TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

April 14, 2016
1:00 P.M.
651 Pine Street, Room 101, Martinez

Agenda

Supervisor Mary N. Piepho, Chair
Supervisor Candace Andersen, Vice Chair

Agenda Items:	Items may be taken out of order based on the business of the day and preference of the Committee

1. **Introductions**

2. **Public comment on any item under the jurisdiction of the Committee and not on this agenda** (speakers may be limited to three minutes).

3. **Administrative Items.** (John Cunningham, Department of Conservation and Development)

4. **REVIEW record of meeting for March 10, 2016, Transportation, Water and infrastructure Committee Meeting.** This record was prepared pursuant to the Better Government Ordinance 95-6, Article 25-205 (d) of the Contra Costa County Ordinance Code. Any handouts or printed copies of testimony distributed at the meeting will be attached to this meeting record. (John Cunningham, Department of Conservation and Development)

5. **CONSIDER selected recommendations in a report from the Pipeline Safety Trust on pipeline safety in Contra Costa County commissioned by the Alamo Improvement Association, and direct staff as appropriate to determine steps to implement these recommendations.**(Michael Kent, Contra Costa Health Services)

6. **ACCEPT report on the impacts to County transportation projects from the declining State gas tax; DIRECT the Public Works Director to make modifications to the current draft of the Capital Road Improvement and Preservation Program currently being routed for review to reflect the reduced gas tax revenues; and ACKNOWLEDGE impacts of the State transportation funding situation on County operations.**(Steve Kowalewski, Department of Public Works)

7. **CONSIDER report on Local, State, and Federal Transportation Related Legislative Issues and take ACTION as appropriate.** (John Cunningham, Department of Conservation and Development)

8. **PLEASE NOTE DIFFERENT TIME SCHEDULED FOR NEXT TWIC MEETING, AS FOLLOWS: the next meeting is currently scheduled for Thursday, May 12, 2016 at 2:00 P.M.**

9. Adjourn

The Transportation, Water & Infrastructure Committee (TWIC) will provide reasonable accommodations for persons with disabilities planning to attend TWIC meetings. Contact the staff person listed below at least 72 hours before the meeting.

Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the County to a majority of members of the TWIC less than 96 hours prior to that meeting are available for public inspection at the County Department of Conservation and Development, 30 Muir Road, Martinez during normal business hours.

Public comment may be submitted via electronic mail on agenda items at least one full work day prior to the published meeting time.

For Additional Information Contact:

John Cunningham, Committee Staff
Phone (925) 674-7833, Fax (925) 674-7250
john.cunningham@dcd.cccounty.us

Glossary of Acronyms, Abbreviations, and other Terms (in alphabetical order): Contra Costa County has a policy of making limited use of acronyms, abbreviations, and industry-specific language in meetings of its Board of Supervisors and Committees. Following is a list of commonly used abbreviations that may appear in presentations and written materials at meetings of the Transportation, Water and Infrastructure Committee:

AB Assembly Bill
ABAG Association of Bay Area Governments
ACA Assembly Constitutional Amendment
ADA Americans with Disabilities Act of 1990
ALUC Airport Land Use Commission
AOB Area of Benefit
BAAQMD Bay Area Air Quality Management District
BART Bay Area Rapid Transit District
BATA Bay Area Toll Authority
BCDC Bay Conservation & Development Commission
BDCP Bay-Delta Conservation Plan
BGO Better Government Ordinance (Contra Costa County)
BOS Board of Supervisors
CALTRANS California Department of Transportation
CalWIN California Works Information Network
CalWORKS California Work Opportunity and Responsibility to Kids
CAER Community Awareness Emergency Response
CAO County Administrative Officer or Office
CCTA Contra Costa Transportation Authority
CCWD Contra Costa Water District
CDBG Community Development Block Grant
CEQA California Environmental Quality Act
CFS Cubic Feet per Second (of water)
CPI Consumer Price Index
CSA County Service Area
CSAC California State Association of Counties
CTC California Transportation Commission
DCC Delta Counties Coalition
DCD Contra Costa County Dept. of Conservation & Development
DPC Delta Protection Commission
DSC Delta Stewardship Council
DWR California Department of Water Resources
EBMUD East Bay Municipal Utility District
EIR Environmental Impact Report (a state requirement)
EIS Environmental Impact Statement (a federal requirement)
EPA Environmental Protection Agency
FAA Federal Aviation Administration
FEMA Federal Emergency Management Agency
FTE Full Time Equivalent
FY Fiscal Year
GHAD Geologic Hazard Abatement District
GIS Geographic Information System
HBRR Highway Bridge Replacement and Rehabilitation
HOT High-Occupancy/Toll
HOV High-Occupancy-Vehicle
HSD Contra Costa County Health Services Department
HUD United States Department of Housing and Urban Development
IPM Integrated Pest Management
ISO Industrial Safety Ordinance
JPA/JEPA Joint (Exercise of) Powers Authority or Agreement
Lamorinda Lafayette-Moraga-Orinda Area
LAFCo Local Agency Formation Commission
LCC League of California Cities
LTMS Long-Term Management Strategy
MAC Municipal Advisory Council
MAF Million Acre Feet (of water)
MBE Minority Business Enterprise
MOA Memorandum of Agreement
MOE Maintenance of Effort
MOU Memorandum of Understanding
MTC Metropolitan Transportation Commission
NACo National Association of Counties
NEPA National Environmental Protection Act
OES-EOC Office of Emergency Services-Emergency Operations Center
PDA Priority Development Area
PWD Contra Costa County Public Works Department
RCRC Regional Council of Rural Counties
RDA Redevelopment Agency or Area
RFI Request For Information
RFP Request For Proposals
RFQ Request For Qualifications
SB Senate Bill
SBE Small Business Enterprise
SR2S Safe Routes to Schools
STIP State Transportation Improvement Program
SWAT Southwest Area Transportation Committee
TRANSPAC Transportation Partnership & Cooperation (Central)
TRANSPLAN Transportation Planning Committee (East County)
TWIC Transportation, Water and Infrastructure Committee
USACE United States Army Corps of Engineers
WBE Women-Owned Business Enterprise
WCCTAC West Contra Costa Transportation Advisory Committee
WETA Water Emergency Transportation Authority
WRDA Water Resources Development Act

Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE **3.**

Meeting Date: 04/14/2016

Subject: Administrative Items.

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: John Cunningham, DCD **Contact:** John Cunningham (925)674-7833

Referral History:

This is an Administrative Item of the Committee.

Referral Update:

Staff will review any items related to the conduct of Committee business.

Recommendation(s)/Next Step(s):

Take ACTION as appropriate.

Fiscal Impact (if any):

N/A

Attachments

No file(s) attached.

Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE **4.**

Meeting Date: 04/14/2016

Subject: REVIEW record of meeting for March 10, 2016, Transportation, Water and Infrastructure Committee Meeting.

Submitted For: TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE,

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: John Cunningham, DCD **Contact:** John Cunningham (925)674-7833

Referral History:

County Ordinance (Better Government Ordinance 95-6, Article 25-205, [d]) requires that each County Body keep a record of its meetings. Though the record need not be verbatim, it must accurately reflect the agenda and the decisions made in the meeting.

Referral Update:

Any handouts or printed copies of testimony distributed at the meeting will be attached to this meeting record.

Links to the agenda and minutes will be available at the TWI Committee web page:

http://www.cccounty.us/4327/Transportation-Water-Infrastructure

Recommendation(s)/Next Step(s):

Staff recommends approval of the attached Record of Action for the March 10, 2016 Committee Meeting with any necessary corrections.

Fiscal Impact (if any):

N/A

Attachments

3-10-16 TWIC Sign-In Sheet

3-10-16 DRAFT TWIC Meeting Minutes

Transportation, Water and Infrastructure Committee Meeting
March 10, 2016

SIGN-IN SHEET

Signing in is voluntary. You may attend this meeting without signing in. (If front is filled, please use back.)

Name	Representing	Phone
John Cunningham	CC County/TWIC	674-7833
John McGrath	CC ENV. HEALTH	692-2500
John Burgh	CCWD	688-8024
Lucinda Cartwright	CC Civil Grand Jury	925-370-0809
Harold Mann	"	925-212-5419
Mark Seedall	CCWD	925 688-8119

D R A F T

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

March 10, 2016
1:00 P.M.
651 Pine Street, Room 101, Martinez

Agenda

Supervisor Candace Andersen, Chair
Supervisor Mary N. Piepho, Vice Chair

Agenda Items:	Items may be taken out of order based on the business of the day and preference of the Committee

Present: Mary N. Piepho, Vice Chair

Absent: Candace Andersen, Chair

Attendees: Lucinda Cartwright, CCC Civil Grand Jury
Harold Mantle, CCC Civil Grand Jury
John Burgh, CCC Water District
Mark Seedall, CCC Water District
John Wiggins, CCC Environmental Health
John Cunningham, CCC Conservation & Development

1. **Introductions**

   Please see attached sign-in sheet, hand-outs and "Attendees" section, above.

2. **Public comment on any item under the jurisdiction of the Committee and not on this agenda** (speakers may be limited to three minutes).

3. **Administrative Items, if applicable.** (John Cunningham, Department of Conservation and Development)

4. **Staff recommends approval of the attached Record of Action for the February 11, 2016 Committee Meeting with any necessary corrections.**

   The Committee unanimously approved the February 11, 2016 Meeting Record.

5. **RECEIVE report on the formation of a Groundwater Sustainability Agency to undertake sustainable groundwater management in the portion of the Tracy Subbasin within Contra Costa County, DISCUSS County membership, and take appropriate action.** (Ryan Hernandez, Water Agency - Department of Conservation and Development)

   The Committee received the report and directed staff to: bring the Tracy Sub Basin recommendation to the BOS, report back to the Committee on other Subbasins, and consult with the appropriate Supervisorial offices regarding SGMA implications.

6. **REVIEW, REVISE as appropriate, and ADOPT the 2016 Calendar.** (John Cunningham, Department of Conservation and Development)

   The Committee received the calendar, and unanimously approved the draft for adoption.

7. **CONSIDER report on Local, State, and Federal Transportation Related Legislative Issues and take ACTION as appropriate including CONSIDERATION of specific recommendations in the report above.** (John Cunningham, Department of Conservation and Development)

The Committee unanimously received the report, and directed staff to 1) bring a recommendation of SUPPORT to the Board of Supervisors on SB632 (Cannella) School Zones - Speed Limits, and 2) bring a draft letter to the BOS to CCTA regarding the rotation of CCTA Chair.

8. The next meeting is currently scheduled for Thursday, April 14, 2016 at 1pm.

9. Adjourn

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For Additional Information Contact:

John Cunningham, Committee Staff

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BDCP Bay-Delta Conservation Plan
BGO Better Government Ordinance (Contra Costa County)
BOS Board of Supervisors
CALTRANS California Department of Transportation
CalWIN California Works Information Network
CalWORKS California Work Opportunity and Responsibility to Kids
CAER Community Awareness Emergency Response
CAO County Administrative Officer or Office
CCTA Contra Costa Transportation Authority
CCWD Contra Costa Water District
CDBG Community Development Block Grant
CEQA California Environmental Quality Act
CFS Cubic Feet per Second (of water)
CPI Consumer Price Index
CSA County Service Area
CSAC California State Association of Counties
CTC California Transportation Commission
DCC Delta Counties Coalition
DCD Contra Costa County Dept. of Conservation & Development
DPC Delta Protection Commission
DSC Delta Stewardship Council
DWR California Department of Water Resources
EBMUD East Bay Municipal Utility District
EIR Environmental Impact Report (a state requirement)
EIS Environmental Impact Statement (a federal requirement)
EPA Environmental Protection Agency
FAA Federal Aviation Administration
FEMA Federal Emergency Management Agency
FTE Full Time Equivalent
FY Fiscal Year
GHAD Geologic Hazard Abatement District
GIS Geographic Information System
HBRR Highway Bridge Replacement and Rehabilitation
HOT High-Occupancy/Toll
HOV High-Occupancy-Vehicle
HSD Contra Costa County Health Services Department
HUD United States Department of Housing and Urban Development
IPM Integrated Pest Management
ISO Industrial Safety Ordinance
JPA/JEPA Joint (Exercise of) Powers Authority or Agreement
Lamorinda Lafayette-Moraga-Orinda Area
LAFCo Local Agency Formation Commission
LCC League of California Cities
LTMS Long-Term Management Strategy
MAC Municipal Advisory Council
MAF Million Acre Feet (of water)
MBE Minority Business Enterprise
MOA Memorandum of Agreement
MOE Maintenance of Effort
MOU Memorandum of Understanding
MTC Metropolitan Transportation Commission
NACo National Association of Counties
NEPA National Environmental Protection Act
OES-EOC Office of Emergency Services-Emergency Operations Center
PDA Priority Development Area
PWD Contra Costa County Public Works Department
RCRC Regional Council of Rural Counties
RDA Redevelopment Agency or Area
RFI Request For Information
RFP Request For Proposals
RFQ Request For Qualifications
SB Senate Bill
SBE Small Business Enterprise
SR2S Safe Routes to Schools
STIP State Transportation Improvement Program
SWAT Southwest Area Transportation Committee
TRANSPAC Transportation Partnership & Cooperation (Central)
TRANSPLAN Transportation Planning Committee (East County)
TWIC Transportation, Water and Infrastructure Committee
USACE United States Army Corps of Engineers
WBE Women-Owned Business Enterprise
WCCTAC West Contra Costa Transportation Advisory Committee
WETA Water Emergency Transportation Authority
WRDA Water Resources Development Act

Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE **5.**

Meeting Date: 04/14/2016

Subject: CONSIDER selected recommendations in the Pipeline Safety Trust report directed at the County or County Departments, and DIRECT staff as appropriate.

Submitted For: TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE,

Department: Conservation & Development

Referral No.: 12, 15

Referral Name: MONITOR and REPORT on the Underground Utilities Program and MONITOR the Iron Horse Corridor Management Program.

Presenter: Michael Kent, Executive Assistant to Hazardous Materials Commission **Contact:** Michael Kent (925)313-6587

Referral History:

This report has not been taken up by TWIC in the past, but is related to an earlier presentation at TWIC by the State Fire Marshal on the Integrity Management Plan for the Kinder Morgan pipeline running parallel to the Iron Horse Trail and other discussions that have occurred at TWIC concerning pipeline safety.

Referral Update:

In 2015 the Alamo Improvement Association received a grant from the Federal Department of Transportation to conduct public engagement around pipeline safety issues. As part of that grant they contracted with the Pipeline Safety Trust to write a report on pipeline safety in Contra Costa County. That report, Pipeline Safety in Alamo, and surrounding areas within Contra Costa County, California (see attached), contained nine recommendations to the County concerning pipeline safety issues.

On January 28, the Hazardous Materials Commission unanimously agreed that the following recommendations contained in the report merit further consideration by the Board of Supervisors. The Commission encourages the Board to discuss these recommendations with the appropriate departmental staff and other stakeholders to determine what measures may be necessary to implement these recommendations, to identify the appropriate lead staff that would be necessary to implement these measures, and to identify potential sources of any additional funding which may be needed to implement these recommendations.

The page number where each recommendation can be found in the Pipeline Safety Trust report is listed after each recommendation:

1. Review all development applications for opportunities to improve existing ingress/egress where currently limited, and where possible, include conditions on approvals to improve connectivity and avoid exacerbation of access problems. (p.27)

2. Plan emergency evacuation ingress/egress for areas in Alamo west of Danville Boulevard and the Iron Horse Corridor where a single pipeline crossing road is the only access for numerous homes and facilities with the goal of creating public accessibility across these "dead-end" neighborhoods that necessitate crossing the pipeline to access any services. (p.27)

3. Ensure the county has complete and accurate records of corridor and right of way locations. Continue to coordinate with Kinder Morgan and other utilities on resolution of encroachments into pipeline Rights of Way. (p. 23)

4. Ensure the single staff point-of-contact for citizens with concerns about multiple utility issues and right of way questions has technical training on safety concerns, adequate resources to conduct regular and broad community outreach (especially along the Iron Horse Trail Corridor), and resources to work in close coordination with other related departments and advisory groups. (p. 23)

5. Request appropriate staff conduct an analysis of all congregate facilities located in close proximity to transmission pipelines; Work with other emergency response agencies to develop a list of resources for emergency and evacuation planning expertise for congregate facilities near pipelines that can include potential hazards from a pipeline incident, and mitigation strategies for those hazards based on site-specific considerations.(p. 27)

6. Adopt clear policies and deterrents regarding preventing encroachment including the review of setback variances by municipal advisory councils or committees and department staff, so that properties and vegetation along utility corridors do not encroach on pipelines. (p. 23)

On February 17, 2016 the Planning and Policy committee of the Hazardous Materials Commission voted to endorse language changes the Department of Conservation and Development is proposing to make to Section 82 of the County Zoning Code in response to the following recommendation in the Pipeline Safety Report.

7. Consider adding goals and policies regarding pipelines to the General Plan, and amending Contra Costa County Zoning Code 82.2.010 so that all gas and hazardous liquid transmission pipelines would be subject to land use regulations. Consider additional ordinances (s) pertaining to zoning and land use that are proposed for construction, replacement, modification, or abandonment.

The following two recommendations from the report did not garner any support from the Commission:

8. Work in coordination with pipeline operators to develop a technical advisory body that can review the integrity management plans (similar to the Santa Barbara County System Safety Reliability Review Committee) and other technical assessments of the pipelines in order to cultivate informed technical expertise in the county and increase public trust and

awareness.

9. Expand the scope of the Hazardous Materials Ombudsman and the Hazardous Materials Commission regarding pipelines to provide an ongoing review of pipeline operators' emergency plans and an active role in possible county efforts regarding additional coordinated technical review of pipeline integrity management planning.

Recommendation(s)/Next Step(s):

CONSIDER selected recommendations in the Pipeline Safety Trust report directed at the County or County Departments, and DIRECT staff as appropriate.

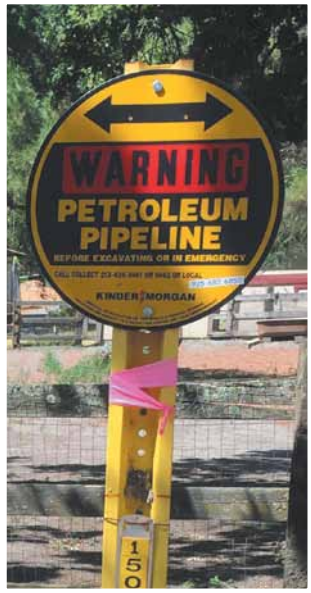
Fiscal Impact (if any):

None.

Attachments

HMC Pipeline Report to TWIC 41416

Pipeline Safety in Alamo, and surrounding areas within Contra Costa County, California



Pipeline Safety Report to the Alamo Improvement Association

Produced by the **Pipeline Safety Trust**
September 2015

ACKNOWLEDGEMENTS

The Alamo Improvement Association (AIA) sponsored this report through a Community Technical Assistance Grant they received from the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration. **Roger Smith**, AIA President, was the driving force behind this project; and **Aron DeFarrari**, Board Member, offered valuable feedback.

Multiple Contra Costa County staff members were helpful in the writing of this report, and we appreciate their input and cooperation. **Michael Kent**, Hazardous Materials Ombudsman, was invaluable in connecting us with others in the community and providing information. **Jennifer Quallick**, Field Representative to Supervisor Anderson, was also very helpful.

Together, the four people mentioned above gave countless hours as part of the AIA Technical Assistance Grant for pipeline safety, ad-hoc working group, and we thank them all for their dedication.

Numerous county, state, and federal agency employees, and pipeline operator staff members, spent time giving us information used in this report, and we appreciate their willingness to help.

The Pipeline Safety Trust promotes pipeline safety through education and advocacy, increased access to information, and partnerships with residents, safety advocates, government, and industry, resulting in safer communities and a healthier environment.

The work of the Pipeline Safety Trust would not be possible without the guidance and diligent work of the following people:

Trust Board of Directors

Lois Epstein – President (Anchorage, Alaska)

Sara Gosman – Vice President (Fayetteville, Arkansas)

Bruce Brabec – Treasurer (Bonaire, Netherlands Antilles)

Beth Wallace – Secretary (Brighton, Michigan)

Glenn R Archambault (Phoenix, Oregon)

Paul Blackburn (Minneapolis, Minnesota)

Michael Guidon (Seattle, Washington)

Jeffrey Insko (Rochester, Michigan)

Trust Staff

Carl Weimer – Executive Director

Rebecca Craven – Program Director

Samya Lutz – Outreach Coordinator

Chris Coffin – Administrative Assistant/
Webmaster/Graphic Design

Table of Contents

LIST OF ACRONYMS

AIA – Alamo Improvement Association

ASV – Automatic Shutoff Valve

CAER – Community Awareness and Emergency Response

CalEPA – California Environmental Protection Agency

CAO – Corrective Action Order

CATS – Community Assistance and Technical Services, PHMSA Pipeline Safety outreach staff

CCC – Contra Costa County

CDE – California Department of Education

CPUC – California Public Utilities Commission

CUPA – Certified Unified Program Agency, as authorized under CalEPA

DCD – Contra Costa County Department of Conservation and Development

EFRD – Emergency Flow Restricting Devices, or valves

EPA – Environmental Protection Agency

FERC – Federal Energy Regulatory Commission

HCA – High Consequence Area

HL – Hazardous Liquid

HSD – Contra Costa County Health Services Department

IHC – Iron Horse Corridor

LS – Line Segment, specifying a number that identifies a specific segment of a pipeline

NTSB – National Transportation Safety Board

OSFM – California Office of the State Fire Marshal

OSPR – California Department of Wildlife, Office of Spill Prevention and Response

PHMSA – U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration

PST – Pipeline Safety Trust, also referred to in this report as "the Trust"

RCV – Remote Control Valve

SFPP – Santa Fe Pacific Pipeline system that is operated by Kinder Morgan

TAG – PHMSA Community Technical Assistance Grant

EXECUTIVE SUMMARY

The Pipeline Safety Trust reviewed Contra Costa County hazardous liquid pipelines, with a particular focus on the Alamo area and the Iron Horse Corridor. In this report, we provide general information on pipeline regulations and risks, as well as more detailed information on concerns of particular interest to the Alamo community.

We make a number of recommendations interspersed throughout the report and summarized here that in our opinion – if adopted by the various agencies and stakeholder groups mentioned – would make pipelines in Contra Costa County even safer.

These recommendations are organized under the agency or group to which they are directed. We have purposefully not prioritized our recommendations, as implementation may be affected by any number of factors including budgets and workloads of the agencies involved. All our recommendations are summarized here:

The Federal Pipelines and Hazardous Materials Safety Administration Could:

- Make information about a pipeline's High Consequence Area designation easily available to the public.
- Adopt regulations to implement the NTSB recommendations regarding needed improvements to the Integrity Management requirements for both gas and hazardous liquid pipelines.
- Adopt stronger regulations requiring automated valves consistent with the NTSB recommendations.
- Adopt stronger regulations that require better leak detection systems in hazardous liquid pipelines that could affect high consequence areas, and provide a clear performance standard for computational pipeline monitoring systems.

The State of California Could:

- Enforce excavation damage prevention laws. Currently authority is held with the Attorney General's office, but there is not adequate staffing or resources to respond to notifications of alleged violations or to investigate. Other agencies respond on a fragmented basis depending on the damaged utility involved.
- Work with the California Department of Education (CDE) on ways to implement CDE's suggestions for reducing the probability of a pipeline product release on schools, and reducing the severity and consequences of pipeline releases on schools.

The California Office of the State Fire Marshal Could:

- Make their maps, incident and inspection information accessible to the public by posting it online.
- Make information about a pipeline's High Consequence Area designation easily available to the public.
- Adopt regulations to implement the NTSB recommendations regarding needed improvements to the Integrity Management requirements that apply to intrastate hazardous liquid pipelines.
- Adopt stronger regulations for intrastate pipelines requiring automated valves that apply to hazardous liquid pipelines along the lines of the NTSB recommendations.
- Adopt stronger regulations for intrastate pipelines that require better leak detection systems in high consequence areas, and that provide a clear performance standard for computational pipeline monitoring systems.

The California Department of Education Could:

- Expand School Site Pipeline Risk Analysis and the Potential Pipeline Hazard Mitigation/Management guidance in coordination with emergency response agencies to offer help for schools that already exist in close proximity to pipelines. Lead coordination efforts among the myriad of agencies that offer crisis planning assistance to schools, and suggest minimum information that should be included in these plans regarding pipelines.

The Contra Costa Board of Supervisors Could:

- Ensure the single staff point-of-contact for citizens (especially along the Iron Horse Corridor) with concerns about multiple utility issues and right of way questions has technical training on safety concerns, adequate resources to conduct regular and broad community outreach, and resources to work in close coordination with other related departments and advisory groups.
- Request appropriate staff conduct an analysis of all congregate facilities (i.e. schools, recreation facilities, hospitals, nursing facilities, etc.) located in close proximity to transmission pipelines; Work with other emergency response agencies to develop a list of resources for emergency and evacuation planning expertise for congregate facilities near pipelines that can include potential hazards from a pipeline incident, and mitigation strategies for those hazards based on site-specific considerations.
- Consider adding goals and policies regarding pipelines to the General Plan, and amending Contra Costa County Zoning Code 82-2.010 so that all gas and hazardous liquid transmission pipelines would be subject to (and not exempt from) the General and Land Use District regulations (divisions 82 and 84). Consider additional ordinance(s) pertaining to zoning and land use permitting for hazardous liquid pipelines and possibly also intrastate gas transmission pipelines that are proposed for construction, replacement, modification, or abandonment.

- Adopt clear policies and deterrents regarding preventing encroachment including the review of setback variances by municipal advisory councils or committees and department staff so that properties and vegetation along utility corridors do not encroach on pipelines.
- Work in coordination with pipeline operators to develop a technical advisory body that can review the integrity management plans (similar to the Santa Barbara County System Safety Reliability Review Committee) and other technical assessments of the pipelines in order to cultivate informed technical expertise in the county and increase public trust and awareness.

The Contra Costa County Department of Conservation and Development Could:

- Consider adding goals and policies regarding pipelines to the General Plan, and amending Contra Costa County Zoning Code 82-2.010 so that all gas and hazardous liquid transmission pipelines would be subject to (and not exempt from) the General and Land Use District regulations (divisions 82 and 84). Consider additional ordinance(s) pertaining to zoning and land use permitting for hazardous liquid pipelines and possibly also intrastate gas transmission pipelines that are proposed for construction, replacement, modification, or abandonment.
- Review all development applications for opportunities to improve existing ingress/egress where currently limited, and where possible, include conditions on approvals to improve connectivity and avoid exacerbation of access problems.

The Contra Costa County Health Services Department Could:

- Expand the scope of the Hazardous Materials Ombudsman and the Hazardous Materials Commission regarding pipelines to provide an ongoing review of pipeline operators' emergency plans and an active role in possible county efforts regarding additional coordinated technical review of pipeline integrity management planning.

The Contra Costa County Public Works Department Could:

- Plan emergency evacuation ingress/egress for areas in Alamo west of Danville Boulevard and the Iron Horse Corridor where a single east-west pipeline-crossing road is the only access for numerous homes and facilities (e.g., Hemme Road, Camille Road) with the goal of creating public accessibility across these 'dead-end' neighborhoods that necessitate crossing the pipeline to access any services.
- Ensure the county has complete and accurate records of corridor and right of way locations and widths. Continue to coordinate with Kinder Morgan and other utilities on resolution of encroachments into pipeline rights of way.

The Contra Costa County Office of Public Education & Local School Districts Could:

- Expand emergency preparedness resources to include information about pipelines and pipeline-specific risks. Assist individual schools in developing crisis plans and emergency preparedness plans that include pipelines on the emergency maps and assess how ingress/egress may be affected by a pipeline incident.

The Contra Costa County Community Awareness and Emergency Response (CAER) Group Could:

- Include specific reference to oil and gas pipelines in the list of potential hazards listed in the hazard assessment in the next update to the Model Emergency Plan for Schools.

Pipeline Operators Could:

- Reach out to the schools along pipeline easements and offer to provide technical assistance assessing pipeline risks and evacuation strategies given possible incidents that could occur in close proximity to the schools.
- Consistently undertake assessments of existing Right of Way encroachments to determine whether there are safety implications. Coordinate with Contra Costa County to resolve encroachments with neighboring property owners.
- Become members of the Contra Costa County Community Awareness and Emergency Response Group, and participate consistently in quarterly meetings and responses.
- Contract for an independent technical seismic vulnerability study on HCA pipelines affected by potentially active faults to feed into the pipeline risk analysis, and make the study available to the public.
- Work in coordination with the Board of Supervisors to develop a technical advisory body that can review the integrity management plan (similar to the Santa Barbara County System Safety Reliability Review Committee) and other technical assessments of the pipelines in order to cultivate informed technical expertise in the county and increase public trust and awareness.

Local Fire Districts Could:

- Designate a single point-of-contact to coordinate with pipeline operators, familiarize themselves with the operators' emergency response and spill response plans, know the facilities where people congregate (schools, churches, hospitals, nursing facilities, etc.) in close proximity to the pipeline, and be involved with any emergency planning done by those facilities.

INTRODUCTION

Background

Contra Costa County has over 1 million people and covers approximately 805 square miles. The city of Martinez is the county seat, and one of nineteen incorporated cities within the county. Oil refineries operate along the western and northern coastlines: Phillips 66, Chevron, Shell Oil, and Tesoro, with associated petroleum storage and transportation infrastructure. Most of the hazardous liquid pipelines in the county transport product to or from a storage facility or refinery.

A Board of Supervisors governs the County, with representatives elected from five districts; the Alamo area is part of District II, and is unincorporated with about 15,000 residents. The homeowners association – the Alamo Improvement Association – is quite active, with an elected board and committees. In addition, the Alamo Municipal Advisory Council serves a formalized role with the county as an advisory body to the Board of Supervisors and the County planning agency, providing review and recommendations for a variety of activities that impact the Alamo area.

One of the areas of particular interest to the Alamo community is the Iron Horse Corridor. This is an historic rail corridor managed as a regional multiuse trail that runs roughly north-south from Concord in northern Contra Costa County to beyond the Alameda County line to the south, cutting Contra Costa County roughly in half and traversing the county for about 20 miles. Utilities and private infrastructure also run along the corridor, including a refined oil pipeline referred to as the San Jose line that is part of the Kinder Morgan Santa Fe Pacific Pipeline (SFPP) system. Conversations in the Alamo community precipitated a renewed interest in this pipeline, and prompted the Alamo Improvement Association (AIA) to seek technical assistance and commission this report on pipeline safety.

