

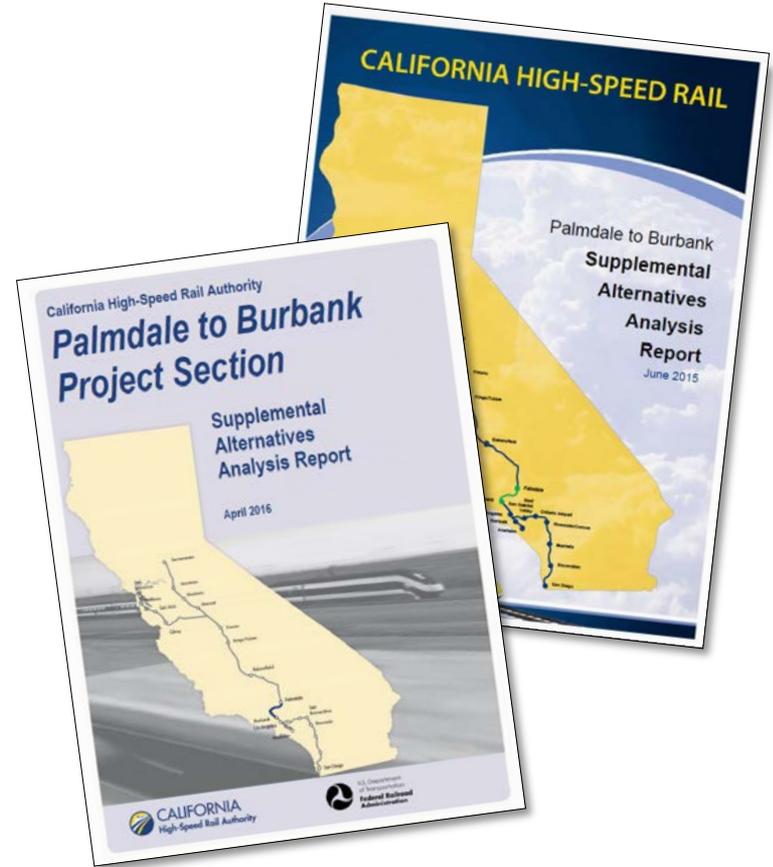
Alternatives

**Palmdale to Burbank Project Section
September 2016**

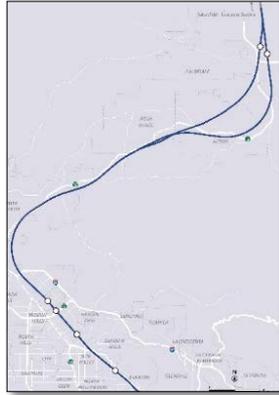


Alternative Analysis (AA) Process

- Evaluate whether the alternatives meet the HSR Project objectives / Purpose and Need
- Evaluate potential feasibility and reasonableness
- Evaluate and disclose potential impacts of the alternatives based on screening criteria
- Recommend alternatives for further study OR withdraw them from further evaluation



