

CHAPTER 11.0: LIST OF PREPARERS

11.1 FEDERAL TRANSIT ADMINISTRATION

A. Joseph Ossi, Environmental Planner, FTA Headquarters
Ray Sukys, Director, Office of Planning and Program Development, Region IX
Jerome Wiggins, Transportation Representative, Region IX

11.2 SANTA CLARA VALLEY TRANSPORTATION AUTHORITY

John Beebe, Utilities Coordinator Manager
Lauren Bobadilla, Environmental Planner
Scott Buhrer, Chief Financial Officer
Ann Calnan, Environmental Planner
Tim Chan, Transportation Planner
Jack Collins, Chief Construction Officer
John Donahue, Engineer Group Manager
David W. Dunlap, Environmental Planner
Mike Evanhoe, Chief Development Officer
Tom Fitzwater, Environmental Planning Manager
Lisa Ives, Project Manager
James R. Lightbody, Deputy Director, Transit Planning and Development
Kat Mereigh, Public Communication Specialist
Roy Molseed, Senior Environmental Planner
George Naylor, Senior Transportation Planner
Samantha Swan, Transportation Planner
Mike Tasosa, Transportation Planner
Wes Toy, Senior Environmental Engineer
Juanita Villemaire, Senior Real Estate Agent
Archer Walters, Design Construction Manager
Irene Wang, Senior Real Estate Agent
Shawnora Weddles, Public Communication Specialist

11.3 EARTH TECH, INC.

Richard Burzinski, California Registered Geologist Environmental Assessor and Hydrogeologist. Project Manager for hydrology and water quality technical analysis. B.A., Geology. Mr. Burzinski has over 20 years experience in environmental and engineering geology, and hydrogeology. He was principally involved in project development, direct implementation or oversight, and overseeing document preparation.

Bill Knight, Principal Author of the *Hazardous Wastes Sites Reviewed Report* technical report. M.S., Environmental Engineering. Mr. Knight has over 14 years experience characterizing and remediating hazardous materials releases, with an emphasis on environmental issues for infrastructure projects, and identifying and meeting regulatory agency requirements.

R. David Minister, P.E., Transportation Engineer, Consultant Team Project Manager. M.S., Civil Engineering. Mr. Minister has 32 years of experience in urban transportation planning and engineering, including the preparation of numerous MIS/AA reports, EIS/EIRs, and conceptual engineering for new urban bus and rail transit systems. He supervised the definition of the Baseline and BART alternatives and alignment and station design options; ridership and travel time forecasts; capital and O&M cost estimates; and cost-benefit analyses.

John Maher, P.E., Engineering Manager for corridor civil engineering. Mr. Maher has over 35 years in civil engineering projects including 20 years in rail transit and highway design. He managed the design of the BART Alternative track and roadway alignments, profiles, and typical sections.

Harry A. Redstone, Deputy Project Manager. B.Sc., Civil Engineering. Mr. Redstone has over 40 years of engineering experience, including over 20 years exclusively in the mass transit sector. Mr. Redstone provided input for the *Construction* section of the EIS/EIR and assisted the Project Manager in monitoring the progress of the work.

Benton C. Cavin, Chief Estimator, Certified Cost Engineer. B.S., Civil Engineering. Mr. Cavin has 33 years experience in cost estimating with the majority in transportation projects, primarily rail. He supervised the preparation of capital cost estimates for the project baseline estimate and for the various BART Alternative design options.

Manjit Singh, P.E. Project Engineer. M.S., Civil (Geotechnical and Environmental) Engineering. Mr. Singh has four years experience in groundwater investigation, groundwater protection and remediation, hazardous waste management, landfill design, hydrology and hydraulics, and water resources planning. He was the principal writer for the hydrology and water quality analysis and participated in preparing the *Hazardous Wastes Sites Reviewed Report* technical report.

Frank C. Chiappella, Graphic Designer. B.A., Industrial Arts. Mr. Chiappella has over 30 years of engineering/architectural drafting, renderings, and graphics design experience working in a variety of areas including: proposals, presentations, conceptual design, and feasibility studies. For the VTA-BART project, he prepared the planning drawings for the working papers, public meetings, and the MIS/AA and EIS/EIR reports.

11.4 PARSONS CORPORATION

Jeff B. Allen, Principal Transportation Planner. Master of City and Regional Planning. Mr. Allen has 22 years experience in transportation planning. He contributed to the *Energy* and *BART Core System Parking Analysis* sections.

