



Draft Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation

March 2019



Federal Aid No. 999-M(161)S
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**Interstate 11 Corridor
Draft Tier 1 Environmental Impact Statement and
Preliminary Section 4(f) Evaluation**

Project No. M5180 01P / Federal Aid No. 999-M(161)S

Submitted pursuant to 42 U.S.C § 4332(2)(c), 49 U.S.C. § 303, and 33 U.S.C § 1251

By the

**FEDERAL HIGHWAY ADMINISTRATION *and*
ARIZONA DEPARTMENT OF TRANSPORTATION**

With

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US BUREAU OF RECLAMATION
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US FISH AND WILDLIFE SERVICE
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Abstract

This Draft Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation (Draft Tier 1 EIS) evaluates alternatives for the Interstate 11 (I-11) Corridor in Santa Cruz, Pima, Pinal, Maricopa, and Yavapai Counties, Arizona. The purpose of I-11 is to provide a high priority, high-capacity, access-controlled transportation corridor to serve population and employment growth; support regional mobility; connect metropolitan areas and markets; enhance access to support economic vitality; and provide regional route redundancy for emergency and defense purposes. The Draft Tier 1 EIS evaluates a set of Build Corridor Alternatives and the No Build Alternative to characterize the potential effects of each on the social, economic, and natural environment. The No Build Alternative represents the existing transportation system, with committed improvement projects that are programmed for funding. A hybrid combination of the Build Corridor Alternatives has been identified as the Recommended Alternative.

The objective of this Draft Tier 1 EIS is to provide sufficient information for the public, agencies, and Tribes to comment on the analysis of the alternatives and the Recommended Alternative. Based on the analysis presented in this Draft Tier 1 EIS and after consideration of public and stakeholder input received during the public comment period, the Federal Highway Administration and the Arizona Department of Transportation (ADOT) will identify a Preferred Alternative in the Final Tier 1 EIS.

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Draft Tier 1 EIS Public Comment Period

The Arizona Department of Transportation, in conjunction with Federal Highway Administration, have made the Draft Tier 1 EIS available for public review and comment. It will be published in the Federal Register. Submit your comments on the I-11 Draft Tier 1 EIS during the public review and comment period: **April 5, 2019, through May 31, 2019**. All comments received during the comment period will be documented and responded to in the I-11 Final Tier 1 EIS. All comment methods are considered equal. After reading the Draft Tier 1 EIS, please provide specific written comments on its contents.

Comments can be provided in the following methods:

- At the public hearings
- Online: i11study.com/Arizona
- Phone: 1.844.544.8049 (bilingüe)
- Mail: I-11 Tier 1 EIS Study Team, c/o ADOT Communications, 1655 West Jackson Street, Mail Drop 126F, Phoenix, AZ 85007
- Email: I-11ADOTStudy@hdrinc.com

The Draft Tier 1 EIS is available at i11study.com/Arizona/Documents, and for review only and at no charge at the following locations:

Repositories for the Public Review of the Draft Tier 1 EIS

County	Repository Location and Address
Santa Cruz	Nogales-Rochlin Library, 518 N Grand Avenue, Nogales, AZ, 85621
Pima	Sahuarita Library, 725 W Via Rancho Sahuarita, Sahuarita, AZ 85629
	Joyner-Green Valley Library, 601 N La Cañada Drive, Green Valley, AZ 85614
	Mission Public Library, 3770 S Mission Road, Tucson, AZ 85713
	Joel D. Valdez Main Library, 101 N Stone Avenue, Tucson, AZ 85701
	Ellie Towne Flowing Wells Community Center, 1660 W Ruthrauff Road, Tucson, AZ 85705
	Picture Rocks Fire District, Station 121, 7341 N Sandario Road, Tucson, AZ 85743
	Town of Marana Municipal Complex, 11555 W Civic Center Drive, Marana, AZ 85653
Pinal	Casa Grande Main Library, 449 N Drylake Street, Casa Grande, AZ 85122
	Maricopa Public Library, 41600 W Smith Enke Road, Maricopa, AZ 85138
	Thunderbird Fire Station 12356 N Ralston Rd Maricopa, AZ 85139
Maricopa	Buckeye District Fire Station 326 19937 W Arlington Road Buckeye, AZ 85326
	Goodyear Library 14455 W Van Buren St C-101, Goodyear, AZ 85338
	Burton Barr Central Library, 1221 N Central Avenue, Phoenix, AZ 85004
	Gila Bend Library, 202 N Euclid Avenue, Gila Bend, AZ 85337
	Buckeye Public Library - Coyote, 21699 W Yuma Road, Buckeye, AZ 85326
	Buckeye Downtown Library, 310 N 6th St., Buckeye, AZ 85326
	Buckeye City Hall, 530 E Monroe Avenue, Buckeye, AZ 85326
	Northwest Regional Library, 16089 N Bullard Avenue, Surprise, AZ 85374
Yavapai	Wickenburg Public Library, 164 E Apache Street, Wickenburg, AZ 85390
	Wickenburg Town Hall, 155 N Tegner Street, Ste A, Wickenburg, AZ 85390

Printed copies of the Draft Tier 1 EIS also are available for purchase at:

Vendor Locations to Purchase Copies of the Draft Tier 1 EIS

County	Vendor Information
Santa Cruz	Unicom Grafix, Inc., 869 North Grand Avenue, Nogales, AZ 85621, 520-287-9434
Pima	FedEx, 8150 North Cortaro Road, Tucson, AZ 8574, 520-572-8345 *
	FedEx, 2607 East Speedway Boulevard, Tucson, AZ 85716, 520-795-7796 *
Pinal	Impressive Imaging, 44480 West Honeycutt Road, Suite 102, Maricopa, AZ 85138, 520-568-3098
	International Minute Press, 973 East Cottonwood Lane, Suite 105, Casa Grande, AZ 85122, 520-876-4607
Maricopa	AlphaGraphics, 2120 East Camelback Road, Phoenix, AZ 85016, 602-515-0270
	To The Limit Printing Solutions Inc, 108 North 4th Street, Buckeye AZ 85326, 623-374-4303
Yavapai	Wickenburg Kwikprint, 10 South Kerkes St. #3, Wickenburg, AZ 85390, 928-684-7229

* Also has option to order a copy online at FedEx.com and have it delivered at requestor expense.

