Research grant. Up to 5% (\$11,250) of grant funds can be used for agency project management and administration.



Daniel S. Little, AICP, Executive Director

Attachment: Personal Services Agreement (PSA) with System Metrics Group

NO WITHHOLDING

**PERSONAL SERVICES AGREEMENT
BETWEEN THE SHASTA COUNTY REGIONAL TRANSPORTATION PLANNING AGENCY AND
SYSTEM METRICS GROUP, INC.**

This agreement is entered into between the Shasta County Regional Transportation Planning Agency ("SCRTPA") and System Metrics Group, Inc. ("Consultant") for the purpose of the North State Transportation for Economic Development Study.

1. RESPONSIBILITIES OF CONSULTANT.

- A. Pursuant to the terms and conditions of this agreement, Consultant shall perform the following services, also described in 'Exhibit A: Scope of Work' of this agreement which is attached hereto and incorporated within:
 - a. Evaluate the North State economic and transportation conditions and plans;
 - b. Develop economic performance measures for evaluating the North State's planned transportation improvements;
 - c. Identify and assess complementary non-infrastructure-based economic development strategies;
 - d. Prepare final report (findings and recommendations); and
 - e. Integrate findings with North State regional GIS platform/online viewer.
- B. As required by Government Code Section 7550, each document or report prepared by Consultant for or under the direction of the SCRTPA pursuant to this agreement shall contain the numbers and dollar amount of the agreement and all subcontracts under the agreement relating to the preparation of the document or written report. If multiple documents or written reports are the subject of the agreement or subcontracts, the disclosure section may also contain a statement indicating that the total contract amount represents compensation for multiple documents or written reports. Consultant shall label the bottom of the last page of the document or report as follows: agency name, agreement number, and dollar amount.
- C. The requirements of 49 CFR Part 26, regulations of the U.S. Department of Transportation, applies to this contract. Consultant shall submit required Disadvantaged Business Enterprises (DBE) information as described in Section 13.

2. RESPONSIBILITIES OF THE SCRTPA.

The SCRTPA shall compensate Consultant as prescribed in Sections 3 and 4 of this agreement and shall monitor the outcomes achieved by Consultant.

3. COMPENSATION.

SCRTPA shall compensate consultant for labor costs and materials costs actually incurred in accordance with Exhibit A, which is attached hereto and incorporated herein.

In no event shall compensation paid by SCRTPA to Consultant pursuant to this agreement exceed \$213,750

4. BILLING AND PAYMENT.

Consultant shall submit to the SCRTPA contract administrator an itemized statement or invoice of services rendered. The SCRTPA shall make payment within 30 days of receipt of Consultant's correct and approved statement or invoice.

5. TERM OF AGREEMENT.

This agreement shall commence as of the date it has been signed by both parties and shall end December 31, 2013.

6. TERMINATION OF AGREEMENT.

- A. If Consultant materially fails to perform Consultant's responsibilities under this agreement to the satisfaction of the SCRTPA, or if Consultant fails to fulfill in a timely and professional manner Consultant's responsibilities under this agreement, or if Consultant violates any of the terms or provisions of this agreement, then the SCRTPA shall have the right to terminate this agreement for cause effective immediately upon the SCRTPA giving written notice thereof to Consultant. If termination for cause is given by the SCRTPA to Consultant and it is later determined that Consultant was not in default or the default was excusable, then the notice of termination shall be deemed to have been given without cause pursuant to Paragraph B of this section.
- B. The SCRTPA may terminate this agreement without cause on 30 days written notice to Consultant.
- C. The SCRTPA may terminate this agreement immediately upon oral notice should funding cease or be materially decreased during the term of this agreement.
- D. The SCRTPA's right to terminate this agreement may be exercised by the Executive Director.
- E. Should this agreement be terminated, Consultant shall promptly provide to the SCRTPA any and all finished and unfinished reports, data, studies, photographs, charts, and other documents prepared by Consultant pursuant to this agreement.

- F. If this agreement is terminated, Consultant shall only be paid for services satisfactorily completed and provided prior to the effective date of termination.

7. ENTIRE AGREEMENT; AMENDMENTS; HEADINGS.

- A. This agreement supersedes all previous agreements relating to the subject of this agreement and constitutes the entire understanding of the parties hereto. Consultant shall be entitled to no other benefits other than those specified herein. Consultant specifically acknowledges that in entering into and executing this agreement, Consultant relies solely upon the provisions contained in this agreement and no others.
- B. No changes, amendments or alterations to this agreement shall be effective unless in writing and signed by both parties. However, minor amendments that do not result in a substantial or functional change to the original intent of this agreement and do not cause an increase to the maximum amount payable under this agreement may be agreed to in writing between Consultant and the SCRTA Executive Director.
- C. The headings that appear in this agreement are for reference purposes only and shall not affect the meaning or construction of this agreement.

8. NONASSIGNMENT OF AGREEMENT; NON-WAIVER.

Inasmuch as this agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or sublet any interest herein without the prior written consent of the SCRTA. The waiver by the SCRTA of any breach of any requirement of this agreement shall not be deemed to be a waiver of any other breach.

9. EMPLOYMENT STATUS OF CONSULTANT.

Consultant shall, during the entire term of this agreement, be construed to be an independent contractor, and nothing in this agreement is intended nor shall be construed to create an employer-employee relationship, a joint venture relationship, or to allow the SCRTA to exercise discretion or control over the professional manner in which Consultant performs the work or services that are the subject matter of this agreement; provided, however, that the work or services to be provided by Consultant shall be provided in a manner consistent with the professional standards applicable to such work or services. The sole interest of the SCRTA is to insure that the work or services shall be rendered and performed in a competent, efficient, and satisfactory manner. Consultant shall be fully responsible for payment of all taxes due to the State of California or the federal government that would be withheld from compensation if Consultant were the SCRTA employee. The SCRTA shall not be liable for deductions for any amount for any purpose from Consultant's compensation. Consultant shall not be eligible for coverage under the SCRTA's workers' compensation insurance plan nor shall Consultant be eligible for any other SCRTA benefits. Consultant must issue W-2 and 941 Forms for income

and employment tax purposes, for all of Consultant's assigned personnel under the terms and conditions of this agreement.

10. INDEMNIFICATION.

Consultant shall hold harmless and indemnify SCRTPA, its elected officials, officers, employees, agents, and volunteers against all claims, suits, actions, costs, expenses (including but not limited to reasonable attorney's fees of the SCRTPA Counsel and counsel retained by the SCRTPA, expert fees, litigation costs, and investigation costs), damages, judgments, or decrees by reason of any person's or persons' injury, including death, or property (including property of the SCRTPA) being damaged by the negligent acts, willful acts, or errors or omissions of the Consultant or any of Consultant's subcontractors, any person employed under Consultant, or under any subcontractor, or in any capacity during the progress of the work or the provision of services pursuant to this agreement, except when the injury or loss is caused by the negligence or intentional wrongdoing of the SCRTPA. Consultant shall also indemnify the SCRTPA for any adverse determination made by the Internal Revenue Service or the State Franchise Tax Board and/or any other taxing or regulatory agency and shall indemnify and hold harmless the SCRTPA with respect to Consultant's "independent contractor" status that would establish a liability on the SCRTPA for failure to make social security deductions or contributions or income tax withholding payments, or any other legally mandated payment.

For professional services provided under this agreement, Consultant shall indemnify and hold harmless the SCRTPA, its elected officials, officers, employees, agents, and volunteers from and against any and all claims, demands, actions, losses, liabilities, damage, and costs, including reasonable attorneys' fees, arising out of or resulting from the negligent performance of the professional services provided under this agreement or from recklessness or willful misconduct.

11. INSURANCE COVERAGE.

- A. Consultant and any subcontractor shall obtain, from an insurance carrier authorized to transact business in the State of California, and maintain continuously during the term of this agreement Commercial General Liability Insurance, including coverage for owned and non-owned automobiles, and other insurance necessary to protect the SCRTPA and the public with limits of liability of not less than \$1 million combined single limit bodily injury and property damage; such insurance shall be primary as to any other insurance maintained by the SCRTPA.
- B. Consultant and any subcontractor shall obtain and maintain continuously required Workers' Compensation and Employer's Liability Insurance to cover Consultant, subcontractor, Consultant's partner(s), subcontractor's partner(s), Consultant's employees, and subcontractor(s) employees with an insurance carrier authorized to transact business in the State of California covering the full liability for compensation for injury to those employed by Consultant or subcontractor. Consultant hereby certifies that Consultant is aware of the provisions of Section 3700 of the Labor Code, which

requires every employer to insure against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and Consultant shall comply with such provisions before commencing the performance of the work or services prescribed in this agreement.

- C. Consultant shall obtain and maintain continuously a policy of Errors and Omissions coverage with limits of liability of not less than \$1 million.
- D. Consultant shall require subcontractors to furnish satisfactory proof to the SCRTPA that liability and workers' compensation and other required types of insurance have been obtained and are maintained similar to that required of Consultant pursuant to this agreement.
- E. With regard to all insurance coverage required by this agreement:
 - (1) Any deductible or self-insured retention exceeding \$25,000 for Consultant or subcontractor shall be disclosed to and be subject to approval by the SCRTPA Risk Manager prior to the effective date of this agreement.
 - (2) If any insurance coverage required hereunder is provided on a "claims made" rather than "occurrence" form, Consultant or subcontractor shall maintain such insurance coverage with an effective date earlier or equal to the effective date of this agreement and continue coverage for a period of three years after the expiration of this agreement and any extensions thereof. In lieu of maintaining post-agreement expiration coverage as specified above, Consultant or subcontractor may satisfy this provision by purchasing tail coverage for the claims-made policy. Such tail coverage shall, at a minimum, provide coverage for claims received and reported three years after the expiration date of this agreement.
 - (3) All insurance (except workers' compensation and professional liability) shall include an endorsement or an amendment to the policy of insurance that names *the SCRTPA, its elected officials, officers, employees, agents, and volunteers as additional insureds* and provides that coverage *shall not be reduced or canceled without 30 days' written prior notice to the SCRTPA*. The additional insureds coverage shall be equal to Insurance Service Office endorsement CG 20 10 for on-going operations, and CG 20 37 for completed operations.
 - (4) Each insurance policy (except for workers' compensation and professional liability policies), or endorsement thereto, shall contain a "separation of insureds" clause which shall read:

"Separation of Insureds.

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

- a. As if each Named Insured were the only Named Insured; and
 - b. Separately to each suit insured against whom a claim is made or suit is brought."
- (5) Consultant shall provide the SCRTPA with an endorsement or amendment to Consultant's policy of insurance as evidence of insurance protection before the effective date of this agreement.
- (6) The insurance required herein shall be in effect at all times during the term of this agreement. In the event any insurance coverage expires at any time during the term of this agreement, Consultant shall provide, at least 20 days prior to said expiration date, a new endorsement or policy amendment evidencing insurance coverage as provided for herein for not less than the remainder of the term of this agreement or for a period of not less than one year. In the event Consultant fails to keep in effect at all times insurance coverage as herein provided and a renewal endorsement or policy amendment is not provided within 10 days of the expiration of the endorsement or policy amendment in effect at inception of this agreement, the SCRTPA may, in addition to any other remedies it may have, terminate this agreement upon the occurrence of such event.
- (7) If the endorsement or amendment does not reflect the limits of liability required by this agreement provided by the policy of insurance, Consultant shall provide the SCRTPA a certificate of insurance reflecting those limits.

12. NOTICE OF CLAIM/APPLICABLE LAW/VENUE.

- A. If any claim for damages is filed with Consultant or if any lawsuit is instituted concerning Consultant's performance under this agreement and that in any way, directly or indirectly, contingently or otherwise, affects or might reasonably affect the SCRTPA, Consultant shall give prompt and timely notice thereof to the SCRTPA. Notice shall be prompt and timely if given within 30 days following the date of receipt of a claim or 10 days following the date of service of process of a lawsuit.

- B. Any dispute between the parties, and the interpretation of this agreement, shall be governed by the laws of the State of California. Any litigation shall be venued in Shasta County.

13. COMPLIANCE WITH LAWS; NON-DISCRIMINATION.

- A. Consultant shall observe and comply with all applicable federal, state, and local laws, ordinances, and codes that relate to the work or services to be provided pursuant to this agreement.
- D. Consultant shall not discriminate in employment practices or in the delivery of services on the basis of race, color, creed, religion, national origin, sex, age, marital status, sexual orientation, medical condition (including cancer, HIV and AIDS) physical or mental disability or use of family care leave.
- E. Consultant represents that Consultant is in compliance with and agrees that Consultant shall continue to comply with the Americans with Disabilities Act of 1990 (42 U.S.C. Sections 12101, *et seq.*), the Fair Employment and Housing Act (Government Code Sections 12900, *et seq.*), and regulations and guidelines issued pursuant thereto.
- F. The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of the SCRTPA to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit bids/proposals. Award of this contract will be conditioned upon satisfying the requirements of this bid specification. These requirements apply to all bidders/offerors, including those who qualify as a DBE. A DBE contract goal of 9 percent has been established for this contract. The bidder/offeror shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26 (Attachment 1), to meet the contract goal for DBE participation in the performance of this contract.

The bidder/offeror will be required to submit the following information: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work that each DBE firm will perform; (3) the dollar amount of the participation of each DBE firm participating; (4) Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal; (5) Written confirmation from the DBE that it is participating in the contract as provided in the commitment made under (4); and (5) if the contract goal is not met, evidence of good faith efforts.

