## Preparers

The following list identifies major contributors in the preparation of the FEIS.

<table>
<thead>
<tr>
<th>Name</th>
<th>Contribution</th>
<th>Title</th>
<th>Highest Education/Degree</th>
<th>Years/Experience</th>
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<tbody>
<tr>
<td>Jennifer Brown</td>
<td>Senior oversight</td>
<td>Team Leader – Transportation System Performance</td>
<td>MSCE</td>
<td>17 years transportation safety and operations</td>
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<tr>
<td>Kenneth Davis*</td>
<td>Senior oversight</td>
<td>Senior Engineering Manager</td>
<td>BS Civil Engineering</td>
<td>44 years highway and transportation projects</td>
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<tr>
<td>Tom Deitering, PE</td>
<td>Senior oversight</td>
<td>Team Lead – Project Delivery</td>
<td>BS Civil Engineering</td>
<td>16 years highway and transportation projects</td>
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<tr>
<td>Mary Frye*</td>
<td>Senior oversight</td>
<td>Environmental Protection Specialist</td>
<td>MA American History</td>
<td>24 years cultural resource compliance, National Park Service, park planning</td>
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<td>Alan Hansen, PE</td>
<td>Senior oversight</td>
<td>Team Lead – Planning, Environment, Air Quality, and Realty</td>
<td>BS Civil Engineering</td>
<td>27 years highway and transportation projects</td>
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<tr>
<td>Robert Hollis*</td>
<td>Senior oversight</td>
<td>Arizona Division Administrator</td>
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<td>Aryan Lirange, PE</td>
<td>Senior oversight</td>
<td>Senior Urban Engineer</td>
<td>BE Civil Engineering</td>
<td>19 years highway and transportation projects</td>
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<td>Lisa Neie</td>
<td>Senior oversight</td>
<td>Civil Rights Specialist</td>
<td>MPA</td>
<td>27 years civil rights</td>
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<td>Meesa Otani</td>
<td>Senior oversight</td>
<td>Environmental Coordinator</td>
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<td>Layne Patton</td>
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<td>Realty Officer</td>
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<td>36 years engineering, real estate, transportation, land acquisition</td>
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<td>Karla S. Petty</td>
<td>Senior oversight</td>
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<td>Ed Stillings</td>
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<td>Steve Thomas*</td>
<td>Senior oversight</td>
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<td>AA Mechanical/Civil Engineering</td>
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<td>Romare Truely</td>
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<td>Community Planner</td>
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<td>Bill Vachon*</td>
<td>Senior oversight</td>
<td>Senior Transportation Engineer</td>
<td>BS Civil Engineering</td>
<td>32 years highway and transportation projects</td>
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<tr>
<td>Rebecca Yedlin</td>
<td>Senior oversight</td>
<td>Environmental Coordinator</td>
<td>JD Environmental Law</td>
<td>13 years NEPA compliance, environmental planning</td>
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### Arizona Department of Transportation

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<tr>
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<tr>
<td>Lisa M. Andersen</td>
<td>Air quality</td>
<td>District Environmental Coordinator</td>
<td>BS Zoology</td>
<td>22 years environmental compliance, air quality</td>
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<tr>
<td>Carmelo Acevedo, PE</td>
<td>Project manager</td>
<td>Senior Project Manager, Urban Project Management</td>
<td>JD Civil Engineering</td>
<td>37 years civil engineer, attorney</td>
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<td>Thor Anderson</td>
<td>Strategic oversight</td>
<td>Planning and Environmental Linkages Program Manager</td>
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<td>Oliver Antony, PE*</td>
<td>Roadway design</td>
<td>Design Review Engineer</td>
<td>MS Civil Engineering</td>
<td>53 years freeway design</td>
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<tr>
<td>Brock Barnhart</td>
<td>Agency and community oversight</td>
<td>Assistant Communications Director</td>
<td>BA Business</td>
<td>11 years communication, community relations, public involvement</td>
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<tr>
<td>Emily Blinkhorn*</td>
<td>Reviewer</td>
<td>Environmental Planner II, Noise Specialist</td>
<td>BA Fine Arts</td>
<td>14 years NEPA compliance for highway and transportation projects</td>
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<td>Misty Daytie</td>
<td>Cultural sensitivity</td>
<td>Tribal Planner and Coordinator</td>
<td>BS Business</td>
<td>9 years transportation projects, tribal planning and coordination</td>
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<td>Dee Bowling</td>
<td>Reviewer</td>
<td>Enhancement Project Manager</td>
<td>BS Wildlife Biology</td>
<td>24 years NEPA compliance for highway and transportation projects</td>
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<td>Michael Braden, PE*</td>
<td>Project manager</td>
<td>Transportation Manager, Valley Project Management</td>
<td>BS Mining Engineering</td>
<td>27 years highway and transportation projects</td>
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<td>Matt Burdick</td>
<td>Agency and community oversight</td>
<td>Communications Director</td>
<td>MS Mass Communications</td>
<td>17 years communication in community relations, media relations</td>
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<td>Brent Cain, PE</td>
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<td>Dennis Crandall</td>
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<td>Linda Davis</td>
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<td>Mike Dennis*</td>
<td>Air/Noise</td>
<td>Air and Noise Specialist III</td>
<td>BS Engineering Geology</td>
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<td>Darlene Dyer*</td>
<td>Reviewer</td>
<td>Environmental Planner III, Biologist</td>
<td>BS Ecology and Systematic Biology</td>
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<td>Eddie Edison</td>
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<td>Ralph Ellis</td>
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<td>Tammy Flaxit</td>
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<td>Fred Garcia*</td>
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<td>Rados Gluscevic</td>
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<td>Ruth Greenspan, PhD</td>
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<td>Melissa Maefski*</td>
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<td>BS Wildlife and Fisheries Sciences</td>
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<td>Mike Manthey, PE*</td>
<td>Traffic design</td>
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<td>Merrisa Maris</td>
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<td>Velvet Mathew, PE</td>
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<td>Victor Mendez*</td>
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<td>Paul O'Brien, PE</td>
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<td>Reggie Rector</td>
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<td>Barney Remington*</td>
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<td>Angela Roach, PhD*</td>
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<td>Floyd Roehrich, Jr.</td>
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<tr>
<td>Shannon Scutari*</td>
<td>Strategic oversight</td>
<td>Director of Rail and Sustainability Services</td>
<td>JD/ MBA</td>
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<td>Timothy Tait</td>
<td>Community oversight and public involvement</td>
<td>Community Relations Manager</td>
<td>MS EdD Leadership/Crisis Management Organizational Leadership</td>
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<td>Tom Tortice, PE</td>
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<td>Jennifer Toth, PE</td>
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<td>Justin White</td>
<td>Biology</td>
<td>Roadside Resources Program Manager</td>
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<td>Nan Wilcox*</td>
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<td>Pe-Shen Yang, PE</td>
<td>Bridge design</td>
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<td>Sallie Diebolt</td>
<td>Cooperating agency oversight</td>
<td>Chief, Arizona Branch</td>
<td>BS Biology</td>
<td>17 natural resource management</td>
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<td>Dana Owstynn, PE*</td>
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<td>Kathleen Tucker</td>
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<td>ADOT Liaison</td>
<td>MS Biological Sciences and Environmental Resources</td>
<td>18 landscape architecture, natural resource management</td>
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<td>Stacey Begay</td>
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<td>Beau J. Goldstein</td>
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<td>Amy Heuslein</td>
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<td>Branch Chief, Environmental Quality Services</td>
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<td>Chip Lewis</td>
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<td>Cecelia Martinez</td>
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<td>Superintendent, Pima Agency</td>
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<td>Bob Maxwell</td>
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<td>Rodney McVey</td>
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<td>Peter R. Overton</td>
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<td>Agency Environmental Protection Specialist</td>
<td>BS Agriculture</td>
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<td>David R. Smith</td>
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<td>Jonah Walker</td>
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<td>Pima Agency, Real Estate Services</td>
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<tr>
<td>Matthew Bilsbarrow</td>
<td>Cooperating agency oversight</td>
<td>Archaeologist</td>
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<td>Danielle Brooks</td>
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<td>Carla Christelli*</td>
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<td>John Holt*</td>
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<td>Environmental Technical Manager</td>
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<td>Linda Marianito</td>
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<td>Environmental Division Manager</td>
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<td>Eric Anderson</td>
<td>MPO planning</td>
<td>Transportation Director</td>
<td>MS Economics</td>
<td>34 transportation, policy projects</td>
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<tr>
<td>Carly Arthur</td>
<td>Air Quality</td>
<td>MAG Associate</td>
<td>MA Urban Studies</td>
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<td>Lindy Bauer</td>
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<td>Dean Giles</td>
<td>Air Quality</td>
<td>Air Quality Planning Program Specialist</td>
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<td>Robert Hazlett, PE</td>
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<td>Chaun Hill, PE</td>
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<td>33 highway, roadway, and transportation project management</td>
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<td>Vladimir Livshits</td>
<td>MPO planning</td>
<td>System Analysis Program Manager</td>
<td>PhD Transportation Planning and Economics</td>
<td>31 transportation demand modeling, planning</td>
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<td>Matt Poppen</td>
<td>Air Quality</td>
<td>Senior Air Quality Policy Manager</td>
<td>MUEP Masters of Urban and Environmental Planning</td>
<td>15 years of experience in air quality planning</td>
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<tr>
<td>Nathan Pryor</td>
<td>MPO planning</td>
<td>Government Relations Manager</td>
<td>MPA Public Administration</td>
<td>15 government relations and as public policy analyst</td>
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<tr>
<td>Roger Roy</td>
<td>Traffic volume projections</td>
<td>Decision Support Analyst III</td>
<td>BS Physics</td>
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<td>Mark Schappi, PE*</td>
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<td>System Analysis Program Manager</td>
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<td>35 transportation planning, travel demand modeling, highway and transit analysis, truck travel, air quality evaluations</td>
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<tr>
<td>Kelly Taft, APR</td>
<td>MPO planning</td>
<td>Communications Manager</td>
<td>BA Broadcast Journalism (telecommunications)</td>
<td>32 Accredited in public relations with experience in journalism, communications, public involvement, community relations</td>
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**Mariopa Association of Governments**