Six public hearings to provide information and accept comments on the Draft Tier 1 EIS will be held on:

Public Hearings

County	Date and Time	Location and Address
Maricopa	Monday, April 29 5 to 8 p.m.	Palo Verde Energy Education Center 600 N Airport Road, Buckeye, AZ 85326
Maricopa	Tuesday, April 30 4 to 7 p.m.	Wickenburg Community Center 155 N Tegner Street, Wickenburg, AZ 85390
Pinal	Wednesday, May 1 5 to 8 p.m.	Holiday Inn 777 N Pinal Avenue, Casa Grande, AZ 85122
Santa Cruz	Tuesday, May 7 4 to 7 p.m.	Quality Hotel Americana 639 N Grand Avenue, Nogales, AZ 85621
Pima	Wednesday, May 8 3 to 8 p.m.	Tucson Convention Center Ballrooms/Lobby 260 S Church Avenue, Tucson, AZ 85701
Pima	Saturday, May 11 11 a.m. to 4 p.m.	Marana High School Cafeteria 12000 W Emigh Road, Tucson, AZ 85743



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Table of Contents

EXECUTIVE SUMMARY.....ES-1

1 PURPOSE AND NEED.....1-1

1.1 Introduction..... 1-1

 1.1.1 Tiered EIS 1-1

 1.1.2 Project Development Status 1-1

1.2 Background..... 1-2

1.3 Study Area..... 1-5

1.4 Prior Studies 1-6

 1.4.1 Multimodal Considerations..... 1-8

1.5 Need for Proposed Facility 1-9

 1.5.1 Population and Employment Growth..... 1-9

 1.5.2 Traffic Growth and Travel Time Reliability 1-13

 1.5.3 System Linkages and Regional Mobility..... 1-21

 1.5.4 Access to Economic Activity Centers..... 1-25

 1.5.5 Homeland Security and National Defense 1-25

1.6 Purpose of Proposed Facility 1-25

1.7 Purpose and Need Metrics..... 1-27

1.8 Other Desirable Outcomes..... 1-27

2 ALTERNATIVES CONSIDERED2-1

2.1 Recommendations from Prior Plans and Studies 2-1

2.2 Alternatives Development Process 2-4

 2.2.1 Development of Corridor Options..... 2-4

 2.2.2 Range of Corridor Options 2-8

 2.2.3 Corridor Options Eliminated from Further Consideration..... 2-8

 2.2.4 Modal Alternatives Considered and Eliminated from Further
 Consideration 2-10

2.3 End-to-End Build Corridor Alternatives..... 2-11

 2.3.1 No Build Alternative 2-13

 2.3.2 Build Corridor Alternatives 2-16

2.4 Comparison of Alternatives 2-23

 2.4.1 Population and Employment Growth..... 2-24

 2.4.2 Traffic Growth and Travel Time Reliability 2-26

 2.4.3 System Linkages and Regional Mobility..... 2-28

 2.4.4 Access to Economic Activity Centers..... 2-32

 2.4.5 Capital, Operations and Maintenance Costs..... 2-32



- 2.4.6 Homeland Security and National Defense 2-34
- 2.5 Future Corridor Opportunities..... 2-36
 - 2.5.1 Autonomous Vehicles 2-36
 - 2.5.2 Truck Platooning..... 2-38
 - 2.5.3 Electric Vehicle Infrastructure 2-38
 - 2.5.4 Electrified Highways 2-39
 - 2.5.5 Solar Roadways 2-40
 - 2.5.6 Hyperloop 2-40
- 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES.....3.1-1**
 - 3.1 Introduction 3.1-1
 - 3.1.1 Tier 1 Analysis 3.1-1
 - 3.1.2 Chapter 3 Section Organization 3.1-3
 - 3.2 Summary of Key Environmental Impacts 3.2-1
 - 3.3 Land Use and Section 6(f) 3.3-1
 - 3.3.1 Land Use and Special Designated Lands 3.3-1
 - 3.3.2 Section 6(f)..... 3.3-40
 - 3.3.3 Summary..... 3.3-45
 - 3.3.4 Potential Mitigation Strategies 3.3-45
 - 3.3.5 Future Tier 2 Analysis..... 3.3-46
 - 3.4 Recreation 3.4-1
 - 3.4.1 Regulatory Setting 3.4-1
 - 3.4.2 Methodology..... 3.4-1
 - 3.4.3 Affected Environment 3.4-2
 - 3.4.4 Environmental Consequences 3.4-5
 - 3.4.5 Potential Mitigation Strategies 3.4-11
 - 3.4.6 Future Tier 2 Analysis..... 3.4-12
 - 3.5 Community Resources, Title VI, and Environmental Justice 3.5-1
 - 3.5.1 Regulatory Setting 3.5-1
 - 3.5.2 Methodology..... 3.5-2
 - 3.5.3 Affected Environment 3.5-4
 - 3.5.4 Environmental Consequences 3.5-29
 - 3.5.5 Potential Mitigation Strategies 3.5-34
 - 3.5.6 Future Tier 2 Analysis..... 3.5-34
 - 3.6 Economic Impacts..... 3.6-1
 - 3.6.1 Regulatory Setting 3.6-1
 - 3.6.2 Methodology..... 3.6-2
 - 3.6.3 Affected Environment 3.6-3
 - 3.6.4 Environmental Consequences 3.6-7