Allen Cattell, Principal Planner. M.S., Biology-Aquatic Ecology. Mr. Cattell has 19 years of experience in NEPA and CEQA documentation. He assisted in the field surveys.

Pat M. Gelb, Planning Manager, Principal Author. M.A., Literature. Ms. Gelb has over 30 years experience in transportation planning, preparation and processing of environmental documents and permitting for FTA, FHWA, Caltrans, and other state and local agencies. She contributed to the preparation of the *Biological Resources and Wetlands* and *DRAFT Section 4(f) Evaluation* sections, as well as the *Introduction* chapter. She also supervised the preparation of this document, and is responsible for overall document content.

Theresa M. Larson, P.E., Senior Project Manager. B.S., Civil Engineering. Ms. Larson has over 22 years of experience in project management, civil engineering, and environmental documentation of public works projects. She contributed to the preparation of the *Agencies, Organizations, and Individuals* section and provided quality assurance for the document sections.

Dave J. Mansen, Transit Planning Manager, Principal Author. M.S., Urban Planning. Mr. Mansen has 28 years experience managing multi-disciplined transportation, land use and environmental planning projects for FTA, FRA, and state and local agencies. He provided project management, supervised the preparation of technical studies, prepared the *Alternatives* and *Construction* sections, and is responsible for overall document content.

Karla J. Nicholas, Principal Planner. Ms. Nicholas has 24 years experience in environmental and transportation planning. She contributed to the preparation of the *Environmental Justice* section and supervised the preparation of the *Land Use* and *Socioeconomics* sections.

Ljubica B. Osgood, Graphics Designer. B.F.A. Ms. Osgood has over 31 years of experience in the supervision and design of graphics and presentation materials. She prepared many document graphics.

Jeannette Owen, Senior Biologist. B.S., Ecology and Systematic Biology. Ms. Owen has over five years of experience performing detailed field studies, including data analysis and reporting on impacts. She assisted with the field studies and contributed to the preparation of the NES.

Laura J. Prickett, AICP, Principal Planner. M.C.P. Ms. Prickett has over eight years experience conducting environmental, transportation, and land use planning analyses and preparing multi-disciplinary environmental documentation. She supervised the preparation of technical studies and contributed to the preparation of the *Cultural Resources*, *Water Resources*, *Water Quality*, and *Floodplains*; *Air Quality*, *Noise and Vibration*; and *CEQA and NEPA Considerations* sections.

Craig Richey, Assistant Planner. B.A., Literature. Mr. Richey has one year of experience in environmental and transportation planning. He was responsible for the *Land Use* and *Socioeconomics* sections, as well as information on public facilities and recreation.

Elia Rouzier, Supervisor of Word Processing. Mrs. Rouzier has over 15 years experience in producing complex environmental documentation. She was responsible for document preparation and production.

John Selin, Principal Engineer. B.S., Civil Engineering. Mr. Selin has over 30 years experience in railroad, rail transit, and highway projects. He was responsible for construction scenarios of roadway crossings.

Gui Shearin, Principal Transportation Planner. Ph.D., Transportation Planning. Mr. Shearin has 23 years experience in evaluating travel demand, traffic forecasting, and land use/socioeconomic studies. He contributed to the preparation of the purpose and need and transportation sections of this document.

M. Kate Lewis, Environmental Planner. B.A., Anthropology with an emphasis in Environmental Studies. Ms. Lewis has nine years experience in technical writing and document preparation. She contributed to the preparation of the *Visual Quality and Aesthetics*, *Electromagnetic Fields*, *Security and System Safety*, and *Agency and Community Participation* sections.

Indu Sreedevi, Transportation Planner. M.S., Transportation Engineering. Ms. Sreedevi has over two years experience in transportation engineering and planning. She contributed to the preparation of the *Energy*, *Geology*, *Soils*, and *Seismicity*; *Hazardous Materials*, *Utilities*; and *CEQA and NEPA Considerations* sections.

11.5 WYN + GRACE, INC.

Ann W. Jamison, AICP, Principal. Ms. Jamison has 25 years of experience in land use and transportation planning. She was the VTA Deputy Project Manager for the project. Ms. Jamison researched and drafted text in various topic areas for the EIS/EIR including the *Transportation and*

Transit, Air Quality, Energy, Land Use, Socioeconomics, and Construction sections. She also coordinated the document review and comment, and response to comment processes.