History of Alignment Alternatives



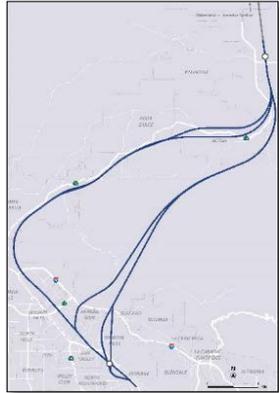
2010



2012



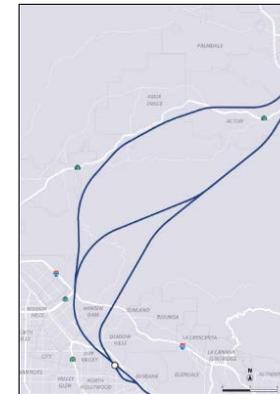
2014



2014



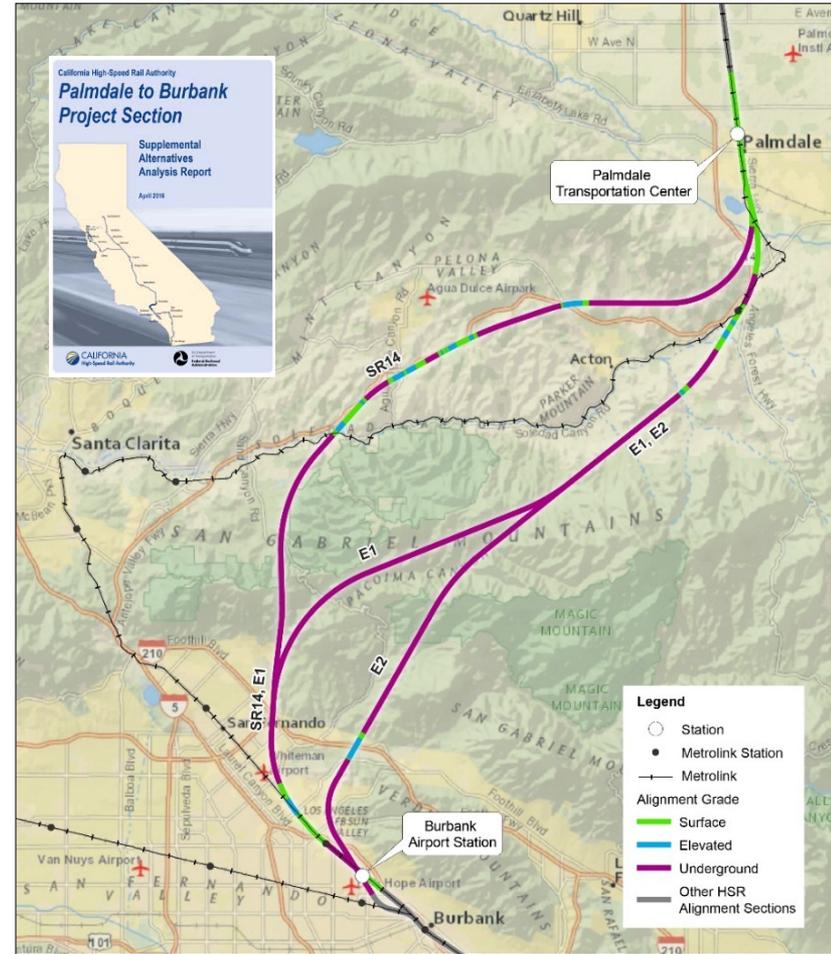
2015



2016

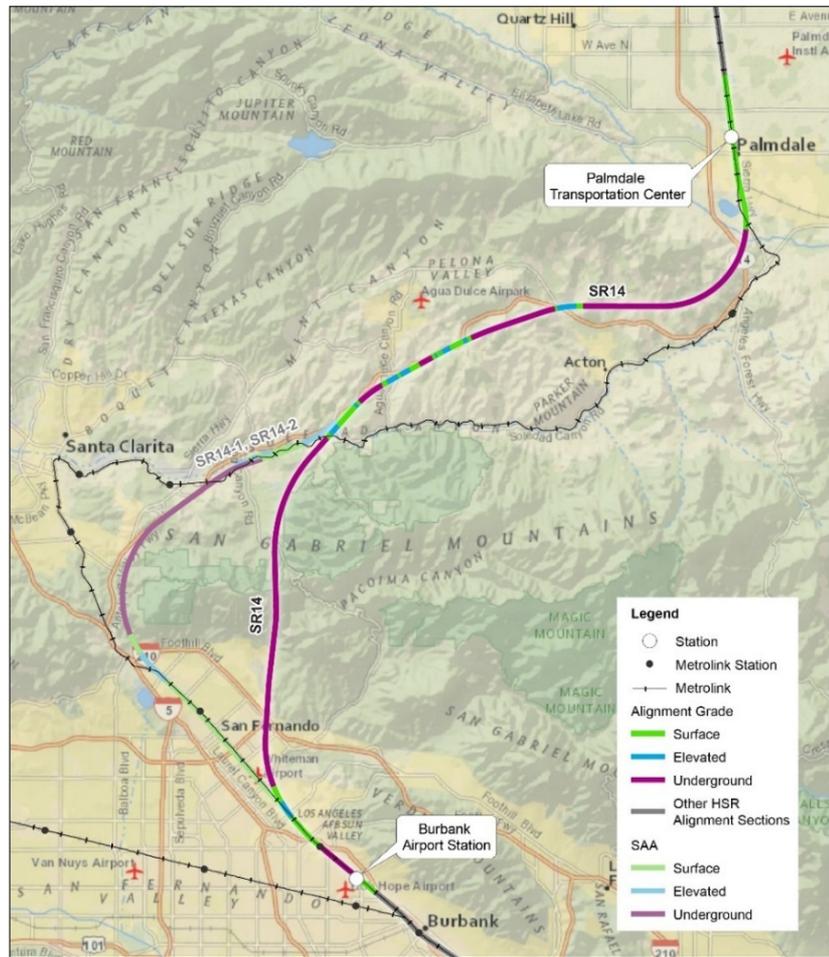
2016 Supplemental Alternatives Analysis

- **Study Three Alternatives in Draft Environmental Document**
 - » Developed Supplemental Alternatives Analysis (SAA) Report
 - » Improved future high-speed rail operations and constructability
 - » Reduced potential impacts to:
 - » Environmental justice communities
 - » Community facilities
 - » Businesses
 - » Environmental resources
 - » Highly-populated communities



