# Eastern Sierra Corridor Freight Study 

## Mono County Local Transportation Commission

presented to
Eastern Sierra Working Group
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## 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


## Existing and Future Freight Conditions



# Freight impacts from outside the Corridor: Actual 



## Estimated Future Truck Volumes

| Highway Segment | 2015 AADTT |  | 2040 Low |  | 2040 High |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { All } \\ \text { Trucks } \end{gathered}$ | 5+ Axles | All Trucks | 5+ | $\begin{gathered} \text { All } \\ \text { Trucks } \end{gathered}$ | 5+ |
| 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 |

*The Caltrans Statewide Travel Demand Model forecasts 12,395

## Freight Impacts:

 Undesignated Truck Parking



## Recommendations: Increase Truck Parking Spaces (Current - Future)

> Encourage Private Investment

- Bishop: 110-150
- Bridgeport: 55-75
- Lone Pine: 35-50
- Boron/Kramer Junction: 10-115
- Tehachapi: 0-100
- Observations indicate a current gap of 15-25 in Tehachapi
> Consider Public Investment
- Crestview Rest Area: 45-65
- Division Creek Rest Area: 35 - 50
- Boron Rest Area: 15 - 40
- Areas where private investment is not forthcoming

Minimum public lot design considerations

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


## Freight Impacts on Highways which also Serve as Main Street



## Economic Benefits of Truck Parking

| Economic Impact | Truck Stop with <br> Truck Repair | Truck Stop without <br> Truck Repair | Truck Fuel <br> Stop |
| :--- | :--- | :--- | :--- |
| Total Annual Sales (a) | $\$ 45,863,888$ | $\$ 43,615,658$ | $\$ 17,420,971$ |
| Full Time Employment <br> (FTE) | 71 | 60 | 15 |
| Annual Local Tax <br> Revenue (a) | $\$ 72,955$ | $\$ 72,955$ | $\$ 22,257$ |
| Employee <br> Compensation per FTE <br> 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) <br> converted from 2003 dollars. The estimates are national averages. Actual tax revenue and employee <br> compensation would depend on local conditions. |  |  |  |
| Source: Virginia Tech, Impact of Commercial Rest Areas on Business Activity at Interstate Highway Interchanges, <br> Performed for NATSO, 2011; NATSO, Fueling American Prosperity, 2003; Historical Consumer Price Index for All <br> Urban Consumers (CPI-U): U.S. city average. |  |  |  |

## Short- and Long-term Strategies

## > 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
> Long-term
- Passing/climbing lanes on SR 58 over Tehachapi Pass, both directions
- Passing/climbing lane on US 395 southbound, north of Conway Summit

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## Questions?



## Back-up Truck Parking Data

| Name | ZorP | ATRI Raw Counts (Range) | ATRI Expanded Counts (Range) | Caltrans 2018 AADTT <br> (5+ axle) | \% 2+ Hour Parking | MaxLongP <br> (Demand) | AuthPark (Supply) | Gap <br> (Demand - <br> Supply) | Growth Factor (Low Growth Scenario) | Future_Gap <br> [Demand*(1+Growth <br> 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 | 50 | -10 | 38\% | 5 |
| 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 |
| Tehachapi Flying J | Location | 0 | 0 | 0 | 0 | 0 | 99 | -99 | 55\% | -99 |
| Boron Loves Travel Plaza | Location | 0 | 0 | 0 | 0 | 0 | 99 | -99 | 55\% | -99 |
| 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 | 60 | -19 | 38\% | -3 |
| 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 | 200 | -101 | 39\% | -62 |
| 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 | 189 | 2 | 55\% | 107 |
| 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 | 179 | 11 | 55\% | 116 |
| * 2016 Caltrans Average used instead of detailed monthly counts from 2018. MaxLongP (Demand) used maximum value from ATRI Expanded Count |  |  |  |  |  |  |  |  |  |  |



