California High-Speed Rail Authority

Bakersfield to Palmdale Project Section

Final Environmental Impact Report/ Environmental Impact Statement

Appendix 5-A: Environmental Justice Figures

May 2021





The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.



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APPENDIX 5-A: FIGURES

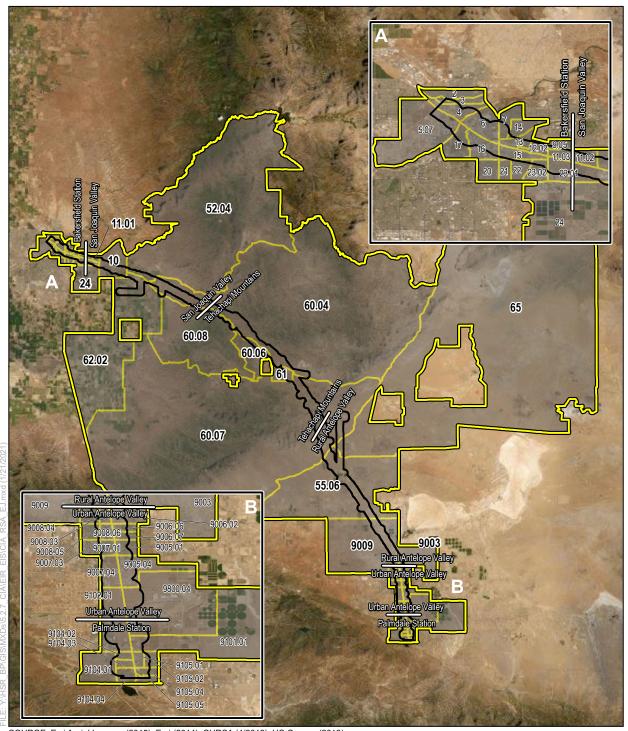
This appendix contains detailed maps in support of the affected environment descriptions in Chapter 5, Environmental Justice. Specifically, this appendix contains the following figures:

- Figure 5-A-1: Environmental Justice Resource Study Area (1 sheet)
- Figure 5-A-2: Minority Populations in the Environmental Justice Resource Study Area (13 sheets)
- Figure 5.A-3: Low-Income Populations in the Environmental Justice Resource Study Area (13 sheets)
- Figure 5-A-4: Low-Income and Minority Populations in the Resource Study Area (13 sheets)
- Figure 5-A-5: Facilities of Concern for Low-Income Populations in Lancaster (1 sheet)
- Figure 5-A-6: Operation-Phase Alternative 1 Noise Receptor Impacts Low-Income and/or Minority Populations (12 sheets)
- Figure 5-A-7: Operation-Phase Alternative 2 Noise Receptor Impacts Low-Income and/or Minority Populations (12 sheets)
- Figure 5-A-8: Operation-Phase Alternative 3 Noise Receptor Impacts Low-Income and/or Minority Populations (12 sheets)
- Figure 5-A-9: Operation-Phase Alternative 5 Noise Receptor Impacts Low-Income and/or Minority Populations (12 sheets)
- Figure 5-A-10: Operation-Phase Bakersfield Station F Street Station Noise Receptor Impacts - Low-Income and/or Minority Populations (2 sheets)



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SOURCE: Esri Aerial Imagery (2015); Esri (2014); CHRSA (4/2016); US Census (2010)

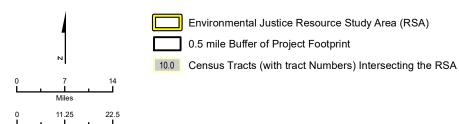
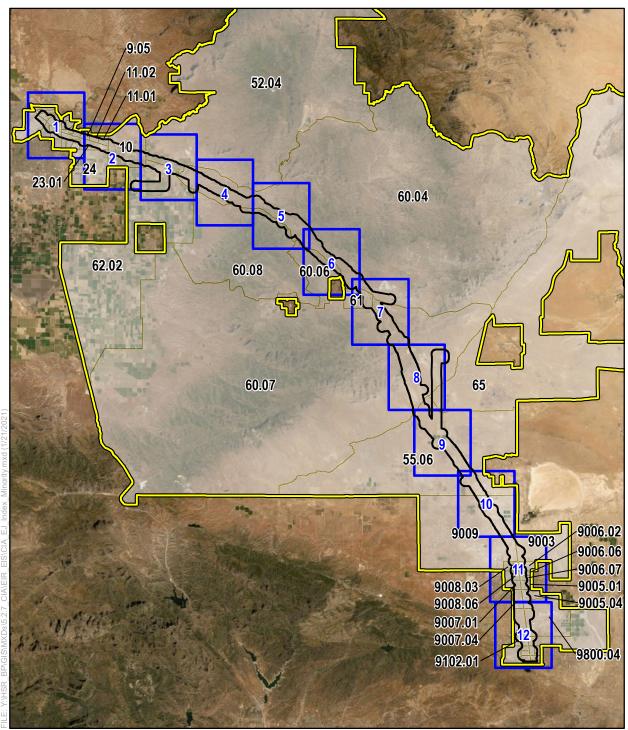
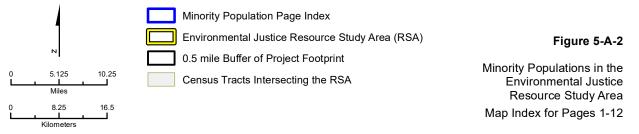


Figure 5-A-1 Environmental Justice Resource Study Area

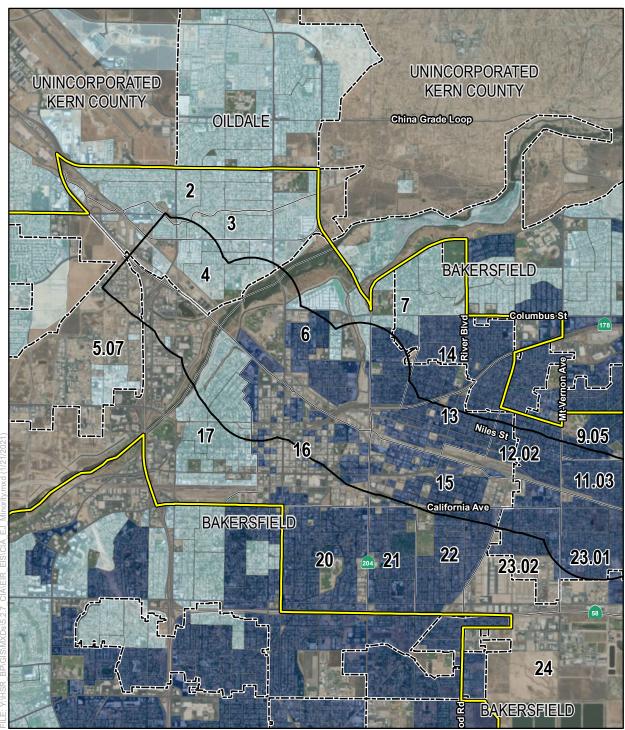




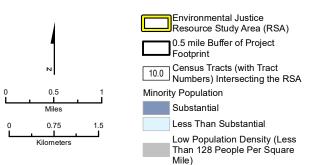
SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)







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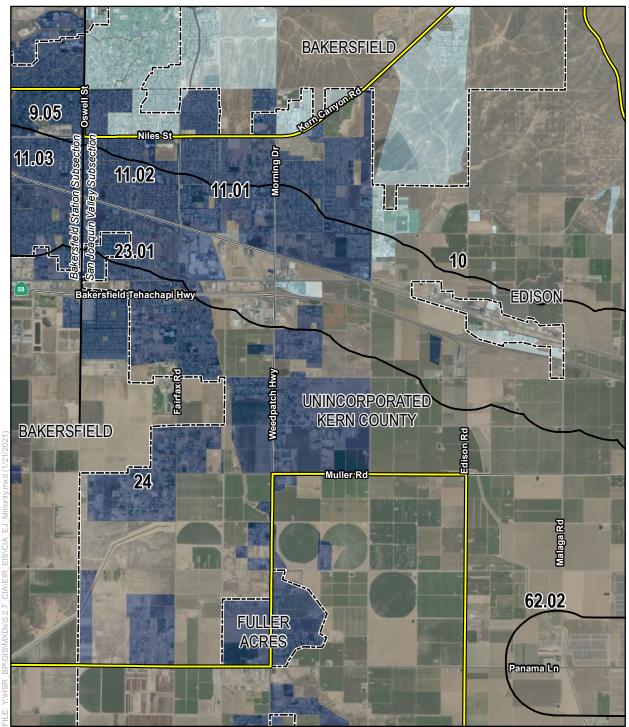


Note: Substantial minority populations are identified in Census block groups where the minority population (non-White only; including Hispanic/Latino, regardless of race) percentage exceeds the countywide average. (62.1 percent for Kern County; 72.5 percent for Los Angeles County)

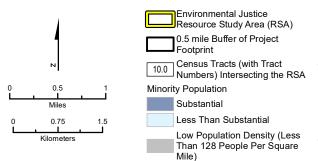
Figure 5-A-2

Minority Populations in the Environmental Justice Resource Study Area Page 1 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

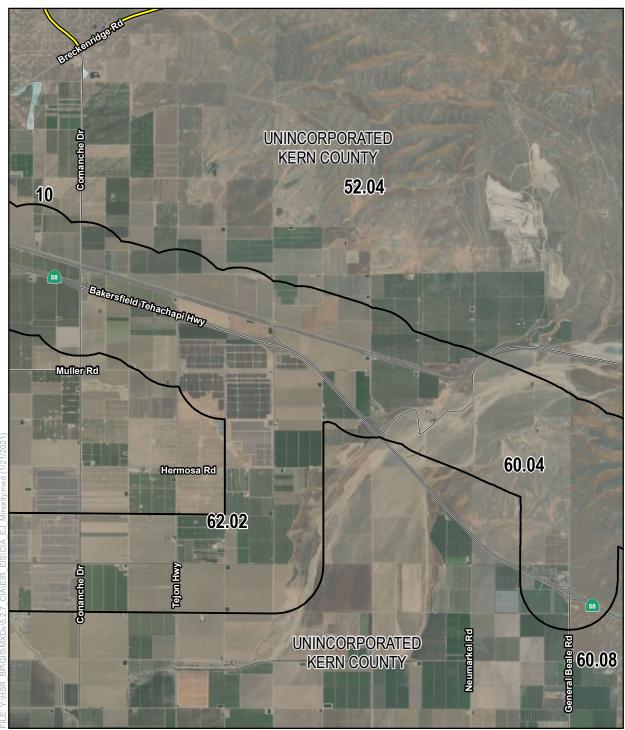


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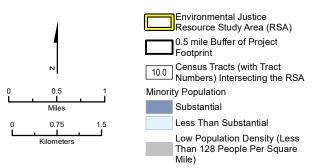
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Minority Populations in the Environmental Justice Resource Study Area Page 2 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

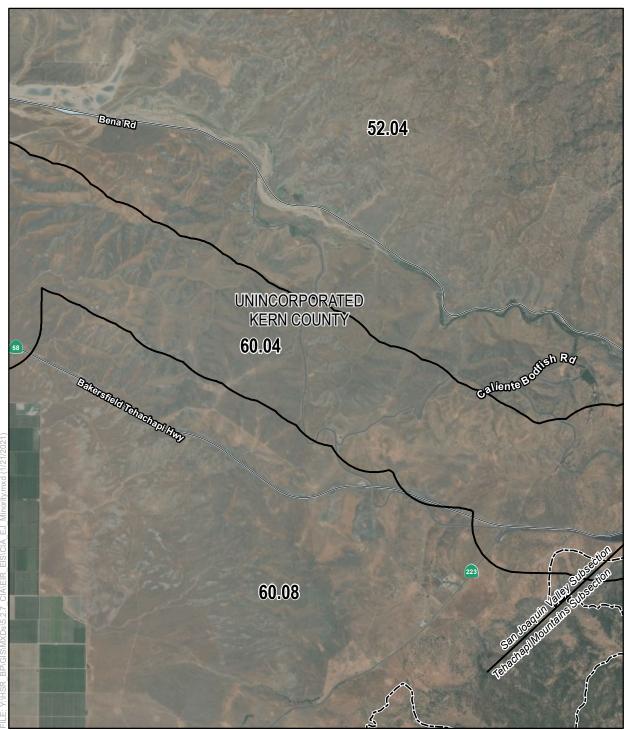


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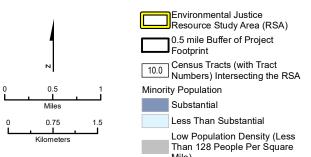
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Minority Populations in the Environmental Justice Resource Study Area Page 3 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



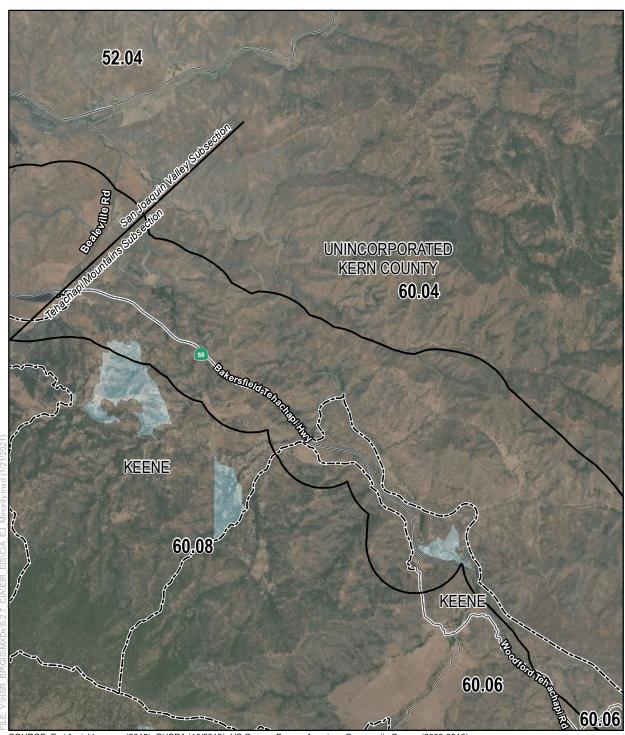


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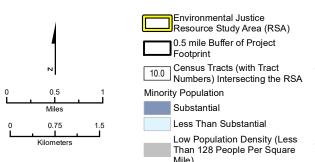
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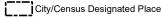
Minority Populations in the Environmental Justice Resource Study Area Page 4 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



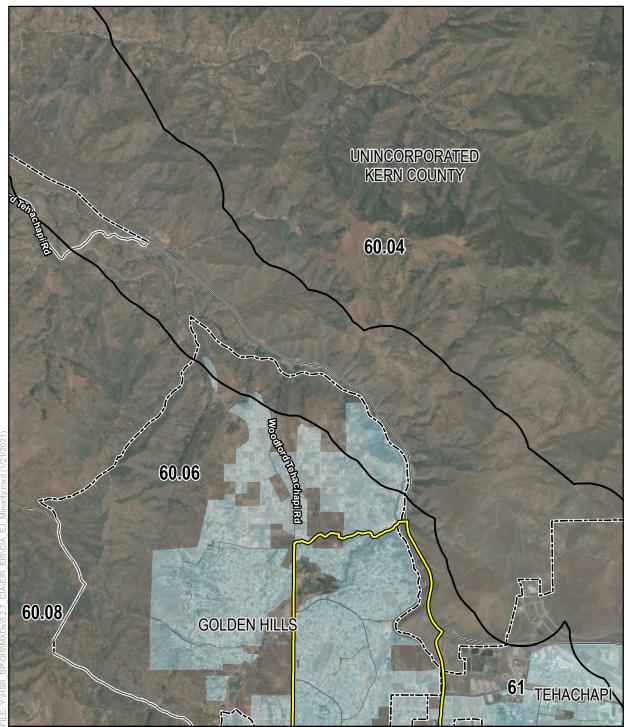


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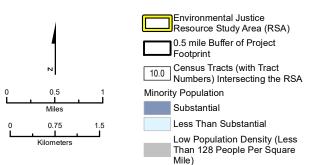
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Minority Populations in the Environmental Justice Resource Study Area Page 5 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



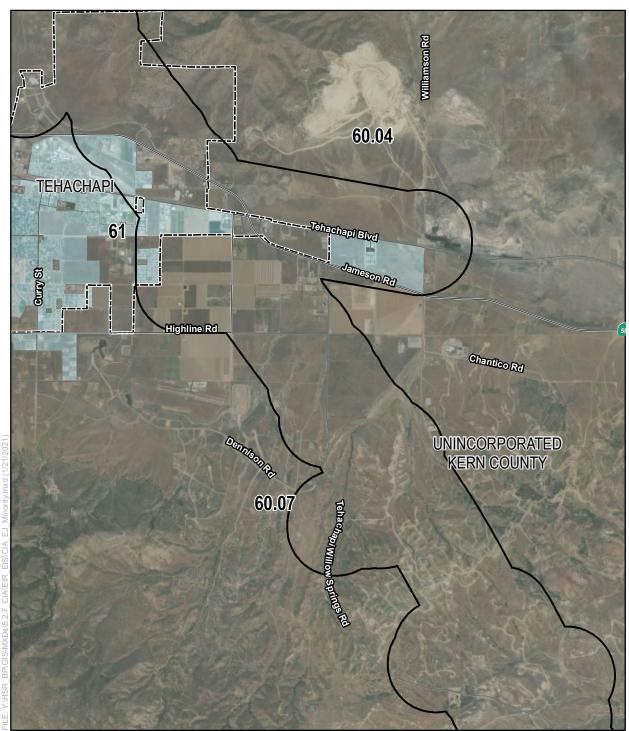
City/Census Designated Place
Note: Substantial minority
populations are identified

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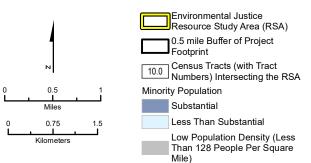
Figure 5-A-2

Minority Populations in the Environmental Justice Resource Study Area Page 6 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)





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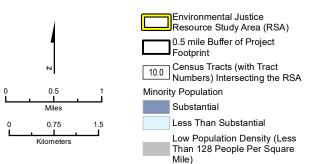
Figure 5-A-2

Minority Populations in the Environmental Justice Resource Study Area Page 7 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

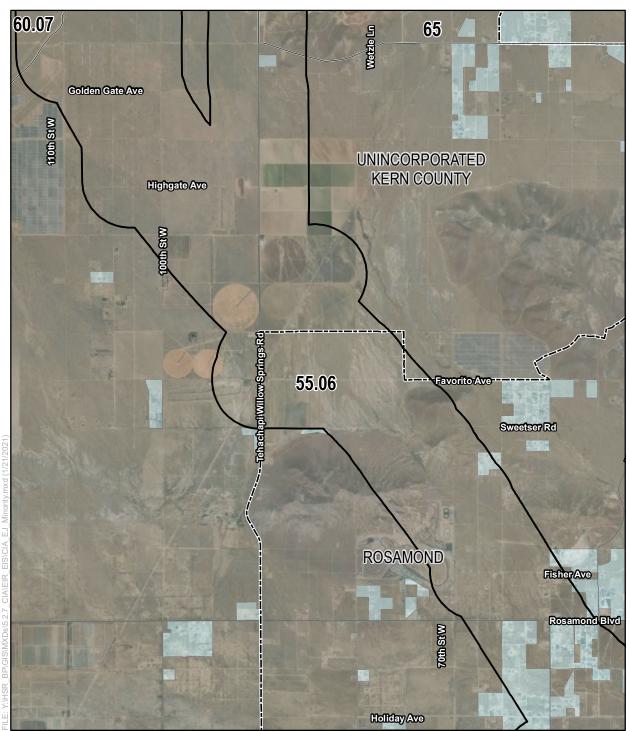


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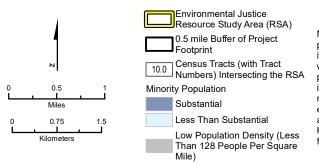
Figure 5-A-2

Minority Populations in the Environmental Justice Resource Study Area Page 8 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

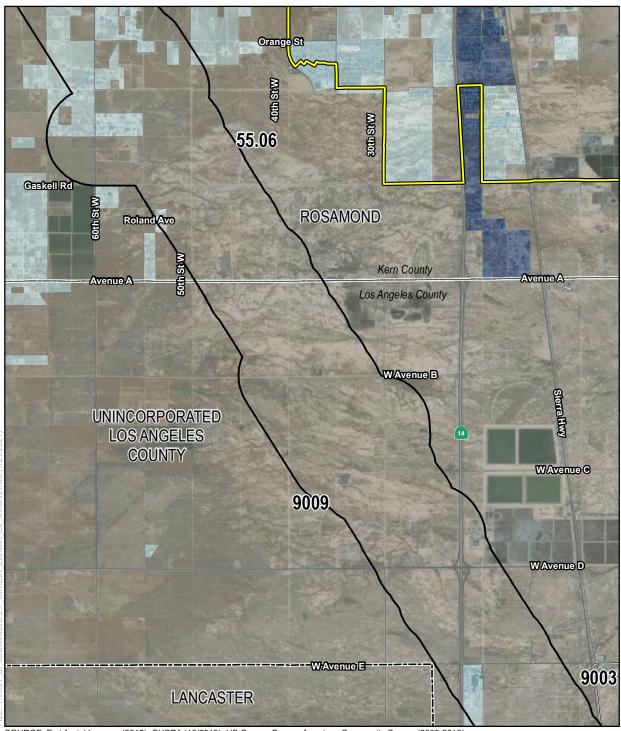


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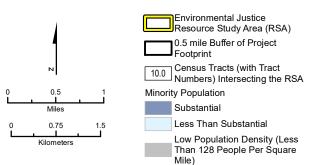
Figure 5-A-2

Minority Populations in the Environmental Justice Resource Study Area Page 9 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