14. ACCESS TO RECORDS/RETENTION.

The SCRTPA, federal, and state officials shall have access to any books, documents, papers, and records of Consultant that are directly pertinent to the subject matter of this agreement for the

purpose of auditing or examining the activities of Consultant or the SCRTPA. Except where longer retention is required by federal or state law, Consultant shall maintain all records for five years after the SCRTPA makes final payment hereunder.

15. CONSULTANT'S COMPLIANCE WITH CHILD, FAMILY AND SPOUSAL SUPPORT REPORTING OBLIGATIONS.

Consultant's failure to comply with state and federal child, family, and spousal support reporting requirements regarding Consultant's employees or failure to implement lawfully served wage and earnings assignment orders or notices of assignment relating to child, family, and spousal support obligations shall constitute a default under this agreement. Consultant's failure to cure such default within 90 days of notice by the SCRTPA shall be grounds for termination of this agreement.

16. LICENSES AND PERMITS.

Consultant shall possess and maintain all necessary licenses, permits, certificates, and credentials required by the laws of the United States, the State of California, the County of Shasta, and all other appropriate governmental agencies, including any certification and credentials required by the SCRTPA. Failure to maintain the licenses, permits, certificates, and credentials shall be deemed a breach of this agreement and constitutes grounds for the termination of this agreement by the SCRTPA.

17. PERFORMANCE STANDARDS.

Consultant shall perform the services required by this agreement in accordance with the industry and/or professional standards applicable to Consultant's services.

18. CONFLICTS OF INTEREST.

Consultant and Consultant's officers and employees shall not have a financial interest, or acquire any financial interest, direct or indirect, in any business, property, or source of income that could be financially affected by or otherwise conflict in any manner or degree with the performance of the work or services required under this agreement.

19. NOTICES.

- A. Except as provided in Section 6.C. of this agreement (oral notice of termination due to insufficient funding), any notice required to be given pursuant to the terms and provisions of this agreement shall be in writing and shall be sent first-class mail to the following addresses:

If to the SCRTPA: Executive Director
Shasta County RTPA
1855 Placer Street
Redding, CA 96001

If to Consultant: Chris Williges
System Metrics Group
244 California Street, Suite 710
San Francisco, CA 94111

- B. Written notice shall be deemed to be effective two days after mailing. Any oral notice authorized by this agreement shall be deemed to be effective immediately.

20. AGREEMENT PREPARATION.

It is agreed and understood by the parties that this agreement has been arrived at through negotiation and that neither party is to be deemed the party which created any uncertainty in this agreement within the meaning of Civil Code Section 1654.

21. COMPLIANCE WITH POLITICAL REFORM ACT.

Consultant shall comply with the California Political Reform Act (Government Code Sections 87100, *et seq.*), with all regulations adopted by the Fair Political Practices Commission pursuant thereto, and with the SCRTPA's Conflict of Interest Code, with regard to any obligation on the part of Consultant to disclose financial interests and to recuse from influencing any SCRTPA decisions which may affect Consultant's financial interests. If required by the SCRTPA's Conflict of Interest Code, Consultant shall comply with the ethics training requirements of Government Code Section 53234 *et seq.*

22. CONFIDENTIALITY.

During the term of this agreement, both parties may have access to information that is confidential or proprietary in nature. Both parties agree to preserve the confidentiality of and to not disclose any such information to any third party without the express written consent of the other party or as required by law. This provision shall survive the termination, expiration, or cancellation of the agreement.

23. SCOPE AND OWNERSHIP OF WORK.

The scope of work shall be as prescribed in Paragraph 1. All research data, reports, and every other work product of any kind or character arising from or related to the scope of work of this agreement shall become the property of the SCRTPA and be delivered to the SCRTPA upon completion of its authorized use pursuant to this agreement. The SCRTPA may use such work

products for any purpose whatsoever. All works produced under this agreement shall be deemed works produced by a contractor for hire, and all copyright with respect thereto shall vest in the SCRTPA without payment of royalty or any other additional compensation. Notwithstanding anything to the contrary contained in this agreement, Consultant shall retain all of Consultant's rights in Consultant's own proprietary information, including, without limitation, Consultant's methodologies and methods of analysis, ideas, concepts, expressions, know how, methods, techniques, skills, knowledge, and experience possessed by Consultant prior to, or acquired by Consultant during the performance of this agreement and Consultant shall not be restricted in any way with respect thereto.

24. USE OF SCRTPA PROPERTY.

Consultant shall not use SCRTPA premises, property (including equipment, instruments and supplies), or personnel for any purpose other than in the performance of Consultant's obligations under this agreement.

25. SEVERABILITY.

If any portion of this agreement or application thereof to any person or circumstance is declared invalid by a court of competent jurisdiction or if it is found in contravention of any federal or state statute or regulation or SCRTPA ordinance, the remaining provisions of this agreement, or the application thereof, shall not be invalidated thereby and shall remain in full force and effect to the extent that the provisions of this agreement are severable.

IN WITNESS WHEREOF, the SCRTPA and Consultant have executed this agreement on the day and year set forth below. By their signatures below, each signatory represents that he/she has the authority to execute this agreement and to bind the party on whose behalf his/her execution is made.

Date: _____

Daniel S. Little, AICP
Executive Director
Shasta County RTPA

Chris Williges
System Metrics Group, Inc.

Tax I.D. 94-3409653

Approved as to form:

John Kenny, Counsel
Shasta County Regional
Transportation Planning Agency

John Kenny

Exhibit A: Scope of Work

Task A: Pre-Award Conference

The pre-award conference will provide us with an opportunity to discuss expectations and to finalize any outstanding details regarding the project budget, timeline, deliverables, and any proposed enhancements to the scope of work. Both members of our project management team – Chris Williges and Stephen Wahlstrom – plan to attend the pre-award conference. Other key team members, such as Glen Weisbrod, Tarek Hatata, John Long, and Stephen Fitzroy can be available via a web-based conference (WebEx) to ensure that the PTAC has access to all senior team members, if needed.

We understand that the pre-award conference will occur prior to the completion of the contract agreement, so time and expenses associated with the conference are not reimbursable. The SMG Team believes that this conference is critical to successful completion of the study because the North State encompasses a wide-range of economies, transportation needs, and priorities. After the pre-award conference, we will work with the SCTRPA project manager to adjust the budget, timeline, and deliverables (as necessary) to address the comments of the PTAC. The final contract agreement will reflect the adjusted budget, timeline, and scope.

Deliverables: pre-award conference, and modified budget, timeline, and scope (as necessary)

Task 1: Evaluate the North State's Economic and Transportation Landscapes

In Task 1, the SMG Team will survey the North State's economic and transportation landscapes by pulling together available economic and transportation data. The purpose of this task is to collect and organize information that describes the region's transportation and economic development resources, initiatives, opportunities and needs. This information will create a foundation to recommend transportation investments that maximize the regional and local economic benefits.

Given the size and diversity of the North State, this will be a labor-intensive task. The SMG Team understands that there have already been several complimentary efforts, such as:

- ◆ North State Super Region White Paper
- ◆ County profiles and forecasts developed by Chico State University (CSU)
- ◆ Various economic analyses at Shasta College
- ◆ Northern California Regional Competitiveness Network Industry Cluster and Entrepreneur Study conducted by the Employment Development Department (EDD)
- ◆ Existing Regional Transportation Plans (RTPs)
- ◆ Caltrans Transportation for Economic Development Study
- ◆ Caltrans County-Level Economic Forecasts
- ◆ And many other efforts that the PTAC will help us identify.

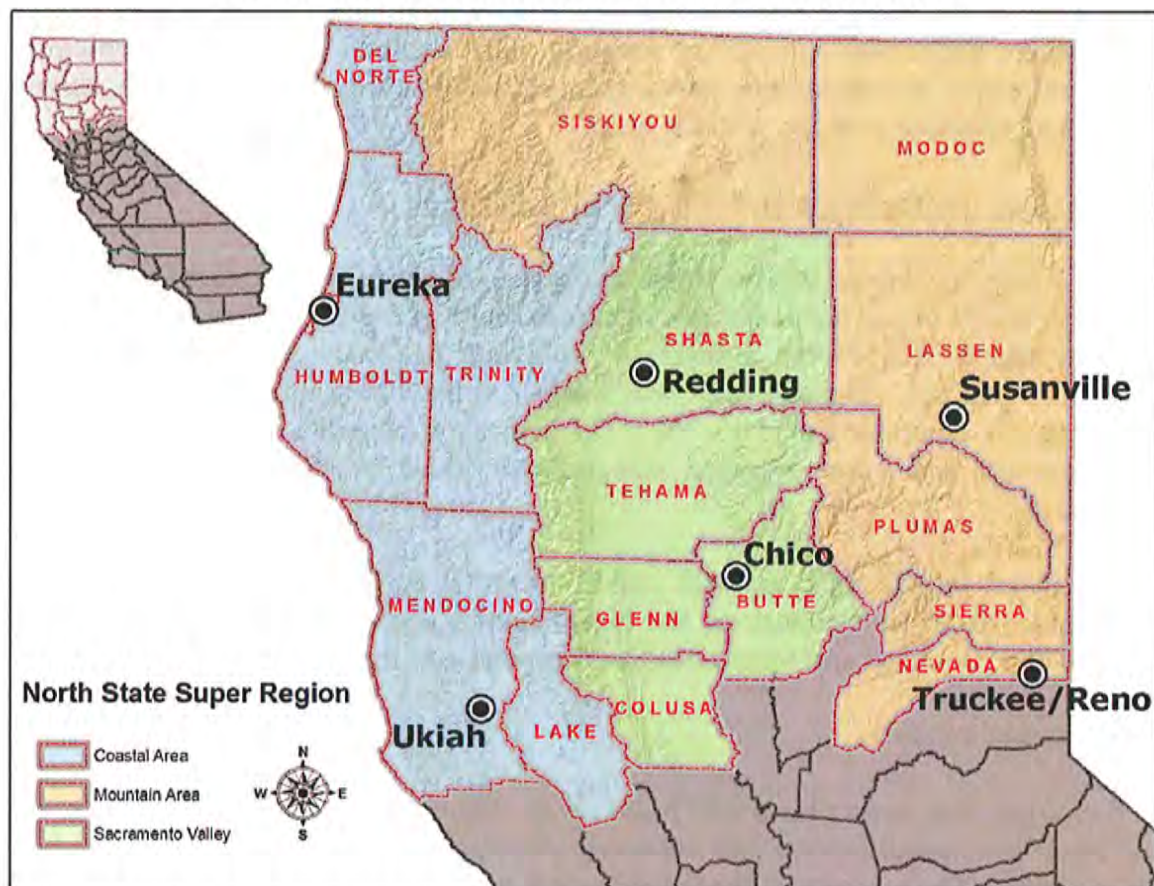
Since there have been so many complimentary efforts, the idea is to compile existing materials in a consistent form rather than conduct exhaustive new research. We also understand the need to create easy-to-understand maps and matrices to summarize the data. The purpose of this study is to help make the case for targeted investment in the North State. The information must be easily communicated with decision-makers and conveyed to potential finding agencies outside the region.

The transportation and economic data gathering activities will occur in parallel to make sure that the information is gathered as quickly as possible. As described in more detail in the project management section of our proposal, SMG has dedicated sub-teams to the two activities. In this way, individuals with the appropriate expertise in economic analysis, economic development, tribal relations, travel demand modeling, and freight forecasting are involved in the data collection. This is not to suggest that the sub-teams will act as independent silos. We are fully aware of the ties between transportation and economic development and the sub-teams will work closely throughout the project.

The RFP notes that the various economic and transportation project partners will assist in identifying and transmitting available information. We suggest that this may be facilitated by holding a series of mini-conferences in the North State to collect information. While we would like to meet individually with each of the regional transportation planning agencies (RTPAs), economic development corporations (EDCs), economic development districts (EDDs), Caltrans districts and other appropriate stakeholders, the list of potential stakeholders is simply too long.

As shown in Exhibit I-2, the North State could be characterized as consisting of three general subareas. There are many potential ways to describe the “regions” within the Super Region, but the simplification shown in Exhibit I-2 is useful for data collection. We will work with the PTAC to refine the potential definitions of subarea (or simply counties) as we progress in the study.

Exhibit I-2: Potential Locations for Mini-Conferences



Sub-Areas Adapted from North State Super Region White Paper

In each subarea, the SMG Team proposes to hold a mini-conference during which participants can bring copies of relevant economic studies and RTPs, discuss economic issues and economic development targets, and identify potential transportation needs.

We believe that the mini-conferences will provide a good forum for economic development and transportation professionals as well as representatives from neighboring counties to share common ideas. They may also be a place where stakeholders less apt to participate (or speak up) in the PTAC meetings may share ideas. A similar mini-conference structure work well in the Caltrans Transportation for Economic Development Study.

Exhibit I-2 shows six potential locations for the mini-conferences along with the sub-areas designated in the North State Super Region White Paper. We will work with the PTAC to narrow this list to three locations. For example, the counties in the Sacramento Valley may be willing to travel to Redding or Chico. Likewise, Reno may prove to be a central location for counties in the Mountain Area. Note too that Redding may be a more convenient location for representatives from Siskiyou even though the county is listed in the Mountain Area.

The mini-conferences will be the beginning of our discussions with the various stakeholders. We plan to hold a series of follow-up telephone conversations to make sure that we gather the relevant information. The combination of mini-conferences, individual phone conversations, and regular PTAC meetings will provide a range of forums for collecting data and sharing ideas.