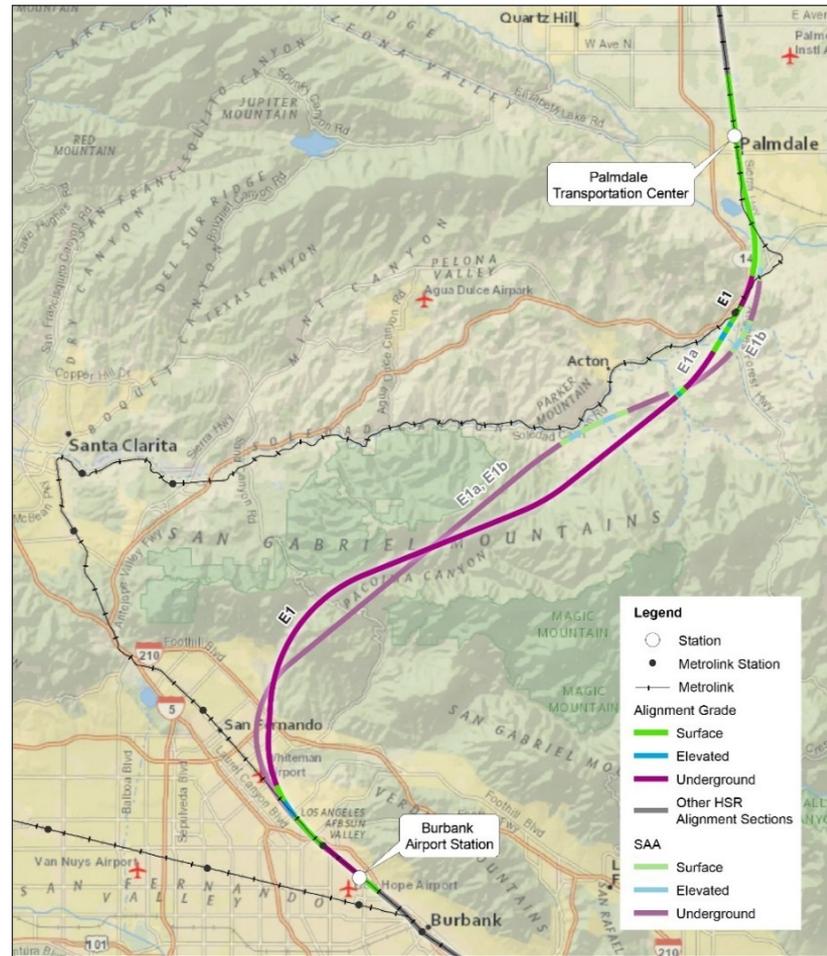
2016 SAA: SR14 Differentiating Factors

- More perpendicular crossing at Santa Clara River, significantly reducing impacts
- Reduces impacts to highly developed areas in San Fernando Valley
- Reduces impacts to rural communities
- Shorter alignment, improved travel time and operations
- Tunnels under portion of Angeles National Forest



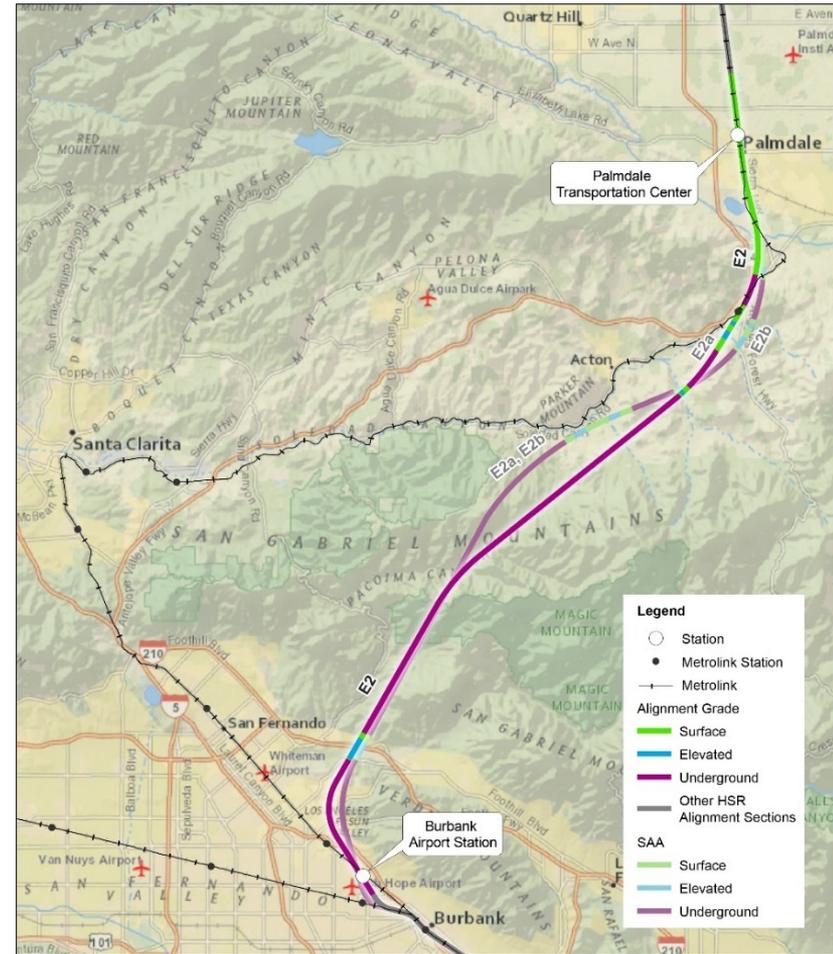
2016 SAA: E1 Differentiating Factors

- Improves grade and profile
- Avoids Bootlegger Canyon community in Acton
- Reduces length of fault crossings
- Reduces depth of tunnels

