Fire Hazard Planning
Technical Advisory Update

SANDAG Regional Planning Technical Working Group
11.12.2020

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Governor’s Office of Planning & Research (OPR)
In 2020, California experienced our first “giga-fire” and 6 of the 20 largest “mega-fires” in the State’s history*.

*As of November 3, three of the largest fires were still burning in California.
Wildfires are increasing and wildfire season is getting longer in the Western U.S.

Average number of large wildfires per year bigger than 1,000 acres:
- 1980-1989: ~140
- 1990-1999: ~160
- 2000-2012: ~250

Average length of wildfire season:
- Early 1970s: 5 months
- Today: 7+ months

Source: Abatzoglou/Williams 2016, PNAS 113
Figure 4. Cumulative WUI Acres Burned in California, 1979 - 2018. Selected fires labeled for reference.
The office shall...update the guidance document entitled “Fire Hazard Planning, General Plan Technical Advice Series.” The guidance document shall include specific land use strategies to reduce fire risk to buildings, infrastructure, and communities. The office shall, on and after July 1, 2020, update the guidance document not less than once every eight years.
Federal Level
National Cohesive Wildfire Management Strategy

State Level
California Strategic Fire Plan

Local Level
General Plan
- Safety Element Requirements
  - Wildfire Hazard and Risk Reduction
  - Climate Adaptation Requirements
  - Evacuation Route Requirements

Federal Disaster Mitigation Act of 2000
- Provides Hazard Mitigation Grant Program funding
- More funds are available to states with a Hazard Mitigation Plan
- Local jurisdictions must have a Local Hazard Mitigation Plan (LHMP) to receive FEMA mitigation assistance and must review and revise their plan every 5 years.

Healthy Forest Restoration Act of 2003
- Prioritizes funding for jurisdictions with a Community Wildfire Protection Plan (CWPP)
- CWPPs influence where and how federal agencies implement fuel reduction projects on federal land and how additional federal funds may be distributed on non-federal lands.

Shared Stewardship Agreement
Builds on existing coordination efforts between state and federal agencies to treat 1 million acres of forest and wildland annually.

AB 2140
Provides State incentives to integrate the LHMPs into the General Plan Safety Element.

Local Hazard Mitigation Plan
Community Wildfire Protection Plan

Federal Responsibility Area (FRA)
State Responsibility Area (SRA)
Local Responsibility Area (LRA)

Land in the SRA and VHFHSZs
These areas are subject to:
- General Plan Safety Element Requirements
- CEQA Analysis of Wildfire Impacts
- Tentative Map and Parcel Requirements
- Fire Safe Regulations*
- Defensible Space Regulations

*standards for VHFHSZs go into effect July 2021

Very High Fire Hazard Severity Zones (VHFHSZs)
Safety Element

- Natural hazards: wildfire, flooding, earthquake, others
- Must identify “unreasonable risks and policies for the protection of the community from such risks” (Gov’t Code 65302(g)(1))
- Additional Requirements and Related Plans:
  - Climate Adaptation (SB 379, SB 1035)
  - Local Hazard Mitigation Plans (LHMP) + AB 2140 incentives
  - Community Wildfire Protection Plans
- Linkages with other mandatory elements/topics
  - Land Use, Circulation, Conservation, Open Space, Environmental Justice, others
Safety Element: Wildfire

- **SB 1241 (2012):** wildfire required topic for jurisdictions in State Responsibility Area (SRA) and Very High Fire Hazard Severity Zone (VHFHSZ)

- Applies to 189 cities and 52 counties

- Effective date: must update safety element **upon next housing element update on or after 1/1/2014**
Guiding Questions for TA Update

Q1: Who should be engaged in the fire hazard planning process?

Q2: How to determine wildfire hazards and risks in your jurisdiction?

Q3: How to protect communities from unreasonable risk in plans and implementation programs?

Q3: What are the tradeoffs of different fire planning approaches?

Q5: What examples or resources could help with these efforts?
Outreach & Engagement

Engage early and often!

- CAL FIRE, local fire agencies, offices of emergency services
- Community members, especially those most vulnerable and in high-risk areas
- Fire safe councils, Firewise communities
- Tribal nations
- UC Cooperative Extension, Resource Conservation Districts, others with expertise in landscape and fire ecology
Determining Fire Hazards and Risk

**Wildfire Risk**

**Wildfire Hazard**

**Intensity**
- Fuels (wildland and built)
- Topography
- Weather

**Likelihood**
- Ignition
- Weather
- Fire history
- Fire suppression

**Susceptibility**

**First Order**
- Fire behavior
- Fire suppression challenges
- Infrastructure damage
- Structure damage
- Human life loss/injury

**Second Order**
- Economic impacts
- Social impacts
- Health impacts
- Ecological/biophysical effects
- Compounding natural hazards
Planning and Policy Solutions

• **Action begins during the general plan update process itself.** Land use and growth alternatives analysis should be informed by hazard and risk assessment.