Task 1.1: Evaluate the North State's Economic Landscape

In Task 1.1, the economic sub-team will assemble, assess and summarize key aspects of the North State's economic landscape, in a form that highlights changes occurring in the economy and the commercial connections with state, national and international supply chains and markets. The sub-team will work in consultation with local EDCs, EDDs, the Center for Economic Development at CSU, Shasta College Economic and Workforce Development, and other relevant stakeholders identified through the pre-award conference.

As discussed in the RFP, we will collect information in six areas, which will be documented in a draft report on the North State's economic landscape. This draft report will be finalized and form a reference appendix to the final report in Task 4.

a) Inventory of Initiatives

At the outset, the project team will build on the data gathered in the mini-conferences and interview transportation and economic development stakeholders in every North State county. The purpose of the interviews is to identify local priorities, projects and plans that may be in the pipeline. This will include local, regional and state-sponsored programs, projects and initiatives that may have been started by the private sector, local governments, colleges and universities, economic development agencies, and other relevant stakeholders. A matrix will be prepared (following the format identified in our overall approach) to compare features of local initiatives and priorities, in a way that

identifies their key transportation and economic development impacts. For instance, a tourism development or business expansion initiative may potentially change visitor travel behavior or commercial traffic patterns. Gaps, inconsistencies, and complementarities will be noted.

b) Data Collection

The economic sub-team will assemble Census 2010 data and other demographic data to portray both changes and disparities in the North State's socio-economic characteristics and trends (including population, households, median income, demographic changes, and education levels). Rather than approach this as a perfunctory data collection task, our team will describe implications for regional business development strengths and weaknesses. For instance, we will note implications for the size, skill and buying power of workforce and consumer markets, which can play a critical role in shaping the North State's future growth opportunities.

c) Evaluate Economic Patterns, Opportunities, and Barriers to Growth

The economic sub-team will describe economic patterns and trends using data from the Census County Business Patterns, US Bureau of Economic Analysis (BEA), and State employment (ES-202) records. This will draw upon the LEAP (Local Economic Analysis Package) system developed by EDR Group. This system documents notable differences in relative industry concentration (location quotients), relative growth trends (shift share), differences in industry operating costs and other local advantage or disadvantage factors. The LEAP system is based upon, and makes significant refinements to, the Montana Highway Economic Analysis Tool (HEAT), which was also developed by EDR Group. We will portray industries in terms of their concentration and trends (see Exhibit I-3 for an example) to identify growth industries, complementary and emerging activity clusters and their implications for change in future forms of economic growth.

The system will enable us to also note emerging economic "growth paths" and opportunities to develop strategic clusters of knowledge (people or workers), resources (infrastructure and natural resources), markets (both consumer and freight delivery) and connectors (commuting and supply chains) between them.

Exhibit I-3: Concentration/Trend Analysis Matrix

	Industry Trend Category							
	Industry growing "faster" locally than nationally	Industry declining locally while growing nationally	Industry growing locally "slower" than nationally	growing at a rate "similar" to national trend	Industry growing locally while declining nationally	Industry declining locally "slower" than nationally	Industry declining locally "faster" than nationally	Industry declining locally at a rate "similar" to national trend
Above Average	Strong, stable local industry	Strong but needs attention	Strong but needs attention	Strong, stable local industry	Industry in national decline, seek diversification	Industry in national decline, seek diversification	Industry in national decline, seek diversification	Industry in national decline, seek diversification
Average	Strong, consider supporting	Medium strength, growth potential	Medium strength, growth potential	Strong, consider supporting	Unstable, consider diversification	Unstable, consider diversification	Unstable, consider diversification	Unstable, consider diversification
Below Average	Emerging local industry, consider supporting	Weak local industry, potential opportunity	Weak local industry, potential opportunity	Emerging local industry, consider supporting	Possible consolidation, monitor	Weak local industry	Weak local industry	Weak local industry
	Strengths/Opportunities				Weaknesses/Threatened			

Source: LEAP and EDR Group.

d) Identify Emerging or Target Economic Activities and Transportation Needs

The economic sub-team will identify emerging changes in the composition and location of business clusters, and the "value-chain clusters" that link growth of different industries to changes in supply chain needs and efficiency – a direct consequence of the region's transportation connectivity. This will provide a sound basis of information to portray the relative volume and cost of moving commercial vehicles to connect producers with final products and customer markets.

We will distinguish between growth in value-added production and growth in jobs. This is important because some industries can have declining employment but growth in freight shipments. This occurs when automation and other investments increase productivity and output, but reduce total workforce. High value-added industries may no longer be the direct job engines for the North State economy that they once were, but they are still important as they purchase goods and services from local suppliers and pay wages to remaining employees, wages which are often higher to reflect increased productivity.

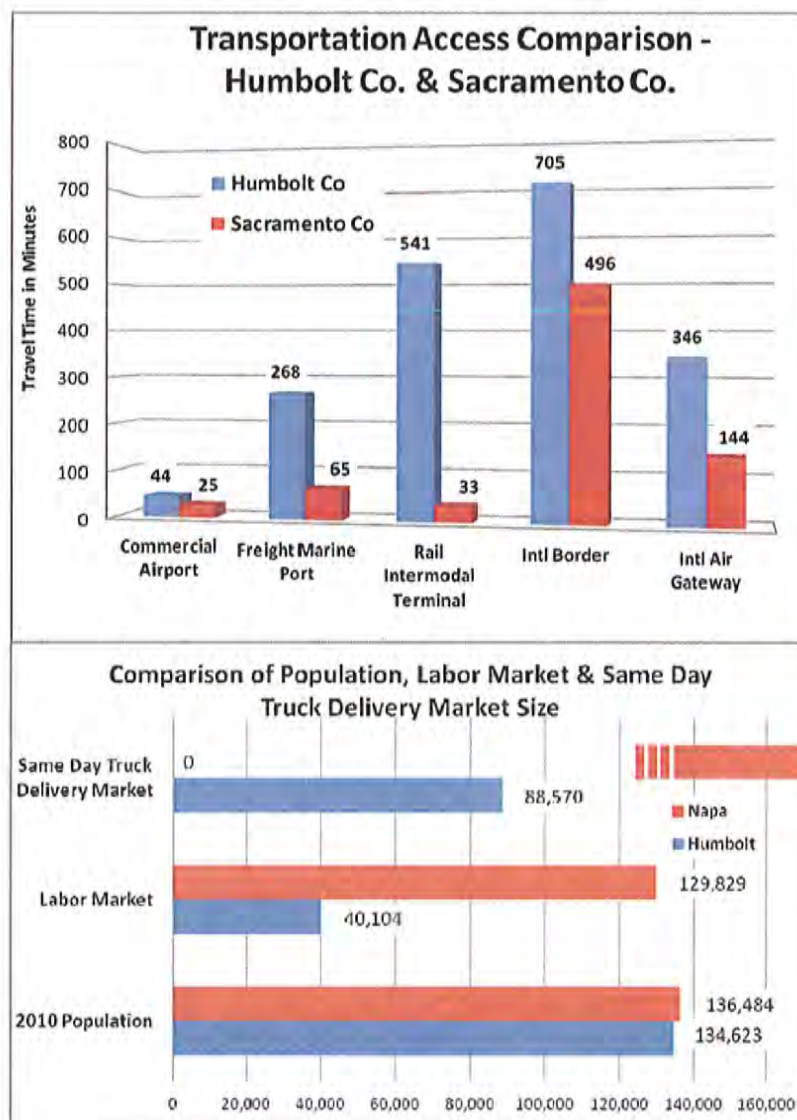
The sub-team will utilize the LEAP system to portray industry-specific barriers to economic growth in the North State region, and the role of transportation access and movement as an element of those barriers. This will consider the relative roles of:

- ♦ **Business Costs** – Production cost, labor cost, land cost, energy cost, taxes

- ♦ **Market** – Labor market size and skill level, customer delivery markets
- ♦ **Transportation Access** – Highway, rail/intermodal, airport, sea port, export markets
- ♦ **Technology Access** – Broadband availability/speed.

This information will indicate both the relative role of regional transportation and access conditions in facilitating growth of some industries, while holding back growth in others due to differences in industry requirements. Furthermore, the previously discussed interviews will identify any additional factors that may be limiting growth in the region, such as supply chain efficiency and the direct cost of raw material inputs. Sample comparisons of selected factors are shown in Exhibit I-4.

Exhibit I-4: Sample Graphics of Key Transportation Access and Market Access Factors



e) Consider Economic Influence of Neighboring Regional Markets, including Southern Oregon, Sacramento, and the Bay Area

As part of the LEAP analysis tool, EDR Group has developed indicators of labor market access, customer delivery market access, input materials market access and intermodal freight access and has compiled the data and comparisons across all counties in the US. We propose to leverage this institutional knowledge to understand the roles of adjacent and nearby regions, markets and access in determining relative patterns of economic influence. This approach is efficient and cost effective. More importantly, it provides useful info for assessing the nexus between transportation plans and economic development opportunities.

f) Highlight Data and Plans Specific to Tribal Governments

The SMG Team will also utilize its knowledge of and connections with North State California Indian Tribes to identify their local economic development priorities, project initiatives and transportation constraints. A matrix of tribal initiatives will be prepared to identify the nexus between economic development initiatives and transportation improvement needs.

Exhibit I-5 shows tribal lands in the North State compared to those in the rest of California. California Tribes in northwest California, defined as north of I-80 and west of I-5 to the Oregon State Line, comprise the most populous indigenous California native population in the state. The area includes 44 federally recognized tribes and five active, but non-federally recognized tribes with a form of state recognition. The total populations of these tribes exceeds 20,000 and the counties of Del Norte, Mendocino, Humboldt and Trinity together comprise about 20 percent of the population of the counties in which they are situated, according to the 2010 Census. These tribes suffer from unemployment rates averaging close to 50 percent and the population below the federal poverty line exceeds 20 percent of the tribal population according to a 2005 study by the California Department of Housing and Community Development.

Exhibit I-5: California Tribal Lands



Source: United States Environmental Protection Agency

The tribal governments are sovereign nations and are responsible for their own economic and transportation planning. Transportation access is a consistent issue across tribes. Access to tribal lands often requires construction of or improvement to roads off tribal lands. How can tribal governments pursue economic development strategies related to attracting outside visitors if these visitors have difficulty accessing tribal lands?

Inadequate, reliable, year-round transportation access is one factor contributing to the depressed social conditions of these 49 Indian communities. However, this is also a factor for the relative weak economic vitality of the northwest economic region in general. A second factor is the social isolation of the Native American communities. They suffer higher school-drop-out rates than the general population. They are also located in remote areas of the counties and cut off from social and educational support systems, with few exceptions. This factor contributes to the relative weaker "work

readiness” of the tribal labor force compared to that of the general population. A third factor is the relative political isolation of these communities.

Whether federally recognized or not, the tribes regard themselves as ‘Indian Nations,’ and have legal authority and responsibility comparable to county governments to which they related, and to state and federal government agencies. This factor is very important to recognize and respect with regard to government or private initiated projects that require consultation and involvement, including possible partnership agreements, with the northwest tribes.

Dave Singleton has worked with California tribes for more than 30 years as an independent consultant and an economic development planner as well as through the California Indian Assistance Program (CIAP) and the California Native American Heritage Commission. Mr. Singleton will help us solicit data and plans specific to tribal governments throughout the project.

Deliverable: draft report that summarizes the economic landscape, focusing on implications for strategy development, supporting data tables will be included in an appendix

Task 1.2: Evaluate the North State’s Transportation Landscape

In Task 1.2, the sub-team devoted to documenting the transportation landscape will collect data relevant to understanding the transportation infrastructure available in the North State. Although the RFP discusses primarily travel demands and capacity expansion needs, the sub-team will also consider maintenance and rehabilitation needs in the region.

In addition, the transportation sub-team will briefly discuss the availability of commercial aviation in the region, since this can be a limiting factor for economic growth. The sub-team will work with the Regional Transportation Planning Agencies (RTPAs) – including those designated as Metropolitan Planning Organizations (MPOs), each of the three Caltrans districts, private sector entities and other relevant stakeholders identified through the pre-award conference.

As discussed in the RFP, we will collect information in five areas, which will be documented in a draft report on the North State’s transportation landscape. As with the report on the economic landscape, this draft will be finalized in Task 4 and be a reference appendix in the final report.