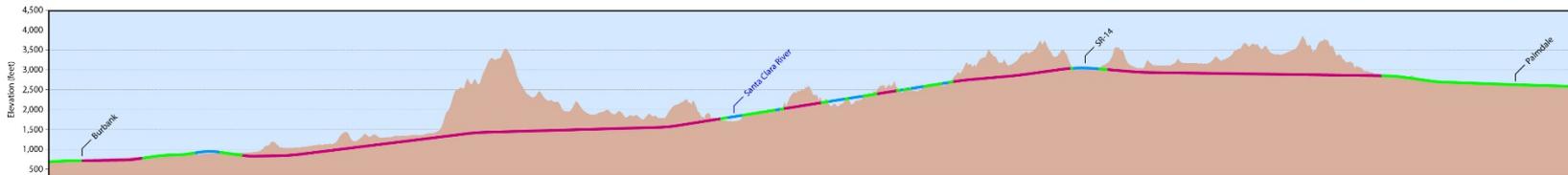
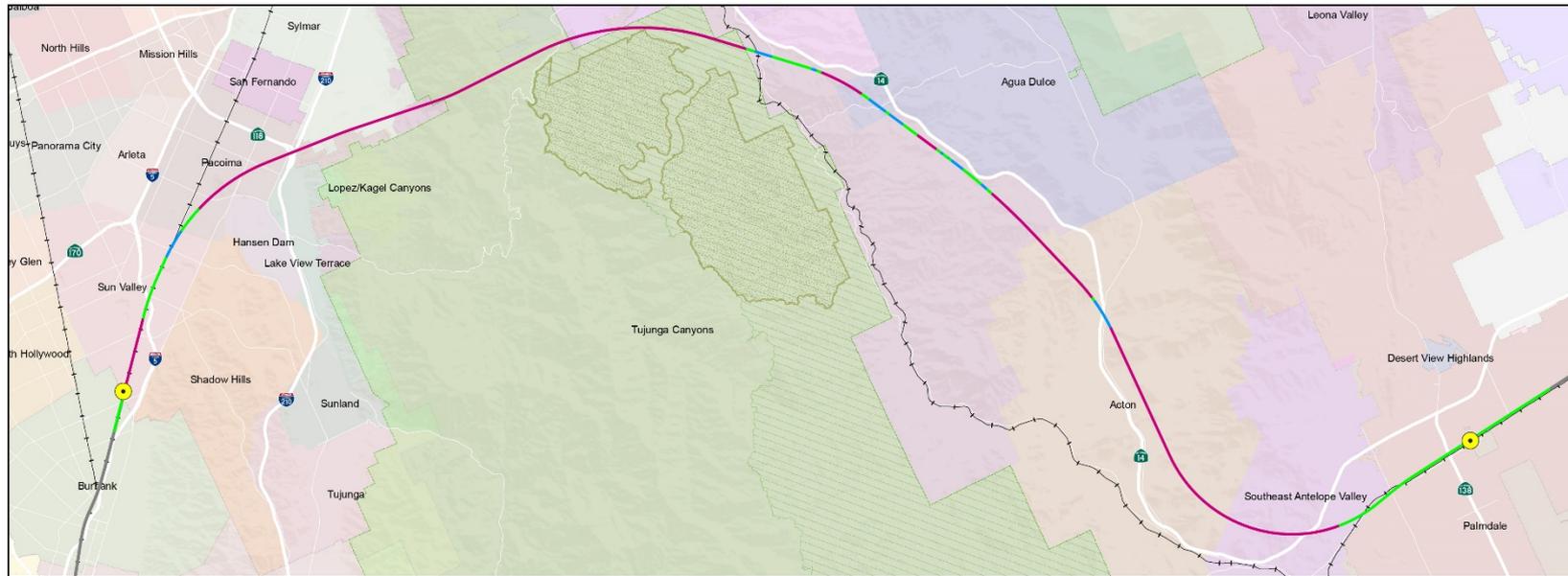


2016 SAA: E2 Differentiating Factors

- Improves vertical profile and reduces tunnel depths
- Improves alignment and operations south of Burbank station
- Avoids Bootlegger Canyon community in Acton
- Reduces residential impacts in Shadow Hills neighborhood
- Avoids impacts to Big Tujunga Wash Mitigation Area