11.6 PUBLIC AFFAIRS MANAGEMENT

Mary Bean, Senior Project Manager. B.A., Environmental Studies and Planning. Ms. Bean has over ten years of experience preparing environmental documents for transportation and land development projects. Ms. Bean supervised preparation of the *Land Use* and *Environmental Justice* sections.

Steve Wertheim, Associate Planner. B.A., Public Policy. Mr. Wertheim has over six years of experience preparing environmental planning reports including visual inventories, land use studies, and environmental justice evaluations for transportation projects. Mr. Wertheim contributed to the preparation of the *Visual Quality and Aesthetics* section.

Adria Avilla, Associate Planner. Master in Urban Planning. Ms. Avilla has over three years of experience preparing environmental studies for transportation and land development projects. Ms. Avilla conducted the field and literature research for the *Land Use* and *Environmental Justice* sections.

Nancy Myers, Associate Planner. Master in City and Regional Planning. Ms. Myers has over four years of experience as a county planner and environmental planner preparing environmental documents and visual impact reports for transportation and development projects. Ms. Myers conducted the field research and contributed to the preparation of the *Visual Quality and Aesthetics* section.

Scott Steinwert, Principal Environmental Planner. B.A., Biology. Mr. Steinwert has 15 years of experience preparing environmental documents; and land use, visual, and environmental justice reports for transportation projects for Caltrans, FHWA, FTA, USDOT, and other state and federal agencies. Mr. Steinwert contributed to the preparation of the *Visual Quality and Aesthetics* section and conducted QA/QC reviews of the *Land Use* and *Environmental Justice* sections.

Kristy Ranieri, Senior Project Manager. B.A., Political Science; Masters in Government Administration. Ms. Ranieri has over seven years experience developing and implementing public participation/outreach programs for transportation and infrastructure projects. Ms. Ranieri coordinated the community outreach program.

Kay Wilson, Principal, Environmental Communications. B.A., Political Science; Masters in Community and Regional Planning. Ms. Wilson has over 30 years experience developing and implementing public participation/outreach programs for transportation and infrastructure projects. Ms. Wilson directed the community outreach program.

11.7 MANUEL PADRON & ASSOCIATES

Dennis Markham, Project Manager. M.B.A. Mr. Markham has over 16 years of transit experience specializing in planning and evaluation of alternatives developing operation and maintenance (O&M) and financial planning models. Mr. Markham managed the preparation of the operating plans and estimation of operating and maintenance costs. He also assessed project benefits and impacts and assisted with the financial plan.

James Baker, Senior Associate. Master of City Planning, AICP. Mr. Baker has over 15 years of transportation project planning experience encompassing transit system planning, bus and rail simulations, operations planning, and regional impact analyses. Mr. Baker contributed to the preparation of the BART operating plan and development of the service planning model.

Herbert Higginbotham, Associate. B.S., Chemical Engineering. Mr. Higginbotham has four years of transportation planning experience, specializing in the development of travel demand forecasting models, including transit service planning and cost modeling. Mr. Higginbotham served as the liaison between operations planning and travel demand modeling staff, calculated bus operating statistics, and developed fixed guideway travel times. He also prepared fleet and O&M cost requirements for Central Valley commuter bus operations along with systemwide transit fare revenue projections.

Susan Rosales, Senior Associate, Manuel Padron & Associates. Master in Urban Planning. Ms. Rosales has nearly 20 years of transportation planning experience, dealing with a range of planning and policy issues for transit and highway projects and programs. Ms. Rosales assisted in defining transit operating plans, calculating operating and maintenance statistics, and preparing cost effectiveness measures.

11.8 HEXAGON TRANSPORTATION CONSULTANTS, INC.

Mike Waller, Principal Associate. B.A., Political Science, Post Graduate Study in Transportation Planning. Mr. Waller has 30 years experience in transportation planning and travel demand modeling. He was responsible for managing the preparation of travel demand forecasts, traffic impact analyses, and related technical reports.

At van den Hout, Principal Associate. B.S. in Traffic and Transportation. Mr. van den Hout has over 15 years experience in transportation planning and travel demand forecasting. He developed the travel demand forecasts for the SVRTC alternatives.

Robert Del Rio, Senior Project Manager. B.S. in Engineering. Mr. Del Rio has eight years experience in traffic engineering. He was responsible for analyzing traffic impacts attributable to new BART station locations and other elements of the project alternatives.

