

What Moves You Arizona

State Long-Range Transportation Plan 2015-2040
Public and Stakeholder Outreach



Section 1: Overview

The Arizona Department of Transportation (ADOT) worked collaboratively with their regional planning partners at Arizona’s Councils of Governments (COGs) and Metropolitan Planning Organizations (MPOs) to host a series of twelve workshops in early 2016 to help solidify the Goals for What Moves you Arizona, the state Long-Range Transportation Plan (LRTP), which is being conducted for a 25-year planning horizon.

This document is intended to summarize the Goals Workshop series, especially the input received and how that input was incorporated into the LRTP. See “Purpose and Outcome of Workshop Series” below.

Additional information within this summary is as follows:

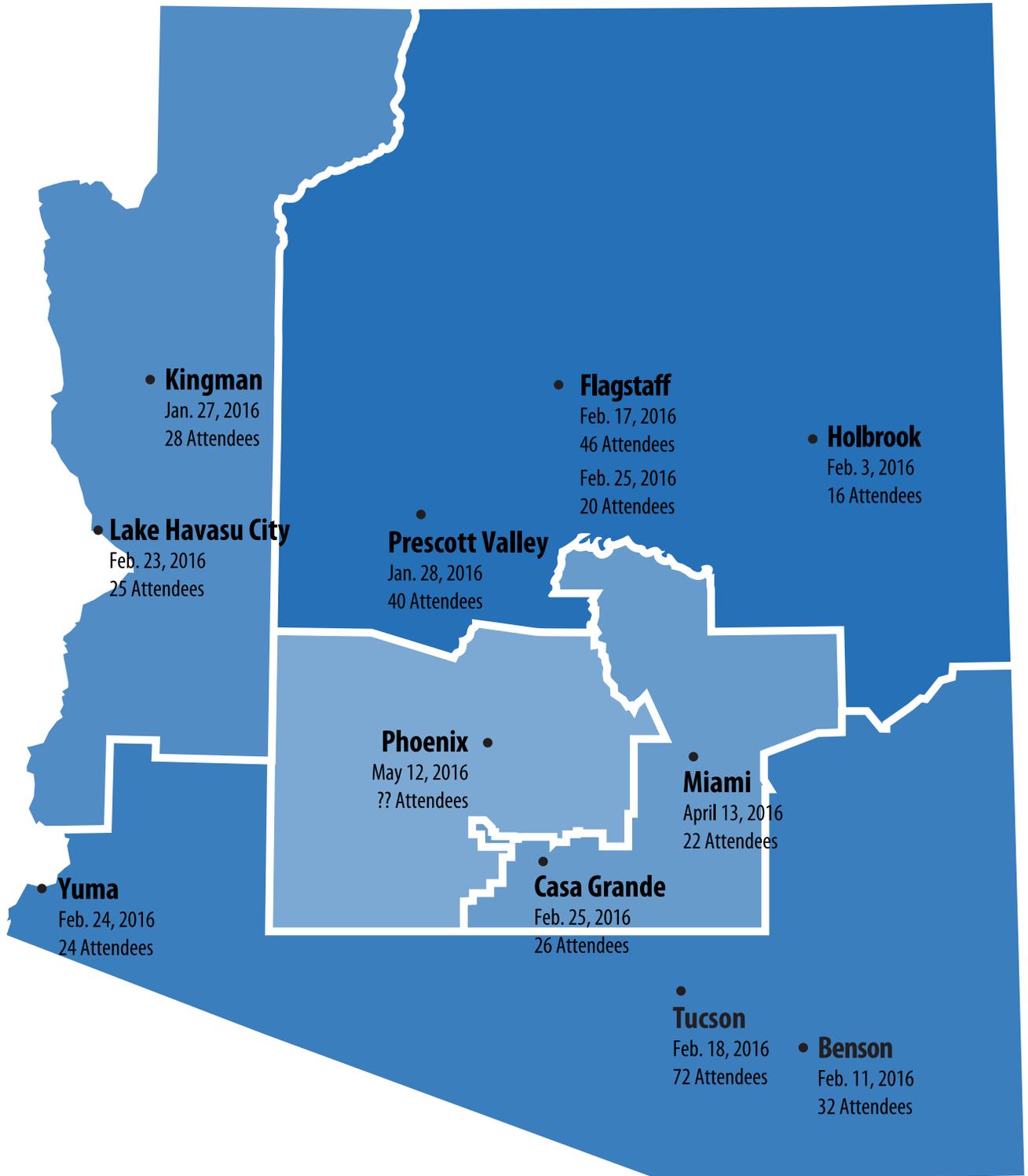
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Purpose and Outcome of Workshop Series