• **Protect and retrofit** existing development already vulnerable/at-risk

• **Land use element**, not just the safety element. Zoning and other implementing mechanisms.

• **Planning a more active role in reducing wildfire hazard severity:** prescribed burning, vegetation treatment, other fuel modification activities. Harmonize conservation and open space policy with hazard mitigation/risk reduction.

• **Disaster preparedness, evacuation, recovery.** Prioritize those most vulnerable and at-risk.

• **Plan for compounding and cascading hazard events:** mudslides, debris removal, water supply contamination, wildfire smoke and public health impacts etc.
Evaluating Planning Options and Tradeoffs

- **General Plan** - Safety element requirements, consistency in land use decisions. Other plans or implementing mechanisms are also needed.
  - Factoring in climate vulnerability & adaptation (SB 379)

- **Local Hazard Mitigation Plan** – alignment with safety element, incorporate by reference for AB 2140 incentive. Maximizes funding opportunities.

- **Community Wildfire Protection Plan** – valuable tool for multi-agency and stakeholder engagement, recognized by federal and state agencies especially in wildland fire mitigation (fuel breaks, fuel mod, etc.)
Examples & Resources

- Case Studies, Example Policies and Programs
- Grants and other funding sources
- Helpful research and guidance documents
- Peer-learning and support programs
  - Community Planning Assistance for Wildfire (CPAW)
  - Fire-Adapted Communities Learning Network
View the Draft TA Update and Additional Resources: https://opr.ca.gov/planning/general-plan/guidelines.html

Public comment deadline: DECEMBER 18, 2020

Questions?

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Airport Land Use Compatibility Planning

SANDAG Planning Technical Working Group
November 12, 2020

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State Aeronautics Act

“...protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.”

California Public Utilities Code, § 21670(a)(2)
Airport Land Use Commissions (ALUCs)

- Established in every county with scheduled air service
- Airport Authority serves as the ALUC in San Diego region (formerly was SANDAG)
- Adopts “Airport Land Use Compatibility Plans” (ALUCPs) for all 16 airports in region
- Makes ‘consistency’ determinations on new land use plans and projects with adopted ALUCPs
Airports in San Diego Region

- Montgomery-Gibbs Exec. Airport
- Fallbrook Airpark
- Oceanside Municipal Airport
- MCAS Camp Pendleton
- MCAS Miramar
- San Diego International Airport
- Brown Field Municipal Airport
- Gillespie Field
- NOLF Imperial Beach
- NAS North Island
- Agua Caliente Airport
- Acotillo Airport
- Borrego Valley Airport
- Jacumba Airport
Airport Land Use Compatibility
Planning Factors

1. **Safety** – policies address potential risk of an aircraft accident
2. **Noise** – policies address potential noise-sensitive land uses
3. **Airspace Protection** – policies address potential hazards to flight
4. **Overflight** – policies address notice to owners of new homes in flight paths
Airport Influence Area

Example: Airport Influence Area for McClellan-Palomar Airport
How Local Jurisdictions are Affected

After ALUCP adoption, local jurisdictions must:

- **Refer**
  - Refer land use plans/zoning amendments and development projects to ALUC

- **Amend**
  - Amend land use plans and regulations to be consistent with ALUCP; or

- **Overrule**
  - Overrule all or part of ALUCP
### ALUC Review Process

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>EXAMPLES</th>
<th>PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use Plans &amp; Regulations</td>
<td>• General/Community Plan Updates&lt;br&gt;• Specific Plans&lt;br&gt;• Zoning Ordinances</td>
<td>“Consistency Determination” application submitted to ALUC, regardless of whether the agency has implemented the applicable ALUCP</td>
</tr>
<tr>
<td>Land Use Projects</td>
<td>• New building construction&lt;br&gt;• Area enlargement or height increase of existing building&lt;br&gt;• Change of land use within existing building</td>
<td>“Consistency Determination” application submitted to ALUC for all projects unless and until the ALUC has deemed local jurisdiction’s implementation vehicle consistent with applicable ALUCP; OR local jurisdiction overrules the ALUCP</td>
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ALUCP GIS Mapping Tool

- Allows local jurisdiction's Planning staff (& Developers) to review property locations in relation to all 16 airports
- Provides data on the applicability of the four compatibility factors around each airport
- Available at [https://www.san.org/Airport-Projects/Land-Use-Compatibility#7121297-gis-data](https://www.san.org/Airport-Projects/Land-Use-Compatibility#7121297-gis-data)
ALUCP GIS Mapping Tool

Example: ALUCP Mapping Tool data around Gillespie Field Airport
Questions?