3.6.5 Potential Mitigation Strategies 3.6-19

3.6.6 Future Tier 2 Analysis..... 3.6-19

3.7 Archaeological, Historical, Architectural, Cultural Resources 3.7-1

3.7.1 Regulatory Setting 3.7-1

3.7.2 Methodology 3.7-2

3.7.3 Affected Environment 3.7-8

3.7.4 Environmental Consequences 3.7-17

3.7.5 Summary 3.7-26

3.7.6 Potential Mitigation Strategies 3.7-30

3.7.7 Future Tier 2 Environmental Reviews 3.7-30

3.8 Noise 3.8-1

3.8.1 Regulatory Setting 3.8-1

3.8.2 Methodology 3.8-1

3.8.3 Affected Environment 3.8-4

3.8.4 Environmental Consequences 3.8-8

3.8.5 Potential Mitigation Strategies 3.8-13

3.8.6 Future Tier 2 National Environmental Policy Act Noise
Analysis 3.8-13

3.9 Visual and Aesthetics..... 3.9-1

3.9.1 Regulatory Setting 3.9-1

3.9.2 Methodology 3.9-2

3.9.3 Affected Environment 3.9-7

3.9.4 Environmental Consequences 3.9-21

3.9.5 Potential Mitigation Strategies 3.9-35

3.9.6 Future Tier 2 Analysis..... 3.9-36

3.10 Air Quality 3.10-1

3.10.1 Regulatory Setting 3.10-1

3.10.2 Methodology 3.10-8

3.10.3 Affected Environment 3.10-9

3.10.4 Environmental Consequences 3.10-16

3.10.5 Summary 3.10-25

3.10.6 Potential Mitigation Strategies 3.10-26

3.10.7 Future Tier 2 Analysis..... 3.10-26

3.11 Hazardous Materials 3.11-1

3.11.1 Regulatory Setting 3.11-1

3.11.2 Methodology 3.11-3

3.11.3 Affected Environment 3.11-4

3.11.4 Environmental Consequences 3.11-7

3.11.5 Potential Mitigation Strategies 3.11-11

3.11.6 Future Tier 2 Analysis..... 3.11-12



3.12 Geology, Soils, and Prime and Unique Farmlands 3.12-1

3.12.1 Geology 3.12-1

3.12.2 Soils 3.12-4

3.12.3 Prime and Unique Farmlands 3.12-8

3.12.4 Environmental Consequences 3.12-10

3.12.5 Summary 3.12-13

3.12.6 Potential Mitigation Strategies 3.12-13

3.12.7 Future Tier 2 Analysis 3.12-14

3.13 Water Resources 3.13-1

3.13.1 Regulatory Setting 3.13-1

3.13.2 Methodology 3.13-4

3.13.3 Affected Environment 3.13-6

3.13.4 Environmental Consequences 3.13-19

3.13.5 Potential Mitigation Strategies 3.13-21

3.13.6 Future Tier 2 Analysis 3.13-23

3.14 Biological Resources 3.14-1

3.14.1 Regulatory Setting 3.14-1

3.14.2 Methodology 3.14-4

3.14.3 Affected Environment 3.14-4

3.14.4 Environmental Consequences 3.14-30

3.14.5 Potential Mitigation Strategies 3.14-54

3.14.6 Future Tier 2 Analysis 3.14-59

3.15 Temporary Construction-related Impacts 3.15-1

3.15.1 Transportation 3.15-1

3.15.2 Land Use 3.15-1

3.15.3 Recreation 3.15-1

3.15.4 Social Resources and Environmental Justice 3.15-2

3.15.5 Economics 3.15-2

3.15.6 Cultural Resources 3.15-2

3.15.7 Noise and Vibration 3.15-3

3.15.8 Visual and Aesthetic 3.15-3

3.15.9 Air Quality 3.15-3

3.15.10 Hazardous Materials 3.15-4

3.15.11 Geology, Soils, and Farmland 3.15-4

3.15.12 Water Resources 3.15-4

3.15.13 Biological Resources 3.15-4

3.15.14 Summary 3.15-5

3.15.15 Potential Mitigation Strategies 3.15-5

3.15.16 Future Tier 2 Analysis 3.15-5



3.16 Irreversible and Irretrievable Commitment of Resources..... 3.16-1

 3.16.1 Regulatory Setting 3.16-1

 3.16.2 Methodology 3.16-1

 3.16.3 Potential Impacted Resources 3.16-1

 3.16.4 Summary 3.16-2

 3.16.5 Potential Mitigation Strategies 3.16-2

 3.16.6 Future Tier 2 Analysis..... 3.16-2

3.17 Indirect and Cumulative Effects..... 3.17-1

 3.17.1 Regulatory Guidance 3.17-1

 3.17.2 Methodology 3.17-1

 3.17.3 Affected Environment: Past, Present, and Reasonably
Foreseeable Future Actions..... 3.17-7

 3.17.4 Environmental Consequences: Indirect and Cumulative
Effects 3.17-8

 3.17.5 Summary 3.17-30

 3.17.6 Mitigation Strategies 3.17-30

 3.17.7 Future Tier 2 Analysis..... 3.17-31

4 PRELIMINARY DRAFT SECTION 4(F) EVALUATION4-1

4.1 Introduction 4-1

4.2 Regulatory Context and Methodology 4-5

 4.2.1 Applicability 4-5

 4.2.2 Definitions of Use 4-5

 4.2.3 Types of Section 4(f) Approvals 4-6

 4.2.4 Section 4(f) Evaluation Process 4-7

4.3 Identification of Section 4(f) Properties..... 4-11

 4.3.1 Parks, Recreation Areas, or Wildlife and Waterfowl Refuges..... 4-12

 4.3.2 Historic Sites 4-13

4.4 Assessment of Use of Section 4(f) Properties 4-37

 4.4.1 No Build Alternative 4-37

 4.4.2 Build Corridor Alternatives – No Use 4-38

 4.4.3 Build Corridor Alternatives – Use Evaluation 4-72

 4.4.4 Constructive Use 4-85

4.5 Summary of Findings 4-88

4.6 Coordination 4-90

4.7 Future Tier 2 Analysis 4-95



5 COORDINATION AND OUTREACH5-1

- 5.1 Agency Coordination..... 5-1
 - 5.1.1 Regulatory Requirements 5-1
 - 5.1.2 Roles and Responsibilities..... 5-2
 - 5.1.3 Agency Coordination Opportunities 5-7
- 5.2 Public Outreach 5-9
 - 5.2.1 Regulatory Requirements 5-9
 - 5.2.2 Outreach Opportunities..... 5-10
 - 5.2.3 Title VI, Environmental Justice, and Limited English Proficiency..... 5-10
- 5.3 Key Outreach and Coordination Milestones 5-12
 - 5.3.1 Scoping 5-12
 - 5.3.2 Agency and Public Information Meetings..... 5-17
 - 5.3.3 Additional Stakeholder Meetings 5-25
- 5.4 Tribal Engagement..... 5-27
- 5.5 Resolutions and Letters 5-31
- 5.6 Draft Tier 1 EIS Public Hearing Process 5-33

6 RECOMMENDED ALTERNATIVE6-1

- 6.1 Purpose and Need 6-2
 - 6.1.1 Population and Employment Growth..... 6-2
 - 6.1.2 Traffic Growth and Travel Time Reliability 6-2
 - 6.1.3 System Linkages and Regional Mobility..... 6-5
 - 6.1.4 Access to Economic Activity Centers..... 6-5
 - 6.1.5 Homeland Security and National Defense 6-5
- 6.2 Differentiating and Substantive Impacts..... 6-5
 - 6.2.1 I-19: Nogales to Sahuarita 6-6
 - 6.2.2 Sahuarita to Marana 6-6
 - 6.2.3 Marana to Casa Grande 6-9
 - 6.2.4 Casa Grande to Buckeye..... 6-10
 - 6.2.5 Buckeye to Wickenburg 6-12
 - 6.2.6 Additional Areas of Analysis 6-12
- 6.3 Recommended Alternative 6-17
- 6.4 Impact Avoidance, Minimization, and Mitigation..... 6-20
- 6.5 Implementation and Phasing..... 6-29
 - 6.5.1 Funding and Financing Considerations..... 6-29
 - 6.5.2 Next Steps..... 6-30



