

Mono County Local Transportation Commission

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AGENDA

December 10, 2018 – 9:00 A.M.
Town/County Conference Room, Minaret Village Mall, Mammoth Lakes
Teleconference at CAO Conference Room, Bridgeport
Call 1-669-900-6833, enter meeting number 760-924-1815

**Agenda sequence (see note following agenda).*

1. **CALL TO ORDER & PLEDGE OF ALLEGIANCE**
2. **PUBLIC COMMENT**
3. **MINUTES**
 - A. Approve minutes of October 15, 2018 (*combined October/November meeting*) – **p. 1**
4. **COMMISSIONER REPORTS**
5. **LOCAL TRANSPORTATION**
 - A. Highway 395 wildlife crossing project: Update & steps forward – **p. 5**
 - B. Eastern Sierra Electric Vehicle Association & Sierra Club requesting support to install an electrical vehicle charging station at Hess Park in Lee Vining – **p. 26**
6. **ADMINISTRATION**
 - A. Resolution of appreciation for retiring Inyo County planner Courtney Smith – **p. 33**
 - B. Introduce Hailey Lang, Community Development Analyst
 - C. Introduce Phil Moores, ESTA Executive Director
7. **TRANSIT**
 - A. Eastern Sierra Transit Authority (ESTA)
 - B. Yosemite Area Regional Transportation System (YARTS): JPA (Joint Powers Authority) report & summer 2019 update – **p. 34**
8. **CALTRANS**
 - A. Draft Eastern Sierra Corridor Freight Study: Detailed truck parking analysis & preliminary corridor recommendations by Cambridge Systematics – **p. 37**
 - B. Activities in Mono County & pertinent statewide information
9. **INFORMATIONAL**
 - A. Caltrans Scoping Letter regarding projects in northern Mono County – **p. 86**
10. **UPCOMING AGENDA ITEMS: 1) Digital-395 5G implementation, and 2) Electric vehicle charging needs assessment**

More on back...

COMMISSIONERS

Stacy Corless Sandy Hogan John Peters Lynda Salcido Fred Stump John Wentworth

11. **ADJOURN** to January 14, 2019

***NOTE:** Although the LTC generally strives to follow the agenda sequence, it reserves the right to take any agenda item – other than a noticed public hearing – in any order, and at any time after its meeting starts. The Local Transportation Commission encourages public attendance and participation.

In compliance with the Americans with Disabilities Act, anyone who needs special assistance to attend this meeting can contact the commission secretary at 760-924-1804 within 48 hours prior to the meeting in order to ensure accessibility (see 42 USCS 12132, 28CFR 35.130).

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DRAFT SPECIAL MEETING MINUTES

October 15, 2018

COUNTY COMMISSIONERS: Stacy Corless, John Peters, Fred Stump

TOWN COMMISSIONERS: Sandy Hogan, Lynda Salcido, John Wentworth

COUNTY STAFF: Wendy Sugimura, Gerry Le Francois, Michael Draper, Megan Mahaffey, Garrett Higerd, Tony Dublino (teleconference), CD Ritter

TOWN STAFF: Grady Dutton

CALTRANS: Brent Green, Terry Erlwein, Ryan Dermody, Austin West

ESTA: Joe Rye

GUESTS: Don Condon, Electric Auto Association; Lynn Boulton, Sierra Club Range of Light

1. **CALL TO ORDER & PLEDGE OF ALLEGIANCE:** Chair John Wentworth called the meeting to order at 9:05 a.m. at the Town/County Conference Room, Minaret Village Mall, Mammoth Lakes. Attendees recited pledge of allegiance.

2. **PUBLIC COMMENT:** None

3. **MINUTES**

MOTION: Approve minutes of Sept. 10, 2018, as amended: 1) Item 7B: Jeff Simpson, ~~Stacy Corless~~, Sandy Hogan and Matt McLean on AAC; 2) 7B2: ~~Not looking at Lakes Basin.~~ (Hogan/Salcido. Ayes: 6.)

--- Corless arrived at 9:15 a.m. ---

4. **COMMISSIONER REPORTS:** **Stump:** Thanked Caltrans for work on US 6. Reflective stickers still there, could come loose with snow plowing, PW working on fix. Caltrans uses lawn mower, picks up pieces. **Hogan:** *Taxing Times* newspaper had headline on Prop 6 (Wentworth cited more funding for yes on repeal). Wrote letters local and Tahoe. **Peters:** CSAC held special meeting last week, asked approval to free up funds for Prop 6. Tracking shows even chance to fail. No way to backfill if repealed. Informational Town Hall topic last week. BOS attendee concerned about dirt road 029, USFS road, not County-maintained, when fire resources there during Boot fire, offered to repair road, Mono declined. **Salcido:** None. **Wentworth:** Attended climate change on adaptation planning grant update. Significant piece of SB 1 goes to climate change. About \$15 million allotted. Clear that yes on 6 initiative was to go to congressional races. **Corless:** Attended with Mayor Hoff meeting with Bobby Tanner on Reds Meadow Road concerns, urged Town staff to communicate with him. Grady Dutton spoke with him earlier.

5. **LOCAL TRANSPORTATION**

A. **Digital-395 5G implementation:** Wentworth noted people beyond Mono. 5G uses different towers, closer together. Invasive from infrastructure perspective. Capacity necessary for autonomous vehicles to work. Unclear when/how 5G start making progress into our lives, likely next two to three years. Verizon would own. Tested in larger cities, significant lift.

Tested in mountainous regions? *Wentworth: 395 pretty straight. 5G towers close together.*

COMMISSIONERS

Stacy Corless Sandy Hogan John Peters Lynda Salcido Fred Stump John Wentworth

Stump noted Verizon refuses to use D-395. Need to cover highways not covered. Important to recognize obstacles by corporate mentality.

Infrastructure investment? *Wentworth: Get some sense of Caltrans involvement.*

Green talked to Tesla about autonomous vehicles. *Wentworth: More efficient transition from combustion vehicles.*

Salcido thought it's going to happen, so be on top, move forward.

Corless cited organizations tracking, advocating for local control of infrastructure.

Stump noted Mono policies of height restrictions, scenic highway. *Wentworth: Trumps Town and Mono jurisdiction. Gives providers ability to control.*

Combined IT tracking? *Wentworth: Level of curiosity and interest. Not know what looks like.*

Green suggested getting more details from Caltrans. Peters wanted to address shortcomings of existing towers before adding new towers.

B. Interagency snow removal opportunities on passes: Tony Dublino was involved earlier, distributed drafts. Wants to quickly respond to emerging issues. Waiting to review draft.

Erlwein will release draft this week. Caltrans does not enter agreements with nongovernmental agencies; e.g., MMSA.

One of Dublino's goals was for Mono to get separate agreement with MMSA. Caltrans involved directly with Mono. Could bring resources onto table as needed.

Wentworth encouraged communication with recreational audience when passes open/close. Integrate all this.

NPS (National Park Service) too? *Dublino: Agreement specific to Caltrans and Mono. A way to bring park into it, but not part of it. On Mono to coordinate with NPS and MMSA.*

C. Electric vehicle charging stations: Don Condon showed proposed charging station sites on map. Lynn Boulton went to Bridgeport Valley RPAC: site near museum. Lee Vining at solar pavilion, demonstration project. Get quick-charge stations at 120/395 junction. Quick-charge in Mammoth at Park-and-Ride. Moving forward for non-Tesla vehicles. Subject to Prop 6, Caltrans will install three along US 395. Benton: Pathway to Tonopah, so get site there. Electric vehicles are transportation of future. One million by 2030, 5 million by 2040. Picking up momentum. Present at CofC tomorrow.

Boulton noted L3 sites in Nevada. Level 2 = 4-8 hours. Quick-charge less than hour. On west side have L2, only Tesla L3. Slowly upgrading as more cars come through. Plan for 100-mile charging.

Who pays for electricity used for charging? SCE sets up. Depends on time of day, built into model. Green stated Caltrans stations are free.

Stump cited no funding source except Prop 6, additional surcharge on EV (Electric Vehicles). Cheaper than gasoline, using roads free. EVs need to pay additional for wear/tear on roads. Town and Mono could push legislators to fund creation and maintenance of charging stations.

Boulton noted Carbon Solutions put in charge to pay Edison, collect fee to cover costs to public. Could put in for phase II (non-Tesla).

Wait till after Prop 6 vote? *Hogan: Give staff time to research. Talk to USFS? Boulton: Propose on Mono land (community centers, library).*

Hogan mentioned YARTS' talk of eliminating stops. *Boulton: USFS visitor center is longer walk to town, so closer to community center to get to trail. With SB 1 funds, maybe in L3 in Lee Vining area.*

Dermody noted first phase on southern rest areas, no power at Crestview rest area. Lee Vining came up as phase II, look at Northern Mono.

Wentworth want to direct staff to pull together needs assessment, come back with information.

Peters mentioned scope of each station not single point of charging, users frustrated with wait. Look at scaling up. Leverage other transport methods to/from YARTS. Occupying spot, off elsewhere. Not re-create '70s gas lines.

Preparing for current technology, how to plan for upgrades?

Condon noted could wait and wait and wait, never do anything. If do something now, addresses immediate need. Cars just coming on market, standard charging, upgrading technology all time. Charge up to \$10/hr for car left when not charging. Encourages drivers to return to car. Have modules to add more as need arises.

Salcido noted people stuck with phone chargers. Stay in tune with technology. Pick locations with access to activities while charging.

Stump did not favor Mono yards with heavy equipment due to liability. Favored legislation to require standardization of plugs on vehicles.

Boulton cited technology evolving, new plug that Tesla could use with adapter. With charge-point, replace head, keep pedestal. Caltrans yard in Lee Vining a possibility.

Stump can't endorse specific vendor as County representative.

Next meeting: ESTA requested Nov. 5 if items come up. Otherwise, Dec. 10.

Wentworth directed staff to work with EV and Caltrans, return with recommendation of charge points that build on today's presentation.

Gerry Le Francois commended Rayjean Fellows, Don Condon and Lynn Boulton for a lot of work staff did not have time to do.

--- Break: 10:10-10:15 ---

D. Benton Crossing Road Maintenance – Phase 1: Garrett Higerd described site out past recreational facilities on Green Church Road.

E. Follow-up on Resolution R18-10 to oppose Prop 6: Gerry Le Francois noted less favorable to pass Prop. 6. Not everyone equates Prop 6 to SB 1.

Corless indicated most local government opposes Prop 6 but can't campaign with government resources.

Stump wanted to collectively state not spending government resources on this, using public funds to oppose something.

Peters cited money solely from corporate partners of CSAC (California State Association of Counties). Target specifically to make people aware of what SB 1 money is used for: guaranteed to go into roads, protected by State Constitution. About 100 people at Antelope Valley RPAC. Digested all information, understood issue.

Wentworth indicated Corless and others will meet on Prop 6 Oct. 22 at Mammoth Brewing.

6. **ADMINISTRATION:** None

7. **TRANSIT**

A. Eastern Sierra Transit Authority (ESTA): Joe Rye reported new executive director, Phil Moores, from San Luis Obispo County, starting Nov. 5 has house transit operations experience. Also lost John Robertson at Mammoth, found local person to start within weeks who has never done public transit. Ordered larger bus for Reno/Lancaster based on strong ridership.

B. Reprogram CalOES Transit Security Funds: Joe Rye noted demonstration security camera on bus records first 20 minutes. Good for investigating accidents, interactions with drivers. When hard drive is full, incidents disappear. Hired five new drivers, lost one. Looking to hire five more before winter. Huge challenge nationwide, particularly here. Without new funding source challenge to replace fleet.

Per/mile or per/hour charge into capital replacement account? Cut into service provided. Go to LTCs for more money.

Rye indicated it as challenge for new director. Set aside MMSA each year. Federal sources diminished but not just federal issue. State sources like PTMISEA (Public Transportation Modernization Improvement & Service enhancement Account) expired. Mammoth buses 12 years, trolleys 10 years. Depends on vehicle type.

Depending on 80% federal match? *Rye: Set aside 20%, need more*

Rye noted informational item on Prop 6 at ESTA Board. Loss of \$250,000/year if SB 1 repealed.

Dutton noted Mammoth busier midweeks, looking toward future to react to whatever happens.

Who's responsible for fleet replacement? *Rye: ESTA. Fleet grew rapidly through former moneys.*

Wentworth: Start talk funding sources, needs. Hogan: MMSA has contract, also USFS for summer, Town. (\$1 million/year).

Dutton noted Town uses older buses for summer recreation.

Rye stated CalOES grant funding remains, projects partially delivered. Install bus security cameras.

MOTION: Direct staff to modify budget (*Stump/Corless. Ayes: 6.*)

C. **YARTS Short-Range Transit Plan:** Cindy Kelly at YARTS was not available. Gerry Le Francois spoke with Selena McKinney on Short-Range Transit Plan. Looking at revenues, vehicle replacement, appreciative of LTC letter last month to expand service.

Hogan scanned working paper 3. Good meeting several weeks ago. Extend season weekdays into June and September due to demand. Or add third bus during busy season, ups cost a lot. Better expand to weekends into October. Dropping June Lake loop with two people/day, drop one of three in Lee Vining. Showing express if drop those pickups. MMSA no longer contribute \$25,000/year. Crippled by needed replacements. Owns only 10 buses, rest contracted through VIA.

Corless noted meeting Wednesday on working paper 3, look at various alternatives. Hogan: Expand JPA to collect \$68,400 from Tuolumne (has transit staff, not LTC).

Does YARTS know per mile or per hour charge? *Corless: Work with contractor, as buses are contracted. Hogan: Started tapping reserves.*

8. **CALTRANS**

A. **Activities in Mono County & pertinent statewide information:** Green noted Walker Canyon **natina** finish guard rail (Conway was poster child). Terry Erlwein to host pre-winter briefing. MMSA annual meeting Nov. 6, interagency representatives. Walker Canyon and Sheep Ranch done by Nov. 2: guard rails, striping. Green will include in packet next meeting.

Dermody cited mitigation on Little Walker shoulder widening.

Other two completed this year? Yes.

Green mentioned two other large projects: Aspen/Fales, Little Walker. Combine contract, unsure about funding. Town sidewalks look good, several under way.

Wentworth noted Edison cutting up brand new piece of Lake Mary Road. Peters suggested cold patch to cover. Hogan mentioned it would create lots of erosion. Wentworth will coordinate with Edison.

9. **INFORMATIONAL**

A. **Liberty Utilities increases electric vehicle rate:** Fred Stump suggested charging every rate payer. Low-income persons are affected, no protection. EVs should pay for infrastructure.

B. **Pre-winter briefing with National Weather Service:** John Peters cited very high October fire risk even after Humboldt-Toiyabe and Inyo Fire lifted restrictions. Big concern of flooding and mud slides in burn areas, especially Walker Canyon.

C. **Comment letter on SR 14/US 395:** None

10. **UPCOMING AGENDA ITEMS:** 1) 5G; 2) EV charging needs assessment; 3) new ESTA exec director; 4) JPA report from YARTS; 5) Cert for retiring Courtney Smith.

11. **ADJOURN** at 11:14 a.m. to December 10

Prepared by CD Ritter, LTC secretary

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LTC Staff Report

December 10, 2018

FROM: Gerry Le Francois, Co-Director Mono County LTC
Tim Taylor, California Department of Fish & Wildlife (CDFW)
Caltrans District 9 staff

SUBJECT: Wildlife Crossing update

RECOMMENDATION

Update on Wildlife Crossing project. Provide any desired direction to staff.

FISCAL IMPLICATIONS

Funding to fully develop this into a project has not been identified at this time.

ENVIRONMENTAL COMPLIANCE

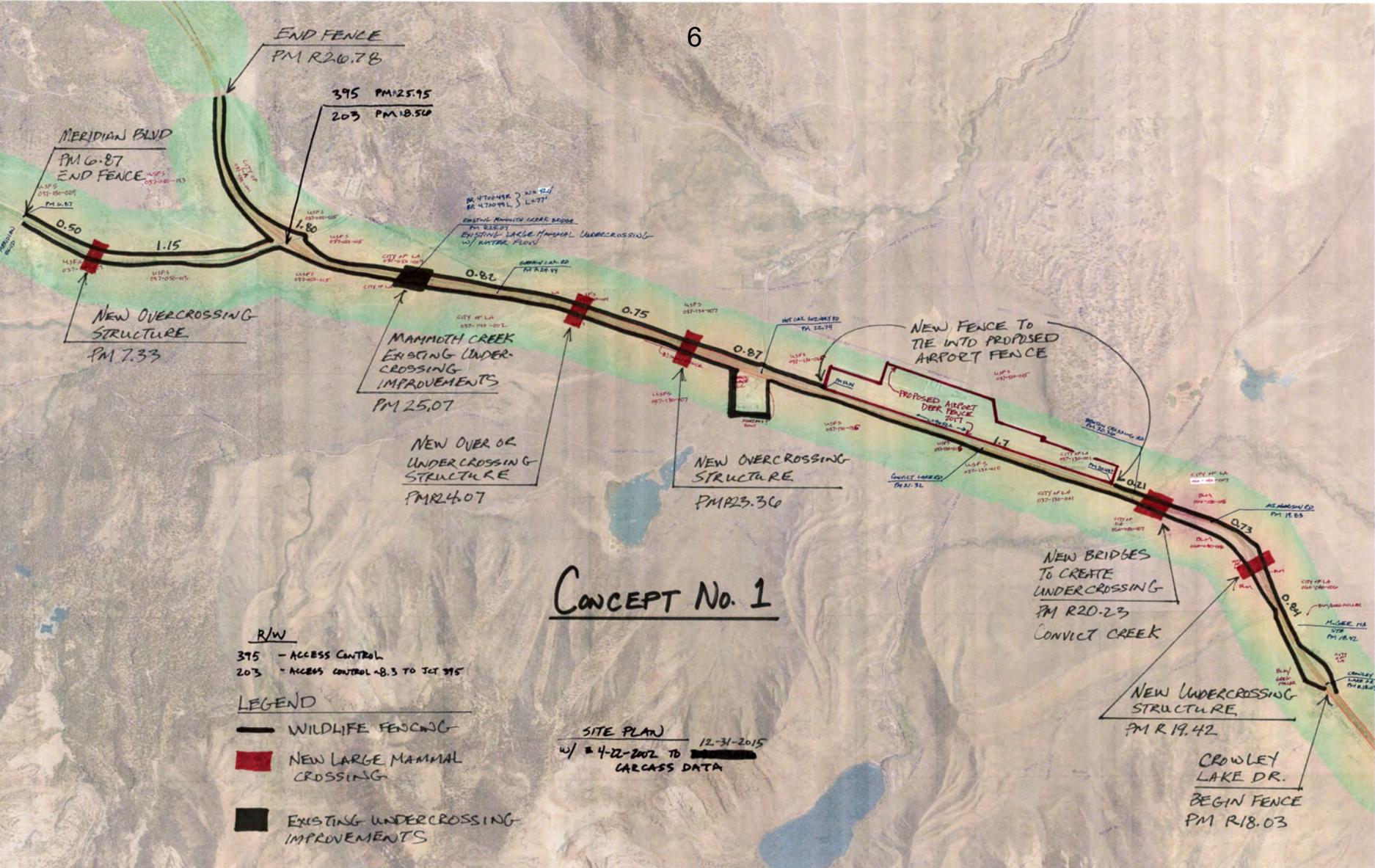
Not applicable

RTP/RTIP CONSISTENCY

Not applicable

DISCUSSION

District 9 hosted a meeting with staff, CDFW, and Bureau of Land Management on November 1 to discuss next steps. Caltrans is working on a cooperative agreement to better define roles of the various agencies. The basic concept is to fund a Project Initiation Document (PID) for the complete project limit (Attachment 1) as defined in the feasibility study and probably construct in various phases over time. The PID funding could come from the Planning, Programming, and Monitoring (PPM), BLM may have some funding to help conduct surveys, and CDFW may have a funding source for large-game species.