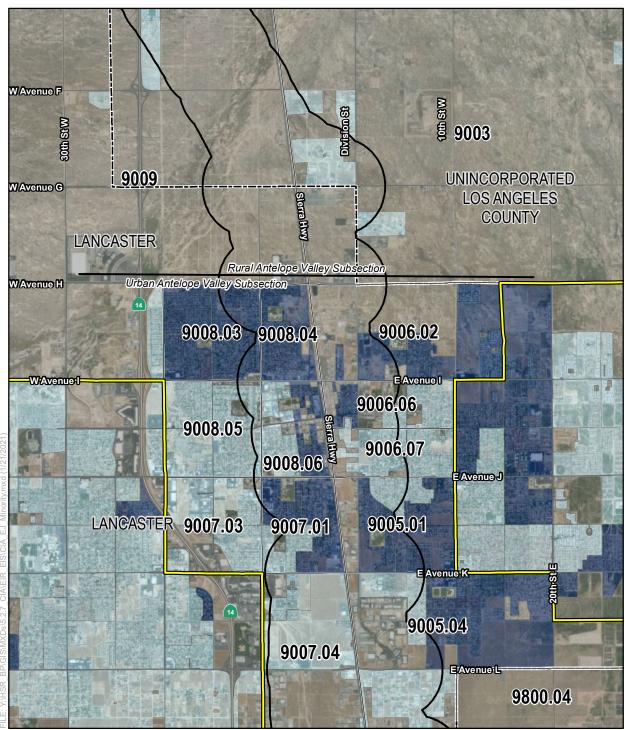


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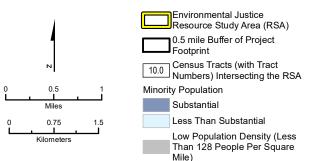
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Minority Populations in the Environmental Justice Resource Study Area Page 10 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

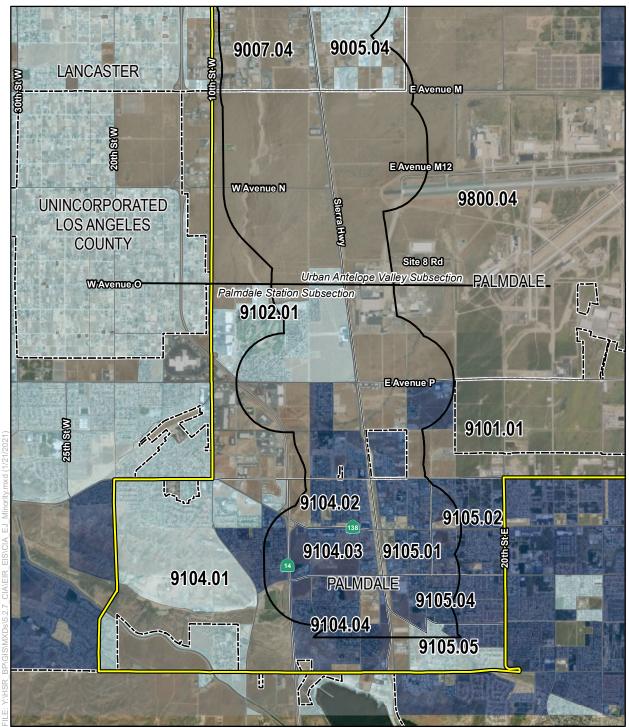


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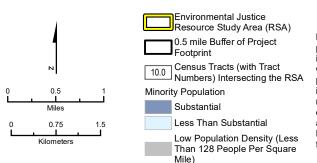
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Minority Populations in the Environmental Justice Resource Study Area Page 11 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

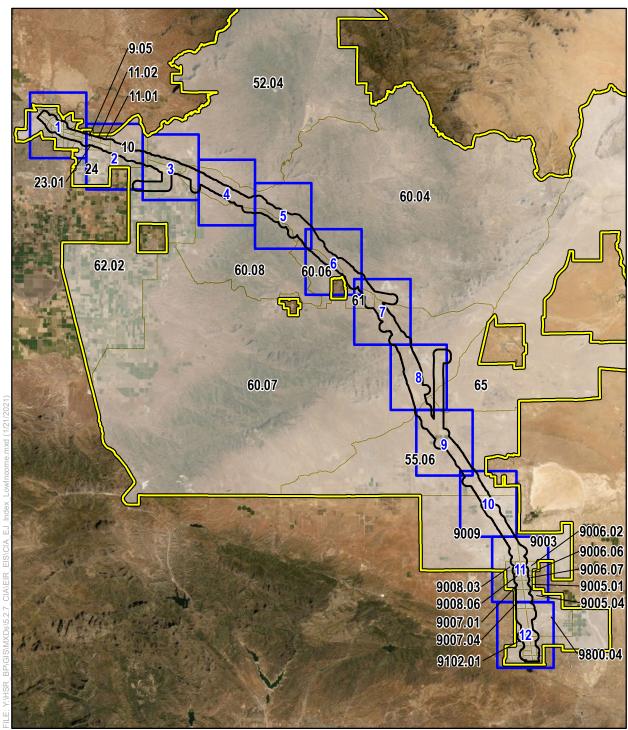


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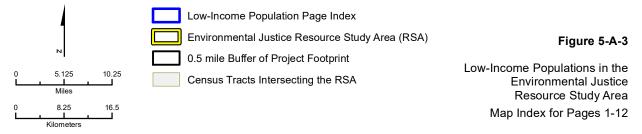
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Minority Populations in the Environmental Justice Resource Study Area Page 12 of 12

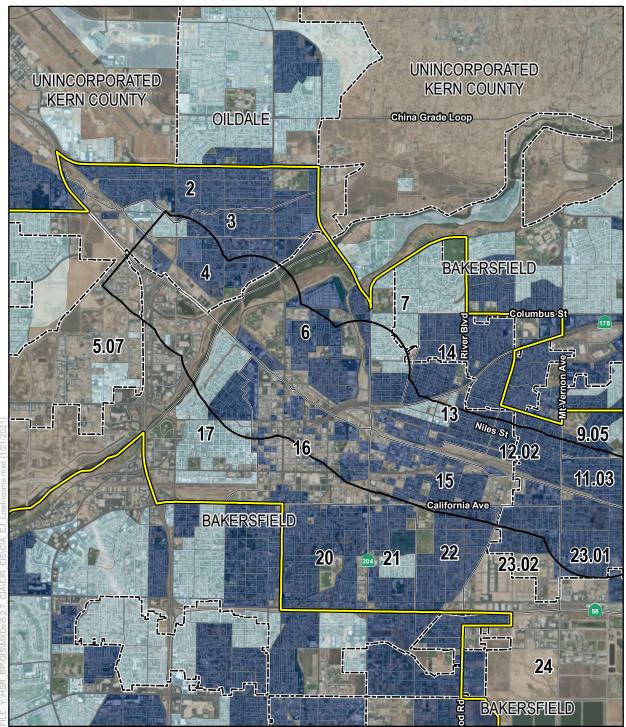




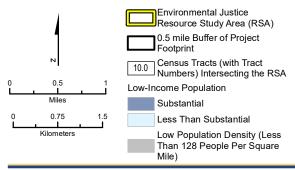
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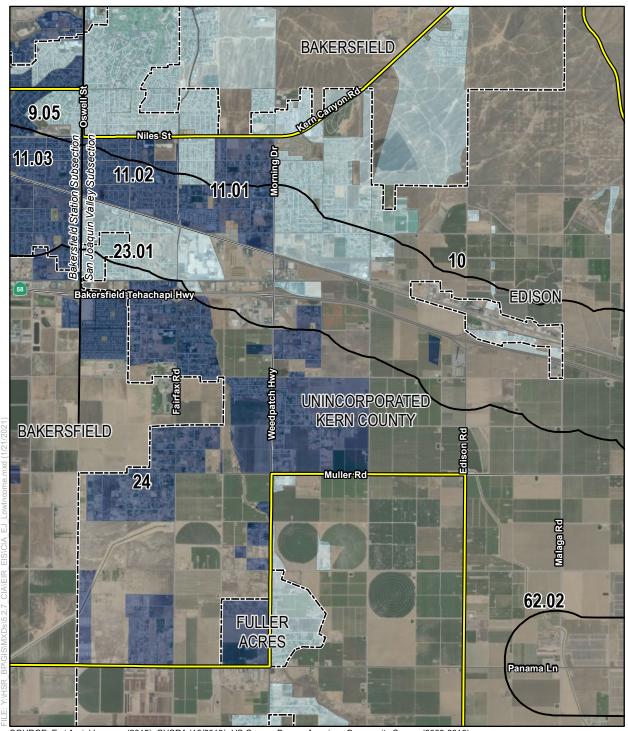


Note: Substantial low income populations are identified in Census block groups where the low income population percentage (income below the U.S. Census poverty threshold) exceeds the countywide average. (22.9 percent for Kem County; 17.8 percent for Los Angeles County)

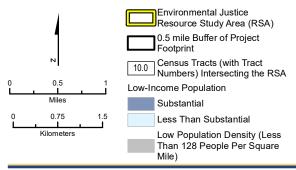
Figure 5-A-3

Low-Income Populations in the Environmental Justice Resource Study Area Page 1 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

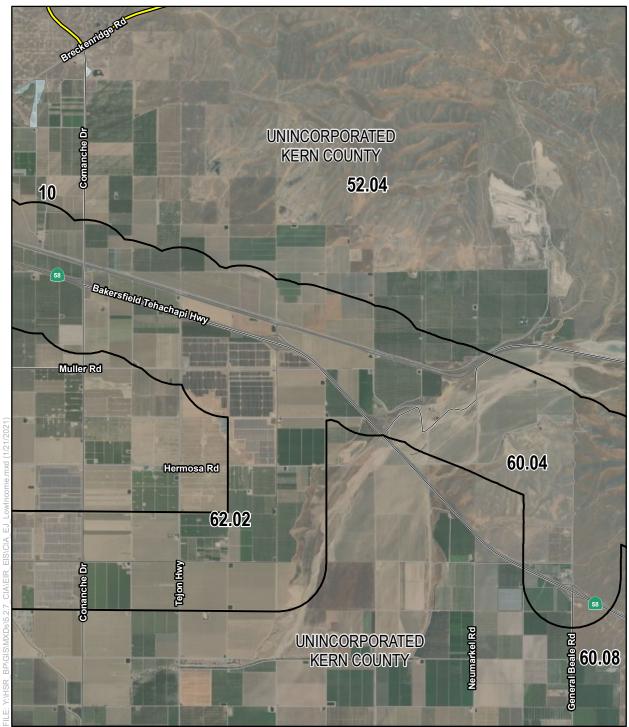


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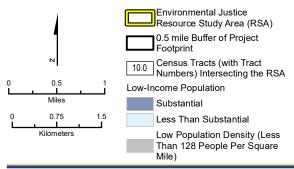
Figure 5-A-3

Low-Income Populations in the Environmental Justice Resource Study Area Page 2 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

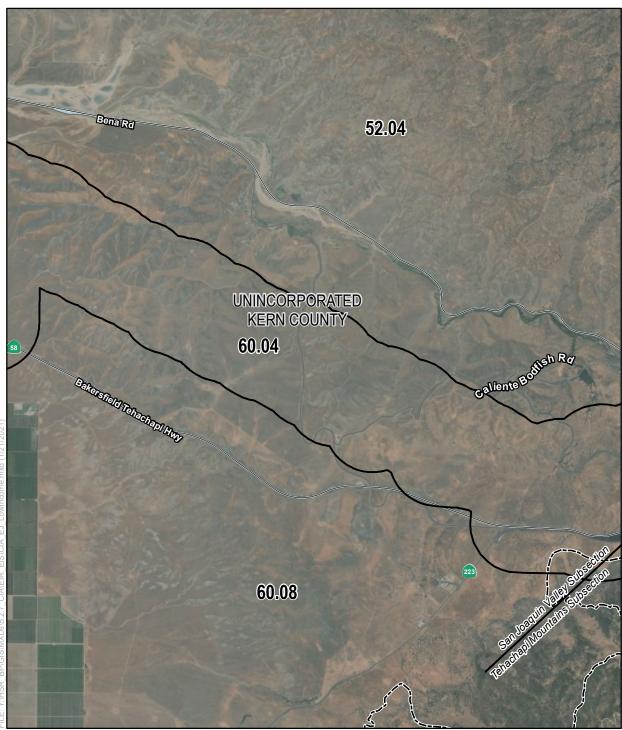


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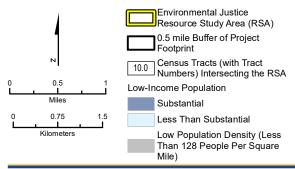
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Low-Income Populations in the Environmental Justice Resource Study Area Page 3 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



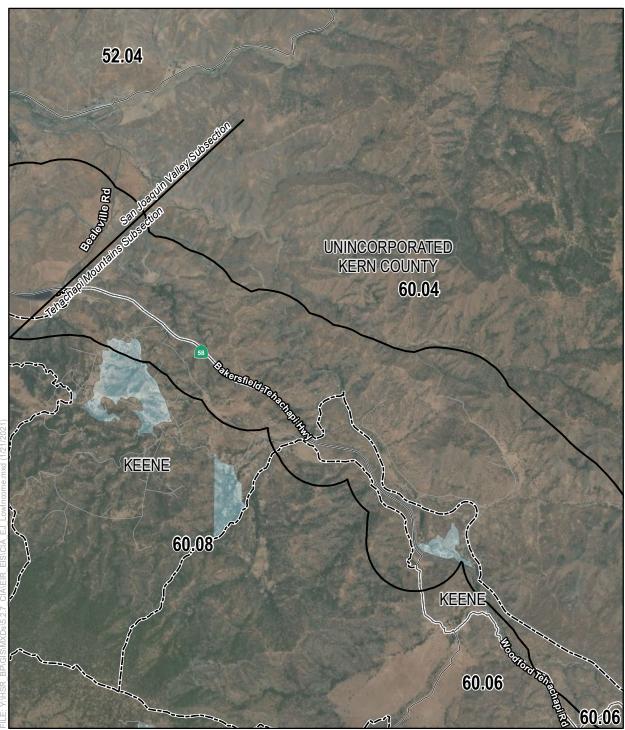


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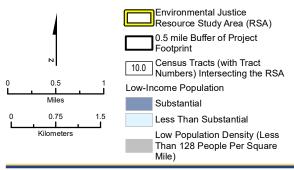
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Low-Income Populations in the Environmental Justice Resource Study Area Page 4 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

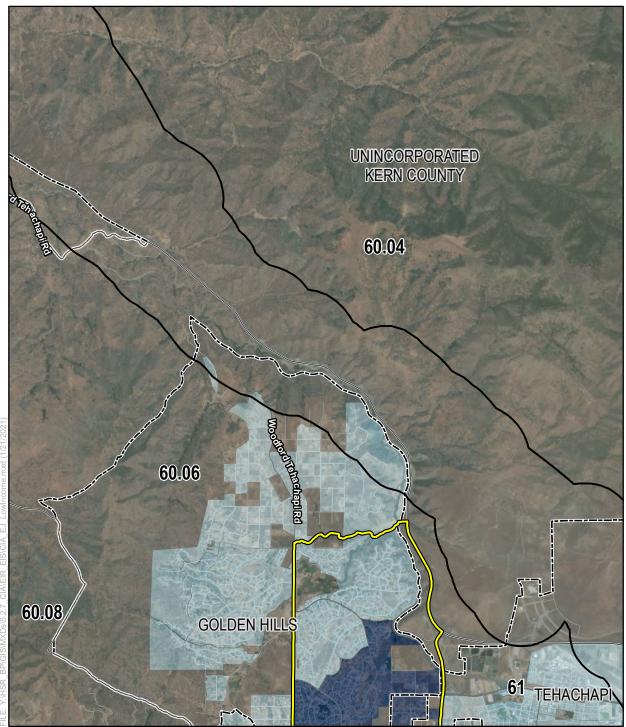


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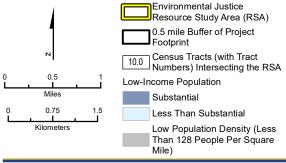
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Low-Income Populations in the Environmental Justice Resource Study Area Page 5 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



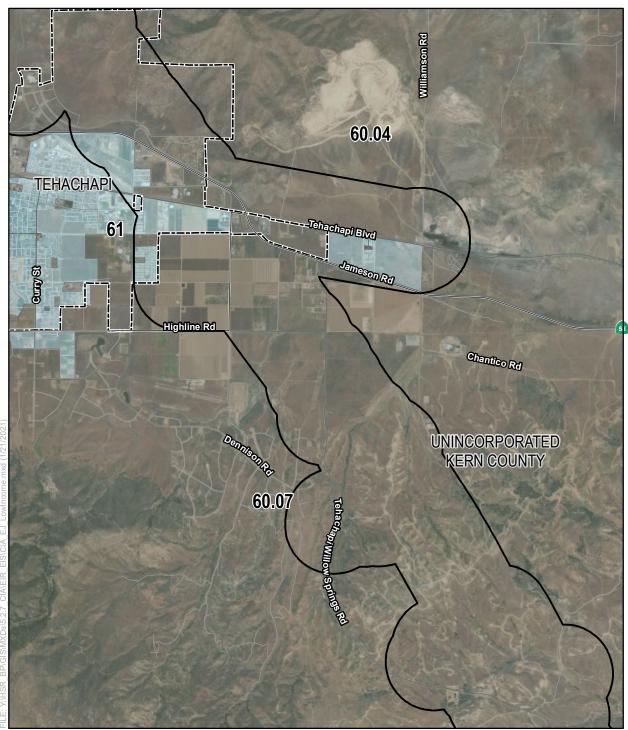


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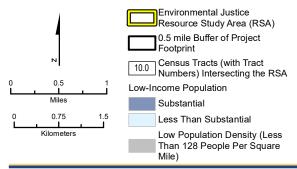
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Low-Income Populations in the Environmental Justice Resource Study Area Page 6 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)





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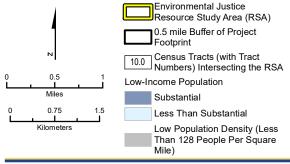
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Low-Income Populations in the Environmental Justice Resource Study Area Page 7 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

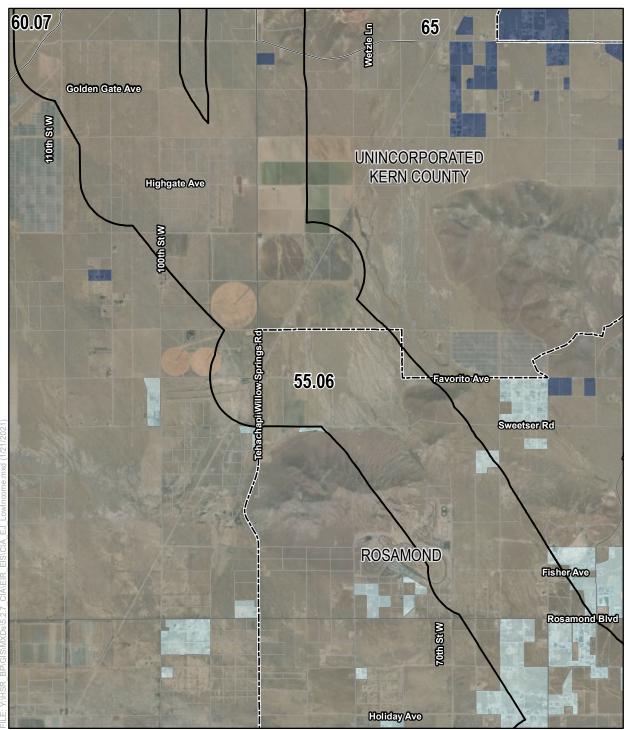


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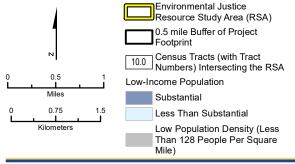
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Low-Income Populations in the Environmental Justice Resource Study Area Page 8 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



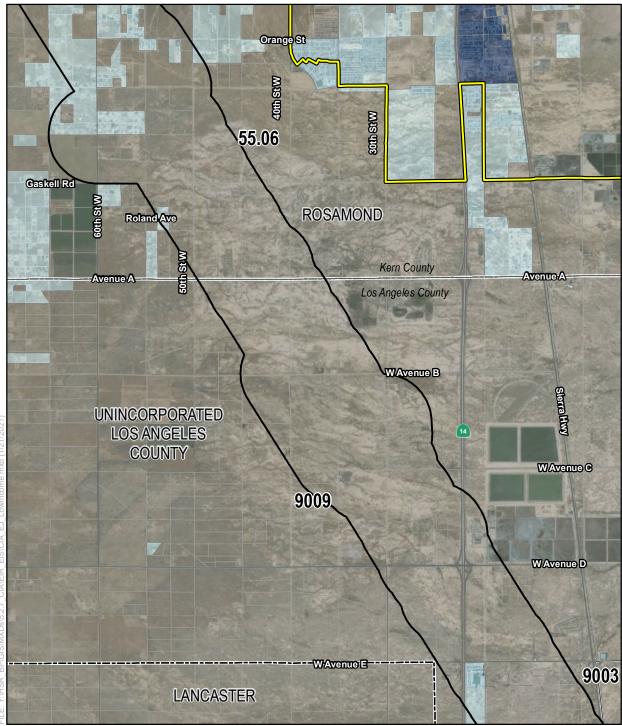


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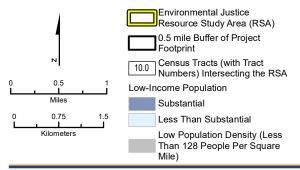
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Low-Income Populations in the Environmental Justice Resource Study Area Page 9 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