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<td>Mark Brodbeck, RPA</td>
<td>Technical lead, cultural resources</td>
<td>Cultural Resources Coordinator, Professional Associate</td>
<td>MA Anthropology</td>
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<td>Patricia Brown, PE*</td>
<td>Roadway</td>
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<td>Praveen Chanda, PE</td>
<td>Traffic</td>
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<td>Faisal Chowdhury, PE*</td>
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<td>Richard Christopher</td>
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<td>Jeremy Cook</td>
<td>Socioeconomics</td>
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<td>Elisa Core, PE*</td>
<td>Drainage</td>
<td>Water Resources Engineer</td>
<td>BS Civil Engineering</td>
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<tr>
<td>Amelia Edwards, PE*</td>
<td>EIS author</td>
<td>Civil Engineer, Senior Professional Associate</td>
<td>MS Civil Engineering</td>
<td>24 roadway design, NEPA compliance for highway projects</td>
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<tr>
<td>Terry Gruver</td>
<td>Public involvement</td>
<td>Senior Public Involvement Specialist</td>
<td>BS Business Administration</td>
<td>27 communications and communications strategy</td>
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<tr>
<td>Greta Halle*</td>
<td>Mitigation measures</td>
<td>Senior Environmental Planner</td>
<td>BA/BS Life Sciences/Psychology</td>
<td>14 NEPA planning</td>
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<tr>
<td>Joel P. Hennings*</td>
<td>Hazardous materials</td>
<td>Hazardous Material Specialist, Environmental Planner</td>
<td>BS Environmental Science</td>
<td>12 evaluation and management of hazardous materials</td>
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<tr>
<td>Eric Herman*</td>
<td>Biology</td>
<td>Environmental Planner</td>
<td>MS Environmental Planning</td>
<td>8 biology, GIS review of technical reports, photography</td>
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<tr>
<td>Kelly W. Kading</td>
<td>Hazardous materials</td>
<td>Regional Hazardous Materials Services Manager, Professional Associate</td>
<td>BS Geology</td>
<td>27 hazardous waste assessment and management</td>
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<tr>
<td>Michael LaBianca, AICP</td>
<td>Technical lead, social conditions</td>
<td>Planner</td>
<td>MEP Environmental Planning</td>
<td>28 land use planning, environmental, and public outreach projects</td>
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<td>Nicholas LaFronz, PE</td>
<td>Technical lead, geotechnical</td>
<td>Senior Geotechnical Program Manager</td>
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<tr>
<td>Scott Marx, PE*</td>
<td>Technical lead, water resources, waters of the United States, floodplains, prime and unique farmlands</td>
<td>Project Manager</td>
<td>MS Water Resources</td>
<td>24 water resources planning, hydrology, water quality, water rights, wetland ecology, soil erosion</td>
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<td>Gregg Mitchell, RG</td>
<td>Geotechnical, geology</td>
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<td>BS Environmental Resources</td>
<td>25 engineering, geology, environmental geology, hazardous waste assessment and management</td>
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<td>Renee Mulholland</td>
<td>Waters of the United States</td>
<td>Environmental Planner</td>
<td>ME-ERM Earth and Environmental Resources Management</td>
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<td>Laura Paty, RLA</td>
<td>Social conditions, document production</td>
<td>Landscape Architect</td>
<td>BS Design Science in Landscape Architecture and Planning</td>
<td>29 landscape architectural design, site planning, master planning, design guidelines, landscape character analysis</td>
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<td>Curt Overcast</td>
<td>Air Quality</td>
<td>Senior Environmental Planner</td>
<td>MS Environmental Science Public Administration</td>
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<tr>
<td>Carl Petrich*</td>
<td>Lead editor, visual resources</td>
<td>Senior Environmental Planner, Professional Associate</td>
<td>MLA/ MBA Landscape Architecture/ Business Administration</td>
<td>36 landscape architecture, environmental and energy planning, business research, technical editing</td>
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<td>Susanna Schippers</td>
<td>Editor</td>
<td>Technical Editor</td>
<td>BA Creative Writing</td>
<td>16 journalism, technical editing, public involvement</td>
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<tr>
<td>Ben Spargo, PE</td>
<td>Project Manager</td>
<td>Project Manager</td>
<td>MS Civil Engineering</td>
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<td>Scott Stapp</td>
<td>Senior oversight</td>
<td>Environmental Section Manager</td>
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<td>36 air quality, hazardous materials, noise, land use, prime and unique farmland, secondary and cumulative impacts, cultural resources, socioeconomic/Title VI/environmental justice</td>
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<td>Audrey Unger</td>
<td>Section 4(f) evaluation</td>
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<td>MS Environmental Planning</td>
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<td>Dustin D. Watson*</td>
<td>Technical lead, noise impacts</td>
<td>Environmental Planner/Noise and Air Quality Specialist</td>
<td>MS Environmental Planning</td>
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<td>Kurt Watzek</td>
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<td>MLA Landscape Architecture</td>
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<td>Karen Wiggleworth, GISP*</td>
<td>Technical lead, GIS analysis</td>
<td>GIS Manager/SW Regional GIS Coordinator, Professional Associate</td>
<td>BS Anthropology</td>
<td>28 database management, spatial analysis, oversight of cartographic products</td>
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<tr>
<td>Mark Wollschlager, Attorney*</td>
<td>Senior reviewer</td>
<td>Technical Director – Environmental Review and Permitting</td>
<td>JD Law</td>
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**AMEC Earth & Environmental**