CONCEPT No. 1

- R/W
- 395 - ACCESS CONTROL
 - 203 - ACCESS CONTROL 18.3 TO JCT 395

- LEGEND
- WILDLIFE FENCING
 - NEW LARGE MAMMAL CROSSING
 - EXISTING UNDERCROSSING IMPROVEMENTS

SITE PLAN
 12-31-2015
 w/ 4-22-2002 TO [REDACTED]
 CARCASS DATA

CROWLEY LAKE DR.
 BEGIN FENCE
 PM 18.03

FEASIBILITY STUDY REPORT

Wildlife Vehicle Collision Reduction On US 395 Near Mammoth Lakes



Wildlife-vehicle Collisions are a Nationwide Issue

- Total number of reported collisions nationally: ~300,000
- Substantially underreported due to many reasons:
 - databases exclude crashes with property damage under \$1,000
 - Not all drivers report collisions with animals
 - Not all law enforcement and DOTs have resources to collect accurate data
 - Injured animals often travel away from road before they die and carcasses are never found or recorded
- **In 2008, WVCs accounted for 1 in 20 (5%) of all reported motor vehicle collisions**

(FHWA Collision Reduction Study)

<https://www.fhwa.dot.gov/publications/research/safety/08034/08034.pdf>



Wildlife-vehicle Conflicts are Expensive

- Actual collisions with wildlife, but also drivers swerving to avoid collisions and animals avoiding roads and traffic
- Estimated cost of the average W-V Collision is \$6,126 (FHWA 2008)
- Cost includes property damage, human injuries and human fatalities
- Economic value of each deer to local revenue (hunting, tourism etc.) \$2,000
- Removal/Disposal Costs average \$50/deer
- **Total estimated cost (2008) of W-V Collisions = \$8,388/deer**

<https://www.fhwa.dot.gov/publications/research/safety/08034/03.cfm>

***Current estimated cost (U.S. Bureau of Labor Statistics CPI Calculator) = \$9,834.78

Solutions to Reduce Collisions

- Influencing Driver Behavior
 - Roadway Warning Signs
 - Seasonal Education & Messaging
 - Animal Detection Systems
- Influencing Animal Behavior
 - Reducing habitat adjacent to roads
 - Deterring animals away from roads
- Keeping Animals off the Road
 - Enhancing Existing Structures
 - Construction new Structures
 - Wildlife fencing



Types of Wildlife Crossings

- Over-crossings
- Under-crossings
- All include wildlife fencing



Wildlife overpass in Banff NP – Canadian Geographic



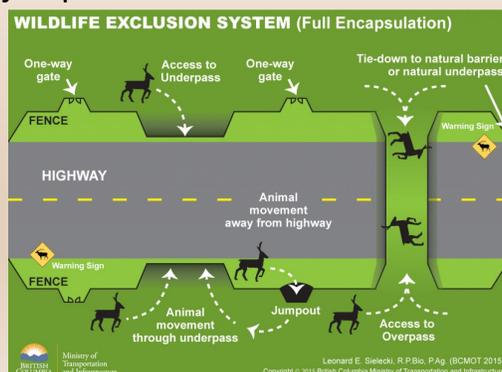
Undercrossing in Idaho



Undercrossing in Banff NP – Parks Canada

How Do They Work?

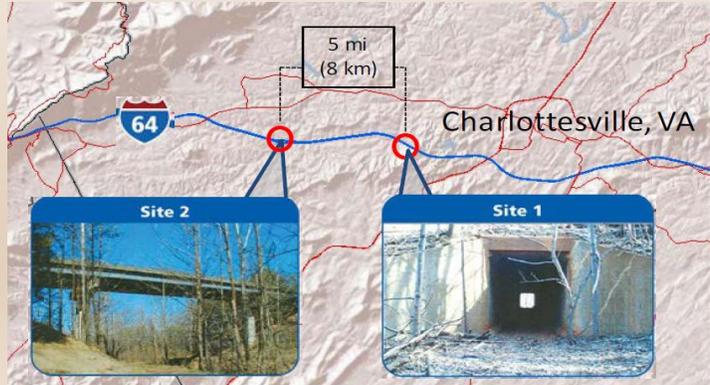
- Full enclosure of highway segment with fencing
- Funnel animals safely through established crossing locations
- Provide one-way jump outs in event wildlife enters highway



Do they Work?

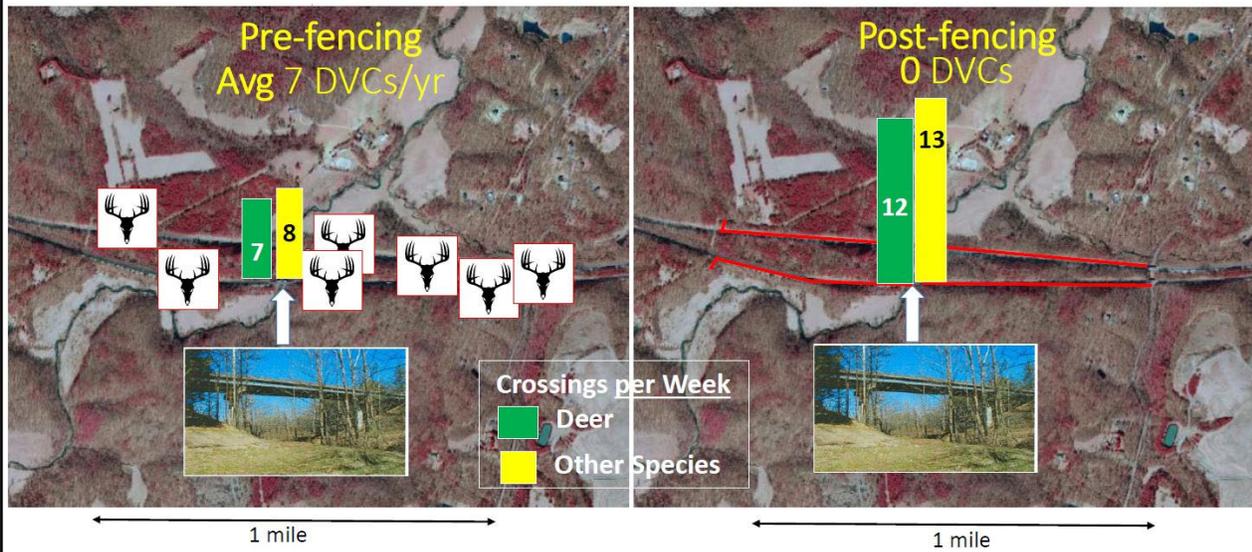
- Virginia Case Study (2018 VDOT)

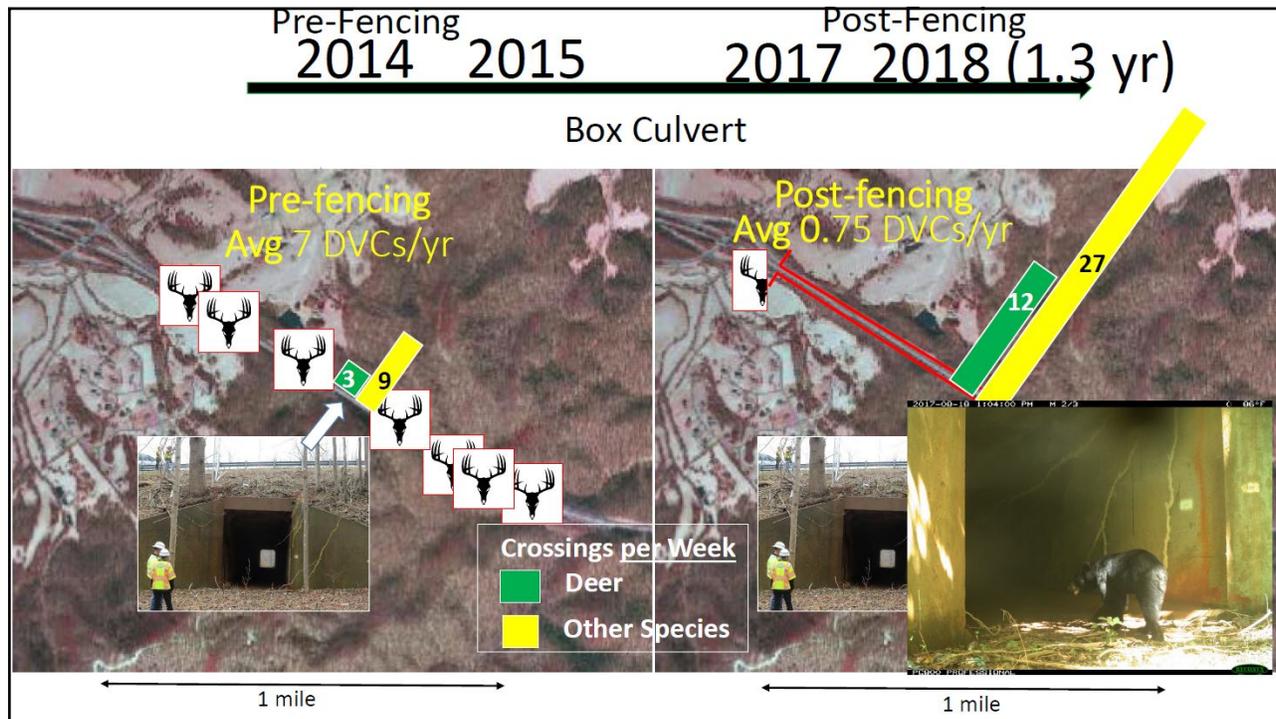
- Deer-vehicle Collisions 3rd most common crash type in study area
- Added 21 miles of wildlife fencing around existing structures (bridge and box culvert)
- Not a mitigation project
- After fencing installed **86% reduction** in deer-vehicle collisions



Pre-Fencing 2014 2015 Post-Fencing 2018 (Jan-Jul)

Bridge Underpass





Do they Work?

- Virginia DOT Case Study 2018
- Fencing for just one underpass is expected to result in a savings in costs associated with deer-vehicle collisions of **\$501,473**
- Fencing was found to be cost effective when it prevents 1 deer crash per mile per year

<http://www.vtrc.virginiadot.org/>



Mt. Lebanon, Pennsylvania – mtlebanon.org

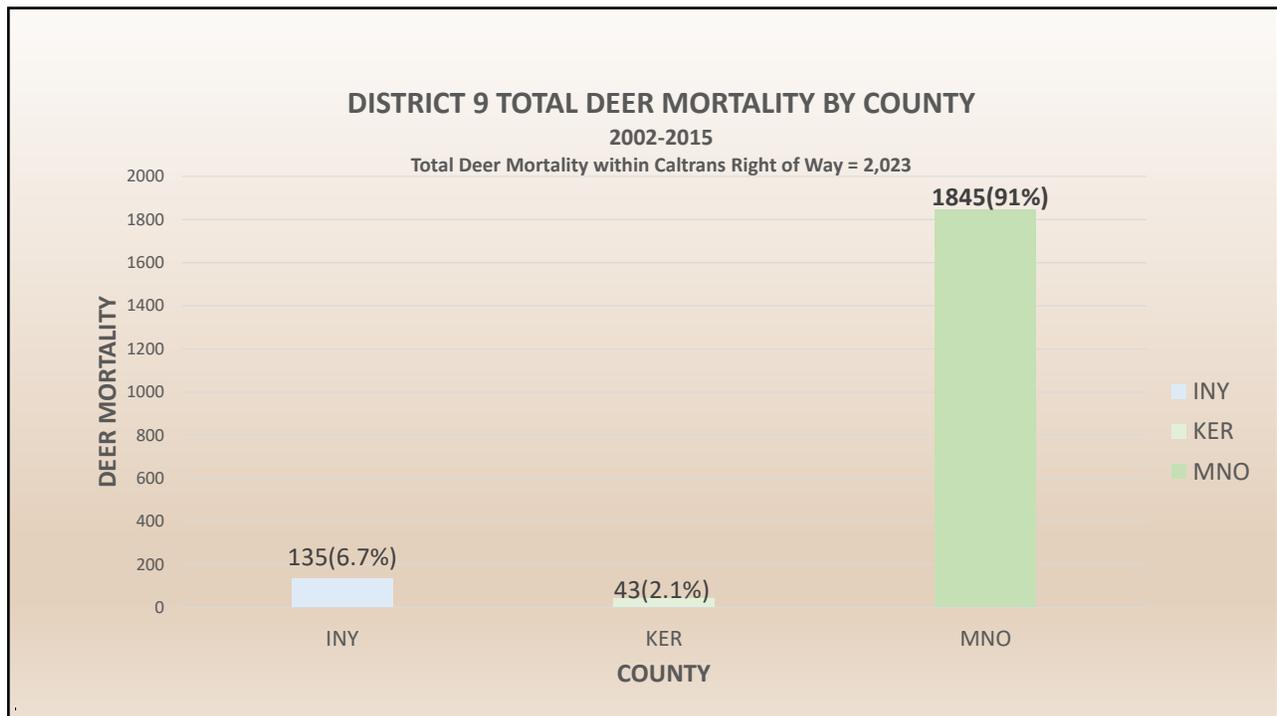
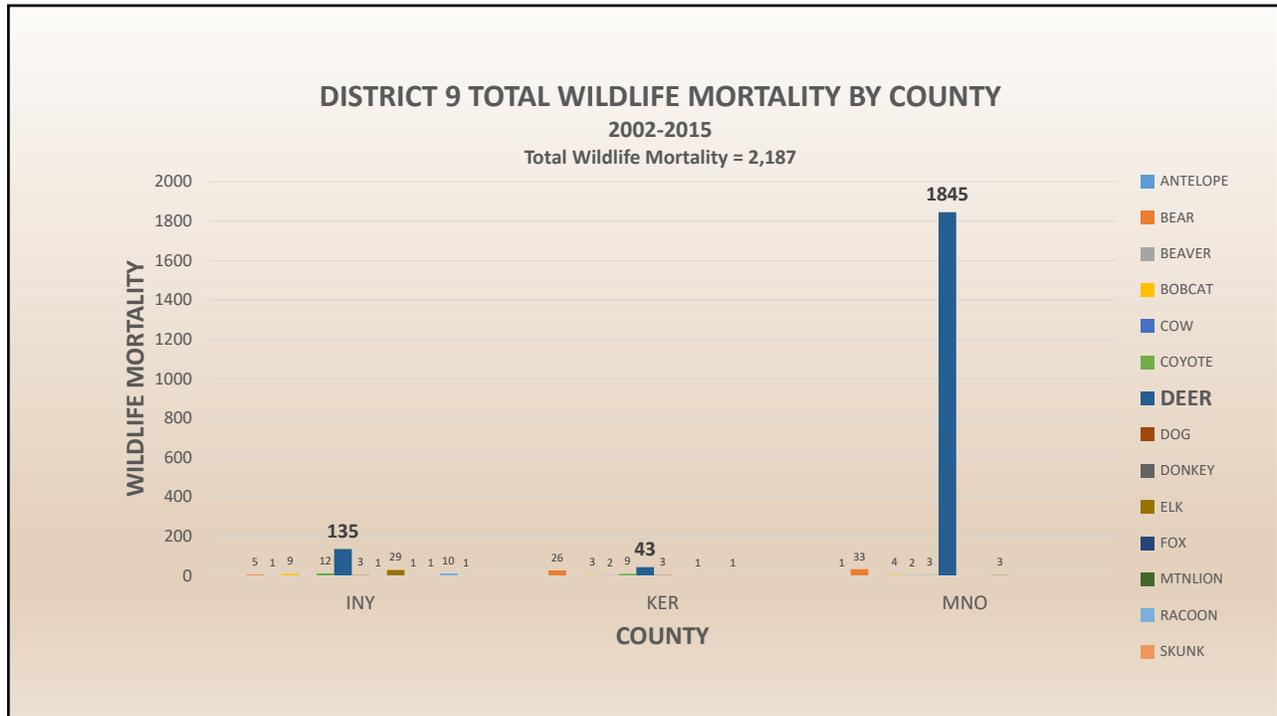
Potential for Wildlife Crossing Structures in the Eastern Sierra

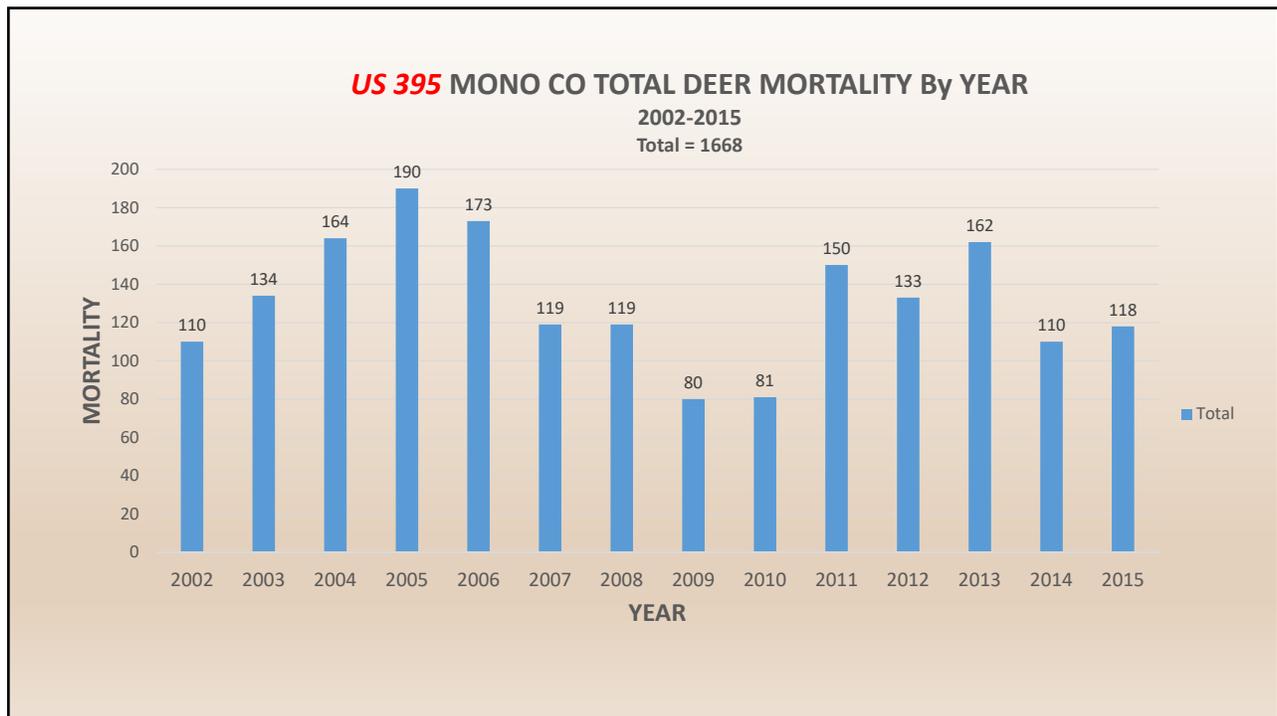
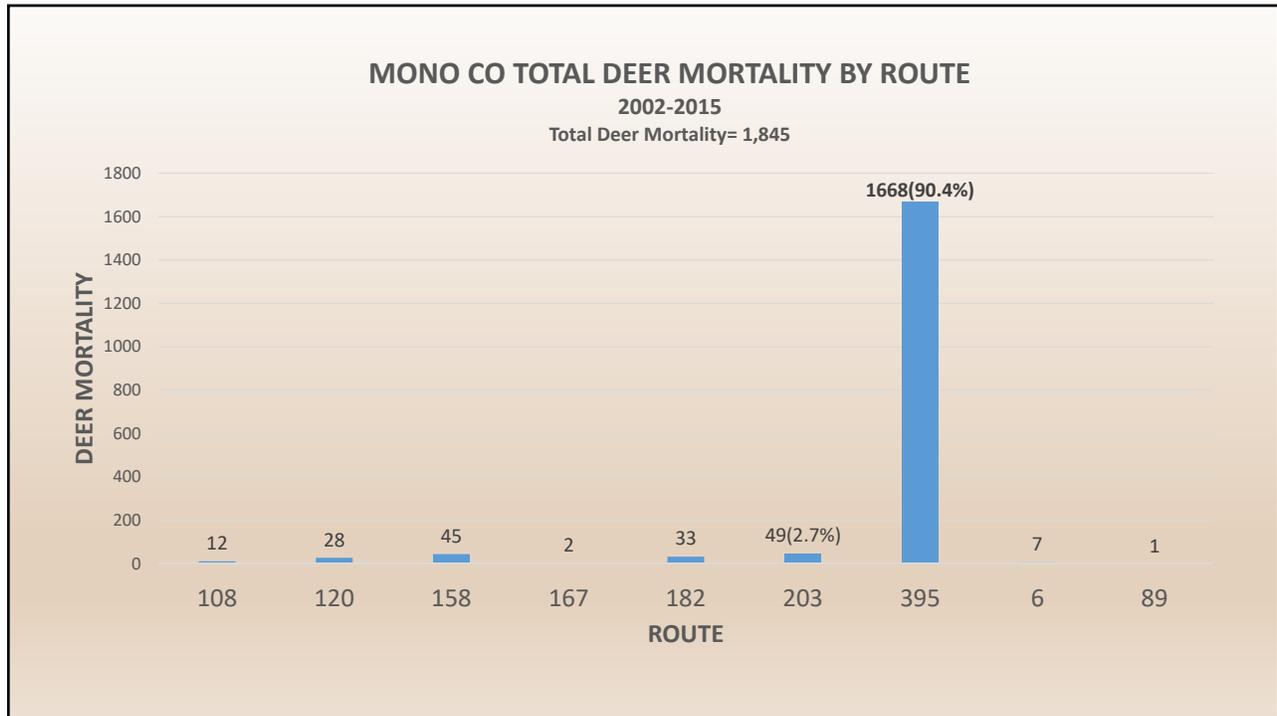