The purpose of the workshops was to share information about the LRTP, talk about the future of transportation, and gather feedback on draft plan goals. The workshops were held throughout the state (see Figure 1A) to ensure broad participation and diverse perspectives.

Figure 1A: Workshop Locations, Dates, and Attendance



The draft goals (see box to the right) were presented for feedback. Table 1A (page 4) lists the feedback on the draft goals by workshop location. The valuable feedback resulted in the following common themes:

- Funding (lack of, urban vs. rural split, need to aggressively pursue, need to educate public)
- Changing demographics (aging population, preferences of younger population)
- Public transportation, lack of options
- Priority on preservation of existing system
- Lack of system and modal redundancy, connectivity of rural areas
- Security, resilience, emergency preparedness
- Importance of tourism and recreation
- Need to focus on technology and innovation, need to be flexible, creative, and ready to adapt to change
- Missing reference to consideration of natural resources

The Workshops Were Designed to Gather Feedback on these Draft Goals:

- **Goal Area 1:
Improve Mobility, Reliability, and Accessibility**
Implement critical/costeffective investments to improve access to multimodal transportation and optimize mobility and reliability for passengers and freight.
- **Goal Area 2:
Preserve and Maintain the System**
Maintain, preserve, and extend the service life of existing and future State Transportation System infrastructure.
- **Goal Area 3:
Enhance Safety**
Continue to improve and advocate for transportation system safety for all modes.
- **Goal Area 4:
Strengthen Partnerships**
Develop and nurture partnerships that support coordination, integration, and preservation of ADOT's investment.
- **Goal Area 5:
Promote Fiscal Stewardship**
Ensure responsible management of public resources, and implement funding strategies to ensure long-term balanced investment in the State Transportation System.
- **Goal Area 6:
Make Effective Investment Decisions**
Better link planning and programming through performance-based decision-making that integrates the project evaluation criteria and weighting established by the Plan

Table 1B (page 5) shows how the input received was incorporated in to the final LRTP Goals and Objectives.