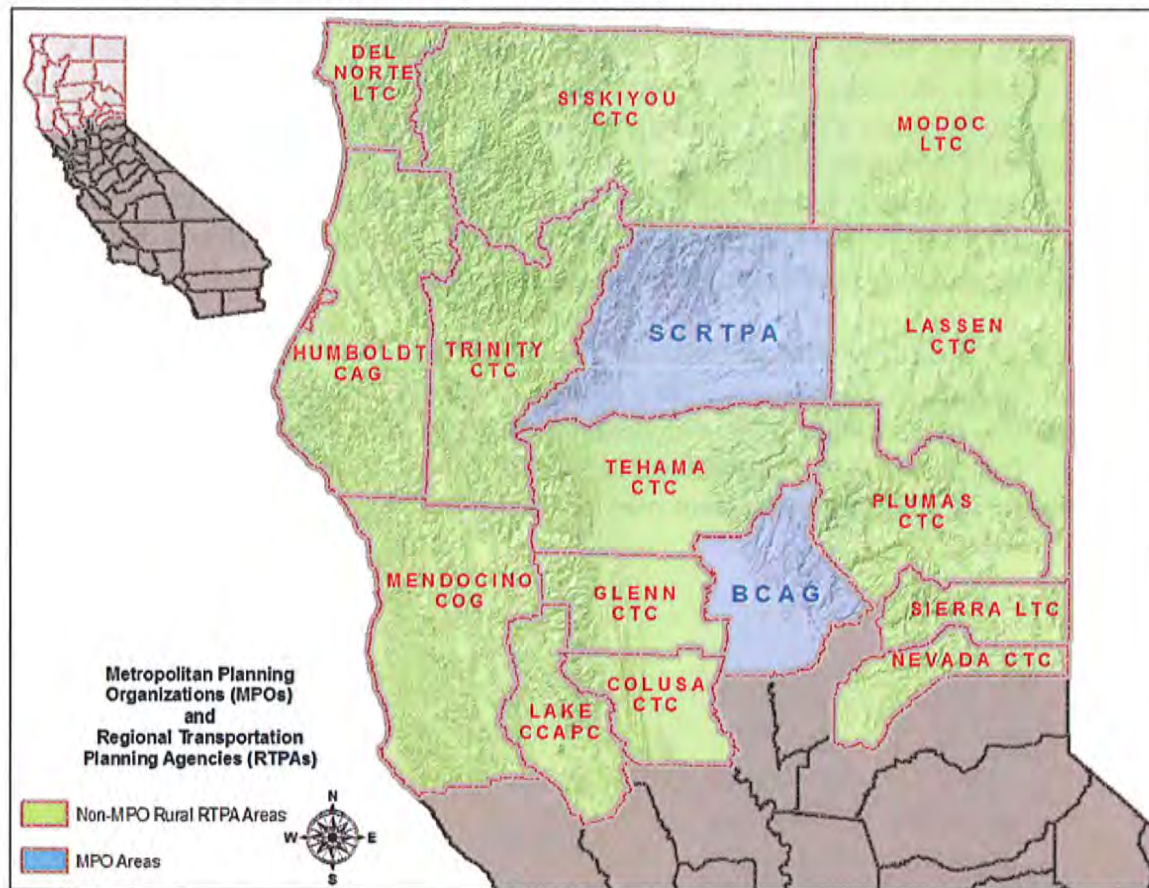
For many of the transportation research areas (e.g., planned transportation system enhancements in RTPs), the activities involve compilation of existing data. For others, such as the compilation of commodity flow data, less information is readily available. The SMG Team will work with the PTAC to determine the extent of our analysis and create of “new” data. The PTAC may want to consider the development of additional

commodity data that supports travel demand models as a scope enhancement. This possibility is discussed in a separate section on scope enhancements.

a) Compile and Present Planned Transportation System Enhancements

The transportation sub-team will begin by developing a list of all planned transportation system enhancements based on each region's fiscally constrained RTP. This requires the team to develop lists for each of the 16 counties included in the North State region. As shown in Exhibit I-6, every one of the North State counties has a separate RTPA for state planning purposes. Two of these RTPAs are also designated as MPOs.

Exhibit I-6: North State Regional Transportation Planning Agencies



SMG has extensive experience collecting planned and programmed transportation project information. Most recently, we have been working with agencies in Southern California and the San Francisco Bay Area to collect information on system expansion and operational improvement projects for developing planning scenarios as part of Corridor System Management Plans (CSMPs). Although the RFP mentions only system expansion projects, it may also make sense to include operational improvements since these can impact transportation system performance. Operational improvements may

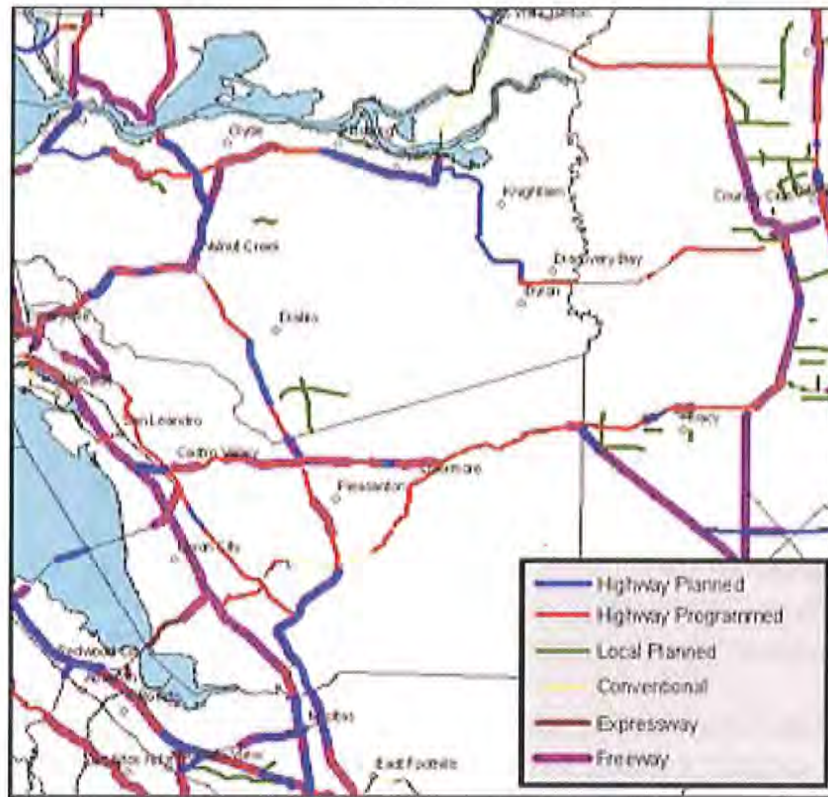
be found in RTPs or they may only be listed in the State Highway Operations and Protection Plan (SHOPP). SMG will look at including SHOPP projects as directed by the PTAC.

We will rely on North State members to help us to collect the list of improvement included in the RTPs, which will be one of our topics at the mini-conferences. In addition to the fiscally constrained list, the PTAC may also want to consider any unconstrained lists of projects, since these are the types of projects that may be funded if the North State is successful in advocating for additional transportation funding. Other potential sources of information on planned transportation projects include the California Transportation Improvement Program System (CTIPS) database and the California Transportation Investment System (CTIS).

The Caltrans Division of Programming maintains the CTIPS as a statewide resource. While RTPAs and MPOs have access to CTIPS, they generally do not maintain CTIPS beyond what is necessary for the programming the Federal Statewide Transportation Improvement Program (FSTIP) and generating Federal Transportation Improvement Program (FTIP) documents. For example, the agencies do not report to CTIPS locally funded projects lacking federal funding. However, CTIPS may have information on inter-regional projects that Caltrans adds to the FTIP. The three Caltrans districts will also be good sources for information on inter-regional projects.

The Office of State Planning in Caltrans Transportation Planning developed CTIS for statewide planning purposes. The database shows programmed and planned transportation investments over the next 20 years in GIS. Exhibit I-7 provides an example. The Division of Transportation System Information has recently taken over responsibility for CTIS, so the system may not be up to date.

Exhibit I-7: Screenshot of CTIS Data



b) Highlight Projects Resulting in Greatest Benefit over Regions and Industries

In this step, the transportation sub-team will highlight projects that have potentially wide-ranging benefits across geography (i.e., the transportation landscape) and industries (i.e., the economic landscape). This activity will require coordination with the economic sub-team. It also cannot be completed until after the current and future level of service (LOS) maps are developed and the best-available commodity flow data are compiled in the next two steps.

The LOS maps will help us identify critical bottlenecks that proposed projects may address. The commodity flow data may be able to help us identify which industries are affected by goods movement through bottlenecks (depending on whether the commodity flow data is assigned to the transportation network). However, some obvious inter-regional projects can be identified before either of these other two activities is completed.

c) Develop Current and Future Level of Service (LOS) Maps

The SMG Team will also develop GIS maps to show existing and future traffic volumes and levels of service (LOS) for the North State Super Region. This will require the team to develop consistent forecasts from the California statewide travel demand model as

well as the various travel demand models available in the North State. SMG has worked with DKS Associates on similar work in developing the ITMS traffic volume inventory and updates for Caltrans. DKS Associates has worked with several of the travel demand models for the North State and will help the SMG Team prepare consistent forecasts.

The SMG Team will prepare a list and map for the roadway system that will include all state highways and principal arterials that could play an important role in economic development, especially vital goods movement routes. Roadways will be divided into logical segments. For each segment of the state highway system, the SMG Team will compile existing 2010/2011 traffic data and roadway type information including:

- ◆ Annual average daily traffic (AADT) volume
- ◆ Peak month daily traffic volume
- ◆ Truck AADT
- ◆ Truck percent of total volume
- ◆ Travel lanes
- ◆ Terrain type (level, rolling, or mountainous)
- ◆ Access control type (low, medium, and high).

We will use data from existing sources (regional transportation plans, general plans, aeriels etc.) to compile existing traffic volumes, truck volumes, lanes and terrain type and access control type data for the key principal arterials not on the State Highway System in the North State. For the State Highway System, the SMG Team will use current traffic counts and the state highway inventory from Caltrans. In addition, the base year network for the statewide travel demand model has been calibrated and will be available for the North State study. If future years are available, we will use those as well.

The SMG Team will compile existing LOS estimates for the regional system from RTPs as well as make separate estimates of existing LOS for all segments with capacities based on the combination of travel lanes, terrain type and access control type. Tables and maps of existing traffic/truck volumes, lanes, LOS and roadway type will be prepared for review by the PTAC. Adjustments to data and LOS estimates will be made to reflect PTAC comments.

The SMG will use the best available information to compile traffic volume forecasts for the regional system, including RTPs and travel demand models. As shown in Exhibit I-8, half of the North State counties have travel demand models. The remaining counties have prepared traffic forecasts based on estimated growth rates.

Exhibit I-8: Travel Demand Models in the North State

County	Travel Demand Model Type	County	Travel Demand Model Type
Butte	3 Step	Modoc	NA
Colusa	3 Step	Nevada	3 Step
Del Norte	NA	Plumas	NA
Glenn	NA	Shasta	4 Step, activity-based
Humboldt	3 Step	Sierra	NA
Lake	4-Step	Siskiyou	NA
Lassen	NA	Tehama	NA
Mendocino	3 Step	Trinity	3 Step

Most North State counties have prepared traffic forecasts for 2030 or 2035 horizon years for their RTPs. The SMG Team will use those forecasts to estimate consistent traffic volumes for 5, 10, 15 and 20 year horizons for the North State regional system. We will also estimate future truck volumes based on overall traffic volume growth and commodity flow estimates. Like existing conditions, future LOS will be compiled from RTPs and separate estimates of LOS will be made for all segments with capacities based on the combination of travel lanes, terrain type and access control type. Tables and maps of future traffic/truck volumes, lanes and LOS will be prepared.

d) Identify Best Available Commodity Flow Data

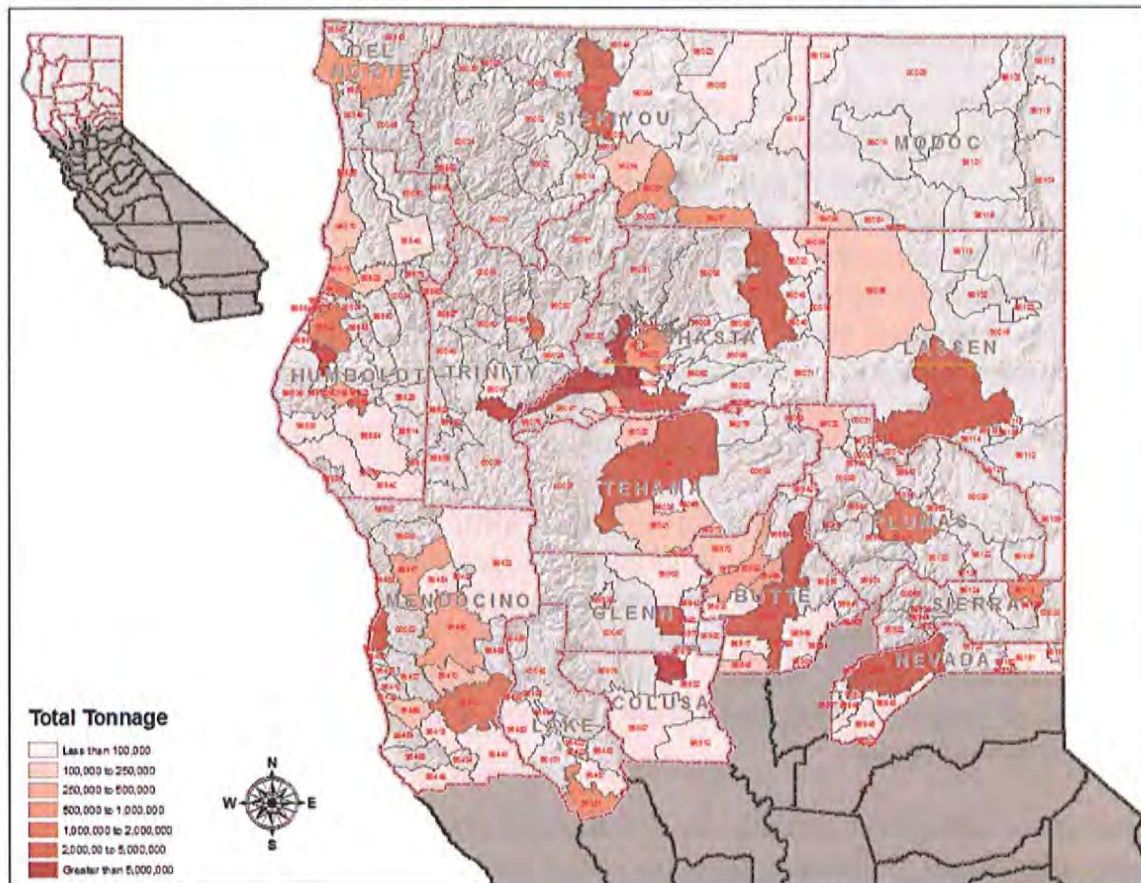
The flow of goods to, from and through the North State region is a reflection of the region's economic base. It is of significant importance because: (1) future economic growth will necessarily require corresponding expansion of freight moving via truck and rail, and (2) the region's capacity for handling freight growth can also affect its ability to grow economic activity. From an economic development perspective, the shipment of freight flowing out of the region is a major source of money (income) flowing into the region.