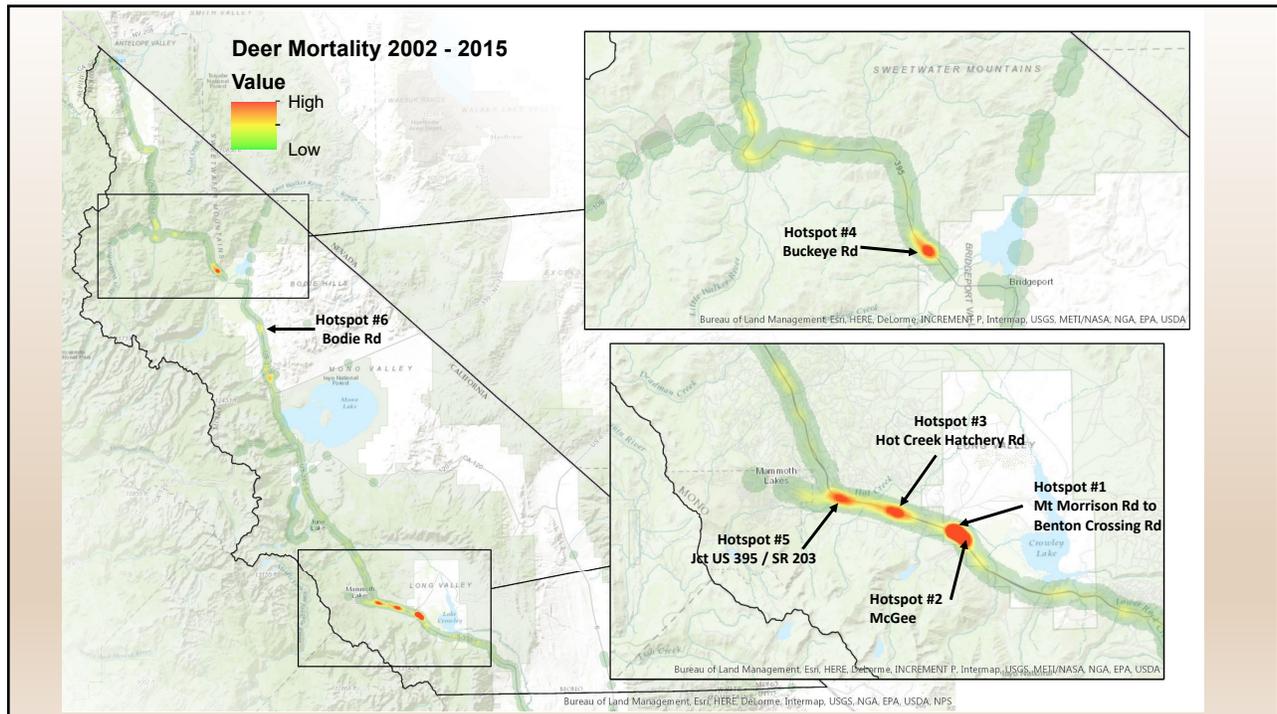
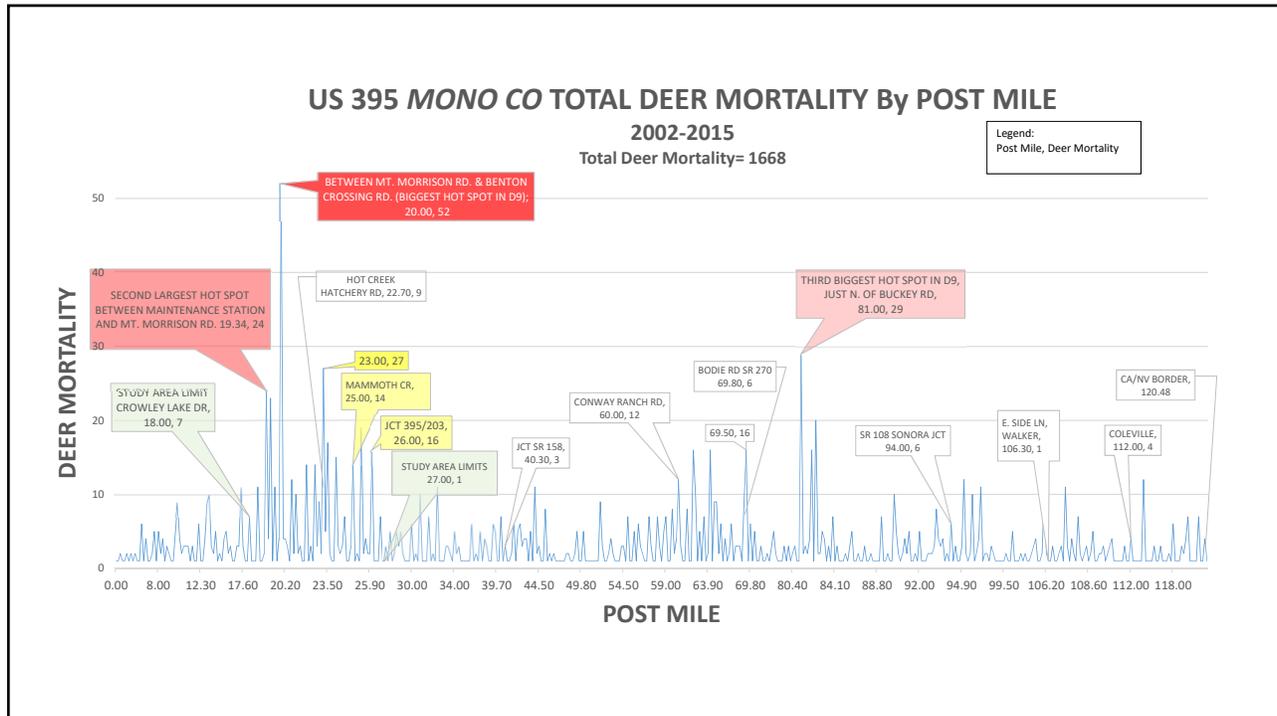
Sunset Magazine: <https://www.sunset.com/travel/outdoor-adventure/sierra-nevada-mountains>

Background



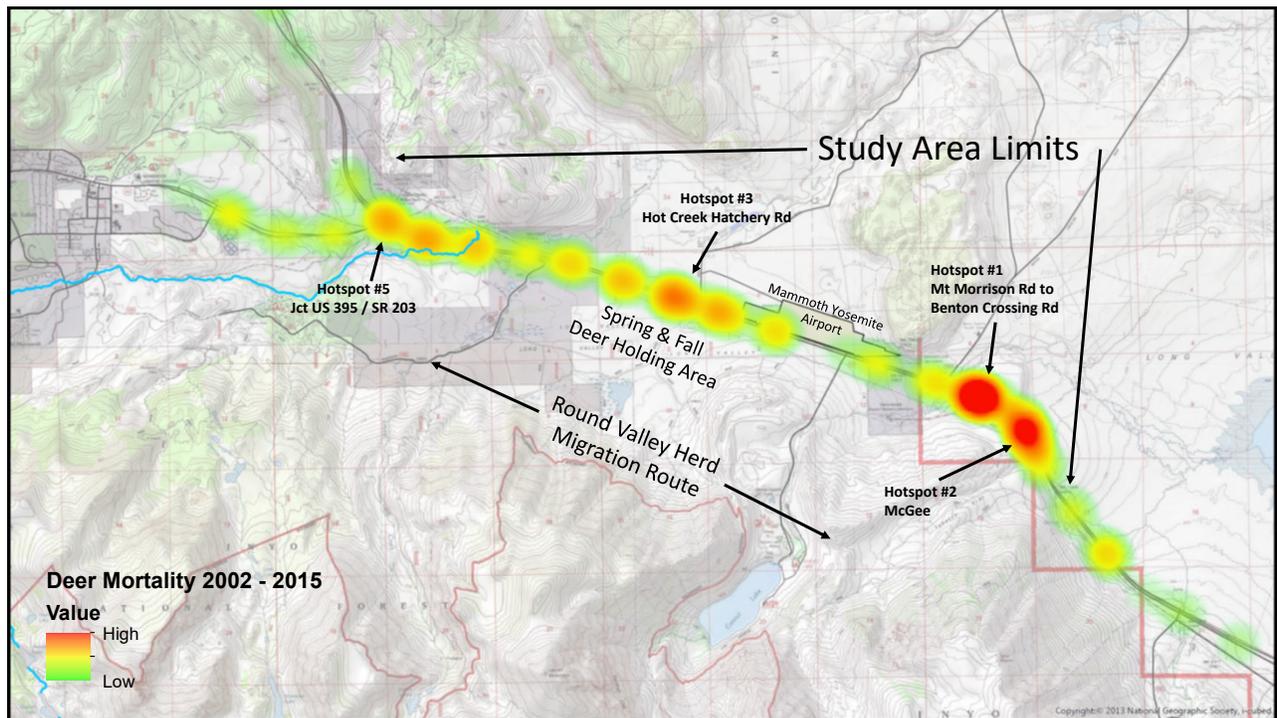


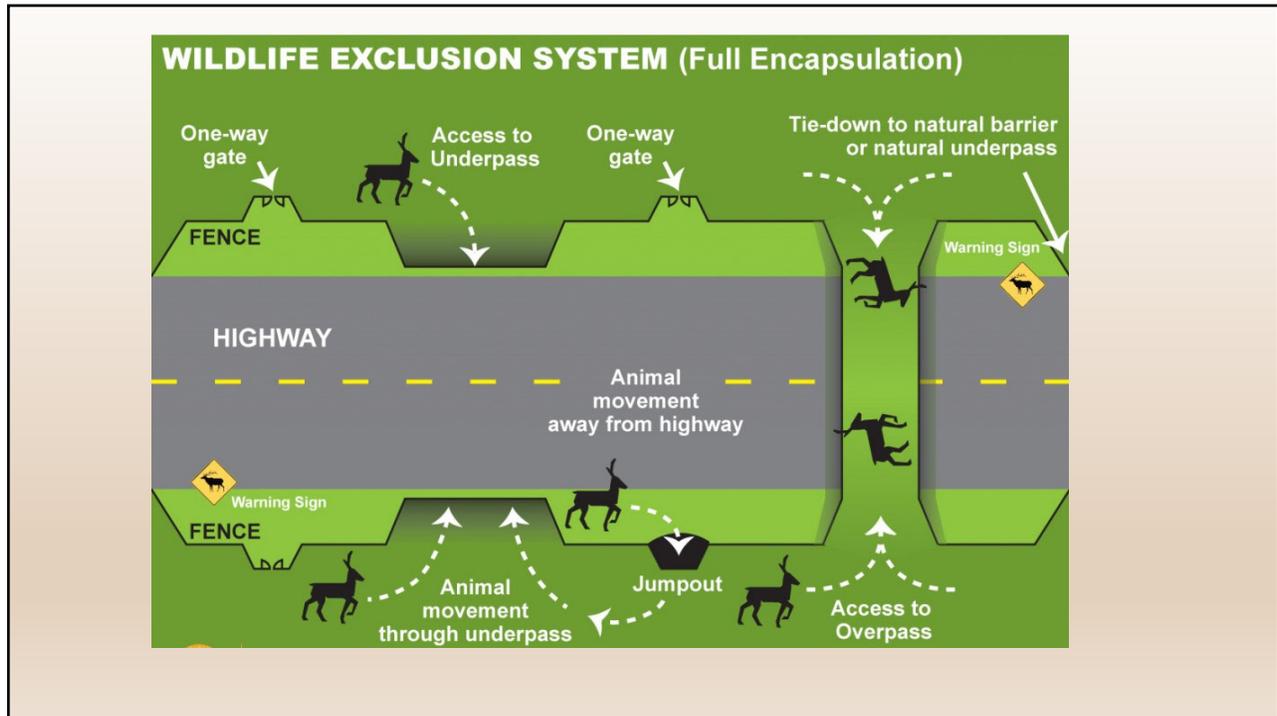




Mono County Hotspots

Hot Spot Ranking	Name	Length (miles)	Deer Mortality per year	Total Deer Mortality (14 years)	Deer Mortality per year per mile	Notes
1	Mt Morrison Rd to Benton Crossing Rd	0.47	6.1	80	12.93	Addressed in Study
2	McGee	0.43	4.2	56	9.84	Addressed in Study
3	Hot Creek Hatchery Rd.	0.41	2.6	34	6.38	Addressed in Study
4	Buckeye Rd.	0.74	4.5	60	6.03	
5	Jct 395 / SR 203	0.4	2.0	29	5	Addressed in Study
6	Bodie Rd.	0.44	2.0	31	4.5	





Wildlife Undercrossing At Bridge



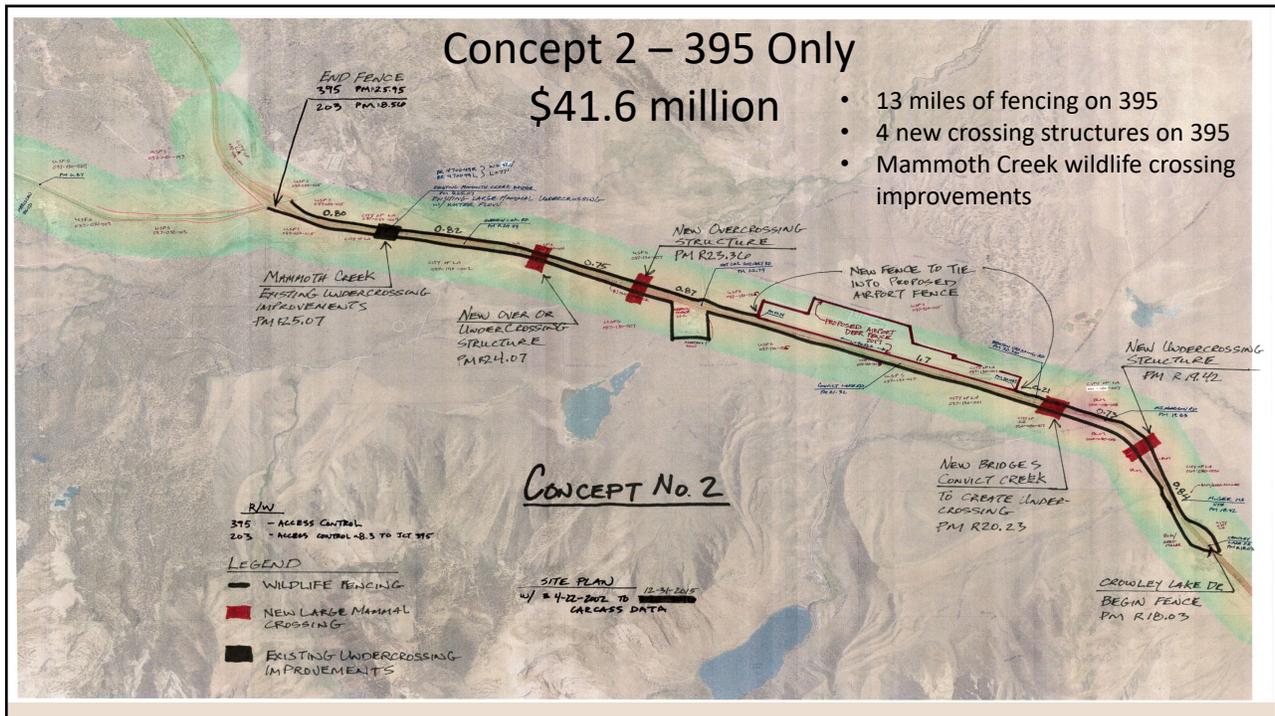
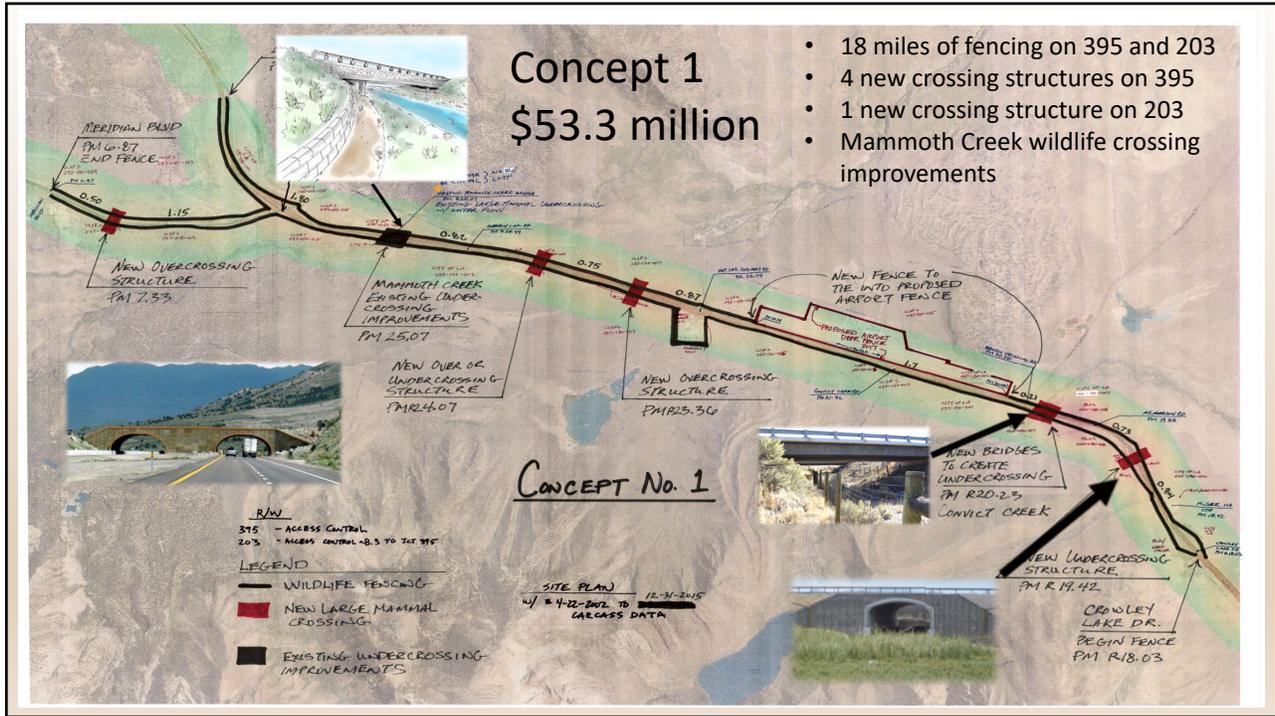
Wildlife Fencing