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<tr>
<td>Richard Bansberg, PG</td>
<td>Geotechnical and hazardous materials</td>
<td>Senior Geologist</td>
<td>BA Earth Sciences</td>
<td>20 environmental assessments, environmental compliance audits, hydrogeologic site characterization studies</td>
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<td>Kenneth C. Fensong, PG</td>
<td>Geotechnical and hazardous materials</td>
<td>Staff Geologist</td>
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<td>11 geotechnical investigations for buildings, characterization of subsidence and subsidence-related phenomena</td>
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<tr>
<td>Lawrence A. Hansen, PhD, PE</td>
<td>Technical lead, geotechnical and hazardous materials</td>
<td>Senior Vice President</td>
<td>PhD Geotechnical Engineering</td>
<td>30 evaluation of geotechnical conditions; experience in investigation, design, construction, and performance monitoring</td>
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<tr>
<td>Marcie Martin</td>
<td>Geotechnical and hazardous materials</td>
<td>Environmental Planner</td>
<td>MS Environmental Management and Industrial Hygiene</td>
<td>15 environmental regulatory compliance biological reviews, Clean Water Act permitting</td>
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<tr>
<td>Shandra Wagner</td>
<td>Geotechnical and hazardous materials</td>
<td>Environmental Scientist</td>
<td>BS Geological Engineering</td>
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<td>Ralph E. Weeks, PG</td>
<td>Geotechnical and hazardous materials</td>
<td>Senior Geologist</td>
<td>BS Geology</td>
<td>40 evaluation of geologic hazards, site selection, hydrogeologic, environmental, environmental, and geotechnical characterization, design development, construction</td>
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<tr>
<td>Natalya Hyland, PE</td>
<td>Utilities</td>
<td>Transportation Group Manager</td>
<td>BS Civil Engineering</td>
<td>29 highway design, transportation projects</td>
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<tr>
<td>Sam Lowe</td>
<td>Mapping and aerial photography</td>
<td>Associate of Photogeometric Applications</td>
<td>AA Civil Engineering</td>
<td>45 mapping and surveying in the transportation industry</td>
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<td>Gila River Cultural Resource Management Program</td>
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<td>Chris Loendorf, PhD</td>
<td>Cultural resources</td>
<td>Project Manager/Archaeologist</td>
<td>PhD Anthropology</td>
<td>33 cultural resources management</td>
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<tr>
<td>Kyle Woodson, PhD</td>
<td>Cultural resources</td>
<td>Director (Acting)</td>
<td>PhD Anthropology</td>
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<td>Gann Communications</td>
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<td>Theresa E. Gunn</td>
<td>Public involvement</td>
<td>Public Involvement Coordinator</td>
<td>MA Organizational Management</td>
<td>22 designing and implementing public involvement and outreach programs</td>
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<td>Jacobs Engineering, Inc.</td>
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<td>Jack Allen</td>
<td>Senior oversight, EIS author</td>
<td>EIS Author, NEPA Strategist</td>
<td>BA Natural Resource Management</td>
<td>28 NEPA compliance for highway and transportation projects</td>
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<td>Dorothy Bungert</td>
<td>Lead, document design and production</td>
<td>Senior Graphic Designer</td>
<td>BFA Graphic and Computer Design</td>
<td>33 graphic design management</td>
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<td>Heather L. Homsberger</td>
<td>Public involvement, document production</td>
<td>Senior Public Involvement Specialist</td>
<td>BA/BA Environmental Studies/ Politics, Philosophy, Law</td>
<td>16 communication of technical information</td>
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<td>Logan Simpson Design Inc.</td>
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<td>Diane Simpson-Colebank, RLA</td>
<td>Technical lead, visual resources</td>
<td>Senior Landscape Architect</td>
<td>MLA Master Landscape Architect</td>
<td>14 environmental issues, planning, assessments, public involvement, documentation, design</td>
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<td>Patrick Higgins, RLA*</td>
<td>Noise, air, social conditions</td>
<td>Senior Landscape Architect</td>
<td>MPA Public Administration</td>
<td>41 noise level and air quality assessments, visual assessment, NEPA compliance for highway and transportation projects</td>
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<tr>
<td>Mark Meyer, RLA*</td>
<td>Visual resources</td>
<td>Senior Environmental Planner</td>
<td>MS Natural Sciences</td>
<td>30 design and environmental planning including visual resource analysis, natural resource planning, NEPA documentation</td>
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<td>J. Andrew Darling, PhD</td>
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<td>Traffic Research &amp; Analysis, Inc.</td>
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<td>David Pekara</td>
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<td>Dennis Haase</td>
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<td>Janis Burall</td>
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<td>BFA</td>
<td>Advertising Art</td>
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<td>Gary Mitchell, AICP</td>
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<td>Director of Urban Planning Services</td>
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<td>Naina Magon, AICP</td>
<td>Socioeconomics</td>
<td>Senior Planner</td>
<td>MA</td>
<td>Urban and Regional Planning</td>
<td>14 comprehensive and land use planning, population and employment forecasting, socioeconomic analyses, transportation planning, parks planning, GIS applications</td>
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ABBREVIATIONS AND ACRONYMS