Purpose and Scope of Report

The Alamo Improvement Association (AIA) contracted with the Pipeline Safety Trust in February 2015 to provide services intended to educate and inform the community about hazardous liquid pipelines and pipeline safety. That included presentations at two community workshops in June 2015, as well as the production of this report.

Hazardous Liquid Pipeline Safety Workshop held on June 3, 2015 in Alamo, CA

The funding for these services came from a Community Technical Assistance Grant (TAG) awarded by the Pipeline and Hazardous Materials Safety Administration (PHMSA), a division of the U.S. Department of Transportation. AIA applied for this grant in the spring of 2014 to include pipeline safety public outreach and education, as well as training for local first responders, and outreach regarding the national 811 Call Before You Dig program. The grant period ran from October 2014 – September 2015. Roger

Smith, President of the Alamo Improvement Association was the primary point of contact for the TAG award and contract for services with the Trust.

From January through August 2015, Pipeline Safety Trust staff participated in periodic conference calls with two representatives of the Alamo Improvement Association, a field representative in Contra Costa County District II Supervisor Anderson's office, and the Hazardous Materials Ombudsman within the Contra Costa County Health Services Department. This ad-hoc group was highly engaged with planning the two hazardous liquid pipeline safety workshops that took place in June,[1] and continued to be involved through the report process. Pipeline Safety Trust staff also engaged in one-on-one conversations with these same individuals as well as others from Contra Costa County Departments of Health Services, Public Works, Conservation and Development; local emergency services; California State offices of the Fire Marshal and the Office of Spill Prevention and Response; Kinder Morgan; and from the federal Pipeline and Hazardous Materials Safety Administration.

AIA asked the Trust to report broadly on pipeline issues affecting the entire county as well as the role of federal and state agencies, and to focus in on issues specific to petroleum pipelines and particularly the pipeline concerns of people in the Alamo area. All the data shown in charts or graphs in this report is from PHMSA as of August 2015, unless otherwise noted.

1 The second of these two public forums was captured on video by CCTV, and is available to watch here: http://contra-costa.granicus.com/MediaPlayer.php?publish_id=935921b6-0eea-11e5-b5ce-00219ba2f017

PIPELINE BASICS AND TECHNICAL ISSUES

What kinds of pipelines are in Contra Costa County?

There are three main types of pipelines in Contra Costa County, and it is important to understand what the different types are since they have different safety considerations and are regulated by different agencies under different rules.

The three main types are:

Hazardous Liquid Lines: These are the lines that move crude oil to the local refineries and then move refined products (gasoline, jet fuel, diesel, etc.) from the refineries to other markets.

Natural Gas Transmission Lines: These are the relatively larger, higher-pressure pipelines that move gas from production or storage to where the gas is distributed to our homes and businesses. They operate at pressures in the range of 300 to over 1500 pounds per square inch.

Natural Gas Distribution Lines: A distribution line is a relative small, lower pressure pipeline used to supply natural gas directly to our homes and businesses. A distribution line is located in a network of piping located downstream of a natural gas transmission line. The "city gate" is where a transmission system feeds into a lower pressure distribution system. Gas distribution pipelines comprise by far the most mileage of pipes; they carry odorized gas (with the characteristic smell of rotten eggs) throughout urban areas.

Two other important distinctions are **interstate pipelines** compared to **intrastate pipelines**. Interstate pipelines are typically longer transmission pipelines that cross state lines; intrastate pipelines are transmission pipelines that lie wholly within a single state.[2]

2 State lines are not the sole determiner for the inter/intrastate distinction. For details see 49 CFR 195, Appendix A.

Where are the pipelines in Contra Costa County?

The US has over 2.6 million miles of pipelines. Most of these (approximately 92%) carry gas – predominantly natural gas – and the rest (approximately 8%) carry hazardous liquids. Hazardous liquid and natural gas pipelines are governed by separate regulations. Whether and how pipelines are regulated also depends on what product is carried and where the pipeline is located.

Regulated Pipeline Mileage - U.S. and California

Miles of Pipelines	U.S.	California
Gas Transmission & Gathering	319,350	11,861
Gas Distribution	2,167,270	200,262
Hazardous Liquid	198,778	7,139
Total	**2,685,398**	**219,262**

Data from PHMSA as of 8/5/2015

There are over 4,000 miles of natural gas pipelines in Contra Costa County, 260 miles of which are transmission lines, and the rest are distribution lines and services.[3] All the natural gas distribution pipelines are operated by Pacific Gas & Electric under the jurisdiction of the California Public Utility Commission.

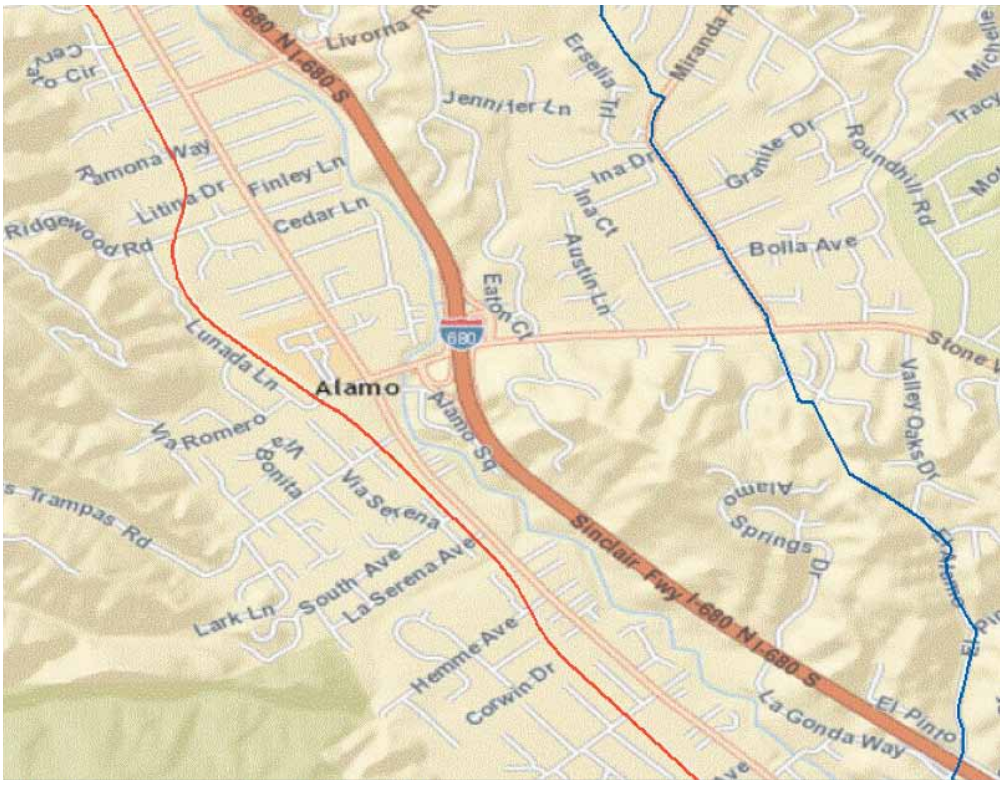
Hazardous liquid (HL) transmission pipelines in Contra Costa County total close to 500 miles.[4] Roughly two-thirds of the HL pipelines carry refined products, and about one-third carry crude oil.

3 Data on gas pipeline mileage is from the California Public Utilities Commission (July 2015).

4 Data on HL pipeline mileage in Contra Costa County from OSFM staff, and does not include empty or abandoned lines.

The map below from the National Pipeline Mapping System[5] shows the general location of the hazardous liquid (red) and the gas transmission (blue) pipelines in Contra Costa County.

Anyone can access these maps to see where hazardous liquid and gas transmission pipelines run through their community. The map below shows the two main pipelines running through the Alamo area – the Kinder Morgan San Jose Line in red and the PG&E natural gas line in blue. The "public viewer" for the maps is available online at: https://www.npms.phmsa.dot.gov/PublicViewer/.



5 https://www.npms.phmsa.dot.gov/PublicViewer

The system takes practice to navigate, but once a person figures it out it is possible to zoom in to get an idea of where these types of pipelines are generally located and some basic information about the pipelines themselves. While these types of maps can provide a general idea of where pipelines are located they should never be used as an indication of where it might be safe to dig. The One Call system is the only way to identify the exact location of a pipeline, and is discussed in more detail later in this report.

Details about the San Jose Pipeline

AIA is particularly interested in the Kinder Morgan SFPP pipeline, especially the portion of that pipeline that runs for nearly 20 miles along the Iron Horse Corridor in central Contra Costa County; this segment of the SFPP system is also called the "San Jose line" or LS-16 (line segment 16). This line carries refined oil products and is the focus of this report because of its location along the Iron Horse Corridor from Concord south through Alamo to the Contra Costa – Alameda county line and beyond to San Jose. LS-16 is ten inches in diameter and classified as an intrastate pipeline, meaning it is regulated by the Office of the State Fire Marshal under a certification from PHMSA, and it operates under a rate structure approved by the California Public Utilities Commission (CPUC). The San Jose line is subject to federal regulations with regard to integrity management (discussed elsewhere in this report) as a release from the line could affect a high consequence area.

The San Jose line delivers petroleum products from a pump station in Concord to the Kinder Morgan San Jose terminal – a total of 51.4 miles – and was installed in the mid-1960s, with portions of the pipe replaced through the decades as a result of maintenance activities. The maximum allowable operating pressure on the San Jose line is 1310 pounds per square inch gauge (psig), and the typical operating pressure at the originating Concord station is 1165 psig (operating pressure varies by elevation and distance from pump stations). The line throughput is generally about 4483 barrels per hour.[6]

There are five valves along the length of this line segment that serve to further isolate sections of the pipeline in the event of a release, located on average every 10 miles.[7] These valves include three manual gate valves and two motor operated remote control valves. There are no automatic shut-off valves on this line.

The original easement for this pipeline was between SFPP and the South Pacific Railroad, and existed at the time the county acquired the right-of-way from the Railroad in the 1980s.

6 Information about the San Jose line (LS-16) was gleaned from the following sources: PHMSA accident report database; OSFM pipeline failure investigation report; OSFM review of KM Integrity Management Program; PHMSA 5-2005-5025H case files; and presentation by KM Operations Manager June 2015.

7 The distance is greater than 10 miles in some places, with original placement impacted by topography and elevation.

Who regulates pipeline safety?

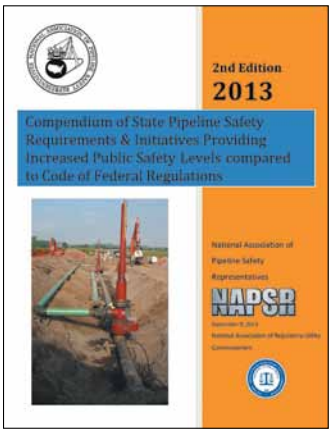
Federal Oversight

Ultimately the U.S. Congress has responsibility for setting the framework under which pipeline safety regulations operate in the country. The U.S. Department of Transportation through the Pipeline and Hazardous Materials Safety Administration (PHMSA) is primarily responsible for issuing and enforcing the minimum pipeline safety regulations. Most of these regulations are performance-based. For example, pipeline operators are required by the federal regulations to operate and repair pipelines in a safe manner so as to prevent damage to persons or property, but the way in which they do so is generally not spelled out prescriptively. This allows pipeline operators to prioritize pipeline inspections and repairs in areas with higher populations or higher risk factors, but it also makes the regulations ambiguous and challenging to enforce.

State Oversight

The federal pipeline safety laws allow for states to accept the responsibility to regulate, inspect, and enforce safety rules over intrastate pipelines within their borders under an annual certification from PHMSA. If a state receives such intrastate authority they can set regulations that are more stringent than those PHMSA sets as long as the state rules do not conflict with the federal regulations. PHMSA also can enter into an agreement with the state pipeline regulator to carry out inspections on interstate pipelines. Local governments are not allowed to create rules to regulate the operational safety of pipelines, though they may have involvement in spill response, routing and siting issues, and franchise or easement agreements.

California has authority for intrastate pipelines, which is carried out through the Office of the State Fire Marshal (OSFM) for hazardous liquid pipelines, and through the California Public Utilities Commission (CPUC) for natural gas pipelines. The OSFM also had authority to act as an interstate agent for PHMSA on hazard liquid interstate pipelines through 2012, but ended that agreement to focus better on the intrastate pipelines due to an inability to retain enough qualified inspectors on staff. The California State Legislature is currently working to address this pay scale problem.[8]



NAPSR Compendium of State Pipeline Safety Requirements & Initiatives (2013). See http://www.napsr.org/compendium.

California has adopted both hazardous liquid and natural gas pipeline regulations that are more stringent than the federal minimum regulations for the intrastate pipelines. Some of those stronger hazardous liquid rules include better information sharing, incident reporting, and planning outreach to fire departments; more frequent pipeline inspections or testing, additional pressure testing requirements in certain situations including for

8 See SB-295 Pipeline safety: inspections (2015-2016).

pipelines that have experienced certain kinds of leaks; better protection of pipeline easements from encroachment; and an internal comprehensive database and mapping system.[9]

City and County Governmental Powers

For the most part the federal pipeline safety law precludes local government from adopting any regulation that requires a pipeline operator to take any action regarding the safe operation of a pipeline. There is nothing in state or federal law that restricts a local government's ability to ask for increased safety measures as part of their negotiations regarding the use of public rights-of-way or other public property. While local government may not be able to require or enforce such measures, cities nationwide have been able to obtain increased safety measures through such voluntary requests, especially when such safety measures are well thought out, supported by the public, and do not conflict with federal or state regulations. One area in which local government has considerable ability to increase pipeline safety is through their land use and zoning authority. Details of this option are discussed in the Land Use Planning section later in this report.

How much risk is there from the pipelines in Contra Costa County?

Risk is one of those things that one person cannot really define for another, since each person thinks about risks in their own personal way. While some feel that skydiving is a risk worth taking, others won't even go up in the airplane. In other words it is not possible for us to say whether the pipelines in Contra Costa County are safe enough. All we can do is to try to provide enough information so individuals can make that decision on their own, and then work with others in their community to set policies based on the beliefs of as many people as possible.

Risk is made up of two different factors both of which need to be carefully considered when deciding how risky an activity is. Those factors are the probability that an event will occur (chance a pipeline will rupture or leak), and the possible consequences if it does.

Probability

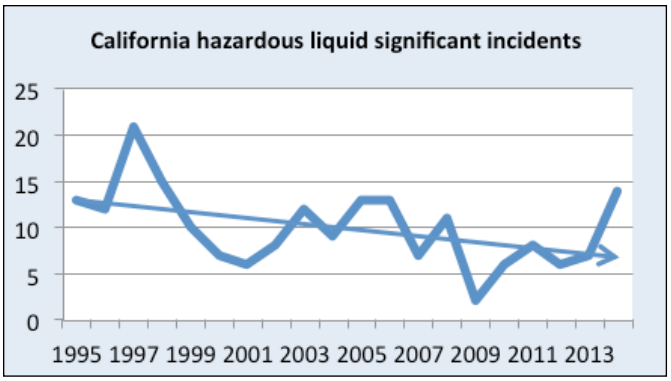
First let's take a look at some of the publicly available data to try to get a sense of the probability of a hazardous liquid pipeline incident occurring in Contra Costa County or along the Iron Horse Corridor.

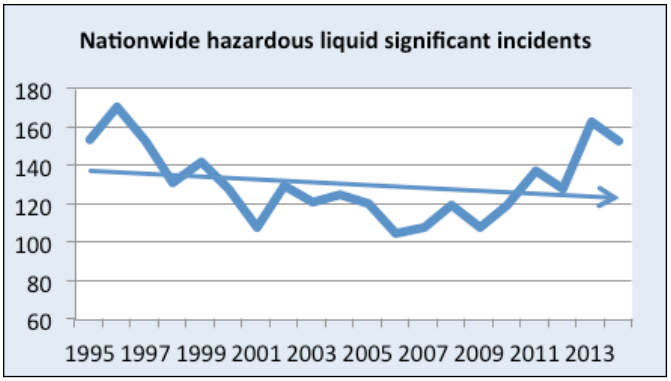
PHMSA maintains a publicly accessible database of reported pipeline incidents.[10] Hazardous liquid pipeline operators are required to file an incident report when there is a release that results in any of the following:

1. death or injury requiring hospitalization;
2. estimated property damage exceeding $50,000;
3. an unintentional explosion or fire; or
4. a release of 5 gallons or more off of company property or the pipeline right-of-way or causing water pollution, or a release of 5 barrels (210 gallons) or more confined to company property or pipeline right-of-way and not causing water pollution.[11]

A subset of all these reported incidents are considered 'significant' if they result in items 1, 2, or 3 above or result in the release of 50 barrels (2,100 gallons) or more of hazardous liquids. A further subset of 'serious' incidents are those that result in a death or injury requiring hospitalization.[12]

Here are two graphs that show the numbers of significant incidents each year both throughout the U.S. and in California. As you can see in both cases the number of incidents is relatively small, and the overall trend is a decreasing number of incidents. The troubling part of these graphs is that in both cases over the past 6-8 years this trend seems to be turning around and the numbers of significant incidents are increasing.





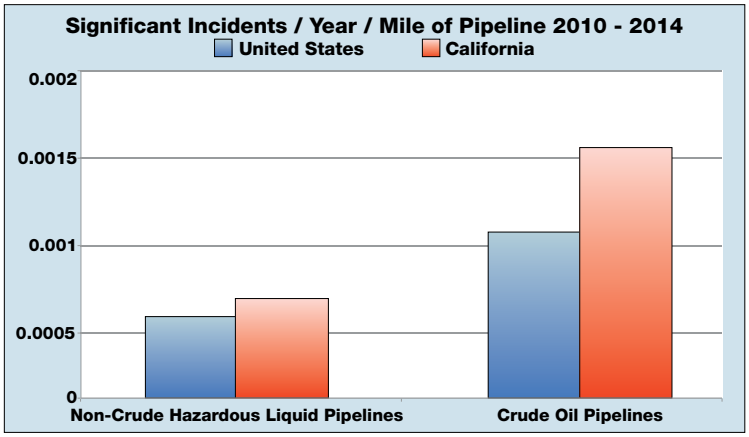
But raw numbers of incidents is a pretty rough way of looking at probability because the number of miles of pipelines changes, and the different types of products the pipelines carry have different failure rates. If we take the mileage of pipelines into consideration, and break the type of products these hazardous liquid pipelines carry down into the two main types – crude oil and other products – we start to get a more refined look at probabilities. The following graph shows that crude oil pipelines have a higher incident rate than product pipelines, and that both types of pipelines have a higher incident rate in California than in the rest of the country.

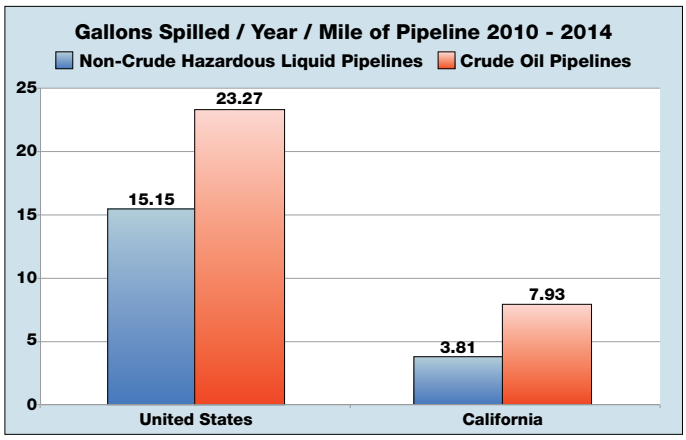
9 California GOV Code § 51010 et. seq.

10 See http://www.phmsa.dot.gov/pipeline/library/data-stats for both online pipeline incident data and downloadable files.

11 See 49 CFR § 195.50 and 195.52 for hazardous liquid accident reporting requirements.

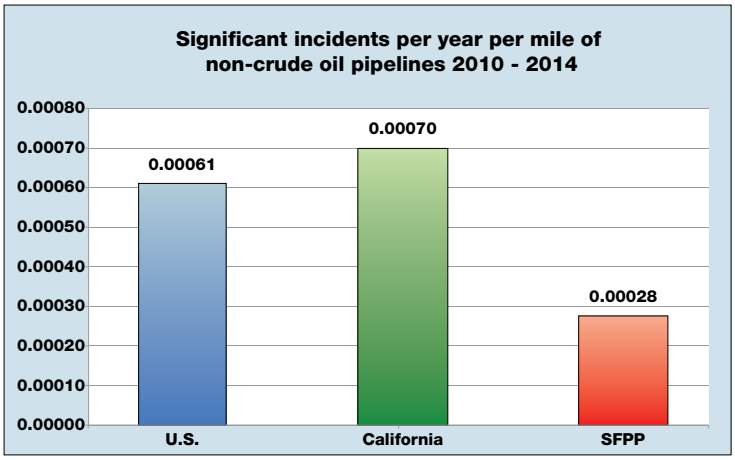
12 For a complete description of these categories for all pipelines, see http://www.phmsa.dot.gov/pipeline/library/datastatistics/pipelineincidenttrends

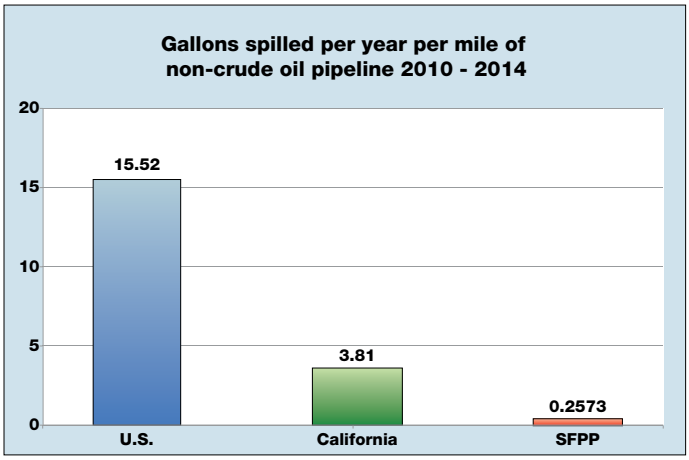




Incident rate alone does not really portray the consequence of an incident very well, so we also compare the *amount spilled* per incident per mile of pipe (see bar graph on upper right), which makes California's higher rate of incidents look quite different. As you can see what this shows us is that while California may have more incidents per mile of pipeline than the national average, the amount spilled is considerably less than the national average.

It is also possible to use these same rates to look at how individual pipeline companies compare to national averages. For instance, in the following graphs we compare the incident rate per mile of similar pipeline and gallons spilled nationally and in California with the rate of failures and gallons spilled that have occurred on the entire Kinder Morgan SFPP system, a portion of which runs along the Iron Horse Corridor.





As can be seen from these graphs over the past five years the Kinder Morgan SFPP pipeline system has had fewer incidents and spilled far fewer gallons of product than other comparable pipelines throughout the U.S. and in California. SFPP is one of a number of pipeline systems in Contra Costa County, so trying to determine the probability of an incident within the county requires looking beyond the SFPP numbers. If we take the SFPP 5-year average incident rate as one bound (0.00028), and the California 5-year average incident rate as another bound (0.00070), we can use those together with the roughly 350 miles of non-crude hazardous pipelines in the county to estimate the likely frequency of incidents on these pipelines. Currently it could be expected that a significant incident would occur somewhere between once every 4 years (CA average) to once every 10 years (SFPP average).

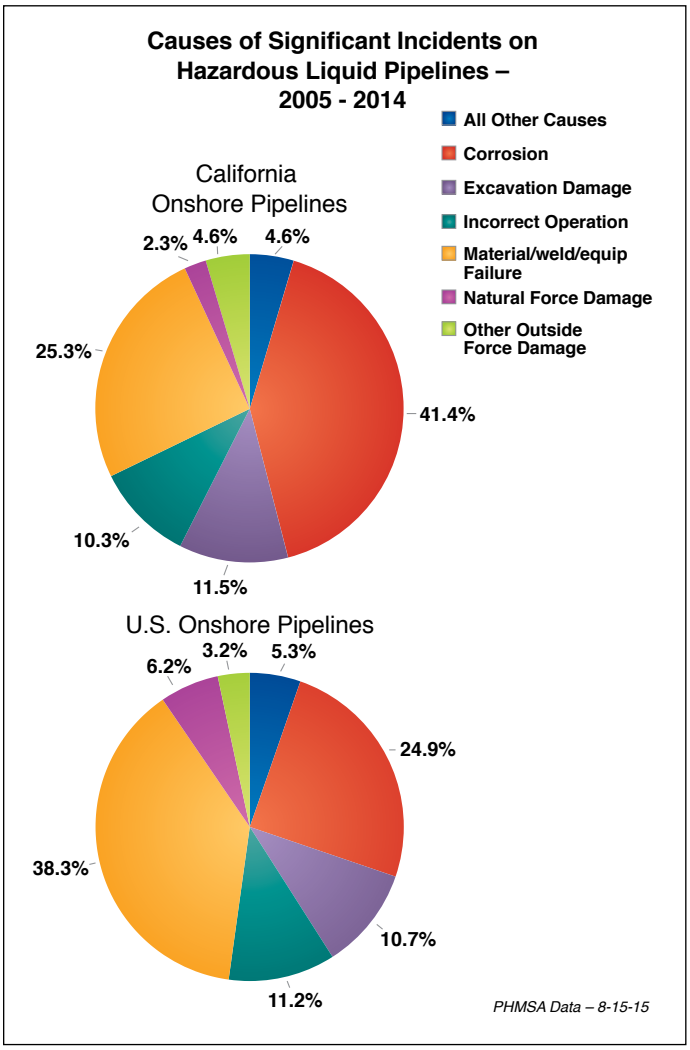
In Appendix D we have provided a list of all reported incidents in Contra Costa County, and from a look at that list it is clear that the frequency of significant incidents occurring in the county is higher than should be expected from these statistics. In the past five years alone there have been five significant incidents on these types of non-crude liquid pipelines in the County. One possible explanation for this higher rate is the high number of facilities processing fuel in the county. Such facilities are associated with pipelines, and therefore incidents related to the facilities also are incorporated with the pipeline incident statistics. These facilities have very high numbers of fittings, valves, and other appurtenances that tend to have higher failure rates, and often these failures are more contained on company owned property and do not affect the public and private rights-of-way through which longer pipelines travel.[13]

One other data set that provides some information about probability of failures is the cause of such failures. Following is a chart that shows the causes of significant incidents both nationally and in California. California hazardous liquid pipeline incidents appear

13 OSFM also maintains PHMSA incident data that they further separate for certain public presentations. For example, they may present only incidents occurring on the pipeline right-of-way and leave out those that occur within associated facilities; or they may remove data that includes idled or abandoned pipelines. OSFM does not provide these internal statistics to the public.

to be more frequently caused by corrosion when compared to those across the US as a whole. Corrosion is the dominant cause of pipeline incidents in California, followed by Material/Weld/Equipment failure. Both of these causes together lead to nearly two-thirds of all hazardous liquid pipeline incidents in both California (67%) and the U.S. as a whole (63%).

These charts and graphs should provide some measure of the probability of a pipeline incident happening and some of the consequences if it does. It is fairly clear from the data that the chance of a pipeline failing in any particular spot is very, very small, but of course if you ask the families of any of the 360 people who were killed by pipeline incidents over the past twenty years in United States they would tell you that the consequences are huge. So what are the possible consequences of pipeline failures, and how can they be quantified?



Example of a Potential Impact Radius of a pipeline incident shown on an aerial map (assumes the pipeline rupture occurs at the center of the circle)

Consequences

For natural gas pipelines it is fairly easy to predict the impact zone around a pipeline failure that explodes. There is a formula used in the federal regulations, based on the size and pressure of the pipeline that predicts the "potential impact radius," and that radius is then used to define some elements of the regulations. The picture in the previous column shows how that radius might appear on a particular pipeline.

For hazardous liquid pipelines predicting the consequence area is much more difficult because of the different products involved and because the products may flow long distances based on the terrain and whether they reach water. While each pipeline operator is required to do an analysis of whether a leak along any section of the pipeline could affect a high consequence area, that information is not shared with the public. The best that the public can do is to look at their own area and compare that with the consequences of past liquid failures.

The National Transportation Safety Board investigates many of the most significant incidents and the reports of their investigations can be found at: http://www.ntsb.gov/investigations/AccidentReports/Pages/pipeline.aspx.

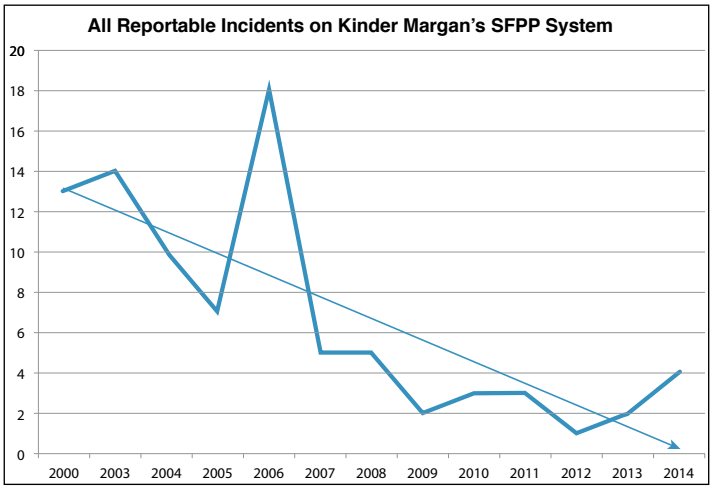
We can also look at pictures like the ones above to see what can happen in the unlikely event that a hazardous liquid pipeline fails in a particular area.

Past Incidents on the San Jose Line

An incident occurred on the SFPP, San Jose line (LS-16) in Walnut Creek on November 9, 2004, in which five workers were killed and four others significantly injured from a pipeline rupture and explosion. Property damage was sustained nearby including a two-story structure that burned. The pipeline ruptured when it was struck by excavation equipment operating as part of a water supply

expansion project. The gasoline released from the pipeline was soon after ignited by welders also working on the new water supply pipeline. According to the OSFM Pipeline Failure Investigation Report, several contributing factors led up to the excavator bucket striking the pipeline, including "inadequate line locating, inadequate project safety oversight and communication, and failure to follow the one-call law" (page 14).[14] OSFM made recommendations to Kinder Morgan that included improvements to the way in which employees observe and respond to one-call excavation notifications, and modifications to the company's Operator Qualification Program related to line locating and excavation notifications.