Louisa K. Yue, Associate. B.A., Urban Planning, M.A., City Planning. Ms. Yue has five years of experience in transportation planning. She developed and implemented the mode choice modeling procedures, assisted in analyzing traffic impacts, and helped prepare associated technical reports.

11.9 URS CORPORATION

Paul J. Boddie, P.E., G.E., Geotechnical Project Manager, M.S., Civil Engineering. Mr. Boddie has over 30 years experience scoping and directing field investigations, laboratory testing programs, engineering analysis, and the development of geotechnical design recommendations for a wide variety of transportation and other civil engineering projects for state and local agencies. He supervised the technical studies leading to the preparation of the *Geology, Soils, and Seismicity* section and supervised the geotechnical exploration, conceptual engineering recommendations, and engineering design and construction aspects for selected parts of the alignment.

Demetrious Koutsoftas, Lead Consultant. M.S., P.E., G.E. Mr. Koutsoftas has over 27 years experience in complex projects specializing in geotechnical analysis and engineering in the area of difficult ground conditions. He contributed to the preparation of the *Construction* section for cut-and-cover construction of the four underground stations.

11.10 VBN ARCHITECTS

Eli Naor, AIA, Vice President. Licensed Architect in California, Utah, and Nevada. Master in Architecture and AB in Environmental Design. Eli Naor has over 20 years experience in TOD and technical design. He was the Principal-in-Charge for architecture on all stations; design architect for the four aboveground

stations; and for Transit Oriented Design, planning, and urban design for all stations for the SVRTC project.

Rolando Barlaan, Licensed Architect in CA. B.S., Architecture. Mr. Barlaan has more than 28 years of in-depth experience in architectural practice. He has been responsible for architectural design, production, and project management of numerous project types and scale. Mr. Barlaan is VBN Architects' Project Manager and the Lead Architectural Coordinator for the SVRTC project.

Moshe Dinar, Licensed Architect CA, AIA, Principal Designer. Master of Architecture. Mr. Dinar has over 25 years of experience working on major architectural projects and major transportation, multi-family residential and mixed-use projects. He is the Architectural Designer for the SVRTC aboveground stations.

11.11 ANIL VERMA ASSOCIATES, INC.

Anil Verma, AIA, President of AVA, Architect/Planner, M.L.A, M.Arch., has 24 years of experience in transportation management, planning, design, and construction in numerous transit systems. As Principal-in-Charge, he is responsible for oversight and coordination of AVA team members in architectural concept design of the four underground stations, including participation in the public outreach program.

Ronald W. Johnson, R.A., Project Manager. Master of Architecture in Urban Design. Mr. Johnson has 29 years of experience in public and private sector projects involving transit system design, urban design, and planning. He served as the Architectural Project Manager for the conceptual design of the four underground stations in San Jose.

Somesh Debnath, R.A., Senior Architect. Master of Architecture and Urban Design. Mr. Debnath has over 28 years in the design/construction of transit centers, rapid transit systems, maintenance facilities, and airports. He is the Senior Architect for the planning/design for the four underground transit stations in downtown San Jose. He is responsible for ancillary room layouts and station engineering coordination relative to the stations.

Richard Johnsrud, Project Coordinator; Bachelor of Architecture. Mr. Johnsrud has over 29 years of experience in the management of large-scale public and private projects, including underground and LRT lines for the Los Angeles Metro Rail System. He coordinated the planning and design work for the underground stations, including compliance with the various codes and criteria.

11.12 SEDWAY GROUP

Terry Margerum, Senior Managing Director. Mr. Margerum brings nearly 20 years of experience in TOD and joint development, originally as BART's first Manager of Joint Development (1984-89) and later in consulting roles. He is a frequent panelist and speaker on TOD, joint development, and public/private partnerships. He served as project manager for Sedway's Task 9 SVRTC work.

Amy Herman, Managing Director. Ms. Herman has worked on TOD and joint development projects for more than ten years, and served as VTA's advisor on most of its joint development projects to date. On the SVRTC project, she directed the market analysis work.