There are a limited set of data sources traditionally used in the analysis of regional commodity flows. However, they are either too coarse – in that they lack spatial or commodity specificity (e.g., FAF3/CFS and the Long Distance Commercial Vehicle model for the California Statewide TDM) – or they are expensive and difficult to use (e.g., TRANSEARCH). However, the SMG Team is in the unique position of offering a reasonable and up-to-date alternative, by making use of a database of estimated freight flows that have been developed by combining existing freight, traffic and economic data sources.

Specifically, our team will provide both a profile of current freight flows for the region and estimates of how future economic development initiatives may affect the flow of commodities and travel demand for Northern California counties. This is enabled by the recent work of our team and the TREDIS economic model system in developing California county-to-county freight flows working with UC-Davis and the CalSIMS (PECAS) model.

SMG led consultant efforts to derive a methodology to disaggregate county-level commodity flows to a zip code level for the Intermodal Transportation Management System (ITMS) freight flow. Exhibit I-9 shows estimated total freight tonnages produced in each zip code in the North State Super Region.

Exhibit I-9: ITMS Zip Code Level Freight Productions



These county-level data and forecasts include detailed inter-county domestic trade flows (e.g., gross commodity imports and exports between regions) developed by the Minnesota IMPLAN Group, and trade with California's major trading partners (e.g., Mexico, Canada, Asia and other regions in the rest of the world.) Because we now have inter-industry trade flows estimated for all US counties, both localized county-to-county flows and broader interregional trade flows between strategic trading partners in other regions of the US can be identified. International trade, especially exports of

agricultural, minerals and other natural resources in high demand, also play an important role, especially in Northern California.

Using these data sources and methods that map industry sectors to commodity groupings within the TREDIS analytic framework, our team has developed estimates of county-to-county commodity flows measured in terms of Standard Classification of Transported Goods (SCTG) commodity codes for other states and regions in the US. These estimates can be used with county-level output data and forecasts (e.g., history and forecasts such as those produced by Moody's economy.com) to estimate current and future county-level trade in a number of applications throughout the US.

Because the TREDIS framework provides a flexible foundation for customizing key inputs, alternative forecasts such as those produced for northern California by Chico State University can be readily applied for this study. Moreover, alternative statewide forecasts from the CALSIMS system and other sources can be used to assess potential effects of international trade (especially in assessing potential for industries with a significant export potential). The system developed by our team is flexible enough so that new forecasts can be integrated into "alternative futures", and these modified forecasts can be directly related to future commodity movements, employment forecasts and transportation demand (productions and attractions, as identified below).

Working with the project technical advisory committee, the project team will identify trade regions of interest (both internal multi-county California regions and external regions composed of counties, states and international trading partners) that are of current or potential future interest. These regions will define the spatial relationships used in assessing baseline and future commodity movements and inter-industry trade against which baseline and alternative future cluster-based growth will be assessed.

Movement of goods and products. We propose to provide current and future estimates of commodity flows by transferring the inter-industry trade flows to commodities associated with inputs and outputs for each industry, and using forecasts of growth by industry group.

For this project, we will use the Chico State University long-range county forecasts to estimate future baseline commodity flows. This approach assures that the most recent and locally accepted forecasts will be used to define future freight flows into and out of the Northern California study area. Moreover, both the economic linkages (e.g., output, value added) between counties and employment forecasts by industry sector will be consistently portrayed in any analysis.

If included as a basis for Chico State's forecasting, international trade relationships (imports and exports) as well as domestic production and consumption will be reflected in these trade flows. If additional analysis of international trade is desired, the SMG Team can bring to bear its recent experience in assessing international trade flows to supplement this analysis. The results will be consistent with the approach presently

employed in the models and will provide details for Northern California not available either in readily available national sources (such as FAF3), or that reflect pre-recession trade and commodity flow patterns that are still in other California databases (such as ITMS).

Once a baseline estimate of industry activity and commodity flows have been developed, the project team will assess alternative future growth rates for emerging industry clusters, determine how growth in these industry clusters differ from baseline county-level forecasts, and apply inter-industry trade flow relationships to the revised forecasts of inter-county trade patterns. This approach will provide an estimate of not only the potential growth in emerging industry clusters relative to a baseline forecast, but also a way to “map” incremental growth in these clusters to commodity flows (both into and out of the Northern California study area at the county level).

The proposed approach will provide the study team with insights into how differences in sectoral growth, as defined by emerging clusters of target industries, will be reflected in both the composition of commodities and spatial patterns of supply and demand for industry-specific commodities under various sets of assumptions about industry sectors that are the most likely to respond to economic development initiatives. The TREDIS analytic framework will also be used to provide tools and conversion factors (both default and customizable) that can convert county-to-county commodity flows into modal flows (e.g., truck, rail, barge and air freight) for all county-to-county interchanges, and trade with other US regions and international trading partners.

Integrating economic development planning, transportation planning, and travel demand modeling. By integrating both industry growth patterns and commodity flows between producing and consuming counties (origins and destinations) for both intermediate and final goods, and by characterizing these flows as differences between baseline flows and forecasts, the project team will define both the detailed relationships needed to support a well-developed economic strategy and the basic production and attraction data (aggregated flows by commodity) needed as inputs to travel demand and sketch-level freight system analysis.

Moreover, commodity-by-mode assessments can be re-allocated by mode using freight demand management methods to assess the relative impacts of modal diversion from highway to rail, where feasible. One of the principal advantages of developing commodity and modal flows based on underlying economic trade relationships is that the simplifying, and potentially biased, assumptions in the California Long Distance Commercial Vehicle Model (LDCVM) can be avoided.

Using forecasts of employment to “rescale” the 2008 commodity flows as required in the LDCVM, does not address productivity or other factors (like effects of asymmetric post-recession recoveries), in which we have seen commodity volumes rebound, but not employment. Our team’s approach can properly account for productivity and structural changes in post-recession recovery and also allow future commodity and

freight flows to better reflect both changes in the future structure of the Northern California economy, and travel demand policies – particularly freight transportation demand policies – that are significant elements of the proposed project.

e) Highlight Transportation Needs Specific to Tribal Governments

In addition to working with the tribes through Dave Singleton, the SMG Team will also work with the Native American Liaison Branch (NALB) under the Caltrans Division of Transportation Planning. The Native American Liaison Branch has many resources available, including local district liaisons and a Native American Advisory Committee (NAAC). The advisory committee meets four times per year and may be a useful forum for coordinating the study with transportation needs specific to tribal governments.

Caltrans has undertaken several efforts that will help the SMG Team identify tribal transportation needs:

- ♦ **Compilation of Road and Bridge Data** - The NALB conducted this assessment to develop a baseline of tribal transportation facility system information. Seventy-seven (77) of 108 tribes in California participated in a project to compile road and bridge data to be included in the Indian Reservation Roads (IRR) inventory.
- ♦ **Preparation of Needs Assessment Reports** - A second project involved 43 tribes to prepare needs assessment reports, which will be used to prepare long-range transportation plans.
- ♦ **2009/2010 Tribal Needs Assessment and Outreach Project** - Through a consultant, Caltrans helped another 23 California tribes develop needs assessment reports. The plans include community profiles, inventories of roads, identification of transportation issues, and comprehensive stakeholder outreach.
- ♦ **California Interregional Blueprint (CIB)** - The primary focus of the CIB is to understand interregional travel and align the State's long-range transportation planning processes with regional transportation plans. In Phase II of the CIB, Caltrans is expanding on its initial analysis by including other transportation plans and programs such as Tribal Transportation Needs Assessments and data from the California Indian Reservations Roads (IRR) Technical Report. The CIB team is also gathering input from federally recognized tribes, non-recognized tribes, and tribal organizations.

<i>Deliverable:</i> draft report that summarizes the transportation landscape

Task 2: Develop Economic Performance Measures for Evaluating the North State's Planned Transportation Improvements

In Task 2 the SMG Team will develop performance measures to evaluate the North State's planned transportation improvements identified in Task 1.2. As stated in the RFP, the primary goal of this task is to demonstrate how the proposed transportation projects perform in terms of evolving state and federal transportation funding priorities. The key to this task is making sure that the performance evaluation reflects how state and federal funding agencies would see projects.

The RFP notes that the North State has difficulty competing against heavily populated and heavily congested, urban areas. This is because the transportation performance measures typically reward increases in transportation outcomes, such as higher system productivity (throughput), mobility improvements (reduced travel time or increased LOS), and safety benefits (lower accident rates). Most of these measures increase when the number of travelers increases. Since rural areas tend to have higher accident rates, safety is one of the few areas where rural roadways are more successful for competing for funding.

Even the recent emphasis on benefit-cost analysis tends to benefit urban transportation projects. As an example, consider the benefit-cost results shown in Exhibit I-10. These results are from a Cal-B/C analysis for a potential interchange project that improves traffic flow in Placer County. As the analysis shows the project barely breaks even (benefit/cost ratio equals 1.3). The project is evaluated in terms of user benefits, which are a function of the number of people using the road, and project costs, which are relatively fixed for a given project type with the exception of different right-of-way costs. As one can see, it is hard for a rural project to compete using typical transportation measures.

Exhibit I-10: Example from a Rural Cal-B/C Analysis

3

INVESTMENT ANALYSIS

SUMMARY RESULTS

Life-Cycle Costs (mil. \$)	\$20.5
Life-Cycle Benefits (mil. \$)	\$26.1
Net Present Value (mil. \$)	\$5.6

Benefit / Cost Ratio: 1.3

Rate of Return on Investment: 6.0%

Payback Period: 14 years

ITEMIZED BENEFITS (mil. \$)	Average Annual	Total Over 20 Years
Travel Time Savings	\$1.2	\$24.3
Veh. Op. Cost Savings	-\$0.0	-\$0.8
Accident Cost Savings	\$0.1	\$2.7
Emission Cost Savings	-\$0.0	-\$0.0
TOTAL BENEFITS	\$1.3	\$26.1

Person-Hours of Time Saved	161,947	3,238,942
CO ₂ Emissions Saved (tons)	-310	-6,194
CO ₂ Emissions Saved (mil. \$)	-\$0.0	-\$0.1

However, recent changes in state and federal funding priorities present an opportunity for the North State to make a better case for its funding projects. Fixed formulas, such as allocations based on population and transit ridership, are beginning to give way to discretionary grants awarded based on several criteria.

For example, evaluators considered a number of primary and secondary outcomes in the latest TIGER III discretionary grant program. Some of these are listed below:

- ◆ *Economic competitiveness* measured as how transportation outcomes translate into economic productivity benefits
- ◆ *State of good repair* measured as how the project improves system condition, performance or long-term cost structure
- ◆ *Liveability* measured as how the project will reduce the average cost of user mobility options, improve existing transportation choices by increasing connectivity, or improving access for residents or making goods or services more readily available

As these examples show, discretionary grant programs offer the potential for the North State to market and fund their projects better by meeting more inclusive goals. In addition, reauthorization of Federal highway funding provides an opportunity for rural areas to advocate for measures that meet their needs. The USDOT Rural Transportation Initiative is an example of an outcome from Transportation Equity Act for the 21st Century (TEA-21).

The SMG Team plans to address the development of economic performance measures in two steps. In the first step, we will report performance outcomes with some traditional performance measures using the data collected in Task 1. These will be presented to the PTAC at an in-person meeting to be held at the end of Task 1.

We would like to have web access available at the meeting, so we can encourage the various stakeholders to participate and get more involved in the study through the mini-conference. SMG has the capability to run WebEx meetings over the internet. This will be the starting point for our discussions on developing economic performance measures.

In our second step, we will develop a comprehensive framework to evaluate the planned transportation improvements. This step will occur after we identify and assess alternative strategies in Task 3, so the selection of the performance measures addresses the mix of projects and strategies. We describe this second step in more detail below.

Our Second Step

The RFP notes that the performance measures and methods should rely on upon readily accessible data sources and be available for replication in future planning cycles. The SMG Team will rely primarily on the data gathered in Task 1, so the data should be readily available.

Performance measures have two primary uses. One is “prospective” -- to provide appropriate criteria for assessing the potential value of proposed transportation investments and projects. The other is “retrospective” -- to track results and progress towards goals that are associated with implementation of past projects, so that current and future plans may be adjusted to optimize results. The tailoring of performance measures can be particularly useful for rural areas that do not fare well with traditional transportation volume and delay metrics, and for projects intended to support economic development rather than merely congestion reduction.

As requested in the RFP, the SMG Team will develop two sets of performance measures:

- ♦ *Primary measures* – These measures will reflect “scoring criteria” that are likely to be used in current and emerging state and federal interests. The TIGER discretionary grant example provides one set of measures. We will also follow other funding sources, such as the STIP, SHOPP, Congestion Mitigation Air Quality (CMAQ), Regional Surface Transportation Program (RSTP), Federal Transit Administration (FTA) funding sources. SMG is very familiar with all of these sources having work with Caltrans on STIP and SHOPP programming, financial forecasting of all funding sources with the Southern California Association of Governments (SCAG), and competitive applications with the California Transportation Commission (CTC). We will also follow federal highway funding reauthorization discussions. With these primary measures, the North State should be able to respond to the next application for funding.
- ♦ *Secondary measures* – The SMG Team will also design measures that better recognize and quantify the impacts of transportation investments in rural and small areas. These non-conventional measures should capture some of the more unique characteristics of the North State. For example, the percent of residents (to capture labor and retail markets) accessible by 53-foot trucks would be a measure that captures the current logistics problems for trucks reaching Humboldt and Del Norte counties. These measures may also capture quality-of-life type issues that can attract businesses and residents to the North State. The economic development stakeholders may have particularly interesting input in this area.