List of Appendices

Appendix A	Glossary
Appendix B	References
Appendix C	List of Preparers
Appendix D	List of Recipients
Appendix E	Introduction
Appendix E1	Conceptual Drawings
Appendix E2	Transportation Analysis Technical Memorandum
Appendix E3	Land Use and Section 6(f) Technical Memorandum
Appendix E4	Recreation Technical Memorandum
Appendix E5	Social Resources and Environmental Justice
Appendix E6	Memorandum: Land Use and Economic Development Interview Summary
Appendix E7.1	Section 106 Consultation
Appendix E7.2	Draft Programmatic Agreement
Appendix E8	Noise Report
Appendix E9	Visual Effects on Selected Viewpoints and Landscapes
Appendix E10	Air Quality
Appendix E11	Regulatory Databases
Appendix E12	Geology, Soils, and Prime and Unique Farmlands Technical Memorandum
Appendix E13	Water Resources Technical Memorandum
Appendix E14	Biological Resources
Appendix E15	Temporary Construction Impacts
Appendix E16	Irreversible and Irretrievable Commitment of Resources
Appendix E17	Indirect and Cumulative Effects
Appendix F	Correspondence Related To Preliminary Draft Section 4(F) Evaluation
Appendix G	Public Involvement Materials
Appendix H	Stakeholder Input
Appendix I	I-19 through San Xavier (Tonono O’odham Nation)



List of Tables

Table 1-1 Population and Employment Growth, 2015 to 2040 1-10

Table 1-2 Average Weekday Traffic and Level of Service, 2015 and 2040 (No Build Alternative) 1-13

Table 1-3 Peak Period Travel Times from Nogales to Wickenburg in Evening, 2015 and 2040 (No Build Alternative) 1-18

Table 1-4 Peak Period Travel Times for City Pairs in Evening, 2015 and 2040 (No Build Alternative)..... 1-19

Table 1-5 State-to-State Daily Freight Truck Flows, 2013 and 2040 1-23

Table 1-6 Purpose and Need Metrics 1-28

Table 2-1 End-to-End Build Corridor Alternatives 2-13

Table 2-2 Comparison of New Lane Miles and Length 2-23

Table 2-3 Comparison of Alternatives and Planned Growth Areas 2-24

Table 2-4 Comparison of Travel Time and Level of Service (LOS) 2-28

Table 2-5 2040 Vehicle Miles Traveled 2-29

Table 2-6 Comparison of Vehicle Miles Traveled..... 2-31

Table 2-7 Access to Economic Activity Centers..... 2-32

Table 2-8 Summary of Capital Costs 2-33

Table 2-9 Preliminary Cost Estimates for Build Corridor Alternatives..... 2-34

Table 2-10 Alternate Routes to Existing Interstate Freeway 2-34

Table 3.1-1 Build Corridor Alternative, Section, and Option Organization 3.1-1

Table 3.2-1 Summary of Key Environmental Effects: Purple Alternative 3.2-2

Table 3.2-2 Summary of Key Environmental Effects: Green Alternative 3.2-8

Table 3.2-3 Summary of Key Environmental Effects: Orange Alternative 3.2-14

Table 3.3-1 Potential Planned Land Use Conversion Impacts (acres) – Purple Alternative 3.3-13

Table 3.3-2 Potential Land Management Conversion Impacts (acres) – Purple Alternative 3.3-19

Table 3.3-3 Potential Planned Land Use Conversion Impacts (acres) – Green Alternative 3.3-22

Table 3.3-4 Potential Land Management Conversion Impacts (acres) – Green Alternative 3.3-28

Table 3.3-5 Potential Planned Land Use Conversion Impacts (acres) – Orange Alternative 3.3-31

Table 3.3-6 Potential Land Management Conversion Impacts (acres) – Orange Alternative 3.3-37

Table 3.3-7 Section 6(f) Properties 3.3-42

Table 3.3-8 Summary of Potential Impacts to Land Use and Section 6(f) Properties 3.3-47

Table 3.4-1 Agencies and Policies and Regulations for Managing Recreation..... 3.4-2



Table 3.4-2 Recreation Resources and Acreage within the Purple Alternative..... 3.4-9

Table 3.4-3 Recreation Resources and Acreage within the Green Alternative 3.4-10

Table 3.4-4 Recreation Resources and Acreage within the Orange Alternative 3.4-10

Table 3.4-5 Summary of the Potential Impacts to Recreation 3.4-13

Table 3.5-1 Communities Intersected by the Build Corridor Alternatives in the South Section 3.5-7

Table 3.5-2 CDPs Intersected by the Build Corridor Alternatives in the Central Section 3.5-7

Table 3.5-3 Communities Intersected by the Build Corridor Alternatives in the North Section..... 3.5-9

Table 3.5-4 Race and Ethnicity in the Study Area, County and Statewide Averages 3.5-12

Table 3.5-5 Inventory of Build Corridor Alternatives which Extend through Communities with High Concentrations of Minority and Low-Income Populations..... 3.5-30

Table 3.5-6 Summary of Potential Impacts and Beneficial Effects to Communities..... 3.5-36

Table 3.6-1 No Build Economic Data by County, 2020 and 2044..... 3.6-8

Table 3.6-2 Net Economic Impact, 2020-2024 – Purple Alternative 3.6-10

Table 3.6-3 Net Economic Impact, 2025-2044 – Purple Alternative 3.6-10

Table 3.6-4 Net Economic Impact, 2020-2024 – Green Alternative 3.6-12

Table 3.6-5 Net Economic Impact, 2025-2044 – Green Alternative 3.6-13

Table 3.6-6 Net Economic Impact, 2020-2024 – Orange Alternative 3.6-15

Table 3.6-7 Net Economic Impact, 2025-2044 – Orange Alternative 3.6-15

Table 3.6-8 Summary of Potential Impacts to Economic Indicators 3.6-18

Table 3.6-9 Indirect and Cumulative Economic Effects..... 3.6-20

Table 3.7-1 Section 106 Consulting Parties 3.7-4

Table 3.7-2 Extent of Cultural Resource Survey and Recorded Archaeological Sites and Historic Structures 3.7-9

Table 3.7-3 Historic Structures Eligible for the NRHP under Criteria A, B, or C 3.7-12

Table 3.7-4 NRHP Eligibility of Archaeological Sites and Historic Structures..... 3.7-13

Table 3.7-5 NRHP-listed and Determined Eligible Historic Districts and Buildings 3.7-14

Table 3.7-6 Preliminary NRHP Eligibility Evaluations of Unrecorded Historic-Period Properties..... 3.7-15

Table 3.7-7 Traditional Cultural Properties 3.7-16

Table 3.7-8 Potential for Impacts on Archaeological Sites and Historic Structures along the Build Corridor Alternatives..... 3.7-19

Table 3.7-9 Estimates of Potentially Affected NRHP-Eligible Archaeological Sites and Historic Structures 3.7-21

Table 3.7-10 Potential Levels of Impacts on Historic Districts and Buildings..... 3.7-25