101L Loop 101
202L Loop 202
303L Loop 303
A.A.C. Arizona Administrative Code
A.A.D.T. average annual daily traffic
AASHTO American Association of State Highway and Transportation Officials
ACHP Advisory Council on Historic Preservation
ADA Arizona Department of Agriculture
ADEQ Arizona Department of Environmental Quality
ADOT Arizona Department of Transportation
ADT average daily traffic
ADWR Arizona Department of Water Resources
AGFD Arizona Game and Fish Department
AMA Active Management Area
A.R.S. Arizona Revised Statutes
ARS Avenida Rio Salado
ASLD Arizona State Land Department
ASM Arizona State Museum
AZ Arizona
AZPDES Arizona Pollutant Discharge Elimination System
BIA U.S. Bureau of Indian Affairs
BLM Bureau of Land Management
BMP best management practice
Bulletin #38 National Register Bulletin #38
BWCDCD Buckeye Water Conservation and Drainage District
CAA Clean Air Act
CCC Civilian Conservation Corps
CEQ Council on Environmental Quality
C.F.R. Code of Federal Regulations
cfu cubic feet per second
CO carbon monoxide
CO₆ carbon dioxide
Community Gila River Indian Community
CPMO Gila River Indian Community Communications and Public Affairs Office
CSS context-sensitive solutions
CRMP Gila River Indian Community Cultural Resource Management Program
CWA Clean Water Act
dBA A-weighted decibel
dBAeq hourly equivalent sound level
DCR design concept report
DEIS Draft Environmental Impact Statement
DEQ Gila River Indian Community Department of Environmental Quality
DPM diesel particulate matter
EI El Alternative
EA environmental assessment
EIS environmental impact statement
EPA U.S. Environmental Protection Agency
EPG Environmental Planning Group
ESA Endangered Species Act
et al. and others
FCA Foothills Community Association
FDPCM Flood Control District of Maricopa County
FEIS Final Environmental Impact Statement
FEMA Federal Emergency Management Agency
FHWA Federal Highway Administration
FO fiber optic
FPPL Fairground Protection Policy Act
g unit of acceleration
GHG greenhouse gas
gpd gallons per day
HAP hazardous air pollutant
HEI Health Effects Institute
HOV high-occupancy vehicle
HUD U.S. Department of Housing and Urban Development
IA Interstate 8
I-10 Interstate 10
I-17 Interstate 17
IGA intergovernmental agreement
kV kilovolt
LES Land Evaluation and Site Assessment
LOS level of service
LRTP Long-Range Transportation Plan
LUPZ Gila River Indian Community Land Use, Planning, and Zoning
LWCF Land and Water Conservation Fund
LWCFCA Land and Water Conservation Fund Act
MAG Maricopa Association of Governments
MAP-21 Moving Ahead for Progress in the 21st Century
MBTA Migratory Bird Treaty Act
MCACQ Maricopa County Air Quality Department
MCDDOT Maricopa County Department of Transportation
MF multifamily
mg/m³ micrograms per cubic meter
mg/L milligrams per liter
MH manufactured home
mpg miles per gallon
mph miles per hour
MS4 municipal separate storm sewer system
MSA mobile source air toxics
NAAQS National Ambient Air Quality Standards
NAC noise abatement criteria
NAP Noise Abatement Policy
n.d. no date
NEPA National Environmental Policy Act
NHPA National Historic Preservation Act
NO₂ nitrogen dioxide
NPS National Park Service
NRCS Natural Resources Conservation Service
NRHP National Register of Historic Places
NRSC Gila River Indian Community Natural Resources Standing Committee
OH Ohm
OHWM ordinary high water mark
OADT public/private partnership
PA planned area development
PADI programmatic agreement
PAG Pima Association of Governments
PAH polycyclic aromatic hydrocarbon
PCD planned community district
PM particulate matter
PM₂.⁵ particulate matter of 2.5 microns or less in diameter
PM₁₀ particulate matter of 10 microns or less in diameter
POM polycyclic organic matter
ppb parts per billion
ppm parts per million
Reclamation Bureau of Reclamation
RID Roserrell Irrigation District
ROD record of decision
RTP Regional Transportation Plan
R/W right-of-way
SAFE-TA-LU Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SEVRS Southeast Valley Regional Drainage System
SF single family
SFHA Special Flood Hazard Area
SGCN species of greatest conservation need
SHPO State Historic Preservation Officer/Organization
SHP State Implementation Plan
SMCAT South Mountain Citizens Advisory Team
SMCL secondary maximum contaminant level
SMMP Phoenix South Mountain Park/Preserve
SO₂ sulfur dioxide
SR State Route
SRP Salt River Project
STB State Transportation Board
SWPPP Stormwater Pollution Prevention Plan
TCP traditional cultural property
TDI transportation demand management
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<td>Tribal Historic Preservation Officer</td>
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<td>Title VI</td>
<td>Title VI of the Civil Rights Act of 1964</td>
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<td>Visual Assessment Unit</td>
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<td>volatile organic compound</td>
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<td>Western</td>
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<td>Water Quality Assurance Revolving Fund</td>
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accessible

acrolein

affected environment

allottees

alluvial

alluvial fan

alluvium

American Indian or Alaskan Native

aquatic

aquifer

Arizona Department of Environmental Quality (ADEQ)

Arizona Department of Transportation (ADOT)

arterial

asbestos-containing material

A-scale

Asian American

assessment viewpoint

at-grade roadway

automobiles

auxiliary lane

average travel time

background

barrier

bedrock

benzene

bioaccumulation

biotic community

Black/African American

blasting

bosque

buffer

1,3-butadiene

census block

carbonate

collaborative

collaboration

collaborative planning

collaborative approach

characteristic

cromium

citizens advisory team

collusion

collusive

collusion

collusive

common

community

Communit
community character
A set of parameters that creates a “sense of place” within a community. Factors contributing to community character are physical size, compatible land uses within the community, internal circulation, distinct but common architecture, and cultural activities.