PHMSA issued a Corrective Action Order (CAO) for Kinder Morgan in 2005 with respect to its entire Pacific Operations unit of hazardous liquid pipeline systems, covering 3,900 miles across six states, and including the SFPP pipeline system and the San Jose line. The CAO was in response to eight accidents within the previous 16 months that released petroleum products into or near high consequence areas. Seven of the eight occurred in California, and two within Contra Costa County: the November 9, 2004 incident mentioned above on LS-16, and a November 7, 2004 incident in Martinez that occurred on LS-47. PHMSA called out "a widespread failure of Kinder Morgan to adequately detect and address the effects of outside force damage and corrosion" (page 2), and ordered the operator to take immediate corrective actions with respect to all Pacific Operations unit hazardous liquid pipeline systems.[15] PHMSA subsequently replaced the CAO with a 14-page Consent Agreement entered into on April 4, 2006 by both parties. The Consent Agreement also delineated specific actions to be taken by Kinder Morgan to improve its pipeline operations and integrity management and to be completed within ten years. On May 11, 2015, PHMSA issued a closure letter to Kinder Morgan, stating that all the required action had been completed and the terms of the Agreement were satisfied, thereby closing the case.[16] In the next column is a graph that shows all reportable incidents on the Kinder Morgan SFPP system including the San Jose Pipeline that runs through Contra Costa County during the period that this corrective action order covered. This graph appears to support that the actions that Kinder Morgan took as part of the consent decree have helped reduce the number of incidents on this line.



Pipeline Construction, Operations and Maintenance

Many of the pipelines in place today were constructed before regulations existed for pipelines. Some of the current regulations have to do with ongoing operations and maintenance, and apply to both existing and new lines. Existing 'grandfathered' pipelines built prior to 1979 for hazardous liquid lines, or prior to 1968 for gas pipelines, may not have been constructed according to the current regulations. What are pipeline operators required to do to maintain safe pipelines? In this section, we go through basic information, and dive more deeply into some technical issues about which the Alamo community expressed particular concern.

Construction

The construction phase of pipeline installation is a critically important time to ensure the long-term integrity of the pipeline. Transmission pipelines are most commonly made of steel, and the pipes are fabricated and inspected to meet industry and government safety standards. Differing soil conditions and geographic or population characteristics of the pipeline route will dictate different requirements for pipe size, strength, wall thickness and coating material. Hazardous liquid pipelines must be buried between 18 and 48 inches below the surface, depending on location and soil properties. The prescribed depth must be adhered to at the time of burial, but regulations do not require it to be maintained over time. Operators must use qualified welders, and most welds on the pipe are evaluated and inspected in the field; a proper weld is stronger than the pipe itself.

Corrosion Protection

Corrosion is a serious issue for all steel pipelines. Without corrosion protection every steel pipe will eventually deteriorate, weaken, and become unsafe. With proper corrosion protection, steel pipelines can remain safely operating for many decades. Pipeline operators use three common methods to control corrosion:

14 California Office of the State Fire Marshal. Pipeline Failure Investigation Report, Form-11. Kinder Morgan Energy Partners, LS-16 rupture in Walnut Creek, 9 November 2004.

15 U.S. Department of Transportation, PHMSA Office of Pipeline Safety. Corrective Action Order re: case No. 5-2005-5025H, August 24, 2005.

16 Multiple technical documents were required to be submitted to PHMSA in accordance with the Consent Agreement, however these are not publicly available. Requests for information through Freedom of Information Act (FOIA) requests (http://www.phmsa.dot.gov/about/foia) take many months for PHMSA to respond, and even when documents are received they often contain many redactions. Therefore the public is left with having little to go on to verify how PHMSA has followed through and been given adequate assurances that each item in the Consent Agreement has been completed.

- Pipeline coatings and linings defend against corrosion by protecting the bare steel from coming in direct contact with corrosive conditions.
- Corrosion inhibitors are substances that may be added to the commodity running through the pipe to decrease the rate of attack of internal corrosion.
- Cathodic protection (CP) systems use direct electrical current to counteract the normal external corrosion that occurs due to soil and moisture conditions. On new pipelines, CP can help prevent corrosion from starting; on existing pipelines, CP can stop existing corrosion from getting worse.

Cathodic protection test point along the Iron Horse Corridor

These corrosion control methods may all be used at the same time; pipeline engineers must carefully consider the specific operating conditions, and pipeline and commodity characteristics to maintain the necessary corrosion protection for each particular pipeline segment.

High Consequence Areas and Integrity Management

Hazardous liquid pipelines that could affect High Consequence Areas (HCAs), which include high population areas, certain drinking water sources, or some ecologically sensitive areas, must prepare integrity management plans and adhere to stricter rules than pipelines outside of such HCAs.[17] For example, pipelines that could affect an HCA have to be physically inspected by the pipeline company on a regular basis, whereas pipelines that could not affect an HCA never are required to be inspected. Currently about 43% of all hazardous liquid pipelines in the U.S. and 68% in California could affect HCAs and fall under these requirements.

Operators subject to integrity management must do a risk analysis of the segments of the pipeline that could affect HCAs, and then implement a plan to inspect and maintain that pipeline segment using methods appropriate to the specific risk factors impacting the pipeline. The minimum re-inspection interval for hazardous liquid pipelines is every five years; the integrity management plan and risk analysis may indicate certain pipelines or pipeline segments need to be re-inspected more frequently. The most commonly performed inspections are done with internal in-line inspection devices referred to as 'smart pigs' that record problems such as corrosion, dents, and gouges as they move through the pipeline. The inspections are typically performed by a third party contractor that also interprets the inspection results, and submits both the results and their interpretation to the pipeline operator in the form of a report. Federal and OSFM regulators may review these internal inspection reports during their own regulatory inspections of a pipeline operator.

Information about which pipeline segments are and are not within HCAs is not easily publicly available. However, it does appear that the vast majority of hazardous liquid pipelines in Contra Costa County are covered under the stricter integrity management rules that apply to the hazardous liquid pipelines that could affect an HCA. The portion of the San Jose line within the county is operating under these rules.

The development and implementation of the Integrity Management Program in the last decade represented a major improvement in risk analysis and ongoing testing and maintenance of pipelines that fall under those requirements. However, with nearly a decade of performance data under the new rules numerous shortcomings in the current Integrity Management Program have been identified by a variety of groups including both PHMSA and the National Transportation Safety Board (NTSB). The NTSB recently released a report[18] that made numerous recommendations for improving Gas Transmission Integrity Management to make it clearer exactly what pipeline operators are required to do. PHMSA appears to be working on some of these improvements for both gas and hazardous liquid pipelines through various inquiries and rule makings, but as of this report no new or proposed rules have been released for public review.

RECOMMENDATION TO OFFICE OF THE STATE FIRE MARSHAL AND PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION: Adopt regulations to implement NTSB recommendations regarding needed improvements to the Integrity Management requirements.

RECOMMENDATION TO OFFICE OF THE STATE FIRE MARSHAL AND PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION: Make information about a pipeline's HCA designation easily available to the public.

Valves

Valves must be installed along the pipeline to control the flow "at locations along the pipeline system that will minimize damage or pollution from accidental discharge, as appropriate for the terrain in open country, for offshore

17 See 49 CFR § 195.450 and references therein for the definition of a high consequence area, and 49 CFR § 195.452 for the regulations concerning pipeline integrity management in high consequence areas.

18 Safety Study: Integrity Management of Gas Transmission Pipelines in High Consequence Areas, NTSB, 1/27/2015 http://www.ntsb.gov/safety/safety-studies/Documents/SS1501.pdf

areas, or for populated areas" (49 CFR § 195.260(c)).[19] Valves must also be "installed in a location that is accessible to authorized employees and that is protected from damage or tampering" (49 CFR § 195.258(a)). Valves must be maintained in good working order at all times, and fully inspected and tested at least twice each year to ensure they are functioning properly.[20]

Some valves have to be operated manually by pipeline personnel, some valves can be operated remotely from a control room, and some valves are designed to operate automatically if certain conditions occur on the pipeline. If a pipeline should fail, how quickly the valves can be closed and the distance between the valves are two of the main determinants for how much fuel is released. PHMSA has concluded that whether an operator should install automatic shutoff valves or remote control valves (operated from a far-away control room) in newly constructed or fully replaced pipelines needs to be evaluated on a case-by-case basis.[21] Existing pipeline operators subject to integrity management rules must evaluate the type and location of valves as part of their risk assessment.[22]

Pipelines that operate according to integrity management (due to their location affecting an HCA) have an additional requirement to take measures to prevent and mitigate the consequences of a pipeline failure. Actions to enhance public safety or environmental protection may be warranted based on a risk analysis of the pipeline segment, and could include installing Emergency Flow Restricting Devices (EFRDs) – additional valves – on the pipeline. In determining whether an EFRD is needed, "… an operator must, at least, consider the following factors – the swiftness of leak detection and pipeline shutdown capabilities, the type of commodity carried, the rate of potential leakage, the volume that can be released, topography or pipeline profile, the potential for ignition, proximity to power sources, location of nearest response personnel, specific terrain between the pipeline segment and the high consequence area, and benefits expected by reducing the spill size" (49 CFR § 195.452(i)(4)). Beyond the specific requirements for valves at certain water crossings and pump stations, etc., noted above, the regulations give the operator wide latitude in determining the necessity and location of additional valves.

Nineteen years ago an Edison, New Jersey accident occurred and it took two and a half hours to shut off the flow of gas that fed the fireball due to the lack of a remotely controlled shut off valve. After the 2010 San Bruno tragedy where it took the pipeline operator over an hour and a half to drive to and close a manual valve the NTSB recommended that PHMSA ***"Amend Title 49 Code of Federal Regulations 192.935(c) to directly require that automatic shutoff valves or remote control valves in high consequence areas and in class 3 and 4 locations be installed and spaced at intervals that consider the factors listed in that regulation."*** Most recently the spill of at least 20,000 gallons of crude oil into the ocean near Santa Barbara has again reiterated the need for new rules regarding these types of valves to help limit the damage from pipeline failures. PHMSA conducted a study[23] that in 2012 found ***"installing ASVs and RCVs in pipelines can be an effective strategy for mitigating potential consequences of unintended releases because decreasing the total volume of the release reduces overall impacts on the public and to the environment."*** PHMSA is working on rule makings that may address this issue, but as of this report no new or proposed rules have been released for public review.

San Jose Pipeline Valves

Alamo community members have expressed concerns about the type, spacing, vulnerability and maintenance of the San Jose pipeline valves (or EFRDs) along the Iron Horse Corridor. Until recently, a manual valve was exposed above ground with no protection except a chain; that valve was enclosed within a fence following a vandalism incident in June 2015, but the example serves to justify the community concerns about vulnerability and safety. The community also has concerns about the potential volume released if a hazardous liquid spill were to occur, and the degree to which the valves will minimize the spill volume.

Manual valve inside protective cage in Alamo along Iron Horse Corridor

The OSFM inspection report discussed earlier describes the Kinder Morgan integrity management and risk assessment process, some of which focuses on this type of detailed analysis. A key piece of the risk assessment that analyzes EFRDs is the operator's Preventive and Mitigative Measures analysis performed in order to determine what threats exist on a pipeline, and if additional measures should be implemented to manage those threats. The Preventive and Mitigative Measures analysis may or may not determine the need for an additional Engineering Analysis focused on valves, depending on many factors affecting the pipeline: pipeline segment characteristics, proximity to an HCA, time to detect and isolate a leak, location of nearest response personnel, risk assessment results, and desired capabilities and improvements. An

19 Valves must also be installed in proximity to pipeline facilities and appurtenances, and on both sides of certain water crossings and drinking water reservoirs. See 49 CFR § 195.260 for details.

20 See 49 CFR § 195.420. This section also contains language about the need for operators to protect valves from unauthorized operation and vandalism, which PHMSA views as doing more than simply chaining and locking the valves.

21 U.S. Dept of Transportation, Pipeline and Hazardous Materials Safety Administration (2012). Studies for the Requirements of Automatic and Remotely Controlled Shutoff Valves on Hazardous Liquids and Natural Gas Pipelines with Respect to Public and Environmental Safety (ORNL/TM-2012/411). Prepared by Oak Ridge National Laboratory, managed by UT-Battelle for the U.S. Dept of Energy.

22 See 49 CFR § 195.452(i)(1) and (4).

23 Oak Ridge National Laboratory, October 31, 2012, http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_2C1A725B08C5F72F305689E943053A96232AB200/filename/Final%_20Valve_Study.pdf

initial Leak Detection System Analysis is completed on each pipeline, determining the maximum potential release volume.[24]

Kinder Morgan evaluated the need for modification to existing valves on the San Jose line in 2010, and considered the following factors: swiftness of leak detection and pipeline shutdown capabilities; type of commodity carried; rate of potential leakage; volume that can be released; topography or pipeline profile; potential for ignition; proximity to power sources; location of nearest response personnel; specific terrain between the pipeline segment and the high consequence area; and benefits expected by reducing the spill size. The San Jose line has an existing computerized leak detection system that uses line balance, flow deviation, volume balance, thermal monitoring, and volume in and out to alert control room staff to potential leaks. After consideration of these factors, Kinder Morgan determined the existing valves and leak detection system exceeded their requirement that a 15-minute response time and isolation of a leak could be assured on the San Jose line.[25]

Kinder Morgan's evaluation necessarily included many assumptions. These are not spelled out in the analysis, but would include such things as how quickly an employee could physically arrive at and close a manual valve, how quickly an operator could install temporary plugs or other means to stop the flow out of the pipe, and how quickly any remote personnel could make a correct decision based on computerized information to shut the pipeline down in the event of a rupture; as well as factors that determine in their eyes what the risks are and what level of risk is acceptable. These assumptions are not transparent to the public, but depending on what is assumed, the outcome of the analysis could vary widely. The assumptions are also necessary to carry out the regulation-required risk analysis and come to conclusions; regulations that require this type of behind-the-scenes decision-making process and lack prescriptive requirements are called performance-based regulations, and they often leave gray areas for the public because we often cannot know what went into the assumptions and decision-making.

Unfortunately, like the implementation of most risk- or performance-based regulations, this Kinder Morgan valve and leak detection analysis does little to eliminate the gray area on this issue. The regulations leave the consideration and determination to each operator in the context of an integrity management plan the public will never see. While the public may not be allowed to see the information used to make risk calculations, the public can make rough calculations of the impacts from a spill based on available information.

24 This detailed technical analysis on leak detection that informs the pipeline operator's risk assessment is not available to the public.

25 See page 12 of the OSFM inspection report dated June 2014 for detailed discussion of the San Jose line/LS-16. The report does not clarify how long of a segment of the pipeline would be isolated in this time - that is, it is not clear whether the operator could close the two closest valves on either side of a failure in that time frame, or just two valves at some unspecified distance. Given the time required to get staff to a manual valve and get it closed, a 15 minute time to isolation appears to be very optimistic.

For example, the size of the pipeline means that it holds a little more than 21,000 gallons of product per mile of pipe. If the pipeline should rupture, most all of the product between the rupture site and the next valve that is at a higher elevation than the rupture would drain out between the valves regardless of how quickly the pipeline was shut down or valves were closed, unless the operator is able to install emergency plugs or hot taps very quickly. If the valves are 10 miles apart that could mean that more than 200,000 gallons could be released if the rupture is at the lowest point in that stretch. This figure does not include any additional product continuing to be pushed through the line if valve closing or shut-off is delayed. So Kinder Morgan as part of their risk analysis must have concluded that with the small chance that the pipeline will actually rupture, and their response capabilities, this is an acceptable risk. If they had not come to that conclusion they would have been required to install more valves to decrease the distance and potential spill volume. If informed people in the community were given the same information would they come to the same acceptable risk conclusion? Currently there is no opportunity for the public to review these risk analyses, or to comment on the level of risk to which they are being exposed.

RECOMMENDATION TO CONTRA COSTA COUNTY BOARD OF SUPERVISORS: Work in coordination with pipeline operators to develop a technical advisory body that can review the integrity management plans (similar to the Santa Barbara County System Safety Reliability Review Committee) and other technical assessments of the pipelines in order to cultivate informed technical expertise in the county and increase public trust and awareness.

RECOMMENDATION TO OFFICE OF THE STATE FIRE MARSHAL AND PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION: Adopt stronger regulations requiring automated valves along the lines of the NTSB recommendations.

Pipeline Monitoring and Leak Detection

A supervisory control and data acquisition (SCADA) system is a pipeline computer system designed to gather information such as flow rate through the pipeline, operational status, pressure, and temperature readings. This information allows operators to know what is happening along the pipeline during normal operations, and allows for quicker reactions to equipment malfunctions, failures and releases. Some SCADA systems also incorporate the ability to remotely operate certain equipment, including compressors, pump stations, and valves; allowing operators in a control center to adjust flow rates in the pipeline as well as to isolate certain sections of a pipeline. Many SCADA systems also include leak detection systems – called computational pipeline monitoring (CPM) programs – based on the pressure and mass balance in the pipelines. Unfortunately, remote computerized systems are not yet capable of identifying most leaks; PHMSA data from 2010-present show that only about

11% of U.S. hazardous liquid pipeline significant incidents were initially detected by SCADA or CPM; and that number drops to 2% when looking only at California hazardous liquid pipeline significant incidents in the same timeframe. On-the-ground personnel working for the pipeline operator (as employees or contractors) are the ones most likely to initially identify an incident, but the public and first responders from the local communities are also likely to be the first to identify a significant incident (18% of the time in the U.S.; 25% of the time in California).[26]

In the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, Congress asked the Secretary of Transportation to provide a report within one year on the technical limitations of current leak detection systems, the practicability of developing standards for the capabilities of leak detection systems, and the costs and benefits of requiring pipeline operators to use such systems. PHMSA completed an in-depth study[27] of leak detection systems in December of 2013. That study found that for hazardous liquid pipelines:

- Emergency responders or a member of the public were currently the most likely means of discovering a pipeline release.
- "There is no technical reason why several different leak detection methods cannot be implemented at the same time. In fact, a basic engineering robustness principle calls for at least two methods that rely on entirely separate physical principles."?
- "External sensors have the potential to deliver sensitivity and time to detection far ahead of any internal system."

PHMSA has been working on a rule making that may address this leak detection issue for nearly five years now, but as of this report no new or proposed rules have been released for public review.

RECOMMENDATION TO OFFICE OF THE STATE FIRE MARSHAL AND PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION: Adopt stronger regulations that require better leak detection systems in high consequence areas, and that provide a clear performance standard for computational pipeline monitoring systems.

Alamo Technical Pipeline Safety Concerns

Community members raised concerns about a number of specific issues related to pipeline safety on the San Jose pipeline. Pipeline Safety Trust staff also noticed some issues during their visit. This section details technical issues that warrant particular attention.

The San Jose line inside protective sleeve traveling above ground across a seasonal stream along the Iron Horse Corridor.

Earthquakes – In 2007, the United States Geological Survey collaborated with William Lettis & Associates on a technical report analyzing Northern Calaveras Fault data.[28] This fault bisects Contra Costa County, and is not the only fault impacting ground movement in the area. Residents are concerned that hazardous liquid pipelines are properly protected in the event of an earthquake.

Hazardous Liquid pipeline operators subject to integrity management are required to consider many threats in the risk assessment that is part of their integrity management plan. A number of these pertain to earthquakes and ground movement, though earthquake risk is not mentioned in the regulations as something that requires its own analysis and mitigation. Earthquakes are listed as one factor for an operator to consider in determining whether a pipeline is likely to affect a high consequence area (and therefor be subject to integrity management at all);[29] but for pipelines already clearly affecting a high consequence area (as is the pipeline through Alamo), earthquakes are only included in the context of the broader risk assessment required. For example, in determining the schedule to use in regularly assessing a pipeline segment, geotechnical hazards must be considered;[30] and PHMSA offers further guidance on risk factors that should be considered in the frequency of assessment, including "location related to potential ground movement…"[31] but the regulations do not specify how they are considered, any technical specifications to use when considering their risk, or specific ways to mitigate that risk. When PHMSA inspectors review a California operator's risk assessment,

26 See PHMSA Incident Reports. Percentages based on PST analysis of PHMSA HL 2002-2009 and 2010-present incident data files (as of Aug 3. 2015).

27 Kiefner & Associates, Inc., Leak Detection Study, December 10, 2012, http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_4A77C7A89CAA18E285898295888E3DB9C5924400/filename/Leak%20Detection%20Study.pdf

28 Kelson, Keith I. and Sundermann, Sean T. Digital compilation of Northen Calaveras Fault Data for the Northern California Map Database: Collaborative Research with William Lettis & Associates, Inc., and the U.S. Geological Survey. October 2007.

29 See 49 CFR § 195 Appendix C I.B.(12)

30 See 49 CFR § 195.452(e).

31 See 49 CFR § 195, Appendix C. II.A.(11)

they would expect to see seismic-related activity (ground movement, unstable soils, landslides, etc.) listed as a threat, and if not, they would dig deeper.[32] In the 2011 updates to the federal pipeline safety laws, Congress specifically included "seismicity of the area" as one threat that a pipeline operator must consider when evaluating threats to a pipeline segment under Parts 192 and 195 of Title 49.[33]

We saw no evidence in our review of the OSFM report on Kinder Morgan's integrity management program that earthquakes factored in to their risk assessment. They did list one action item for most of the intrastate pipelines in the county including the San Jose line that relates to earthquake activity ("monitor wash outs and unstable slopes"), and there may be more listed in the integrity management plan of the operator that is not available for the public to view.

Pipelines worldwide have generally performed relatively well in past earthquakes,[34] and 'natural force damage' (the cause category under which earthquake-related pipeline failures would fall) is the cause of relatively few pipeline failures nationwide (7%) and in California (2%).[35] However both old and new pipelines can sustain damage from earthquakes that is "typically concentrated in areas of unstable soils with permanent ground deformation (PGD) and/or liquefaction, including at river crossings and landslides," according to an *Earthquake Risk Study for Oregon's Critical Energy Infrastructure Hub* submitted in 2012.[36] A technical handbook on seismic risk analysis stresses the importance of estimating the extent of permanent ground deformation in assessment of pipeline system vulnerability: "In particular, adequate knowledge of site-specific soil and groundwater conditions is critical to the success of the design and installation of pipelines, as well as in predicting its anticipated performance under field conditions" (page 692).[37]

Both the technical handbook and the Oregon report list options for mitigation measures to improve the performance of a pipeline. The categories of mitigation measures as summarized by the handbook are: "(a) avoid the hazard by relocation; (b) isolate the pipeline from the hazard; (c) accommodate the hazard by strengthening the pipeline or increasing the flexibility; and (d) mitigate the hazard using ground improvement" (page 702). The Oregon study states mitigation options as: "soil improvement, increasing the load carrying capacity of the pipe system, reducing the friction between the pipe and soil, relocating the pipe, anchors to prevent uplift from buoyant forces, or special pipe joints or fittings that allow greater joint deflection, extension, or compression" (Page 84).

Seismic vulnerability studies can be conducted on pipelines or pipeline segments to assess pipeline performance and suggest mitigation measures appropriate to the specific situation. We found no evidence that Kinder Morgan or any other operator has conducted such a study related to the pipelines in Contra Costa County.

RECOMMENDATION TO PIPELINE OPERATORS: Contract for an independent technical seismic vulnerability study on HCA pipelines affected by potentially active faults to feed into the pipeline risk analysis, and make the study available to the public.

Iron Horse Corridor Above-Ground Stream Crossings – In two places along the Iron Horse Corridor in Alamo, the San Jose line spans seasonal streams above-ground. (see photo on page 19) Community members have raised concerns about the adequacy of the span supports, potential vulnerability of these spans and the overall safety of these crossings.

Both the above-ground pipeline spans contain a metal sleeve over the pipeline itself, and it is this sleeve that is secured to the supporting infrastructure. These types of above-ground pipeline spans are fairly common, though there are many different types of supportive infrastructure that can secure the pipeline in these situations. One additional concern with supported above-ground spans is the erosion that can occur on either side, potentially increasing the length of the unsupported portion of the span. Some different types of above-ground supports are depicted in the accompanying photos.

Examples of other pipelines crossing steam areas in California and Washington States.

32 Correspondence with PHMSA Pipeline Safety Western Region Office CATS staff, August 2015.

33 Section 29, Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011.

34 Wang, Yumei, Bartlett, Steven F., and Miles, Scott B. Earthquake Risk Study for Oregon's Critical Energy Infrastructure Hub (Final Report to Oregon Department of Energy & Oregon Public Utility Commission). Oregon Department of Geology and Mineral Industries, August 2012.

35 See PHMSA data shown in graphs earlier in report entitled "Causes of HL Significant Incidents."

36 Wang, et. al. IBID (Page 82).

37 Honegger, D.G. and Wijewickreme, D. (2013). Seismic risk assessment for oil and gas pipelines. In Tesfamariam, S., Goda, K. (Eds.), Handbook of Seismic Risk Analysis and Management of Civil Infrastructure Systems (pages 682-715). Cambridge: Woodhead Publishing Limited, 2013.

Land Use Planning and Pipelines

For the siting of nearly all new pipelines, the pipeline company decides on a general route they prefer for their pipeline, and possibly some alternative routes. Once they feel fairly confident with the feasibility of their chosen route, the more formal process with various government agencies begins. That process is not consistent for various types of pipelines, but varies greatly based on the type of pipeline and where it is to run.

Example of California local authority for new and replaced pipelines: Santa Barbara County

Santa Barbara County requires pipeline operators to submit a Development Plan permit for new and replaced pipelines, often in conjunction with a Conditional Use Permit (if located in the Coastal Zone and impacting environmentally sensitive areas).[1] The permit review process includes analysis of submitted information (maps, mitigation measures, emergency response plan, etc.) against standards, and requires specific findings as well as an Environmental Impact Review in accordance with the California Environmental Quality Act (CEQA).[2] Pipeline operators with existing lines may need to obtain a grading permit prior to digs that expose pipe,[3] and operators with a development permit on file submit results of any anomaly digs to the county. Santa Barbara County is unique in their use of a System Safety Reliability Review Committee[4] made up primarily of technical staff who work in collaboration with pipeline operators (and other oil and gas facility operators) to review project information and operations.

1 See Santa Barbara County Land Use & Development Code, Article 35.5.

2 See CA Public Resource Code § 21000 et. seq.

3 See Santa Barbara Grading Code (Chapter 14).

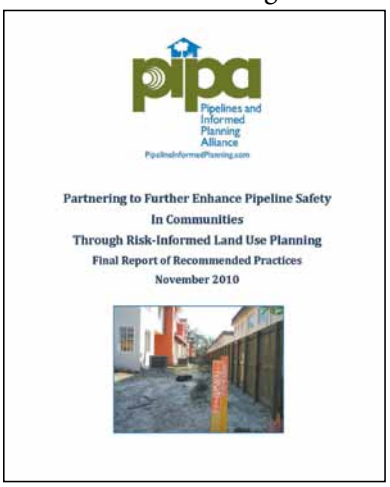
4 For more information on the System Safety Reliability Review Committee, including committee makeup, minutes, and agendas, see http://www.sbcountyplanning.org/energy/permits/ssrrc.asp.

Interstate natural gas pipeline companies must apply to the Federal Energy Regulatory Commission (FERC) for construction and route approval.

There is no comprehensive federal permitting process for the routing of hazardous liquid pipelines or of intrastate natural gas pipelines. Assuming the pipeline is wholly within the U.S., the responsibility for approval of the pipeline route falls on the individual states. Since California does not have a statute at the time of this writing that addresses pipeline routing and siting, the responsibility falls to the regular land use authority of local governments along the pipeline route, some of which exercise this authority, and others do not.

Local governments can also coordinate and regulate new development near existing pipelines with their land use authority. Many pipelines existed prior to development, and housing density has increased in many areas near pipelines that once were predominantly undeveloped rural areas. Local governments can enact regulations governing the type of buildings and construction that can occur near existing pipelines, requiring consultation with the pipeline operator, establishing setbacks or enacting a variety of other land use permit requirements.

In 2010, PHMSA published the final report of the Pipelines and Informed Planning Alliance (PIPA), a three-year effort to provide information and recommendations on the types of tools local governments can use to regulate new development near existing pipelines. Forty-three recommended practices are contained in the report, and twenty-nine of them speak specifically to local governments about things they can do to encourage safety near transmission pipelines. Recommendations stress: the need to have a relationship with local pipeline operators that includes open communication, incorporating the existence of pipelines into planning processes and infrastructure projects, and the importance of safe excavation practices. One example of a specific recommendation is the use of consultation areas or zones that require early consultation among stakeholders when any development is proposed within a specified distance from a transmission pipeline. All recommendations and associated documents can be found through the PIPA link at: http://primis.phmsa.dot.gov/comm/pipa/LandUsePlanning.htm.



Contra Costa County local government agencies also have a role to play in pipeline safety and oversight. Federal and state regulations generally preclude local governments from adopting any regulations that require a pipeline operator to take any actions regarding the safe operation of a pipeline. That said, pipeline operators might willingly enter into development agreements or mitigation agreements that include additional safety aspects in certain situations, in response to local conditions. There are things that local governments do that are not precluded, such as negotiated rights-of-way agreements, spill and emergency preparations and response, or land use and zoning provisions. Contra Costa County agencies are actively involved in some of these areas, and minimally involved in others.

Right-of-way Franchise and Easement Agreements

Easements and franchise agreements specify information about the access the pipeline operator has to land that is owned by private parties or government entities. They are typically negotiated agreements in exchange for payment, and lay out allowed and disallowed activities for the pipeline operator and the landowner within the area covered by the agreement. The area covered may be narrow or wide, depending on the pipeline and the context at the time the agreement was signed.

When a pipeline goes through county-owned public property or public rights-of-way, Contra Costa County Public Works Department has authority over the granting of franchise or easement agreements. Agreements between the county and pipeline operator must proceed in accordance with the Pipeline Franchise Ordinance.[38] Ordinances that establish regulations for granting these franchise agreements have been in place since 1964, with amendments in 1992 and 2013. As of this writing, the public works department staff is working to get all existing franchise agreements updated to be consistent with the most recent ordinance. The pipeline franchise ordinance covers the unincorporated portions of the county, and individual cities negotiate easements and franchise agreements according to their own ordinances or policies.