After we have worked with the PTAC to define primary and secondary measures, we will apply the measures to the transportation projects identified in Task 1. The list of

projects will include all fiscally constrained projects as well as projects from unconstrained as warranted. Below, we provide in more detail a potential approach that captures many of the measures federal and state interest are likely to consider. This approach requires more input from economic development stakeholders in particular. We can discuss this approach further at the pre-award conference.

Potential Approach

There has been substantial criticism of the performance measures developed by firms that have generated overly long lists and overwhelming catalogs of performance metrics without much guidance about when and where they are most needed. An example from a study conducted by Purdue University is provided below in Exhibit I-11.

Exhibit I-11: Example of Economic Development Performance Measurement Matrix

Performance Measure	Description	Source/Reference	Advantages	Disadvantages
Business expansion	Number of new businesses attracted to the area	NCHRP Report 456	1. Reveals attractiveness of community to business 2. Data can be obtained	
Business retention	Median number of business years (average number of years businesses operating in community)	NCHRP Report 456	Reveals attractiveness of community to business	Interpretation may vary
Capital investment	Amount of capital investment a business would make within the community	NCHRP Synthesis 290	Distinguishes between short-term and long-term investment	Can be difficult to measure
Economic stability	1. Gross Regional Product 2. Stability of number of jobs and income	NCHRP Report 456	Indicates community stability	1. Difficult to measure 2. Interpretation may vary
Number of activities	Includes retail, entertainment, commercial, and hospitality	NCHRP Report 456	1. Data are easily obtained 2. Reveals amenities within the area	Can be subjective in measurement
Number of businesses	Includes retail, industrial, manufacturing, commercial, etc.	NCHRP Report 456	1. Data are easily obtained 2. Reveals amenities within the area	1. May not reveal quality of business 2. Hard to determine temporary vs. permanent business investment
Number of jobs	Number of new jobs created within (or accessible to) an area	NCHRP Synthesis 290	1. Easy to measure 2. Direct relationship	May not distinguish between basic and service jobs
Total income	Total income earned by workers in a community	NCHRP Synthesis 290	Easy to measure (where data are available)	May not reflect average income per worker
Average income	Total income earned by workers in a community divided by the total number of workers located in the community	NCHRP Synthesis 290	Easy to measure (where data are available)	
Output per capita	Total output created in a community divided by the number of employees of that community	Department of Economics, University of Washington	1. Monetary value 2. Data are easily accessible	May not show the actual employment state of the community
Property appreciation	Increase in the value of land and improvements in a community	NCHRP Synthesis 290	Data can be obtained	
Absolute amount of poverty in an economy	HHS poverty guidelines for 2007 indicates that the threshold for a single person under the age of 65 is US\$10,210	Department of Economics, University of Washington	1. Easily obtained through databases 2. Standardized threshold across the country	Does not indicate community profile (wealthy area vs. poor area)

Source: Sharkey, J. L., and J. D. Fricker. *Economic Development Performance Measures and Rural Economic Development in Indiana*. Publication FHWA/IN/JTRP-2009/14.

The resulting burden of effort has discouraged many regional transportation agencies from implementing performance measurement. However, more recently, a new concept of hierarchical performance metrics has become more widespread, based on a logical progression of impact types.

EDR Group has been at the forefront of this approach, having written the economic performance measurement guide for the Strategic Highway Research Program (2011) and served on a TRB panel on economic performance measurement (January 2012). SMG has applied a similar, but simpler approach in Michigan and Indiana. In addition, both SMG and EDR Group are about to start on a new project with National Cooperative Highway Research Program (NCHRP) to develop step-by-step guidance for incorporating economic productivity benefits into transportation project evaluation.

A hierarchical approach embodies three basic types of performance measures, listed below and in the graphic shown in Exhibit I-12:

- 1) *Transportation user and system performance measures* – such as travel time, cost, safety and reliability
- 2) *Intermediate factors* whereby accessibility, mobility and connectivity are enhanced, thus affecting economic productivity, competitiveness and growth potentials
- 3) *Final economic outcomes* in terms of job, income, value added and/or output growth.

This progression of themes is critical in that it provides a basis for performance measures to be tailored to the specific goals and objectives of transportation projects and economic development strategies.

Exhibit I-12: Progression of Themes



Tailoring Primary Benefit Measures to Needs. In the context of this study, the SMG Team recognizes the need to select primary measures that reflect economic development goals and the transportation actions supporting them. For instance, *primary economic impact goals* may be the creation of more and better-paying jobs for residents of the North State region (reflected by employment and wage metrics). Working backwards using the preceding graphic, the *intermediate benefit factors* may be broadening of labor markets and goods delivery markets as reflected in transportation market access metrics. The transportation drivers may be time, cost and intermodal connectivity metrics. Using that example, it is notable that the focus is on a subset of available metrics, selected to provide a logical story that supports enhancement of connectivity and market access.

Of course, other economic development impact measures may be substituted to reflect the North State better. One example is that economic impact goals need not focus merely on job and income creation. They could focus on measuring property value appreciation, capital investment and construction, unemployment reduction, income equity, retention and expansion in numbers of business establishments, tourism visitors and spending, or long-term stability of growth.

Selected performance metrics may also reflect secondary goals such as those concerning support for desired land use (density, mix), environmental (air, water) and quality-of-life (safety, security, education access) outcomes. But in any case, conspicuously absent from rural regions is any focus on traffic flow measures that depend on high vehicular volumes (VMT, VHT and reliability), since those measures are biased to benefit population centers where benefits of congestion reduction are most common.

A recent review of agency use of economic performance metrics showed that different metrics are used by planning agencies, transportation agencies and economic development agencies. But even more importantly, it showed that statewide agencies tend to embrace metrics reflecting general policy objectives (e.g., environmental impact, population density and VMT reduction), while local agencies tend to embrace metrics that are more tailored to specific localized conditions (e.g., unemployment, tourism spending, etc.). This leaves large, diverse regions (such as the North State region) in a position where the most straightforward and commonly desired metrics may be selected (e.g., market access, jobs and income).

Given the above factors and considerations, our team takes the position that it is more useful to pick (and focus on) the most critical criteria for this study context and study area, rather than selecting all possibly-relevant performance metrics as equally important. In this regard, the final selection will be made through a close consultation between the project team and key funding and planning agencies and other stakeholders.

Economic Impact Estimation. The RFP distinguishes between measures of economic benefit and measures of economic impact. The preceding discussion has covered both, since they are intertwined. To put the performance measures into action, it is useful to

draw on an economic impact analysis approach that can portray the full range of transportation drivers, intermediate benefits and economic outcomes and their interrelationship. For that use, the SMG Team can combine two analysis systems that were developed by members of our team – Cal-B/C and LEAP-TREDIS. Cal-B/C provides a social accounting of transport and environmental impacts, while LEAP-TREDIS builds upon the LEAP tool for economic developers discussed in section 1.1, combining it with the previously discussed TREDIS tool to reflect economic growth opportunities associated with upgrading access for inter-county freight flows and passenger flows.

The SMG Team can apply TREDIS to portray the current economy of all counties in the North State region and generate a model that provides performance metrics for the full range of transportation, intermediate outcomes and ultimate economic impacts. It specifically includes market access and connectivity metrics, as well as intermediate impacts on competitiveness and productivity. The system can also incorporate tourism and visitor patterns. In that way, we are able to provide a logical sequence of metrics supporting more general regional benefit and economic growth measures. That approach will also enable us to measure current conditions and impacts of alternative projects.

Deliverable: technical memorandum that identifies primary and secondary performance measures and the results of applying these measures to fiscally constrained and unconstrained projects

Task 3: Identify and Assess Alternative Strategies

In Task 3, the SMG Team will identify and assess alternative transportation or economic development strategies in consultation with transportation and economic development stakeholders. These will include all the members of the PTAC, but we also plan to continue engaging the stakeholders we met with during the mini-conferences in Task 1. At the end of the Task 3, we will hold an in-person meeting with the PTAC to discuss the results of our analysis.

On the transportation side, the SMG Team will involve the RTPAs (and MPOs in the case of Butte and Shasta) and the three Caltrans districts. On the economic development side, we will include EDCs and chambers of commerce, as appropriate. Of course, we also plan to include tribal interests. For the most part, we expect to keep these parties involved through active participation in web-based meetings that involve the region. In addition, for more county-specific activities, we plan to engage stakeholders directly through telephone calls and email.

The assessment of alternative strategies reflects the pragmatic limitation that adequate resources to fund all of the proposed transportation improvements may simply not be

available. In addition, the assessment provides the North State Super Region an opportunity to provide input into a number of on-going and emerging activities:

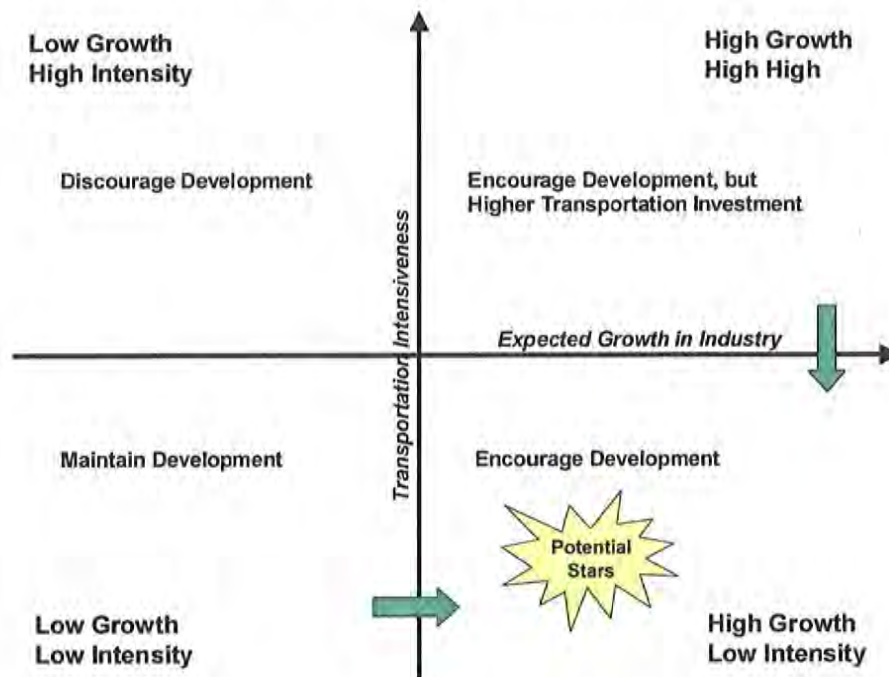
- ◆ *Sustainable Community Strategies (SCS)* – Senate Bill 375 requires state MPOs to identify alternative strategies for meeting greenhouse gas targets if VMT reductions are not achievable.
- ◆ *California Inter-Regional Blueprint (CIB)* – Caltrans is preparing a state-level transportation blueprint that is intended to capture the rural perspective and respond to the legislative requirements of Senate Bill 391. While Caltrans is focusing on the inter-regional movement of goods and services, the Department recognizes that recreational trips and farm-to-market trips are also important. The analysis of transportation improvements, as well as travel demand strategies, can help the North State provide input to the CIB that captures local and economic development needs.
- ◆ *Indian Reservation Funding* – The analysis of non-transportation intensive industries and travel demand management strategies may help the tribes identify approaches to economic development and transportation investment that help stretch dwindling resources.
- ◆ *California Emerging Technology Fund* – The fund is a non-profit corporation established in response to requirements from the California Public Utilities Commission (CPUC) in approving the mergers of various telecommunication companies. The fund is providing seed money to advance broadband deployment and adoption throughout rural California in order to promote economic competitiveness, access to essential services, and improve quality of life. In the North State, there are three such efforts – Upstate California Connect, Northeastern California Connect, and Redwood Coast Connect.

Task 3.1: Identify and Group Non-Transportation Intensive Economic Industries

The SMG Team will work with the PTAC and stakeholders to identify the current and emerging industries identified in Task 1.1 that are less transportation reliant. The RFP notes a useful cross-tabulation of forecasted positive growth versus the degree to which industries require more transportation, which will help communicate our results to stakeholders and decision-makers.

Exhibit I-13 illustrates how such a tabulation can work. If the North State wishes to promote economic development, but reduce the overall transportation-intensiveness of economic activity, the Super Region should encourage development in the lower right quadrant, which is labeled “potential starts.” The growth in industries can be measured based on economic forecasts, but complimentary activities may help to change the development path.

Exhibit I-13: Cross Tabulation of Industry Intensiveness and Growth Expectations



It is useful to note that every form of economic activity depends on access to workers and the provision of goods or services, hence is reliant on transportation. At the same time, transportation is never the sole factor affecting business expansion and location decisions. Rather, the interaction between transportation and other workforce, market and supplier factors are most critical. Accordingly, the SMG Team will rely heavily on the core economic development focus of team members, and extensive discussions with local stakeholders conducted for Task 1.1, to derive useful and practical recommendations.

