LOS in CEQA Transportation Analysis
Today’s Demands of Transportation

Today’s demands of the transportation network:

• Improve air quality, health, livability
• Reduce GHGs
• Serve more compact/infill land use patterns
• Preserve agricultural land and sensitive habitat
• Provide better access to destinations via a combination of mobility and support of land use proximity

Means of achieving those goals:

• Fewer and shorter vehicle trips
• More carpooling, vanpooling, transit, and active transportation
• More infill development

Local implementation of Sustainable Communities Strategies
Today’s Prevailing Metric: LOS

**LOS = Automobile Level of Service**

**LOS measures delay at individual local intersections and on individual highway segments:**
1. A traffic study estimates the number of trips generated and where they will go
2. Those trips are overlain with existing traffic
3. LOS delivers an A to F rating of the intersection or highway segment

**Mitigation is triggered at LOS thresholds**
- Thresholds are prescribed by General Plans and Congestion Management law
- Cross a threshold → significant impact under CEQA
Analysis of infill development using LOS

Relatively little vehicle travel loaded onto the network

Numerous LOS impacts
Analysis of greenfield development using LOS

Typically three to four times the vehicle travel loaded onto the network

But relatively few LOS impacts

Traffic generated by the project is disperse enough by the time it reaches congested areas that it doesn’t trigger LOS thresholds, even though it contributes broadly to regional congestion.
Problems with LOS

1. Microscopic scale of analysis
   • LOS metric sees impacts adjacent to project, ignores impacts regionally
   • Ad-hoc spot “improvements” fail to optimize corridor & network vehicle flow

2. Bias against infill because of “last-in development” problem
   • Infill adds to preexisting traffic from nearby projects, triggering LOS thresholds
   • Greenfield adds more traffic than infill, but doesn’t trigger threshold
Problems with LOS

3. LOS mitigation is itself problematic
   • *Option 1*: Reduce project trip generation by reducing size—must build elsewhere to accommodate demand.
   • *Option 2*: Widen roadway—adds pedestrian and cycling delay and hazard, induces more vehicle travel

4. Measures movement of vehicles rather than people
   • Omits mobility of non-motor vehicle travelers; often leads to delay and elevated risk for cyclists and peds
   • Does not give weight to high occupancy vehicles; transit projects that improve person-throughput often worsen LOS
Outcomes with LOS

LOS make infill development more difficult
  • Infill has more impacts to mitigate

Discouraging infill works against other state goals
  • More greenhouse gas emissions
  • Less transit oriented development as envisioned in SB 375
  • More vehicle travel and overall congestion regionally
  • Worse air quality and other environmental and health outcomes
  • Greater long-run public expense to maintain longer roads, water, sewer, electrical lines
Additional Resources

- OPR Alternatives to LOS Webpage: http://www.opr.ca.gov/s_sb743.php
- Use of Performance Measures that Prioritize Automobiles over Other Modes in Congested Areas - J. Matute and S. Pincetl, California Center for Sustainable Communities, UCLA
  http://next10.org/sites/next10.org/files/2.%20Prioritizing%20Automobiles%20over%20Other%20Modes%20of%20Transportation%20in%20Congested%20Areas.pdf