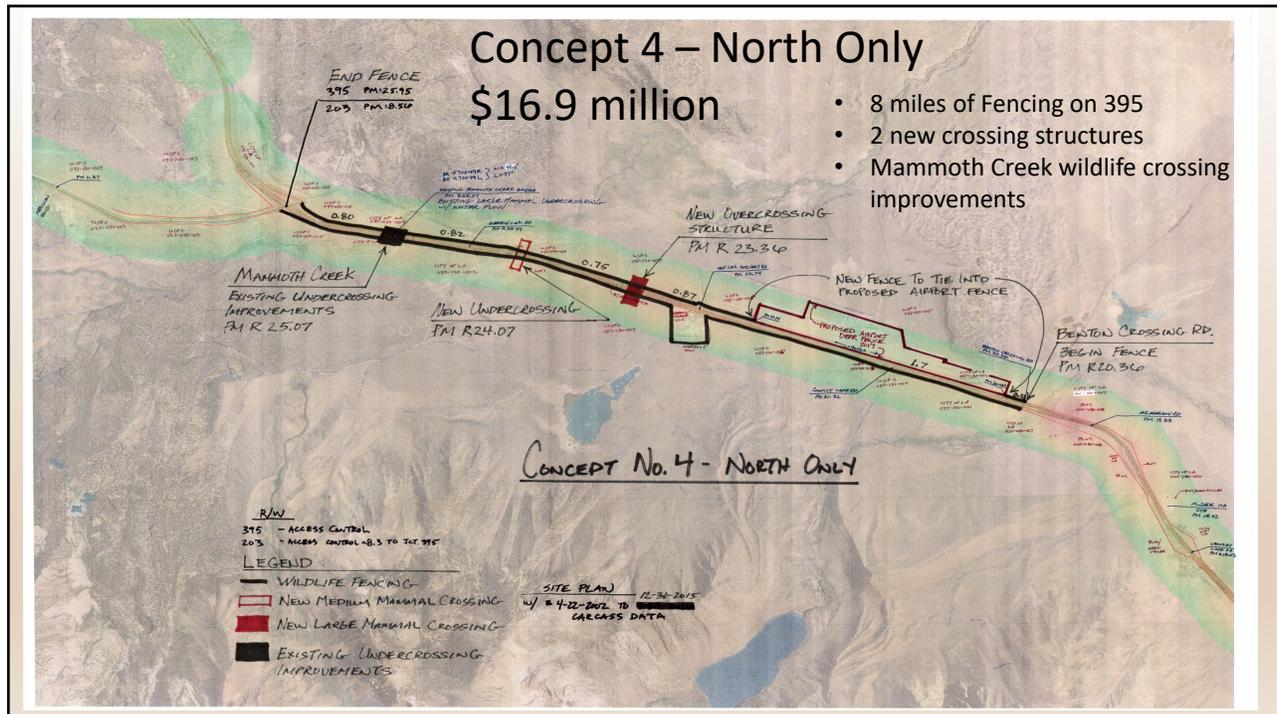
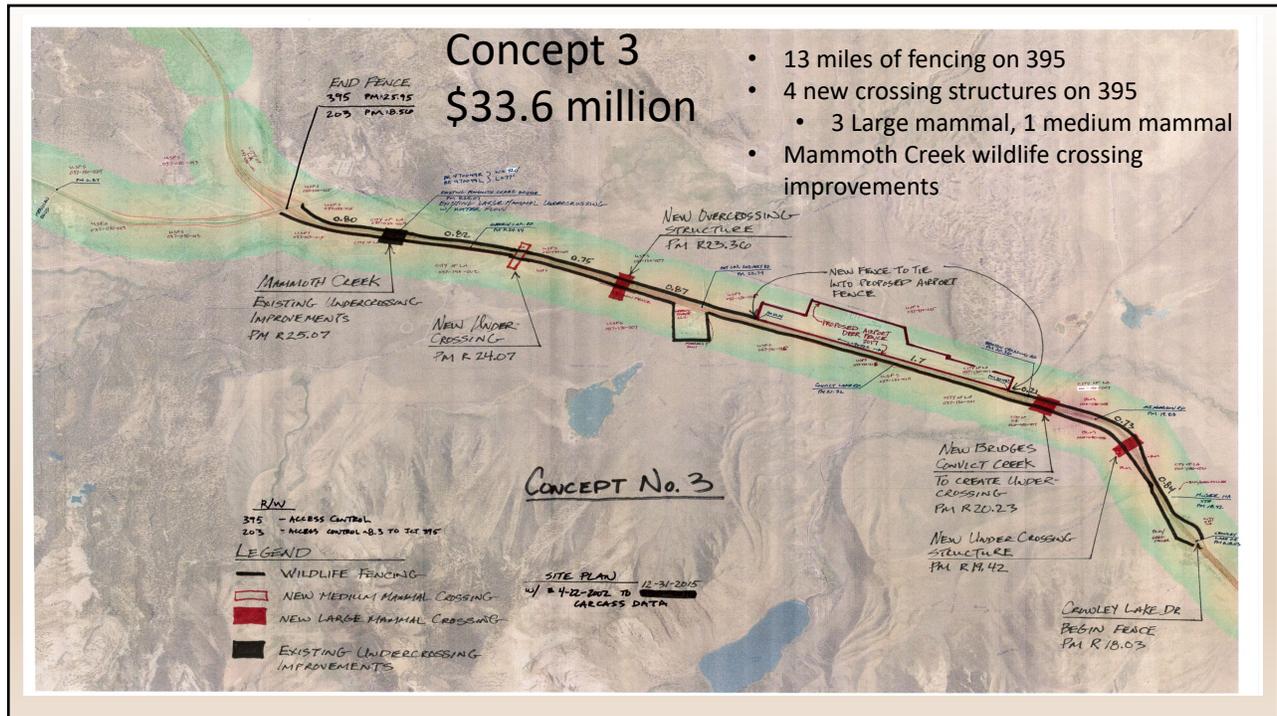


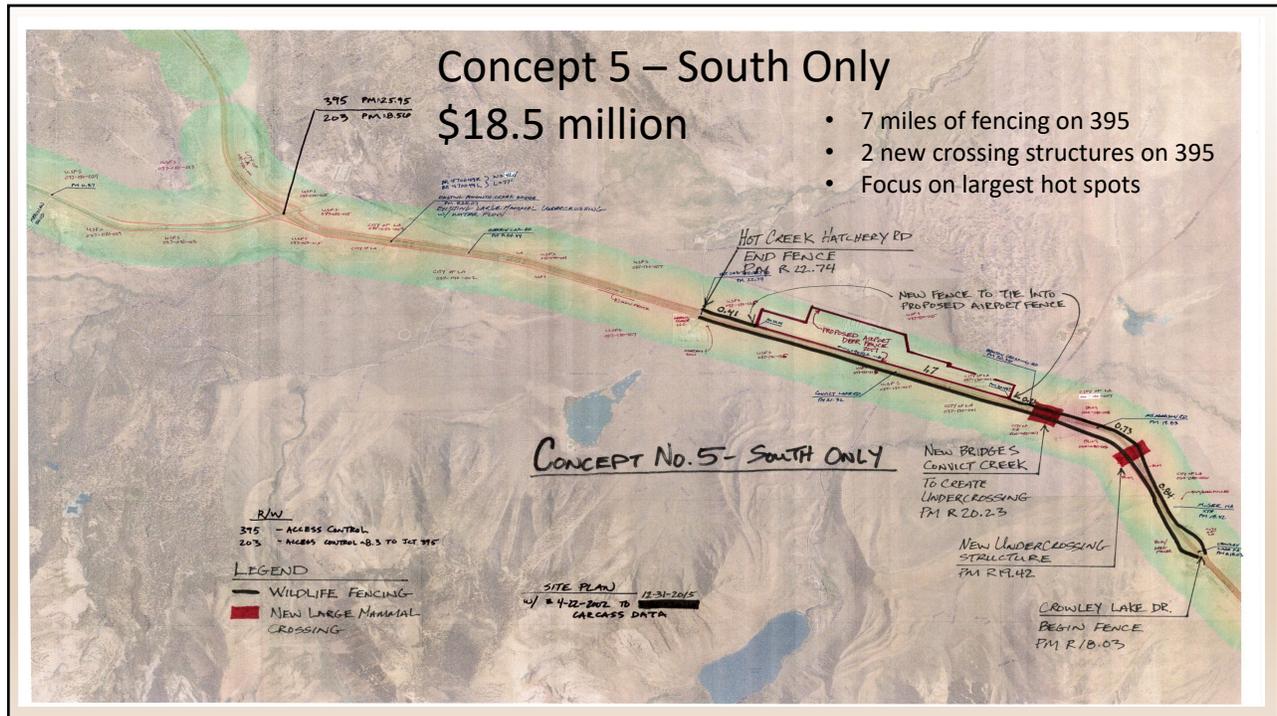
Wildlife Overcrossing



Wildlife Undercrossing



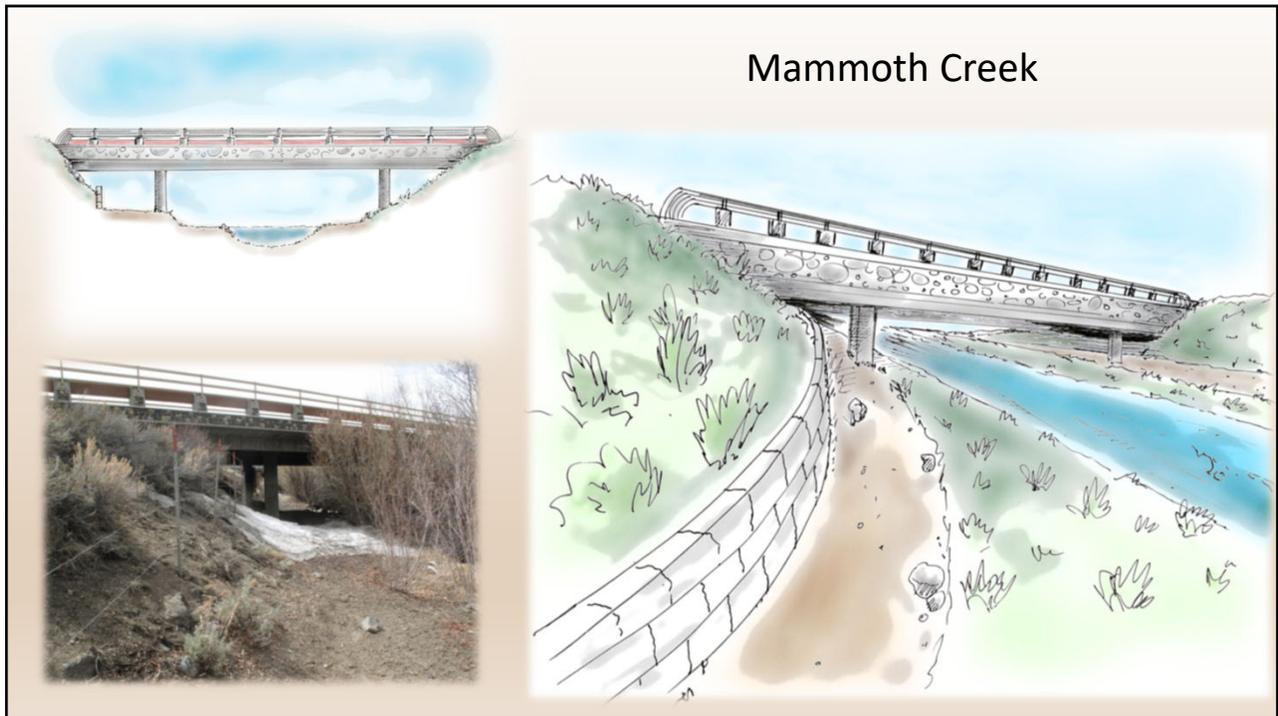
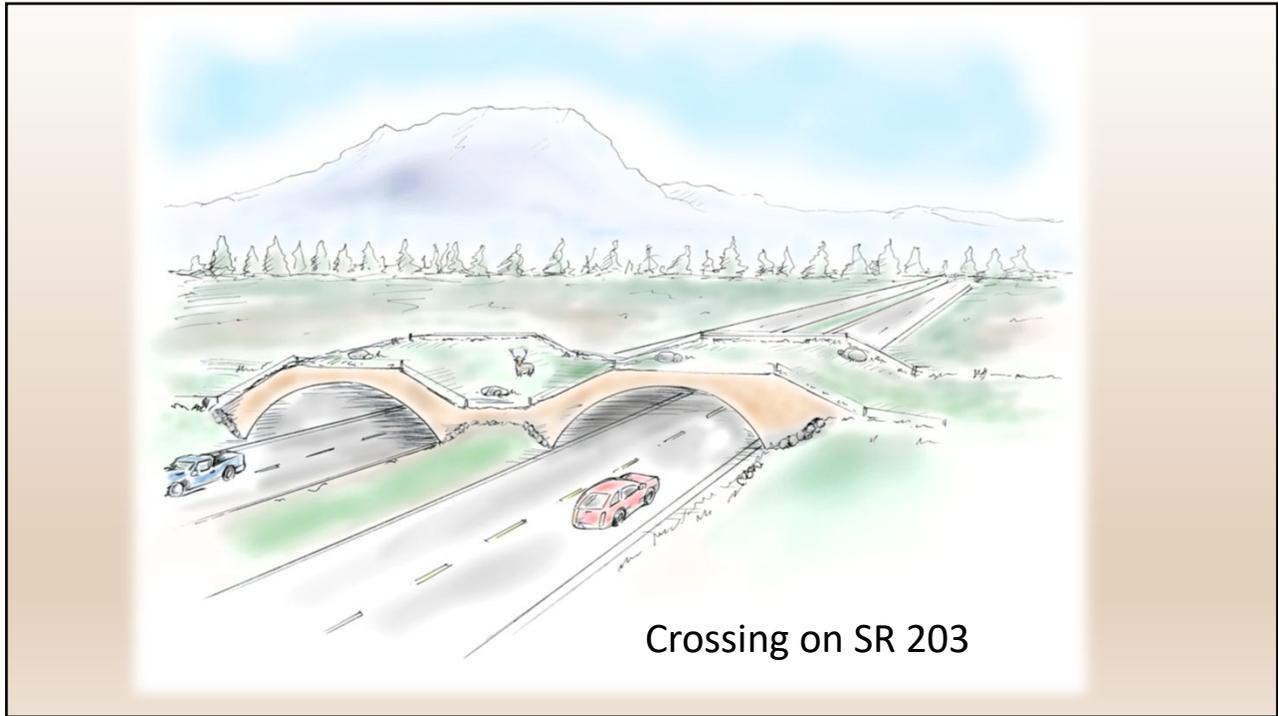


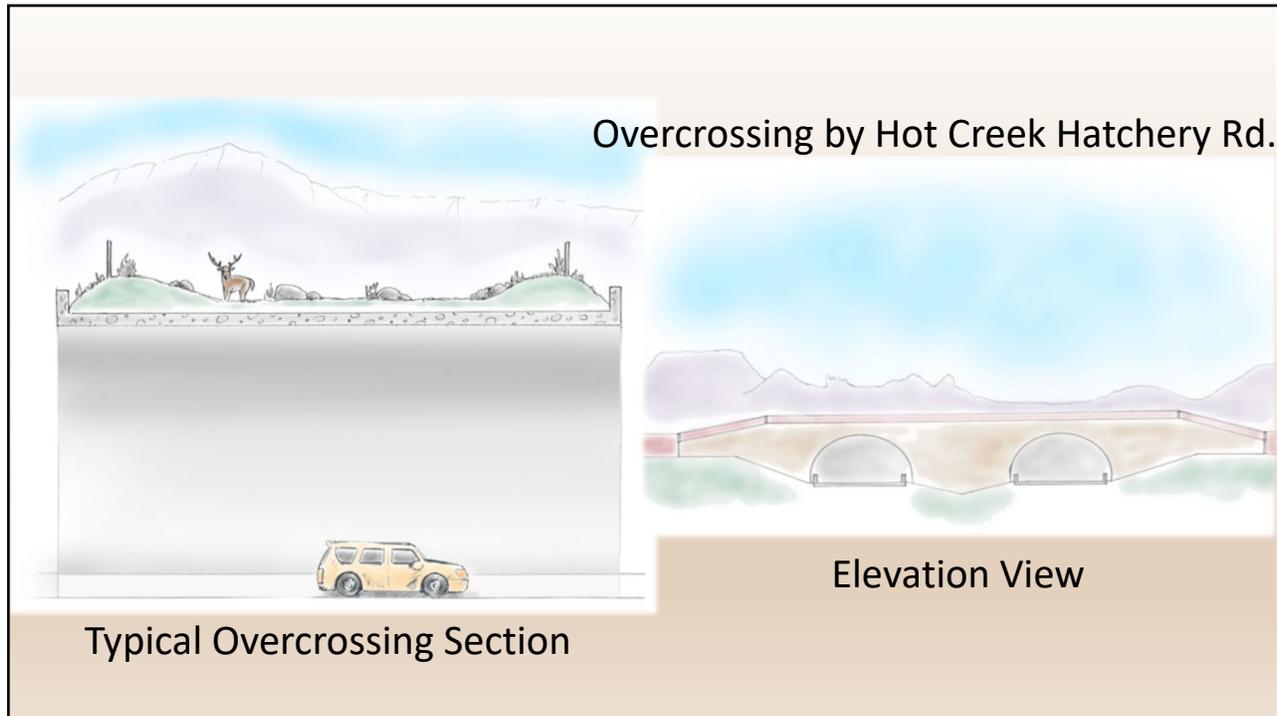


Concepts	Location	Primary Features	Cost (millions)	Remarks	Hotspots Addressed
1	US 395 and SR 203	4 New Large Mammal Crossings on 395 1 New Large Mammal Crossing on 203 Mammoth Creek Improvements 18 miles of wildlife fencing	53.3	Fully integrated system to reduce WVCs on SR 203 and 395	1, 2, 3, 5
2	395	4 New Large Mammal Crossings on 395 Mammoth Creek Improvements 13 miles of wildlife fencing	41.6	Same as Concept 1 but Excludes SR 203	1, 2, 3, 5
3	395	3 New Large Mammal Crossings on 395 1 New Medium Mammal Crossing on 395 Mammoth Creek Improvements 13 miles of wildlife fencing	33.6	Same as Concept 2 but utilizes Medium mammal crossing instead of large mammal between Mammoth Creek and overcrossing structure at PM 23.36	1, 2, 3, 5
4	395 - North Only (Benton Crossing Rd to SR 203)	1 New Large Mammal Crossing on 395 1 New Medium Mammal Crossing on 395 Mammoth Creek Improvements 8 miles of wildlife fencing	16.9	No crossing structures or fencing south of Benton Crossing Rd.	3, 5
5	395 – South Only (Crowley Lake Dr to Hot Creek Hatchery Rd)	2 New Large Mammal Crossings on 395 7 miles of wildlife fencing	18.5	No new crossings opportunities, fencing, or improvements north of Hot Creek Hatchery Rd.	1, 2
6	Seasonal Signage	Portable Changeable Message Sign during migration season and night time hours	.02/Year	Rental and maintenance	

Concepts Considered But Not Chosen

1. Wildlife detection systems and active signage – Doppler and Infra-red
 - All documented case studies on 2 lane facilities (much narrower crossing lengths)
 - Reliability issues leads to drivers ignoring signage
 - Costly
2. Electric fencing
 - Shorter fencing heights, but more costly system to maintain and purchase
 - If fence section becomes de-energized then deer can easily jump over
3. Reflectors/Mirrors
 - Was tried in the past but deemed inconclusive at scaring deer away
 - Was implemented on the deer fence in 1969 between SR 203 & Sherwin Creek Rd.





How do we compare to other areas?

Caltrans Districts	Total Deer Mortality	Years of Collection	Deer Mortality per year		
District 9	2023	14	144.5		
District 10	3010	11	273.6		

Other Study Areas	Description	Length (miles)	Deer Mortality per year	Deer Mortality per year per mile	Notes
Study Area	Crowley Lake Dr. to SR 203	7.14	27.6	3.86	14 years of data
District 3 Undercrossing Project	SR 89 -Kyburz Flat	1.1	4	2.59	7 years of data
District 4	I280 between San Jose and San Francisco	22	45	2.06	8 years of data
Reno to CA/NV border	I80	8	10.5	1.31	2 years of data
Southern Utah, east of Kanab	Highway 89	12	115	Unknown	Unknown

Updates:

- Looking for funding opportunities with local stakeholders
 - CDFW received grant from USFWS for Big Game Species Conservation
 - BLM may have funding for deer connectivity
 - Mono County may have funding available for Caltrans support costs
- Partnering to complete Environmental Phase
 - CDFW- work with local office to complete Biological studies for Phase 0
 - BLM- work with local office to complete Archaeological studies for Phase 0
 - Also could be NEPA lead for project
- If PA&ED and PS&E are completed, project would be ready for construction if funding allows, and based on alternative selected



Questions For You

- How have other Caltrans Districts funded wildlife crossing projects: D3, D11, D5?
 - Mitigation?
 - Advanced Mitigation Program?
 - Safety Improvement?
 - Local bond or tax measure?
 - Multiple donors- private?
- If worked with stakeholders, what agreements were made?
 - MOU/MOA?
 - Co-op?
 - Who was CEQA/NEPA lead?



- District 3, U.S. 50
- Box culvert for mule deer



- District 11, State Route 76
- Directional fencing



- District 5, U.S. 101
- Electric mats to deter wildlife



- District 3, Highway 89
- Undercrossing for mule deer

Questions for us?



Mono County Local Transportation Commission

PO Box 347
Mammoth Lakes, CA 93546
760-924-1800 phone, 924-1801 fax
commdev@mono.ca.gov

PO Box 8
Bridgeport, CA 93517
760-932-5420 phone, 932-5431 fax
www.monocounty.ca.gov

LTC Staff Report

December 10, 2018

FROM: Gerry Le Francois, Co-Director Mono County LTC
Lynn Boulton, Chair Range of Light Group, Sierra Club & Ready for 100% Renewable Energy
Janet Carle, Mono Climate Action Group

SUBJECT: LTC support for establishing a universal level-2 Electrical Vehicle (EV) charging station at Gus Hess Park in Lee Vining

RECOMMENDATION

Update from Lynn Boulton and Janet Carle seeking support for a universal level-2 Electric Vehicle (EV) charging station at Gus Hess Park in Lee Vining. Provide any desired direction to staff.

The LTC supports installation of an EV charging station at Gus Hess Park subject to any requirement(s) of the County.

FISCAL IMPLICATIONS

The cost of this EV charger, installation, and ongoing maintenance to the County is unknown. The County would be responsible for maintenance and related infrastructure.

ENVIRONMENTAL COMPLIANCE

Installation of EV stations are ministerial projects under the building permit process.

RTP/RTIP CONSISTENCY

The Regional Transportation Plan policies support EV charging stations, as shown below.