There are examples from around the country where local governments through these franchise agreements have been able to obtain safety improvements and greater liability insurance and indemnification than is required by state or federal rules.[39]

The Iron Horse Corridor – Multiple Uses

Some pipelines were in place prior to the first county franchise ordinance and operate according to easements that were already in place. This is the situation with most of the Kinder Morgan SFPP- San Jose line along the Iron Horse Corridor, which was constructed in the mid-1960s during the time that the Southern Pacific Railroad owned and operated rail lines.

Multiple utilities exist in the Iron Horse Corridor

The entire Iron Horse Corridor right-of-way varies from about 30 to 100 feet in width along the route, and contains numerous utilities and facilities through easements, license agreements, and leases, including the easement for the SFPP - San Jose pipeline, which only covers a portion of the corridor right of way. Because of the history of the San Jose line and the Iron Horse Corridor, much of the land through which the pipeline travels is public and not private land, so the predominance of the easement area is covered by a single agreement between the pipeline operator and the county, rather than many individual easements between the pipeline operator and private property owners. That easement agreement specifies the property involved (generally a strip of land 10 feet wide, specifically described in the easement documents), and the right of the operator to construct, reconstruct, renew, maintain and operate the pipeline and appurtenances on the easement.[40]

Landowners have in the past encroached onto the Iron Horse Corridor with fence lines, landscaping, and other property improvements. This type of activity presents a potential safety threat to the pipeline and is against the law.

The Elder California Pipeline Safety Act of 1981 specifies in § 51014.6:

> "(a) Effective January 1, 1987, no person, other than the pipeline operator, shall do any of the following with respect to any pipeline easement:
>
> (1) Build, erect, or create a structure or improvement within the pipeline easement or permit the building, erection, or creation thereof.
>
> (2) Build, erect, or create a structure, fence, wall, or obstruction adjacent to any pipeline easement which would prevent complete and unimpaired surface access to the easement, or permit the building, erection, or creation thereof.
>
> (b) No shrubbery or shielding shall be installed on the pipeline easement. This subdivision does not prevent the revegetation of any landscape disturbed within a pipeline easement as a result of constructing the pipeline and does not prevent the holder of the underlying fee interest or the holder's tenant from planning and harvesting seasonal agricultural crops on a pipeline easement.
>
> (c) This section does not prohibit a pipeline operator from performing any necessary activities within a pipeline easement, including, but not limited to, the construction, replacement, relocation, repair, or operation of the pipeline."

Numerous other utilities share the right-of-way with the hazardous liquid pipeline. Operators install utility lines according to specific standards that specify vertical and horizontal separation distances that vary depending on the type of utility.[41] Colocation of energy transmission systems within designated energy ROWs is common, but may result in some interference between the systems or other hazards that would not exist except for the physical proximity of the two transmission systems.

38 Governed by Contra Costa County Code, Title 10, Chapter 1004-2.

39 See examples of these franchise agreements at: http://pstrust.org/about-pipelines1/local-governments/franchise-agreements/

40 There are gaps in the easement and memoranda documentation the Trust was able to acquire from the county and Kinder Morgan. We don't know if this reflects missing documentation or uncertainty about the pipeline right-of-way, but recommend there be a complete set of documentation describing the right-of-way and property affected that is available to the public.

41 See 49 CFR § 195.250; also see operator guidelines for additional specifics on horizontal and vertical separation distances.

Encroachments into the Iron Horse Corridor may or may not encroach into the portion of the corridor over which Kinder Morgan or other utilities hold an easement. Assessing and remedying these encroachments will require coordination among all parties with ownership interests in the corridor.

The community is involved in the management of the corridor, and has numerous public participation opportunities with regard to planning its use.[42] Keeping the pipeline and pipeline safety in mind during these public discussions can serve to remind nearby residents that the Iron Horse Corridor needs to be respected as a protective buffer for the utilities within it, as well as enjoyed for its recreational offerings.

RECOMMENDATION TO CONTRA COSTA COUNTY BOARD OF SUPERVISORS: Adopt clear policies and deterrents regarding preventing encroachment including the review of setback variances by municipal advisory councils or committees and department staff, so that properties and vegetation along utility corridors do not encroach on pipelines. Ensure the single staff point-of-contact for citizens with concerns about multiple utility issues and right of way questions has technical training on safety concerns, adequate resources to conduct regular and broad community outreach (especially along the Iron Horse Corridor), and resources to work in close coordination with other related departments and advisory groups.

RECOMMENDATION TO CONTRA COSTA COUNTY PUBLIC WORKS: Ensure county has complete and accurate records of corridor and right of way locations. Continue to coordinate with Kinder Morgan and other utilities on resolution of encroachments into pipeline Rights of Way.

RECOMMENDATION TO PIPELINE OPERATORS: Consistently undertake assessments of existing Right of Way encroachments to determine whether there are safety implications. Coordinate with Contra Costa County Public Works to resolve encroachments with neighboring property owners.

Land Use and Zoning Provisions

Land use and zoning authority in the unincorporated portions of the county lies within Contra Costa County Department of Conservation and Development (DCD) jurisdiction. The county does not address pipelines in the General Plan goals or policies. Apart from limited involvement with certain high-hazard proposals (as rated by Hazardous Materials Program staff), the county does not review pipelines under their land use authority. They have a specific exemption for pipelines and other utilities stating:

> *The use of land for rights-of-way for the construction, maintenance and repair of public utilities and publicly owned utilities and for privately owned pipelines for the transportation of oil, gas, water, and other substances transportable by pipelines, is not regulated or restricted by Divisions 82 and 84. Accessory and appurtenant structures forming a part of public utilities, publicly owned utilities and pipelines are not regulated or restricted by Divisions 82 and 84, except for setback regulations. (Contra Costa County Zoning Code § 82-2.010)*

Divisions 82 and 84 referred to in the above citation are, respectively, the General Regulations and Land Use Districts divisions of the County Zoning Code.[43]

There are examples in California of other counties that do not exempt privately owned transmission pipelines from land use regulations (see sidebar on Santa Barbara County on page 21). Using land use and zoning authority to require permits for HL pipeline construction, replacement, modification, or abandonment may allow a local government to conduct California Environmental Quality Act (CEQA) review if warranted, and negotiate conditions and mitigation requirements with certain permits.

RECOMMENDATION TO CONTRA COSTA COUNTY BOARD OF SUPERVISORS AND DEPARTMENT OF CONSERVATION AND DEVELOPMENT: Consider adding goals and policies to the General Plan,[44] and amending Contra Costa County Zoning Code 82-2.010 so that all privately owned pipelines and appurtenant structures are not exempt, but rather only privately owned gas distribution pipelines under 12" in diameter are exempt from the General and Land Use District regulations (divisions 82 and 84).[45] Consider additional ordinance(s) pertaining to zoning and land use permitting for hazardous liquid pipelines and possibly also intrastate gas transmission pipelines that are proposed for construction, replacement, modification, or abandonment.

42 The East Bay Regional Park District covering Alameda and Contra Costa Counties manages the Iron Horse Trail (with an elected board of directors and an appointed advisory committee), and the Contra Costa County Board of Supervisors appoints an IHC Advisory Committee with representation from communities along the corridor. The IHC Advisory Committee has embarked on various projects that have involved additional public input opportunities, including the creation of the Management Program and its Landscape Element in 2000.

43 See https://www.municode.com/library/ca/contra_costa_county/codes/ordinance_code?nodeId=TIT8ZO

44 See the Trust's Local Government Guide to Pipelines for specific suggestions about what kind of General Plan (also called Comprehensive Plan) language may be used relating to pipelines and pipeline safety.

45 Language can be written specifically to exempt most distribution pipelines. For example, "only gas distribution pipelines under 12" in diameter or under an operating pressure of 80 psig are exempt from the zoning code provisions."

Damage Prevention and Public Awareness Programs

A nationwide utility locator system is available for free in every state, to anyone planning hand or machine excavation, in order to prevent damage to pipelines and other utilities. By calling 811 at least two working days before digging, a utility locator will come identify and mark buried utilities, including cables and pipelines for fuel, water and sewer. This is a requirement by law in California (see GOV Code § 4216 et. seq.) with civil penalties associated with noncompliance, yet California lacks enforcement for this law.[46] Pipeline operators must participate in this program. In communities that do not have other types of consultation zones or setback regulations, the "One-Call ticket" (as operators refer to the resulting notification from someone calling 811) is likely to be the first notice the pipeline operator has that someone is intending to dig close to their pipeline. Kinder Morgan has a robust damage prevention program, with membership in the Common Ground Alliance, staff training, and staff encouraged to actively follow up on any observed violations.

Pipeline operators also are required by federal law to have a Public Awareness Program.[47] This program must describe what the operator does to inform the public of the presence of the pipeline and potential hazards, and how they do it. For instance, the operator must identify and communicate with local emergency personnel, government officials, school districts, businesses, and the public, and tell them specific things such as how to recognize pipeline location markers, what kind of precautions they should take, what kind of properties the commodity being transported in the pipeline has, and how to recognize and respond to a pipeline emergency.

RECOMMENDATION TO THE STATE OF CALIFORNIA: Enforce excavation damage prevention laws. Currently authority is held with the Attorney General's office, but there is not adequate staffing or resources to respond to notifications of alleged violations or to investigate. Other agencies respond on a fragmented basis depending on the damaged utility involved.

Local Opportunities for Public Involvment, Education and Awareness

The Contra Costa County Hazardous Materials Ombudsman is a useful single point of contact for information regarding hazardous materials including pipelines; part of the ombudsman's role is to help people in the county be good advocates for themselves by providing information. The public can also attend Hazardous Materials Commission meetings or apply to be one of the 13 members (some of these are public seats).

All of the agencies discussed in this report also provide additional information on their websites (those addresses are listed in Appendix A).

The county also has a Community Awareness and Emergency Response (CAER) group, which is a non-profit public benefit corporation of public emergency response agencies, local government officials and facilities and businesses that use, store, handle, produce or transport hazardous materials. All of these entities can be members of CAER; membership is voluntary, and while most of the waterfront industrial facility operators are members, Kinder Morgan is not. CAER works to actively enhance public health and safety, and includes public representatives on its board of directors. CAER efforts focus on the waterfront areas from Richmond to Antioch where industrial facilities are concentrated but their expertise and public outreach model also support inland areas of county affected by hazardous materials transport through pipelines.

The Contra Costa County Board of Supervisors raised questions and concerns about Kinder Morgan intrastate pipelines in a letter to OSFM dated March 11, 2014. In response to this letter, OSFM staff inspected the Kinder Morgan Integrity Management Program related to their intrastate pipelines in Contra Costa County (including the San Jose line / LS-16) in June 2014. This inspection included a review of integrity management procedures, inspections, and associated repairs for the eleven Kinder Morgan intrastate pipelines operating in Contra Costa County, and resulted in a report submitted to the county in the spring of 2015 that details the process Kinder Morgan undergoes to ensure the integrity of these lines. The county has this information, but having this information is not the same as having a clear process and expertise in place to analyze it and make recommendations in coordination with the operators and OSFM.

RECOMMENDATION TO OFFICE OF THE STATE FIRE MARSHAL: Make information – maps, incident and inspection information – accessible to the public by posting it online.

RECOMMENDATIONS TO PIPELINE OPERATORS: Participate as members in CAER with consistent attendance at quarterly meetings by appropriate management staff. Work in coordination with the Board of Supervisors and appropriate county departments to develop a technical advisory body that can review the integrity management plan (similar to the Santa Barbara County System Safety Reliability Review Committee) and other technical assessments of the pipeline in order to cultivate informed technical expertise in the county and increase public trust and awareness.

46 California is one of a few states without enforcement for excavation damage prevention – see PHMSA 2014 state damage prevention program characterization.

47 For hazardous liquid pipelines, see 49 CFR § 195.440; for gas pipelines, see 49 CFR § 192.616.

Emergency Response, Spill Response & Prevention

Oil spill prevention and emergency response authority differs depending on what area the spill is likely to affect (coastal or inland), whether it is part of a larger facility (e.g., a refinery), and what part of the process is the focus (prevention, preparedness, environmental spill response, or emergency assistance to communities). When a spill occurs, many state, federal and local agencies work together under a 'unified command' structure on clean-up and response.

Hazardous liquid pipeline spill response agencies in California

The U.S. EPA has authority to direct cleanup and rehabilitation of areas affected by spills of hazardous liquid releases. The U.S. EPA can also bring actions for civil penalties under the Oil Pollution Act against operators for each barrel of oil where releases have entered navigable waters, as defined under the Clean Water Act. Additional recovery is available to the state and federal governments for damages done to natural resources by a spill.

The California Department of Fish and Wildlife, Office of Spill Prevention and Response (OSPR) also exercises jurisdiction over oil spills. This authority was expanded greatly in 2014 to cover all state surface waters at risk of oil spills from any source, including pipelines and production facilities.[48] The development of the regulations for this expanded statutory authority is underway as of this writing, with OSPR coordinating with local, state and federal government along with industry and non-governmental organizations to do so. OSPR requires operators to submit spill response plans for approval, and conducts spill drills (they are authorized to conduct both announced and unannounced drills). Operator spill response plans for pipelines that could effect marine waters are currently posted on the OSPR website, and presumably similar plans will be made available to the public in the future for those operators with pipelines that could effect any waters of the state once the new regulations are completed and implemented.

The California Environmental Protection Agency (CalEPA) regulates hazardous waste and materials through a Unified Program that incorporates a number of local and regional Certified Unified Program Agencies (CUPAs) for implementation, of which the Contra Costa County Health Services Department is one. In general, CUPAs are most interested in facilities handling hazardous waste and materials, and not focused at all on the transportation of those materials. However if an incident occurs and hazardous materials spill, a local CUPA will be involved in the response to that spill, whether it comes from a facility or a pipeline. More information about the CUPA role is included in the following section focused on Contra Costa County.

All pipeline operators are required to have an emergency response plan, and to share that plan with local first responders. The plan should contain detailed information about what the pipelines hold, and how pipeline company personnel and emergency response agencies such as fire and sheriff or police departments will implement pre-planned responses in case of an emergency. PHMSA assesses the written procedures contained in these plans during their inspections of interstate operators, and OSFM reviews portions of the plans during their standard inspections (once every five years) for intrastate pipelines, but operators are not required to submit these plans to either PHMSA or OSFM.

Operators that fall under the jurisdiction of the federal Oil Pollution Act, whose pipelines may significantly harm water bodies if there were to be a release of oil or a refined product, must also prepare a facility response plan, sometimes called a spill response plan, to outline how a release from the facility will be responded to and where response resources will be stored near the pipeline and where staff and contractors will be responding from. These plans must meet the requirements of federal law and regulations and be approved by PHMSA.[49]

Pipeline accident investigations occur separately from the spill clean-up and response. The National Transportation Safety Board conducts accident investigations of some of the most significant pipeline incidents. PHMSA may conduct a pipeline failure investigation on a pipeline within its jurisdiction, depending on the cause or failure mode, the severity of the consequences, and the history of the pipeline system. OSFM conducts its own investigations, in accordance with Section 13107.5 of the California Health and Safety Code. Other agencies may also conduct investigations, including the California Department of Industrial Relations, Division of Occupational Safety and Health, or a local Certified Unified Program Agency.

Following the May 2015 spill onto Refugio Beach near Santa Barbara, additional changes were proposed to California laws to increase the usage of automatic shut-off systems and improve leak detection technology on hazardous liquid lines, as well as to improve the response times to begin clean up efforts by allowing local fishing boats to be trained as spill responders. At the time of this publication, it was not yet certain whether either of these bills would pass.

Contra Costa County Spill and Emergency Preparations and Response

Contra Costa County Health Services Department (HSD) is designated as a Certified Unified Program Agency (CUPA), and their Hazardous Materials Program has been involved in protecting the community from hazardous materials releases for well over two decades. The state and county rules governing hazardous materials apply very little to pipelines, as the state hazardous materials law specifically exempts the *transportation* of hazardous materials.[50] However once hazardous materials are released from a pipeline, they are no longer considered

48 Senate Bill 861 authorized the expansion and provided the additional statutory and regulatory authority, for the prevention, preparedness and response activities in the new inland areas of responsibility. See also Cal. GOV Code § 8670.

49 See 49 C.F.R. Part 194.

50 Specific authority given to the HSD as a CUPA is described in CA HS Code, § 25404 and § 25531 et. seq.; the Contra Costa County Industrial Safety Ordinance is found in CCC Code, Title 4, Chapter 450.

to be part of the transportation system. In concert with these rules, the Hazardous Materials Program concerns itself with all storage and processing of hazardous materials (including at water treatment facilities, refineries, and the like), but pipelines mainly draw their attention once the hazardous materials are no longer part of the transportation system, i.e., there is an incident where oil is spilled. All releases of hazardous materials (including pipeline releases) are reported on by the Hazardous Materials Program, and available on the department's website.[51]

The Health Services Department has a designated staff Hazardous Materials Ombudsman whose job is to respond to questions and concerns from the public, as well as independently and impartially conduct investigations, solve problems, and make recommendations regarding the program. The Department also supports the Hazardous Materials Commission, a group consisting of 13 appointed members representing a diversity of stakeholders. The Commission is tasked with advising the Board of Supervisors on hazardous materials planning, management, and implementation, while obtaining broad public input and working to build consensus.[52] The Health Services Department incorporate concerns with pipelines along with facilities as part of a broad focus on protecting the community from dangers of hazardous materials.

Contra Costa County is highly populated, and many people live and work in close proximity to the pipelines in the region. A dozen schools are located in very close proximity to the Kinder Morgan pipeline along the section of the Iron Horse Corridor from Concord to San Ramon. While individual schools have emergency or crisis plans in place, we did not see mention of the unique hazard presented by proximity to the pipeline if a pipeline incident were to occur. The California Department of Education (CDE) offers useful guidance to Local Educational Agencies (i.e. school districts and other related entities) in siting new facilities; one piece of this guidance is their "Guidance Protocol for School Site Pipeline Risk Analysis" which is a tool to aid Local Educational Agencies and the CDE in evaluating the suitability of new school sites located near pipelines as defined in the regulations.[53] CDE also offers guidance under their "Potential Pipeline Hazard Mitigation/Management" heading, including suggestions for reducing the probability of a pipeline product release and for reducing the severity of consequences of pipeline releases on schools.[54]

These resources could be expanded to offer mitigation and modernization recommendations for existing schools in proximity to pipelines, looking at evacuation routes, coordination with local first responders and pipeline operators, and education of individual school staff using resources such as the School Pipeline Safety Partnership offered by the Danielle Dawn Smalley Foundation.[55] In addition, the Contra Costa County Office of Public Education maintains online resources on emergency preparedness,[56] and the Contra Costa County CAER has a *Model Emergency Plan for Schools*,[57] both of which can be used as additional resources when developing a comprehensive emergency or crisis plan. These resources do not specifically mention the potential hazards of oil and gas pipelines as something to learn about and pay attention to, or as a potential risk for which to plan and develop mitigation measures, though they do provide helpful guidance for the important process of emergency planning.

At a minimum, those agencies who help schools develop safety plans should coordinate with one another (E.G. school districts, the CA Department of Education, county Office of Public Education, and CAER) and suggest each crisis plan include the following information about pipelines:

- Where is the pipeline? (include it in any maps, and specify distance from school facilities)
- What pipeline markers look like.
- Name of pipeline operator, product transported, and both emergency and non-emergency contact information for a pipeline operator representative.
- How and where to evacuate in a pipeline emergency, including routes that avoid pipelines and pipeline rights-of-way.
- Overview of the indications of a pipeline emergency.

At least one of the schools adjacent to the Iron Horse Corridor and Kinder Morgan pipeline has no access to emergency services or evacuation except via a single road that crosses the pipeline. Rancho Romero Elementary School is located in Alamo, and can only be reached via Hemme Road off of Danville Boulevard by crossing over the pipeline. In the unlikely event that a pipeline incident occurs adjacent to the school in such a way as to block the Hemme Road access, numerous problems could arise, as all road access to and from the school would be blocked. All emergency services are on the other side of the pipeline; the current relocation site listed in the school's crisis plan is the Creekside Community Church, also on the other side of the pipeline. The pipeline is not depicted on the emergency map for the school, and is not mentioned in the safety plan where ingress/egress is discussed, or anywhere else in the crisis plan.

There may be a timely opportunity to work with developers to address the issue of school and neighborhood connectivity in conjunction with current plans for development in this area. Every effort should be made to create publicly accessible access across these 'dead-end' neighborhoods that necessitate crossing the pipeline to access any services.[58]

51 As of this writing, website access to the reports had been suspended pending HSD website's realignment with the CA Environmental Reporting System, but will soon be available again through links here: http://cchealth.org/hazmat/incident-response.php.

52 See http://cchealth.org/hazmat/hmc/

53 See http://www.cde.ca.gov/ls/fa/sf/protocol07.asp

54 See http://www.cde.ca.gov/ls/fa/sf/mitigation.asp

55 See http://smalleyfnd.org/services/pipeline-education/schools

56 See http://www.cccoe.k12.ca.us/about/resources_emergency.html

57 See http://www.cococaer.org/prepare_plans_school.html

58 The Trust has seen the "Ball Estate" development plan that is currently under review and includes possible gated emergency vehicle access in this area via a private Ironwood Place connector. Contra Costa County should ensure that any emergency vehicle access is sufficient in width and access to have unimpeded passing emergency vehicles and whatever other needs may be requested by the Fire Department.

As mentioned earlier, resources exist for school emergency planning. In addition, assistance or funding may be available from those same agencies or the pipeline operator to receive specialized technical assistance to assess the pipeline risks and offer suggested mitigation and evacuation strategies pertinent to the specific school situation.

Two fire districts cover the central region of the county that includes the Iron Horse Corridor: the Contra Costa County Fire Protection District, and the San Ramon Valley Fire Protection District. As mentioned previously, pipeline operators are required to have both an emergency response plan, and a public awareness plan, and to have a designated liaison and make information available to local first responders such as fire departments and sheriff or police departments. Because of the workload and turnover in most fire districts, it is difficult to have a single point-of-contact who is familiar with the pipeline, the operator and the emergency response plan. While pipeline operators invite district personnel to annual training events, it is up to the district to prioritize planning for a pipeline emergency.

RECOMMENDATION TO CONTRA COSTA COUNTY HEALTH SERVICES DEPARTMENT: Expand the scope of the Hazardous Materials Ombudsman and the Hazardous Materials Commission to provide an ongoing review of pipeline operators' emergency plans and possible county efforts regarding additional coordinated technical review of pipeline integrity planning.

RECOMMENDATION TO THE STATE OF CALIFORNIA: Work with the California Department of Education (CDE) on ways to implement CDE's suggestions for reducing the probability of a pipeline product release on schools, and reducing the consequences of pipeline releases on schools.[59]

RECOMMENDATION TO CONTRA COSTA COUNTY BOARD OF SUPERVISORS: Request appropriate staff conduct an analysis of all congregate facilities (i.e. schools, recreation facilities, hospitals, nursing facilities, etc.) located in close proximity to transmission pipelines; Work with other emergency response agencies to develop a list of resources for emergency and evacuation planning expertise for congregate facilities near pipelines that can include potential hazards from a pipeline incident, and mitigation strategies for those hazards based on site-specific considerations.

RECOMMENDATION TO CONTRA COSTA COUNTY PUBLIC WORKS: Plan emergency evacuation ingress/egress for areas in Alamo west of Danville Boulevard and the Iron Horse Corridor where a single east-west pipeline-crossing road is the only access for numerous homes and facilities (e.g. Hemme Road, Camille Road) with the goal of creating public accessibility across these 'dead-end' neighborhoods that necessitate crossing the pipeline to access any services.

RECOMMENDATION TO CONTRA COSTA COUNTY Department of Conservation and Development: Review all development applications for opportunities to improve existing ingress/egress where currently limited, and where possible, include conditions on approvals to improve connectivity and avoid exacerbation of access problems.

RECOMMENDATION TO DEPARTMENT OF EDUCATION: Expand School Site Pipeline Risk Analysis and the Potential Pipeline Hazard Mitigation/Management guidance in coordination with emergency response agencies to offer help for schools that already exist in close proximity to pipelines. Lead coordination efforts among the myriad of agencies that offer crisis planning assistance to schools, and suggest minimum information that should be included in these plans regarding pipelines.

RECOMMENDATION TO CONTRA COSTA COUNTY OFFICE OF PUBLIC EDUCATION AND SCHOOL DISTRICTS: Expand emergency preparedness resources to include information about pipelines and pipeline-specific risks. Assist individual schools in developing crisis plans and emergency preparedness plans that include pipelines on the emergency maps and assess how ingress/egress may be affected by a pipeline incident.

RECOMMENDATION TO CONTRA COSTA COUNTY CAER: Include specific reference to oil and gas pipelines in the list of potential hazards listed in the hazard assessment in the next update to the *Model Emergency Plan for Schools.*

RECOMMENDATION TO PIPELINE OPERATORS: Reach out to the schools along the pipeline easement and offer to provide technical assistance assessing pipeline risks and evacuation strategies given possible incidents that could occur in close proximity to the schools.

RECOMMENDATION TO FIRE DISTRICTS: Designate a single point-of-contact to coordinate with pipeline operators, familiarize themselves with the operators' emergency response and spill response plans, know the facilities where people congregate (schools, churches, hospitals, nursing facilities, etc.) in close proximity to the pipeline, be involved with any emergency planning done by those facilities, and advise County DCD and PW on sufficiency of proposed ingress/egress for new developments in areas where there is currently single access that crosses the San Jose line.

59 See CDE's Potential Pipeline Hazard Mitigation/Management website at http://www.cde.ca.gov/ls/fa/sf/mitigation.asp

APPENDICES

Appendix A. Agency listing and Resources for more information

Appendix B. Community education meetings

Appendix C. Additional information reviewed for report

Appendix D. All Reported Incidents in Contra Costa County

Appendix E. All Reported Incidents on Kinder Morgan's SFPP Pipeline System

Appendix A. Agency listing and resources for more information

Alamo Improvement Association: www.alamoca.org

CA Dept of Education, Guidance Protocol - School Site Pipeline Risk: www.cde.ca.gov/ls/fa/sf/protocol07.asp

CA Office of the State Fire Marshal, Pipeline Safety Division: osfm.fire.ca.gov/pipeline/pipeline.php

CA Dept of Fish & Wildlife, Office of Spill Response and Prevention: www.wildlife.ca.gov/OSPR

CA Environmental Protection Agency, Unified Program: www.calepa.ca.gov/CUPA/

Contra Costa County Board of Supervisors: www.cccounty.us/193/Board-of-Supervisors

Contra Costa County Department of Conservation and Development: www.cccounty.us/dcd

Contra Costa County Health Services Department, Hazardous Materials Programs: cchealth.org/hazmat/

Contra Costa County Public Works Department, Transportation Engineering Division

- Iron Horse Corridor Management: www.co.contra-costa.ca.us/413/Iron-Horse-Corridor
- Franchise Administration: www.contracosta.ca.gov/475/Franchise-Administration

Contra Costa County Office of Education, Crisis Planning & Emergency Preparedness:

- www.cccoe.k12.ca.us/about/resources_emergency.html

Contra Costa County Community Awareness & Emergency Response (CAER): www.cococaer.org

Danielle Dawn Smalley Foundation, Pipeline Safety and Awareness Training for Schools:

- smalleyfnd.org/services/pipeline-education/schools

Federal Pipeline Safety Regulations: www.ecfr.gov/ecfrbrowse/Title49/49CIsubchapD.tpl

National Transportation Safety Board: www.ntsb.gov

Pipeline Safety Trust website: pstrust.org

- Landowner's Guide to Pipelines: pstrust.org/log
- Local Government Guide to Pipelines: pstrust.org/lgg
- Online "SafePipelines" discussion group: groups.yahoo.com/neo/groups/safepipelines

U.S. Dept of Transportation, Pipeline and Hazardous Materials Safety Administration

- Incident and Annual Pipeline Data: phmsa.dot.gov/pipeline/library/data-stats
- National Pipeline Mapping System: www.npms.phmsa.dot.gov/PublicViewer
- Office of Pipeline Safety: phmsa.dot.gov/pipeline

Pipelines and Informed Planning Alliance: primis.phmsa.dot.gov/comm/pipa/landuseplanning.htm

Appendix B. Community education meetings

The Alamo Improvement Association and the Contra Costa County Hazardous Materials Commission jointly sponsored two hazardous liquid pipeline safety workshops in June of 2015, with funding from the PHMSA Community Technical Assistance Grant received by the Alamo Improvement Association. Michael Kent, Hazardous Materials Ombudsman, moderated the meetings, and the following four individuals presented information and slides to the group:

- Carl Weimer, Executive Director of the Pipeline Safety Trust
- Bob Gorham, Division Chief of Pipeline Safety, Office of the State Fire Marshal
- Pete Murphy, Operations Manager at Kinder Morgan
- Carry Ricci, Customer Services Coordinator at Contra Costa County Public Works Department

The Pipeline Safety Trust hosts a webpage with all the presentations available for download: http://pstrust.org/trust-initiatives-programs/work-in-other-communities/alamo/. In addition, the second workshop was captured on video by CCTV, and is available to watch here: http://contra-costa.granicus.com/MediaPlayer.php?publish_id=935921b6-0eea-11e5-b5ce-00219ba2f017.

The workshops were held in Alamo and Martinez, with advertising and press coverage in the preceding month. About 70 people attended the June 3rd workshop in Alamo, and about 45 attended the June 6th workshop in Martinez. Three Pipeline Safety Trust staff worked along side the members of the Alamo Improvement Association Technical Assistance Grant, ad-hoc working group to prepare for and carry out these workshops. Audience members submitted written questions throughout the meeting, which were then asked by the moderator to the panelists during a question and answer period at the end of the meeting. This report focuses on questions of concern to local citizens, including those submitted at the workshops or by email to members of the ad-hoc working group.