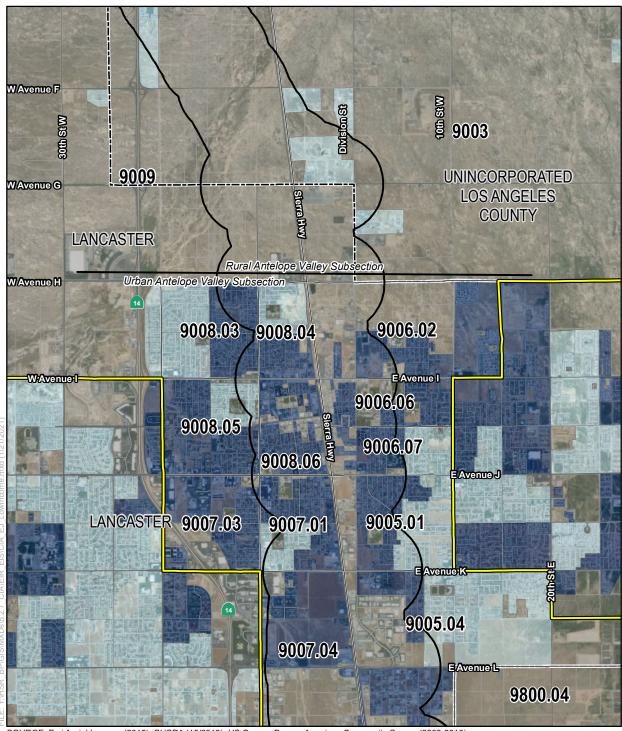


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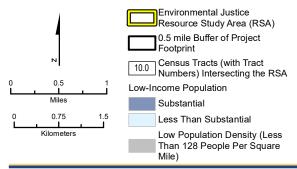
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Low-Income Populations in the Environmental Justice Resource Study Area Page 10 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

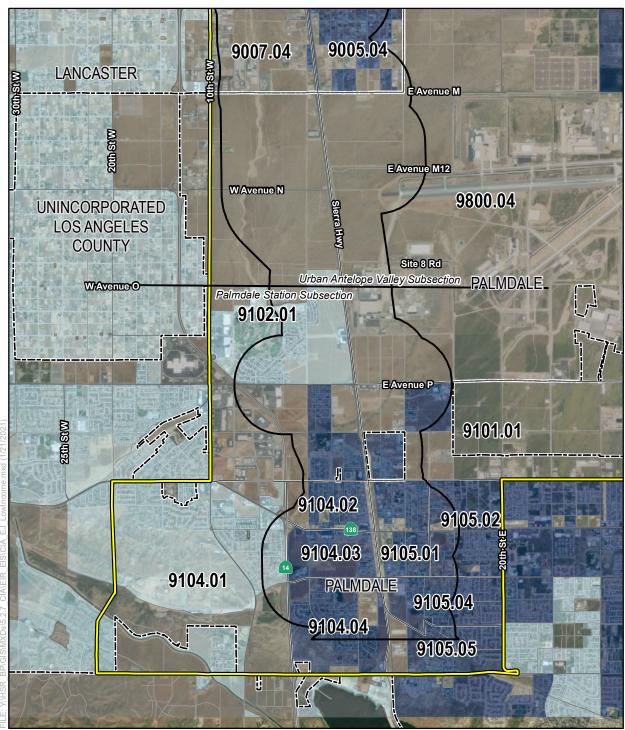


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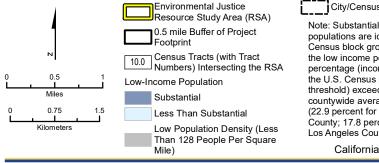
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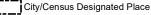
Low-Income Populations in the Environmental Justice Resource Study Area Page 11 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



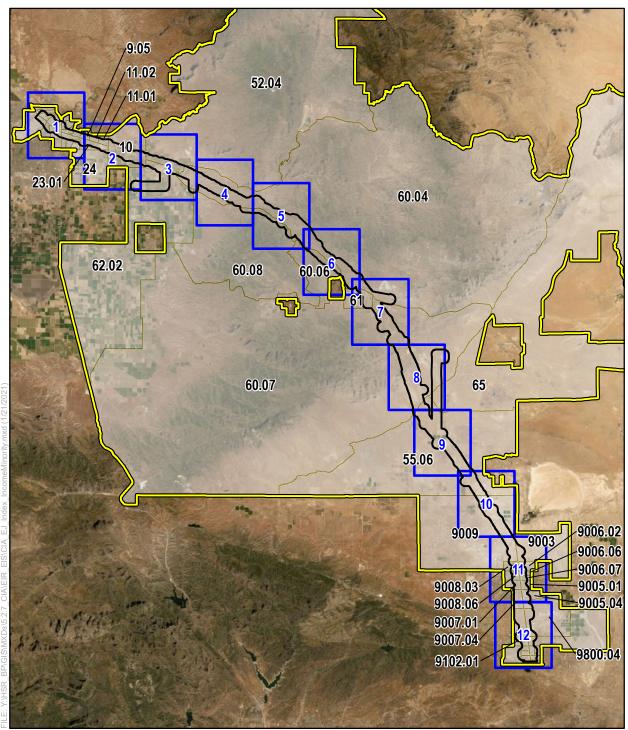


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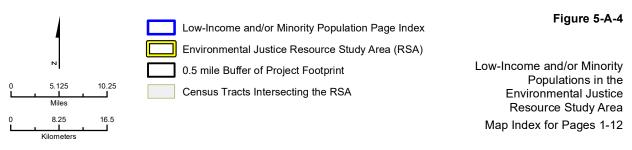
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Low-Income Populations in the **Environmental Justice** Resource Study Area Page 12 of 12

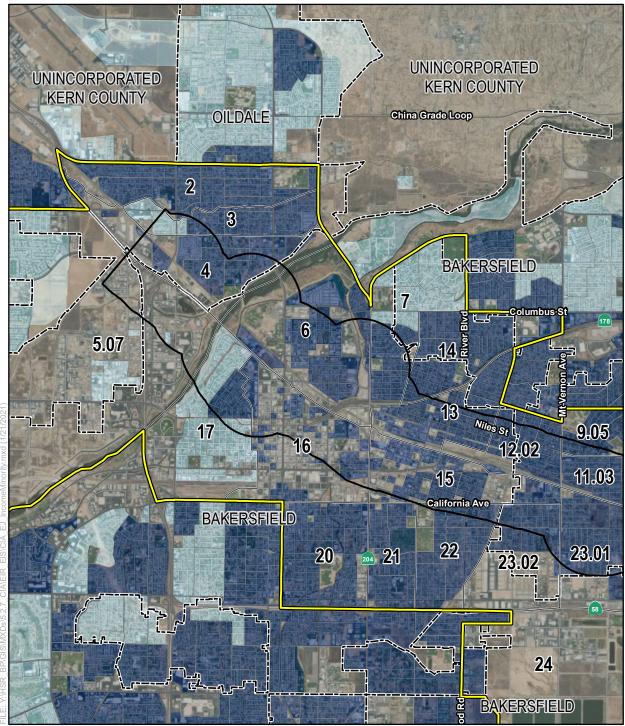




SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)







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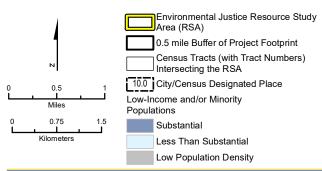
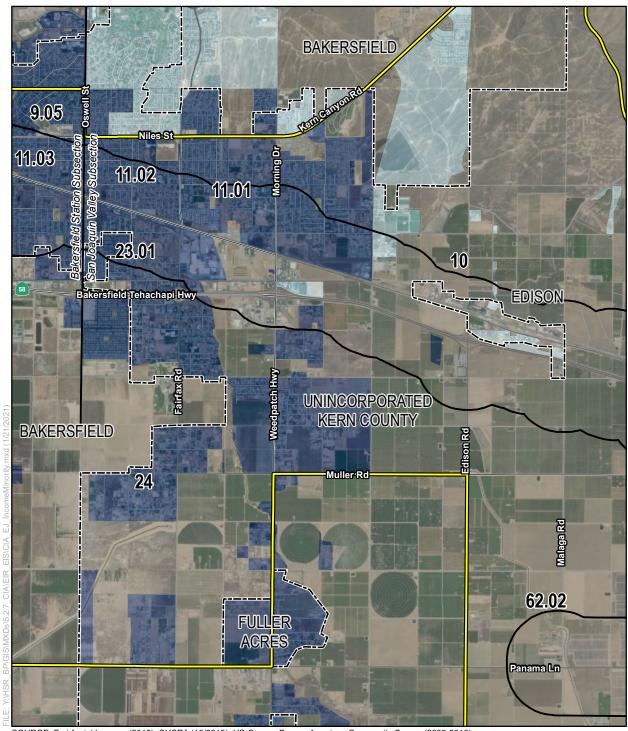


Figure 5-A-4

Low-Income and/or Minority Populations in the Resrouce Study Area Page 1 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

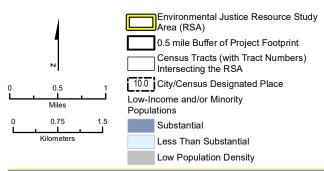
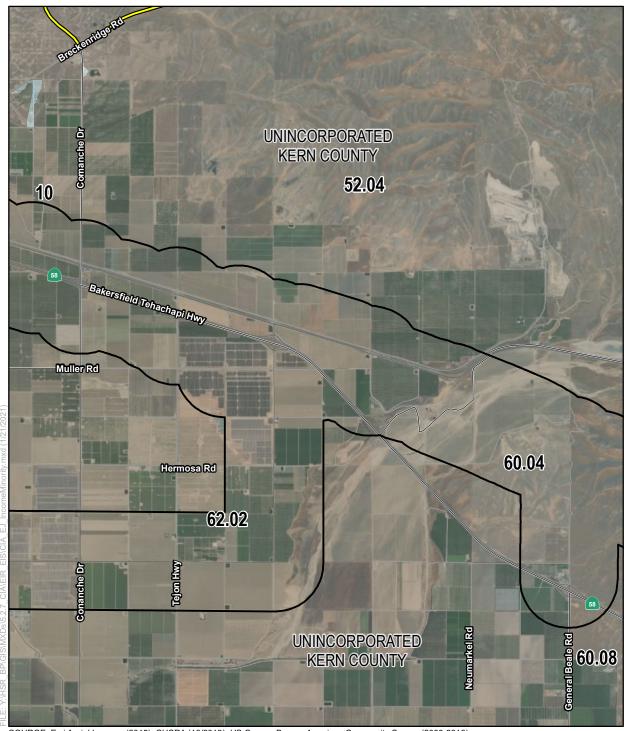


Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 2 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

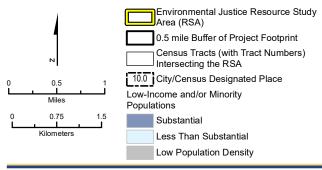
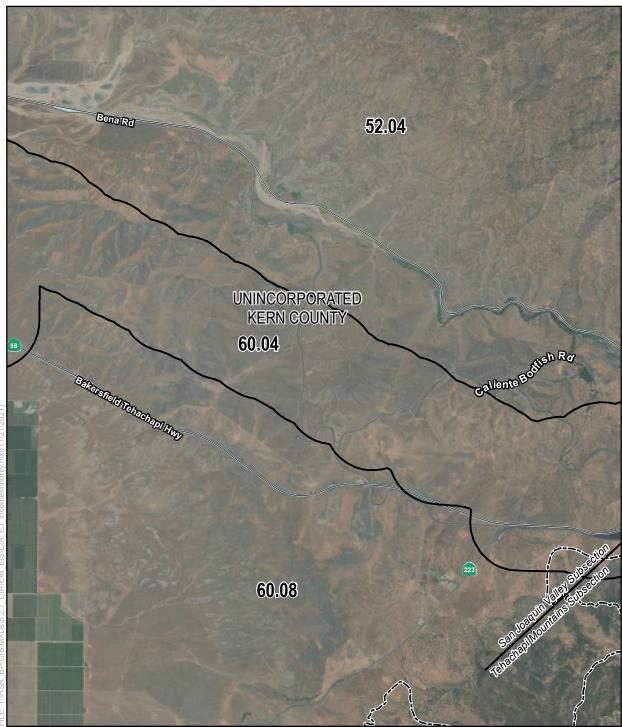


Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 3 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

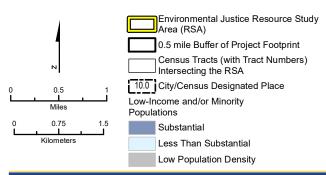
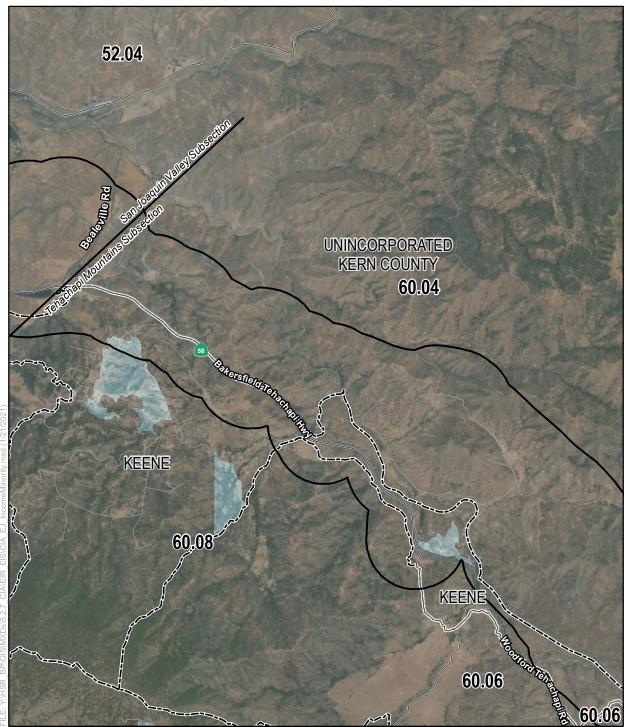


Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 4 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

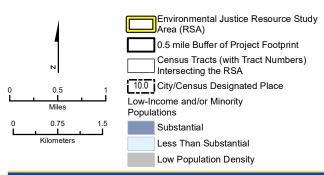
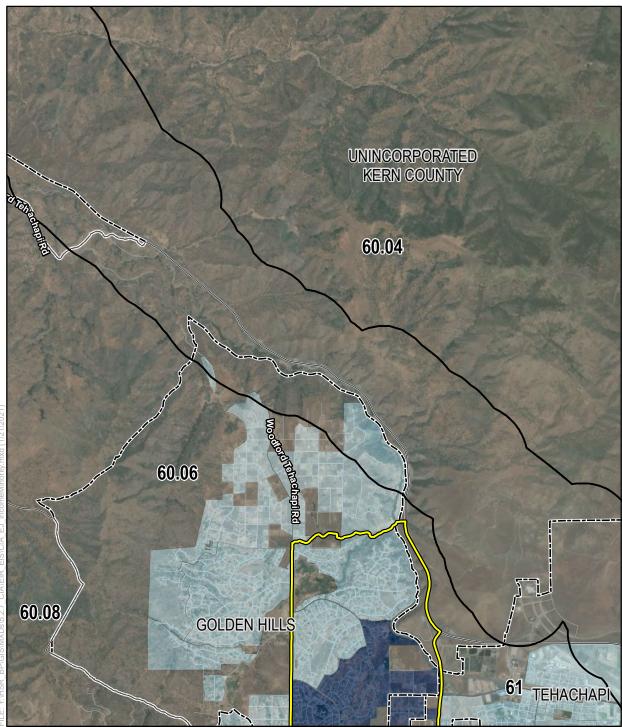


Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 5 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

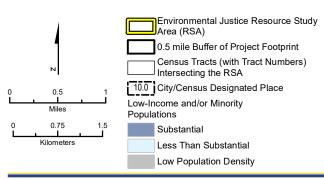
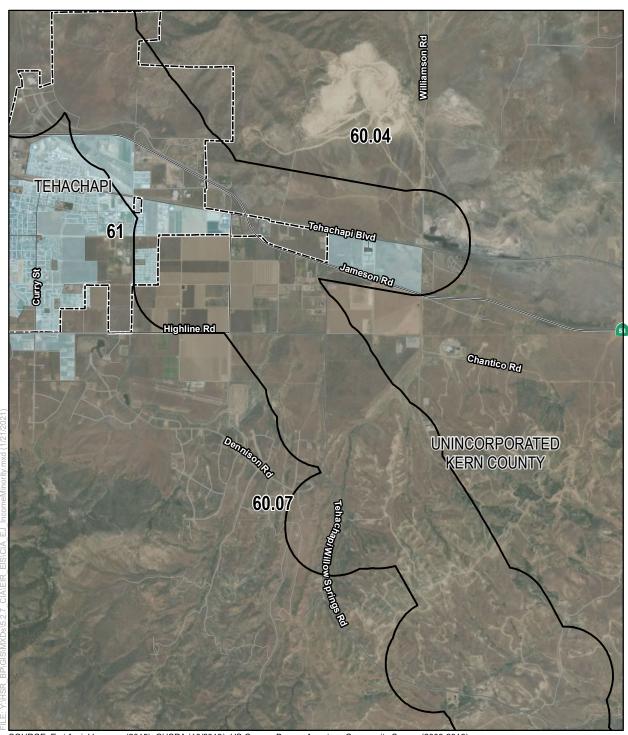


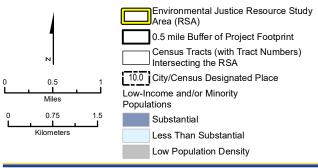
Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 6 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 7 of 12

Figure 5-A-4





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

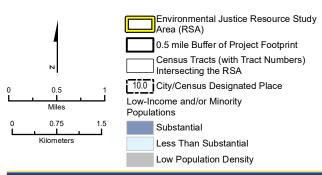
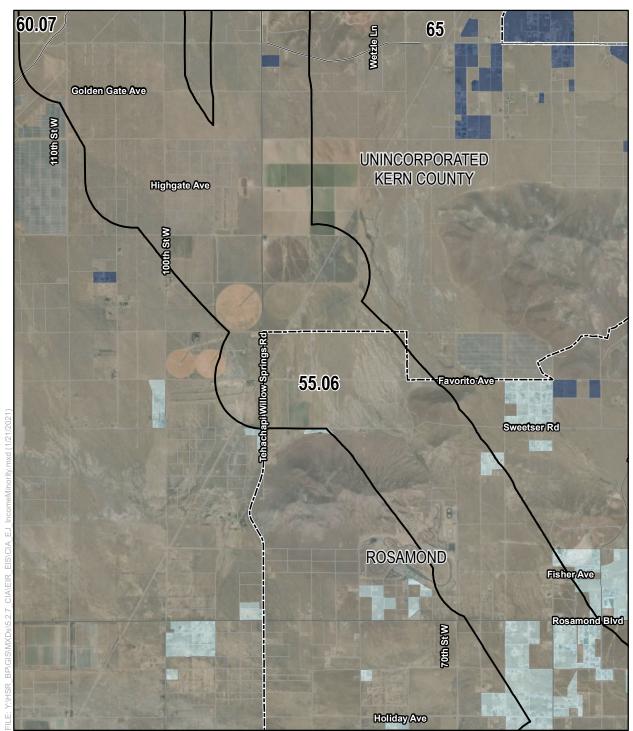


Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 8 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

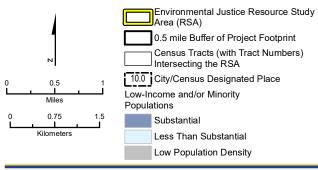
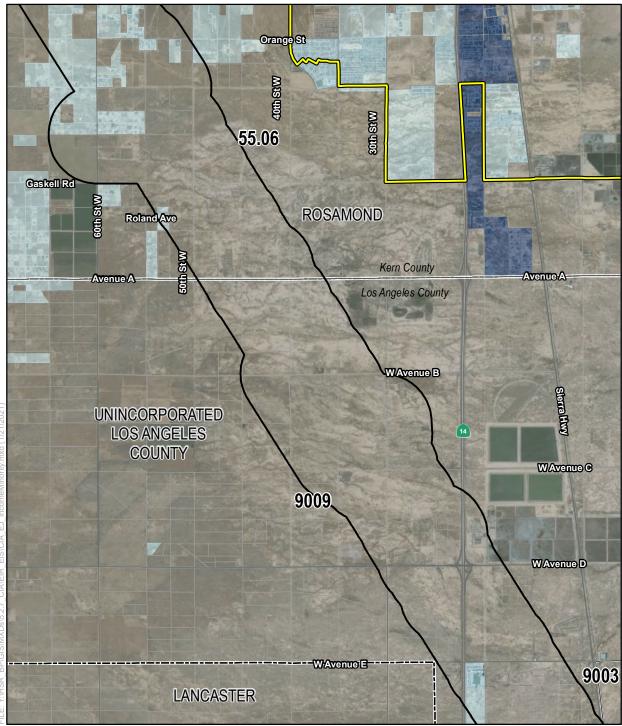


Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 9 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

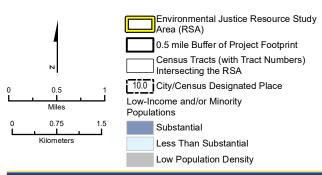
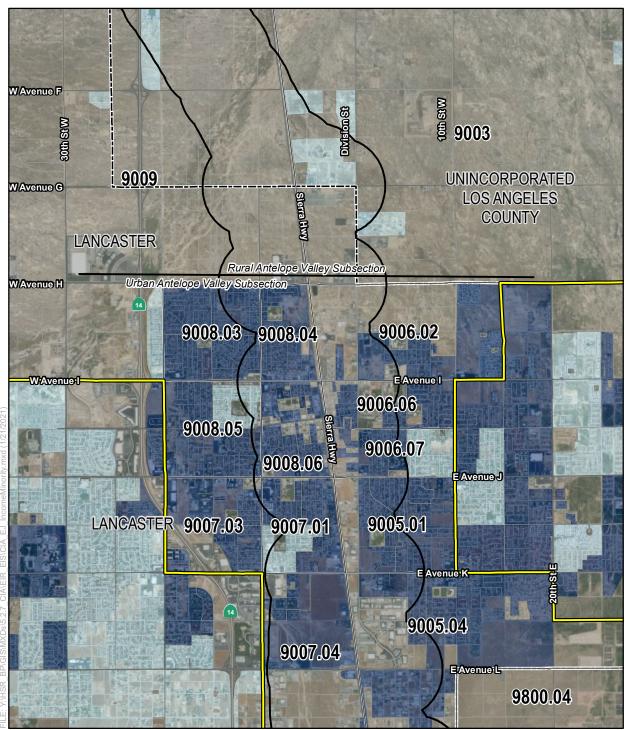


Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 10 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

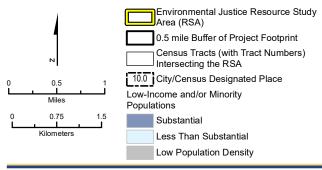
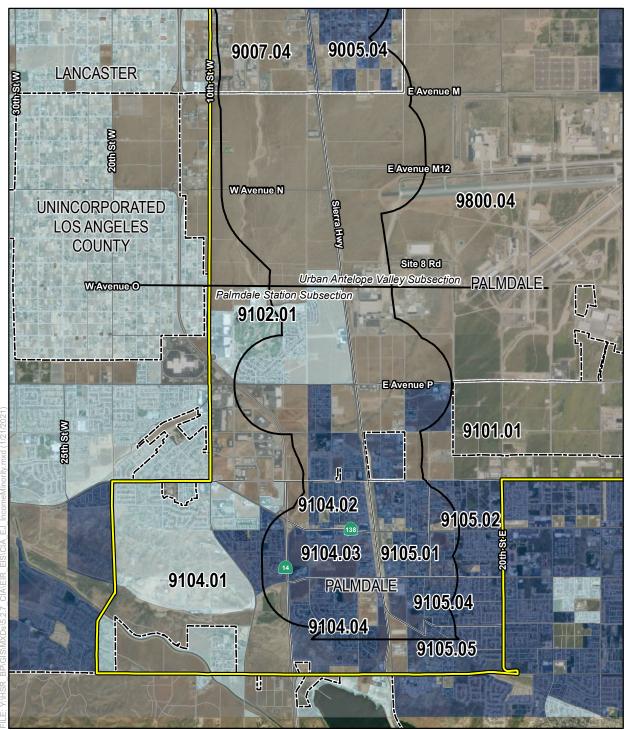


Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 11 of 12





SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

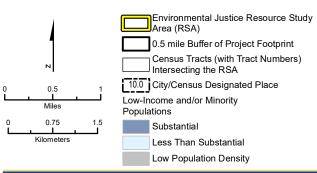
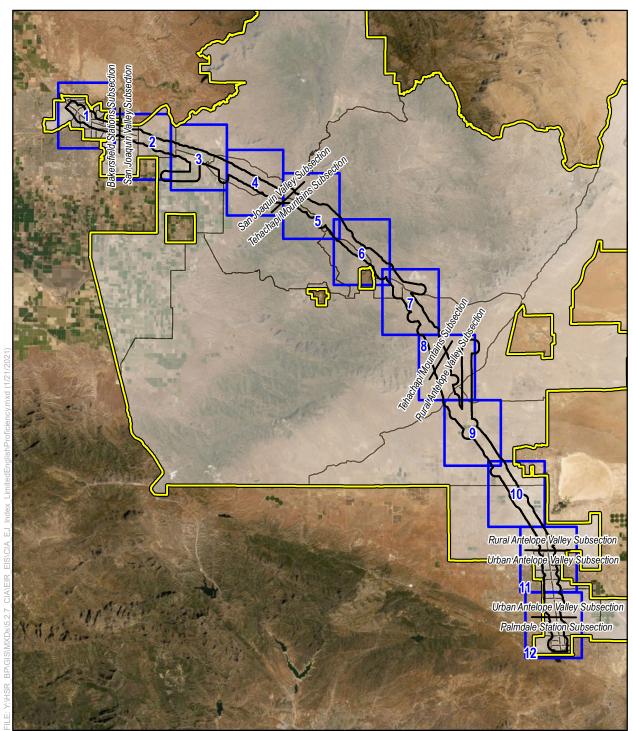


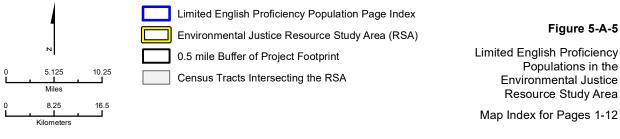
Figure 5-A-4

Low-Income and/or Minority
Populations in the
Resrouce Study Area
Page 12 of 12

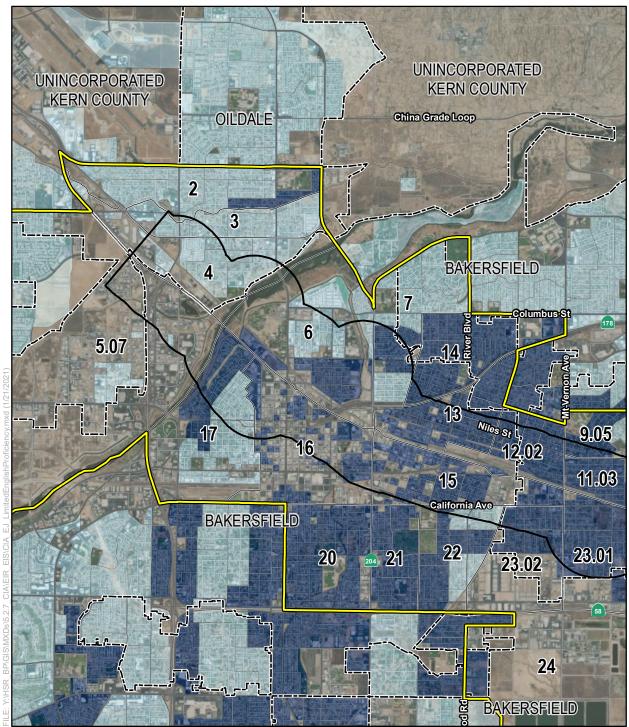




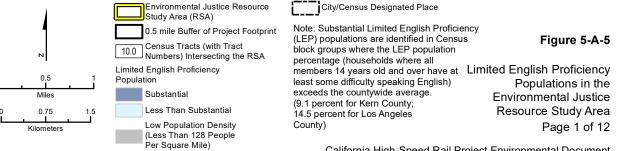
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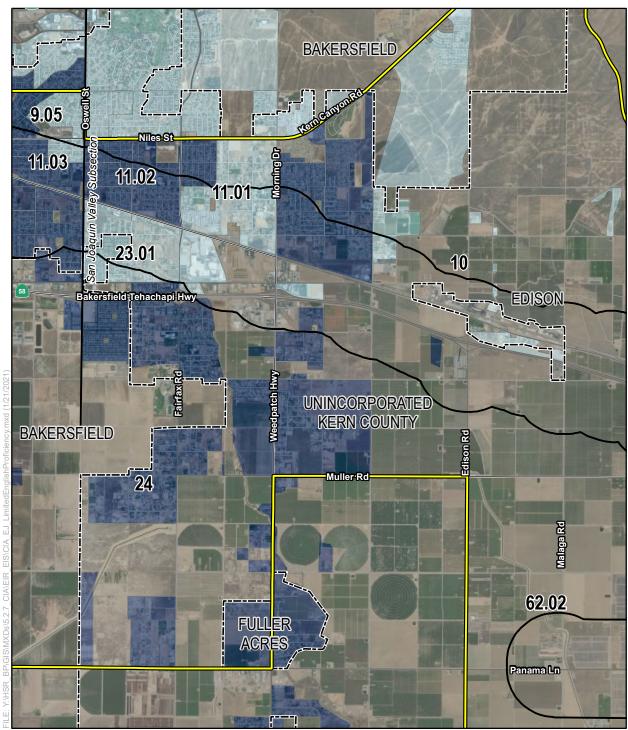




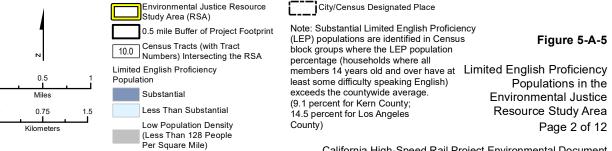
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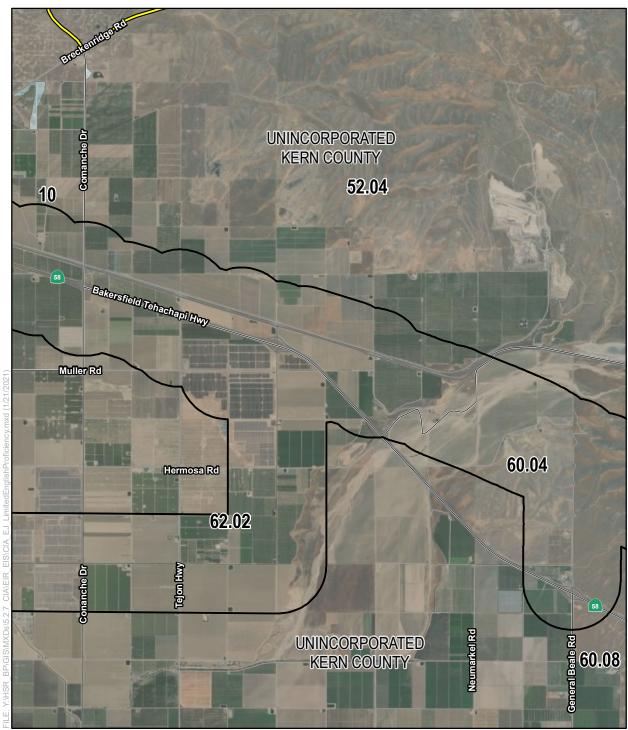




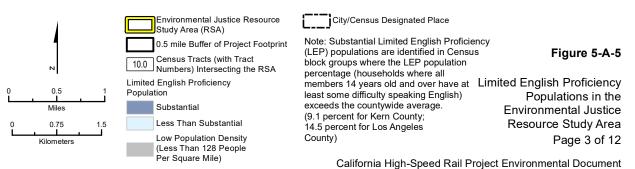
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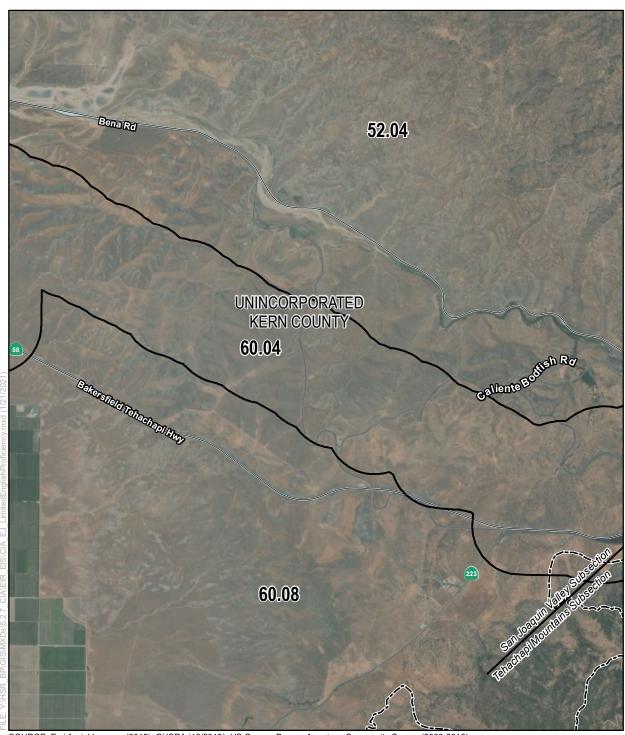




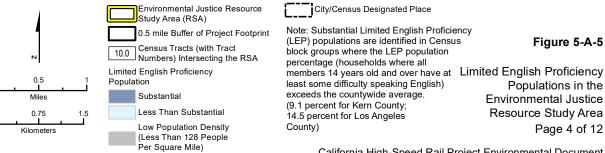
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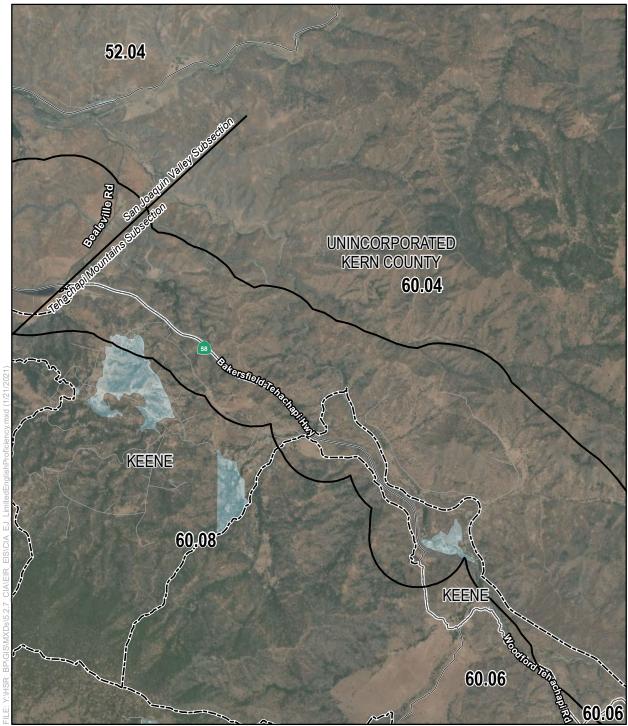




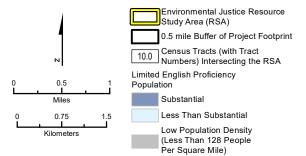
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SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)

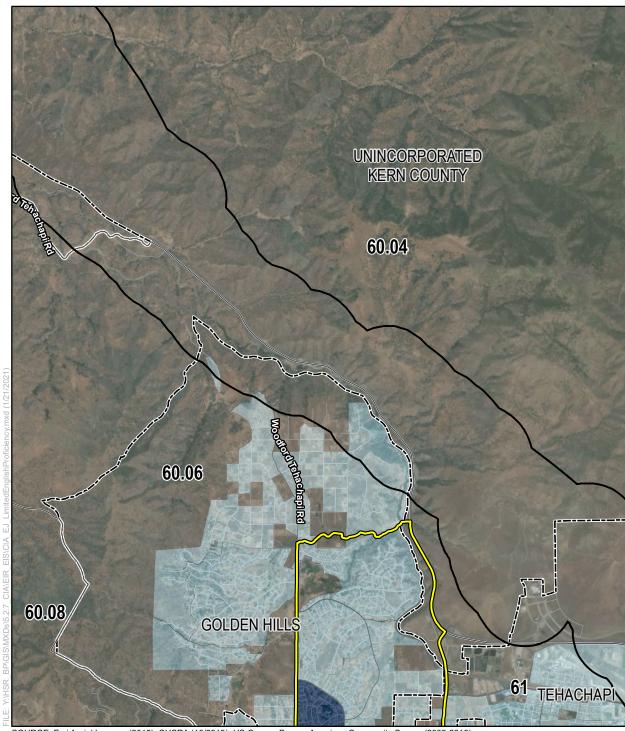


City/Census Designated Place

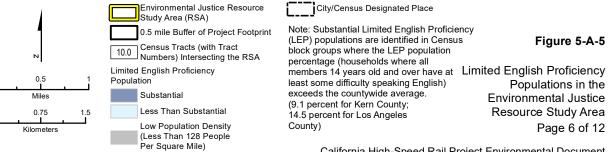
Note: Substantial Limited English Proficiency
(LEP) populations are identified in Census
block groups where the LEP population
percentage (households where all
members 14 years old and over have at Limited English Proficiency least some difficulty speaking English) exceeds the countywide average. (9.1 percent for Kern County; 14.5 percent for Los Angeles

Populations in the **Environmental Justice** Resource Study Area Page 5 of 12

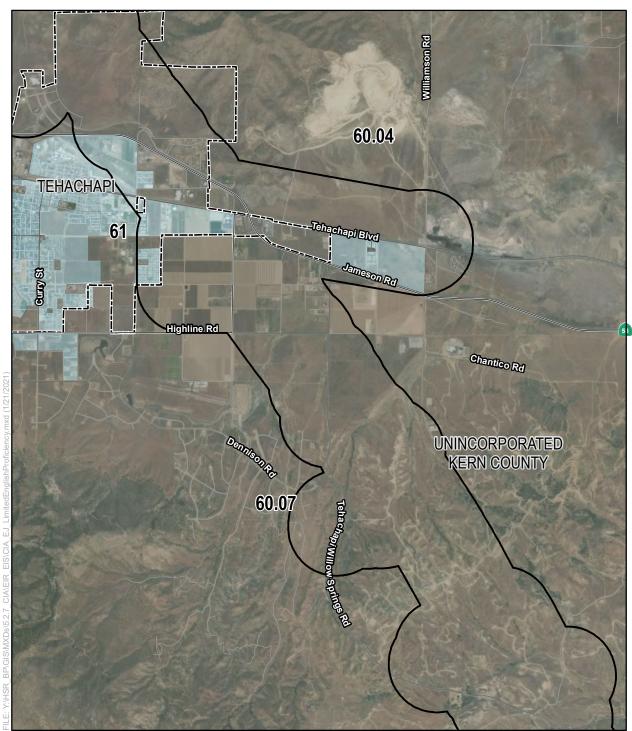




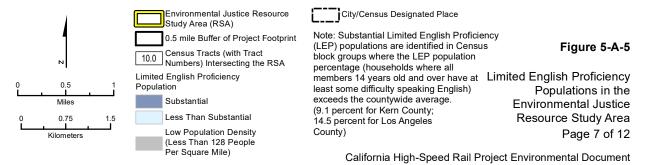
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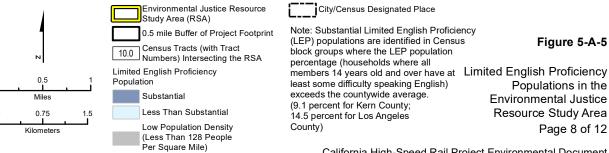
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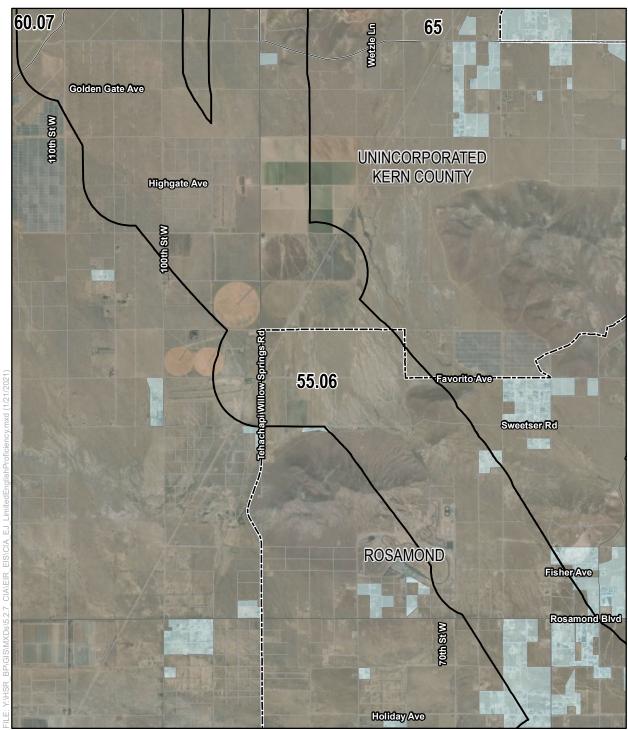




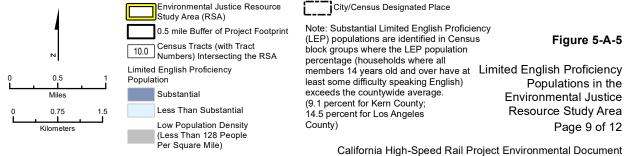
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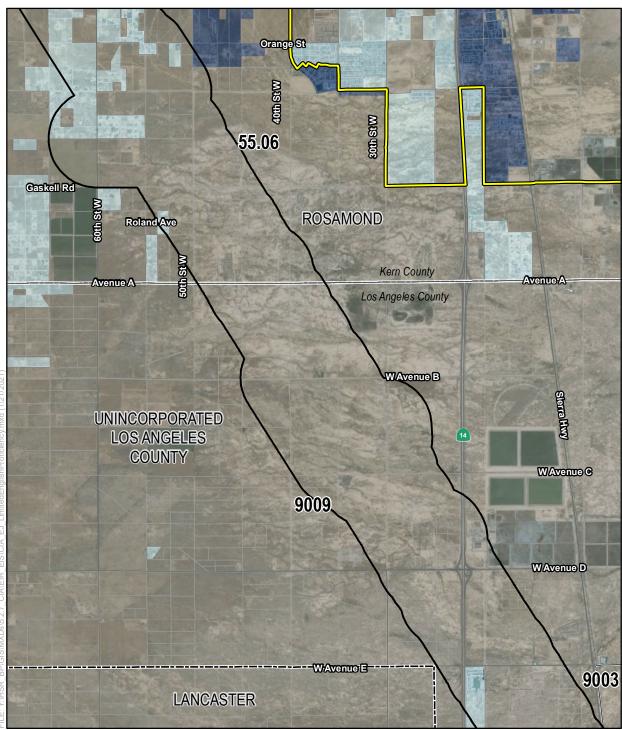




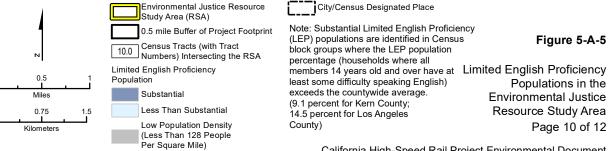
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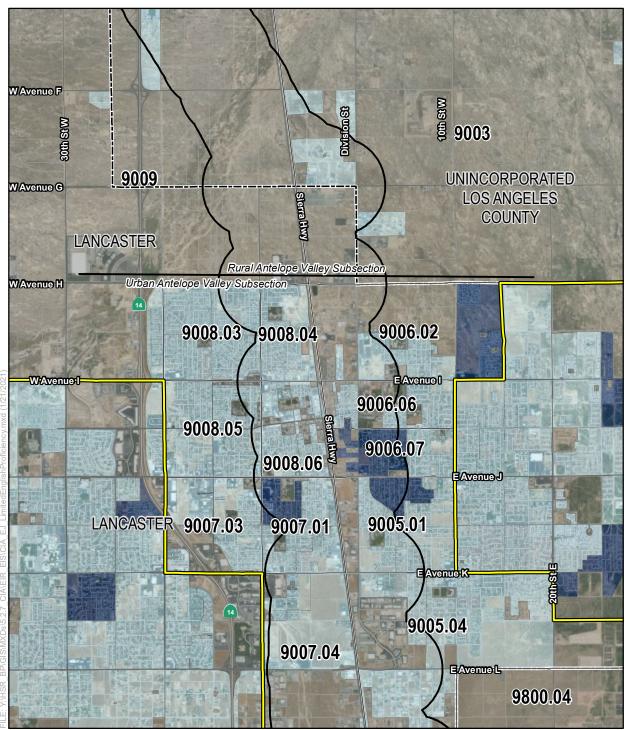