community cohesion
The dynamic within a community that promotes internal neighborhood circulation to and from residences and community facilities, quasi-public facilities, and regularly required activities such as food shopping at local grocery stores.

congestion
Traffic volume on a road at sufficient densities to become detrimental to its performance; undesirable traffic conditions that exist when traffic on a freeway or street is moving at an average speed of 45 miles per hour or less, and/or the traffic flow is often stop and go.

constructive use
A type of use in which a transportation project’s proximity impacts (as opposed to its direct impacts) are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) of the Department of Transportation Act of 1966, as amended, are substantially impaired. Examples include a substantial increase in noise level, impaired aesthetic features or attributes, restriction on access that substantially diminishes the utility of the resource, and other indirect impacts on the resource’s environment or utility.

cooperating agency
Another agency—federal, state, or local—that has jurisdiction by law or special expertise over portions of the project area and that must make a decision on the proposed project.

Criterion A of the National Register of Historic Places
Cultural resources associated with events that have made a significant contribution to the broad patterns of our history.

Criterion B of the National Register of Historic Places
Cultural resources associated with the lives of persons significant in our past.

Criterion C of the National Register of Historic Places
Cultural resources embodying the distinctive characteristics of a type, period, or method of construction; or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion D of the National Register of Historic Places
Cultural resources that have yielded, or may be likely to yield, information important in prehistory or history. Generally, cultural resources eligible for the National Register of Historic Places under Criterion D are not eligible for protection under Section 4(f).

critical habitat
Critical habitat is defined in Section 3(5)(A) of the Endangered Species Act; critical habitat is a specific geographic area(s) essential for the conservation of a threatened or endangered species and that may require special management and protection.

cumulative impact
The impact on the environment that results from the incremental impact of the action when added to the other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period.

decibel (dB)
A logarithmic unit indicating the amount of sound energy. The approximate threshold of hearing is 0 dBA (A-weighted decibel), while the approximate threshold of pain is 140 dBA. Most suburban areas have daytime noise levels ranging from 50 dBA to 70 dBA.

delay per vehicle
The additional travel time experienced by a vehicle with reference to a base travel time (i.e., the free-flow travel time).

demographic
Relating to the vital and social statistics of a population, as in births, deaths, racial or ethnic composition, and related socioeconomic factors.

density
Number per unit of area.

design concept report
A study intended to guide future decisions regarding the ultimate improvements to a transportation facility, such as a highway, to meet the capacity, operational, and safety needs of the motoring public.

design year
The future year used to determine the probable traffic volume for which a highway and noise abatement are designed.

diesel particulate matter (DFM)
One of the seven priority mobile source air toxics designated by the U.S. Environmental Protection Agency. Diesel particulate matter is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is emitted from diesel engines in two phases. The first phase is composed of two phases. The particulate phase also has many different types of particles that can be classified or organization. Diesel exhaust is emitted from a broad range of diesel engines: the on-road diesel engines of trucks, buses, and cars and the off-road diesel engines that include locomotives, marine vessels, and heavy-duty equipment.

direct impact
A change in the physical, social, or economic environment that would be caused by the proposed action and would occur at the same time and same place as the action.

distinctiveness/vividness
A criterion for measuring visual quality. Distinctiveness is defined by the memorability of the visual impression received from the contrasting landscape elements as they combine to form a striking and distinctive visual pattern. Vividness is assessed according to spatial definition, landmarks, water forms/opiary features, presence of human-made features, topographic relief, skyline character, vegetation, and adjacent landforms and features.

diversity
The variety of species in a community; this also includes the relative abundance of each species. The number, variety, and intermixing of visual pattern elements.

dry well
An underground structure with stones or gravel inside that is used to collect stormwater runoff to avoid soil erosion. The collected water is dissipated into the ground, where it merges with the local groundwater.

Eastern Section
The portion of the Study Area located east of the common point.

elderly
Those persons age 65 and older; a demographic statistic tracked by the U.S. Census Bureau.

elevated roadway
A roadway constructed above the immediate surrounding terrain, either on an embankment or a structure.

eligible
Refers to properties that meet the National Park Service’s criteria for inclusion in the National Register of Historic Places.

emission
A substance discharged into the air, especially by an internal combustion engine.

environmental assessment (EA)
A federally mandated report that includes brief discussions of a project need, alternatives, environmental impacts associated with the alternatives, and a listing of individuals and agencies consulted. An EA is completed to see whether an environmental impact statement is needed.

environmental impact statement (EIS)
The project documentation prepared in accordance with the National Environmental Policy Act when a project is anticipated to have a significant impact on the environment.

ephemeral
Lasting only a short time; present only during a portion of the year; in last duration.

existing noise levels
The noise resulting from natural and mechanical sources and from other human activity usually present in a particular area; also known as ambient noise levels.

family
A group of two or more people who reside together and who are related by birth, marriage, or adoption.

fault
A fracture or fracture zone in the earth along which there has been movement of the rocks relative to one another.

fauna
The animal population of a particular area.

Federal Highway Administration (FHWA)
The branch of the U.S. Department of Transportation responsible for administering the Federal-aid Highway Program and the Federal Lands Highway Program. The programs provide financial resources and technical assistance for constructing, preserving, and improving the National Highway System along with other urban and rural roads.
fill  Earth used to create embankments or to raise low-lying areas to bring them to grade.

floodplain  The portion of a stream valley, adjacent to the channel, that is built of sediments deposited during the present regime of the stream and is covered with water when the stream overflows its banks at flood stage.

floodplain encroachment  An action within the limits of the 100-year floodplain.

floodway  That portion of the floodplain in which construction would raise the water level during a 100-year flood by more than 30 centimeters (1 foot). More generally, 1) a part of the floodplain, otherwise leveed, reserved for emergency diversion of water during floods; 2) a portion of the floodplain which, to facilitate the passage of floodwater, is kept clear of encumbrances.

flora  The plant population of a particular area.

form  The visual mass, bulk, or shape of an object.

formaldehyde  One of the seven priority mobile source air toxics designated by the U.S. Environmental Protection Agency. Formaldehyde is an important chemical used widely by industry to manufacture building materials and numerous household products, such as adding permanent-press qualities to clothing and draperies, as a component of glues and adhesives, and as a preservative in some paints and coating products. Formaldehyde also results from the incomplete combustion of carbon-containing materials such as in forest fires, in automobile exhaust, and in tobacco smoke. It may be present both indoors and outdoors. In the atmosphere, formaldehyde is produced by the action of sunlight and oxygen on atmospheric methane and other hydrocarbons. Small amounts of formaldehyde are produced as a metabolic byproduct in most organisms, including humans.

fracture  A crack, joint, or other break in rock.

fully directional interchange  All traffic movement in the traffic interchange has a dedicated ramp, ensuring free traffic flow in every direction.

germination  Referring to the use of scientific methods and engineering principles to acquire, interpret, and apply knowledge of earth materials for solving engineering problems.

granite  An intrusive igneous rock that is predominantly composed of quartz and feldspar.

granitic  Pertaining to, or composed of, granite.

groundwater  The part of the subsurface water that is in the zone of saturation.

habitat  Place where an animal or plant normally lives, often characterized by a dominant plant form or physical characteristic.