HAZARDOUS LIQUID PIPELINE SAFETY WORKSHOP AGENDA

June 3, 2015, 6:30 – 8:30 PM in Alamo
Creekside Community Church (1350 Danville Blvd)

June 6, 2015, 10 AM – 12 PM in Martinez
County Administration Building, Board of Suervisors Chambers (651 Pine St)

Facilitated by Pipeline Safety Trust staff, and Contra Costa County Hazardous Materials Ombudsman Michael Kent

Introductions (10 Minutes)
Agency, Kinder Morgan, and Pipeline Safety Trust staff

Why care about pipeline safety? Pipelines 101 (20 minutes)
Pipeline Safety Trust staff

Kinder Morgan Presentation (20 Minutes)
Pete Murphy, Operations Manager, Kinder Morgan

Fire Marshal Presentation (20 Minutes)
Bob Gorham, Division Chief, Pipeline Safety, CA Office of the State Fire Marshal

Increasing Safety - Pipeline Safety Trust Staff, Michael Kent, & Carrie Ricci (15 Minutes)
Communications
County involvement – Public Works & Hazardous Materials Advisory Board

Faciliated Question & Answer Panel – Michael Kent, facilitator (30 Minutes)

Closing (5 Minutes) AIA - Roger Smith

MEETING SPONSORS:

Alamo Improvement Association

Contra Costa County Hazardous Materials Commission

Pipeline Safety Trust
Credible. Independent. In the public interest.

PARTICIPATING STAKEHOLDERS:

The Seal of Contra Costa County California

California Department of Forestry & Fire Protection CAL FIRE Since 1885

KINDER MORGAN

Pipeline and Hazardous Materials Safety Administration

Appendix C. Additional information reviewed for report

City of Richmond, Pipeline Franchise Ordinance 27-10 (2010). Online: www.ci.richmond.ca.us/ArchiveCenter/ViewFile/Item/3143.

Contra Costa County Code (including Industrial Safety Ordinance, and Zoning Ordinance). Online: www.municode.com/library/ca/contra_costa_county/codes/ordinance_code.

Contra Costa County, Flood Control & Water Conservation District – PG&E 1994 Easement for 24 inch gas pipeline.

Contra Costa County General Plan (2014). Online: www.co.contra-costa.ca.us/4732/General-Plan.

Contra Costa County Health Services, Hazardous Materials Program – Incident report ConocoPhillips pipeline (vandalism) in Byron 2011 Aug 27 – includes Environmental Site Assessment Report.

Contra Costa County Health Services, Hazardous Materials Program – Incident report ConocoPhillips pipeline (corrosion) at MOTC (Marine Ocean Terminal Concord, formerly Naval Weapons Station) 2011 Nov 7.

Contra Costa County Health Services memo (Randy Sawyer) to Contra Costa County Board of Supervisors re: Nov 7, 2014 ConocoPhillips pipeline leak in Concord (crude).

Contra Costa County Iron Horse Corridor Management Program Landscape Element (2000). Online: www.co.contra-costa.ca.us/2579/Landscape-Element.

Contra Costa County Pipeline Franchise Ordinance 2013-19 & Fee Resolution (2013). Online: http://pstrust.org/wp-content/uploads/2015/04/Pipeline-Franchise-FINALweb-09172013.pdf.

Contra Costa County Public Works memo to Contra Costa County Board of Supervisors recommending requesting the Office of the State Fire Marshal report of Kinder Morgan Integrity Management program review. Approved by Board of Supervisors (2015 Jan 6).

Honegger, D.G. and Wijewickreme, D. (2013). Seismic risk assessment for oil and gas pipelines. In Tesfamariam, S., Goda, K. (Eds.), Handbook of Seismic Risk Analysis and Management of Civil Infrastructure Systems (pages 682-715). Cambridge: Woodhead Publishing Limited, 2013.

Kelson, Keith I. and Sundermann, Sean T (2007). Digital compilation of Northern Calaveras Fault Data for the Northern California Map Database: Collaborative Research with William Lettis & Associates, Inc., and the U.S. Geological Survey. Online: earthquake.usgs.gov/research/external/reports/05HQGR0023.pdf

National Association of Pipeline Safety Representatives (2013). Compendium of State Pipeline Safety Requirements and Initiatives Providing Increased Public Safety Levels compared to Code of Federal Regulations – second edition. Online: www.napsr.org/Pages/Comp2013.aspx.

Office of the State Fire Marshal Pipeline Failure Investigation Report, 2004 Nov 9 Walnut Creek Kinder Morgan incident.

Office of the State Fire Marshal report on review of Kinder Morgan Integrity Management Program for pipelines in Contra Costa County (2014 June 2).

Office of the State Fire Marshal PowerPoint presentation re: Kinder Morgan Integrity Management Program (2014 Dec 4). Online: 64.166.146.155/docs/2015/BOS/20150106_514/20327_ContraCostaCounty2014.pdf.

Office of the State Fire Marshal letter (Bob Gorham) to Contra Costa County Board of Supervisors re: Kinder Morgan inspection/audit (2014 May 8).

PHMSA corrective action order 2005 Aug 24 re: Kinder Morgan Pacific Operations (CAO 5-2005-5025H).

PHMSA consent agreement 2006 March 29 re: Kinder Morgan Pacific Operations (CPF 5-2005-5025H). Online: primis.phmsa.dot.gov/comm/reports/enforce/documents/520055025H/CPF_NO_5_2005-5025H.pdf.

PHMSA closure of consent agreement 2015 May 11 re: Kinder Morgan Pacific Operations (CPF 5-2005-5025H). Online: primis.phmsa.dot.gov/comm/reports/enforce/documents/520055025H/520055025H_closure%20letter_05112015.pdf.

Pipeline and Informed Planning Alliance (2010). Partnering to Further Enhance Pipeline Safety in Communities through Risk-Informed Land Use Planning Final Report of Recommended Practices. Online: primis.phmsa.dot.gov/comm/publications/pipa/pipa-report-final-20101117.pdf

Southern Pacific Transportation Company – Southern Pacific Pipe Lines, Inc. 1979 Easement (for Concord-San Jose pipeline).

Southern Pacific Railroad – Santa Fe Pacific Pipelines 1994 Amended Easement (for Concord-San Jose pipeline, references original easement from June 5, 1970 that was not found).

U.S. Dept of Transportation, Pipeline and Hazardous Materials Safety Administration (2012). Studies for the Requirements of Automatic and Remotely Controlled Shutoff Valves on Hazardous Liquids and Natural Gas Pipelines with Respect to Public and Environmental Safety (ORNL/TM-2012/411). Prepared by Oak Ridge National Laboratory, managed by UT-Battelle for the U.S. Dept of Energy. Online: www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_2C1A725B08C5F72F305689E943053A96232AB200/filename/Final%20Valve_Study.pdf

Wang, Yumei, Bartlett, Steven F., and Miles, Scott B (2012). Earthquake Risk Study for Oregon's Critical Energy Infrastructure Hub (Final Report to Oregon Department of Energy & Oregon Public Utility Commission). Oregon Department of Geology and Mineral Industries. Online: www.oregongeology.org/sub/earthquakes/cei-hub-report.pdf

Appendix D. All Reported Incidents in Contra Costa County

All Reported Incidents in Contra Costa County - 2002 to present (as of 4/1/15)

Significant Incidents are highlighted in yellow

Significant	Date	Name	City	Commodity spilled	Gallons spilled	Fatalities	Injuries	Property damage	Cause
Yes	1/8/2002	Sfpp, lp	Concord	Gasoline	168	0	0	$183,180	Other
Yes	3/31/2002	Sfpp, lp	Richmond	Diesel fuel	3,360	0	0	$230,290	Material and/or weld failures
No	4/21/2002	Sfpp, lp	Concord	Diesel fuel	546	0	0	$9,639	Incorrect operation
Yes	6/21/2002	Pacific gas & electric co	Concord	Natural gas	N/a	0	0	$151,000	Damage by outside forces
No	7/4/2002	Equilon pipeline co	Concord	Crude oil	10	0	0	$7,508	Material and/or weld failures
No	8/14/2002	Sfpp, lp	Concord	Gasoline/diesel fuel	126	0	0	$9,119	Equipment
Yes	9/7/2002	Sfpp, lp	Richmond	Gasoline	1,260	0	0	$262,750	Material and/or weld failures
No	10/15/02	Venoco, inc	Pittsburg	Natural gas	N/a	0	0	$24,000	Excavation damage
No	3/29/2003	Sfpp, lp	Concord	Turbine fuel	20	0	0	$10,859	Equipment
Yes	4/1/2003	Sfpp, lp	Concord	Gasoline	22,260	0	0	$162,287	Material and/or weld failures
Yes	4/14/2003	Sfpp, lp	Concord	Transmix	30,450	0	0	$1,390,073	Corrosion
No	5/30/2003	Sfpp, lp	Concord	Gasoline	60	0	0	$230	Incorrect operation
No	9/8/2003	Sfpp, lp	Concord	Turbine fuel	20	0	0	$667	Incorrect operation
Yes	11/11/2003	Pacific gas & electric co	Walnut creek	Natural gas	N/a	0	0	$750,000	Other
No	9/28/2004	Sfpp, lp	Concord	Gasoline/ distillate mixture	126	0	0	$54,202	Material and/or weld failures
Yes	11/7/2004	Sfpp l.P.	Martinez	Jet fuel	12,558	0	0	$139,130	Excavation damage
Yes	11/9/2004	Sfpp l.P.	Walnut creek	Gasoline	23,688	5	3	$734,449	Excavation damage
Yes	4/30/2006	Sfpp l.P.	Concord	Gasoline	3,234	0	0	$499,493	Material and/or weld failures
No	6/5/06	Venoco inc.	Pittsburg	Natural gas	N/a	0	0	$70,000	Corrosion
No	6/19/06	Pacific gas & electric co	Pittsburg	Natural gas	N/a	0	0	$65,200	Excavation damage
Yes	9/8/2007	Pacific atlantic terminals llc	Martinez	Gasoline/ reformate	7,056	0	0	$547,084	Incorrect operation
No	3/5/2008	Pacific atlantic terminals llc	Martinez	Gasoline	10	0	0	$3,908	Other
Yes	5/23/2008	Sfpp, lp	Richmond	Gasoline	168	0	0	$114,815	Corrosion
No	6/24/2008	Pacific atlantic terminals llc	Martinez	Hydrotest water/oil mixture	21	0	0	$64,712	Material and/or weld failures
No	11/5/2009	Plains marketing, l.P.	Martinez	Diesel fuel	168	0	0	$34,800	Corrosion
Yes	8/23/2011	Sfpp, lp	Brentwood	Refined product	1,596	0	0	$410,000	Equipment failure
Yes	8/27/2011	Conocophillips	Byron	Crude oil	2,352	0	0	$1,275,040	Excavation damage

Yes	11/7/2011	Conocophillips	Concord	Crude oil	1,890	0	0	$1,839,410	Corrosion failure
Yes	7/3/2012	Shell pipeline co., L.P.	Martinez	Refined product	546	0	0	$176,000	Equipment failure
No	10/17/2012	Chevron pipe line co	Byron	Refined product	10	0	0	$26,200	Equipment failure
Yes	8/8/2013	Sfpp, lp	Concord	Refined product	57	0	0	$427,913	Material failure of pipe or weld
No	6/20/14	Pacific gas & electric co	Antioch	Natural gas	N/a	0	0	$70,021	Excavation damage
No	6/21/2014	Sfpp, lp	Concord	Refined product	302	0	0	$34,453	Incorrect operation
No	6/21/2014	Nustar terminals	Crockett	Refined product	1,554	0	0	$52,000	Incorrect operation
No	9/14/2014	Sfpp, lp	Concord	Refined product	536	0	0	$80,967	Incorrect operation
Yes	9/15/14	Pacific gas & electric co	Lafayette	Natural gas	N/a	0	0	$115,315	Excavation damage
No	9/17/2014	Phillips 66 pipeline llc	Richmond	Refined product	89	0	0	$5,000	Equipment failure
Yes	12/9/2014	Sfpp, lp	Concord	Refined product	0.42	0	0	$150,501	Equipment failure
Yes	1/12/2015	Sfpp, lp	Richmond	Refined product	2,474	0	0	$550,497	Equipment failure
				Totals	116,716	5	3	$10,732,712	

Appendix E. All Reported Incidents on Kinder Morgan's SFPP Pipeline System

All incidents, 2006 - present. Significant Incidents are highlighted in yellow.

Date	City	State	County	Cause	Fatalities	Injuries	Property Damage	Gallons Spilled
5/23/2015	Rocklin	Ca	Placer	Material/weld/equip failure	0	0	$5,578	0
2/23/2015	Long beach	Ca	Los angeles	Material/weld/equip failure	0	0	$178,131	0
1/12/2015	Richmond	Ca	Contra costa	Material/weld/equip failure	0	0	$550,497	2,436
12/9/2014	Concord	Ca	Contra costa	Material/weld/equip failure	0	0	$150,501	0
10/6/2014	Brisbane	Ca	San mateo	Incorrect operation	0	0	$16,169	0
9/14/2014	Concord	Ca	Contra costa	Incorrect operation	0	0	$80,967	504
6/21/2014	Concord	Ca	Contra costa	Incorrect operation	0	0	$34,453	294
8/8/2013	Concord	Ca	Contra costa	Material/weld/equip failure	0	0	$427,913	42
1/8/2013	West sacramento	Ca	Yolo	Material/weld/equip failure	0	0	$2,429	0
10/16/2012	Long beach	Ca	Los angeles	Material/weld/equip failure	0	0	$16,012	252
8/23/2011	Brentwood	Ca	Contra costa	Material/weld/equip failure	0	0	$410,000	1,596
8/10/2011	Colfax	Ca	Placer	Material/weld/equip failure	0	0	$2,046	0
4/25/2011	Live oak	Ca	Sutter	Material/weld/equip failure	0	0	$27,301	336
11/4/2010	Pomona	Ca	Los angeles	Material/weld/equip failure	0	0	$64,964	84
7/19/2010	Rocklin	Ca	Placer	Material/weld/equip failure	0	0	$49,500	0
3/16/2010	Sacramento	Ca	Sacramento	Corrosion	0	0	$480,000	2,016
5/18/2009	Bloomington	Ca	San bernardino	Material/weld/equip failure	0	0	$72,147	462
5/1/2009	Phoenix	Az	Maricopa	All other causes	0	0	$33,684	714
9/18/2008	Deming	Nm	Luna	Material/weld/equip failure	0	0	$2,431	0
6/4/2008	Indio	Ca	Riverside	Excavation damage	0	0	$222,245	31,542
5/23/2008	Richmond	Ca	Contra costa	Corrosion	0	0	$114,815	168
3/29/2008	Phoenix	Az	Maricopa	Material/weld/equip failure	0	0	$5,212	42
2/15/2008	Phoenix	Az	Maricopa	Material/weld/equip failure	0	0	$7,172	84
10/2/2007	Reno	Nv	Washoe	Material/weld/equip failure	0	0	$4,055,353	35,742
4/8/2007	Long beach	Ca	Los angeles	Material/weld/equip failure	0	0	$8,209	84
2/26/2007	El paso	Tx	El paso	Material/weld/equip failure	0	0	$47,066	0
2/26/2007	Long beach	Ca	Los angeles	All other causes	0	0	$144,063	126
1/12/2007	Rocklin	Ca	Placer	Material/weld/equip failure	0	0	$249	0
11/28/2006	Long beach	Ca	Los angeles	Incorrect operation	0	0	$5,030	0
10/23/2006	El paso	Tx	El paso	Incorrect operation	0	0	$0	0
9/27/2006	Rocklin	Ca	Placer	Material/weld/equip failure	0	0	$6,421	126
9/27/2006	El paso	Tx	El paso	Corrosion	0	0	$177,110	84
9/11/2006	Carson	Ca	Los angeles	All other causes	0	0	$11,158	0

Date	City	State	County	Cause	Fatalities	Injuries	Property Damage	Gallons Spilled
8/24/2006	Soda springs	Ca	Nevada	Corrosion	0	0	$1,608,202	4,074
8/23/2006	West sacramento	Ca	Yolo	Material/weld/equip failure	0	0	$52,488	0
7/24/2006	Stockton	Ca	San joaquin	Material/weld/equip failure	0	0	$223,391	504
6/22/2006	Dublin	Ca	Alameda	Other outside force damage	0	0	$1,845,651	672
6/10/2006	El paso	Tx	El paso	Material/weld/equip failure	0	0	$557	84
6/9/2006	Long beach	Ca	Los angeles	Material/weld/equip failure	0	0	$520	0
5/26/2006	Long beach	Ca	Los angeles	Incorrect operation	0	0	$32,937	1,134
5/21/2006	Rocklin	Ca	Placer	All other causes	0	0	$50,512	168
5/16/2006	Deming	Nm	Luna	Material/weld/equip failure	0	0	$5,142	84
4/30/2006	Concord	Ca	Contra costa	Material/weld/equip failure	0	0	$499,493	3,234
3/17/2006	El paso	Tx	El paso	Material/weld/equip failure	0	0	$25,093	42
3/13/2006	Tucson	Az	Pima	Incorrect operation	0	0	$173	0
1/27/2006	Portland	Or	Multnomah	Corrosion	0	0	$30,145	84
				Totals	**0**	**0**	**$11,783,130**	**86,814**

Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE **6.**

Meeting Date: 04/14/2016

Subject: REVIEW reduction in State Gas Tax and the Impact to County of Contra Costa Streets and Roads.

Submitted For: Julia R. Bueren, Public Works Director/Chief Engineer

Department: Public Works

Referral No.: 1

Referral Name: REVIEW legislative matters on transportation, water and infrastructure.

Presenter: Steve Kowalewski, Department of Public Works **Contact:** Steve Kowalewski (925)313-2225

Referral History:

State legislative and financial issues related to transportation are a standing item on the TWIC agenda. The Committee regularly considers and provides recommendations to the BOS on these matters.

Referral Update:

State gas tax is the primary funding source used by Contra Costa County to fund the operations, maintenance, and improvement of the unincorporated transportation network.

What does it pay for?

• Operations and Maintenance – Gas tax revenues are used to operate and maintain pavements, road drainage (underground and above ground facilities), culvert inspection and replacement, signs, striping, vegetation control, bike lanes, pedestrian facilities, trails, traffic signals, safety lighting, shoulder grading, slope maintenance, storm response (clean-up, downed trees, clogged drains, etc), hydrauger maintenance, curbs, bike lane sweeping, storm drain debris removal, pothole repair, surface treatment program (slurry seal, chip seal, cape seal, micro-surface, overlays), road reconstruction, bridge maintenance, local bridge inspections, illegal dumping clean-up, clean water treatment facilities, and guardrails.

• Capital Projects – Used to construct capital transportation projects such as bike lanes, pedestrian facilities, curb ramps (ADA compliance), safety improvements, shoulder improvements, complete streets, green streets (green infrastructure), traffic calming, and bridge replacement. Local gas tax is also used to leverage local, state and federal grant funds. Last year for every $1 dollar we spent on staff time to prepare grant applications, we were able to get $17 dollars in return. This resulted in successfully securing $5,080,000 at a cost of $300,900.

Without having gas tax as required local match money to go after grants, the County would miss an opportunity to obtain additional outside funding to help construct much needed safety, maintenance, and multi-modal transportation improvements.

• Traffic Operations – Gas tax fully funds the Traffic Operations Section. This section is responsible for traffic safety investigations, traffic operational improvements, traffic signal timing, traffic signal maintenance and upgrades, traffic data collection, Neighborhood Traffic Calming Program, traffic collision evaluations, encroachment investigations, speed surveys, traffic resolutions, parking restrictions, traffic impact evaluations from new development, CHP coordination, truck restrictions, permit load requests, State coordination, and public assistance.

• Road Administrative Functions – The gas tax funds several administrative functions that support the County's road program. These include the Development Impact fee program, self-insurance (Risk Management), Road Finance Functions, Transportation Planning (Department of Conservation and Development), Utility Undergrounding Program (Rule 20A Funds), transportation planning studies, interagency coordination, state coordination, public meetings, project development, alignment studies, Road Records, County Counsel, claim investigations, and Public Assistance.

What's currently going on with the gas tax?

Two parts to the gas tax exist: Gas Excise Tax (volume based) and Price-Based Excise Tax (price based):

• Gas Excise Tax (volume based) – has not been raised since 1993. The Construction Cost Index has increased 71% from 1993. The purchasing power of the 18 cent gas tax in 1993 has been reduced to 9 cents in 2016 due to inflation. The gas excise tax is based on the amount (gallon) of gas purchased and is not based on the price of gas. Although there are more vehicles on the road, the gas tax generated has remained relatively flat due to the improvement in fuel economy in vehicles and more electric vehicles on the road. Electric vehicles are essentially using the road network for free. Although great for the environment, this trend has had a major impact on agencies responsible for properly maintaining and improving the transportation network.

• Price-Based Excise Tax – This part of the gas tax is dependent on the price of gas. If the prices are high, the sales tax generated increases. When gas prices drop, so does the sales tax portion of gas tax. So if gas prices have only dropped 50%, why is the County's gas tax show a decline of 81%? This inequality comes from the gas tax swap agreed to several years ago. From the sales tax based gas tax, the State takes $1 billion off the top to pay for General Obligation Transportation Bonds. During the tough economic times, the State was looking for General Fund relief and switched the obligation for paying these General Obligation Transportation Bonds from the General Fund to Gas Tax. When gas prices are high, the impact of removing $1 billion off the top is minimal, but when gas prices are low, the pot of money is small and is even made smaller by continuing to take the $1 billion off the top. The $1 billion is a fixed amount for bond debt service.

The Governor called for a special session of the California Legislature to address transportation funding; however, there has been limited progress in finding a solution. There are currently three proposals to address transportation funding: SBX1 1 (Beall), AB 1591 (Frazier), Governor's Plan as of September 6, 2015. These proposals would generate $24 million (SBX1 1), $27 million (AB1591), and $12.6 million (Governor's Plan). These amounts are in addition to the revenues

currently being received. A detailed description of the three proposals is attached.

What are the impacts to unincorporated County roads?

• The County has seen a significant reduction in State gas tax used to operate and maintain our local unincorporated road network. Although we have seen a slight increase in the volume based gas tax, this increase is far short of the drastic reduction we have seen in the sales tax portion of gas tax.

• To address the gas tax revenue reduction, the Public Works Department is proposing a project delay strategy that delays the construction of several projects for one to two years in anticipation that the State Legislature will agree on a transportation funding fix. However, if the State Legislature fails to act within the two year window, the County will likely need to indefinitely delay several projects and lose the already secured grant funds associated with those projects.

• The following are the main projects and road program activities impacted by the proposed project delay strategy:

- Delay construction of **Kirker Pass Road Northbound Truck Lanes** one year with work beginning in 2019; Reduce gas tax allocations for local match starting this fiscal year and next. If State Transportation Improvement Funds (also gas tax) are permanently cut by the California Transportation Commission for this project, the County will not have the capacity to make up the difference and the project will be delayed indefinitely.

- Delay the **Byron Main Street Sidewalk Improvement Project, Pomona Street Pedestrian Safety Enhancements, and Tara Hills Pedestrian Infrastructure Project** one year. Continue funding the completion of the design of the project, but delay construction funding.

- Eliminate seed money for **Vasco Road Safety Improvement Project Phase II**.

- Delay the **Bay Point Asphalt Rubber Cape Seal project**. The bids were recently opened for the project. However, with the new gas tax revenue projections, we did not have the $1.7 million funding to move this project forward. We will move forward with the ADA Curb Ramp Upgrades Project in the same Bay Point neighborhood in preparation for when the delayed Rubber Cape Seal project will be put out to bid in the next couple of years if the State Legislature finds a transportation funding fix.

- Reduce the gas tax allocation for **Orwood Bridge** Construction Engineering overage reserve. Caltrans has been disputing project expenditures for both the Construction Engineering and Environmental expenditures. At this moment, it appears only $600,000 in Environmental expenditures are in dispute. If the Environmental expenditures dispute is resolved, that would free up the $600,000 reserve.

- Reduced insurance reserve to $500,000. This amount is difficult to predict and in the recent past has come in at $1.6 million and $1.8 million.

- Holding off on back-filling vacated positions supported by the State gas tax.

- Will be shifting some County Road Crews from gas tax supported road work to Flood

Control District facilities to reduce gas tax expenditures. Gas tax allocation to Road Maintenance has been reduced by $2.5 million from historic levels.

- Reduce grant match funding and forego applying for some upcoming grants.

• The actions summarized above are the main highlights. With these actions along with other minor budget adjustments, we have balanced the current fiscal year road budget. We are currently short approximately $700,000 for the fiscal year 2016/17 road budget. We will continue to seek additional budget adjustments and funding to make up the difference.

• We realize that these actions will have an impact to motorists, cyclists, pedestrians, transit operations, and goods movement and we will continue to look for efficiencies and strategic allocations of the limited gas tax to keep the unincorporated County road network operating safely, efficiently, and reliably.

[Note from TWIC Staff: Information regarding transportation funding proposals at the state are also addressed under Item 7: Report on Local, State, and Federal Transportation Related Legislative Issues]

Recommendation(s)/Next Step(s):

ACCEPT report on the impacts to County transportation projects from the declining State gas tax; DIRECT the Public Works Director to make modifications to the current draft of the Capital Road Improvement and Preservation Program currently being routed for review to reflect the reduced gas tax revenues; and ACKNOWLEDGE that unless the State approves a transportation funding fix, the projects currently recommended to be delayed, will be deferred indefinitely, road deferred maintenance will continue to increase and our aging transportation infrastructure will cost more to fix in the future.

Fiscal Impact (if any):

If the projects move forward, there will be insufficient funds to pay contractors for work performed.

Attachments

Summary 2016

Preliminary Comparison of Three Transportation Funding and Reform Proposals as of March 1, 2016

	SBX1 1 (Beall) as of Sept. 1, 2015	AB 1591 (Frazier) as of Jan. 6, 2016	Governor's Proposal from Sept. 6, 2015
Funding			
Gas Excise Tax Increase	12 cents ($2b)	22.5 cents ($3.5b)	None
Price-Based Excise Tax Adjustment Reset	17.3 cents ($900m)	17.3 cents ($900m)	18 cents ($900m)[1]
- *CPI adjustment applied to entire excise tax*	*Every 3 years*	*Every 3 years*	*Every year*
Diesel Excise Tax Increase	22 cents ($600m)	30 cents ($800m)	11 cents ($300m)
- *CPI adjustment applied to entire excise tax*	*Every 3 years*	*Every 3 years*	*Every year*
Vehicle Registration Fee Increase	$35 ($1b)	$38 ($1b)	None
Road Access Fee/Highway User Fee	$35 ($1b)	None	$65 ($2b)
ZEV-specific Fee	$100 ($25m)	$165 ($35m)	None
- *Total Vehicle Fee Increase*	*$70 ($170 for ZEVs)*	*$38 ($203 for ZEVs)*	*$65*
Greenhouse Gas Reduction Fund (Cap & Trade)	None	TIRCP[2] from 10% to 20% ($200m)	TIRCP - $400m
		TCIF – 20% ($400m)	Complete Streets - $100m
Weight Fees	None	Returned immediately[3]	None
General Fund Loan Repayments	Over 3 yrs, to RMRA[4]	Over 2 yrs, directly to locals[5]	By 6/30/19, to various accts[6]
Caltrans Efficiencies	Up to 30% ($500m)	None	$100m
Estimated Total Annual Funding Increase[7]	**~ $6 billion**	**~ $7 billion**	**~ $3.7 billion**
Estimated Annual Funding for Local Streets and Roads[8]	**~$1.9 billion**	**~$2.2 billion**	**~$1.0 billion**

[1] The Governor's proposal doesn't reset the price-based excise tax until the 2017-18 fiscal year.

[2] Transit and Intercity Rail Capital Program, a competitive grant program administered by the Transportation Agency.

[3] The weight fees would not be transferred from the State Highway Account and instead be available for traditional uses including SHOPP, STIP, and local roads through existing formulas. Therefore they are not included in the Estimated Total Annual Funding Increase, but would result in roughly $1 billion more funding.

[4] The Road Maintenance and Rehabilitation Account, created in SB 1x1.

[5] Through Streets and Highways Code Section 2103 formula. Funds allocated with assumption that local agencies have project "shelf" that can accommodate new funding.

[6] $132 million highway maintenance, $265 million for TIRCP, $334 million for trade corridors, $148 million for Traffic Congestion Relief Program.

[7] Roughly estimated, annualized over ten years. Figures may not add up due to rounding.

[8] Excludes one-time cap and trade revenues for complete streets projects.

	SBX1 1 (Beall) as of Sept. 1, 2015	AB 1591 (Frazier) as of Jan. 6, 2016	Governor's Proposal from Sept. 6, 2015
Expenditures			
Gas Excise Tax Increase	RMRA	RMRA	-
Diesel Excise Tax Increase	10 cents to RMRA 12 cents to TCIF	All to TCIF	RMRA
CPI Adjustment Revenues	To the respective programs	To the respective programs	RMRA
Vehicle Fee Increases	RMRA	RMRA	RMRA
Greenhouse Gas Reduction Fund (Cap & Trade)	-	$200m to rail and transit $400m to TCIF	$400m to rail and transit $100m to complete streets
General Fund Loan Repayments	RMRA	Cities and Counties	Various accounts
Total Annual Expenditures on:			
Road Rehab and Maintenance	$5.5 billion	$5.8 billion	$2.9 billion
Freight Mobility	$500 million	$1.2 billion	$200 million
Rail and Transit or Complete Streets	-	$200 million	$500 million
Expenditure Split Between State/Local Needs	52% state/48% percent local	55% state/45% percent local	50% state/50% percent local[9]
Accountability and Reforms			
Reporting	Both Caltrans and local governments would report to the CA Transportation Commission Commission on the efficacy of expenditures from the RMRA	-	Both Caltrans and the locals report to the Commission on the efficacy of expenditures from the RMRA
Local Maintenance of Effort Requirements	Included	Included	Included
Commission Allocation of SHOPP Support Costs	Requires by Feb 2017	Requires by Feb 2017	-
COS State Staff vs. Contract Staff	-	-	80%/20% by Jul 2020
CM/GC Project Delivery	-	-	Expands authority for Caltrans from 6 to 12 projects
Public Private Partnerships Project Delivery	-	-	Extends sunset from 2017 to 2027
CEQA Exemption	-	-	Exempts projects in existing rights of way in certain circumstances
NEPA Delegation	-	-	Eliminates the sunset
Regional Advance Mitigation Program	-	-	Included

[9] Transit counted toward local agency share.