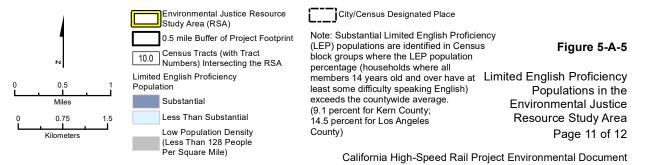
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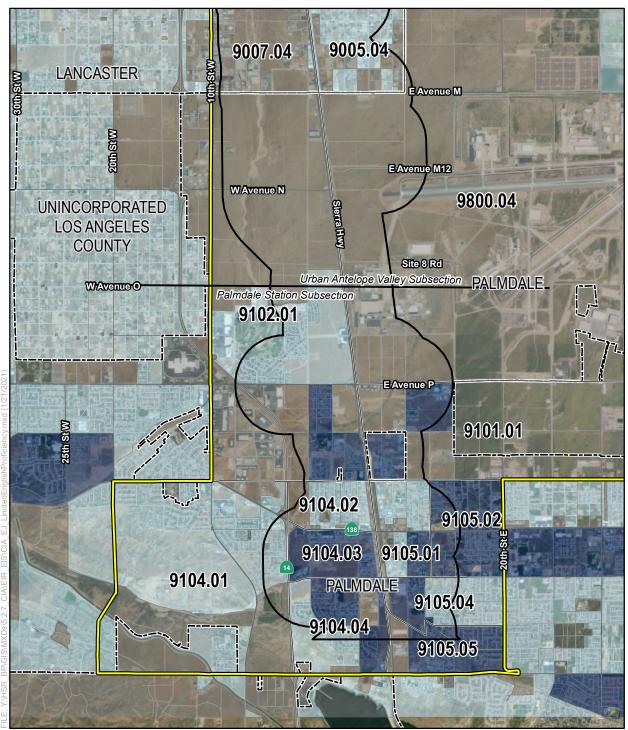




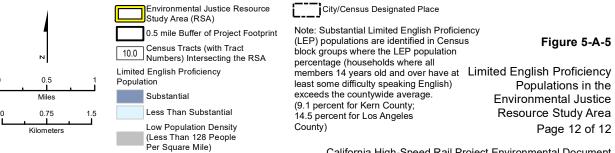
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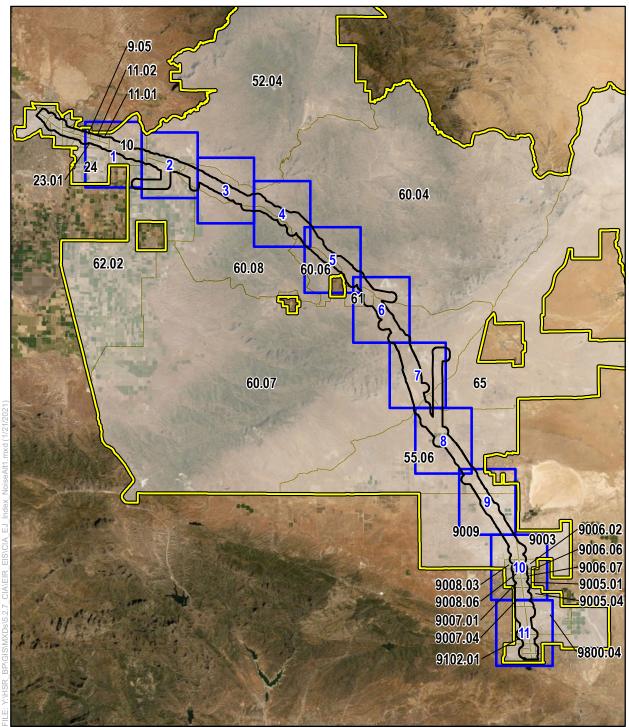




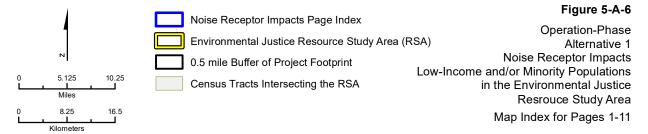
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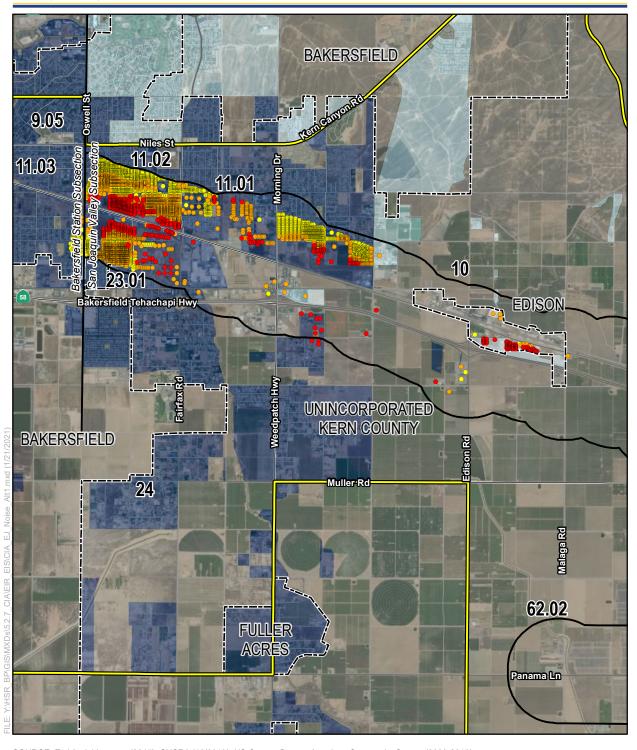


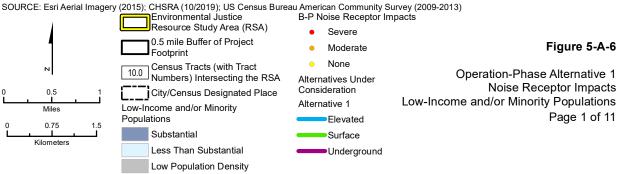


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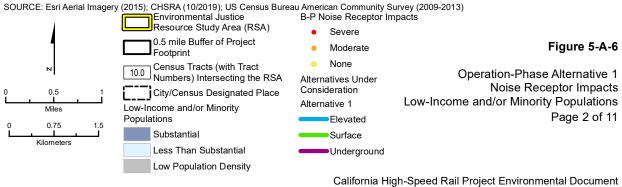