SR14 Plan and Profile



Palmdale to Burbank Section

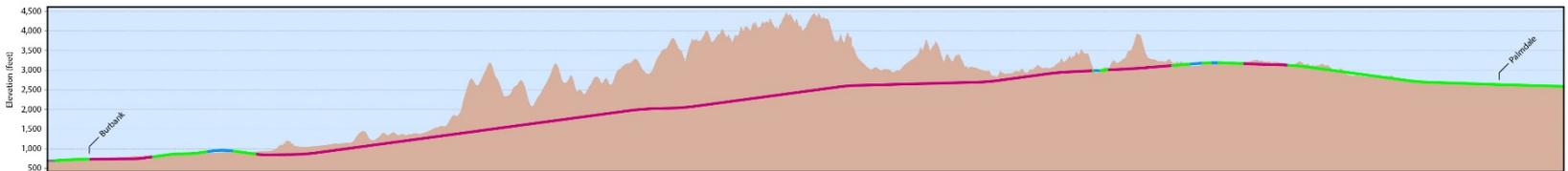
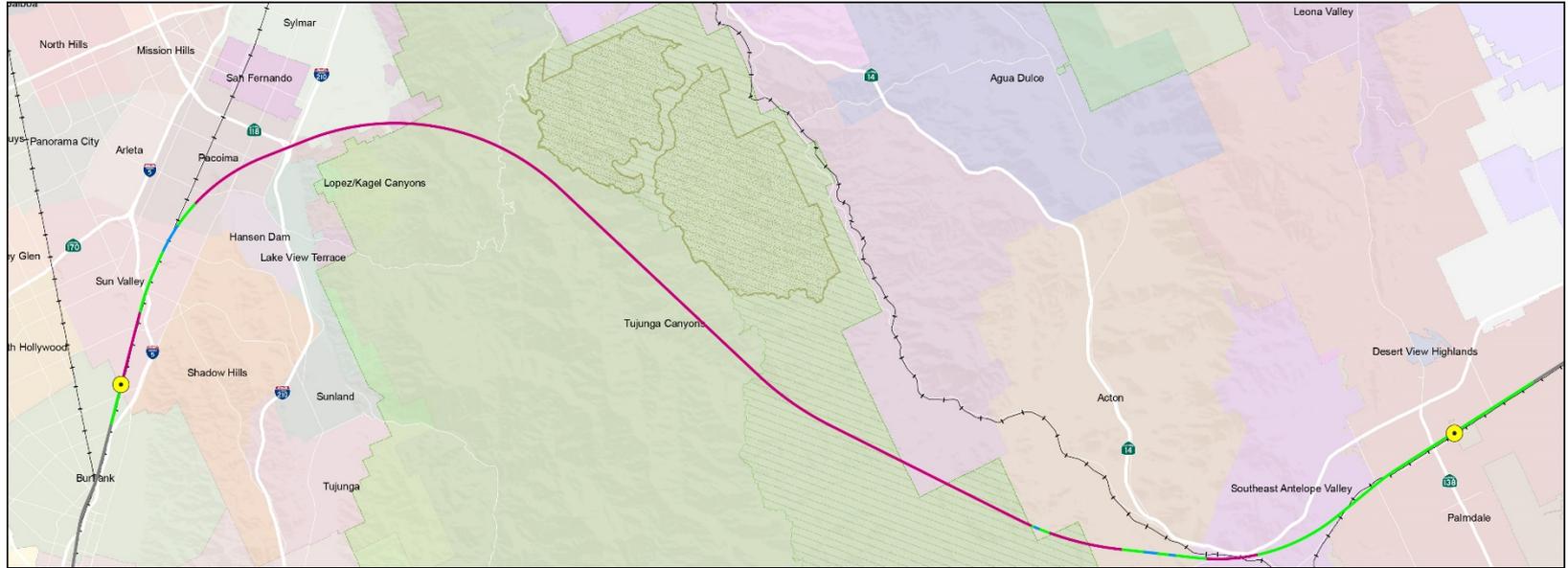
SR14 Plan and Profile