11.13 HARRIS MILLER MILLER & HANSON, INC.

Lance Meister, Senior Consultant. B.S. Civil Engineering. Mr. Meister's has over eight years of experience in rail related noise and vibration projects. He has extensive experience in LRT, heavy rail,

commuter rail, intercity trains and high-speed rail, and freight rail systems. Mr. Meister assisted with the noise and vibration technical analysis and helped to prepare the *Noise and Vibration Technical Report* and the *Noise and Vibration* section.

Herbert Singleton, Jr., Senior Consultant. B.S., Mechanical Engineering. Mr. Singleton has over eight years experience in performing environmental noise and vibration assessments for rail transit systems for FTA, Caltrans, VTA, and other federal, state, and local agencies. Mr. Singleton supervised the baseline noise and vibration measurements and the noise and vibration technical analyses.

11.14 ATS CONSULTING, LLC

Hugh Saurenman, Ph.D., P.E. Mr. Saurenman has nearly 30 years of experience in rail noise and vibration control. He was responsible for reviewing the noise and vibration analysis and *Noise and Vibration Technical Report* and for providing guidance on vibration mitigation measures.

11.15 TERRY A. HAYES ASSOCIATES

Terry A. Hayes, AICP, Principal. M.C.P. Mr. Hayes has nearly 30 years of experience in urban and environmental planning, specializing in noise and air quality. He was responsible for direction and oversight of the air quality technical studies.

Bob Stark, AICP, Senior Planner. M.S., City and Regional Planning. Mr. Stark has six years experience in urban and environmental planning, specializing in noise and air quality. He provided expertise in the air quality impact analysis and overall project management.

Teresa Li, Environmental Planner. B.A., Urban Studies and Planning. Ms. Li has over three years experience in urban studies and planning, specializing in noise and air quality. She was responsible for the air quality analyses.

Vivian Bianchi, Assistant Planner. B.A., Environmental Studies. Ms. Bianchi has one year of experience in the preparation and production of environmental assessment documents according to CEQA, NEPA, and other state and local regulations. For the technical studies, she contributed to data collection, data entry, and air quality impact modeling.

11.16 JRP HISTORICAL CONSULTING SERVICES

Rebecca Meta Bunse, Project Manager. M.A., Public History. Ms. Bunse is the Senior Historian for this project. Ms. Bunse has over 12 years experience conducting cultural resources management projects, including extensive field recordation of historic properties throughout the State of California. She supervised the conduct of the historical resources research and fieldwork and is responsible for the content of the associated reports.

Rand Herbert, Historian, Project Manager. M.A.T. (Teaching) in History. Mr. Herbert has over 25 years of experience in public history and historic preservation. He directed the project, consulted on the development of the APE, managed the identification and survey of historic architectural resources, conducted research and evaluation analysis, and contributed to the narrative context developed for the SVRTC study area. He also directed data management and graphics production.

Amanda Blosser, Architectural Historian. M.S. in Architecture with a specialization in historic preservation. Ms. Blosser has over three years of experience in public history and historic preservation. She conducted a field survey of historic architectural resources; performed research; and contributed to

the evaluation analysis, data management, graphics production, and narrative context developed for the SVRTC study area.

Christopher McMorris, Architectural Historian. M.S. in Historic Preservation. Mr. McMorris has over four years of experience in public history and historic preservation. He conducted field survey of historic architectural resources; performed research; and contributed to the evaluation analysis, data management, graphics production, and narrative context developed for the study area.

Theresa Rogers, Architectural Historian. M.A., Public History. Ms. Rogers has over six years of experience in public history and historic preservation. She conducted field survey of historic architectural resources; performed research; and contributed to the evaluation analysis, data management, graphics production, and narrative context developed for the study area.

Toni Webb, Architectural Historian. B.F.A. in Historic Preservation. Ms. Webb has over four years of experience in public history and historic preservation. She conducted field survey of historic architectural resources; performed research; and contributed to the evaluation analysis, data management, graphics production, and narrative context developed for the study area.

Other contributors to the historic resources report include staff historians, Jessica Herrick, Kathleen Kennedy, Bryan Larson and Research Assistants and technicians, Courtney Chambers, Brandon De Lallo, Susan Hotchkiss, Eric Johnson, Cindy Toffelmier, and Andrew Walters.

11.17 NANCY WHELAN CONSULTING

Nancy E. Whelan, Principal. M.P.A., Intergovernmental Management. Ms. Whelan has over 20 years experience in public transportation funding, capital planning, project development, policy development, and management. She was responsible for the financial planning and analysis for the project.