Table 3.7-11 Summary of Potential Impacts on Cultural Resources 3.7-31

Table 3.8-1 Noise Abatement Criteria..... 3.8-4



Table 3.8-2	Ambient Noise Monitoring Data	3.8-5
Table 3.8-3	Summary of Predicted 2040 Traffic Noise Levels	3.8-10
Table 3.8-4	Summary of Predicted 2040 Traffic Noise Levels at Major Parks and Recreation Areas	3.8-11
Table 3.8-5	Summary of Predicted 2040 Traffic Noise Levels – No Build Alternative	3.8-12
Table 3.8-6	Summary of the Potential Noise Impacts of the Build Corridor Alternatives	3.8-14
Table 3.9-1	BLM VRM Objectives	3.9-7
Table 3.9-2	Visibility of Build Corridor Alternatives from SNP (West) and Tucson Mountain Park	3.9-13
Table 3.9-3	Visibility of CAP Design Option from SNP (West) and Tucson Mountain Park	3.9-17
Table 3.9-4	Visual Resource Impact Summary for the Purple Alternative	3.9-22
Table 3.9-5	Visual Resource Impact Summary for the Green Alternative	3.9-24
Table 3.9-6	Visual Resource Impact Summary for the Orange Alternative	3.9-27
Table 3.9-7	Potential Impacts on BLM VRM Class I and II Designations	3.9-31
Table 3.9-8	Potential Effects on Light Pollution: Contribution to Skyglow	3.9-34
Table 3.9-9	Summary of Potential Impacts on Visual and Aesthetics	3.9-37
Table 3.10-1	National Ambient Air Quality Standards for Criteria Pollutants	3.10-2
Table 3.10-2	Changes in Daily Freight Travel Patterns Relative to the No Build	3.10-17
Table 3.10-3	Summary of the Potential Impacts on Air Quality	3.10-27
Table 3.11-1	Hazardous Materials Regulations	3.11-1
Table 3.11-2	Regulated Sites – Comparison of Options from Nogales to Casa Grande	3.11-5
Table 3.11-3	Regulated Sites – Comparison of Options in the Central Section	3.11-5
Table 3.11-4	Regulated Sites – Comparison of Options in the North Section	3.11-6
Table 3.11-5	Regulated Sites – Study Area	3.11-6
Table 3.11-6	Purple Alternative Summary of End-to-End Considerations	3.11-8
Table 3.11-7	Green Alternative Summary of End-to-End Considerations	3.11-9
Table 3.11-8	Orange Alternative Summary of End-to-End Considerations	3.11-10
Table 3.11-9	Summary of Impacts to Hazardous Materials	3.11-13
Table 3.12-1	Subsidence, Earth Fissures, and Bedrock: Purple Alternative	3.12-3
Table 3.12-2	Subsidence, Earth Fissures, and Bedrock: Green Alternative	3.12-4
Table 3.12-3	Subsidence, Earth Fissures, and Bedrock: Orange Alternative	3.12-4
Table 3.12-4	Limitations to Construction of Roads and Streets: Purple Alternative	3.12-6
Table 3.12-5	Limitations to Construction of Roads and Streets: Green Alternative	3.12-6
Table 3.12-6	Limitations to Construction of Roads and Streets: Orange Alternative	3.12-7
Table 3.12-7	Prime and Unique Farmlands: Purple Alternative	3.12-9
Table 3.12-8	Prime and Unique Farmlands: Green Alternative	3.12-10



Table 3.12-9 Prime and Unique Farmlands: Orange Alternative 3.12-10

Table 3.12-10 Summary of Potential Impacts on Geology, Soils, and Prime and Unique Farmlands 3.12-16

Table 3.13-1 Water Resource Impacts Common to the Build Corridor Alternatives 3.13-19

Table 3.13-2 Summary of Potential Impacts on Water Resources 3.13-21

Table 3.13-3 Water Resource Impacts of the Build Corridor Alternatives..... 3.13-24

Table 3.14-1 Total Acreage for Each Biotic Community within the Study Area 3.14-9

Table 3.14-2 Important Bird Areas within the Study Area 3.14-11

Table 3.14-3 Distribution of ESA Protected Species within the Study Area..... 3.14-14

Table 3.14-4 Total Surface Area Covered by ESA Critical Habitat, 10(j) Experimental Population Areas or other Protected Populations within the Study Area..... 3.14-19

Table 3.14-5 Summary of Detailed Linkage Designs and Other Wildlife Corridors in the Study Area..... 3.14-26

Table 3.14-6 Acres of Biotic Communities within the Build Corridor Alternatives and Percent of Total Biotic Community Area within the Study Area 3.14-31

Table 3.14-7 Acres of Riparian and IBA Habitats within the Build Corridor Alternatives and Percent of Total Riparian and IBA Habitat Area within the Study Area..... 3.14-32

Table 3.14-8 LIB Fragmentation by Build Corridor Alternative 3.14-41

Table 3.14-9 Total Surface Area of Fragments Lost from Existing LIBs by Build Corridor Alternative..... 3.14-42

Table 3.14-10 Summary of Potential Impacts on Biological Resources 3.14-47

Table 3.14-11 General Mitigation Strategies Applicable to All Corridor Options..... 3.14-54

Table 3.14-12 Specific Mitigation Strategies for Each Corridor Option..... 3.14-56

Table 3.17-1 Summary of Past and Present Actions 3.17-9

Table 3.17-2 Reasonably Foreseeable Future Actions 3.17-13

Table 3.17-3 Summary of Indirect and Cumulative Effects 3.17-32

Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area 4-14

Table 4-2 Historic Sites Protected by Section 4(f) in the Project Corridors..... 4-31

Table 4-3 Section 4(f) Properties Outside the Build Corridors Where No Use Would Occur..... 4-38

Table 4-4 Section 4(f) Properties within the Build Corridors (Potential Use) 4-44

Table 4-5 Summary of Use by Build Corridor Alternatives 4-55

Table 4-6 Summary of Potential Section 4(f) Uses by Build Corridor Alternative 4-89

Table 4-7 Summary of Comments from Officials with Jurisdiction Over Section 4(f) Properties..... 4-91

Table 5-1 Agency Roles and Responsibilities 5-3

Table 5-2 Cooperating Agencies 5-4

Table 5-3 Participating Agencies 5-5



Table 5-4	Agency Coordination Opportunities	5-8
Table 5-5	Agency Scoping Meetings (June 2016)	5-13
Table 5-6	Public Scoping Meetings (June 2016).....	5-15
Table 5-7	Agency Meetings (May 2017)	5-18
Table 5-8	Public Information Meetings (May 2017).....	5-21
Table 5-9	Stakeholder Groups.....	5-26
Table 5-10	Tribal Engagement	5-28
Table 6-1	Considerations in Meeting the I-11 Purpose and Need	6-3
Table 6-2	Potential for Change in Impact Analysis from Corridor Shifts	6-14
Table 6-3	Recommended Alternative.....	6-18
Table 6-4	Corridor Wide Mitigation Strategies	6-21
Table 6-5	Location-Specific Mitigation Strategies	6-25