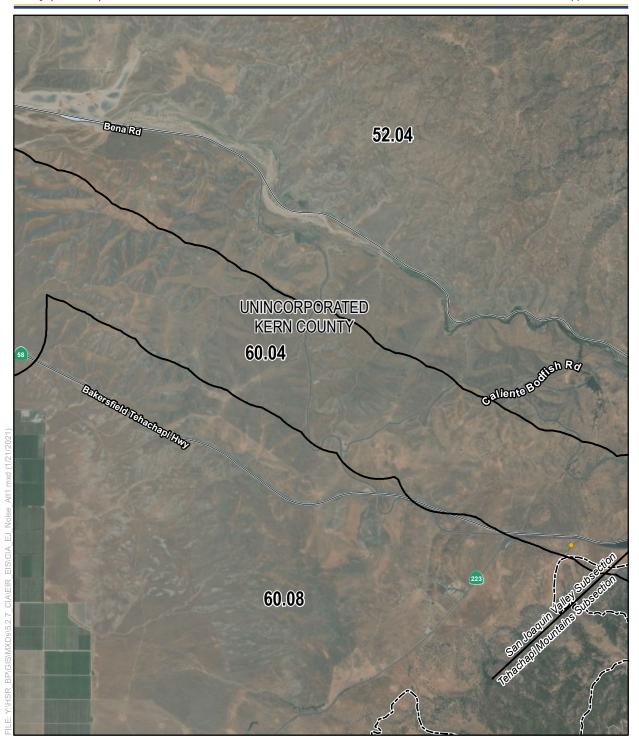


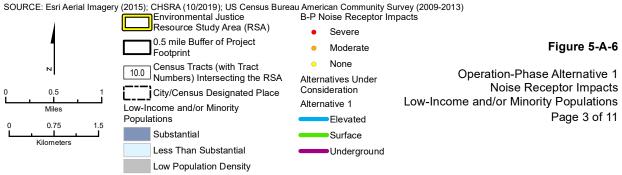




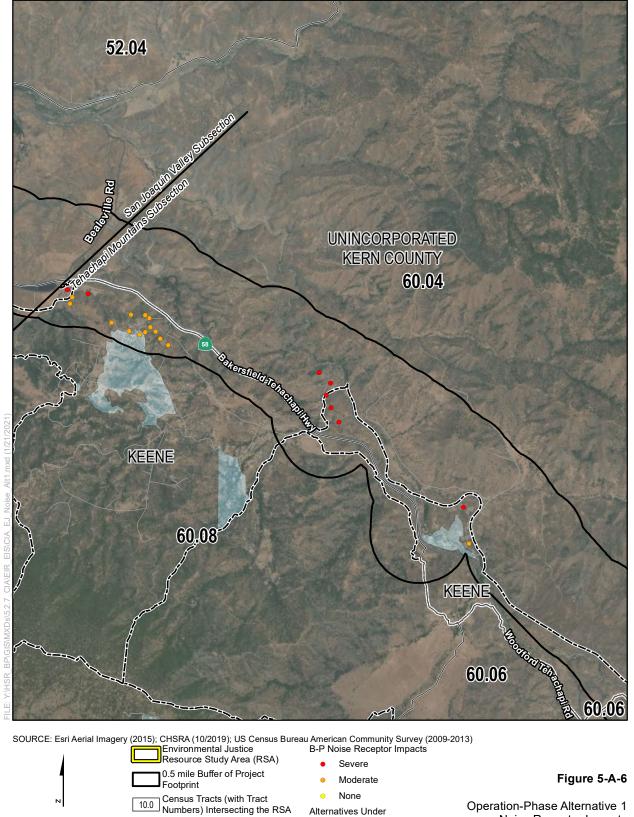


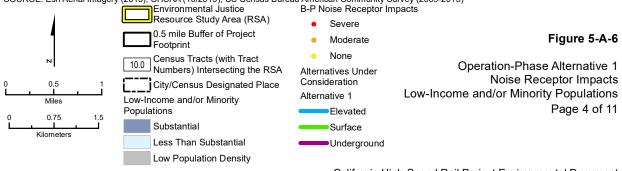






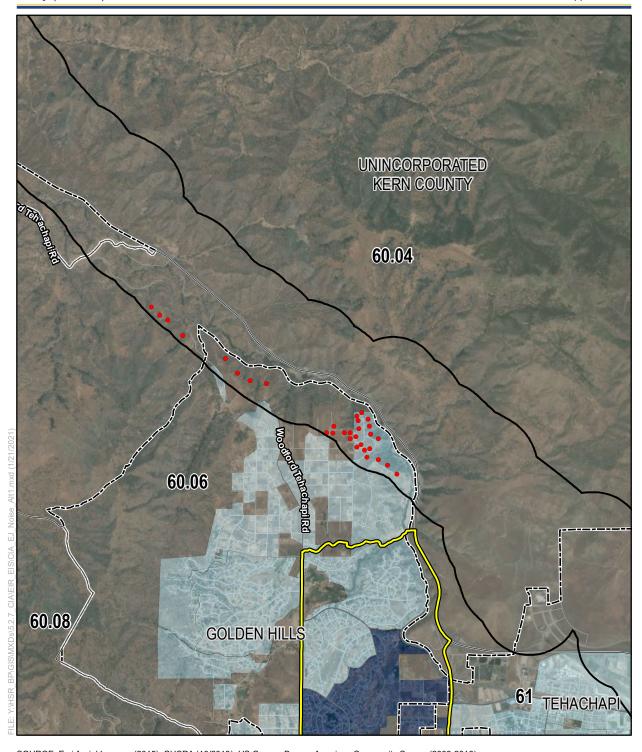


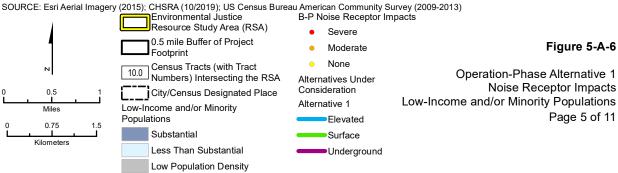




Bakersfield to Palmdale Project Section

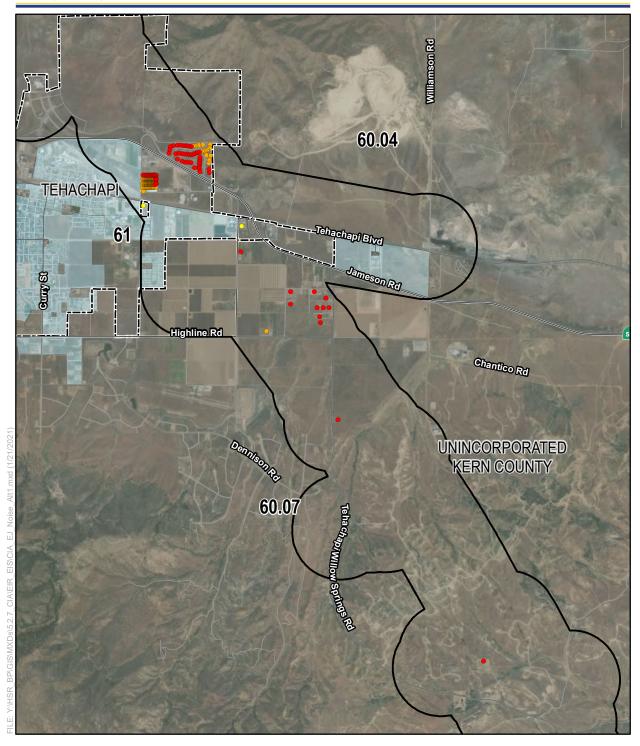


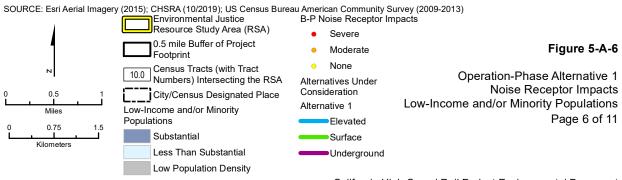




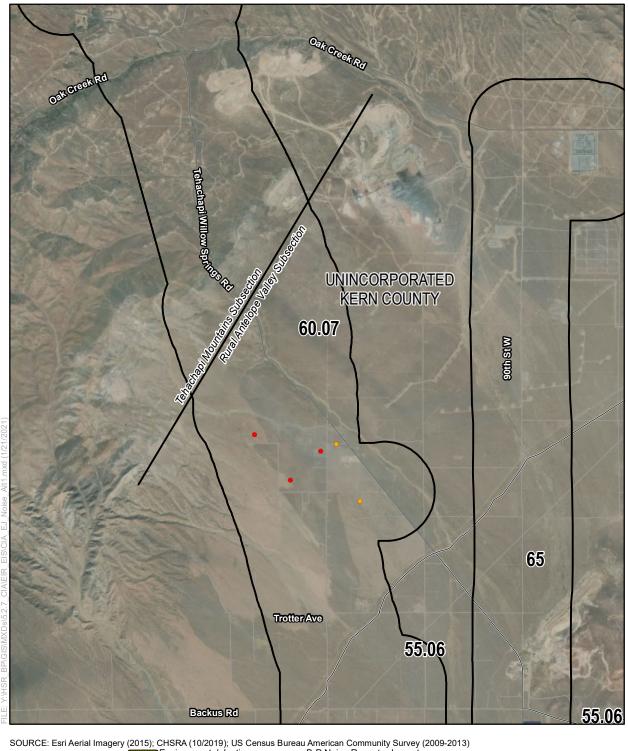
Bakersfield to Palmdale Project Section

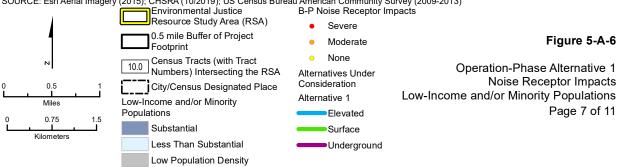




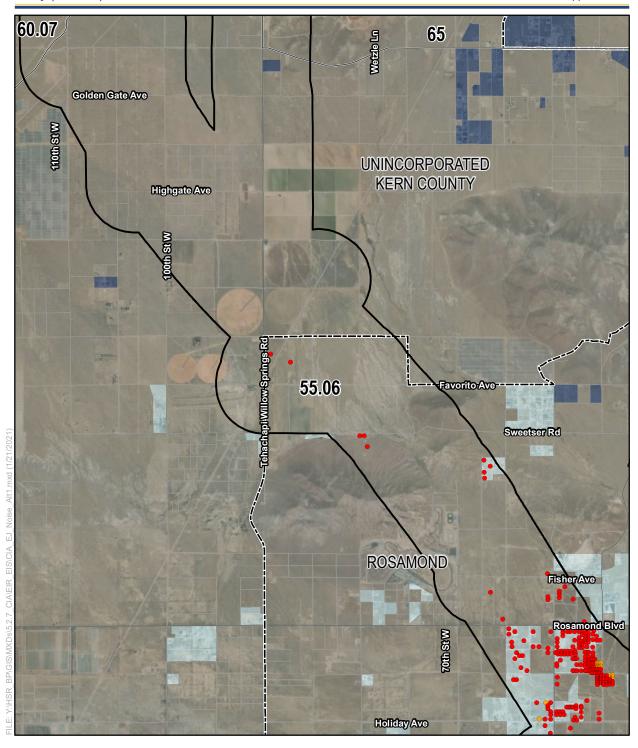


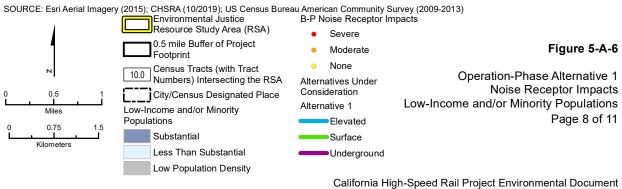




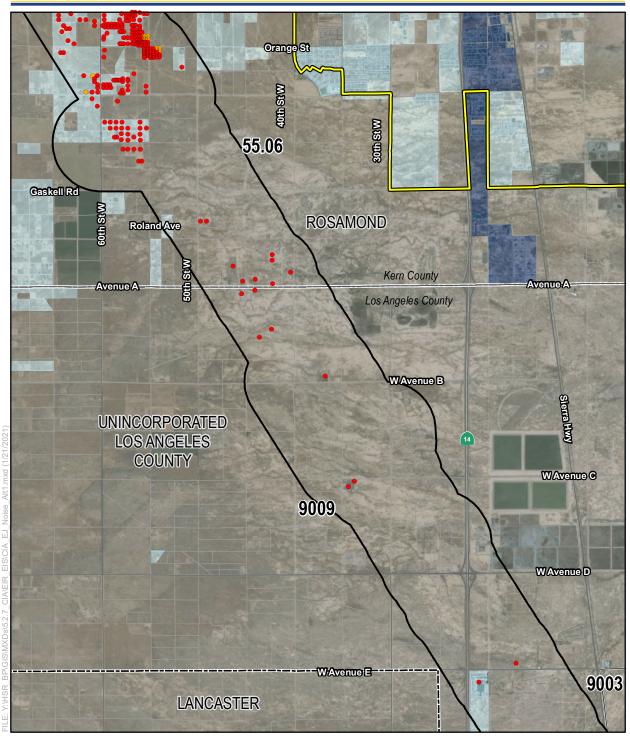


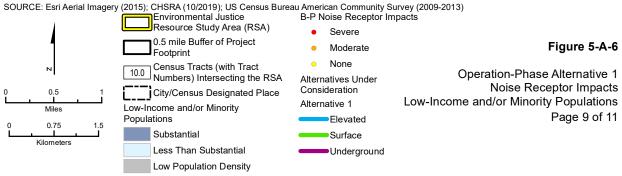




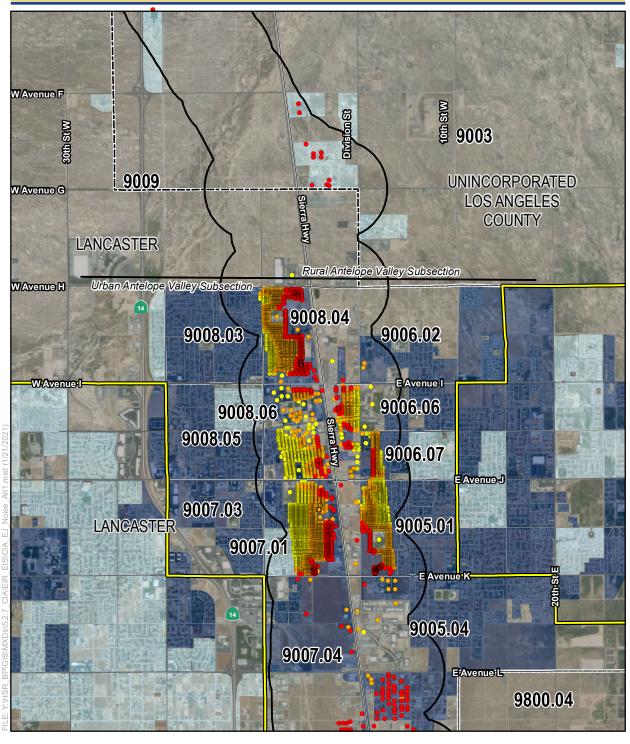


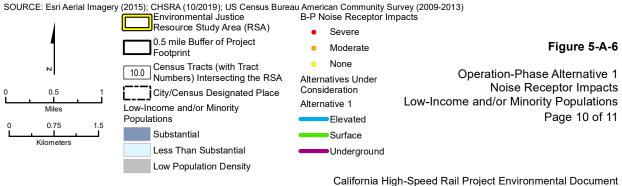




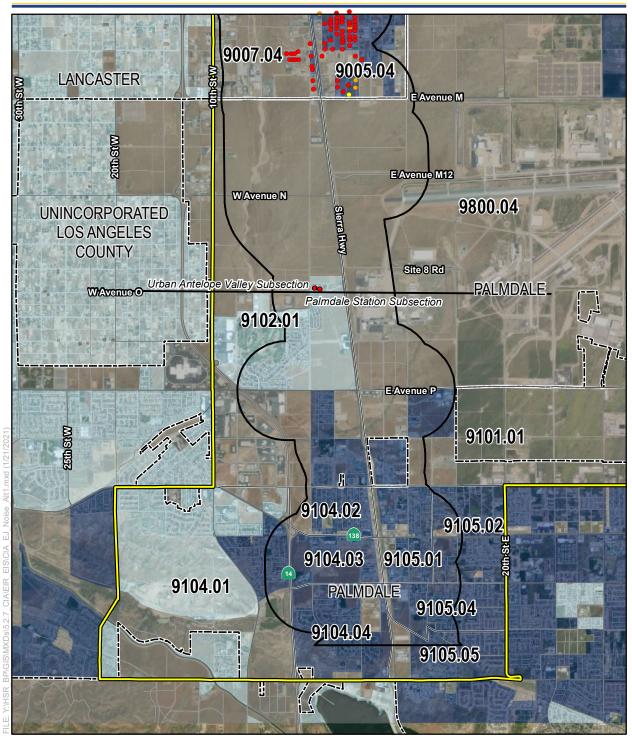


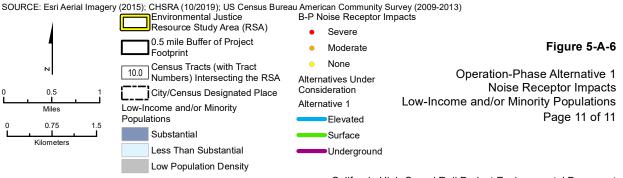




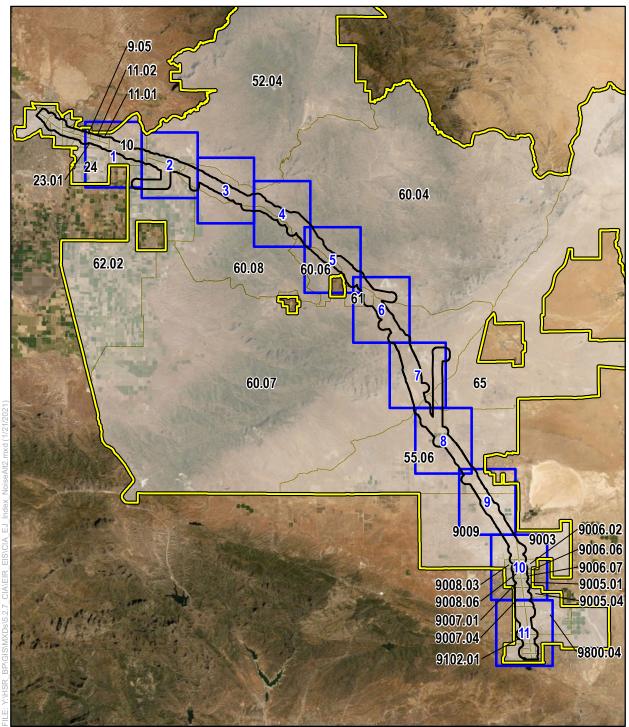




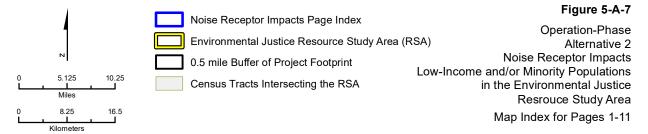




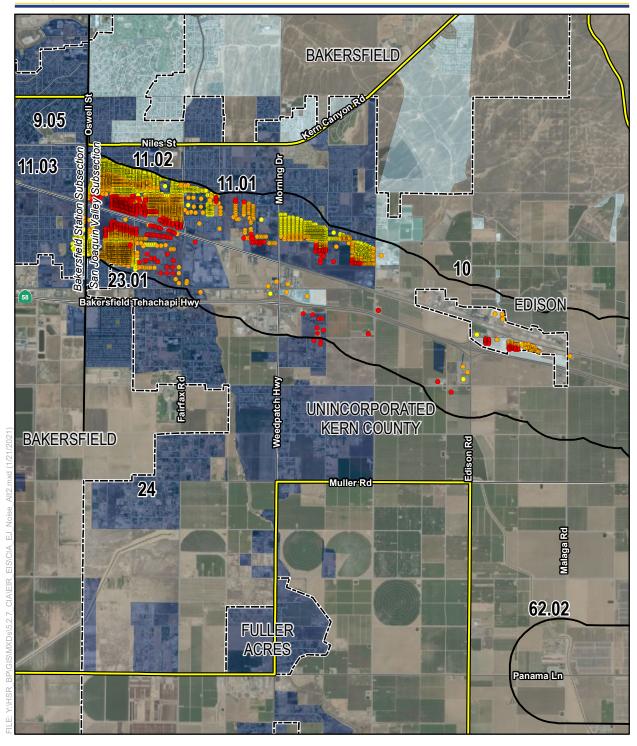


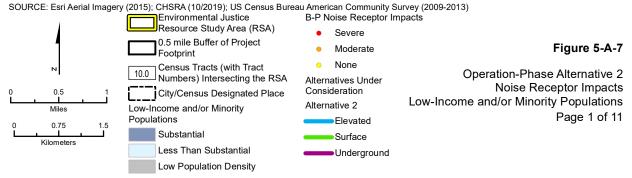


SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



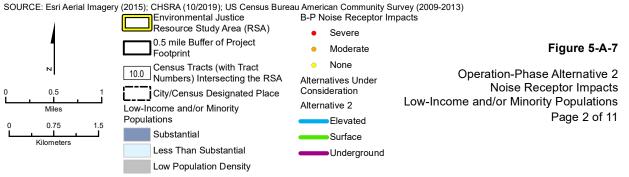




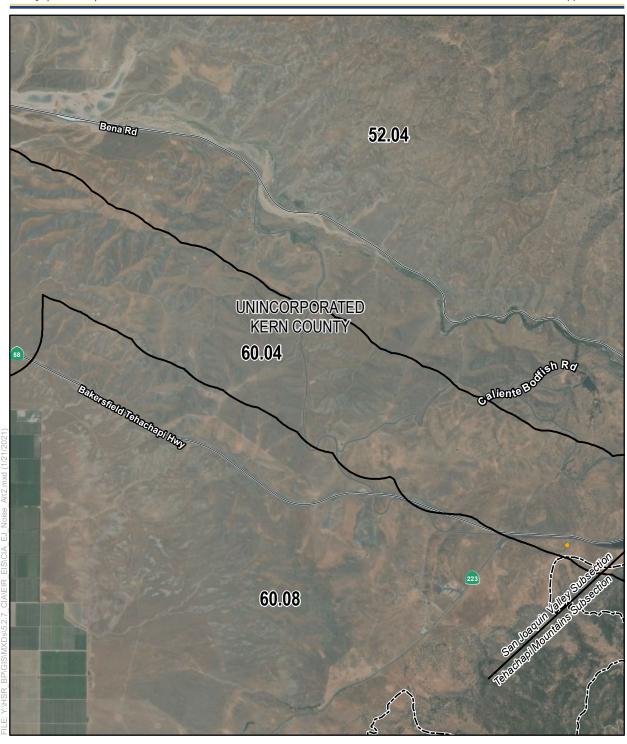


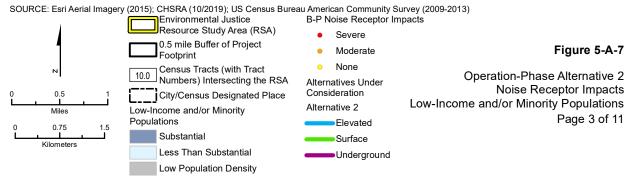




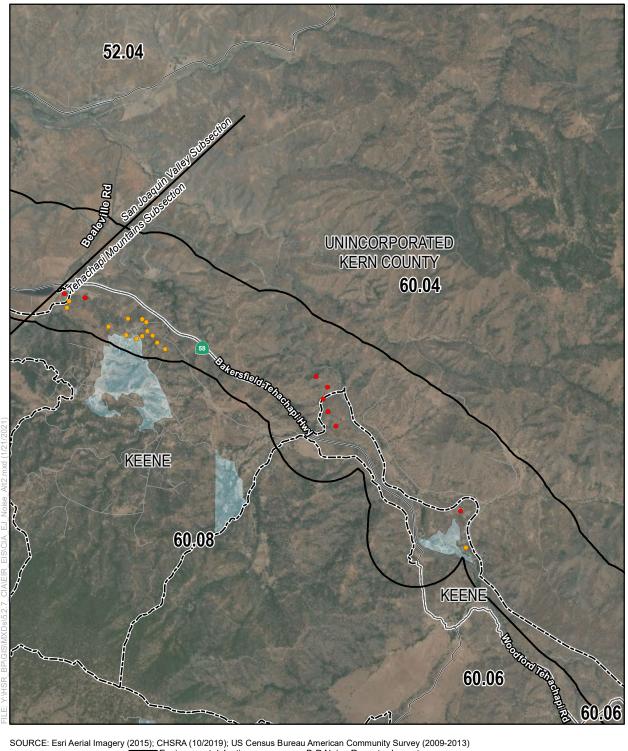


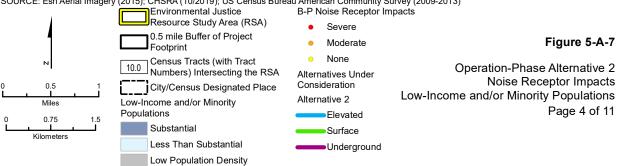




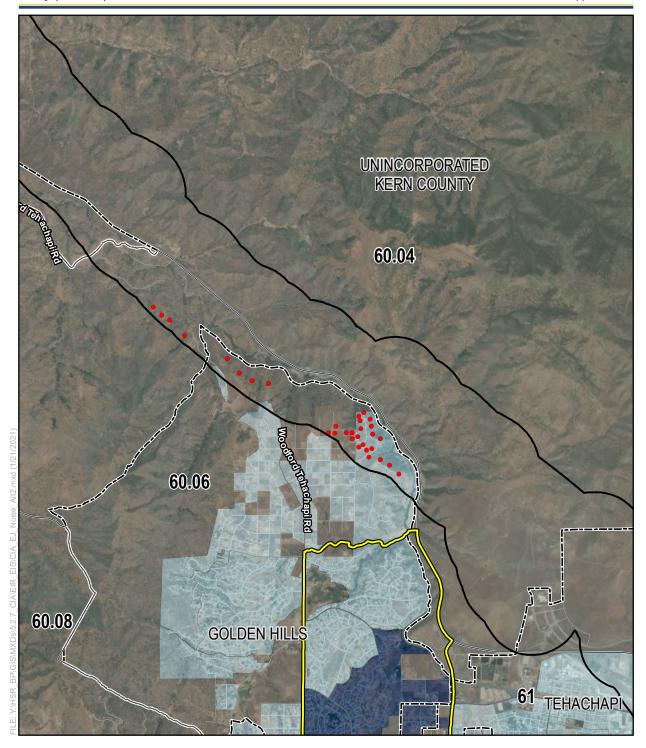






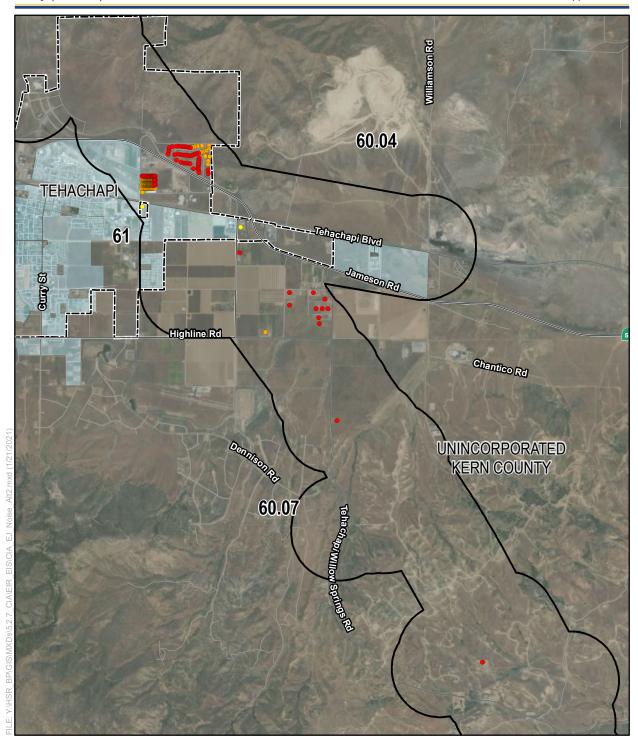


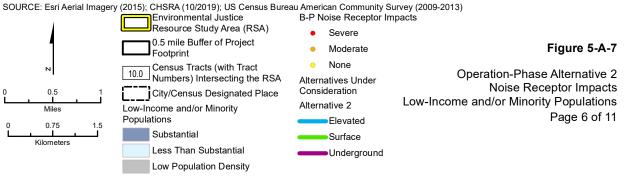




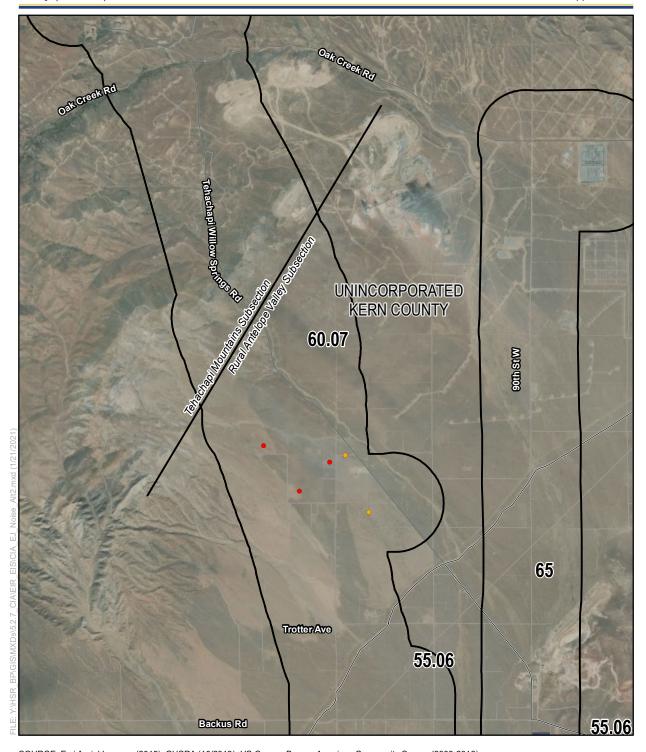
SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013) Environmental Justice B-P Noise Receptor Impacts Resource Study Area (RSA) Severe 0.5 mile Buffer of Project Figure 5-A-7 Moderate None Census Tracts (with Tract Numbers) Intersecting the RSA Operation-Phase Alternative 2 Alternatives Under Noise Receptor Impacts Consideration City/Census Designated Place Low-Income and/or Minority Populations Alternative 2 Low-Income and/or Minority Page 5 of 11 Populations Elevated 0.75 Substantial Surface Kilometers Less Than Substantial Underground Low Population Density