Walt Streeter, Senior Associate. M.S., Transportation Engineering/City and Regional Planning. Mr. Streeter has over ten years of multi-modal transportation planning and funding experience. He assisted in financial planning and analysis for the project.

11.18 FAR WESTERN ANTHROPOLOGICAL RESEARCH GROUP, INC.

Amy J. Gilreath, Principal. M.A., Anthropology. Ms. Gilreath has over 20 years experience in cultural resource management and Section 106 compliance. She routinely conducts archaeological studies for transportation projects (primarily FHWA/Caltrans projects) within California and for federal land managing agencies (primarily the Department of the Navy and the Bureau of Land Management) in California and Nevada. She directed and co-authored the archaeological report.

Charlene Duval, M.A., Social Science. A consulting historian for the past 20 years, Ms. Duval's particular area of research is Santa Clara County. She has been conducting cultural resources inventories and evaluations of existing buildings and historic-era archaeological resources since 1980. She currently serves as Executive Secretary for the Sourisseau Academy for State and Local History based at San Jose State University, which promotes local history through sponsoring research, educational programs, and publications. She co-authored the archaeological report.

11.19 S.R. BEARD & ASSOCIATES

Mark Weisman, Principal Planner. M.A., Geography. Mr. Weisman has 25 years of experience in transportation planning, including long range, system and service planning, and preparation of FTA-related MIS and environmental documentation for rail and HOV/busway projects in the U.S. He was

responsible for preliminary and detailed definition of alternatives, analysis and evaluation of BART alignment and station design options, and subsequent document preparation.

11.20 JONES & STOKES ASSOCIATES

Mike Davis, Project Director. M.A., Urban and Regional Planning. Mr. Davis specializes in environmental planning, transportation planning, community revitalization, and historic preservation; alternatives analyses, and environmental screening studies for transit and roadway projects; assessment of the environmental impacts of transportation projects, satisfying NEPA, CEQA, and associated federal, state, and local regulations. Mr. Davis directed quality assurance and quality control for selected supplemental technical analyses in support of the Draft EIS/EIR.

Debra Jones, Project Manager. M.S., Transportation Engineering. Ms. Jones specializes in project management and NEPA and CEQA compliance for rail transit projects. She has over 22 years of experience in bus and rail transit planning and operations; federal transportation planning and environmental regulations; environmental justice, and public involvement. Ms. Jones provided oversight and management of selected supplemental technical analyses supporting the Draft EIS/EIR, including Section 4(f), biological resources, energy, and hydrology and water quality.

J. Steven Brooks, B.A. Environmental Design. Mr. Brooks has over 29 years of experience in the preparation of a wide range of both NEPA and CEQA environmental documents for large-scale transportation -related multidisciplinary projects. Mr. Brooks has expertise in cultural resources technical analysis and Section 106 consultation. Mr. Brooks provided supplemental technical support for the Section 4(f) analysis.

Kate Carpenter, B.A. Plant Biology. Ms. Carpenter is a botanist, wetland ecologist, and certified arborist experienced in special-status plant surveys, plant community characterization and mapping, wetland delineations, floristic inventories, noxious weed surveys, arborist surveys, and collection and preparation of voucher specimens. She has conducted extensive wetland delineation and botanical field surveys. Ms. Carpenter provided supplemental technical support for the biological resources analysis.

Garrick Jones, Energy. B.S. Environmental and Resource Science. Mr. Jones specializes in scientific data collection and management, document and report writing, geographic information systems (GIS), and handles project design and implementation. Mr. Jones has expertise in energy analyses for transportation projects. He provided supplemental technical support for the energy analysis.

Thomas Trexler, Hydrology and Water Quality. M.S. Hydrology and Aquatic Chemistry. Mr. Trexler is specializes in riparian and limnological water quality sampling, laboratory analysis, hydrologic flow measurement, and GIS analysis. His background includes interdisciplinary analyses of water quality at a variety of scales ranging from microscopic to meso-scale catchments. Mr. Trexler provided supplemental technical support for hydrology and water quality analysis.

11.21 EIP ASSOCIATES

Rod Jeung, AICP, Principal. Masters, in Regional Planning. Mr. Jeung has 25 years of experience conducting NEPA and CEQA environmental studies for transit projects throughout California. He has directed other major BART environmental documents, including the BART-SFO Extension EIR/EIS, the BART Oakland Airport Connector EIR/EIS, and the Daly City Yard Improvements Environmental Assessment. Mr. Jeung performed the technical review of the hydrological technical report, and directed the reviews of the traffic and noise reports.