Policy 4.D. Encourage the use of alternative fuels in County operations and throughout the community.

Objective 4.D.2. Consider installation of electric vehicle charging stations at public facilities, such as at parking lots and airports, for community use.

Time frame: Within the 10-year short-term time frame of this plan.

Objective 4.D.5. Encourage new commercial and visitor-serving projects to include electric vehicle charging stations in parking areas.

Time frame: Within the 10-year short-term time frame of this plan.

DISCUSSION

The LTC currently does not have a firm policy document on how or where to implement EV charging stations throughout the county. We do have Regional Transportation Plan (RTP) policies that support working in this direction. Some policy issues that have not been addressed:

- Is the EV charging station a pay-for service or free;
- Cost of the charging station is dependent on whether it is a pay system or free;
- Does EV charging station compete will future private businesses;

- The County will be responsible for maintaining this new infrastructure;
- How does this project fit into existing Project Request from other communities, and/or the five-year Capital Improvement Program (CIP); and
- Other unidentified issues/concerns.

Maybe one way to look at this project and LTC support might be as a one-time project or unique opportunity that fits in nicely with the solar pavilion. Since this project will fall to Public Works and the County to install and maintain, the final approval may need to come from the Board of Supervisors.

ATTACHMENTS submitted by proponents

- 1) Hess Park picture
- 2) Clipper Creek charger
- 3) EV striping example
- 4) Cost to charge an EV
- 5) Spreadsheet





POWER
CHARGING
POWER FAULT
CHARGING FAULT

CLIPPERCREEK
ELECTRIC VEHICLE
CHARGE STATION
HIGH POWER



← Lifeguard Tower
← Siren Cafe
→ Restrooms 100 yds

EV CHARGING ONLY
FOUR HOUR LIMIT

ACCESSIBLE PARKING ONLY BETWEEN SIGNS

EV CHARGING ONLY
FOUR HOUR LIMIT

DREAM
MOTORCYCLE

EV ONLY

COST TO CHARGE

Battery Sizes were obtained using manufacturer websites. This chart does not (this means it may cost less to charge your vehicle from empty to full if the usable

Attachment 4

31

VEHICLE	BATTERY SIZE (kWh)	COST TO CHARGE \$0.1315** PER kWh	EXPECTED ELECTRICAL MILES ON A CHARGE PER EPA	ESTIMATED GAS EQUIV. COST FOR AVERAGE U. DUTY (22 MPG AT \$2.
BMW ActiveE	32	\$4.21	94	\$12.21
BMW i3 2014-2016	23	\$3.02	81	\$10.52
BMW i3 2017 (60 Ah)	23	\$3.02	82	\$10.65
BMW i3 2017 (90 Ah)	32	\$4.21	114	\$14.80
Chevy Bolt	60	\$7.89	238	\$30.91
Chevy Spark	23	\$3.02	82	\$10.65
Coda	31	\$4.08	88	\$11.43
Fiat 500E	24	\$3.16	87	\$11.30
Ford Focus EV	23	\$3.02	76	\$9.87
Ford Focus EV 2017	33.5	\$4.41	115	\$14.93
Honda Clarity	25.5	\$3.35	89	\$11.56
Hyundai Ioniq	28	\$3.68	105	\$13.64
Jaguar I-PACE	90	\$11.84	240	\$31.17
Kia Soul	27	\$3.55	93	\$12.08
Mercedes B Class	28	\$3.68	87	\$11.30
Mitsubishi i-MiEV	16	\$2.10	62	\$8.05
Nissan Leaf 2011-2015 (2016 S Model)	24	\$3.16	79	\$10.26
Nissan Leaf 2016 SL and SV	30	\$3.95	107	\$13.90
Nissan Leaf 2017 S, SL and SV	30	\$3.95	107	\$13.90
Nissan Leaf 2018 S, SL and SV	40	\$5.26	150*	\$19.48
Smart Car	17.6	\$2.31	68	\$8.83
Smart ForTwo	17.6	\$2.31	80	\$10.39
Tesla Model 3 Standard	50	\$6.58	220	\$28.57
Tesla Model 3 Long Range	70	\$9.21	310	\$40.26
Tesla Model S 60 Single Charger	60	\$7.89	208	\$27.01
Tesla Model S 70 Single Charger	70	\$9.21	235	\$30.52
Tesla Model S 75 & 75D	75	\$9.86	259	\$33.63
Tesla Model S 85 Single Charger	85	\$11.18	265	\$34.41
Tesla Model S 90 Single Charger	90	\$11.84	276	\$35.84
Tesla Model S 100D & P100D	100	\$13.15	315	\$40.91
Tesla Model S 60 Dual Charger	60	\$7.89	208	\$27.01
Tesla Model S 70 Dual Charger	70	\$9.21	235	\$30.52
Tesla Model S 85 Dual Charger	85	\$11.18	265	\$34.41
Tesla Model S 90 Dual Charger	90	\$11.84	276	\$35.84
Tesla Model X 60	60	\$7.89	200	\$25.97
Tesla Model X 75 & 75D	75	\$9.86	237	\$30.78
Tesla Model X 90	90	\$11.84	257	\$33.37
Tesla Model X 100D & P100D	100	\$13.15	289	\$37.53
Tesla Roadster	56	\$7.36	245	\$31.82
Toyota Rav4	41.8	\$5.50	103	\$13.38
VW e-Golf (before 2017)	24	\$3.16	83	\$10.78
VW e-Golf 2017	35.8	\$4.71	83	\$10.78

Updated 20180802_YG

*NOT confirmed with EPA (Dept. of Energy - Fuel Economy)
 **Price Referencing National Residential Average Price per kWh as of May 2018 (US EIA - Electric Power Monthly)
 ***Using Average Fuel Efficiency of Light-Duty Vehicle in US 2015 and Average Cost per Gallon of Regular Unleaded as of July 2018 (Dept. of Trans. Average MPG & Dept. of Energy Fuel Update)

Comparison between Usage and Generation at the TOU-D-A NEM rate

	June-Sept (4 months)					Oct-May (8 months)					Total KW	SCE Monthly billing Fee \$2.70	SCE NBC Fees (based on net) \$10/month	EOY NEM Revenue Rate \$0.0285 (NSCR)	EOY Net	TOU-D-A NEM rate
	8am-2pm 8pm-10pm rate (.28)	2pm-8pm rate (.47) M-F	2pm-8pm rate (.28) Sat/Sun	10pm-8am rate (.12)	0	8am-2pm 8pm-10pm rate (.27)	2pm-8pm rate (.27) Sat/Sun	2pm-8pm rate (.35) M-F	10pm-8am rate (.13)	0						
Generating power kW/hr	5.8	4	3	3	0	2	2	2	0	0	10,590.80					formula: kW/hr x hrs x days
EVCS usage--first 2 years	6.6	1610.40	1293.60	316.80	158.40	105.60	422.40	0.00	316.80		4,224.00					formula: kW/hrx nbr of cars x hrs x days If the solar panels make more electricity than what the cars use, the gets \$0.03 per KW.
		\$0.00	\$0.00	\$0.00	\$19.01	\$0.00	\$0.00	\$0.00	\$41.18		\$60.19	\$32.40	\$120.00	\$181.45	\$1.26	
EVCS max usage--6 years out?	6.6	3220.80	2587.20	633.60	316.80	844.80	844.80	2362.80	633.60		11,444.40					formula: kW/hrx nbr of cars x hrs x days
		\$109.31	\$414.54	\$60.48	\$38.02	\$0.00	\$27.65	\$100.24	\$82.37		\$832.60	\$32.40	\$120.00	\$0.00	-\$952.60	

Link to solar generation <https://www.sunnyportal.com/Templates/PublicPage.aspx?page=ec9fe74e-495d-4350-9783-9eb3cd0c98d5>

Mono County LTC Resolution of Appreciation to Courtney Smith

WHEREAS, Courtney Smith served Inyo County for many years in the Planning Department and more recently as the Transportation Planner for the Inyo County Local Transportation Commission during his tenure; and

WHEREAS, retiree Courtney Smith will have much more free time to explore the western US, including his passion for Native American rock art and history; and

WHEREAS, Courtney was constantly promoting collaboration with other entities (we can do more together versus separately) from federal to state to local levels, was a member of the Eastern California Transportation Planning Partnership (ECTPP) along with Mono County LTC, Kern Council of Governments, Caltrans District 6, Caltrans District 8, & Caltrans District 9; and

WHEREAS, Courtney was an integral part of the regional MOU projects on US 395 and State Route 14 specifically continuing to push forward with the Freeman Gulch segments during the 2016 STIP deprogramming while continuing progress and funding for the last Inyo County gap-closure project on US 395, Olancha/Cartago; and

WHEREAS, Courtney always included Mono County LTC and the Eastern Sierra Transit Authority cooperatively working on regional transit issues such as regional short-range transit plan updates, bus replacements, and support letters for various grant opportunities.

NOW, THEREFORE, BE IT RESOLVED that the Mono County LTC commends Courtney Smith's integrity, intelligence, and tireless support for local input into the transportation planning process; and

BE IT FURTHER RESOLVED that the Mono County LTC wishes to express appreciation and gratitude for the hard work and regional approach to transportation planning Courtney Smith has given to the Eastern Sierra.

APPROVED AND ADOPTED this 10th day of December 2018, by the Mono County Local Transportation Commission.

Sandy Hogan

John Peters

Lynda Salcido

Fred Stump

John Wentworth

Stacy Corless

Mono County Local Transportation Commission

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Mammoth Lakes, CA 93546
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LTC Staff Report

December 10, 2018

FROM: Gerry Le Francois, Co-Director Mono County LTC
Cindy Kelly, YARTS staff analyst
Selena McKinney, LSC

SUBJECT: YARTS update

RECOMMENDATION

Verbal update on Yosemite Area Regional Transportation System

FISCAL IMPLICATIONS

Not applicable

ENVIRONMENTAL COMPLIANCE

Not applicable

RTP/RTIP CONSISTENCY

Not applicable

DISCUSSION

From Cindy Kelly:

The increase in daily service was approved for funding by Yosemite National Park staff. Mono County will have daily service from June 1 - September 30. Fare increases go into effect January 1, 2019. The attached schedule contains the new fare info.

From Selena McKinney:

After a very productive public workshop held in Yosemite Valley in mid-October, LSC has been developing the recommended plan. We would especially like to thank Jeff Simpson, Sandy Hogan, Rick Franz, Stacy Corless and others from Mono County for their review and feedback on Working Paper 3, and we thank those who participated in the workshop. We are sending the Administrative Draft Final YARTS SRTP Report to YARTS this week, and once they've reviewed in-house, it will be available for public review. We will make final adjustments as appropriate and hope to have the plan adopted in early 2019.

HWY 120 TICKET PRICES --- EFFECTIVE 01/01/2019

MAMMOTH LAKES, JUNE LAKE, LEE VINING, TUOLUMNE MEADOWS, WHITE WOLF, CRANE FLAT, YOSEMITE VALLEY

FROM	TO						
	MAMMOTH LAKES	JUNE MOUNTAIN	LEE VINING	TUOLUMNE MEADOWS	WHITE WOLF	CRANE FLAT	YOSEMITE VALLEY
MAMMOTH LAKES							
Round-trip		\$10	\$16	\$22	\$32	\$40	\$44
One way		\$5	\$8	\$11	\$16	\$20	\$22
Reduced Round-trip		\$6	\$10	\$15	\$22	\$26	\$30
Reduced One way		\$3	\$5	\$7	\$10	\$13	\$15
JUNE MOUNTAIN							
Round-trip	\$10		\$8	\$16	\$22	\$30	\$36
One way	\$5		\$4	\$8	\$11	\$15	\$18
Reduced Round-trip	\$6		\$4	\$10	\$15	\$20	\$24
Reduced One way	\$3		\$2	\$5	\$7	\$10	\$12
LEE VINING							
Round-trip	\$16	\$8		\$8	\$16	\$22	\$32
One way	\$8	\$4		\$4	\$8	\$11	\$16
Reduced Round-trip	\$10	\$4		\$4	\$10	\$15	\$22
Reduced One way	\$5	\$2		\$2	\$5	\$7	\$10
TUOLUMNE MEADOWS							
Round-trip	\$22	\$16	\$8		\$8	\$16	\$22
One way	\$11	\$8	\$4		\$4	\$8	\$11
Reduced Round-trip	\$15	\$10	\$4		\$4	\$10	\$15
Reduced One way	\$7	\$5	\$2		\$2	\$5	\$7
WHITE WOLF							
Round-trip	\$32	\$22	\$16	\$8		\$8	\$16
One-way	\$16	\$11	\$8	\$4		\$4	\$8
Reduced Round-trip	\$22	\$15	\$10	\$4		\$4	\$10
Reduced One way	\$10	\$7	\$5	\$2		\$2	\$5
CRANE FLAT							
Round-trip	\$40	\$30	\$22	\$16	\$8		\$8
One way	\$20	\$15	\$11	\$8	\$4		\$4
Reduced Round-trip	\$26	\$20	\$15	\$10	\$4		\$4
Reduced One way	\$13	\$10	\$7	\$5	\$2		\$2
YOSEMITE VALLEY							
Round-trip	\$44	\$36	\$32	\$22	\$16	\$8	
One way	\$22	\$18	\$16	\$11	\$8	\$4	
Reduced Round-trip	\$30	\$24	\$22	\$15	\$10	\$4	
Reduced One way	\$15	\$12	\$10	\$7	\$5	\$2	

REDUCED FARES INCLUDE: SENIORS (62+); DISABLED PERSONS; VETERANS AND CHILDREN 13-17
ALL CHILDREN 12 AND UNDER RIDE FREE

PLEASE REMEMBER: SCHEDULED TIMES ARE ESTIMATES. YARTS BUSES MAY OCCASIONALLY RUN BEHIND SCHEDULE DUE TO TRAFFIC, ROAD CONSTRUCTION, INCLEMENT WEATHER AND NATURAL DISASTERS. FOR DELAY INFORMATION SIGN UP FOR ALERTS BY TEXTING **YARTS20182 TO 77453** (messaging rates apply)



Public Transportation To Yosemite

HWY 395/120
MAMMOTH LAKES, JUNE LAKE LOOP, LEE VINING, TUOLUMNE MEADOWS, YOSEMITE VALLEY



www.yarts.com



TAKE YARTS
Show You Care About the Air!

June 1 - September 30, 2019

TO YOSEMITE

TO MAMMOTH LAKES

Location	June and September (seven days a week)	July and August (seven days a week)	
Mammoth Mountain Inn	8:00	6:45	8:00
The Village	8:07	6:52	8:07
Juniper Springs Resort	8:15	7:00	8:15
Mammoth Lakes Park/ Tavern Rd	8:17	7:02	8:17
Shilo Inn	8:20	7:05	8:20
June Mountain Ski Area	9:00	7:45	9:00
Rush Creek Trailhead	9:05	7:50	9:05
Mono Basin Visitor Center	9:27	8:12	9:27
Lake View Lodge	9:30	8:15	9:30
Tioga Mobil Gas Mart	9:40	8:25	9:40
Tuolumne Meadows Store	10:15	9:10	10:15
Tuolumne Meadows Visitor Center	10:20	9:15	10:20
White Wolf Lodge	11:00	9:35	11:00
Crane Flat Gas Station	11:30	10:05	11:30
Yosemite Valley Visitor Center	12:05	10:50	12:05

Location	June and September (seven days a week)	July and August (seven days a week)	
Yosemite Valley Visitor Center	5:00	4:05	5:00
Crane Flat Gas Station	5:30	4:35	5:30
White Wolf Lodge	6:00	5:05	6:00
Tuolumne Meadows Visitor Center	6:45	5:50	6:45
Tuolumne Meadows Store	6:50	5:55	6:50
Tioga Mobil Gas Mart	7:32	6:37	7:32
Lake View Lodge	REQ	REQ	REQ
Mono Basin Visitor Center	REQ	REQ	REQ
Rush Creek Trailhead	REQ	REQ	REQ
June Mountain Ski Area	REQ	REQ	REQ
Shilo Inn	7:57	7:02	7:57
Mammoth Lakes Park/ Tavern Rd	REQ	REQ	REQ
Juniper Springs Resort	8:05	7:10	8:05
Mammoth Mountain Inn	8:20	7:25	8:20
The Village	8:30	7:35	8:30

- **PM TIMES IN BOLD FACE**
- **THERE WILL BE NO UNSCHEDULED PICK-UPS (FLAG DOWNS)**
- **YARTS WILL DROP OFF AT TRAILHEADS, IF THE DRIVER FEELS IT IS SAFE TO DO SO**
- **REQ stops are for DROP - OFFS ONLY. No pick-ups are allowed. YARTS will only STOP at REQ stops if passengers are aboard the bus who need to travel to those locations. Driver must be notified when boarding that a passenger will be dropped off at an REQ stop.**



[Online reservations available at WWW.YARTS.COM](http://WWW.YARTS.COM)

BUS DELAYED? Get alerts by texting YARTS20182 to 77453 (messaging rates may apply)

Eastern Sierra Corridor³⁷ Freight Study

*Detailed Truck Parking Analysis and
Strategy Options*



*presented to
Eastern Sierra Working Group*

*presented by
Dan Andersen, Cambridge Systematics
Dan Murray, ATRI*

December 5, 2018

Agenda

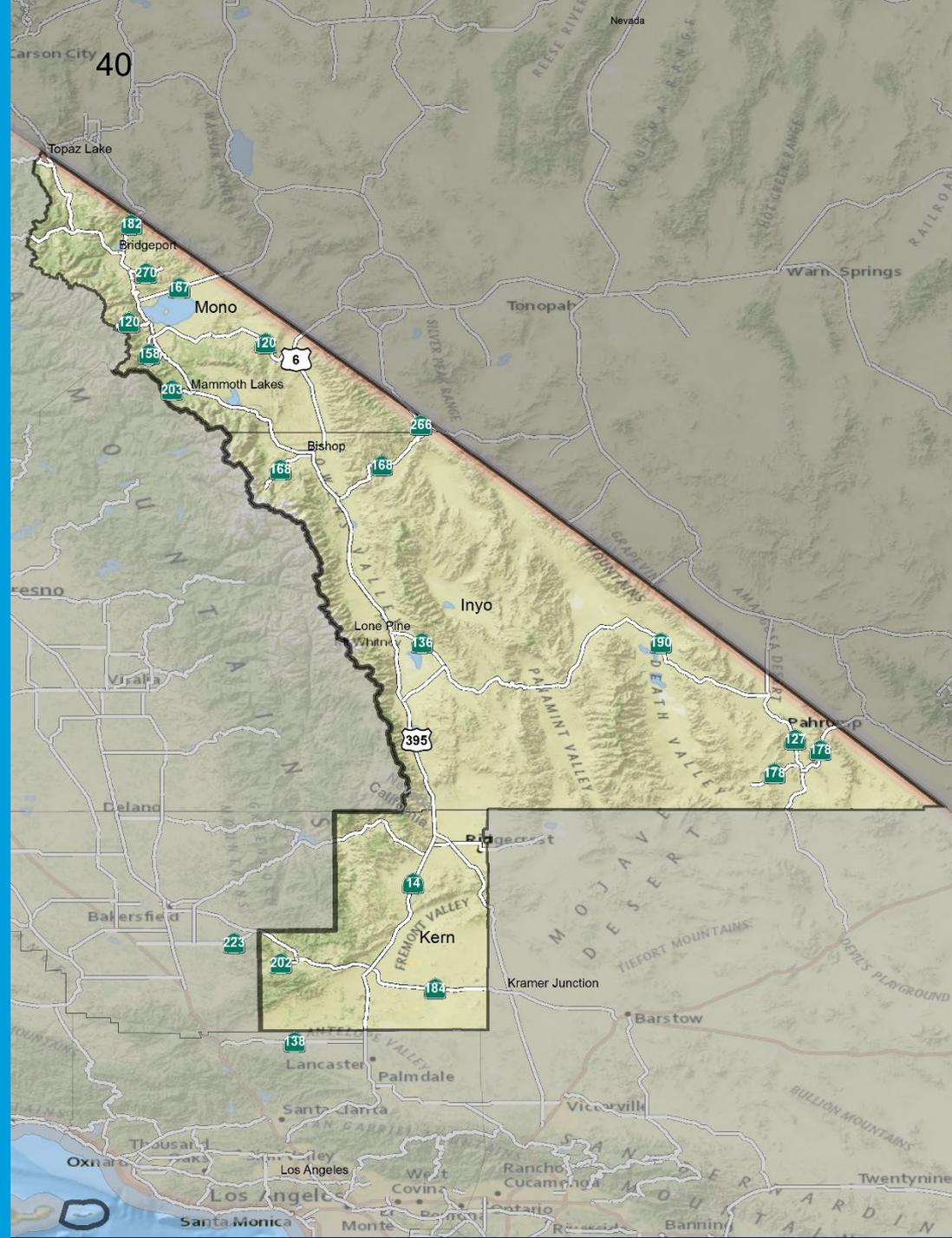
- › Study Overview
- › Importance of the Eastern Sierra Region in freight movement
- › Freight Impacts of Undesignated Truck Parking
- › Freight Impacts on Highways which also Serve as Main Street
- › Short and long-term prioritization
- › Next Steps