Hispanic/Latino  Of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Holocene  An epoch of the Quaternary period from the end of the Pleistocene, approximately 10,000 years ago, to present time.

income  Total amount of all and any wages, bonuses, and/or tips an individual receives in a given year.

independent utility  The ability of the proposed action to function as proposed, independent of other planned transportation-related projects in the region.

indirect impact  Changes that are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air, water, and other natural systems, including ecosystems.

intactness  A criterion for measuring visual quality. The integrity of visual order in the natural and made environment and the extent to which the landscape is free from visual encroachment of human-made elements.

intermittent  A stream that flows at only certain times of the year (not continuously) because of the balance between water losses from evaporation and seepage and actual streamflow.

jurisdiction  Refers to the territory over which authority is exercised.

Land and Water Conservation Fund Act (LWCF) and Section 6(f)  Passed by Congress in 1965, the Act established the Land and Water Conservation Fund, a matching assistance program providing grants paying half the acquisition and development cost of outdoor recreation sites and facilities. Section 6(f) of the Act prohibits the conversion of property acquired or developed with these grants to a nongenreational purpose without the approval of the U.S. Department of the Interior's National Park Service. A condition of conversion is that replacement lands of equal value, location, and usefulness are provided. This means that where conversions of Section 6(f) lands are proposed for highway projects, replacement lands are required.

last resort housing  On most projects, an adequate supply of housing would be available for sale or rent, and the benefits provided would be sufficient to enable relocation to comparable housing. However, there may be projects in certain locations where the supply of available housing is insufficient to provide the necessary housing for those persons being displaced. When a housing shortage occurs, the Arizona Department of Transportation would solve the problem by the administrative process called Housing of Last Resort (see Appendix 4-1 for more information).

level of service (LOS)  Level of service is a qualitative description of operation based on the degree of delay and maneuverability.

leukemogen  A substance tending to induce the development of leukemia.

L(eq)  The equivalent steady-state, A-weighted sound level which, in a stated period, would contain the same acoustical energy as the time-varying sound levels during the same period. The average noise level over a period.

last resort housing  A type of irrigation feature branching from a canal. Can be a lined or unlined ditch or pipe.

light trucks  All vehicles with two axles and four wheels, designed primarily for transportation of passengers and cargo. Generally, the gross vehicle weight is equal to or less than 6,000 pounds.

line  The edge of an object or a part of an object—the linear transitional demarcation between objects and between colors and textures.

listed species  Any species of fish, wildlife, or plant that has been determined to be endangered or threatened under Section 4 of the Endangered Species Act.

logical termi  Rational end points for a transportation project and for a review of environmental impacts.

long-term impact  Change that will be significant beyond 2035, which is the design year for the proposed South Mountain Freeway project.

low-income  Populations in households with an income at or below the U.S. Department of Health and Human Services poverty guidelines.
major viewpoint—A location from which the landscape is viewed where the view of distinct landforms/landmarks attracts attention away from the foreground area.

metamorphic rock—Any rock derived from preexisting rocks by mineralogical, chemical, and/or structural change in response to marked changes in temperature, pressure, shearing stress, and chemical environment.

methodology—A particular procedure or set of procedures.

micron—A metric unit of length equal to one millionth of a meter.

migration—To move from one country, place, or locality to another.

minority populations—People who identify themselves as Hispanic or Latino, Black or African American, American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific Islander, some other race, or more than one race.

mitigation—An action taken to reduce or eliminate an adverse impact stemming from construction, operation, or maintenance of a proposed action alternative. Mitigation could reduce the magnitude and extent of an impact from a level of significance to a level of insignificance. Mitigation includes:

Avoiding the impact altogether by not taking a certain action or parts of an action.

Minimizing impacts by limiting the degree of magnitude of the action and its implementation.

Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

Compensating for the impact by replacing or providing substitute resources or environments.

mobile source air toxics (MSATs)—The seven priority mobile source air toxics—acrolein; benzene; 1,3-butadiene; formaldehyde; naphthalene; polycyclic organic matter; and diesel particulate matter.

multidisciplinary process—A method using numerous professions or experts working together to solve a problem.

naphthalene—One of the seven priority mobile source air toxics designated by the U.S. Environmental Protection Agency. Naphthalene is a white, crystalline, volatile solid that converts directly to a gas without an intermediate liquid phase at room temperature so that it exists as a gas in the atmosphere. Naphthalene is produced from petroleum refining and coal tar distillation. Naphthalene is released to the air from the burning of coal and oil and from mothballs. Naphthalene is a component of tobacco smoke and vehicle exhaust. Its vapors are highly irritating to the eyes.

National Ambient Air Quality Standards (NAAQS)—Standards set by the U.S. Environmental Protection Agency to protect public health and welfare. These standards are set for pollutant concentrations that states, cities, and towns must meet by specified deadlines.

National Environmental Policy Act (NEPA)—The federal law, enacted in 1970, that established a national policy for the environment and requires federal agencies to become aware of the environmental ramifications of their proposed actions, to fully disclose to the public proposed federal actions, to provide a mechanism for public input to federal decision making, and to prepare environmental impact statements for every major action that would significantly affect the quality of the human environment.

National Historic Preservation Act (NHPA)—The primary federal law pertaining to the protection of cultural resources. An agency within the U.S. Department of the Interior, the NPS preserves the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of current and future generations. The NPS is responsible for the administration of the National Register of Historic Places. Under Section 6(f) of the Land and Water Conservation Fund Act, the NPS reviews land conversions for transportation projects that require replacement land.

National Register of Historic Places (NRHP)—The nation’s official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register of Historic Places is part of a program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archaeological resources. Properties listed in the National Register of Historic Places include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

National Trail—The backbone of the Phoenix South Mountain Park/Preserve trail system, stretching from the Pima Canyon Trailhead in the east to the San Juan Lookout in the west. Nearly every other trail in the park joins the National Trail at some point.

native—An indigenous plant or animal.