List of Figures

Figure 1-1	State of Arizona, USA.....	1-3
Figure 1-2	I-11 Corridor Study Area Evolution.....	1-4
Figure 1-3	Southwest Triangle within Megapolitan America.....	1-7
Figure 1-4	Population Density 2015 and 2040 and Planned High-Growth Areas.....	1-11
Figure 1-5	Employment Density 2015 and 2040 and Planned High-Growth Areas.....	1-12
Figure 1-6	Levels of Service for Freeways.....	1-15
Figure 1-7	Peak Period Travel Time Ratings, 2015.....	1-16
Figure 1-8	Average Weekday Level of Service, 2040.....	1-17
Figure 1-9	Peak Period Travel Speeds in the Evening, 2015 and 2040.....	1-20
Figure 1-10	FHWA High Priority Corridors in the Western US.....	1-22
Figure 1-11	Integrated Manufacturing in the Southwest US.....	1-24
Figure 1-12	Economic Centers and Employment Densities, 2040.....	1-26
Figure 2-1	Related Planning Recommendations in I-11 Corridor Study Area.....	2-2
Figure 2-2	Agency Scoping Feedback on Build Corridor Alternative Preferences, 2016.....	2-5
Figure 2-3	Public Scoping Feedback on Build Corridor Alternative Preferences, 2016.....	2-7
Figure 2-4	Range of Corridor Options.....	2-9
Figure 2-5	End-to-End Build Corridor Alternatives.....	2-12
Figure 2-6	No Build Alternative Capacity Improvements.....	2-15
Figure 2-7	Tier 1 versus Tier 2 Level of Detail.....	2-16
Figure 2-8	Build Corridor Alternative: Purple.....	2-18
Figure 2-9	Build Corridor Alternative: Green.....	2-20
Figure 2-10	Build Corridor Alternative: Orange.....	2-22
Figure 2-11	Planned Growth Areas and Build Corridor Alternatives.....	2-25
Figure 2-12	2040 Travel Times Nogales to Wickenburg (Afternoon Peak Period).....	2-26
Figure 2-13	2040 Travel Times in Minutes for City Pairs (Afternoon Peak Period).....	2-27
Figure 2-14	2040 Vehicle Miles Traveled for Passenger Cars and Trucks.....	2-30
Figure 2-15	2040 Vehicle Miles Traveled for Trucks.....	2-30
Figure 2-16	Economic Centers and Build Corridor Alternatives.....	2-35
Figure 3.1-1	Tier 1 vs Tier 2 Level of Detail.....	3.1-2
Figure 3.3-1	Existing Land Use.....	3.3-4
Figure 3.3-2	Planned Land Use.....	3.3-7
Figure 3.3-3	Major Study Area Master-Planned Communities.....	3.3-9
Figure 3.3-4	Land Management and Special Designated Lands.....	3.3-11
Figure 3.3-5	Planned Land Uses – Purple Alternative, South Section.....	3.3-14
Figure 3.3-6	Planned Land Uses – Purple Alternative, Central Section.....	3.3-16
Figure 3.3-7	Planned Land Uses – Purple Alternative, North Section.....	3.3-18
Figure 3.3-8	Land Management and Special Designated Lands – Purple Alternative.....	3.3-20



Figure 3.3-9 Planned Land Uses – Green Alternative, South Section 3.3-24

Figure 3.3-10 Planned Land Uses – Green Alternative, Central Section 3.3-25

Figure 3.3-11 Planned Land Uses – Green Alternative, North Section 3.3-27

Figure 3.3-12 Land Management and Special Designated Lands – Green Alternative 3.3-29

Figure 3.3-13 Planned Land Uses – Orange Alternative, South Section 3.3-33

Figure 3.3-14 Planned Land Uses – Orange Alternative, Central Section 3.3-34

Figure 3.3-15 Planned Land Uses – Orange Alternative, North Section 3.3-35

Figure 3.3-16 Land Management and Special Designated Lands – Orange Alternative 3.3-38

Figure 3.3-17 Section 6(f) Properties 3.3-41

Figure 3.4-1 Recreation Sites in Project Vicinity – South Section 3.4-4

Figure 3.4-2 Recreation Sites in Project Vicinity – Central Section 3.4-6

Figure 3.4-3 Recreation Sites in Project Vicinity – North Section 3.4-7

Figure 3.5-1 Communities and Community Facilities – South Section Corridor Options 3.5-6

Figure 3.5-2 Communities and Community Facilities – Central Section Corridor
Options 3.5-8

Figure 3.5-3 Communities and Community Facilities – North Section Corridor Options .. 3.5-10

Figure 3.5-4 Minority Populations – South Section 3.5-17

Figure 3.5-5 Minority Populations – Central Section 3.5-18

Figure 3.5-6 Minority Populations – North Section 3.5-19

Figure 3.5-7 Low-Income Populations – South Section 3.5-20

Figure 3.5-8 Low-Income Populations – Central Section 3.5-21

Figure 3.5-9 Low-Income Populations – North Section 3.5-22

Figure 3.5-10 Limited English Proficiency Populations – South Section 3.5-24

Figure 3.5-11 Limited English Proficiency Population – Central Section 3.5-25

Figure 3.5-12 Limited English Proficiency Population – North Section 3.5-26

Figure 3.6-1 Baseline Employment in Study Area, 2020-2044 3.6-9

Figure 3.6-2 Net GRP Impact, 2020-2044 (Billions of 2016 Dollars) – Purple
Alternative 3.6-11

Figure 3.6-3 Employment Impact by Industry, 2020-2044 – Purple Alternative 3.6-11

Figure 3.6-4 Net GRP Impact, 2020-2044 (Billions of 2016 Dollars) – Green
Alternative 3.6-13

Figure 3.6-5 Employment Impact by Industry, 2020-2044 – Green Alternative 3.6-14

Figure 3.6-6 Net GRP Impact, 2020-2044 (Billions of 2016 Dollars) – Orange
Alternative 3.6-16

Figure 3.6-7 Employment Impact by Industry, 2020-2044 – Orange Alternative 3.6-17

Figure 3.7-1 Potential Levels of Impacts on Archaeological Sites and Historic
Structures 3.7-27

Figure 3.7-2 Potential Levels of Impacts on Historic Districts and Buildings 3.7-28

Figure 3.8-1 Common Outdoor and Indoor Noise Levels 3.8-2

Figure 3.9-1 Area of Visual Effect 3.9-3

Figure 3.9-2 Landscape Units and Viewpoints within the AVE (Purple Alternative) 3.9-10

Figure 3.9-3 Landscape Units and Viewpoints within the AVE (Green Alternative) 3.9-11



Figure 3.9-4 Landscape Units and Viewpoints within the AVE (Orange Alternative)..... 3.9-12

Figure 3.9-5 BLM Visual Resource Management System, South Section 3.9-14

Figure 3.9-6 BLM Visual Resource Management System, Central Section 3.9-15

Figure 3.9-7 BLM Visual Resource Management System, North Section 3.9-16

Figure 3.9-8 KOPs within SNP (West) and Tucson Mountain Park 3.9-18

Figure 3.9-9 Dark Sky Locations, Scientific Observatories, and Recreational Star-gazing Location within 50 Miles of the AVE..... 3.9-20