The LEAP system, described earlier in the proposal, could be an extremely useful source of information and insight for the identification of economic growth outlooks and transportation reliance. This economic development targeting system shows how the current and projected future growth performance of local industries (and their growth paths) is tied to the specific operating needs of individual industries and local factors. That includes the interaction of local market access (e.g., labor, truck delivery, visitor and intermodal) characteristics with utility, workforce training, operating cost, business climate and other local factors. Embedded in the specific operating needs of industries is their reliance on truck, rail, air and marine transport access (derived from transportation satellite accounts and other surveys), along with industry technology and trade changes derived from Moody's Analytics. This more sophisticated approach allows us to see how the interaction of transportation factors and other factors truly affects local industry growth opportunities.

Using LEAP, the SMG team can identify the specific targets for economic growth that can be most relevant for each county or part of the region, with and without transportation access improvements. We can also show the magnitude of their future growth opportunities, given that some industries are growing faster than others, and the study region is in a more competitive position for some of them. The bottom line is an identification of the types of business that are most likely to thrive and grow given the region's current and anticipated future transportation and access constraints. It can also include an identification of other (non-transportation) actions that can complement and enhance these opportunities, without necessarily requiring massive new infrastructure investments.

The SMG Team can discuss this approach further with the PTAC at the pre-award conference. Task 3.1 will identify strategies for making the most of existing transportation infrastructure by pursuing sources of economic growth that do not require major new transportation investments in order to succeed

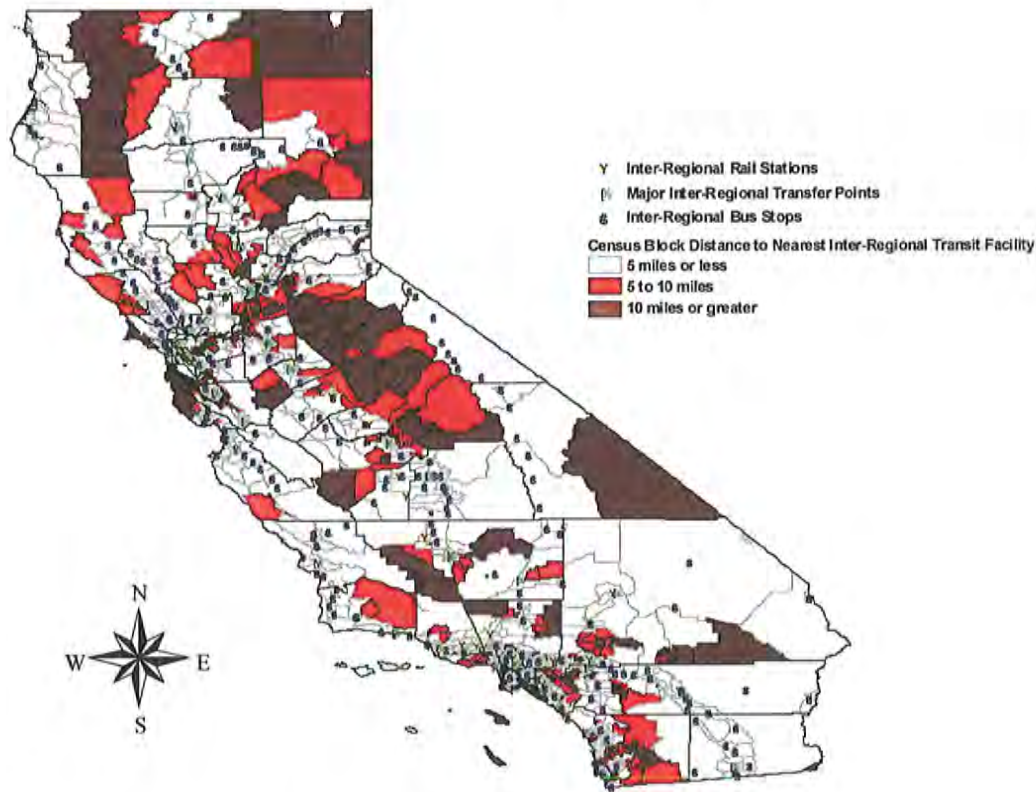
Task 3.2: Assess and Quantify Travel Demand Management Strategies

The SMG Team will evaluate the relative merits and economic benefit of travel demand strategies as an alternative to or in conjunction to system expansion. Although the North State is rural, travel demand strategies can play an important piece in addressing transportation needs.

For example, one economic development strategy may be to promote access to recreational facilities, park lands, and tribal lands. This could be accommodated by increasing infrastructure investments, but it may also be accommodated through transit or active transportation strategies, such as walking or bicycling. The Yosemite Area Regional Transportation System (YARTS) provides an example of transit helping to provide access to a national park and promoting local economic development, while reducing automobile trips and VMT.

Inter-regional transit also has a role to play. About a decade ago, SMG staff presented the results of an analysis of accessibility and mobility provide by inter-regional transit throughout California. The study found significant accessibility gaps in the North State, as shown in Exhibit I-14. In addition, the study found three counties in the North State with no direct access to inter-regional transit.

Exhibit I-14: Accessibility Provided by Inter-Regional Transit in California



Another potential travel demand management strategy is telecommuting. Obviously, the advance broadband deployment supported by the California Emerging Technology Fund and other activities could help to support increases in telecommuting. This ties back to the types of knowledge-based industries that are less dependent on transportation.

Deliverable: technical memorandum assessing alternative strategies, including economic development based on non-transportation intensive industries as well as travel demand management approaches

Task 4: Final Report (Findings and Recommendations)

In Task 4, the SMG Team will bring together our analyses and findings from previous tasks for the final report. The final analysis, conclusions and report document are aimed at multiple audiences, including state, regional and local leaders who are concerned with either transportation, economic development or both. For that reason, our team's extensive coverage of all of these perspectives will be followed into the report conclusion.

As noted in the RFP, the final report should provide a Super Region perspective, but the data, findings, and recommendations should be broken down by individual counties. The need for individual county information is understandable. As we note in our project understanding, the 16-county area does not function as a single region. The Super Region includes multiple sub-regions such as Colusa/Glenn, Humboldt/Del Norte, Mendocino/Lake and others that share common commercial corridors and have similar visitor destinations. In addition, the data, findings, and recommendations need to be available to the RTPAs and MPOs (which are organized along county lines), Caltrans districts (which cover multiple counties), and other stakeholders (which can be organized across counties or within a single county).

The RFP notes that the final report should include detailed corridor analysis, as appropriate. This may be a useful way to organize inter-county issues that involve multiple stakeholders or could be funded by inter-regional funding. In addition, corridor-level assessments could help Caltrans planners as they prepare their concept reports. The corridor analyses could function as “additional counties” that aggregate findings and recommendations for a few key corridors. Potential corridors to organize the analysis include: I-5, US 101, SR-299, SR-99, and US 395.

We do not envision corridor analyses to be comparable to Corridor System Management Plans (CSMPs). SMG has led several of the CSMP efforts in the state and we know that these plans are much more comprehensive than it is possible to produce in this study. CSMPs also have a different approach – focusing on system management outcomes, such as mobility, reliability, safety, and productivity – rather than economic development.

The RFP notes that the final report will include three primary components, which we describe further below:

- ◆ Analysis and Report Findings
- ◆ Recommendations
- ◆ Maps, Matrices, and Other Visual Summaries.

The RFP also request that 50 printed copies of the final report be prepared and distributed as well as PowerPoint presentations, and executive summary, and collateral communications materials, as appropriate. We will work with the PTAC to make sure that the report outline, tone, and content reflects the appropriate audiences for the report. We expect the printed report to be relatively short. Our understanding is the final report should be an action plan that makes the case for aligning transportation priorities with economic conditions and makes specific recommendations for doing so.

In our project schedule, we have planned for several months for the preparation and communication of the final report. In this way, we have time to prepare the recommendations and stakeholders have time to review the draft before we prepare the final report, executive summary booklet, and other communications. From our

experience preparing the SCAG RTPs and reports to the State Legislature, SMG knows this process can take time. But, this time is necessary to craft the right message.

The SMG Team plans to hold a web-based meeting with the PTAC midway through Task 4 to discuss the final report. We will hold an in-person meeting to present the final version of the report and discuss the GIS integration at the end of Task 4.

Analyze and Report Findings

In the report, the SMG Team will highlight areas where transportation planning intersects with the regional economy and note where misalignments in transportation and economic priorities. This section will include revisions to our previous draft reports produced in Task 1 as well as analyses conducted in Tasks 2 and 3.

We anticipate including: (a) descriptive data summaries of the North State's transportation and economic development landscape, (b) analysis findings concerning local and regional economic and transportation factors affecting the economy and its growth prospects, (c) recommended metrics that should be a focus for setting future project and policy priorities, and tracking their outcomes, and (d) identification of issues concerning the North State's current transportation and economic conditions and needs, which require some attention so that they do not unduly hold back economic growth. In each case, these analysis findings will be presented for the Super Region, individual counties, and potentially corridors.

Recommendations

In Task 4, we will also develop a series of project, policy, and program recommendations for collaboration between the transportation and economic development communities that will yield the greatest economic benefit. The focus will be on how transportation planning can help the local economy. Transportation investments (e.g., access roads, interchanges) are just one of several potential collaborative activities that may include other forms of public-private capital investments (e.g., enhancements to industrial parks, housing or recreation facilities) and supporting programs (e.g., economic incentive, regulation, or training programs). The final report will identify areas for more meaningful coordination and planning.

The SMG Team will rely heavily on both analysis findings and prior interview findings and we will conduct additional follow up conversations and web-based meetings as required to ensure that there is general support and agreement (by both relevant agencies and stakeholders) concerning the nature of these needs. However, the focus will be on how transportation can help the economy rather than a comprehensive economic development plan for the North State.

The RFP notes that the recommendations should include a consideration of:

- ◆ Short and long-term actions
- ◆ Partner roles and responsibilities
- ◆ Prospective funding sources and leveraging opportunities
- ◆ Opportunities for transportation and economic benefits over multiple regions or industries
- ◆ Opportunities for reducing greenhouse gas emissions
- ◆ Benefit/cost analysis.

The recommendations should consider how the North State findings and actions can be included in other planning documents, such as the CIB, the next California Transportation Plan, Sustainable Community Strategies and Caltrans planning documents. In addition, building on our work in Task 2 to get in the mind of potential funding agencies, the recommendations should provide the matrices to prepare the region to respond to “what is the economic benefit” questions.

Each recommended action will be presented via a logical case that shows how and why it is a direct outcome and consequence of the interviews, data collection and analysis conducted in prior tasks. That will help to establish the relative importance and priority of each recommendation. Inter-relationships will also be explicitly noted and discussed. This will be supported by prior findings, which show interactions between transportation factors, other local factors, and opportunities for local economic growth in specific economic sectors.

Depending on the specific recommendation, further details will be provided concerning the relevant location or area affected (local or regional), time frame (short-term or long-term), agencies or organizational partners (economic, transportation, planning or operating agency or business groups) and funding sources (private, non-profit, or federal-state-local government programs). Based on findings from the mini-conferences and our interviews, particular focus will be placed on needs for improved communications, interactions and collaborations among transportation and economic development agencies to enable these types of recommendations to be addressed and achieved.

Provide Maps, Matrices, and Other Visual Summaries

The final report will include suitable maps, matrices, and other visual summaries. This will be especially helpful in the executive summary, which needs to communicate recommendations and concepts in a simple manner. We will work with the PTAC to develop the appropriate visual summaries.

Deliverables: final report presenting project, policy, and program recommendations, PowerPoint presentations, executive summary booklet, and other communication materials as appropriate

Task 5: Integration with North State Regional GIS Platform/Viewer

After completing the final report, the SMG Team will ensure that all spatially-related data developed as part of this project be compatible with the North State regional Geographic Information System (GIS) platform currently under development.

Although the platform is a Shasta initiative, North State counties are being invited to piggyback on the regional server. In addition, this data also needs to be readily integrated with Caltrans' Google Earth. For this task, SMG professionals will coordinate closely with the developers (VESTRA) and SCRTA staff to integrate any spatial data into the region's GIS platform.

The history of VESTRA provides an example of how the North State can build on existing skills in non-transportation intensive industries for economic development. The founders of VESTRA built their GIS skills (an information technology and non-transportation intensive industry) at a timber management firm. VESTRA has since applied these skills in consulting to several other industries.