Native Hawaiian/Other Pacific Islander—Areas that have failed to meet the National Ambient Air Quality Standards.

nonpoint source—Pertains to the discharge of pollutants into waters or air where the pollutant sources come from an area rather than a single source that can be pinpointed.

occupancy—Housing unit inhabited as of April 1, 2000 (when the 2000 Census was taken).

off-road—Nonroad vehicles: aircraft, trains, boats, farm equipment, recreation, and construction equipment.

on-road—Cars, motorcycles, buses, light-duty trucks, and heavy-duty trucks.

overpass—A grade separation where the roadway passes over the cross street or rail line.

ozone (O₃)—A form of oxygen and a criteria pollutant that can develop when oxides of nitrogen, volatile organic compounds, and sunlight interact in the lower atmosphere. Ozone is a powerful oxidizing agent, and is thus biologically corrosive.

peak hour—The single morning or evening hour during which the maximum traffic volume occurs.

pediment—A broad, gently sloping erosion surface or plain of low relief, typically developed by running water, found in arid or semiarid regions at the base of abrupt and receding mountain fronts; it is underlain by bedrock that may be at the surface but is more often mantled with a thin veneer of alluvium derived from upland regions.

perched groundwater—Unconfined groundwater separated from the underlying main body of groundwater by unsaturated rock or alluvium.

perennial—Present throughout the year.

physiographic province—A region of which all parts are similar in geologic structure and climate, and which has had a unified geomorphic history; its relief features differ significantly from those of adjacent regions.

piedmont—Lying or formed at the base of a mountain or mountain range.

PM₁₀—Particulate matter of 10 microns or less in diameter.

PM₂.₅—Particulate matter of 2.5 microns or less in diameter.

point source—One of the seven priority mobile source air toxics designated by the U.S. Environmental Protection Agency. POM is a broad class of over 100 organic compounds existing as either gases or particles in the atmosphere, depending on chemical structure, temperature, and pressure. POM is produced by incomplete combustion of fossil fuels and vegetable matter and is generally present in the atmosphere in particulate form. Vehicle exhaust is one of many sources of POM.

population—All the organisms living in a given area; a group of individuals.
precursors
Pollutants that contribute to the formation of other pollutants.

prime farmland
Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion.

prior rights
As used in this document, prior rights refer to a situation involving a utility company that has facilities located on private easements that are later acquired or encompassed by the State's right-of-way. In this situation, the utility company must relocate its conflicting facilities onto a public right-of-way or of acquiring a new easement and relocating onto it. Either would be at the Arizona Department of Transportation's expense.

project sponsor
An individual, agency, or group who lends support to the project by advocacy and/or financial means.

proximity impacts
Indirect impacts so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Proximity impacts are in regard to noise, air, and water pollution; wildlife and habitat; aesthetic values; and/or other relevant impacts.

prudent and feasible
This concept is essential to the Section 4(f) process. It refers to how practical an alternative is in its attempt to avoid the use of a Section 4(f) resource. The term feasible refers to whether a project can be built using current construction methods, technologies, and practices. The term prudent refers to how reasonable and responsible the alternative is. The Arizona Department of Transportation is obligated to choose an avoidance alternative only if it is prudent and feasible.

public use
Public use entails access for more than a select group of the public at any time during normal hours of operation.

publicly owned
Property that is owned and/or operated by a public entity. If a governmental body has a proprietary interest in the land (such as fee ownership or drainage easements), it can still be considered publicly owned.

Quaternary
The second period of the Cenozoic era, following the Tertiary period. It began 2 or 3 million years ago and extends to the present.

reasonable alternatives
Feasible recourses for a proposed action. The location at which noise levels are measured, modeled, and analyzed. Receivers of interest are typically residences, schools, parks, or other noise-sensitive land uses.

receiving water
Watercourse or water body that would receive discharges from a source(s).

recharge
The process involved in the addition of water to the zone of saturation; also, the amount of water added.

return period
A return period, or recurrence interval, is an estimate of the interval of time between events such as an earthquake, flood, or river discharge of a certain intensity or size. It is a statistical measurement denoting the average recurrence interval over an extended period, and is usually required for risk analysis.

right-of-way (R/W)
Publicly owned land used or intended to be used for transportation and other purposes.

riparian
An aquatic or terrestrial ecosystem associated with bodies of water, such as streams, lakes, or wetlands, or dependent on the existence of perennial, intermittent, or ephemeral surface or subsurface water drainage. Riparian areas are usually characterized by dense vegetation and abundance of wildlife.

rolling profile
A roadway that follows the land contour and is not flat. Slight crests and sags in roadway help avoid concentrated stormwater drainage and assist in making travel interesting for drivers, thus improving safety. Such a road profile helps to cost-effectively balance the import and export of fill material and minimize the amount of land that must be acquired.

scale
The apparent size relationship between a landscape component and its surroundings.

secondary impact
See indirect impact.

Section 106 of the National Historic Preservation Act
Federal regulations require that federal agencies consider the impacts of their actions on historic properties. For most highway undertakings, the Arizona Department of Transportation is required to prepare an Environmental Impact Statement (EIS) or perform an Environmental Assessment (EA). If an EIS or EA is completed, the Arizona Department of Transportation must consult with the National Register of Historic Places to determine the presence of historic properties, and identify if there are any historic properties eligible for inclusion in the National Register of Historic Places. Federal agencies are required to identify and evaluate cultural resources and consider the impact of their undertakings. The Arizona Department of Transportation is required to consider whether a public right-of-way acquisition, or other federal undertaking, will result in the loss or partial loss of historic property. In the event a historic resource would be lost, the Arizona Department of Transportation must consult with the Arizona State Historic Preservation Office to determine whether the action is eligible for inclusion in the National Register of Historic Places.

Section 4(f)
A later amendment to the U.S. Department of Transportation Act of 1966 stipulating that the Federal Highway Administration and other departments of transportation using federal funds cannot approve the use of land from a significant publicly owned public park, recreation area, wildlife or wetlands refuge, or any significant cultural resource unless there is no prudent and feasible alternative to the use of that land and unless the action includes all possible planning to minimize harm to the property resulting from its use.

service traffic interchange
A traffic interchange connecting a freeway facility and a cross street—it typically features traffic signals to regulate traffic flow.

setting
The time, place, and circumstances in which something occurs or develops.

sheltering
Any construction or natural barrier that, when located between the roadway and the receiver, will provide an excess reduction in road noise.

short-term impact
Change that will not be significant beyond the planning horizon of the design year (2035).

single-family residence
Single-family, detached house.

socioeconomic
Of, relating to, or involving a combination of social and economic factors.

solvent
A chemical product used to dissolve or disperse other substances.

sound level (or noise level)
Sound-pressure level measured, for use in transportation noise analysis, through use of A-weighted frequency.

speed
The rate of movement of vehicular traffic measured in miles per hour (mph).