Study Overview



Eastern Sierra Corridor

- › Mono County
- › Inyo County
- › Eastern Kern County
- › Highways
 - US 395
 - US 6
 - SR 14
 - SR 58



Study Purpose

- › Document existing and future freight conditions
 - Importance of the Eastern Sierra Region in freight movement
 - Freight impacts from outside the Corridor
 - Freight impacts on highways which also serve as Main Street

- › Identify short and long-term cost effective strategies to:
 - Improve goods movement, safety, and congestion
 - Mitigate freight impacts on local communities and transportation infrastructure

- › Identify potential funding opportunities

Importance of the Eastern Sierra Region in Freight Movement



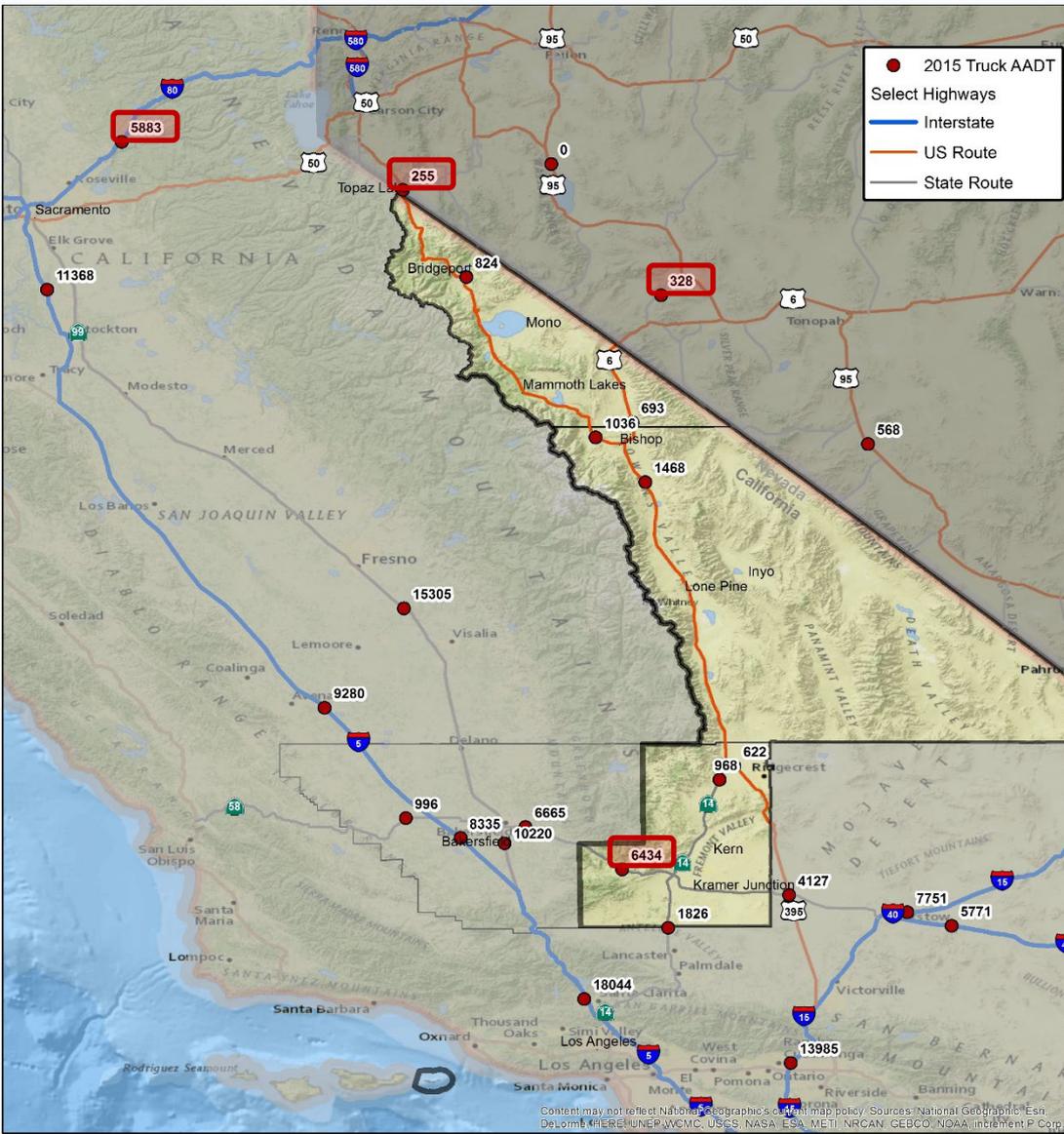
Freight impacts⁴³ from outside the Corridor: Actual



Estimated Future Truck Volumes

Highway Segment	2015 AADTT		2040 Low		2040 High	
	All Trucks	5+ Axles	All Trucks	5+ Axles	All Trucks	5+ Axles
US-395 North Segment (Bridgeport)	824	294	1,133	404	1,305	466
US-395 Middle Segment (Big Pine)	1,468	684	2,023	943	2,340	1,090
US-395 South Segment (Inyokern)	622	357	864	496	873	501
SR-14 North Segment (Indian Wells)	968	775	1,316	1,054	1,326	1,062
SR-14 South Segment (Mojave)	1,826	954	2,452	1,281	2,460	1,285
SR-58 (Tehachapi)	6,434	3,906	9,966	6,050	10,192	6,187
US-6 (Benton)	693	369	953	507	1,098	584

Importance of the Corridor ⁴⁵



US 395

- Most direct route between Northern Nevada and Inland Empire
 - Most common route is US 95, to NV 360, to US 6, to US 395 at Bishop
- Alternate to I-5, SR 99, US 95
- Provides Crystal Geyser access to markets
- Lifeline to tourist economy

SR 58

- More trucks than I-80
- Access to Central Valley



Freight Impacts: Undesignated Truck Parking



Trucking industry's NFP research organization

- **Safety**
- **Mobility**
- **Economic Analysis**
- **Technology**
- **Environment**

www.TruckingResearch.org

Board of ⁴⁸ Directors



Research Advisory Committee



50 2017 Top Industry Issues

1. Driver Shortage (7)
2. ELD Mandate (1)
3. Hours-of-Service (2)
4. Truck Parking (4)
5. Driver Retention (8)
6. CSA (6)
7. Cumulative Economic Impact of Regulations (3)
8. Driver Distraction (10)
9. Transportation Infrastructure / Congestion/ Funding (9)
10. Driver Health and Wellness (12)

CRITICAL ISSUES IN THE TRUCKING INDUSTRY – 2017



Presented to the
American Trucking Associations

Prepared by
The American Transportation Research Institute
October 2017



950 North Glebe Road
Arlington, VA 22203
(703)838-1966
atri@trucking.org
TruckingResearch.org

Top Issues Drivers vs. Carriers

Commercial Drivers

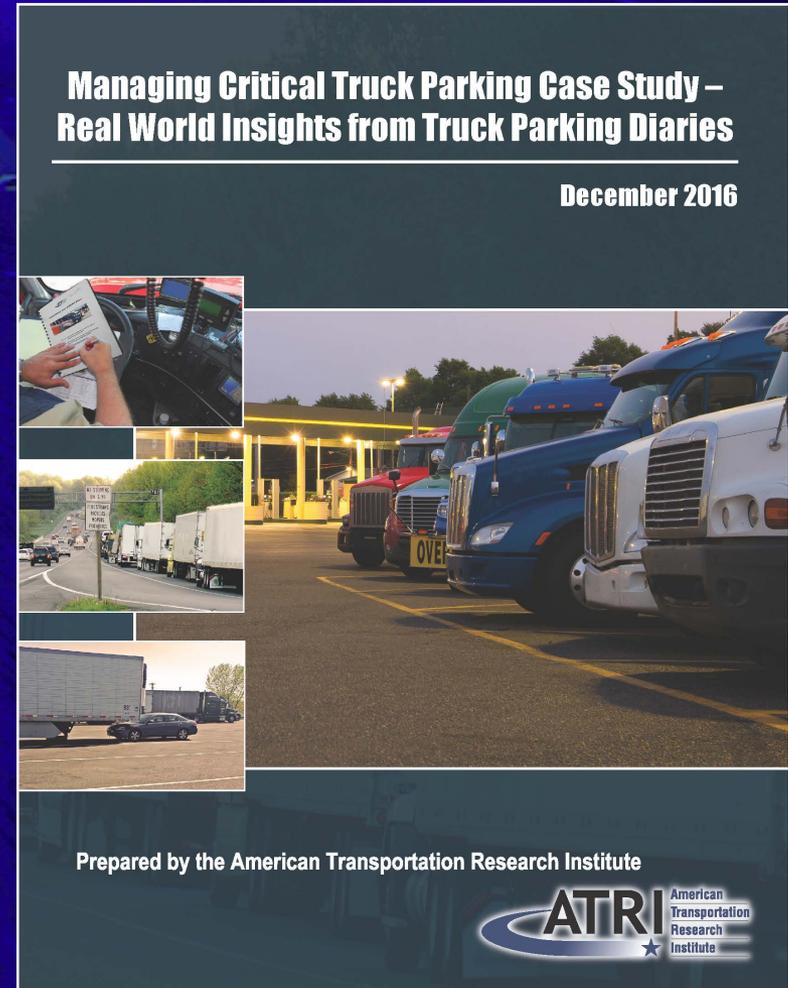
1. ELD Mandate
2. Truck Parking
3. Hours-of-Service
4. Cumulative Economic Impact of Trucking Regulations
5. Driver Distraction
6. CSA
7. Driver Health/Wellness
8. Driver Retention
9. Transportation Infrastructure /Congestion/ Funding
10. Autonomous Vehicles

Motor Carrier Execs

1. Driver Shortage
2. ELD Mandate
3. Driver Retention
4. CSA
5. HOS
6. Cumulative Economic Impact of Trucking Regulations
7. Transportation Infrastructure /Congestion/ Funding
8. Driver Distraction
9. Truck Parking
10. Tort Reform

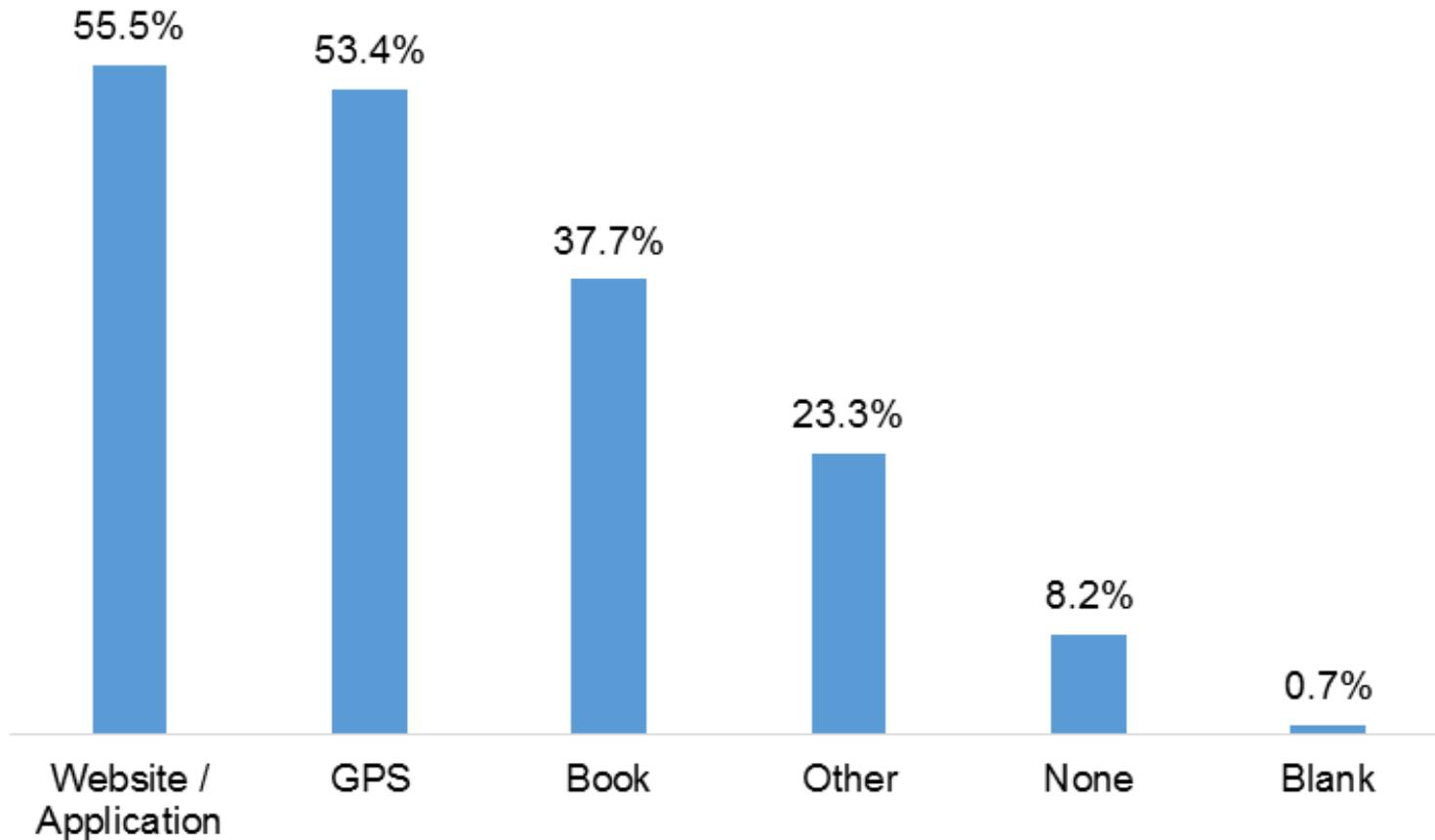
Truck Parking ⁵²Diary Report

- **Truck Parking Diaries**
- **Drivers kept 14 days of parking activity**
- **Includes when, where, how long to find a spot, how many spots occupied by non-CMV, lost productivity, etc**
- **148 completed diaries were returned between June and September 2016**
 - ◆ **2,035 days of truck parking activity**
 - ◆ **4,763 unique stops**