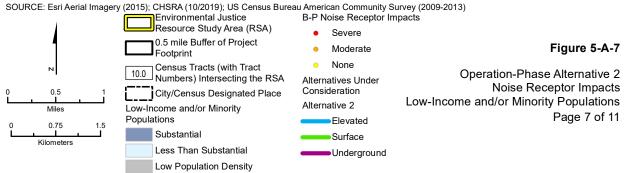




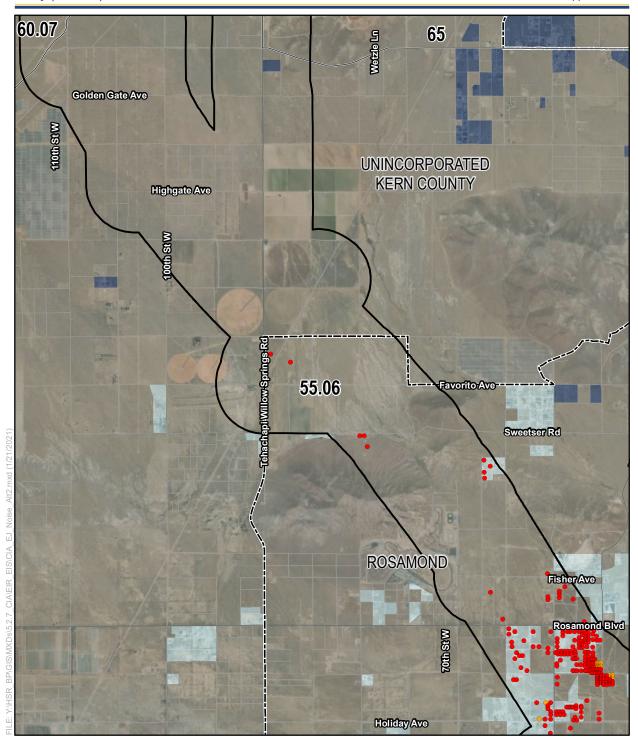


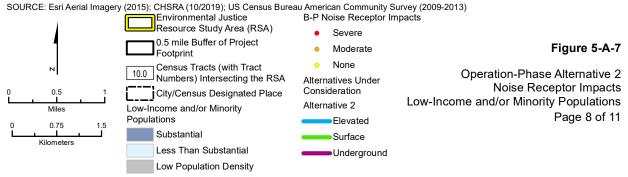




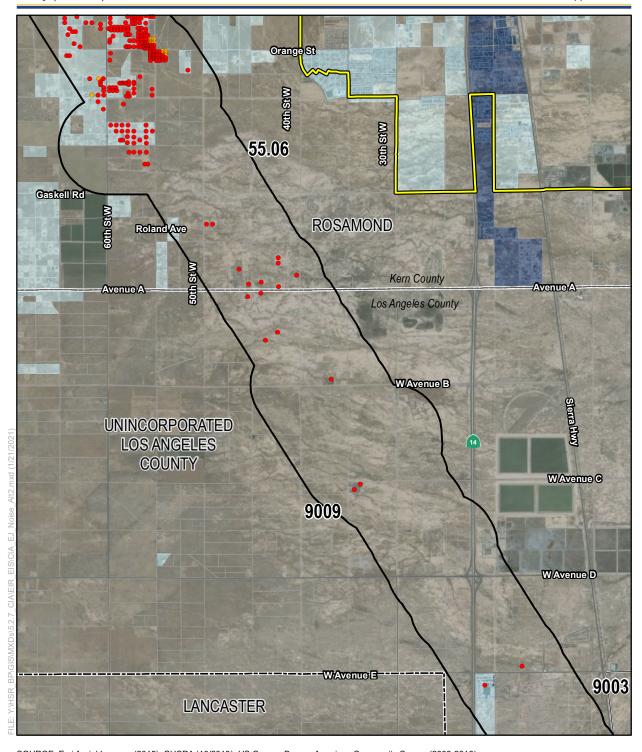


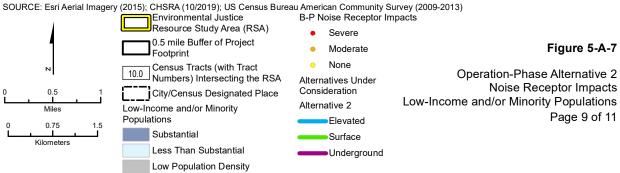




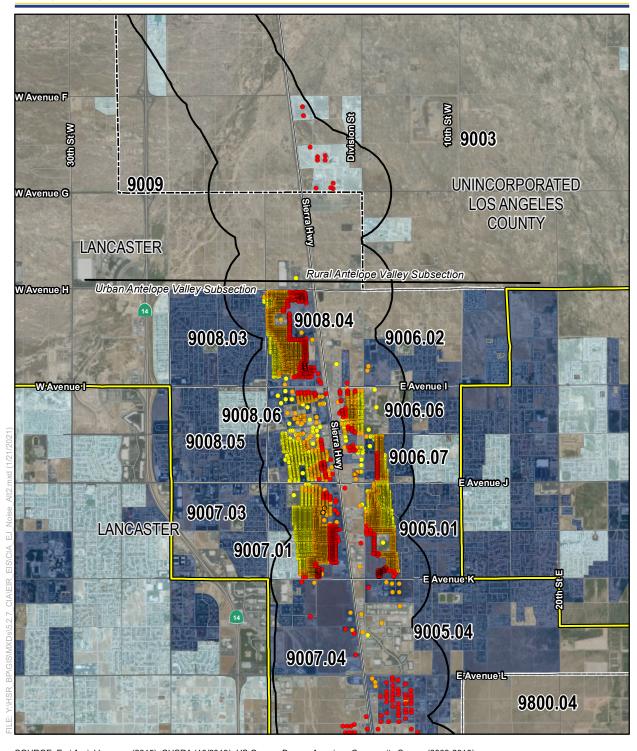


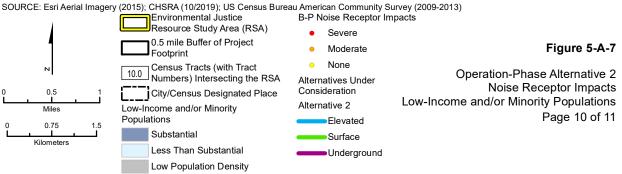




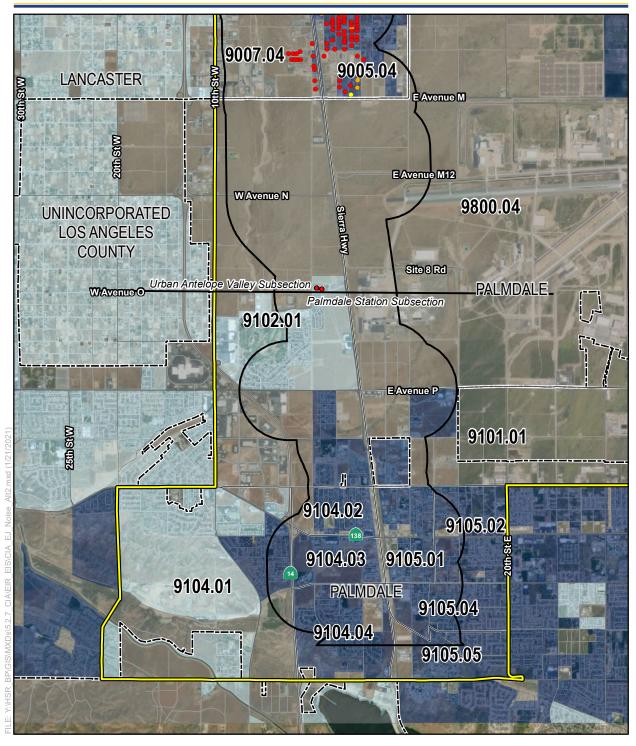


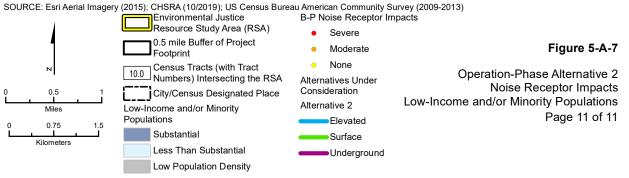




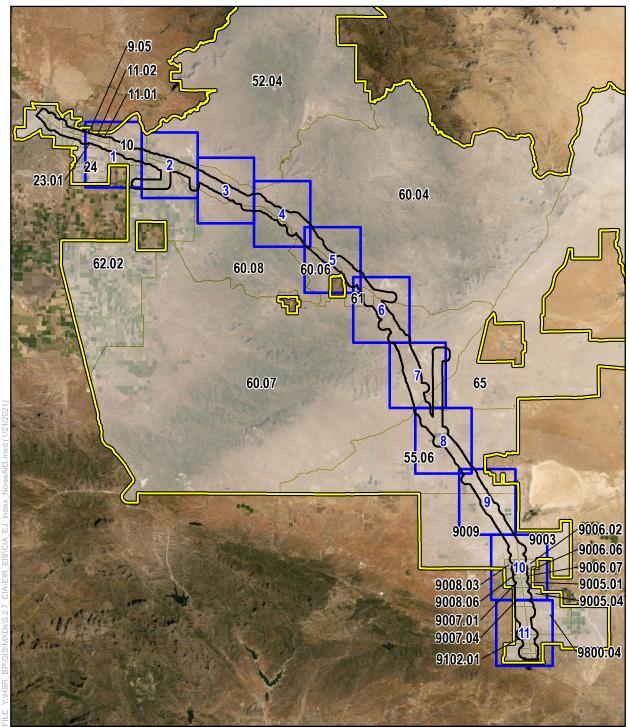




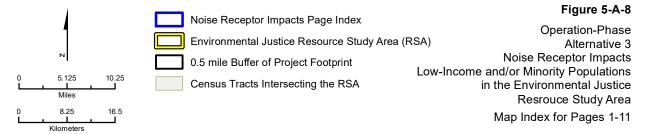




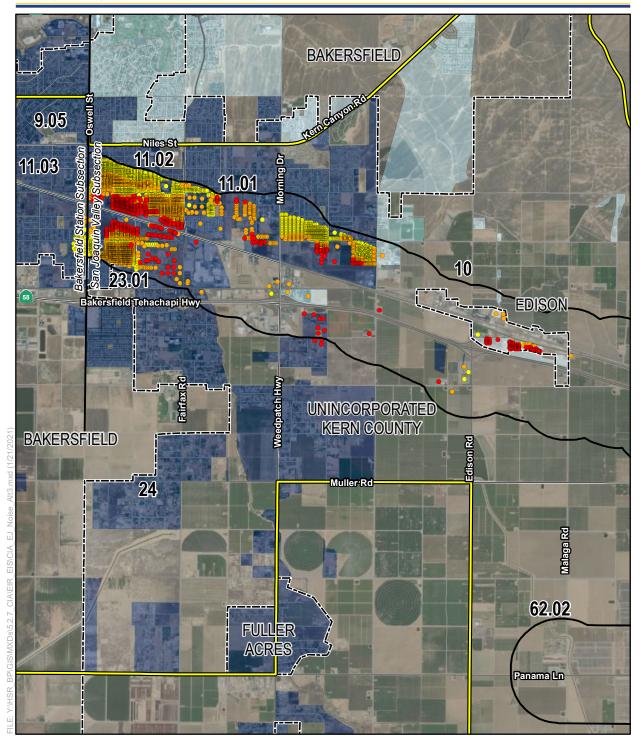


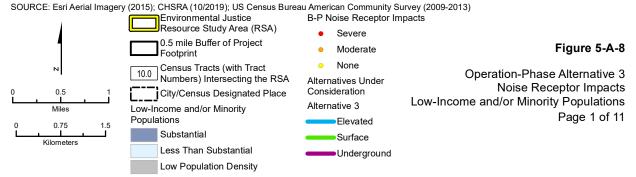


SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013)



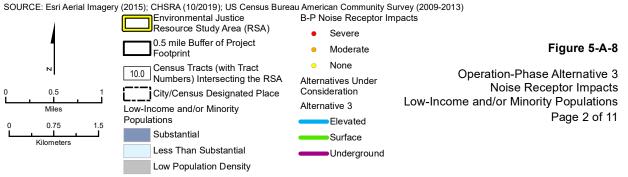




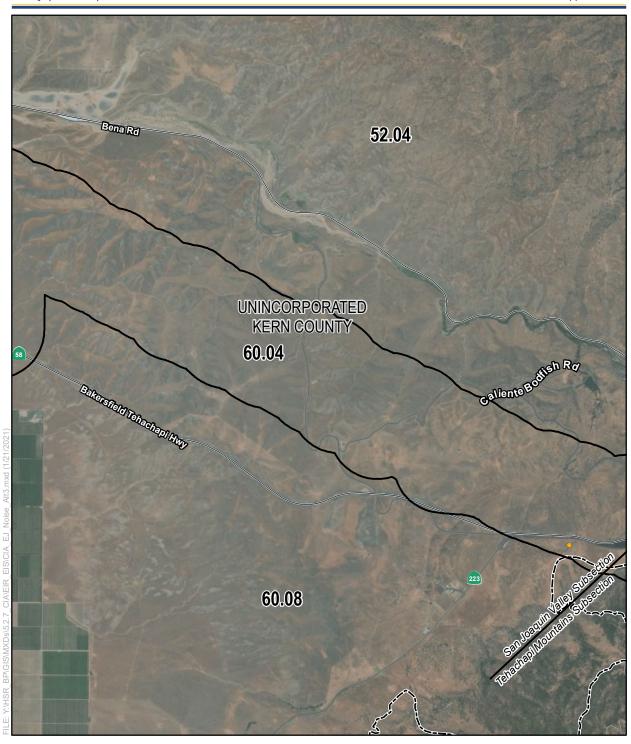


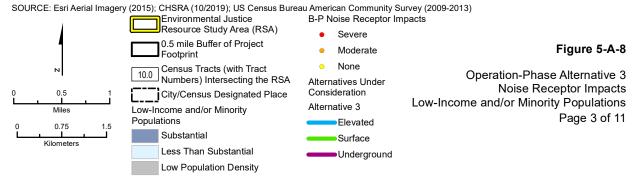




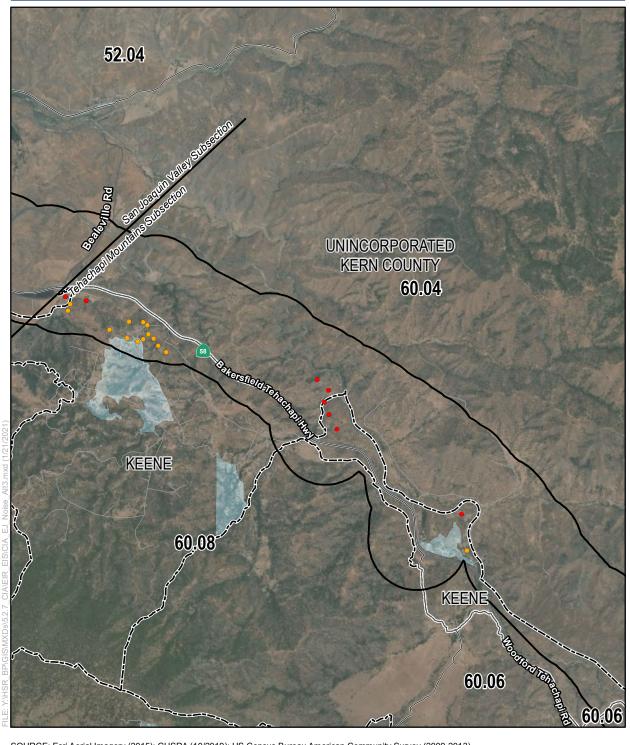






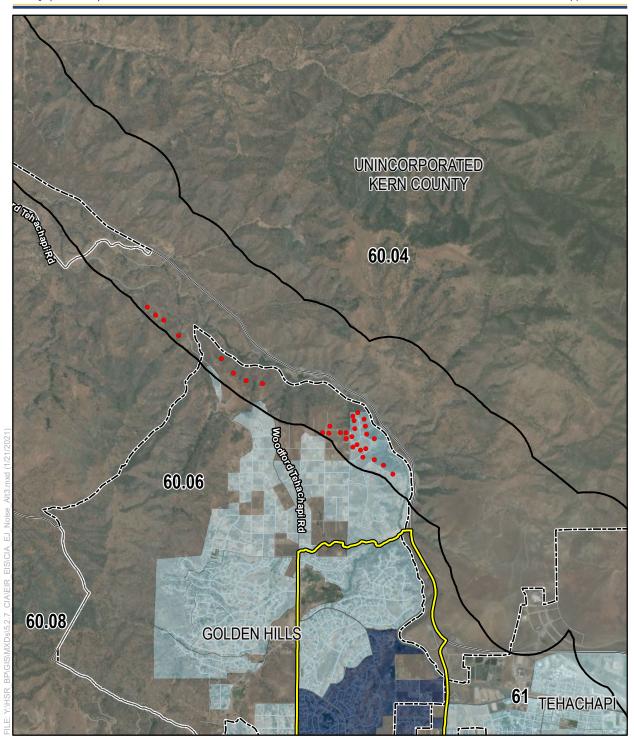






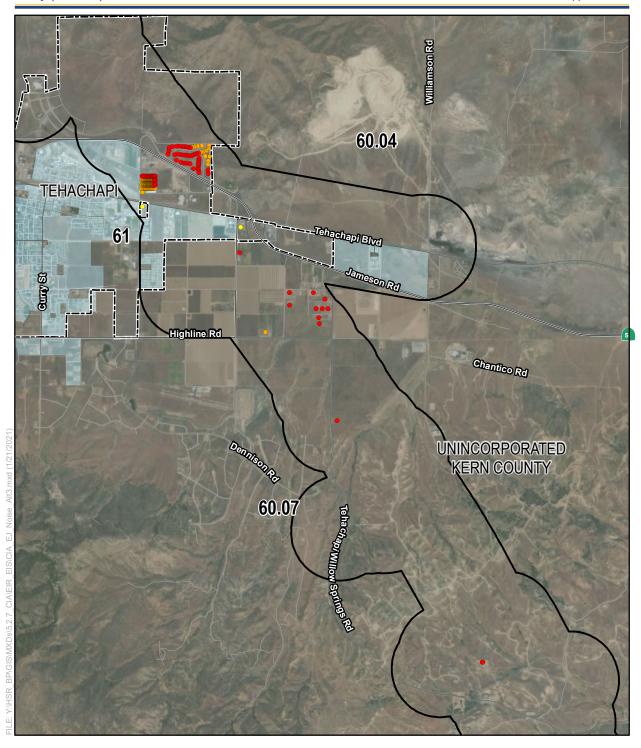
SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013) Environmental Justice B-P Noise Receptor Impacts Resource Study Area (RSA) Severe 0.5 mile Buffer of Project Figure 5-A-8 Moderate None Census Tracts (with Tract Operation-Phase Alternative 3 Numbers) Intersecting the RSA Alternatives Under Noise Receptor Impacts Consideration City/Census Designated Place Low-Income and/or Minority Populations Alternative 3 Low-Income and/or Minority Page 4 of 11 Populations Elevated Substantial Surface Kilometers Less Than Substantial Underground Low Population Density





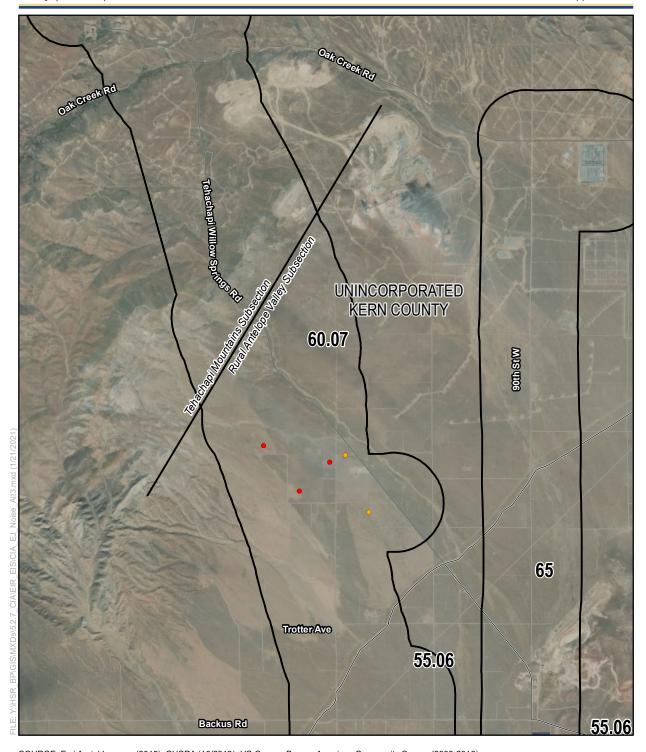
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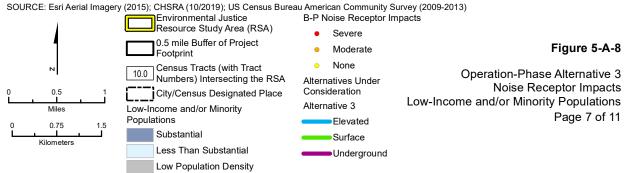




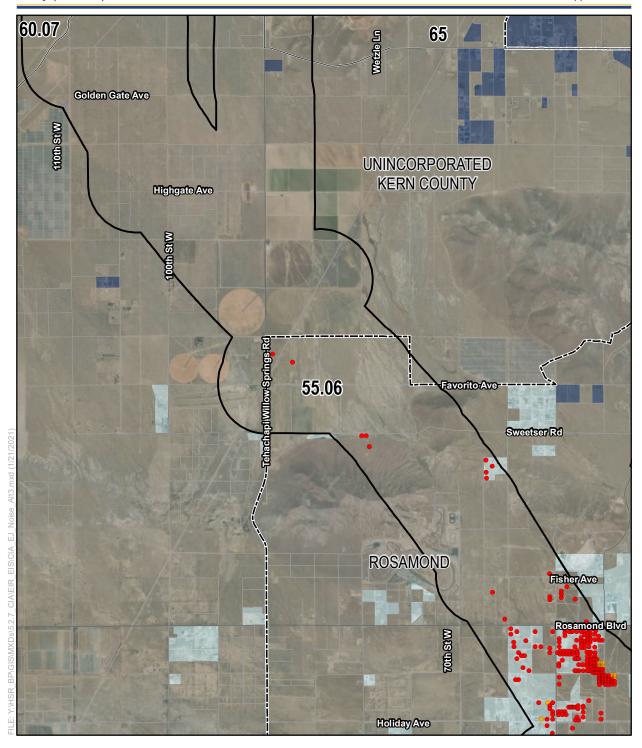
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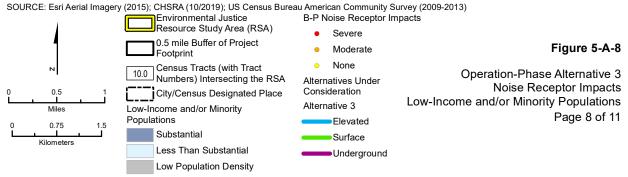