State Historic Preservation Office/Officer (SHPO)
The State Historic Preservation Office is appointed by the governor to head the State Historic Preservation Office. The agency provides project review and oversees compliance with Section 106 of the National Historic Preservation Act. The U.S. Department of Transportation generally uses the Section 106 process as a method for determining National Register of Historic Places eligibility and by which a cultural resource's significance is determined for a federal undertaking under Section 4(f).

State Implementation Plan (SIP)
The document prepared by the Arizona Department of Environmental Quality detailing for the U.S. Environmental Protection Agency the actions the State of Arizona will take to attain compliance with the National Ambient Air Quality Standards.

Study Area
Boundary of area being evaluated for the South Mountain Freeway Environmental Impact Statement/Section 4(f) Evaluation.

subsidence
Sinking or downward settling of the earth's surface, not restricted in rate, magnitude, or area involved. Subsidence may be caused by natural geologic processes, such as solution, compaction, or withdrawal of fluid from beneath a solid crust; or by human activity, such as subsurface mining or the pumping of oil or groundwater.

suitable habitat
For any given species, defined as habitat that contains the components (i.e., food, cover, and nesting/breeding sites) required for the survival and reproduction of a species.
Improving access to various points throughout the region by connecting or "linking" two or more transportation facilities.

A traffic interchange connecting two or more freeway facilities and allowing for uninterrupted traffic flow as motorists move from one facility to another.

tetrachloroethene

A solvent commonly used in dry cleaning; can become a groundwater contaminant.

texture

An object's apparent surface coarseness or roughness.

threatened species

Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

transportation demand management (TDM)

A general term for strategies that encourage more efficient use of existing transportation resources.

transportation system management (TSM)

Fundamental traffic engineering actions taken to improve the operation of the highway system to help reduce congestion.

ultimate configuration

The ultimate lane configuration of the proposed action includes three general purpose lanes and one high-occupancy vehicle lane in each direction, for an eight-lane, divided, access-controlled freeway.

unique farmland

Land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, fruits, and vegetables.

unity

A criterion for measuring visual quality. The degree to which visual resources join together to form a single, coherent, harmonious visual pattern. It refers to compositional harmony—intercompatibility between the landscape elements, or an organized balance. Unity can be measured by two factors: the degree of contrast between human-made elements and their setting in the landscape and the unity of the overall landscape. The rating for the degree of contrast between human-made elements and their setting in the landscape is based on a rating of the visual compatibility, scale contrast, and spatial dominance of the elements.

upland

Ground elevated above drainage features, wetlands, and rivers that could be banks, hills, and slopes. Land that is generally dry.

U.S. Census Bureau

Part of the U.S. Department of Commerce, the government department responsible for collecting statistics about the nation, its people, and its economy.

U.S. Department of Transportation (USDOT)

The agency responsible for transportation issues in the federal government. It consists of many agencies providing transportation services to the public, including the Federal Highway Administration and the Federal Aviation Administration.

use

A "use" of a Section 4(f) resource, as defined in 23 Code of Federal Regulations § 774.17, occurs 1) when land is permanently incorporated into a transportation facility, 2) when there is a temporary occupancy of land that is adverse in terms of the statute’s preservationist purpose, or 3) when there is a constructive use of land. A constructive use of a Section 4(f) resource occurs when the transportation project does not incorporate land from the Section 4(f) resource, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify as a resource for protection under Section 4(f) are substantially impaired.

utility

An entity that transmits or distributes communication, cable television, electricity, light, heat, gas, petroleum products, water, sewer, waste, or any other similar commodity that directly or indirectly serves the public. For this document, a railroad is considered a utility.

veneer

A thin layer of a deposit covering another layer.

Visual Assessment Units

Subdivisions of the landscape defined in terms of landform, vegetation, land use, length, and special features in the foreground, middleground, and background. In particular, such units are defined by observable changes in the primary biotic community as marked by vegetation, changes in land use and visual character, and changes in viewpoint (on- or off-corridor), as well as the presence of special features in the landscape.

visual character

The order and composition of the elements of form, line, color, and texture that form the visual landscape.

visual impact

The degree of change in visual resources and viewer response to those changes.

visual quality

The measure of the visual elements of distinctiveness, distinctness, and unity as it relates to the formation of a distinct landscape.

visual/viewer sensitivity

The relative measure of viewer response to changes in the visual landscape.

Water Quality Assurance Revolving Fund (WQARF)

Created under the Environmental Quality Act of 1986 to support hazardous substance cleanup efforts in the state of Arizona. The program is administrated by the Arizona Department of Environmental Quality. It has a federal counterpart, the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

watershed

That part of a landform from which stormwater runoff flows to a single point.

Western Section

The portion of the Study Area located west of the common point.

wetlands

The U.S. Army Corps of Engineers defines wetlands as areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, under normal conditions, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and similar areas, and are subject to protection under Executive Order 11990 and Section 404 of the Clean Water Act, as amended.

White

A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

wildlife of special concern in Arizona

Species whose occurrence in Arizona is or may be in jeopardy, or with known or perceived threats on population declines, as described by the Arizona Game and Fish Department’s listing of wildlife of special concern in Arizona.

xeroriparian

Dense areas of vegetation that border dry desert washes.

Symbols

* Degree.

> Greater than.

≥ Greater than or equal to.

≤ Less than or equal to.

< Less than.

° Present.

µ Micro.

± Plus or minus (approximate value).

§ Section (in legal references). Plural is denoted by §§.

<xxxx> Brackets set off Web site addresses or e-mail addresses from the surrounding text.
ADOT Technical Reports and Predecisional Reports and Memorandums

Technical reports—with the exception of the cultural resources and Section 4(f) technical reports (because of the sensitive information they contain)—are available on the project Web site at <azdot.gov/southmountainfreeway>. If reviewing a hard copy, the technical reports are also included on the compact disc placed in the envelope on the back cover of Volume I. Technical reports, predecisional reports, and memorandums can be made available for review by appointment at ADOT Environmental Planning Group, 1611 W. Jackson St., Phoenix, AZ 85007 [602] 712-7767]. Special requests for portions of the cultural resources and Section 4(f) reports will be considered by ADOT on a case-by-case basis.

Final Environmental Impact Statement
Technical Reports and Addenda

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