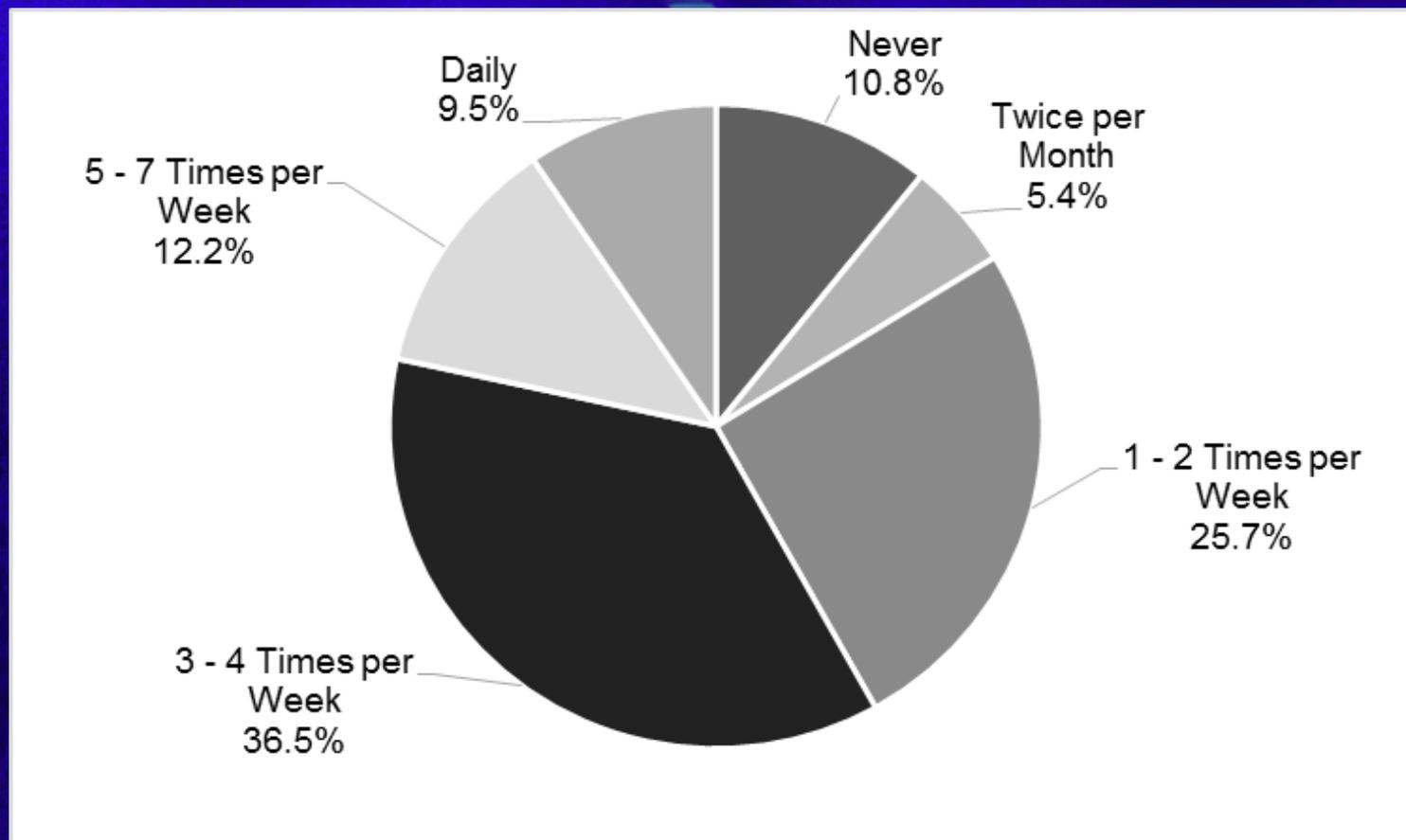


Tools Used to Find Parking

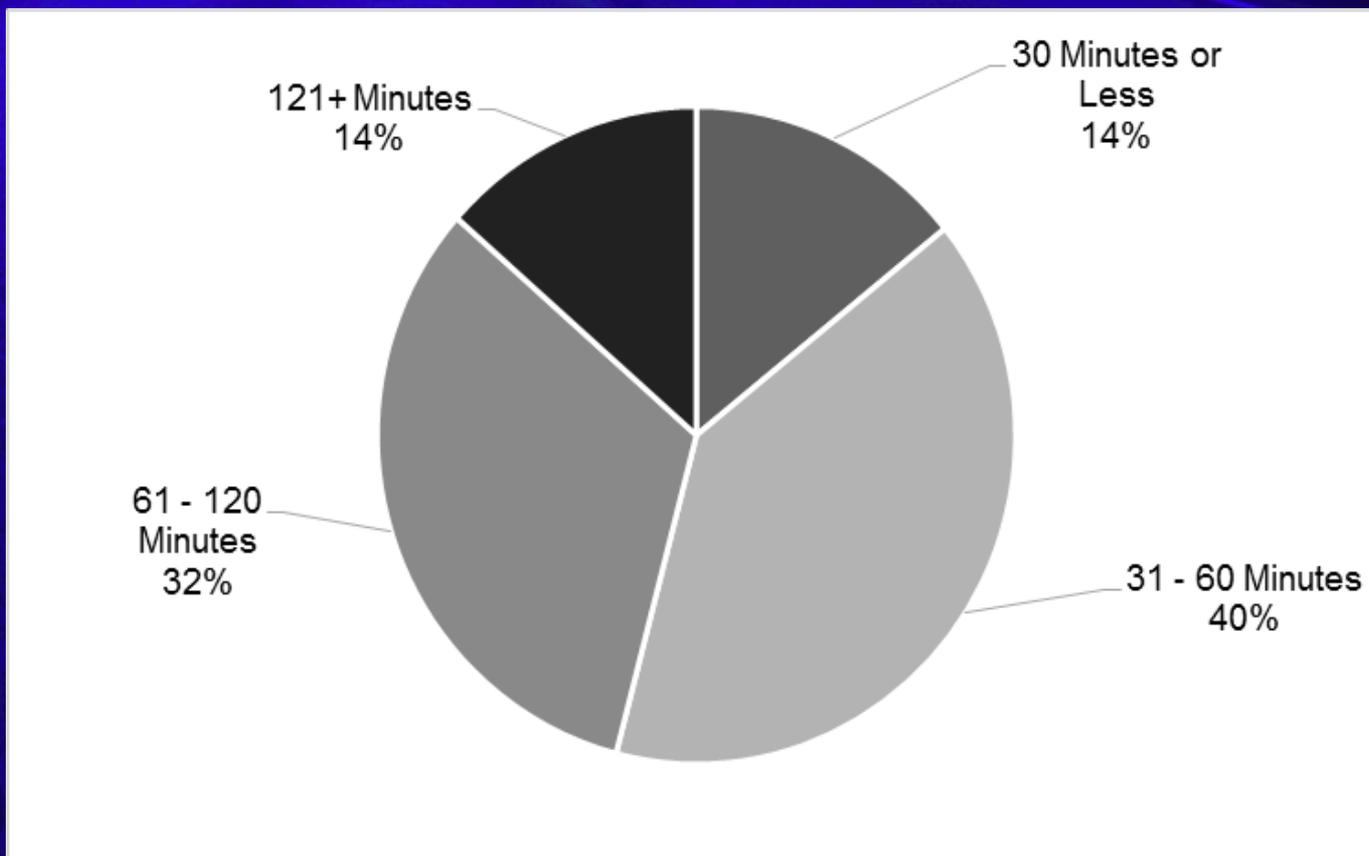
53



Frequency of Unauthorized/Undesignated Parking



Average Remaining Drive Time

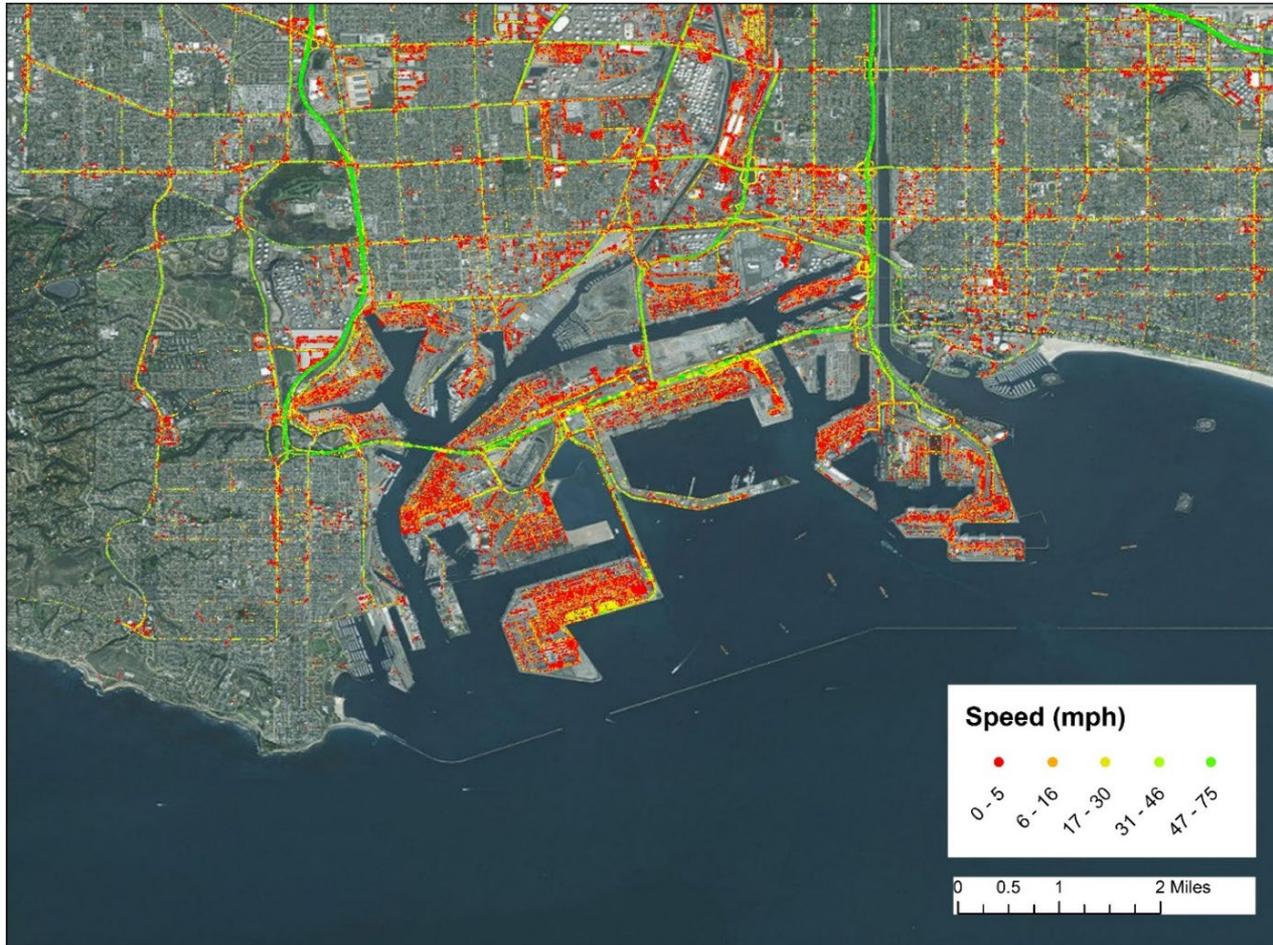


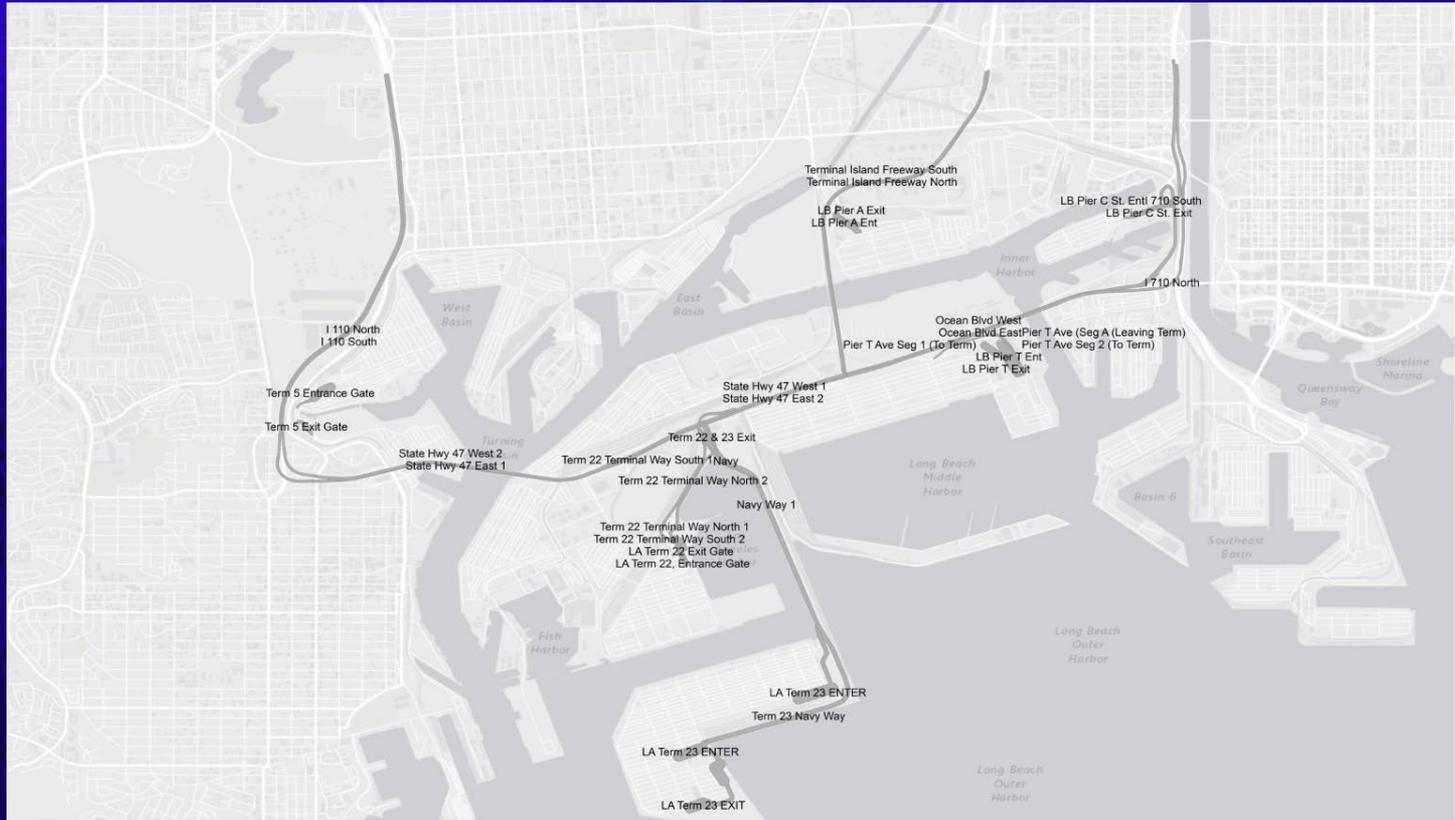
Average = 56 minutes/day

Opportunity Cost = \$4,600 annually

ELDs: nearly 2x as likely to spend 30+ minutes looking for parking







59 Cost of Congestion

- Congestion on U.S. NHS cost trucking industry \$63.4B in 2015
- Lost productivity = 996 million hours
 - ◆ Equates to 362,243 commercial drivers sitting idle for entire year

Cost of Congestion to the Trucking Industry: 2017 Update

May 2017



Traffic Photos Courtesy of Doug Turnbull, WSB Radio

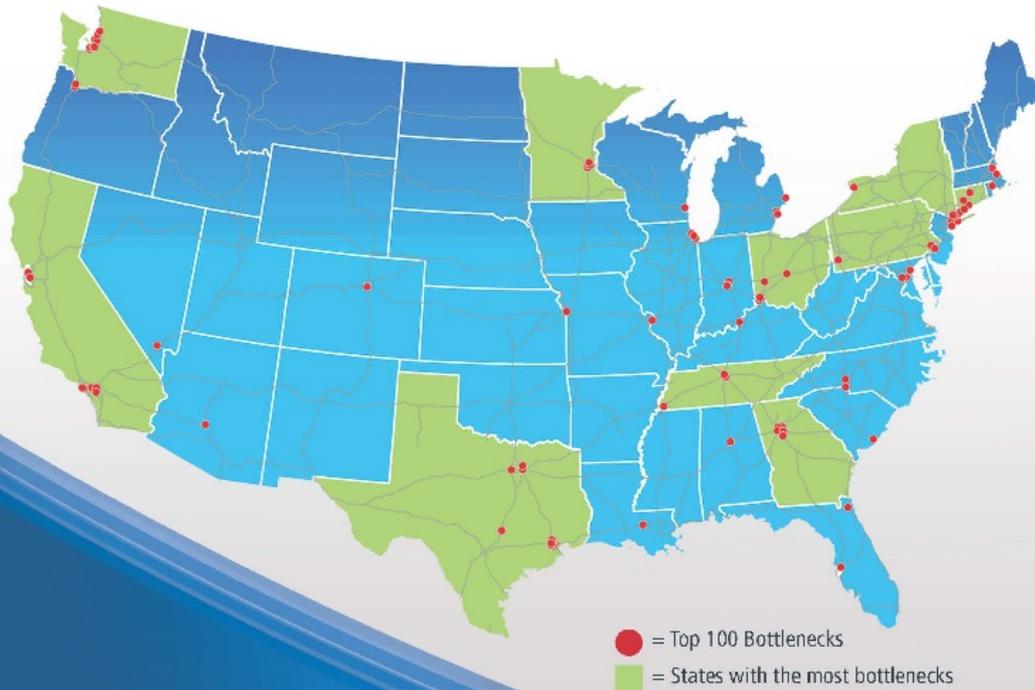
Prepared by the American Transportation Research Institute





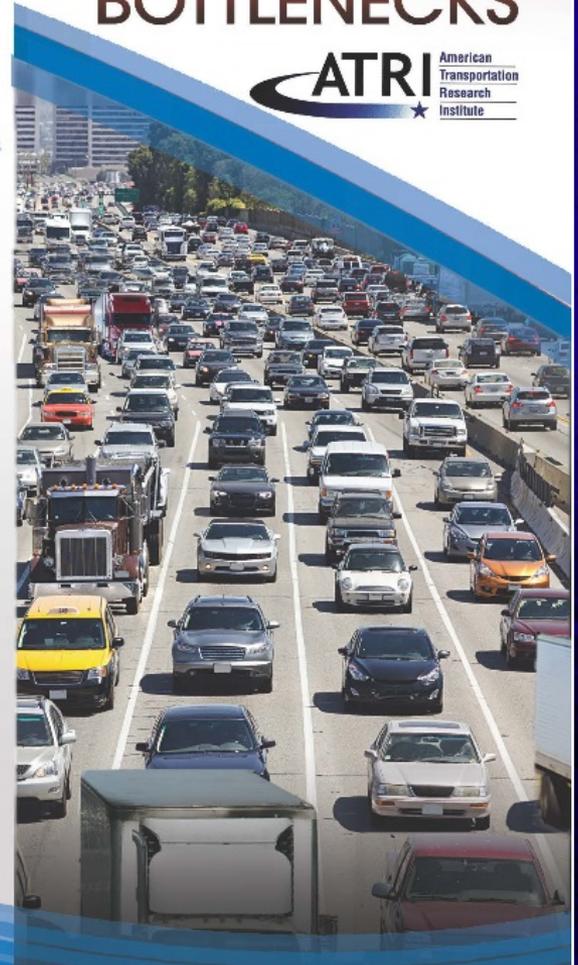
Congestion Costs the Economy

ATRI research identified trucking industry costs of **\$49.6 billion** as a result of congestion on the nation's highways. That cost generates from **728 million lost hours** of industry productivity, the equivalent of **264,500** truck drivers sitting still for an entire year.



To view the top 100 list of truck bottlenecks along with detailed profiles for each location, please visit ATRI's website at www.atri-online.org

2017 The Nation's TOP TRUCK BOTTLENECKS



2017 Top 10 Truck Bottlenecks

Rank	Location	Average Peak Speed	2015 Rank	Year over Year Change
1	Atlanta, GA: I-285 at I-85 (North)	26	1	0
2	Fort Lee, NJ: I-95 at SR 4	27	3	Up 1
3	Chicago, IL: I-290 at I-90/I-94	22	2	Down 1
4	Louisville, KY: I-65 at I-64/I-71	32	4	0
5	Cincinnati, OH: I-71 at I-75	38	7	Up 2
6	Los Angeles, CA: SR 60 at SR 57	35	9	Up 3
7	Auburn, WA: SR 18 at SR 167	39	17	Up 10
8	Houston, TX: I-45 at US 59	26	8	0
9	Atlanta, GA: I-75 at I-285 North	33	12	Up 3
10	Seattle, WA: I-5 at I-90	27	14	Up 4

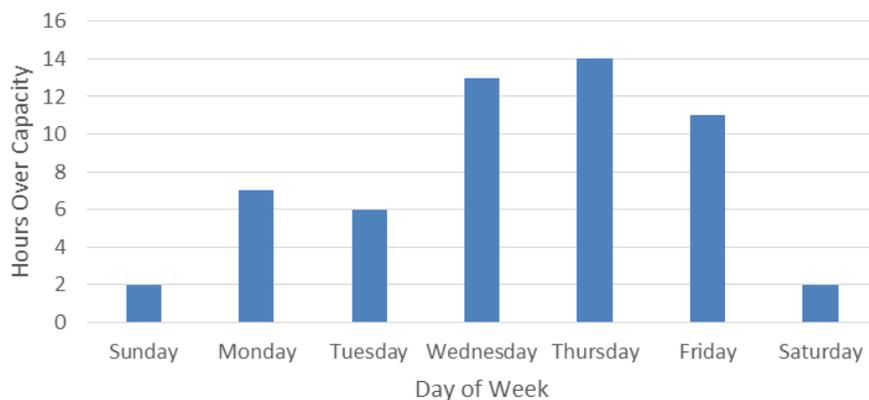
62 No Vacancy

Cumberland County, PA Rest Area: I-81 Northbound
January, 2017

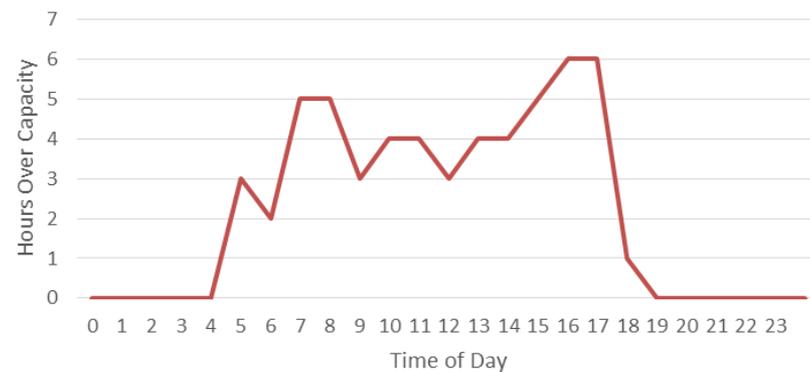


Managing Critical Truck Parking

Overcapacity by Day of Week
(October 2015)



Overcapacity by Time of Day
(October 2015)



Questions?