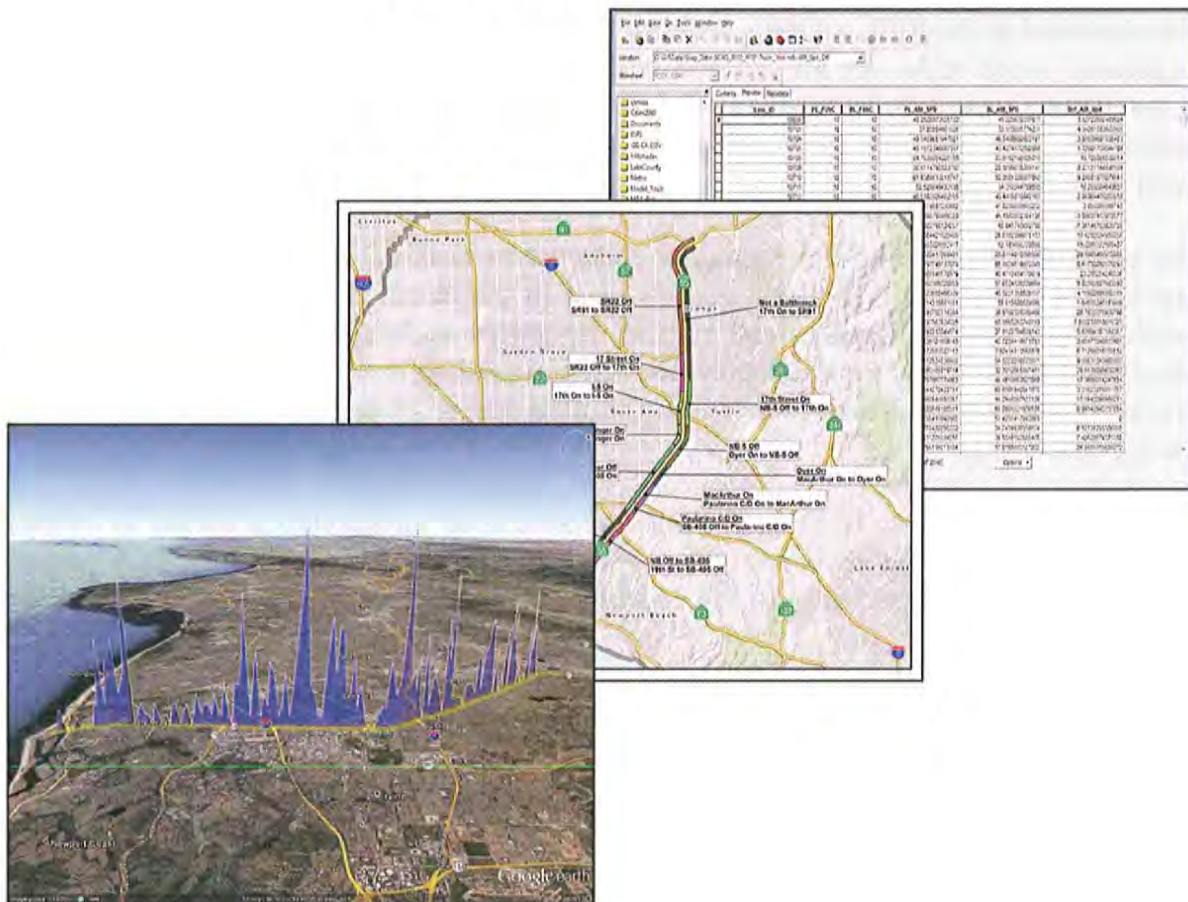
Examples of potential materials to include on the regional GIS platform and viewer include:

- ◆ Locations of planned transportation system enhancements
- ◆ Current and forecasted LOS
- ◆ Socio-economic characteristics (e.g., population, number of households, and median income).

We routinely present transportation and economic data using Google Earth and the ESRI ArcGIS platforms as shown in Exhibit I-15. Anthony Conti of SMG has worked closely with Caltrans' GIS to integrate data into the Caltrans Google Earth platform and has been a professional user of Google Earth from the days when it was known as "Keyhole."

Bill McCullough of SMG led all data integration efforts for the nation's first GIS-based Intermodal Transportation Management System (ITMS) using ESRI's ArcView in the early 1990s, and has taught several GIS workshops on the ITMS around the State for Caltrans and regional agency staff. For two years he taught a "GIS for Transportation" seminar for professionals in Caracas, Venezuela.

Exhibit I-15: Examples from Recent Caltrans Google Earth and ArcInfo Data Integration Efforts



SMG pioneered ways to use GIS to view congestion bottlenecks for more than a dozen CSMPs that we developed on behalf of Caltrans, the Southern California Association of Governments (SCAG), and the San Diego Association of Governments (SANDAG). We are very familiar with data standards for Caltrans Google Earth, ArcInfo, and TransCAD having worked with the latter to assess the SCAG Regional Transportation Plan (RTP).

SMG has also used Google Earth to develop “flyovers” of transportation corridors for presentation to elected officials and other transportation decisions-makers. SMG has found these flyovers to provide powerful illustrations of transportation and economic issues. We understand that the North State Super Region is also monitoring potential overlaps between the “Caltrans Earth” project and the Shasta County Regional GIS Platform.

Deliverable: spatial data for key economic and transportation consistent with the Shasta County Regional GIS Platform and the implementation of Google Earth at Caltrans

Task 6: Contingency

As requested in the RFP, we have set aside five percent of the project budget for new or expanded work tasks not anticipated within the original scope of work. While the scope of this task will be determined during the course of the project, the SMG Team anticipates that one area the contingency may be used is incorporating data gathered with existing databases and tools.

For example, the commodity flow data collected in Task 1.2 may be useful in adding truck trips to the travel demand models used in the North State. The Shasta County model has a separate commercial vehicle trip purpose that generates and distributes small and large truck trips but they are not assigned separately and not validated to truck counts. Other North State county models lump commercial vehicles into Non-Home-Based trips.

Another potential area is to hold mini-conferences in additional locations to ensure greater stakeholder involvement. The SMG Team will work with the SCRTA project manager and the PTAC to use the contingency on value-added activities identified through the project.

Deliverables: use of contingency to address unanticipated project needs (to be determined during project)

D. PROJECT SCHEDULE

Exhibit I-16 on page I-74 presents our proposed schedule and timeline for your review. As outlined in the RFP, we show the project continuing over an 11-month timeframe. Although the RFP provides an estimated time period for the contract from February 2012 to December 2012, we have labeled the months in schedule generically in case there are any delays in contracting or starting the project.

The budget allocates significant time to Task 1, Task 3, and Task 4. As discussed previously, Task 1 assesses the economic and transportation landscapes and is time-intensive. In addition, we have added mini-conferences to Task 1. We believe that these conferences are critical to soliciting information as well as getting all of the appropriate stakeholders to the table and engaged in the project.

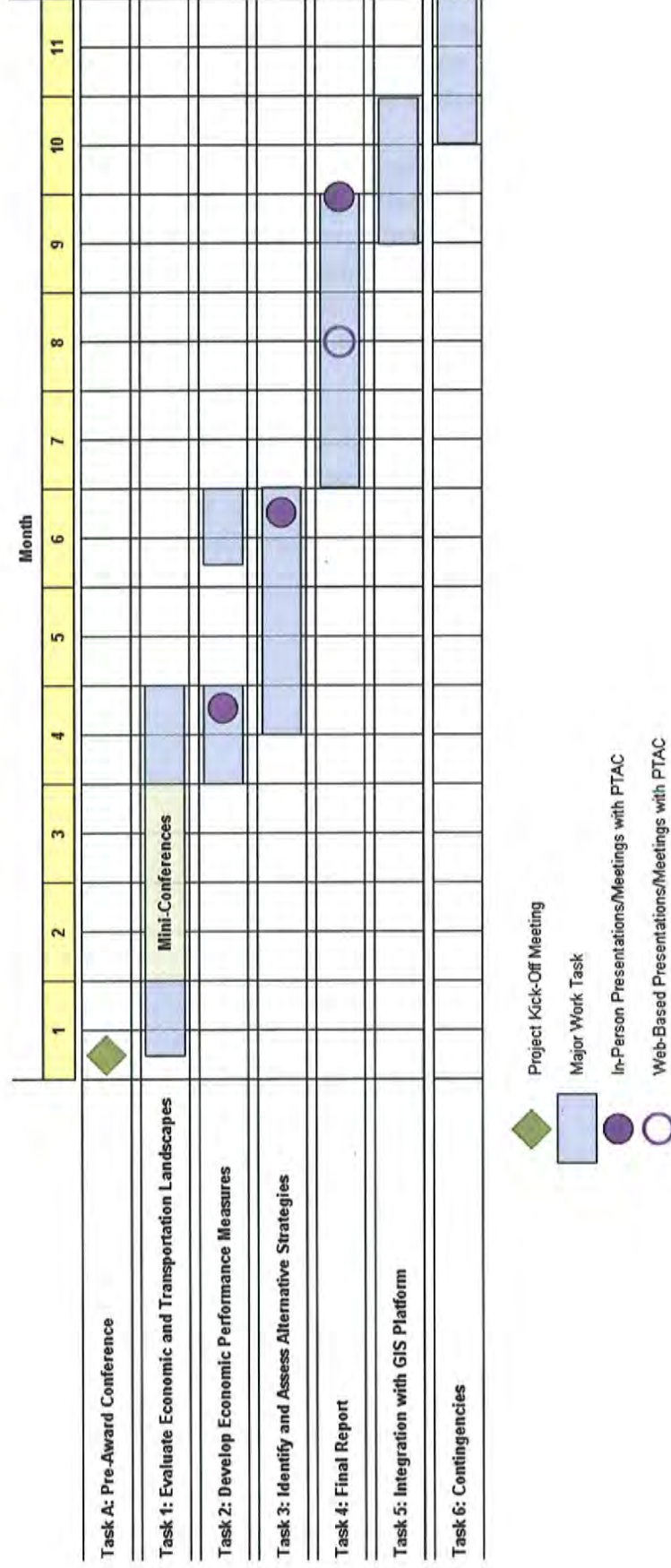
The SMG Team will follow up with non-PTAC stakeholders, as appropriate, throughout the project. By engaging stakeholders early on through the mini-conferences, we will be able to solicit feedback later in the project. We expect significant feedback during the assessment of alternative strategies and performance measures as well as in the preparation.

We have proposed a longer time frame for developing the final report in Task 4 to allow for presentations and feedback from regional stakeholders. We expect to present a draft report partway through Task 4. This draft will be revised based on stakeholder input.

The schedule also includes four meetings with the PTAC. We expect that these meetings will occur in Redding, but other locations might be considered to facilitate stakeholder travel. As a cost-saving measure, we are proposing one of the meetings to be web-based. If the PTAC wants, and broadband internet service is available in the meeting room, we can also make the other three in-person meetings available via WebEx, so PTAC members can attend virtually and other stakeholders can also be involved.

The SMG Team plans to use the pre-award conference as the kick-off meeting for the project. We understand that this pre-award conference occurs prior to completion of the contract and is non-reimbursable. We will revise this preliminary schedule, as appropriate, using feedback received in the pre-award conference.

Exhibit I-16: Preliminary Project Schedule and Timeline



E. RECOMMENDED ENHANCEMENTS TO SCOPE

Our approach includes a few minor modifications or enhancements to the scope of work outlined in the RFP:

- ◆ Collection of SHOPP data on maintenance and rehabilitation needs in addition to system expansion or enhancement needs
- ◆ Conducting up to four mini-conferences to collect information as part of Task 1
- ◆ Using the LEAP-TREDIS suite of tools to show interactions between transportation factors, other local factors, and opportunities for local economic growth in specific economic sectors (\$7,000 cost included in budget)

As required, these modifications do not exceed the maximum project budget.

Exhibit I-1: Project Budget by Work Task

Labor Costs

Task		Total Budget
Task 1: Evaluate Economic and Transportation Landscapes	Economic Landscape Analysis	\$ 44,366.96
	Transportation Landscape Analysis	\$ 45,094.68
Task 2: Develop Economic Performance Measures	Develop Primary and Secondary Measures	\$ 17,430.12
	Apply Performance Measures	\$ 10,039.32
Task 3: Identify and Assess Alternative Strategies	Non-Trans. Intensive Economic Industry Assessment	\$ 15,390.72
	Travel demand management strategy Assessment	\$ 14,467.76
Task 4: Final Report	Analyze Findings/Recommendations/Final Report	\$ 34,819.48
Task 5: Integration with GIS Platform		\$ 4,891.76
Subtotal Labor Costs		\$ 186,500.80

Other Direct Costs (ODCs)

System Metrics Group, Inc. (SMG)	\$ 4,500.00
Wahlstrom & Associates	\$ 2,900.00
Economic Development Research Group (EDRG)	\$ 2,490.00
LEAP-TREDIS	\$ 7,000.00
Subtotal ODCs	\$ 16,890.00

5% Contingency (Task 6)	\$ 10,169.54
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TOTAL PROJECT BUDGET \$ 213,560.34

B. HOURLY FEE SCHEDULE

Exhibit I-2 presents our hourly fee schedule by personnel and direct expenses. Although the SMG Team includes many high-profile consultants, we believe that you will find that our proposal delivers significant value for the fee. Our senior staff members have expertise in several critical areas and will be able to help SCRTPA and the North Region build consensus around a transportation for economic development strategy. In addition, SMG has one of the lowest overhead rates in the industry.

Exhibit I-2: Fee Schedule by Personnel

Firm	Personnel	Position	Hourly Fee	Total Project Hours
System Metrics Group, Inc. (SMG)	Chris Williges	Project Manager	\$ 138.71	276
	Tarek Hatata	President	\$ 189.15	20
	Bill McCullough	Principal	\$ 138.71	144
	Yu-Ying Chu	Associate	\$ 119.80	24
	Anthony Conti	Consultant	\$ 66.81	144
	Christian Stoea	Junior Consultant	\$ 59.48	112
SMG Hourly Subtotals				720
Economic Development Research Group (EDRG)	Glen Weisbrod	President	\$ 217.00	69
	Steven Landau	Vice President	\$ 182.00	16
	Stephen Fitzroy	Senior Vice President	\$ 217.00	18
	Brett Piercy	Senior Analyst	\$ 109.00	128
	Analyst		\$ 84.00	56
EDRG Hourly Subtotals				287
DKS Associates	John Long		\$ 235.00	24
	Brit Fugit		\$ 125.00	115
DKS Hourly Subtotals				139
Other	Stephen Wahlstrom	Principal	\$ 135.00	248
	Analyst		\$ 110.00	32
	Wahlstrom & Associates Hourly Subtotals			280
	G. David Singleton	Principal	\$ 50.00	80
	G. David Singleton Hourly Subtotals			80
	Susan Jones Moses	President	\$ 120.00	32
	Susan Jones Moses Associates Hourly Subtotals			32
Project Hourly Totals				1,538