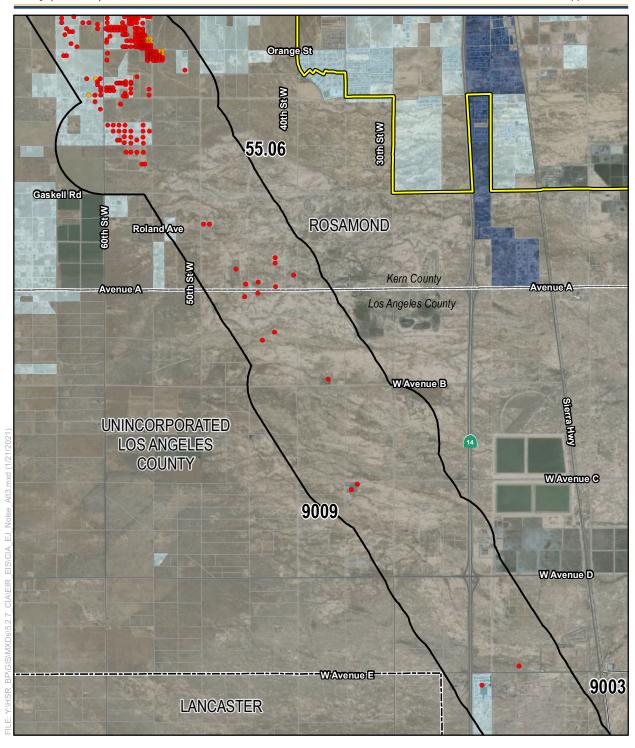


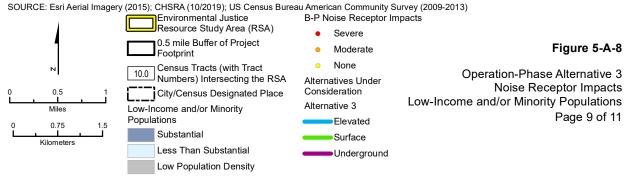




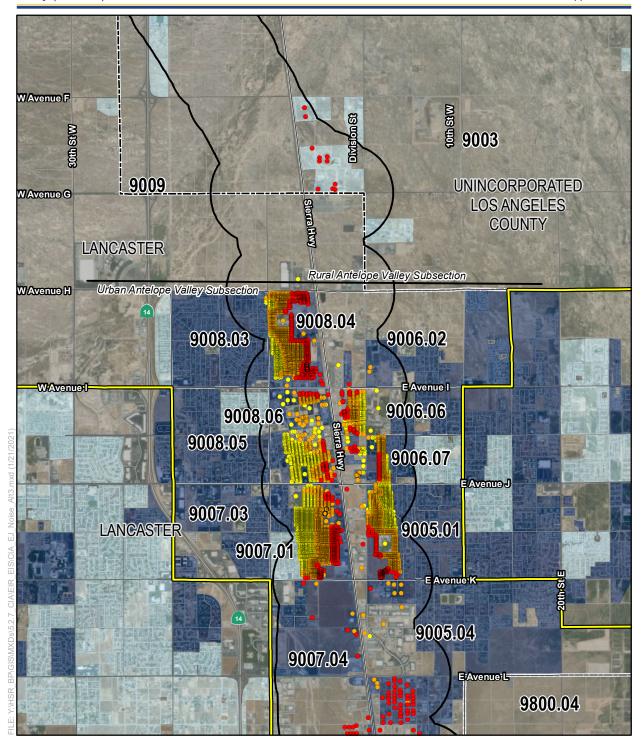


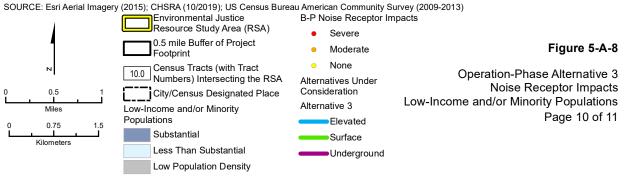




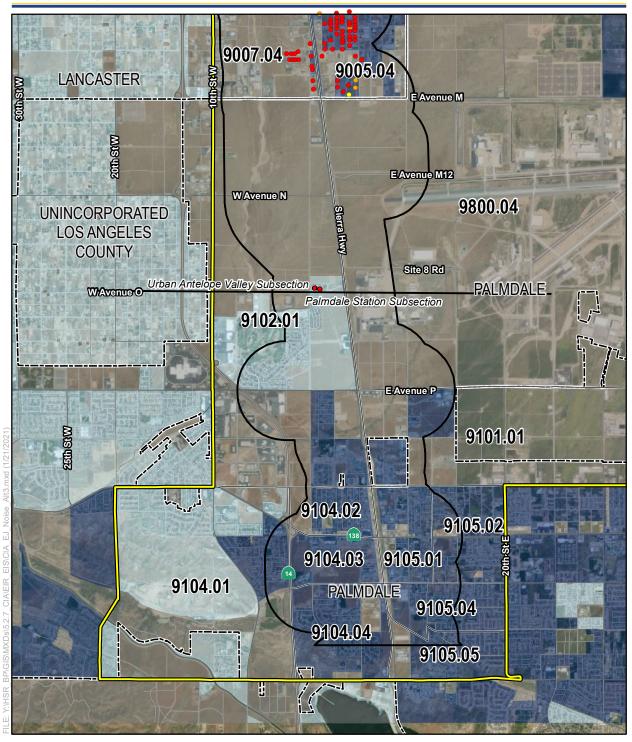


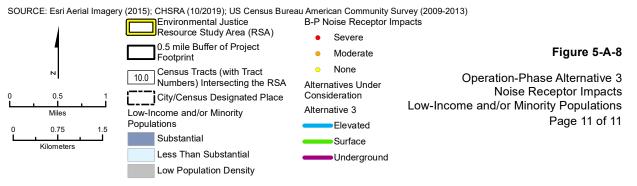




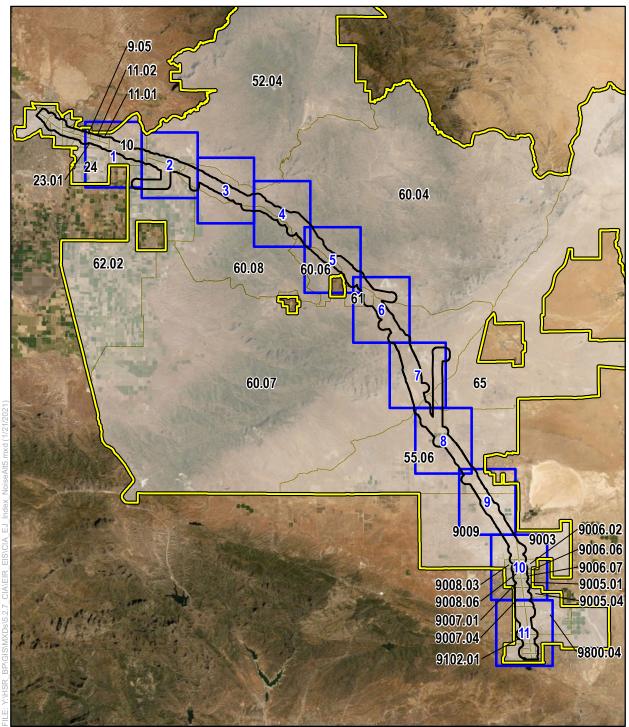




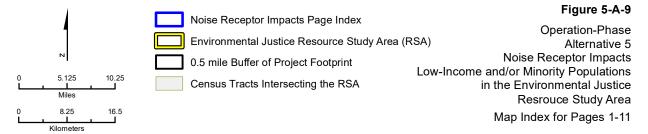




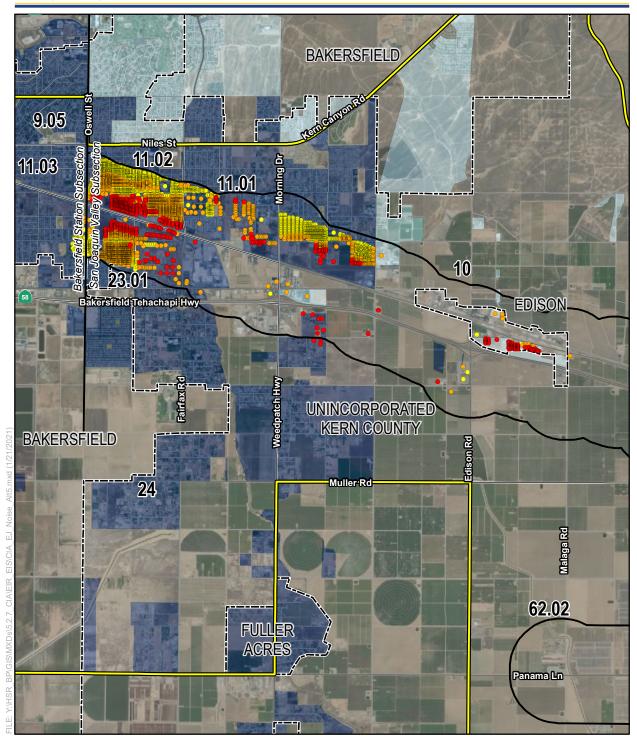




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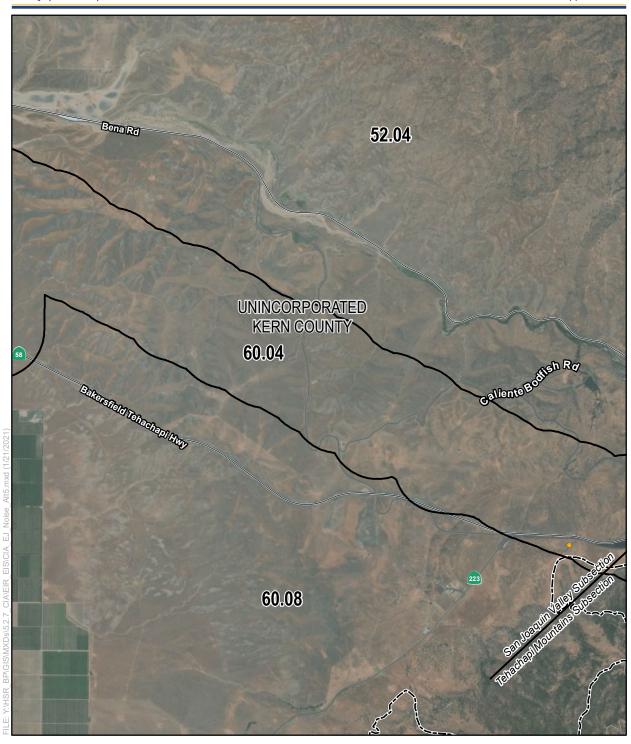
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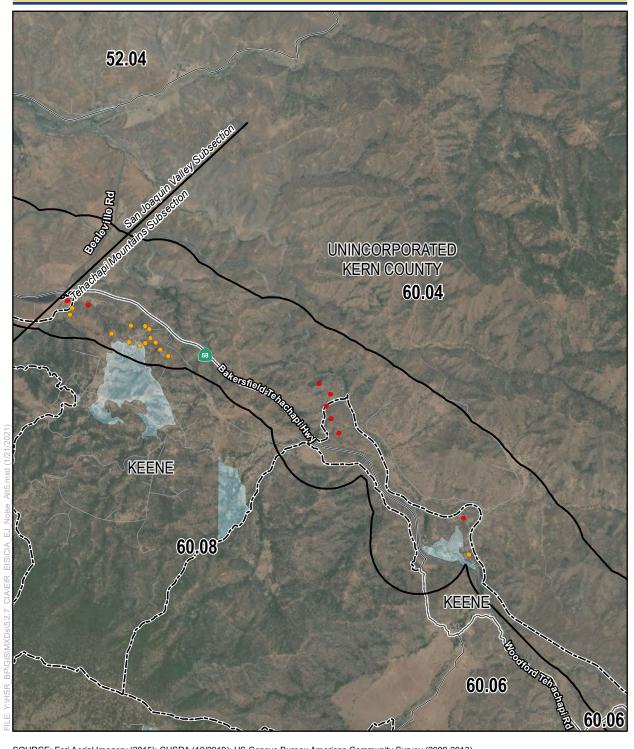
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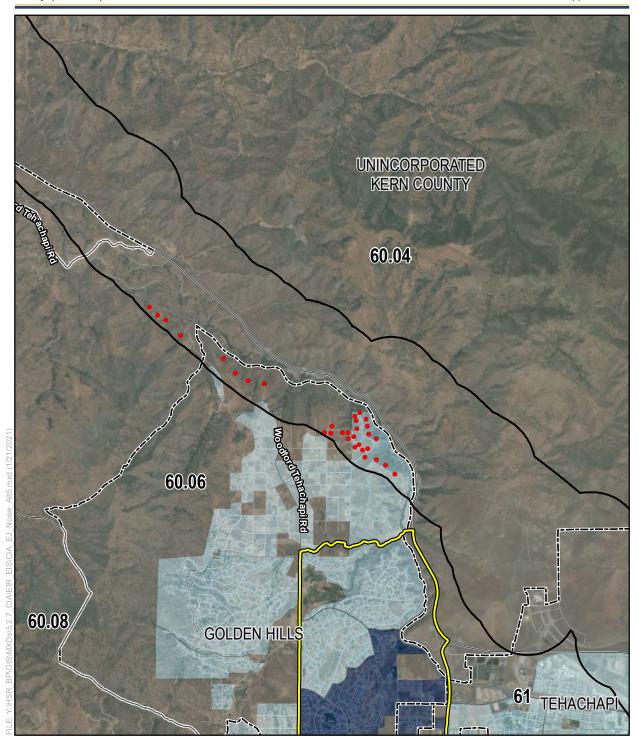
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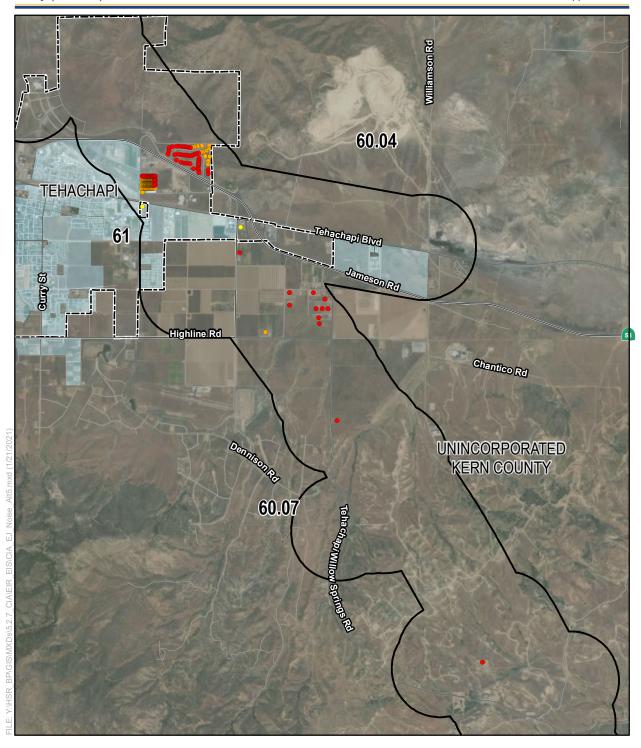
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SOURCE: Esri Aerial Imagery (2015); CHSRA (10/2019); US Census Bureau American Community Survey (2009-2013) Environmental Justice B-P Noise Receptor Impacts Resource Study Area (RSA) Severe 0.5 mile Buffer of Project Figure 5-A-9 Moderate Footprint Census Tracts (with Tract Numbers) Intersecting the RSA None 10.0 Operation-Phase Alternative 5 Alternatives Under Noise Receptor Impacts Consideration City/Census Designated Place Low-Income and/or Minority Populations Alternative 5 Low-Income and/or Minority Page 5 of 11 Populations Elevated 0.75 Substantial Surface Kilometers Less Than Substantial Underground Low Population Density





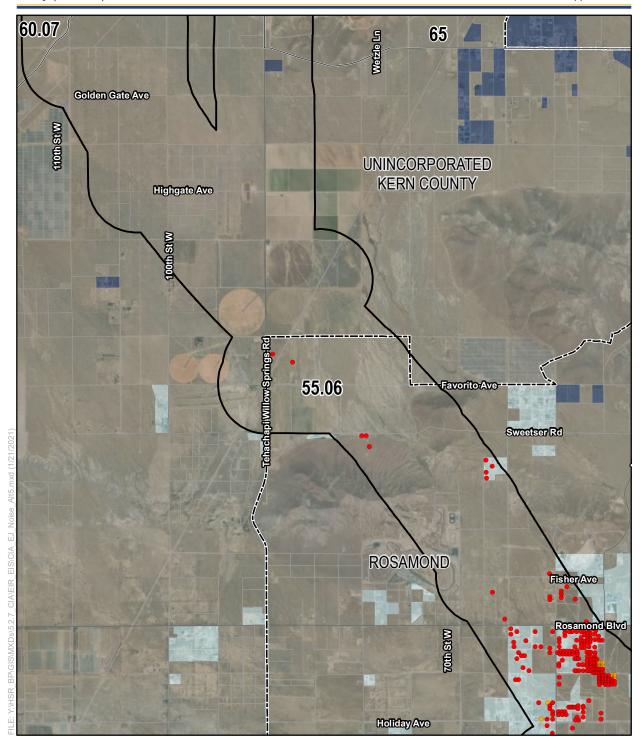
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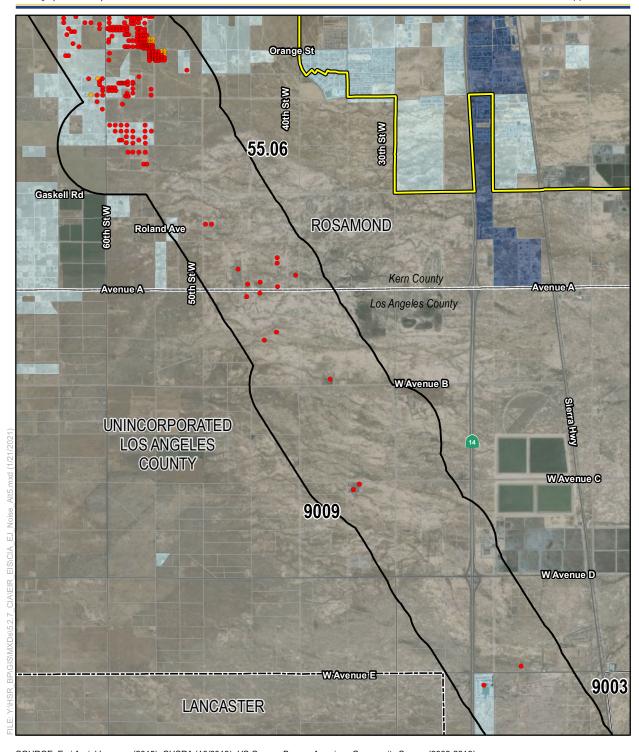
Environmental Justice B-P Noise Receptor Impacts Resource Study Area (RSA) Severe 0.5 mile Buffer of Project Figure 5-A-9 Moderate Footprint None Census Tracts (with Tract 10.0 Operation-Phase Alternative 5 Numbers) Intersecting the RSA Alternatives Under Noise Receptor Impacts Consideration City/Census Designated Place Low-Income and/or Minority Populations Alternative 5 Low-Income and/or Minority Page 7 of 11 Populations Elevated 0.75 Substantial Surface Kilometers Less Than Substantial Underground Low Population Density

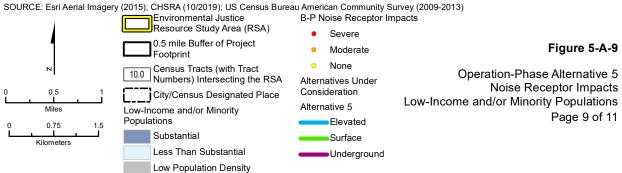




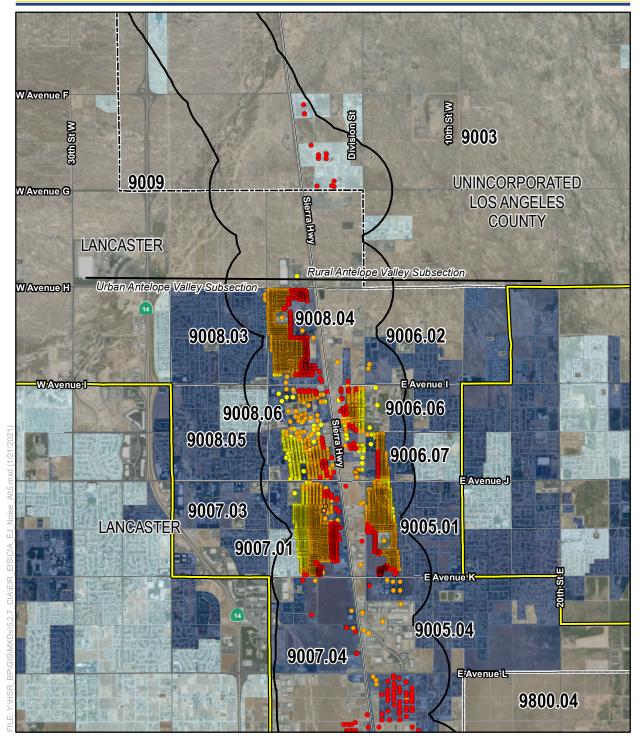
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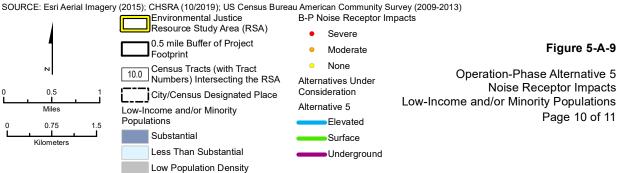




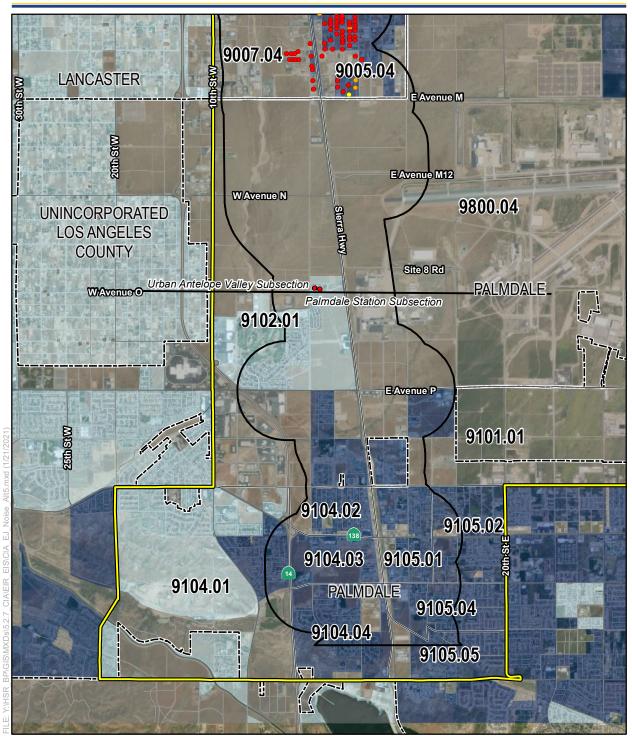


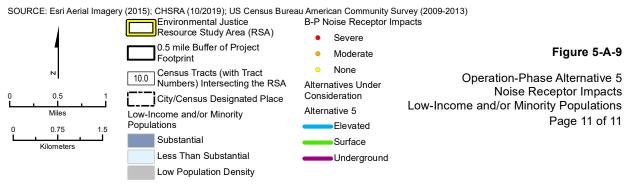




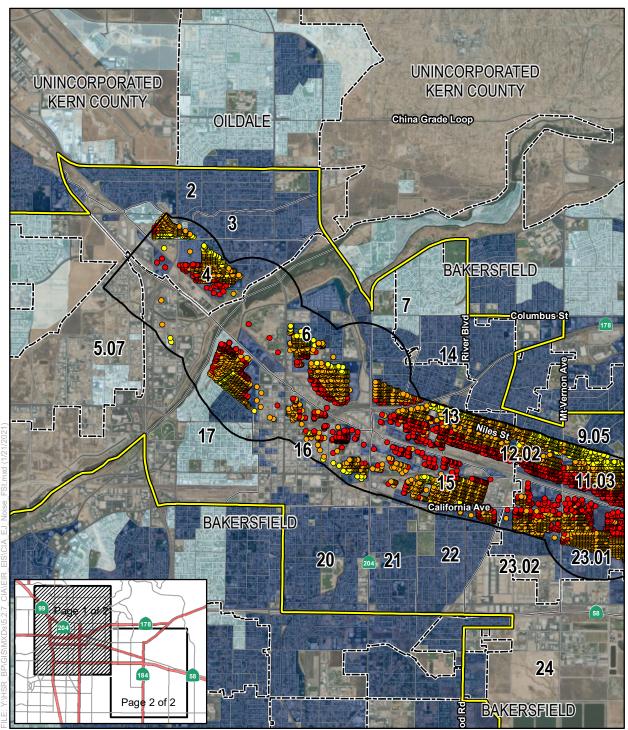




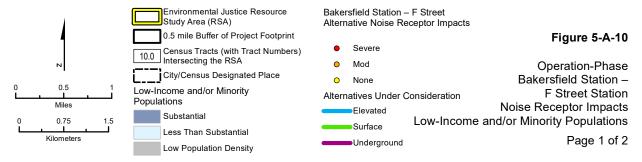




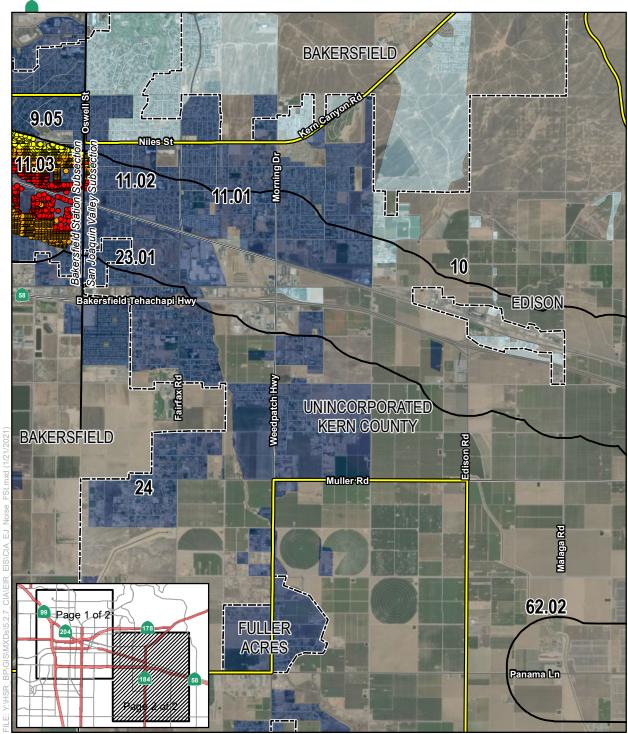




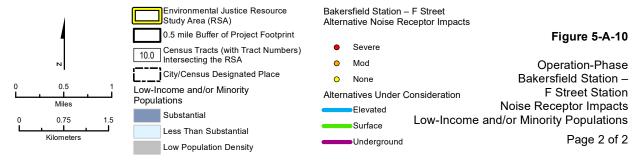
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