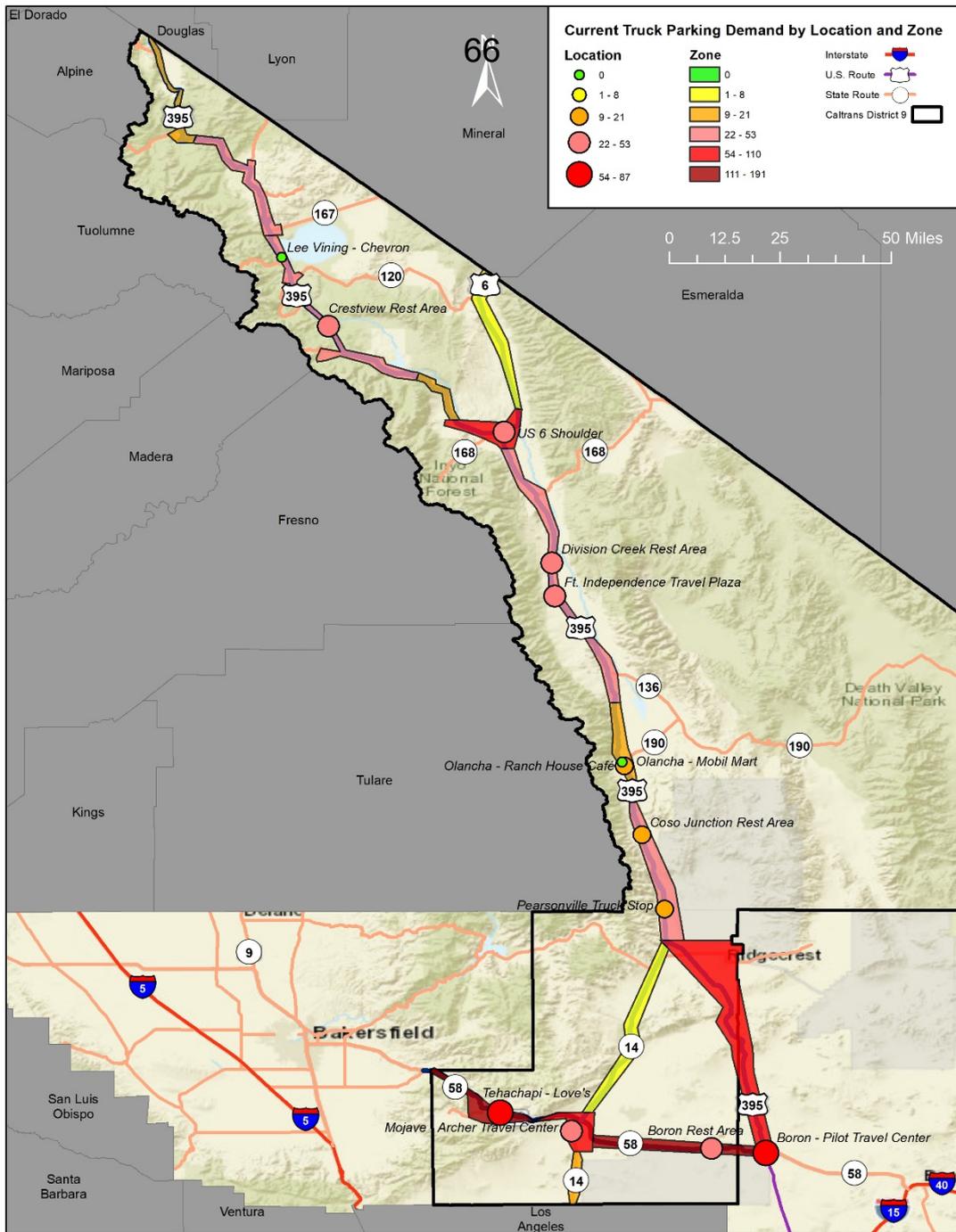
Dan Murray

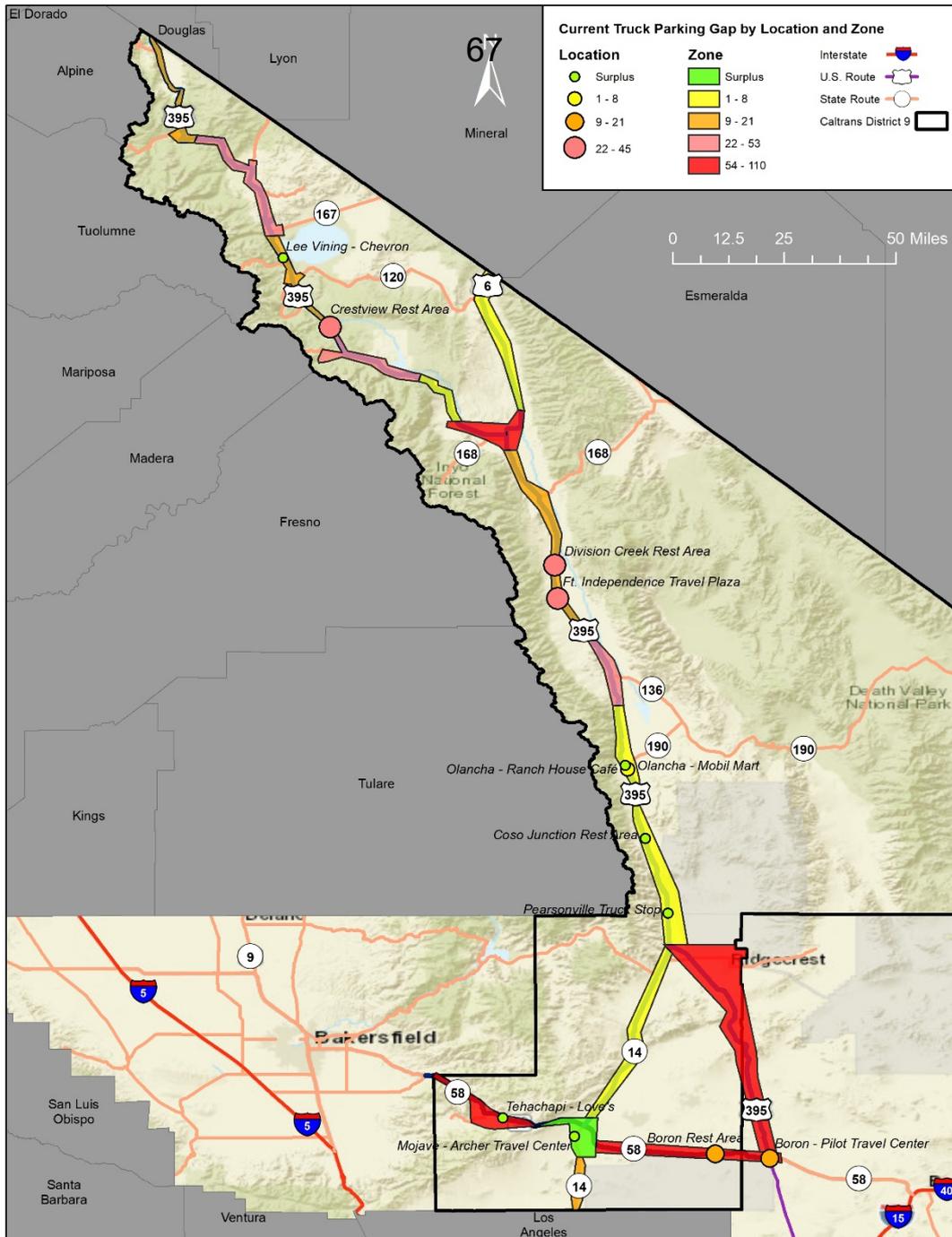
dmurray@trucking.org

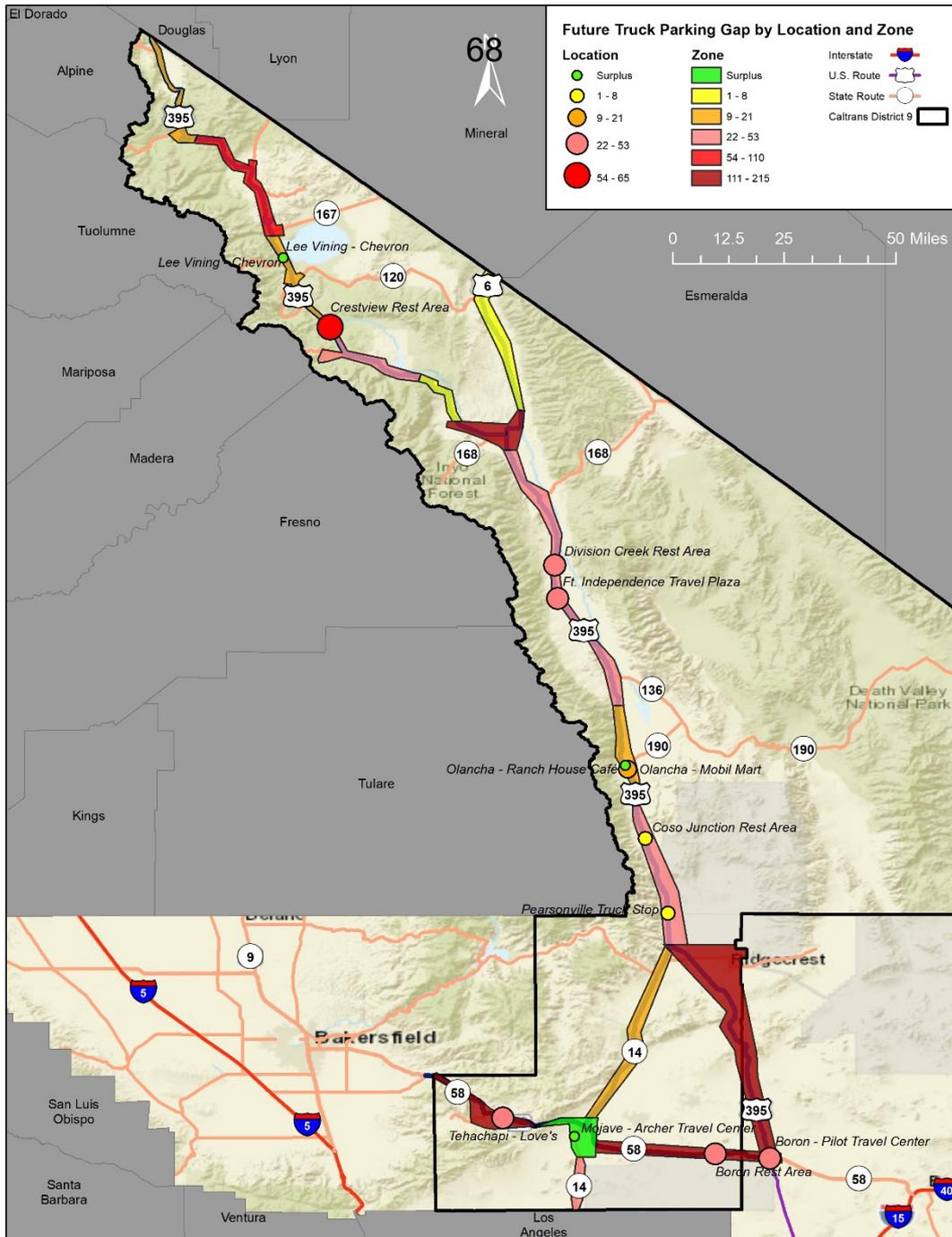
www.TruckingResearch.org

Data-driven Demand Analysis

- › ATRI truck probe data collected at authorized parking locations and broad zones during:
 - March 17-30, 2018
 - May 6-19, 2018
 - July 15-28, 2018
 - September 9-22, 2018
- › Identified trucks stopped for 2+ hours
- › ATRI's data sample was compared to nearby Caltrans truck counts, and expanded to estimate the full population of parked trucks
- › Report average peak period daily demand







Recommendations: Increase Truck Parking Spaces (Current – Future)⁶⁹

› Encourage Private Investment

- Bishop: 110 – 150
- Boron/Kramer Junction: 110 – 215
- Tehachapi: 100 – 200
- Ridgecrest: 100 – 140
- Bridgeport: 55 – 75
- Lone Pine: 35 – 50
- Fort Independence Travel Plaza: 25 – 40

› Consider Public Investment

- Crestview Rest Area: 45 – 65
- Division Creek Rest Area: 35 – 50
- Boron Rest Area: 15 – 40

Minimum public lot design considerations

- Graded, gravel lot, approximately 20 spaces/acres
- Lighting, vault toilets & trash receptacles
- Near other services

Detailed Back-up⁷⁰

Name	ZorP	ATRI Raw Counts (Range)	ATRI Expanded Counts (Range)	Caltrans 2018 AADTT (5+ axle)	% 2+ Hour Parking	MaxLongP (Demand)	AuthPark (Supply)	Gap (Demand - Supply)	Growth Factor (Low Growth Scenario)	Future_Gap [Demand*(1+Growth Factor)-Supply]
Lee Vining - Chevron	Location	0-1	0-5	321*	0.00%	0	10	-10	37%	-10
Crestview Rest Area	Location	0-23	0-146	370*	36.46%	53	8	45	37%	65
Division Creek Rest Area	Location	14-50	41-148	687	29.13%	43	10	33	38%	49
Ft. Independence Travel Plaza	Location	9-44	26-133	687	30.21%	40	15	25	38%	40
Olancha - Ranch House Café	Location	0-1	0-3	687	0.00%	0	10	-10	38%	-10
Olancha - Mobil Mart	Location	2-20	5-60	687	18.15%	11	5	6	38%	10
Coso Junction Rest Area	Location	2-15	4-34	461	35.54%	12	12	0	38%	5
Pearsonville Truck Stop	Location	4-22	9-50	461	40.90%	21	25	-4	38%	4
Tehachapi - Love's	Location	106-213	169-337	1,418	25.67%	87	90	-3	55%	45
Mojave - Archer Travel Center	Location	5-40	7-64	1,418	46.23%	30	85	-55	55%	-39
Boron Rest Area (EB & WB)	Location	53-117	84-117	1,418	24.00%	45	30	15	55%	40
Boron - Pilot Travel Center	Location	57-122	91-194	1,418	33.25%	65	50	15	55%	51
US 6 Shoulder, Bishop	Location	9-34	23-64	402	38.27%	25	0	25	37%	34
Walker	Zone	2-17	8-68	307*	16.81%	11	0	11	37%	15
Bridgeport	Zone	4-34	24-139	236*	29.85%	53	0	53	37%	73
Lee Vining	Zone	1-23	5-136	332*	16.33%	22	10	12	37%	20
Mammoth	Zone	3-41	22-280	424*	15.71%	44	8	36	37%	52
Mam-Bish	Zone	1-15	3-46	333	19.63%	9	8	1	37%	4
Bishop	Zone	33-131	102-407	836	26.98%	110	0	110	38%	152
Benton	Zone	1-10	2-20	402	22.55%	5	0	5	38%	7
Big Pine	Zone	4-27	16-104	936	23.24%	24	3	21	38%	30
Independence	Zone	18-67	57-217	687	18.82%	41	25	16	38%	32
Lone Pine	Zone	10-61	29-194	687	18.52%	36	0	36	38%	50
Olancha	Zone	6-30	19-91	687	19.60%	18	15	3	38%	10
Coso Junction	Zone	20-67	41-141	461	28.56%	43	37	6	38%	22
Ridgecrest	Zone	20-140	57-378	524*	26.20%	99	0	99	39%	138
SR 14 North	Zone	1-18	4-85	321	9.62%	8	0	8	36%	11
Tehachapi	Zone	184-487	292-774	1,418	24.64%	191	90	101	55%	206
Mohave	Zone	28-128	44-202	1,418	30.35%	61	110	-49	55%	-15
Rosamond	Zone	4-44	12-141	1,021*	12.39%	18	0	18	34%	24
Boron	Zone	154-511	249-808	1,418	23.46%	190	80	110	55%	215

Freight Impacts on Highways which also Serve as Main Street



Economic Benefits of Truck Parking

73

Economic Impact Measure	Truck Stop with Truck Repair	Truck Stop without Truck Repair	Truck Fuel Stop
Total Annual Sales (a)	\$45,863,888	\$43,615,658	\$17,420,971
Full Time Employment (FTE)	71	60	15
Annual Local Tax Revenue (a)	\$72,955	\$72,955	\$22,257
Employee Compensation per FTE Employee (b)	\$23,726	\$23,723	\$25,311

Note: All amounts are in 2017 dollars for marked items as follows: (a) converted from 2010 dollars, and (b) converted from 2003 dollars. The estimates are national averages. Actual tax revenue and employee compensation would depend on local conditions.

Source: Virginia Tech, Impact of Commercial Rest Areas on Business Activity at Interstate Highway Interchanges, Performed for NATSO, 2011; NATSO, Fueling American Prosperity, 2003; Historical Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average.

Best Practices for Managing Truck Traffic on Main Streets

74

- › Texas Transportation Institute (TTI) encourages the following at these AADTT thresholds:
 - 1,000 to 5,000 AADTT – Some truck treatments
 - 5,000 AADTT – Special truck treatments
 - 25,000 AADTT – Truck only roadways

Complete Street Treatments⁷⁵

› Design treatments for accommodating truck turning maneuvers (City of Portland, Designing for Truck Movements and Other Large Vehicles in Portland, October 2008)

- Pedestrian median refuge islands
- Curb extensions
- Mountable curbs
- Intersection stop bar location

› Low-cost traffic calming or speed management measures (FHWA, A Technical Brief: Traffic Calming on Main Roads Through Rural Communities, FHWA Publication No.: FHWA-HRT-08-067, February 2009)

- Transverse or converging chevron pavement markings
- Reduce speed limit or “SLOW” pavement markings
- Speed feedback sign
- Physical lane narrowing
- Speed limit markings with colored pavement background

› Truck Bypass

Through Trucks ⁷⁶ Restricted to Left Lane



The Bishop Area Access & Circulation Feasibility Study

› Pros

- Improve access and reduce vehicle-vehicle conflicts
- Improve perceived safety (by increasing distance between trucks and bikes/pedestrians)
- Reduce noise impacts (by increasing distance between trucks and buildings)

› Cons:

- It goes against driver expectation
- Left turns could be more difficult/unsafe due to a “barrier effect” created by truck on the left lane
- Consistent lane widths for all conditions/user might be challenging

Application in Minden & Gardnerville

78

- Post signs before congested areas to allow time/distance for lane change





79

88

395

Trucks Use Left Lane Sign

TRUCKS
USE
LEFT LANE
NEXT 4 MILES

© 2018 Google

Google Earth

Imagery Date: 6/7/2018 38°57'28.42" N 119°47'48.81" W elev 4696 ft eye alt 12854 ft

Recommendation: Pilot Test

- › Place variable message signs at either end of town for 1-2 months
 - Observe driver behavior
 - Interview local stakeholders



Short- and Long-term Prioritization



Short- and Long-term Strategies⁸²

› Short-term

- Pilot test restricting trucks to left lane through one town for 1-2 month period
- Continue Complete Street studies and implementation in communities along US 395
- As part of Bishop Airport expansion studies, consider:
 - Alternate Truck Route
 - Truck parking facility at Industrial Park
- Passing/climbing lanes on SR 58 over Tehachapi Pass, both directions

› Long-term

- Passing/climbing lane on US 395 southbound, north of Conway Summit

Which are the best shot-term candidates for increasing truck parking?

› Rest Area Expansions

- Crestview Rest Area: 45 – 65
- Division Creek Rest Area: 35 – 50
- Boron Rest Area: 15 – 40

› New Public Truck Parking Facilities (If private sector is not interested)

- Bishop: 110 – 150
- Kramer Junction: 110 – 215
- Tehachapi: 100 – 200
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Minimum public lot design considerations

- Graded, gravel lot, approximately 20 spaces/acres
- Lighting, vault toilets & trash receptacles
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Next Steps



Next Steps

› Meetings/Presentations

- Dec 10: Mono LTC
- Jan 2: Kern COG TTAC
- Jan 16: Inyo LTC
- Jan 16: ESWG

› Deliverables

- Recommended Strategies, Funding, and Implementation Plan
 - Dec 21: Draft
 - Jan 11: Review comments
- Final Report
 - Feb 1: Draft
 - Feb 15: Review comments
 - Feb 28: Final

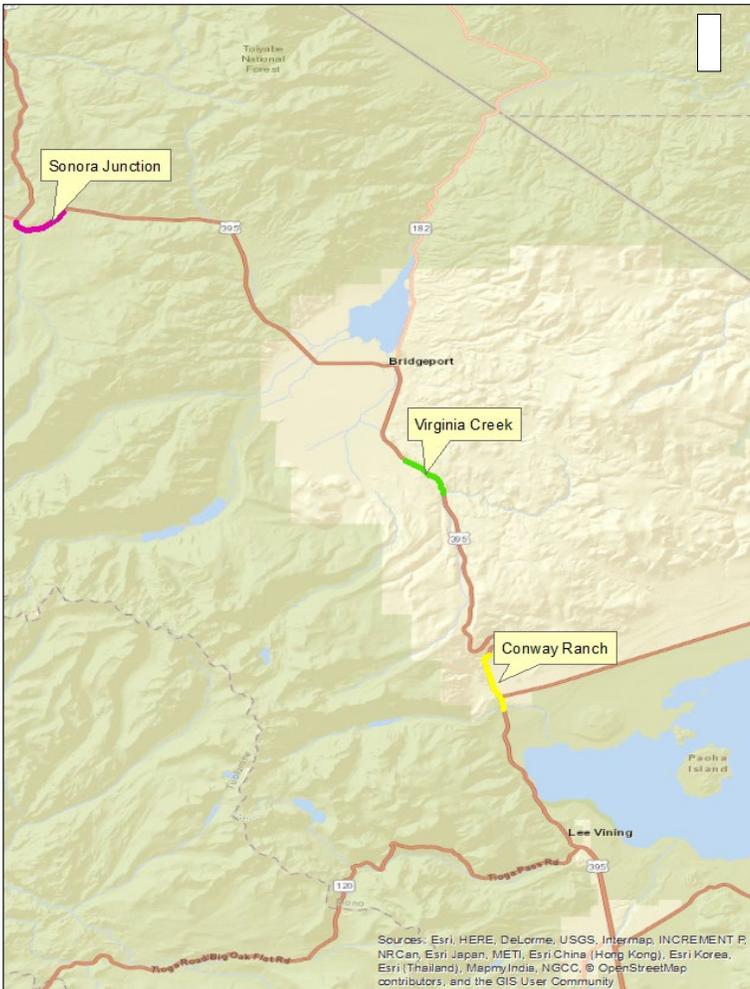
Public Notice



Notice of Public Scoping Meeting Changes Proposed for Route 395 Opportunity to Provide Comments

What's Being Planned:

The California Department of Transportation (Caltrans) is considering three shoulder widening projects along US 395 in Mono County. To inform the public and provide an opportunity to submit comments, Caltrans is holding a public scoping meeting from **6-8pm on Thursday, November 15, 2018 at the Bridgeport Memorial Hall located at 73 N. School Street, Bridgeport, CA 93517.**



Why This Ad: Caltrans is in the initial stages of studying the potential environmental impacts of the proposed projects. This notice is to inform you of the proposed projects and their alternatives and offer the opportunity to provide comments on them.

Conway Ranch Shoulders Project – US 395 from postmile 57.7-60.7; south of Mill Creek to north of Conway Ranch Road. Two build alternatives proposed.

Virginia Creek Shoulders Project – US 395 from postmile 69.9-71.9; SR 270 “Bodie Road” to Green Creek Road. Three build alternatives proposed.

Sonora Junction Shoulders Project – US 395 from postmile 91.6-93.4; Burcham Flat Road to south of SR 108. Three build alternatives are proposed.

What's Available: Maps and project descriptions will be available to view, and Caltrans staff will be present to answer questions regarding these proposed projects.

Where You Come In: Do you have any comments about the proposed shoulder widening projects? Would you care to make any other comments on the projects? Please submit your comments via email for each project at ConwayRanchComments@dot.ca.gov, VirginiaCreekComments@dot.ca.gov, and/or SonoraJunctionComments@dot.ca.gov;

or by letter, no later than **December 9, 2018** to: Angela Calloway, Environmental Office Chief - Caltrans, at 500 South Main Street, Bishop, CA 93514. The date we will begin accepting comments is **November 15, 2018**. For meeting information, you may contact Bradley Bowers at Bradley.bowers@dot.ca.gov or (760) 872-2331.