Estimates of New Annual County Road Maintenance Funding

Plans with Legislative Language as of March 2016

County	SBX1 1 (Beall) As of Sept. 1, 2015	AB 1591 (Frazier) As of Jan. 6, 2016	Governor's Plan As of Sept. 6 2015
Alameda	$ 31,144,700	$ 35,255,085	$ 16,409,049
Alpine	$ 606,976	$ 687,083	$ 319,794
Amador	$ 2,766,893	$ 3,132,060	$ 1,457,779
Butte	$ 9,930,390	$ 11,240,974	$ 5,231,974
Calaveras	$ 4,223,471	$ 4,780,872	$ 2,225,198
Colusa	$ 3,322,160	$ 3,760,609	$ 1,750,330
Contra Costa	$ 23,987,628	$ 27,153,445	$ 12,638,239
Del Norte	$ 1,727,533	$ 1,955,528	$ 910,177
El Dorado	$ 8,891,490	$ 10,064,963	$ 4,684,614
Fresno	$ 30,136,370	$ 34,113,679	$ 15,877,795
Glenn	$ 4,038,469	$ 4,571,454	$ 2,127,728
Humboldt	$ 7,879,119	$ 8,918,982	$ 4,151,231
Imperial	$ 13,599,326	$ 15,394,124	$ 7,165,007
Inyo	$ 4,867,889	$ 5,510,338	$ 2,564,720
Kern	$ 28,572,161	$ 32,343,030	$ 15,053,668
Kings	$ 5,973,933	$ 6,762,355	$ 3,147,456
Lake	$ 4,224,536	$ 4,782,078	$ 2,225,760
Lassen	$ 4,122,335	$ 4,666,389	$ 2,171,914
Los Angeles	$ 181,627,994	$ 205,598,720	$ 95,693,413
Madera	$ 8,659,856	$ 9,802,759	$ 4,562,574
Marin	$ 6,898,695	$ 7,809,164	$ 3,634,680
Mariposa	$ 2,725,452	$ 3,085,149	$ 1,435,945
Mendocino	$ 6,321,066	$ 7,155,302	$ 3,330,348
Merced	$ 11,386,363	$ 12,889,102	$ 5,999,075
Modoc	$ 3,993,241	$ 4,520,257	$ 2,103,898
Mono	$ 2,948,306	$ 3,337,415	$ 1,553,359
Monterey	$ 12,851,174	$ 14,547,234	$ 6,770,832
Napa	$ 4,839,326	$ 5,478,006	$ 2,549,671
Nevada	$ 4,945,097	$ 5,597,736	$ 2,605,398
Orange	$ 62,005,139	$ 70,188,394	$ 32,668,331
Placer	$ 12,809,538	$ 14,500,103	$ 6,748,896
Plumas	$ 3,272,284	$ 3,704,151	$ 1,724,052
Riverside	$ 49,301,308	$ 55,807,949	$ 25,975,128
Sacramento	$ 36,976,427	$ 41,856,466	$ 19,481,581
San Benito	$ 2,777,567	$ 3,144,142	$ 1,463,402
San Bernardino	$ 47,975,460	$ 54,307,119	$ 25,276,586
San Diego	$ 69,451,699	$ 78,617,729	$ 36,591,662
San Francisco*	$ 14,317,343	$ 16,206,903	$ 7,543,305
SF (City Portion)	$ 25,045,605	$ 28,351,050	$ 13,195,650
San Joaquin	$ 19,870,296	$ 22,492,719	$ 10,468,961

CSAC Estimates - March 2, 2016

Estimates of New Annual County Road Maintenance Funding

Plans with Legislative Language as of March 2016

County	SBX1 1 (Beall) As of Sept. 1, 2015	AB 1591 (Frazier) As of Jan. 6, 2016	Governor's Plan As of Sept. 6 2015
San Mateo	$ 16,971,846	$ 19,211,740	$ 8,941,870
Santa Barbara	$ 11,836,384	$ 13,398,516	$ 6,236,175
Santa Clara	$ 37,884,710	$ 42,884,622	$ 19,960,124
Santa Cruz	$ 7,815,516	$ 8,846,984	$ 4,117,721
Shasta	$ 9,175,861	$ 10,386,865	$ 4,834,439
Sierra	$ 1,591,289	$ 1,801,302	$ 838,394
Siskiyou	$ 6,551,475	$ 7,416,120	$ 3,451,742
Solano	$ 10,868,825	$ 12,303,261	$ 5,726,402
Sonoma	$ 16,452,146	$ 18,623,452	$ 8,668,058
Stanislaus	$ 16,044,384	$ 18,161,874	$ 8,453,223
Sutter	$ 4,975,297	$ 5,631,923	$ 2,621,310
Tehama	$ 5,715,085	$ 6,469,345	$ 3,011,078
Trinity	$ 3,053,220	$ 3,456,175	$ 1,608,634
Tulare	$ 19,600,710	$ 22,187,554	$ 10,326,926
Tuolumne	$ 3,974,375	$ 4,498,901	$ 2,093,959
Ventura	$ 19,079,197	$ 21,597,213	$ 10,052,159
Yolo	$ 6,967,994	$ 7,887,609	$ 3,671,191
Yuba	$ 3,972,675	$ 4,496,977	$ 2,093,063
TOTAL	**$ 983,545,605**	**$ 1,113,351,050**	**$ 518,195,650**

**county share only*

Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE **7.**

Meeting Date: 04/14/2016

Subject: CONSIDER report on Local, State, and Federal Transportation Related Legislative Issues and take ACTION as appropriate.

Department: Conservation & Development

Referral No.: 1

Referral Name: REVIEW legislative matters on transportation, water, and infrastructure.

Presenter: John Cunningham, DCD **Contact:** John Cunningham (925)674-7833

Referral History:

This is a standing item on the Transportation, Water, and Infrastructure Committee referral list and meeting agenda.

Referral Update:

In developing transportation related legislative issues and proposals to bring forward for consideration by TWIC, staff receives input from the Board of Supervisors (BOS), references the County's adopted Legislative Platforms, coordinates with our legislative advocates, partner agencies and organizations, and consults with the Committee itself.

Recommendations are summarized in the Recommendation(s)/Next Step(s) section at the end of this report. Specific recommendations, if provided, are underlined in the report below. This report includes three sections, 1) LOCAL, 2) STATE, and 3) FEDERAL.

1) LOCAL

Transportation Expenditure Plan (TEP)

Background: The Contra Costa Transportation Authority (Authority) is in the process of developing a Transportation Expenditure Plan (TEP) to potentially be put to a vote in November 2016. A TEP is a statutorily required component of a transportation sales tax. This is a standing TWIC item for the foreseeable future.

TEP Update

There is no written report on the TEP this month. Staff is preparing a comprehensive report for the April 26, Board of Supervisors (BOS) meeting.

At the time of the April14th TWIC agenda posting, CCTA had just completed their April 6, Special TEP meeting. A substantial amount of materials were distributed just prior to the CCTA meeting and at the meeting including presentations from environmental and business advocates. Those documents are attached for the Committees information and will be addressed at the April 26 BOS meeting.

RECOMMENDATION: DISCUSS any local issues of note and take ACTION as appropriate.

2) STATE

Legislative Report

The legislative report from the County's legislative advocate, Mark Watts, is attached (*April TWIC State Leg Report* and *Funding Bills overview April 2016*).

Mr. Watts will be present at the April meeting to discuss the state budget, Special Session/Conference Committee, the status of state transportation revenues and other items of interest to the Committee.

Also attached is the County's recent letter and resolution to the state regarding transportation funding (*BOS to LegDelegation re Transportation Funding*)

RECOMMENDATION: DISCUSS any state issues of note and take ACTION as appropriate.

3) FEDERAL

No written report in April.

RECOMMENDATION: DISCUSS any federal issues of note and take ACTION as appropriate.

Recommendation(s)/Next Step(s):

CONSIDER report on Local, State, and Federal Transportation Related Legislative Issues and take ACTION as appropriate including CONSIDERATION of any specific recommendations in the report above.

Fiscal Impact (if any):

There is no fiscal impact.

Attachments

4-6-15 CCTA Special TEP - Handout_from_Presenter - MTC Project Performance

4-6-15 CCTA Special TEP - Handouts

4-6-15 CCTA Special TEP - Presentation on Oversight Cmmttee

4-6-15 CCTA Special TEP - Presentation_by_Commissioner_Arnerich

BOS to LegDelegation re Transportation Funding

Funding Bills overview April 2016

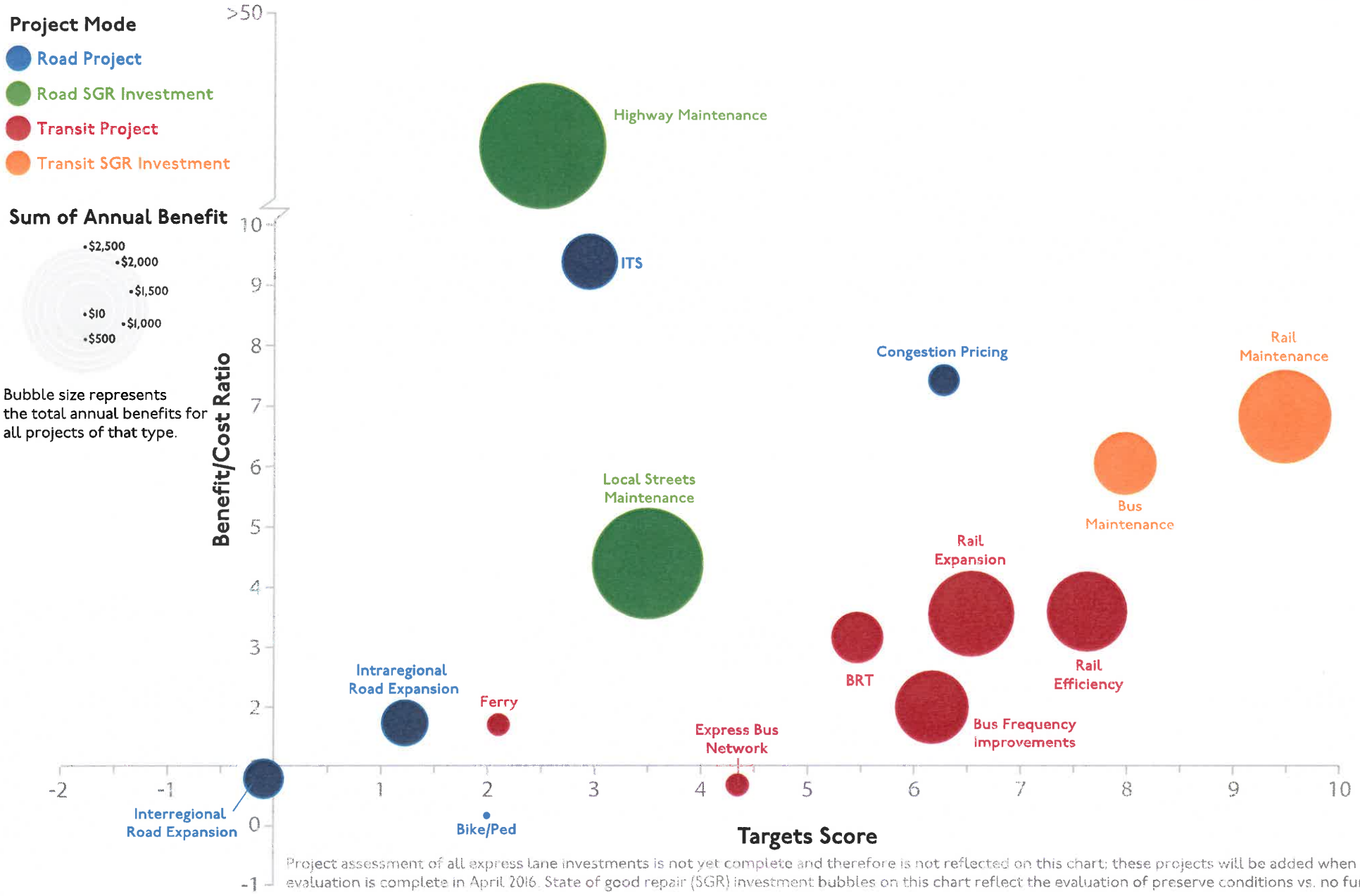
April TWIC State Leg Report

Plan Bay Area 2040

Project Performance Assessment: Overall Draft Results by Project Type

ATTACHMENT A

Plan BayArea 2040

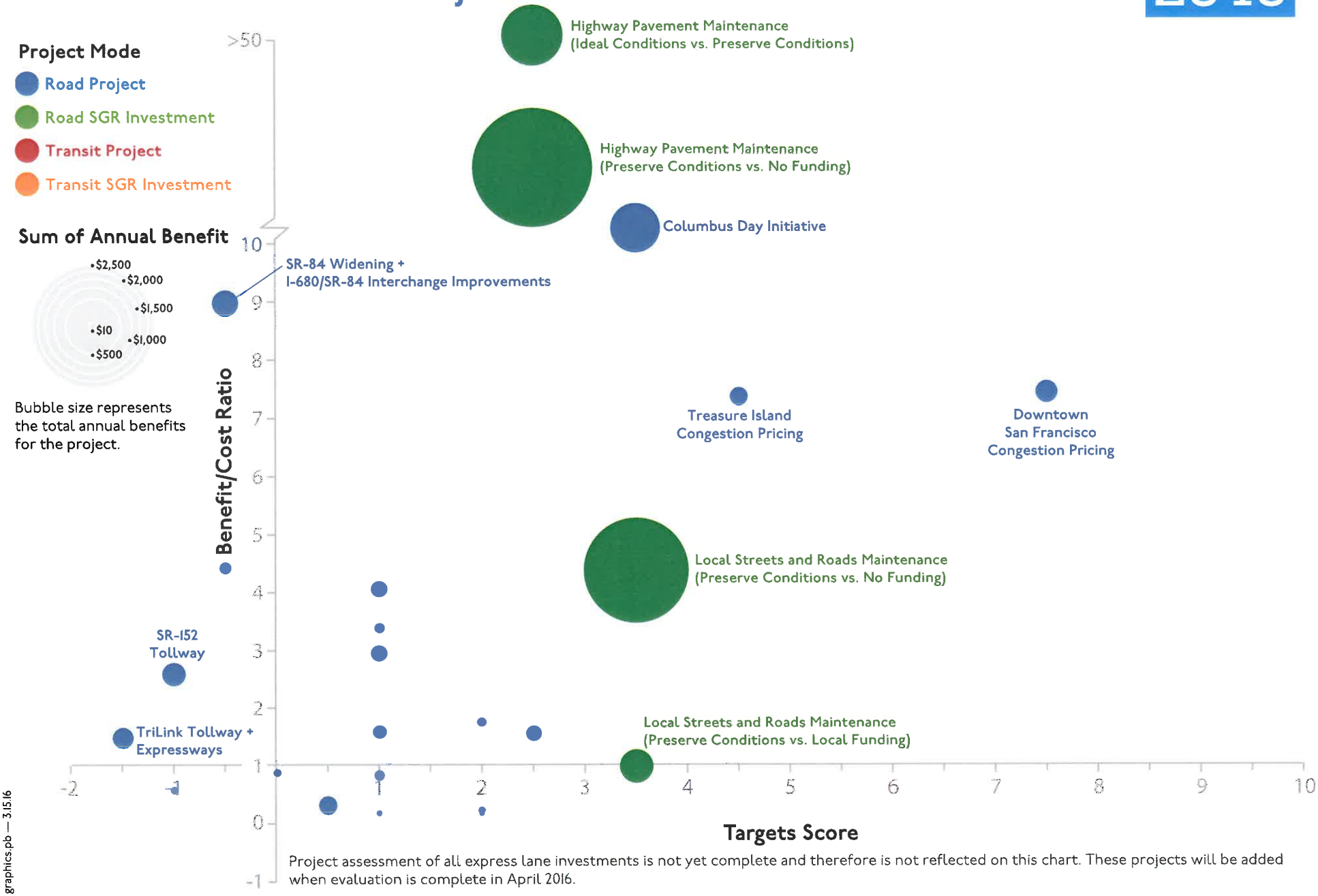


Project assessment of all express lane investments is not yet complete and therefore is not reflected on this chart; these projects will be added when evaluation is complete in April 2016. State of good repair (SGR) investment bubbles on this chart reflect the evaluation of preserve conditions vs. no funding.

mtc graphics.pb — 3.15.16

Plan Bay Area 2040

Project Performance Assessment: Draft Results for Road Projects



Project assessment of all express lane investments is not yet complete and therefore is not reflected on this chart. These projects will be added when evaluation is complete in April 2016.

mtc graphics.pb — 3.15.16

Plan Bay Area 2040

Project Performance Assessment: Draft Results for Transit Projects

mtc graphics.pb — 3.15.16

ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
1	1503	**Highway Pavement Maintenance (Ideal Conditions vs. Preserve Conditions)**	Multi-County	Highway Maintenance	$638	($1)	>50	2.5
2	1502	**Highway Pavement Maintenance (Preserve Conditions vs. No Funding)**	Multi-County	Highway Maintenance	$2,433	$144	17	2.5
3	1301	**Columbus Day Initiative**	Multi-County	ITS	$421	$38	11	3.5
4	209	**SR-84 Widening + I-680/SR-84 Interchange Improvements (Livermore to I-680)**	Alameda	Intraregional Road Expansion	$116	$13	9	-0.5
5	501	**BART to Silicon Valley – Phase 2 (Berryessa to Santa Clara)**	Santa Clara	Rail Expansion	$472	$62	8	8.5
6	306	**Downtown San Francisco Congestion Pricing (Toll + Transit Improvements)**	Multi-County	Congestion Pricing	$84	$11	7	7.5
7	302	**Treasure Island Congestion Pricing (Toll + Transit Improvements)**	San Francisco	Congestion Pricing	$56	$8	7	4.5
8	1651	**Public Transit Maintenance - Rail Operators (Preserve Conditions vs. No Funding)**	Multi-County	Rail Maintenance	$1,351	$198	7	9.5
9	506	**El Camino Real BRT (Palo Alto to San Jose)**	Santa Clara	BRT	$85	$13	7	6.0
10	207	**San Pablo BRT (San Pablo to Oakland)**	Multi-County	BRT	$106	$16	6	5.5
11	301	**Geary BRT**	San Francisco	BRT	$124	$20	6	6.0
12	505	**Capitol Expressway LRT – Phase 2 (Alum Rock to Eastridge)**	Santa Clara	Rail Expansion	$77	$12	6	5.5
13	518	**ACE Alviso Double-Tracking**	Santa Clara	Rail Efficiency	$36	$6	6	-0.5
14	1650	**Public Transit Maintenance - Bus Operators (Preserve Conditions vs. No Funding)**	Multi-County	Bus Maintenance	$623	$103	6	8.0
15	1203	**Vallejo-San Francisco + Richmond-San Francisco Ferry Frequency Improvements**	Multi-County	Ferry	$29	$5	6	5.0
16	1001	**BART Metro Program (Service Frequency Increase + Bay Fair Operational Improvements + SFO Airport Express Train)**	Multi-County	Rail Efficiency	$430	$80	5	9.0
17	203	**Irvington BART Infill Station**	Alameda	Rail Efficiency	$30	$6	5	3.5
18	903	**Sonoma County Service Frequency Improvements**	Sonoma	Bus Frequency Improvements	$75	$15	5	5.0
19	523	**VTA Service Frequency Improvements (15-Minute Frequencies)**	Santa Clara	Bus Frequency Improvements	$103	$23	4	5.0
20	211	**SR-262 Widening (I-680 to I-880)**	Alameda	Intraregional Road Expansion	$22	$5	4	-0.5
21	1403	**Local Streets and Roads Maintenance (Preserve Conditions vs. No Funding)**	Multi-County	Local Streets Maintenance	$1,875	$428	4	3.5
22	210	**I-580 ITS Improvements**	Alameda	ITS	$44	$11	4	1.0
23	504	**Stevens Creek LRT**	Santa Clara	Rail Expansion	$144	$38	4	5.5
24	1101	**Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase)**	Multi-County	Rail Efficiency	$195	$56	3	8.0
25	605	**Jepson Parkway (Fairfield to Vacaville)**	Solano	Intraregional Road Expansion	$17	$5	3	1.0
26	1202	**Oakland-Alameda-San Francisco Ferry Frequency Improvements**	Multi-County	Ferry	$16	$5	3	2.5

all benefits and costs are in millions of 2017 dollars

ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
27	1102	**Caltrain Modernization - Phase 1 + Phase 2 (Electrification + Service Frequency Increase + Capacity Expansion)**	Multi-County	Rail Efficiency	$236	$77	3	8.0
28	411	**SR-4 Auxiliary Lanes - Phases 1 + 2 (Concord to Pittsburg)**	Contra Costa	Intraregional Road Expansion	$44	$15	3	1.0
29	507	**Vasona LRT – Phase 2 (Winchester to Vasona Junction)**	Santa Clara	Rail Expansion	$30	$11	3	4.0
30	515	**Tasman West LRT Realignment (Fair Oaks to Mountain View)**	Santa Clara	Rail Expansion	$48	$18	3	5.0
31	517	**Stevens Creek BRT**	Santa Clara	BRT	$29	$11	3	5.0
32	503	**SR-152 Tollway (Gilroy to Los Banos)**	Santa Clara	Interregional Road Expansion	$95	$37	3	-1.0
33	307	**Caltrain Modernization - Phase 1 (Electrification + Service Frequency Increase) + Caltrain to Transbay Transit Center**	Multi-County	Rail Expansion	$290	$113	3	8.0
34	1206	**Alameda Point-San Francisco Ferry**	Multi-County	Ferry	$12	$5	2	0.0
35	1204	**Berkeley-San Francisco Ferry**	Multi-County	Ferry	$10	$4	2	3.0
36	206	**AC Transit Service Frequency Improvements**	Multi-County	Bus Frequency Improvements	$248	$120	2	7.0
37	513	**North Bayshore LRT (NASA/Bayshore to Google)**	Santa Clara	Rail Expansion	$42	$22	2	4.0
38	604	**Solano County Express Bus Network**	Multi-County	Express Bus Network	$21	$12	2	2.5
39	522	**VTA Service Frequency Improvements (10-Minute Frequencies)**	Santa Clara	Bus Frequency Improvements	$177	$99	2	7.5
40	407	**SR-4 Auxiliary Lanes - Phase 1 (Concord to Pittsburg)**	Contra Costa	Intraregional Road Expansion	$13	$8	2	2.0
41	402	**eBART – Phase 2 (Antioch to Brentwood)**	Contra Costa	Rail Expansion	$21	$12	2	4.0
42	311	**Muni Forward Program**	San Francisco	Bus Frequency Improvements	$60	$36	2	6.5
43	331	**Better Market Street**	San Francisco	BRT	$32	$19	2	6.0
44	901	**US-101 Marin-Sonoma Narrows HOV Lanes – Phase 2**	Multi-County	Intraregional Road Expansion	$31	$19	2	1.0
45	409	**I-680/SR-4 Interchange Improvements + HOV Direct Connector**	Contra Costa	Intraregional Road Expansion	$42	$27	2	2.5
46	103	**El Camino Real Rapid Bus (Daly City to Palo Alto)**	San Mateo	Bus Frequency Improvements	$54	$36	2	1.0
47	401	**TriLink Tollway + Expressways (Brentwood to Tracy/Altamont Pass)**	Multi-County	Interregional Road Expansion	$75	$51	1	-1.5
48	801	**Golden Gate Transit Frequency Improvements**	Multi-County	Express Bus Network	$11	$8	1	4.5
49	313	**Muni Service Frequency Improvements**	San Francisco	Bus Frequency Improvements	$89	$79	1	6.0
50	312	**19th Avenue Subway (West Portal to Parkmerced)**	San Francisco	Rail Efficiency	$30	$27	1	6.0
51	1413	**Local Streets and Roads Maintenance (Preserve Conditions vs. Local Funding)**	Multi-County	Local Streets Maintenance	$194	$198	1	3.5
52	516	**VTA Express Bus Frequency Improvements**	Santa Clara	Express Bus Network	$18	$19	0.9	4.5

all benefits and costs are in millions of 2017 dollars

ROW	ID	PROJECT NAME	LOCATION (COUNTY)	PROJECT TYPE	ANNUAL BENEFIT	ANNUAL COST	B/C RATIO	TARGETS SCORE
53	202	**East-West Connector (Fremont to Union City)**	Alameda	Intraregional Road Expansion	$10	$12	**0.9**	**0.0**
54	406	**I-680/SR-4 Interchange Improvements**	Contra Costa	Intraregional Road Expansion	$18	$22	**0.8**	**1.0**
55	304	**Southeast Waterfront Transportation Improvements (Hunters Point Transit Center + New Express Bus Services)**	San Francisco	Express Bus Network	$16	$27	**0.6**	**6.0**
56	410	**Antioch-Martinez-Hercules-San Francisco Ferry**	Multi-County	Ferry	$9	$16	**0.6**	**1.5**
57	403	**I-680 Express Bus Frequency Improvements**	Multi-County	Express Bus Network	$12	$21	**0.6**	**3.0**
58	404	**SR-4 Widening (Antioch to Discovery Bay)**	Contra Costa	Interregional Road Expansion	$9	$17	**0.5**	**-1.0**
59	510	**Downtown San Jose Subway (Japantown to Convention Center)**	Santa Clara	Rail Efficiency	$10	$18	**0.5**	**5.5**
60	308	**San Francisco Express Bus Network**	Multi-County	Express Bus Network	$5	$14	**0.3**	**4.0**
61	104	**Geneva-Harney BRT + Corridor Improvements**	Multi-County	BRT	$15	$46	**0.3**	**5.0**
62	508	**SR-17 Tollway + Santa Cruz LRT (Los Gatos to Santa Cruz)**	Santa Clara	Interregional Road Expansion	$57	$200	**0.3**	**0.5**
63	519	**Lawrence Freeway**	Santa Clara	Intraregional Road Expansion	$7	$34	**0.2**	**2.0**
64	204	**Broadway Streetcar**	Alameda	Rail Expansion	$2	$14	**0.2**	**2.5**
65	601	**I-80/I-680/SR-12 Interchange Improvements**	Solano	Intraregional Road Expansion	$5	$32	**0.2**	**1.0**
66	1304	**Bay Bridge West Span Bike Path**	San Francisco	Bike/Ped	$4	$30	**0.1**	**2.0**
67	905	**SMART – Phase 3 (Santa Rosa Airport to Cloverdale)**	Sonoma	Rail Expansion	$0	$12	**0**	**4.0**
68	1201	**San Francisco-Redwood City + Oakland-Redwood City Ferry**	Multi-County	Ferry	$0	$8	**0**	**2.0**
69	205_15	**Express Bus Bay Bridge Contraflow Lane**	Multi-County	Express Bus Network	$0	$10	**0**	**5.0**
70	1407	**Local Streets and Roads Maintenance (Ideal Conditions vs. Preserve Conditions)**	Multi-County	Local Streets Maintenance	TBD	TBD	**TBD**	**3.5**
71	102	**US-101 HOV Lanes (San Francisco + San Mateo Counties)**	Multi-County	Express Lanes	TBD	TBD	**TBD**	**0.5**
72	201	**ACTC Express Lane Network**	Alameda	Express Lanes	TBD	TBD	**TBD**	**1.5**
73	101	**US-101 Express Lanes (San Francisco + San Mateo Counties)**	Multi-County	Express Lanes	TBD	TBD	**TBD**	**0.0**
74	502	**VTA Express Lane Network**	Santa Clara	Express Lanes	TBD	TBD	**TBD**	**3.0**
75	1302	**MTC Express Lane Network**	Multi-County	Express Lanes	TBD	TBD	**TBD**	**2.5**
76	1305	**Managed Lanes Implementation Plan**	Multi-County	Express Lanes	TBD	TBD	**TBD**	**6.0**

all benefits and costs are in millions of 2017 dollars

March 16, 2016

Attachment C: Identifying Projects Subject to Evaluation

Projects Subject to Evaluation

Committed projects and programs, as defined by MTC Resolution No. 4182 in April 2015, are not subject to project performance assessment. Of the uncommitted projects submitted in the Call for Projects by the September 2015 deadline, MTC staff evaluated projects that met the following criteria:

1. The project impacts can be evaluated with the regional travel demand model.
2. The total project costs are at least $100 million (as measured in 2017 dollars).

Examples of projects that were evaluated:

- New/enhanced transit service, including travel time savings of rapid bus or bus rapid transit (BRT) infrastructure
- Freeway-to-freeway interchanges
- Freeway widenings, including HOV lanes & auxiliary lanes
- Capacity-increasing improvements to state highways and major arterials
- State of good repair investments for state highways and local streets & roads
- State of good repair investments for public transit systems

Examples of projects that were not evaluated even if met the cost threshold:

- Intersection improvements or other non-capacity-increasing improvements
- Freeway-to-freeway interchanges that do not include mainline widening
- Local interchanges
- Transit center improvements and parking expansion
- Transit projects that increase capacity within trains and on platforms but that do not result in increased frequency or travel time improvements
- Grade separations

Unlike Plan Bay Area 2013, staff **did not** evaluate uncommitted regional programs for Plan Bay Area 2040. These programs will be considered during the investment strategy separately from the performance assessment. Staff also **did not** evaluate any project with total costs less than $100 million. These projects will be prioritized by Congestion Management Agencies, subject to fiscal constraint.

Per this evaluation criteria, all committed projects and projects that are currently under construction are exempt from the project performance evaluation for Plan Bay Area 2040. A list of major capacity increasing projects that we are not evaluating is included in **Table C-1** on the following page. A full accounting of which projects were assessed in Plan Bay Area and that are no longer subject to the evaluation will be provided as an online resource (see Attachment D).