*conceptual level alignments subject to change during the environmental process

- Surface*
- Elevated*
- Underground*
- Other HSR Alignments*
- Station
- Metrolink
- Wilderness Area
- San Gabriel Mountains National Monument
- National Forest



E1 Plan and Profile



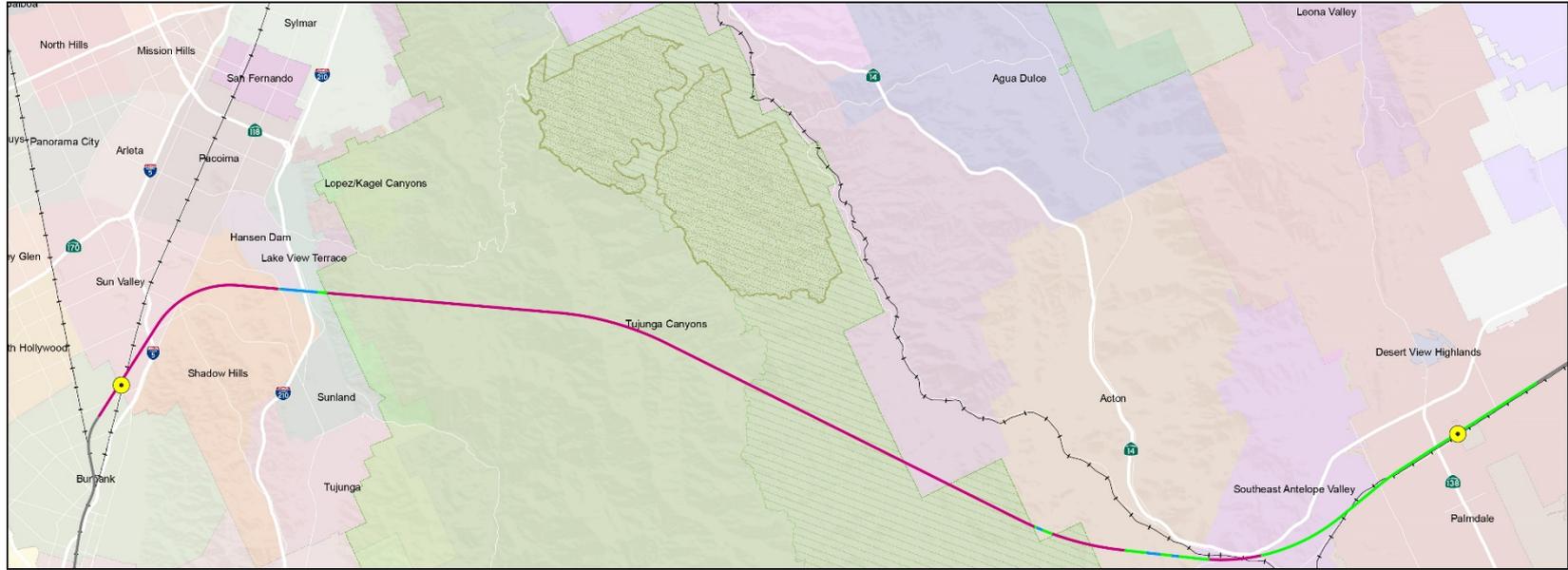
Palmdale to Burbank Section E1 Plan and Profile

*conceptual level alignments subject to change during the environmental process

- Surface*
- Elevated*
- Underground*
- Other HSR Alignments*
- Station
- Metrolink
- Wilderness Area
- San Gabriel Mountains National Monument
- National Forest



E2 Plan and Profile



Palmdale to Burbank Section E2 Plan and Profile

*conceptual level alignments subject to change during the environmental process

- Surface*
- Elevated*
- Underground*
- Other HSR Alignments*
- Station
- Metrolink
- Wilderness Area
- San Gabriel Mountains National Monument
- National Forest