Figure 3.9-10 Compatibility with BLM Visual Resource Management System, North Section..... 3.9-32

Figure 3.10-1 FHWA Predicted National MSAT Trends 2010-2050 for Vehicles Operating on Roadways..... 3.10-4

Figure 3.10-2 South Section NAAs and Maintenance Areas 3.10-10

Figure 3.10-3 Central Section NAAs and Maintenance Areas 3.10-12

Figure 3.10-4 North Section NAAs and Maintenance Areas..... 3.10-13

Figure 3.10-5 South Section Class I Areas 3.10-14

Figure 3.10-6 Annual Statewide Highway Emissions of Carbon Dioxide 3.10-15

Figure 3.10-7 Annual Statewide Highway Emissions of Oxides of Nitrogen and Volatile Organic Compounds 3.10-15

Figure 3.10-8 Annual Statewide Highway Emissions of Particulate Matter..... 3.10-16

Figure 3.10-9 FHWA PM₁₀ Emissions Factors by Speed for Light-Duty Vehicles and Trucks, 2018 3.10-17

Figure 3.10-10 Corridor Alternatives and NAAs and Maintenance Areas 3.10-20

Figure 3.13-1 South Section Sensitive Waters, Impaired Waters, and Groundwater Resources..... 3.13-8

Figure 3.13-2 Central Section Sensitive Waters, Impaired Waters, and Groundwater Resources..... 3.13-9

Figure 3.13-3 North Section Sensitive Waters, Impaired Waters, and Groundwater Resources..... 3.13-10

Figure 3.13-4 South Section Potential Waters of the US and Wetlands 3.13-12

Figure 3.13-5 Central Section Potential Waters of the US and Wetlands 3.13-13

Figure 3.13-6 North Section Potential Waters of the US and Wetlands 3.13-14

Figure 3.13-7 South Section Floodplains 3.13-16

Figure 3.13-8 Central Section Floodplains 3.13-17

Figure 3.13-9 North Section Floodplains 3.13-18

Figure 3.14-1 Biotic Communities – South Section 3.14-5

Figure 3.14-2 Biotic Communities – Central Section 3.14-6

Figure 3.14-3 Biotic Communities – North Section..... 3.14-7

Figure 3.14-4 Large Intact Block Clusters 3.14-22

Figure 3.14-5 Detailed and Other Wildlife Linkage Designs – South Section 3.14-23

Figure 3.14-6 Detailed Linkage Designs – Central Section 3.14-24

Figure 3.14-7 Detailed Linkage Designs – North Section 3.14-25

Figure 3.17-1 Purple Alternative Area of Influence..... 3.17-4



Figure 3.17-2 Green Alternative Area of Influence 3.17-5

Figure 3.17-3 Orange Alternative Area of Influence 3.17-6

Figure 3.17-4 Reasonably Foreseeable Future Actions 3.17-21

Figure 4-1 Purple Alternative..... 4-2

Figure 4-2 Green Alternative 4-3

Figure 4-3 Orange Alternative 4-4

Figure 4-4 Section 4(f) Properties in the Study Area 4-28

Figure 4-5 Bradshaw-Harquahala Planning Area Map 4-41

Figure 4-6 Build Corridor Alternatives near Vulture Mountains RMZ 4-42

Figure 4-7 Section 4(f) Properties in Build Corridor Alternatives – South Section..... 4-51

Figure 4-8 Section 4(f) Properties in Build Corridor Alternatives – Central Section..... 4-52

Figure 4-9 Section 4(f) Properties in Build Corridor Alternatives – North Section 4-53

Figure 4-10 La Mar Park – Orange Alternative (Accommodate in the Corridor)..... 4-62

Figure 4-11 Julian Wash Greenway and Archaeological Park – Orange Alternative (Accommodate in the Corridor) 4-62

Figure 4-12 Francisco Elias Esquer Park – Orange Alternative (Accommodate in the Corridor) 4-63

Figure 4-13 Sweetwater Wetlands Park and US Department of Agriculture Plant Materials Center – Orange Alternative (Accommodate in the Corridor) 4-63

Figure 4-14 Rillito River Park – Orange Alternative (Accommodate in the Corridor)..... 4-64

Figure 4-15 Canada Del Oro River Park, Ted Walker Park, and Santa Cruz River Park – Orange Alternative (Accommodate in the Corridor)..... 4-64

Figure 4-16 Canoa Ranch Rural Historic District (Historic Hacienda de la Canoa) – Green and Orange Alternatives (Accommodate in the Corridor) 4-65

Figure 4-17 Rillito Vista Park – Orange Alternative (Accommodate in the Corridor) 4-65

Figure 4-18 San Lucas Community Park – Orange Alternative (Accommodate in the Corridor) 4-66

Figure 4-19 Pinal County West Jim Kortsen Park – Orange Alternative (Accommodate in the Corridor) 4-66

Figure 4-20 Buckeye Hills Regional Park, Robbins Butte Wildlife Area, and PLO 1015 Lands – Green or Orange Alternative (Accommodate in the Corridor) 4-67

Figure 4-21 PLO 1015 Land Parcels – Purple Alternative (Accommodate in the Corridor) 4-67

Figure 4-22 Otero Cemetery – Purple, Green, or Orange Alternative (Accommodate in the Corridor)..... 4-68

Figure 4-23 Tumacacori National Historic Park and Tumacacori National Monument and Museum – Purple, Green, or Orange Alternative (Accommodate in the Corridor)..... 4-68

Figure 4-24 Picacho Peak State Park and Picacho Pass Skirmish Site Overland Mail Co. Stage Station at Picacho Pass – Purple or Orange Alternative (Accommodate in the Corridor) 4-69

Figure 4-25 Pima Community College Desert Vista Campus – Orange Alternative (Accommodate in the Corridor) 4-69

Figure 4-26 Cortaro Farms Canal – Orange Alternative (Grade-Separate the



	Corridor)	4-70
Figure 4-27	Palo Verde Regional Park – Recommended, Purple, or Green Alternative (Shift the Corridor)	4-71
Figure 4-28	Anamax Park – Recommended, Green, or Orange Alternative (Shift the Corridor)	4-71
Figure 4-29	Downtown Tucson Section 4(f) Properties – Orange Alternative	4-74
Figure 4-30	Tucson Mitigation Corridor – Purple or Green (CAP Design Option) Alternative	4-78
Figure 5-1	Online Comment Tool – Welcome Page	5-22
Figure 5-2	Online Comment Tool – Comment Map Page	5-23
Figure 6-1	Tier 1 EIS Decision Steps	6-1
Figure 6-2	Corridor Shifts	6-13
Figure 6-3	Anamax Corridor Shift	6-17
Figure 6-4	Recommended Alternative	6-19