Table C-1: Committed Capacity-Increasing Projects *(exempt from performance assessment)*

Committed Category	Project Name	Notes
Analyzed in PBA and committed in PBA40	**SR-4 Bypass** (Antioch to Brentwood)	Now has full funding - reclassified as committed.
	East Bay BRT (Oakland to San Leandro)	Now has EIR/EIS + full funding - reclassified as committed.
	Van Ness BRT	Now has EIR/EIS + full funding - reclassified as committed.
	Dumbarton Express Bus Frequency Improvements	Now has full funding - reclassified as committed.
	Richmond-San Francisco Ferry	Now has full funding - reclassified as committed.
	SMART – Phase 2 (San Rafael to Larkspur)	Now has full funding - reclassified as committed.
Committed in PBA & PBA40	**SR-4 Widening** (Pittsburg to Antioch)	
	Central Subway (Caltrain to Chinatown)	
	BART to Silicon Valley – Phase 1 (South Fremont/Warm Springs to Berryessa)	
	eBART – Phase 1 (Pittsburg/Bay Point to Antioch)	Project renaming reflects existence of Phase 2 proposal.
	Transbay Transit Center	Project will be complete in 2017.
	SR-4/SR-160 Direct Connector	Project will be complete in 2017.
	King Road Rapid Bus (Berryessa to Downtown San Jose)	Project was merged into BART to Silicon Valley (Phase 1).
Completed or construction underway	**Presidio Parkway**	Project will be complete in 2016.
	Oakland Airport Connector	Project was completed in 2014.
	BART to Warm Springs	Project will be complete in 2016.
	Caldecott Tunnel	Project was completed in 2013.
	SMART Initial Operating Segment	Project will be complete in 2016.
	Marin-Sonoma Narrows (Phase 1: Interchanges in Novato & Petaluma)	Project was completed in 2015.
	Santa Clara-Alum Rock BRT	Project will be complete in 2016.
	SR-12 Widening (Jameson Canyon)	Project was completed in 2014.
	SR-238 Hayward Operational Improvements	Project was completed in 2013.
	US-101 HOV Lanes (Santa Rosa Avenue to Pepper Road)	Project was completed in 2013.
	US-101 Auxiliary Lanes (SR-85 to Embarcadero Road)	Project was completed in 2014.
	I-880 HOV Lanes (SR-237 to US-101)	Project was completed in 2013.
	I-80 ITS Improvements	Project will be complete in 2016.
	Tasman Double-Tracking (Mountain View to Alum Rock Direct LRT Service)	Project will be complete in 2016.
	I-580 Altamont Pass Truck Climbing Lane	Project will be complete in 2016.

Attachment D: Detailed Project and State of Good Repair Performance Documentation Online

For more information on all aspects of the project performance assessment and the state of good repair performance assessment, please take advantage of our online resources on the following website:

http://metropolitantransportationcommission.github.io/performance/

Plan Bay Area 2040 Performance Dashboard

Data available includes:

- Complete list of project and state of good repair performance results (sortable by project location)
- Interactive bubble chart
- Breakdown of quantified project benefits
- Breakdown of targets score
- Confidence results by project
- Equity results by project

Plan Bay Area 2040 Project-Level Equity Map

This interactive tool allows sponsors, stakeholders, and members of the public to explore all of the major uncommitted transportation investments analyzed – and see which projects provide access to the draft Plan Bay Area 2040 Communities of Concern.

Reference Documentation

1. *Plan Bay Area 2040 Performance - Approach to Benefits and Costs* – describes methodology for estimating benefits using the travel model, provides valuations for benefits, and describes the calculations for project costs
2. *Plan Bay Area 2040 Performance - Targets Score Methodology* – provides a table of the targets criteria and explains the methodology
3. *Plan Bay Area 2040 Performance - Confidence Assessment Methodology* – highlights the overall framework of the benefit-cost confidence assessment discloses potential limitations in the benefit-cost assessment related to travel model accuracy, project purpose considerations, and project implementation timeline
4. *Plan Bay Area 2040 Performance - Highway and Local Streets State of Good Repair Methodology* – draft methodology document for road state of good repair discussed with the Local Streets and Roads Working Group in February 2016
5. *Plan Bay Area 2040 Performance - Public Transit State of Good Repair Methodology* – draft methodology document for road state of good repair discussed with the Transit Asset Management Steering Committee in February 2016
6. *Plan Bay Area 2040 Performance - Sensitivity Testing* – explores sensitivity of benefit-cost results *(not currently available; will be released by the end of April)*
7. *Comparison of Plan Bay Area and Plan Bay Area 2040 Project Performance Lists*

April 6, 2016

Authority Special TEP Meeting

Handouts

(Various Agenda Items - See Reverse Side for Details)

Handout Items

Agenda Item 1.1.1: Consideration to Adopt a Policy to Include an Advance Mitigation Program in the Draft TEP.

- Copy of presentation by staff

Agenda Item 1.1.3: Review and Discussion of Other Miscellaneous Changes Incorporated in the Initial Draft TEP Version 2.2

- Handout with correction to Proposed Revisions to Category 12 - Bus Transit and Non-Rail Transit Enhancements

Agenda Item 1.2: Review of the Updated Initial Draft TEP – Version 2.2, and Authorization to Release the Draft TEP to Regional Transportation Planning Committees (RTPCs), the Expenditure Plan Advisory Committee (EPAC), the Public Managers' Association (PMA) and Other Interested Stakeholders for Review and Comment.

- Copy of presentation by staff to highlight changes in the Initial Draft TEP Version 2.2

Agenda Item 1.3 (Added by Addendum): Review and Discuss Proposed Changes to the Initial Draft Transportation Expenditure Plan (TEP) Contained in a Joint Letter From Expenditure Plan Advisory Committee (EPAC) Members Kristin Connelly, President and CEO, East Bay Leadership Council; Michael Cunningham, Senior Vice President for Public Policy, Bay Area Council; and Lisa Vorderbrueggen, BIA|Bay Area East Bay Governmental Affairs Executive Director.

- Joint Letter From Expenditure Plan Advisory Committee (EPAC) Members Joel Devalcourt, Ron Brown and Dave Campbell dated April 6, 2016

Consideration of Policy for an Advance Mitigation Program in Potential Transportation Expenditure Plan (TEP)

Contra Costa Transportation Authority

April 6, 2016

Bay Area Regional Advance Mitigation Program (RAMP)

- Proposed for Plan Bay Area 2040
- Opportunity to align conservation and infrastructure planning goals
  - Higher value, more strategic conservation
  - Streamline project delivery process
- RAMP does not increase or decrease CEQA or California Endangered Species Act responsibilities
- RAMP supports existing Habitat Conservation Programs (East Contra Costa HCP)

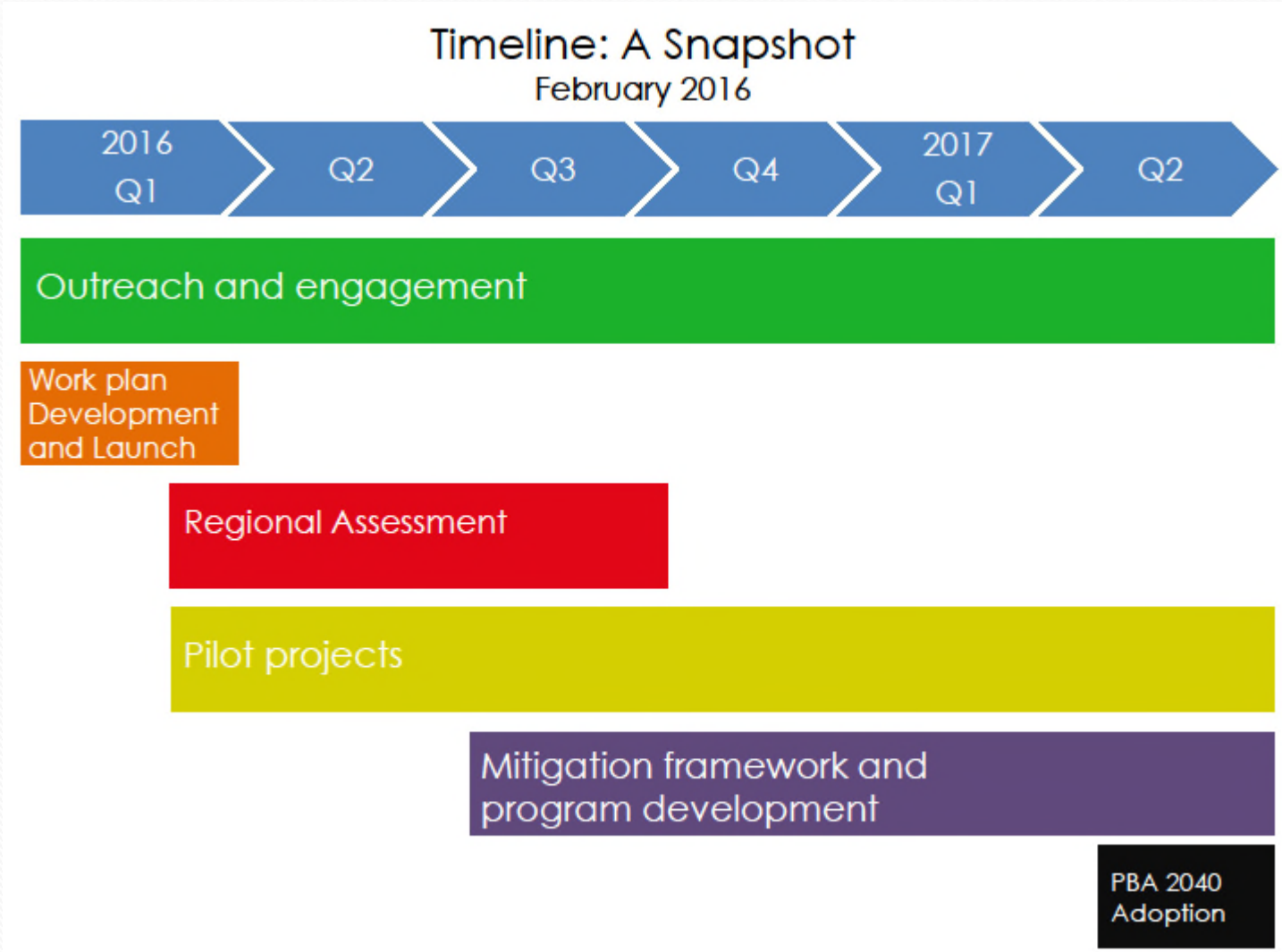
Other Transportation Measures

- SANDAG TRANSNET Measure 2004
- Orange County Transportation Authority 2006
- Santa Clara Possible Measure 2016
  - Potentially Part of Bay Area RAMP Pilot

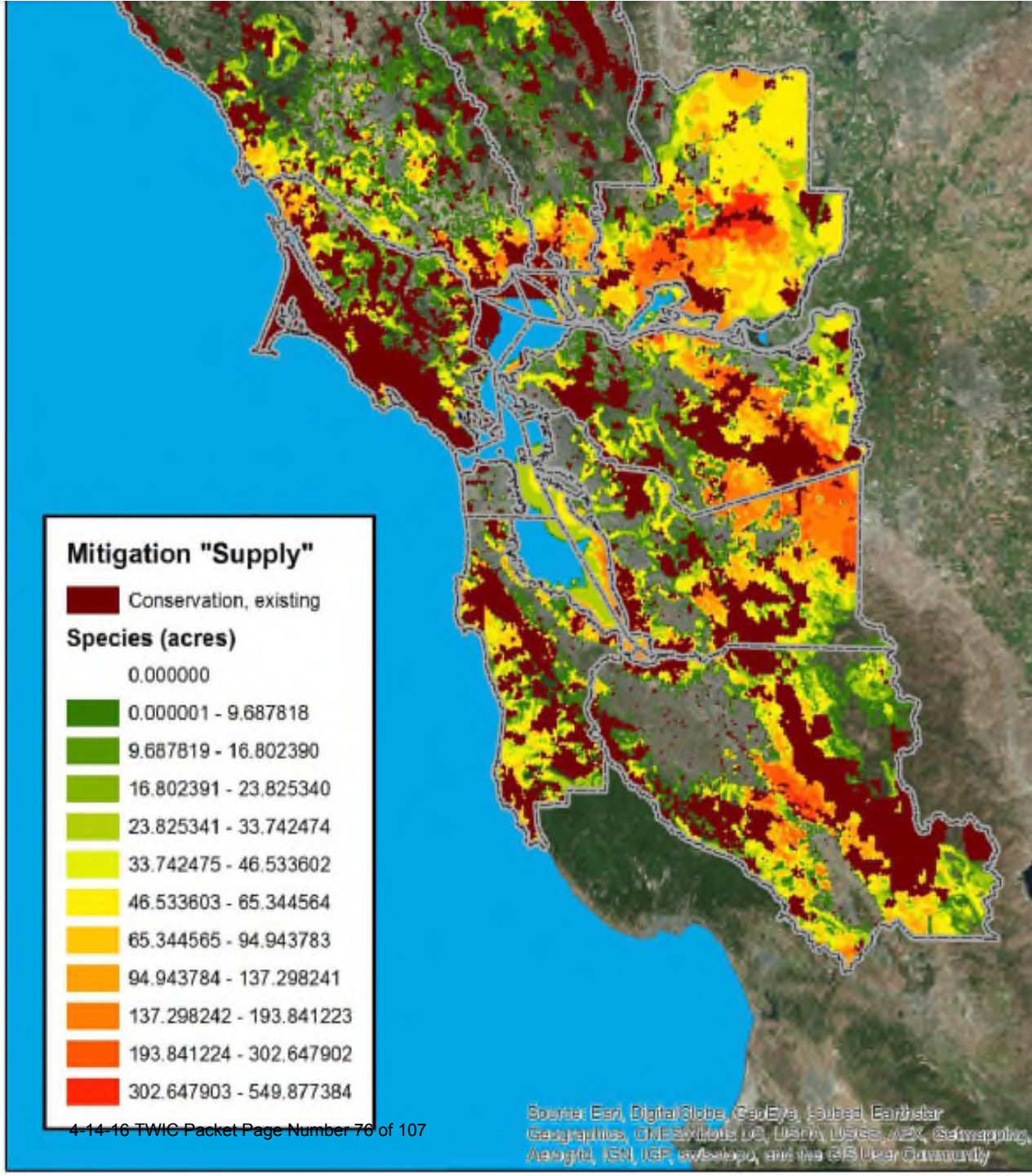
Statewide Perspective

- AB 1833 (Linder) and SB 901 (Bates)
  - Directs Caltrans to establish an advance mitigation program and authorizes funding
- AB 2087 (Levine)
  - California Department of Fish and Wildlife to establish Regional Conservation Framework
- Gov Brown Transportation Funding Proposal
  - Includes funding for advance mitigation

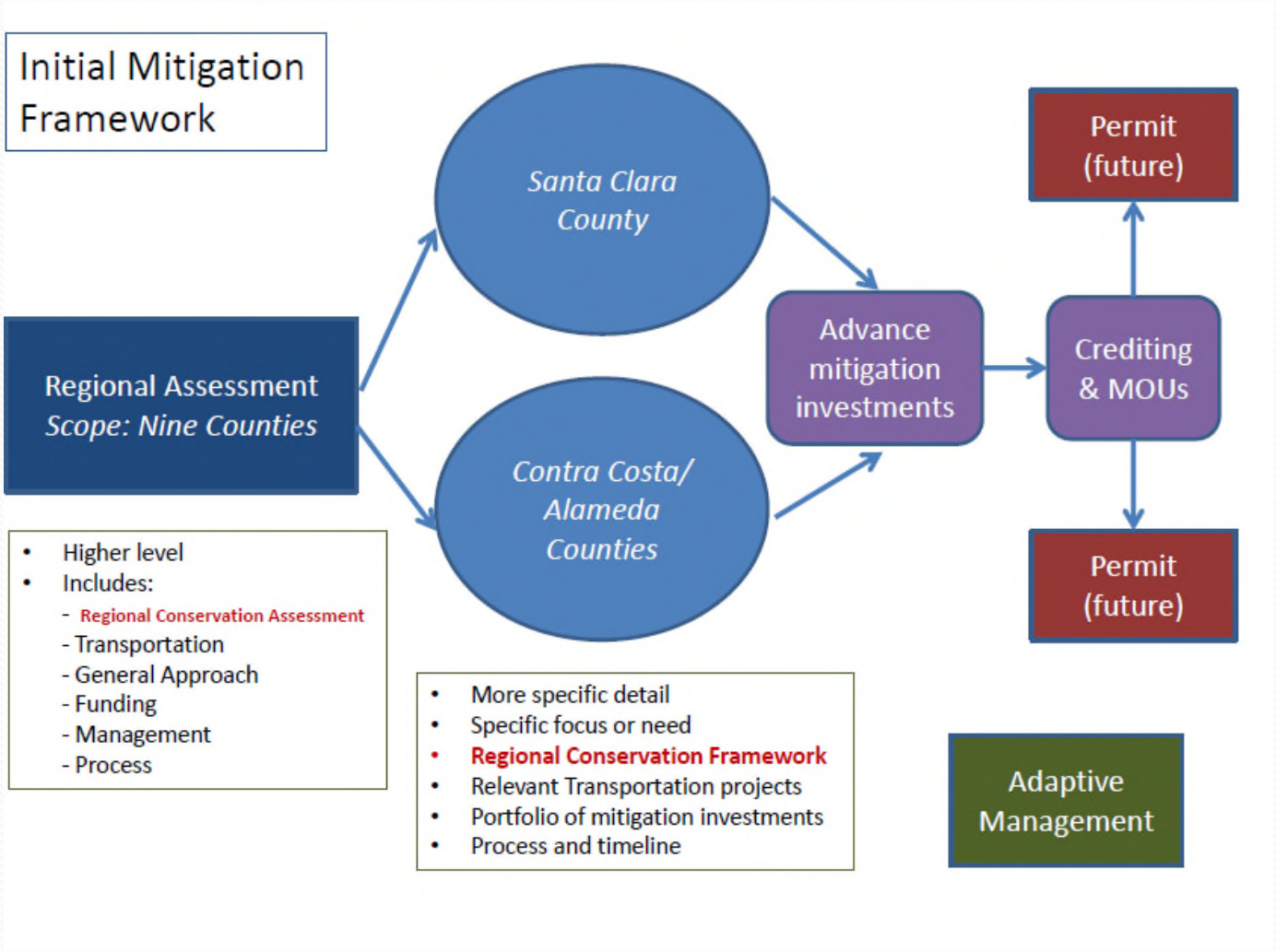
Bay Area Ramp Pilot Timeline



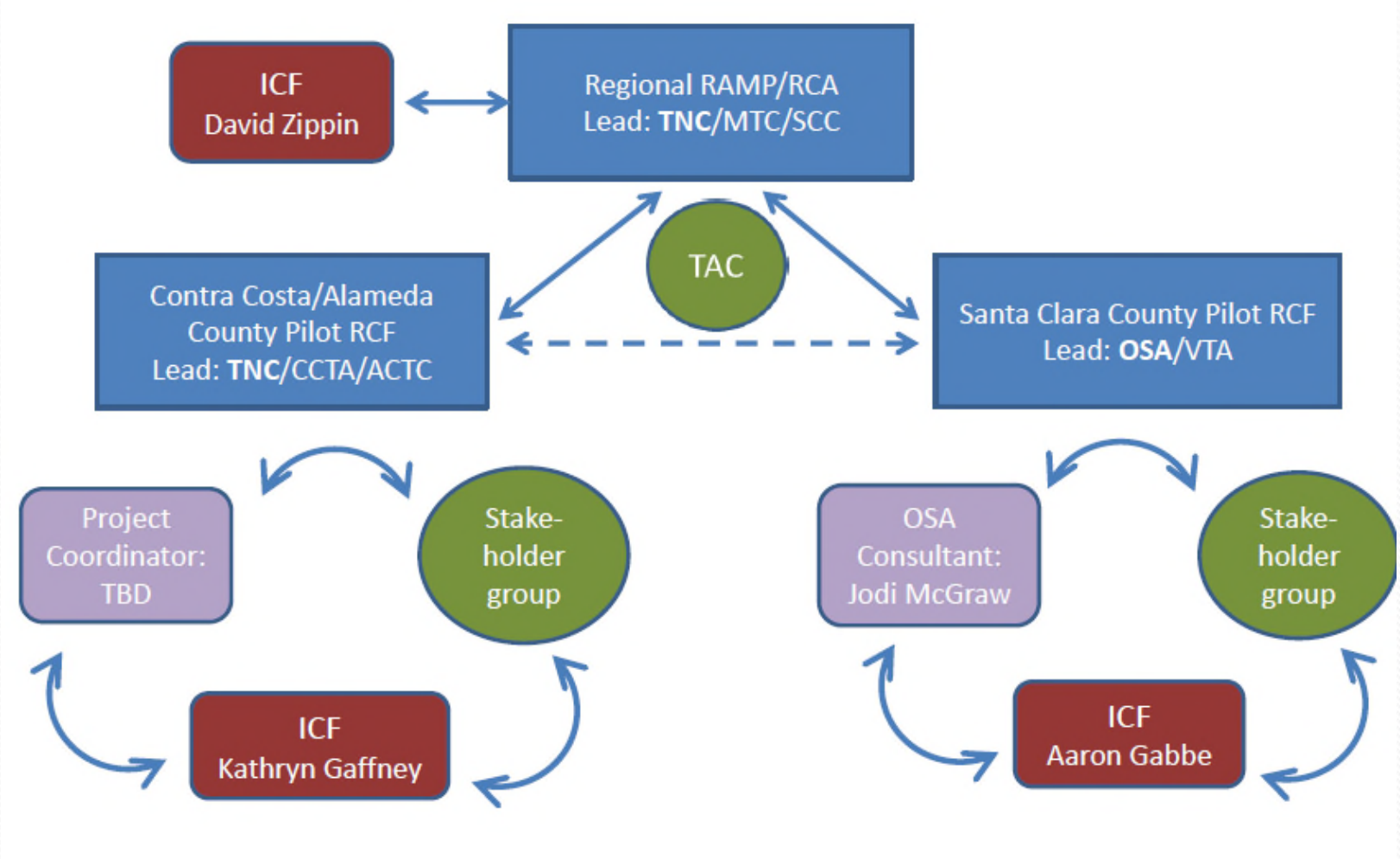
Bay Area Conservation Mitigation Assessment – Mitigation Supply



Potential RAMP Pilot Process



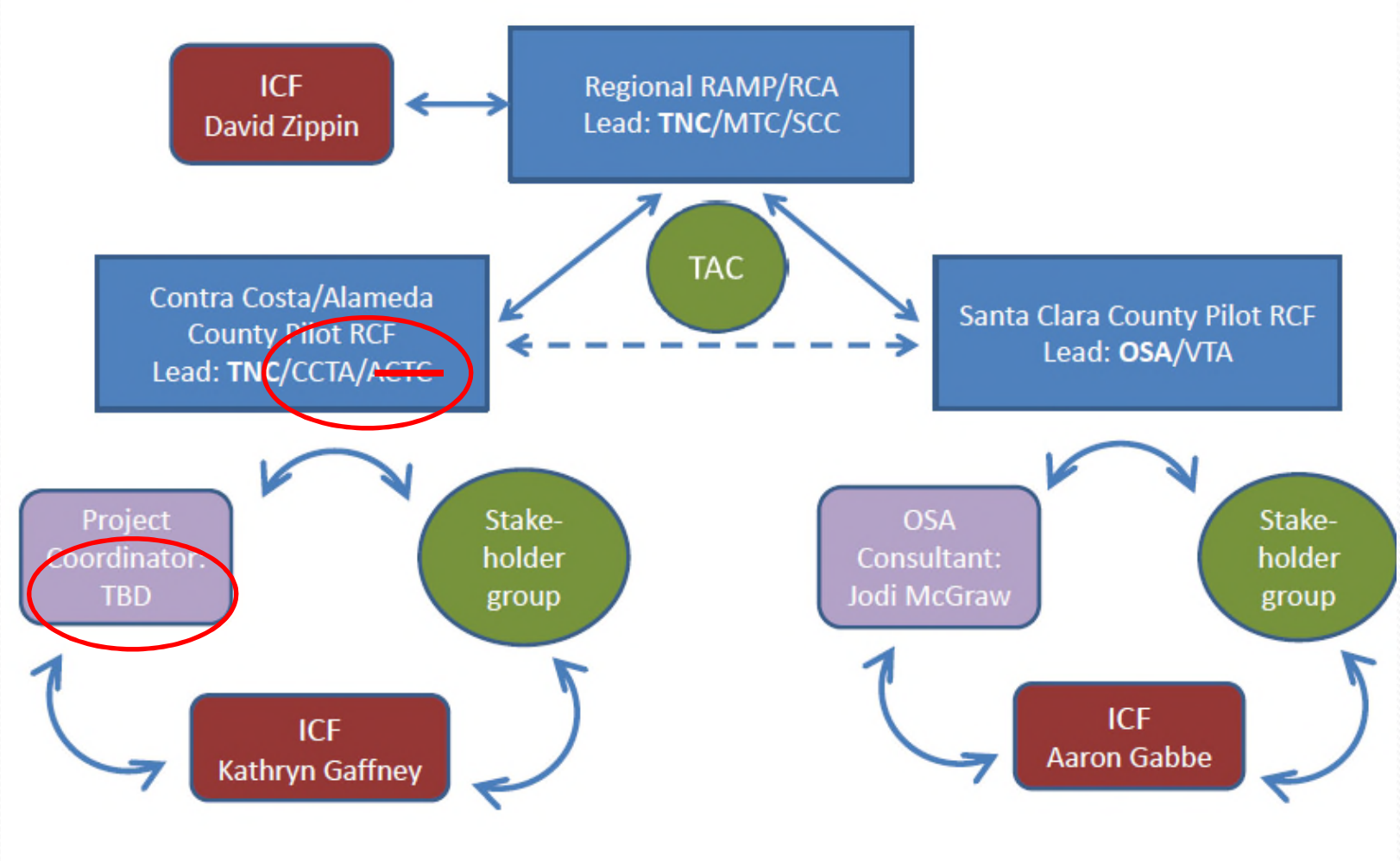
Proposed Organizational Framework



Additional Actions to Establish Pilot

- Consider Adopting Policy for TEP
- Identify Implementing Agency / Sponsor & Project Coordinator
- Complete Assessments
  - Conservation
  - Project Impacts
- Develop MOUs and Agreements
- Fund Mitigation

Organizational Framework - Issues



Factors To Consider

- Opportunity to build on Conservation as Priority in Contra Costa County
- Support East Contra Costa HCP, and provides conservation funding in other areas of County
- Changing Focus on Measure Investments
  - Manage existing infrastructure over new construction, fewer impacts
- Legal and Policy framework incomplete

Recommendations

- Adopt Policy to Support Advance Mitigation
  - Contingent on Legal and Policy Framework
  - Funding to be based on future Program / Project Impact Assessment (no line item)
- Establish Stakeholder Group
- Determine Viability of East Bay Pilot
- Fund Advance Mitigation through Pilot or Bay Area Regional Advance Mitigation Program

12. Bus Transit and Other Non-Rail Transit Enhancements ---- 10.3% ($240m)

This category ~~of funding~~ is intended to provide funding to existing bus transit operators and for future non-rail transit service alternatives ~~that can be shown to reduce total vehicle miles traveled (VMT) and/or greenhouse gas (GHG) emissions~~. Funding will be provided for bus transit operations to increase ridership, including incentivizing transit use by offsetting fares; and improve the frequency and capacity of high demand routes connecting housing with job, commercial, transit, and ~~for~~ medical centers. In addition, funding can be used to support other non-rail transit services/projects that can demonstrate innovative approaches to maximizing the movement of people ~~along existing transit corridors~~ efficiently and ~~within the existing transportation infrastructure. Projects~~ in a manner that ~~increase ridership using existing capacity by incentives including offsetting fares or other methodologies may also be considered. Funding may be used to deliver transit capital projects or implement service to transit stations, congested corridors, last mile service to transit hubs~~ reduces VMT and ~~established transit integrated communities.~~ GHG.

Funding will be allocated by the Authority ~~to Contra Costa transit operators~~ throughout the County based on input from each Regional Transportation Planning Committee and on performance criteria established by the Authority in consultation with local and regional bus transit operators, providers of alternate non-rail transportation, and key stakeholders. Funding allocations will be reviewed on a regular basis. Said performance criteria shall require a finding that any proposed new or enhanced services demonstrate the ability to improve regional and/or local mobility for Contra Costa residents. Funds may be ~~used to deliver~~ for transit capital projects or to operate service improvements identified in the adopted plans of an operator or of the Authority.

Guidelines will be established so that revenues will fund service enhancements in Contra Costa. The guidelines may require provisions, such as; operational efficiencies ~~including~~ requiring greater coordination; promoting and developing a seamless service; increasing service frequencies on appropriate routes; and specified performance criteria and reporting requirements. Services funded in this program will be reviewed ~~every two years to ensure the goals of the program are being met.~~in accordance with implementing guidelines described in this expenditure plan.

~~Recipients of funding under this category are required to participate in the development of the Accessible Transportation Services Strategic Plan included in Category 13. Transportation for Seniors and People with Disabilities.~~

Proposed Category Description (clean version):

12. Bus Transit and Other Non-Rail Transit Enhancements ---- 10.3% ($240m)

This category is intended to provide funding to existing bus transit operators and for future non-rail transit service alternatives. Funding will be provided for bus transit operations to increase ridership, including incentivizing transit use by offsetting fares; and improve the frequency and capacity of high demand routes connecting housing with job, commercial, transit, and medical centers. In addition, funding can be used to support other non-rail transit services/projects that can demonstrate innovative approaches to maximizing the movement of people efficiently and in a manner that reduces VMT and GHG.

Funding will be allocated by the Authority throughout the County based on input from each Regional Transportation Planning Committee and on performance criteria established by the Authority in consultation with local and regional bus transit operators, providers of alternate non-rail transportation, and key stakeholders. Funding allocations will be reviewed on a regular basis. Said performance criteria shall require a finding that any proposed new or enhanced services demonstrate the ability to improve regional and/or local mobility for Contra Costa residents. Funds may be used for transit capital projects or to operate service improvements identified in the adopted plans of an operator or of the Authority.

Guidelines will be established so that revenues will fund service enhancements in Contra Costa. The guidelines may require provisions, such as: operational efficiencies requiring greater coordination, promoting and developing a seamless service; increasing service frequencies on appropriate routes; and specified performance criteria and reporting requirements. Services funded in this program will be reviewed in accordance with implementing guidelines described in this expenditure plan.

Handout – Agenda Item 1.2
Changes to Initial Draft TEP - V2.2

Contra Costa Transportation Authority

April 6, 2016

Changes in Draft TEP - V2.2

Table of Expenditures

- Reflect RTPC input with one exception - WCCTAC request
- Cleaned up the notes associated with the Table of Expenditure

BART Capacity, Access and Parking Improvements

- Revise language re comments from SWAT and BART
- BART must fund at least $100 million in improvements as a condition of using funds for cars or advanced train control
- Equal funding from SF and Alameda

Minor Changes to Category 7 (680 and 24 Corridor) and Category 10 (East County Corridor

Changes in Draft TEP - V2.2 (cont.)