Submit questions to ALUCapp@san.org or contact ALUC staff at 619-400-2464
2021 Performance Management Rule 1
Safety Target Setting

Regional Planning Technical Working Group

November 12, 2020
PM 1: Safety Performance Measures

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles traveled
- Number of serious injuries
- Rate of serious injuries per 100 million vehicle miles traveled
- Number of non-motorized fatalities and non-motorized serious injuries
Target Setting Process

• Caltrans established statewide targets on August 31, 2020
  • Targets are trend based

• SANDAG is required to set targets by February 28, 2021
  • Option to support the statewide targets or set MPO specific targets
If SANDAG Supports the Statewide Targets

• Do not set a regional numeric target

• Provide a resolution to Caltrans documenting support of the statewide targets

• Highlight safety projects which support the Statewide target in the Regional Transportation Improvement Program (RTIP) and Regional Plan
# 2021 Statewide Safety Targets

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>2021 Statewide Targets (5 year rolling average)</th>
<th>Percent Reduction for 2021 Statewide Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Fatalities</td>
<td>3,624.8</td>
<td>2.9%</td>
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<tr>
<td>Rate of Fatalities per 100 Million Vehicle Miles Traveled (VMT)</td>
<td>1.044</td>
<td>2.9%</td>
</tr>
<tr>
<td>Number of Serious Injuries</td>
<td>15,419.4</td>
<td>1.3%</td>
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<tr>
<td>Rate of Serious Injuries per 100 Million VMT</td>
<td>4.423</td>
<td>1.3%</td>
</tr>
<tr>
<td>Number of Non-Motorized Fatalities and Serious Injuries</td>
<td>4,340.8</td>
<td>2.9% for fatalities and 1.3% for serious injuries</td>
</tr>
</tbody>
</table>
1. Fatalities

- San Diego County Fatalities
- Statewide Fatalities
- San Diego County 5-Yr Rolling Average
- Statewide 5-Yr Rolling Average
- Prior Statewide Targets
- 2021 Statewide Target
2. Fatality Rate by VMT

San Diego County Rate of Fatalities/100 MVMT
Statewide Rate of Fatalities/100 MVMT
San Diego County 5-Yr Rolling Average
Statewide 5-Yr Rolling Average
Prior Statewide Targets
2021 Statewide Target
3. Serious Injuries

- San Diego County No. of Serious Injuries
- Statewide No. of Serious Injuries
- San Diego County 5-Yr Rolling Average
- Statewide 5-Yr Rolling Average
- Prior Statewide Targets
- 2021 Statewide Target
4. Serious Injury Rate by VMT

- San Diego County Rate of Serious Injuries / 100 MVMT
- Statewide Rate of Serious Injuries / 100 MVMT
- San Diego County 5-Yr Rolling Average
- Statewide 5-Yr Rolling Average
- Prior Statewide Targets
- 2021 Statewide Target
5. Non-Motorized: Bicyclist and Pedestrian Fatalities & Serious Injuries

![Graph showing non-motorized fatalities and serious injuries in San Diego County and statewide from 2010 to 2021. The graph includes 5-year rolling averages and target indicators.]
2018 Significant Progress Determination for California

- California did not make significant progress towards targets for 2018

- Significant progress is
  - Meeting or better than target
  - or be better than the baseline
  - for at least four out of the five measures.

- For 2018 three measures did not meet the target or baseline
  - fatality rate, serious injury rate, and number serious injuries
Next Steps

- Fall / Winter 2020: Collaboration with SANDAG Working Groups and Policy Advisory Committees
- December 18, 2020: SANDAG Board of Directors will be asked to adopt safety targets
- February 28, 2020: SANDAG provides PM 1 targets to Caltrans
- 2021: Include summary of safety projects supporting the targets in 2021 Regional Transportation Improvement Program
- 2021: Include targets and document progress toward meeting the targets in San Diego Forward: The 2021 Regional Plan