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Acronyms and Abbreviations

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
100 MVMT	One hundred million vehicle miles of travel
4(f)	Section 4(f) of the USDOT Act of 1996 pertains to protecting public parks, recreation areas, wildlife and waterfowl refuges and historic sites.
4WD	4-wheel drive
AAC	Arizona Administrative Code
AADT	Annual Average Daily Traffic
ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AGFD	Arizona Game and Fish Department
Ak-Chin	Ak-Chin Indian Community
AMA	Active Management Area
amsl	Above Mean Sea Level
AOI	Area of Influence
APE	Area of Potential Effects
AQRV	Air Quality Related Value
Arizona Model	Arizona Statewide Travel Demand Model
ARS	Arizona Revised Statute
ASLD	Arizona State Land Department
ASTM	ASTM International
AVE	Area of Visual Effect
AWLWG	Arizona Wildlife Linkages Working Group
AZ	Arizona
AZDA	Arizona Department of Agriculture
AZGS	Arizona Geological Survey
AZPDES	Arizona Pollutant Discharge Elimination System
BLM	Bureau of Land Management
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe Railroad
BUILD	Better Utilizing Investments to Leverage Development
CA	Cooperating Agency
CAA	Clean Air Act
CAG	Central Arizona Governments



CAP	Central Arizona Project
CAVSARP	Central Area Valley Storage and Recovery Project
CAWCD	Central Arizona Water Conservation District
CCA	Candidate Conservation Agreement
CDP	Census Designated Places
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Resource Conservation and Liability Act
CESA	Cumulative Effects Study Area
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CT	Census Tract
CWA	Clean Water Act
dBA	a-weighted decibel
DOT	Department of Transportation
DPS	Distinct Population Segment
Draft Tier 1 EIS	Draft Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Summary
EPA	Environmental Protection Agency
ERMA	Extensive Recreation Management Area
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FAST Act	Fixing America's Surface Transportation Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
FR	Federal Register
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FUDS	Formerly Used Defense Site
FUP	Floodplain Use Permit
g	Standard Gravity
GHG	Greenhouse Gas
GIS	Geographic Information System
GMU	Game Management Unit
GRP	Gross Regional Product



HCP	Habitat Conservation Plan
HDMS	Heritage Data Management System
Hwy	Highway
I	Interstate
IBA	Important Birding Areas
IWCS	Intermountain West Corridor Study
KOP	Key Observation Point
LE	Listed as Endangered under the ESA
LEDPA	Least Environmentally Damaging Practicable Alternative
LEP	Limited English Proficiency
LIB	Large Intact Blocks
LOS	Level of Service
LPOE	Land Port of Entry
LT	Listed as Threatened under the ESA
LU	Landscape Unit
LUST	Leaking Underground Storage Tank
LWCFA	Land and Water Conservation Fund Act
MAG	Maricopa Association of Government
MAP-21	Moving Ahead for Progress in the 21st Century Act
MBTA	Migratory Bird Treaty Act
mi	miles
MPC	Master Planned Community
mph	miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Stormwater Sewer System
MSAT	Mobile Source Air Toxic
MVMT	million vehicle miles of travel
MW	Megawatt
N/A	Not Applicable
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NAR	Noise Abatement Requirements
NDOT	Nevada Department of Transportation
NEPA	National Environmental Policy Act
NF	National Forest
NHL	National Historic Landmark
NHP	National Historical Park



NHPA	National Historic Preservation Act
NHT	National Historic Trail
NM	National Monument
NO ₂	Nitrogen Dioxide
NOI	Notice of Intent
NP	National Park
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
NWR	National Wildlife Refuge
O&M	Operations and Maintenance
O ₃	Ozone
OAW	Outstanding Arizona Water
°C	degrees Celsius
°F	degrees Fahrenheit
OHV	Off-highway vehicle
PA	Programmatic Agreement
PAG	Pima Association of Governments
PDO	property damage only
PEL	Planning and Environmental Linkage
PGA	Peak Ground Acceleration
Pima	Listed by Pima County as Sensitive (as used in as used in Special Status Species tables)
PLO	Public Land Order
PM	Particulate Matter
PM ₁₀	Particulate Matter less than ten microns
PM _{2.5}	Particulate Matter less than 2.5 microns
ppb	parts per billion
PPC	Pima pineapple cactus
ppm	parts per million
Project Team	Federal Highway Administration, Arizona Department of Transportation, and their consultants
PWS	Public Water Systems
RCRA	Resource Conservation and Recovery Act
Reclamation	Bureau of Reclamation
REMI	Regional Economic Models, Inc.



RMP	Resource Management Plan
ROD	Record of Decision
ROW	right-of-way
RTC	Regional Transportation Commission of Southern Nevada
RTP	Regional Transportation Plan
S	Sensitive (as used in Special Status Species tables)
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAVSARP	Southern Area Valley Storage and Recovery Project
SC	Species of Concern (as used in the Special Status Species tables)
SCIP	San Carlos Irrigation Project
SCMPO	Sun Corridor Metropolitan Planning Organization
SDCP	Sonoran Desert Conservation Plan
SDNM	Sonoran Desert National Monument
SDWA	Safe Drinking Water Act
SEAGO	South Eastern Arizona Governments Organization
Section 106	A portion of the National Historic Preservation Act
Section 6(f)	The section of the 1965 Land and Water Conservation Fund Act
SERI	Species of Economic and Recreational Importance
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SNP	Saguaro National Park
SPRR	Southern Pacific Railroad
SR	State Route
SRMA	Special Recreation Management Area
SSA	Sole Source Aquifer
STIP	State Transportation Improvement Program
STRAHNET	Strategic Highway Network
Study Area	I-11 Corridor Study Area
SWAP	Arizona State Wildlife Action Plan 2012 – 2022
TCE	temporary construction easement
TI	Traffic Interchange
TIP	Transportation Improvement Plan
TMC	Tucson Mitigation Corridor
TNM	Traffic Noise Model
TW	Tucson Water
UPRR	Union Pacific Railroad
US	United States



US Institute	US Institute for Environmental Conflict Resolution
USACE	United States Corps of Engineers
USAF	United States Air Force
USC	United States Code of Federal Regulations
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
VIA	Visual Impact Assessment
VMRA	Vulture Mountain Recreation Area
VMRA	Vulture Mountain Recreation Area (geographical area)
VMRMZ	Vulture Mountain Recreation Management Zone
VMT	vehicle miles traveled
VP	Viewpoint
vpd	vehicles per day
VQMP	Visual Quality Management Plan
VRI	Visual Resources Inventory
VRM	Visual Resource Management
VRP	Voluntary Remediation Program
Western	Western Area Power Administration
WQARF	Water Quality Assurance Revolving Fund
WUS	Waters of the US