Category 12, Bus Transit and Other Non-Rail Transit Enhancements

- Updated description in response to WCCTAC comments
- Add RTPCs as providing input on how the funds should be allocated
- The requirement for development of the Accessible Services Strategic Plan has been moved from Category 12 to Category 13

Growth Management Program

- No changes since last week
- Draft TEP includes a number of comments
- Proposed changes to the ULL language discussed last week

Complete Streets

- Complete Streets have been update to reflect comments from Concord

Changes in Draft TEP - V2.2 (cont.)

Regional Advance Mitigation Program - discussed earlier

Governing Structure / Oversight Committee - discussed earlier

Implementing Guidelines

- Several sections have been revised
- Performance Audits - revise to better clarify the scope and intent
- Revised MOE language
- Move Safe Transportation for Children into funding category

April 6, 2016

Contra Costa Transportation Authority
Attn: TEP Chairman Don Tatzin

RE: Draft Transportation Expenditure Plan (TEP)

Dear Chairman Tatzin,

We are concerned about lack of vision, goals or clarity in the development of a new ½ cent transportation sales tax in Contra Costa. This lack of focus and direction have made it difficult, if not impossible, for the Authority Board, the cities, the stakeholders, or the EPAC to achieve consensus on the creation of a Transportation Expenditure Plan (TEP).

We have been representing a diverse coalition that is a cross-section of the community that is supported by tens of thousands of residents of Contra Costa County. We have been participating faithfully in CCTA's process to develop the Countywide Transportation Plan (CTP) and a new TEP, taking advantage of every opportunity for public participation, and spending hundreds of collective hours to provide thoughtful responses and input to CCTA, RTPCs, and the public. We very much are in favor of creating a measure that can and will be approved by the county's voters this November.

However, we believe that this measure must go well beyond "business as usual." A new TEP must make a significant contribution to reduce VMT and GHGs, creating vibrant, livable communities, and help to protect our community's farms, rangelands, watersheds and open spaces. The State of California's transportation and land use policy framework, as well as the Bay Area's Regional Transportation Plan / Sustainable Communities Strategy provide clear direction on how to achieve these goals. The current CCTA TEP v2.2 is going down the wrong path for Contra Costa County, the Bay Area region, and the State of California.

We provide the following TEP allocations and rationale for our policy and funding recommendations. This is reflective of funding the priorities in our ***Community Vision and Transformative Policy*** document.

FUNDING ALLOCATION

We are recommending a series of changes to the funding allocations presented in the draft TEP.

SUB-EPAC PROPOSED FUNDING ALLOCATION		
Funding category	$ millions	%
Local Streets Maintenance and Improvements (5% dedicated to infill incentives)	$ 538.00	23.0%
Major Streets and Complete Streets Project Grants	$ 200.00	8.6%
BART Capacity and Access Improvements	$ 400.00	17.1%
East County High Performance Corridor (Express Bus from Antioch E-BART/Brentwood to Tri-Valley Transit stations; Goods movement by rail; safety improvements)	$ 100.00	4.3%
West County High Performance Corridor (Transit improvements along I-80; interchange improvements)	$ 110.00	4.7%
South County High Performance Corridor (680 Express Bus from West Dublin/Pleasanton BART to Martinez)	$ 150.00	6.4%

Central County High Performance Corridor (including 680 Express Bus from West Dublin/Pleasanton BART to Martinez (approx. $75 million); I-680/SR 4 interchange improvements)	$ 150.00	6.4%
Advance Mitigation Program (6% of entire measure)	To be calculated	
Bus and Other Non-Rail Transit Enhancements	$ 300.00	12.8%
Transportation for Seniors and People with Disabilities	$ 117.00	5.0%
Safe Transportation for Children	$ 46.00	2.0%
Pedestrian, Bicycle and Trail Facilities	$ 117.00	5.0%
Community Development Investment Grant Program	$ 69.00	2.9%
Innovative Transportation Technology / Connected Communities Grant Program	$ 14.03	0.6%
Transportation Planning, Facilities & Services	$ 29.70	1.3%
Administration	$ 23.40	1.0%

Add Infill Incentives to Local Streets and Roads

If Contra Costa County hopes to achieve the widely publicized benefits of building new homes near existing transportation infrastructure – including convenient commutes, cost-effective transit, and environmental benefits – it must take seriously its commitment to infill development.

To demonstrate this commitment, the TEP will allocate 5 percent of the measure to address transportation impacts in communities that are undertaking new infill development. CCTA will allocate these funds on a rolling three-year average of the number of housing units permitted within each jurisdiction. Each unit of infill housing will be rewarded with corresponding increments of local streets and road maintenance funds. In addition, units that fall into the following categories will be given additional weight:

- Affordable units to very-low to low income families (2x base allocation)
- Located within ½-mile of quality transit (2x base allocation)
- Multi-family units with parking ratios of 1:1 or less (1.5x base allocation)

Allocations will be made annually and qualified jurisdictions may spend the proceeds on any eligible transportation project or program.

Revise Community Development Incentive Grant Program

Some jurisdictions may find it difficult to develop infill housing based on certain market conditions, while other jurisdictions may need exemplary projects — such as enhanced transportation infrastructure to reduce traffic concerns — to achieve community support for new infill development. Likewise, some jurisdictions may want to attract quality jobs that help to address a jobs-housing imbalance and reduce congestion throughout the county. Therefore, we recommend that the CDI Grant Program fund infrastructure that supports specific infill development projects near existing transit and transportation networks. Priority shall be given to projects that provide affordable homes for low- and/or very low-income people, leverage California Affordable Housing and Sustainable Communities Program resources, and/or improve the jobs-housing balance within sub-regions by increasing quality job density that can be accessible by transit.

Projects will compete countywide. CCTA will develop the grant criteria and scoring system with input from the sub-regions and public advisory committee.

High Performance Corridor Improvements

There is broad support for a measure that facilitates enhanced transit connectivity along important corridors in Contra Costa County. CCTA must now operate within the new era of transportation funding as shaped by CalTrans' new framework, including the California Transportation Plan 2040. This new state approach has correctly identified that highway expansions are counterproductive to solving our complex transportation issues, especially with severely constrained financial resources.

Contra Costa now has a great opportunity to shape our entire transportation system to meet this challenge head on. By adding transit ridership to our existing highway system, we can make it function better, reduce congestion, and broadly serve commuters/residents/workers in the county.

Much of the current corridor studies have pointed to the express bus model as best serving residents in each part of the county. This will help to alleviate traffic and feed the BART transit system so that ridership can increase on a variety of modes other than single-occupant vehicles. As an example, our TEP recommendation for the 680 corridor is to have express bus service from Martinez Amtrak to the West Dublin/Pleasanton BART station. This provides for enhanced bus service throughout the entire Central/South County Corridor, closes gaps in service, and makes BART stations more accessible to transit riders throughout the county.

This is a more complete package that gives commuters and transit-dependent riders competitive options. This high performance corridor approach creates transit options that are more viable and dependable.

Make the Performance Criteria Count

Voters want assurances that limited transportation funds will be spent on projects that address their highest priorities. For some communities, that may be enhanced transit or safer bike and pedestrian lanes. In other cities, the most critical need may be access to jobs or safer streets and roads. The local needs must also account for mandates to reduce greenhouse gas emissions and state directives to invest within the existing transportation system. Voters deserve to have both.

The draft TEP already incorporates 10 broad performance criteria that will be used to evaluate the expenditure plan's investments: (1) reduce per capita CO2 by 15 percent; (2) house 100 percent of the region's population; (3) reduce exposure to particulate emissions; (4) reduce injuries and fatalities from collisions; (5) increase walking and biking; (6) maintain the Urban Limit Line; (7) reduce percentage of housing and transportation costs for low income households; (8) increase gross regional product; (9) reduce vehicle miles traveled; and (10) maintain the system in a state of good repair.

However, the TEP also describes the performance review (page 29 of 30, Item No. 14) as informational and states that the findings cannot be used to restrict the ability of a jurisdiction to allocate funding to a project. We propose the following compromise: CCTA, with input from sub-regions and the public advisory committee, will develop a scoring system based on the 10 performance criteria. All RAMP-eligible projects and those within the Major Streets and Complete Streets category will be subject to a competitive performance review process.

Sub-regions would still be free to allocate funds as they see fit but CCTA will adjust the eligible dollar amounts based on the project's performance score. High-scoring projects will receive full allocations. Low scoring projects will be required to provide 50 percent to 100 percent local funding, depending on the score.

Applicants with low-scoring projects will be encouraged to modify their plans in such a way to increase the scores to achieve better projects and reduce the potential for sprawl-inducing projects. CCTA will develop the grant criteria and scoring system with input from the sub-regions and public advisory committee.

Revise Major Streets and Complete Streets Project Grants

The current draft TEP contemplates awarding funds from this category based on existing project requests and unequal sub-regional project submissions. We recommend CCTA allocate the funds in the four regions based on CCTA's geographic and population distribution formula; establish a competitive grant cycle and award the funds based on the performance criteria described above. We also support the language in the Major Streets Complete Streets Program version 2.2 released to the CCTA Board on March 16, 2016, with the pilot program requiring protected bike lanes.

Increase Pedestrian, Bicycle & Trail Facilities

Many communities throughout California are dedicating between 5 to 10 percent of their transportation sales tax measure proceeds to pedestrian, bicycle and trail facilities. We believe Contra Costa County should do the same. Local streets and roads funds are inadequate to build modern bikeways or add sidewalks where needed, especially with dwindling state gas tax revenues. Additional dedicated funding is needed to complete and maintain a trail network and improve walking and bicycling throughout the county.

Increase Senior/Disabilities Funding

We support increased funding for transportation for seniors and those with disabilities. This will ensure that Contra Costa County can provide accessible transportation options for people of all abilities and ages, especially as demographic changes occur and more residents of the county choose to age in place. We also strongly support the full funding and implementation of a mobility management system that will ensure that these services are delivered in the best way possible across the entire county and to connections throughout the region.

Increase BART and Bus Transit Funding

We support $400 million for BART that will ensure access improvements at stations throughout the county, which polls well with voters. This includes the $300 million that is being negotiated between CCTA and BART.

We also support $300 million for capital and operating costs for bus and non-rail transit that relieves congestion, provides commute alternatives, serves transit-dependent residents, reduces pollutant emissions, supports infill housing and employment, demonstrates innovative approaches, and/or improves service effectiveness and efficiency.

In order to ensure the most beneficial use of these funds, CCTA should prepare a Countywide Transit Strategic Plan that identifies goals, strategies and metrics, and should allocate transit funds to the projects, services and providers in accordance with the plan. High priority should be given to achieving 15-minute headways in high-ridership travel corridors. Because the transit needs of county residents, as well as transportation technology

and means of servicing transit needs, will evolve over time, CCTA should update its strategic plan and re-evaluate its allocations on a regular cycle.

Strengthen the Urban Limit Line & Growth Management Program

Contra Costa County's Urban Limit Line (ULL) and Growth Management Program (GMP) are popular with voters and must be enhanced as part of the new measure.

We recommend that CCTA remove the 30-acre exemption policy for all jurisdictions in Contra Costa. The policy has not proven useful and removing it will provide clarity for all stakeholders and provide direction for focusing development within the ULL.

Protecting Contra Costa County's farms and rangelands is a high priority for county voters and for consumers around the region. To build on previous efforts in Contra Costa County, namely the City of Brentwood, all jurisdictions with agricultural land within their planning area, including rangelands, must adopt a model ***Agricultural Protection Ordinance***, with the intent to permanently preserve farms and rangelands and mitigate for impacts and the loss of those lands. Applicable jurisdictions will be required to adopt Agricultural Protection Ordinances to receive Return to Source funding as part of an amended Growth Management Checklist. In addition, any loss of farmland outside of the current boundaries of the ULL should be required to be mitigated through permanent protection of farmland in Contra Costa at a rate of three acres preserved for every acre lost.

We also recommend that smart planning policies be considered in the checklist for public information as affirmed by the CCTA board. This will help to provide consistency between jurisdictions and reduce land use conflicts. These policies include: a) Hillside development ordinance b) Ridgeline protection ordinance c) Open space system with major ridgelines defined d) Protection of wildlife corridors e) Plan to conserve buffers around open space and agriculture f) Prohibitions on culverting blueline creeks for anything more than road crossings in the shortest length possible g) No development of major subdivisions, urban development, or urban services allowed in non-urban Priority Conservation Areas.

Support RAMP

The Advanced Mitigation Program is a win-win solution for Contra Costa County. It saves time for project delivery. It is cost-effective. And it also ensures the proactive and strategic conservation of species, habitats (including watershed protection), as well as farms and rangelands, impacted by publicly subsidized transportation projects. We support CCTA staff implementing the TNC/MTC RAMP pilot program in Contra Costa County with the additional inclusion of agricultural mitigations, recognizing that transportation and development projects may significantly impact these lands and they are otherwise unprotected by state and federal policy.

Sincerely yours,

Ron Brown, Save Mount Diablo, Retired Executive Director

Joel Devalcourt, Greenbelt Alliance, East Bay Regional Representative

Dave Campbell, Bike East Bay, Advocacy Director

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Agenda Item 1.1.2
Membership Models for Public Oversight Committee

Contra Costa Transportation Authority

April 6, 2016

Alameda CTC Measure BB

- 17 Members
- 10 at-large members selected Board of Supervisors and the Alameda County Mayors' Conference
- Seven members from stakeholder organizations
  - League of Women's Voters
  - Alameda County Taxpayer's Association
  - Sierra Club
  - Alameda County Labor Council
  - East Bay Economic Development Alliance
  - Alameda County Paratransit Advisory and Planning Committee (PAPCO)
  - East Bay Bicycle Coalition

BART Potential Bond Measure

- BART Board would solicit and appoint members from professional organizations:
  - American Society of Civil Engineers
  - American Institute of Electrical Engineers
  - American Institute of Certified Public Accountants
  - Association for Budgeting and Financial Management section of the American Society for Public Administration
  - Project Management Institute
  - League of Woman Voters, Bay Area

Public School Bond Programs

Best Practices include:

- At least half of the members should be knowledgeable in finance and construction management and acquisitions.
- To maintain independence from Board:
  - Identify groups in the community that should be represented and have them appoint members; or
  - Identify a group in the community to manage the selection process
- Committee should have at least 12 members and no more than 18
- To eliminate any potential conflict of interest, members should not be paid and should also be restricted from working for the Authority
- The committee should be trained and have resources available to conduct work

Recommendation

- Blended Approach
  - 5 appointed by RTPCS and BOS
  - 5 Professional Organizations
  - 5 Advocacy and Interest Groups

CCTA DRAFT TRANSPORTATION EXPENDITURE PLAN

Version 2.2 v. BAC, EBLC, BIA Proposal

		Version 2.2	%	BIA Version	%	Difference		ENVIRO	
1	Local Streets Maintenance & Improvements	$540.0	23.09%	$423.0	18.08%	-$117.00	-21.67%	$ 538.0	5% dedicated to infill incentives
1a	Additional Local Streets	$17.0	0.73%	$17.0	0.73%	$0.00	0.00%		
1c	Housing production RTS	$0.0	0.00%	$117.0	5.00%	$117.00	100.00%		
2	Major Streets & Complete Streets Grants	$200.0	8.55%	$200.0	8.55%	$0.00	0.00%	$ 200.0	
3	BART	$300.0	12.83%	$300.0	12.83%	$0.00	0.00%	$ 400.0	
4	East CC Transit Extension	$70.0	2.99%	$70.0	2.99%	$0.00	0.00%	$ 100.0	
5	High Capacity Transit - I-80 Corridor	$20.0	0.86%	$66.5	2.84%	$46.50	232.50%	$ 110.0	
6	I-80 Interchange Imp - San Pablo Dam & Central	$60.0	2.57%	$60.0	2.57%	$0.00	0.00%		
								$ 150.0	South County Hogh Performance express buss
								$ 150.0	Central County High Perfmance Corridor express buss & 680/24 inter
7	High Capacity Transit I-680 & SR 24	$140.0	5.99%	$230.0	9.83%	$90.00	64.29%		
8	SR 242 & SR 4 Corridors in Central & Eact CC	$70.0	2.99%	$70.0	2.99%	$0.00	0.00%		
9	I-680 & SR 4 Interchange Imp	$60.0	2.57%	$60.0	2.57%	$0.00	0.00%		
10	East CC Corridor (Vasdco/Byron Highway)	$117.0	5.00%	$117.0	5.00%	$0.00	0.00%		
11	Advanced Mitigation	TBD		TBD				**$ 160.0**	**6% of entire measure**
12	Bus & Non-Rail Transit	$240.0	10.26%	$230.0	9.83%	-$10.00	-4.17%	$ 300.0	
13	Transportation for Seniors & Disabled	$77.6	3.32%	$77.8	3.33%	$0.20	0.26%	$ 117.0	
14	Safe Transportation for Childern	$52.0	2.22%	$52.0	2.22%	$0.00	0.00%	$ 46.0	
15	Intercity Rail and Ferry	$50.0	2.14%	$50.0	2.14%	$0.00	0.00%		
16	Ped, Bike & Trail	$66.7	2.85%	$117.0	5.00%	$50.30	75.41%	$ 117.0	
17	Community Development Investment Grant Program	$140.0	5.99%	$0.0	0.00%	-$140.00	-100.00%	$ 69.0	
18	Innovative Transp Tech/Connected Com	$53.2	2.27%	$35.0	1.50%	-$18.20	-34.21%	$ 14.0	
19	Transp Planning, Fac & Services	$23.4	1.00%	$23.4	1.00%	$0.00	0.00%	$ 29.7	
20	Reg Transportation Priorities	$18.7	0.80%	$0.0	0.00%	-$18.70	-100.00%		
21	Administration	$23.4	1.00%	$23.4	1.00%	$0.00	0.00%	$ 23.4	
	TOTAL	**$2,339.0**	**100.00%**	**$2,339.1**	**100.0%**	**$0.10**		**$ 2,524.1**	***over -185.1***

The Board of Supervisors
County Administration Building
651 Pine Street, Room 106
Martinez, California 94553

John Gioia, 1st District
Candace Andersen, 2nd District
Mary N. Piepho, 3rd District
Karen Mitchoff, 4th District
Federal D. Glover, 5th District

Contra Costa County

David Twa
Clerk of the Board
and
County Administrator
(925) 335-1900

March 31, 2016

Subject: New Sustainable Transportation Funding

The Honorable Jim Frazier
P.O. Box 942849
State Capitol Room 3091
Sacramento, CA 94249-0011

Dear Assemblyman Frazier,

On behalf of the County of Contra Costa, I write to urge you to take action to avert the looming transportation crisis in the State of California and your district by working to find a bipartisan solution in 2016.

The primary sources of revenue to maintain, preserve, repair, and rehabilitate highways and local roads and bridges are state and federal gasoline excise taxes. Neither the state nor federal gas tax has been increased in more than 20 years. Both gas taxes are not adjusted for inflation or increases in the cost of construction. Increases in fuel efficiency, which is critical to reduce costs to motorists and meet our environmental goals, means that vehicles are travelling more yet paying less for use of the transportation system. These issues are compounded by gas tax fluctuations which hamper the ability to reliably plan and deliver road repairs and safety improvements.

The longer we wait to address our failing transportation infrastructure, the more it will cost in the long run, we need an immediate funding solution. Thank you in advance for your support on this critical issue.

Sincerely,

Candace Andersen, Chair
Contra Costa County Board of Supervisors
Supervisor, District II

cc: The Honorable Edmund G. Brown Jr., Governor, State of California
The Honorable Kevin de Leon, President Pro Tem, California State Senate
The Honorable Jean Fuller, Minority Leader, California State Senate
The Honorable Anthony Rendon, Speaker, California State Assembly
The Honorable Chad Mayes, Minority Floor Leader, California State Assembly

The Board of Supervisors of
Contra Costa County, California

In the matter of: **Resolution No. 2016/133**

Urging the State to provide new sustainable funding for State and Local transportation infrastructure

WHEREAS, Governor Edmund G. Brown, Jr. has called an extraordinary session to address the immense underfunding of California's transportation infrastructure; and

WHEREAS, cities and counties own and operate more than 81% of streets and roads in California, and from the moment we open our front door to drive to work, bike to school, or walk to the bus station, people are dependent upon a safe, reliable local transportation network; and

WHEREAS, Contra Costa County has participated in efforts with the California State Association of Counties, League of California Cities, and California's Regional Transportation Planning Agencies to study unmet funding needs for local roads and bridges, including sidewalks and other essential components; and

WHEREAS, the resulting 2014 California Statewide Local Streets and Roads Needs Assessment, which provides critical analysis and information on the local transportation network's condition and funding needs, indicates that the condition of the local transportation network is deteriorating as predicted in the initial 2008 study; and

WHEREAS, the results show that California's local streets and roads are on a path of significant decline. On a scale of zero (failed) to 100 (excellent), the statewide average pavement condition index (PCI) is 66, placing it in the "at risk" category where pavements will begin to deteriorate much more rapidly and require rehabilitation or rebuilding rather than more cost-effective preventative maintenance if funding is not increased; and

WHEREAS, if funding remains at the current levels, in 10 years, 25% of local streets and roads in California will be in "failed" condition; and

WHEREAS, cities and counties need an additional $1.7 billion just to maintain a status quo pavement condition of 66, and much more revenue to operate the system with Best Management Practices, which would reduce the total amount of funding needed for maintenance in the future; and

WHEREAS, models show that an additional $3 billion annual investment in the local streets and roads system is expected to improve pavement conditions statewide from an average "at risk" condition to an average "good" condition; and

WHEREAS, if additional funding isn't secured now, it will cost taxpayers twice as much to fix the local system in the future, as failure to act this year will increase unmet funding needs for local transportation facilities by $11 billion in five years and $21 billion in ten years; and

WHEREAS, modernizing the local street and road system provides well-paying construction jobs and boosts local economies; and

WHEREAS, the local street and road system is also critical for farm to market needs, interconnectivity, multimodal needs, and commerce; and

WHEREAS, police, fire, and emergency medical services all need safe reliable roads to react quickly to emergency calls and a few minutes of delay can be a matter of life and death; and

WHEREAS, maintaining and preserving the local street and road system in good condition will reduce drive times and traffic congestion, improve bicycle safety, and make the pedestrian experience safer and more appealing, which leads to reduce vehicle emissions helping the State achieve its air quality and greenhouse gas emissions reductions goals; and

WHEREAS, restoring roads before they fail also reduces construction time which results in less air pollution from heavy equipment and less water pollution from site run-off; and

WHEREAS, in addition to the local system, the state highway system needs an additional $5.7 billion

annually to address the state's deferred maintenance; and

WHEREAS, in order to bring the local system back into a cost-effective condition, at least $7.3 billion annually in new money going directly to cities and counties; and

NOW, THEREFORE, BE IT RESOLVED that the Contra Costa County Board of Supervisors strongly urges the Governor and Legislature to identity a sufficient and stable funding source for local street and road and state highway maintenance and rehabilitation to ensure the safe and efficient mobility of the traveling public and the economic vitality of California. **RESOLVED I RESOLVED FURTHER** that Contra Costa County strongly urges the Governor and Legislature to adopt the following priorities for funding California's streets and roads: 1. **Make a significant new investment in transportation infrastructure.** Any package should seek to raise at least $6 billion annually and should remain in place for at least 10 years or until an alternative method of funding our transportation system is agreed upon. 2. **Focus on maintaining and rehabilitating the current system.** Repairing California's streets and highways involves much more than fixing potholes. It requires major road pavement overlays, fixing unsafe bridges, providing safe access for bicyclists and pedestrians, replacing storm water culverts, as well as operational improvements that necessitate the construction of auxiliary lanes to relieve traffic congestion choke points and fixing design deficiencies that have created unsafe merging and other traffic hazards. Efforts to supply funding for transit in addition to funding for roads should also focus on fixing the system first. 3. **Equal split between state and local projects.** We support sharing revenue for roadway maintenance equally (50/50) between the state and cities and counties, given the equally-pressing funding needs of both systems, as well as the longstanding historical precedent for collecting transportation user fees through a centralized system and sharing the revenues across the entire network through direct subventions. Ensuring that funding to local governments is provided directly, without intermediaries, will accelerate project delivery and ensure maximum accountability. 4. **Raise revenues across a broad range of options.** Research by the California Alliance for Jobs and Transportation California shows that voters strongly support increased funding for transportation improvements. They are much more open to a package that spreads potential tax or fee increases across a broad range of options, including fuel taxes, license fees, and registration fees, rather than just one source. Additionally, any package should move California toward an all-users pay structure, in which everyone who benefits from the system contributes to maintaining it – from traditional gasoline-fueled vehicles, to new hybrids or electric vehicles, to commercial vehicles. 5. **Invest a portion of diesel tax and/or cap & trade revenue to high-priority goods movement projects** While the focus of a transportation funding package should be on maintaining and rehabilitating the existing system, California has a critical need to upgrade the goods movement infrastructure that is essential to our economic well-being. Establishing a framework to make appropriate investments in major goods movement arteries can lay the groundwork for greater investments in the future that will also improve air quality and reduce greenhouse gas emissions. 6. **Strong accountability requirements to protect the taxpayers' investment.** Voters and taxpayers must be assured that all transportation revenues are spent responsibly. Local governments are accustomed to employing transparent processes for selecting road maintenance projects aided by pavement management systems, as well as reporting on the expenditure of transportation funds through the State Controller's Local Streets and Roads Annual Report.

CANDACE ANDERSEN
Chair,
District II Supervisor

JOHN GIOIA
District I Supervisor

MARY N. PIEPHO
District III Supervisor

KAREN MITCHOFF
District IV Supervisor

FEDERAL D. GLOVER
District V Supervisor

I hereby certify that this is a true and correct copy of an action taken and entered on the minutes of the Board of Supervisors on the date shown.

ATTESTED: March 15, 2016

David J. Twa,

By: Stephanie Mello, Deputy

Smith, Watts &Hartmann, LLC.

Consulting and Governmental Relations

MEMORANDUM

TO: John Cunningham

FROM: Mark Watts

DATE: April 5, 2016

SUBJECT: Pending State Transportation Funding Legislation

At present there are three major measures in the Legislature seeking to increase the state transportation revenue base with an emphasis on offsetting the recent historical trend that saw significant deferral of funding for maintaining and reconstructing the state and local transportation systems. While each proposal offers a variety of revenue increases for maintenance, they each also include funding for other activities, ranging from freight infrastructure, Active Transportation, and rail to transit, the common core emphasis is on a "Fix It First" priority policy.

In addition to new revenue sources and proposed allocations, each bill or author includes or is also working on accountability or process or delivery reform elements, which are not detailed here.

From an overview perspective, the three major bills are:

Governor's Transportation Plan – Generates $3.7 billion in new annual funding;

SB X1 1(Beall) – Generates $6 billion in new annual funding;

AB 1591 (Frazier) – Generates more than $7 billion in new annual funding;

The following provides a more detailed overview of the sources of new annual funding, other sources of funding, and proposed expenditure allocations for the respective bills.

Governor's Plan

This was a first surfaced by the Administration last summer and has since been embedded into the 2016-17 State Budget Act, with the revenues generated distributed to designated programs.

Funding sources:

Base Gas Tax: No new tax rate

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Price-based Gas Tax: Resets the Tax Swap increment back to 18 cents (up from BOE adopted 9.8 cents for July 2016) that generates an estimated $900 million.

Diesel Tax: Increases by 11 cents for an additional $300 million in revenues.

New Road User Fee: $65 per vehicle, which generates $2 billion.

Cap and Trade: augmented allocations for transit and complete streets: $500 million.

Allocations

Highway and Road rehabilitation and maintenance: $2.9 billion

Freight mobility: $200 million

Rail/Complete Streets: $500 million

SBX1 1 (Beall):

This bill was introduced in summer 2015, and has successfully passed the Special Session Transportation Committee; it is currently pending amendments in Special Session Fiscal Committee.

New Revenues

Gas Tax: 12 cents; $2 billion.

Price-based Gas Tax: Reset to 17.3 cents; $900 million.

Diesel Tax: 22 cents increase; $600 million.

Vehicle Registration Fee: Increase of $35 per vehicle; $1 billion.

New Highway User Fee: $35 per vehicle; $1 billion.

ZEV Registration Fee: $100 million; $25 million.

Allocations

Highway and Road rehabilitation and maintenance: $5.5 billion

Freight Mobility: $500 million

Rail or transit: (to be included)

AB 1591 (Frazier)

This measure is pending it's first hearing in the Assembly Regular Session.

New Revenues

Gas Tax: 22.5 cents; $3.5 billion.

Price-based Gas Tax: Reset to 17.3 cents; $900 million.

Diesel Tax: 30 cents; $800 million.

Vehicle Registration Fee: $38 per vehicle; $1 billion.

ZEV Registration Fee: $165 per vehicle; $35 million.

Allocations:

Highway and Road Rehabilitation and Maintenance: $5.8 billion

Freight Mobility: $1.2 billion

Rail or Transit: $200 million.

Smith, Watts &Hartmann, LLC.

Consulting and Governmental Relations

MEMORANDUM

TO: John Cunningham

FROM: Mark Watts

DATE: April 6, 2016

SUBJECT: **April TWIC Report**

Key Bills - Update

Presented below are brief summaries of bills of interest to the authority, including AB 1592 (Bonilla) and AB 1665 (Bonilla). A separate memo provides details on the 3 main bills introduced to address the state's transportation funding crisis.

AB 1592 (Bonilla)

This measure authorizes the Contra Costa Transportation Authority to conduct a pilot project for the testing of autonomous vehicles. The measure was heard by the Assembly Transportation Committee on April 4, and was approved, 16-0, in spite of minor, late opposition from transit unions.

AB 1665 (Bonilla)

This bill authorizes the taxing authority for a countywide transportation program to be available to the Contra Costa Transportation Authority and extend the period of authorization from 2020 to 2024.

The bill was heard in the Assembly Local Government Committee on April 6. There was late opposition from a statewide taxpayers organization, apparently most concerned with the extension of the sunset date from 2020 to 2024. The bill was approved on a party line vote, 6-3, and will be considered in Assembly Revenue and Taxation Committee within the next week.

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