Michael Kay, Senior Manager. BA in Geography. With 14 years of experience, Mr. Kay has extensive expertise in transportation planning, environmental analysis, and NEPA and CEQA document preparation. He has worked on a variety of major transportation projects in the Bay Area while employed as an environmental planner by Caltrans. Mr. Kay authored the review of the traffic technical reports.

Clifford Nale, R.G., Associate Geologist/Project Manager. B.S. in Engineering Geology. Mr. Nale's professional consulting experience includes 10 years of environmental assessments of geo-seismic risks, hazardous materials, air quality, and noise for a variety of development projects throughout California. Mr. Nale was responsible for peer reviewing the noise technical report.

11.22 CHARLES EDELSON

Charles R. Edelson, Senior Consultant. Mr. Edelson is a recognized expert on transit related issues, with more than 45 years of experience in EMI evaluation, including rail vehicle emissions, communications, and signaling systems.

11.23 JOHN WARREN ASSOCIATES

Ken Heilig, P.E., Civil Engineer with 40 years experience in the planning and design of heavy rail O&M facilities. Provided design and program input on the BART Maintenance Facility, including yard layout, shop building layout and functions, shop building equipment and tools list and costs, and non-revenue vehicle equipment list and costs.

11.24 LEA+ELLIOT

Steven L. Perliss, PE, Principal. B.S. Mechanical Engineering. Mr. Perliss has 12 years experience in the planning and design of automated transit systems at and/or connecting to airports. Mr. Perliss participated in the evaluation of the options for connecting the SVRTC to SJIA.

11.25 CONSULTANT CONTRACT AND SUBCONTRACT DOLLAR AMOUNTS

Under Government Code 7550, when the cost to prepare a document is more than \$5,000, the document must contain a separate section listing the contracts and subcontracts and their dollar amounts relating to the preparation of the document. This list is provided on the following page.

CONSULTANT	RESPONSIBILITIES	FEE
Earth Tech, Inc.	Project Management; MIS; Definition of Alternatives; Capital Cost Estimates; Geology, Soils, and Seismicity; Hydrology and Water Quality; Hazardous Materials; and EMF/EMI.	\$2,824,000
Parsons Corporation	Draft EIS/EIR Management and Preparation; Construction Scenario/Impacts; Biology; Energy; Socioeconomic/Env'l Justice; Section 4(f).	\$742,000
Wyn + Grace, Inc	Deputy Project Management	\$249,000
Public Affairs Management	Public Involvement Program; Visual; Land Use; Socioeconomics.	\$768,000
Manuel Padron & Associates	Transit Operations Planning; O&M Cost Estimates; Assessment of Benefits/Impacts.	\$425,000
Hexagon Transportation Consultants	Travel Demand Forecasting; Transportation and Traffic.	\$890,000
URS, Corporation	Geotechnical Exploration and Interpretation; Tunnel and Cut-and-Cover Excavation Methods and Costs; Capital Cost Estimates.	\$460,000
VBN Architects	Aboveground Stations Definition; Urban Design; TOD Planning; O&M Facility Buildings.	\$550,000
Anil Verma Associates	Below Ground Stations; Urban Design.	\$552,000
Sedway Group	Real Estate Development Economics; TOD Planning.	\$173,000
Harris Miller Miller & Hanson	Noise and Vibration.	\$222,000
ATS Consulting, LLC	Noise and Vibration.	\$11,000
Terry A. Hayes Associates	Air Quality/Conformity Analysis.	\$74,000
JRP Historical Consulting Services	Historic Cultural Resources.	\$301,000
Nancy Whelan Consulting Services	Financial Planning Support.	\$20,000
Far Western Anthropological Research Group	Pre-historic Cultural Resources.	\$75,000
S.R. Beard & Associates	Technical Report Writing	\$110,000
Jones & Stokes Associates	Biological Resources; Draft EIS/EIR Quality Assurance	\$80,000
EIP Associates	Draft EIS/EIR Quality Assurance	\$6,500
Charles Edelson	EMF/EMI.	\$6,000
John Warren Associates	O&M Facility Definition.	\$30,000
Lea+Elliott	Airport APM Connection Evaluation.	\$20,000
TOTAL – ALL CONSULTANTS:		\$8,588,500