Table 1A: What We Heard at the Workshops: Comments on the Draft Goals*

Kingman Western Arizona Council of Governments (WACOG) January 27	Prescott Valley Central Yavapai Metropolitan Planning Organization (CYMPO) January 28	Holbrook Northern Arizona Council of Governments (NACOG) February 3	Benson SouthEastern Arizona Governments Organization (SEAGO) and Sierra Vista Metropolitan Planning Organization (SVMPO) February 11	Flagstaff Flagstaff Metropolitan Planning Organization (FMPO) February 17	Tucson Pima Association of Governments (PAG) February 18	Lake Havasu City Lake Havasu Metropolitan Planning Organization (LHMPO) February 23	Yuma Yuma Metropolitan Planning Organization (YMPO) February 24	Flagstaff Northern Arizona Council of Governments February 25	Casa Grande Sun Corridor Metropolitan Planning Organization (SCMPO) February 25	Miami Central Arizona Governments (CAG) April 13	Phoenix Maricopa Association of Governments (MAG) May 12
<ul style="list-style-type: none"> Fairness goals seem to favor urban areas Rural areas have more miles and people have to travel Goal area 1 seems broad and possibly vague related to mode specify that roadways are also included (define what we mean by multimodal) Frontage roads redundancy is an element of reliability Communication is a key component of the transportation system (emergency services, real-time communication with motorists) Alternative funding strategies Ecologically sound decisions (wildlife considerations appear to be missing; sociological, economic) Process goals (fiscal stewardship) should also look at safety and this dynamic from the rural perspective (in rural areas it is harder to get help/emergency services) safety belongs in process too Goal 5 also different materials not just increase funding also look at managing expenditures Current policies make it difficult to explore innovations that may decrease costs Rest areas look at private operators/open all rest areas Secure funding Cell towers increased communication to enhance safety ADOT needs to be flexible to adapt to change/technology 	<ul style="list-style-type: none"> Accommodations for wildlife Maintain wildlife habitat connectivity and ensure safety for wildlife and motorists Implement, don't just plan Gas tax should be raised! Stop HURF sweeps Shorten time on driver licenses and charge more Look at alternative taxes (vehicle registration) Miles driven Increased accountability will mean increased funds Look at cost of growth and who pays Put tax on tires not fuel Public transportation would be a great measure Goal 4 missing mention of P3s (private sector) What about vehicle weight-based tax? Missing promoting innovation Missing emergency bypasses (redundancy of system) It seems like we are missing "new roads" Quantification of ROI on transportation Add: Adhere to/ respect BQAZ (previous planning efforts) Dedicated public transit funding and measure cost to move a person on transit vs. in a car 	<ul style="list-style-type: none"> Active pursuit of alternative funding/ ongoing discussion (state has lost credibility due to HURF sweeps need funding firewalls) Too much money spent on bureaucracy and admin stewardship means streamlining 	<p>Goal Area 2: Preserve and Maintain the System</p> <ul style="list-style-type: none"> Maintain/balance existing system: <ul style="list-style-type: none"> Planning visual today's thinking for a change in the future Use new technology and thinking Integrate technological innovations Consider cost effectiveness for key investments Consider better connections and investments between population center and rural Impacts to local highway systems <p>Goal Area 6: Make Effective Investment Decisions</p> <ul style="list-style-type: none"> Get smarter and more business like ROI Less politically motivated investments State needs to prioritize transportation funding 	<ul style="list-style-type: none"> Context sensitivity Non-highway modes Too road-focused ("passengers" vs. "people") Environmental impacts (night skies cited as an example); impacts on environment and people (such as noise walls) How funding is allocated goals need to address re-evaluating (modal and geographic) Protecting funding from being swept from transportation Goal 1 says we are only going to do "cheap stuff" Lack of emphasis on public transit harms our economy Technology is missing from Goal 1 Goal 4 needs more specific language about coordinating with local communities (context sensitivity) Environmental sensitivity and wildlife are missing 	<ul style="list-style-type: none"> Encouraging economic development - should be a stand-alone goal Increasing funding - can this be a stated goal? Environmental Adaptive/nimble (flexibility) Stress test on system to say "what happens IF" - what are we doing to look ahead at the big "what ifs?" Missing an "outward looking" goal that clarifies policies to the public #6 - "effective" is weak. We need to be more proactive. Return on investment analysis Looking for opportunities (low hanging fruit) Safety goal is weak. We need to plan for safety. <ul style="list-style-type: none"> (Including STP funds) can't focus on only fatal and serious injury crashes. PDO crashes are predictive of serious/fatal crashes Clarify Goal 2 that it pertains to infrastructure condition Flexibility needed to be able to adapt to change 	<ul style="list-style-type: none"> Engineering innovation SWAP Goal #1 and #2 (need to maintain to improve) Security should be coupled with safety Education <ul style="list-style-type: none"> Workforce System users Legislators Preservation not just surface and/or structure Partnerships Environment natural and cultural resources Social → convenient and affordable Maintaining workforce/ institutional knowledge Technology 	<ul style="list-style-type: none"> Minimize environmental impacts Adding security for modes of transportation Better definition of reliability Expansion of system? Clarifying existing vs. expansion Mass Transit Technology 	<ul style="list-style-type: none"> Opportunities for new/enhanced/flexible funding Innovation/technology (awareness/adaptability) Connectivity (tech) <ul style="list-style-type: none"> Between tech systems Connection with local jurisdiction systems (signals, advance messaging, statewide website like Oklahoma, "movemeflag") Recognition of need to share more information with all areas of state (lack of emphasis on rural areas tribes reporting crash information to state) State technology system that allows multiple systems to talk/integrate System Goal to reduce its environmental impact <ul style="list-style-type: none"> Sustainability/natural resource (best practices on things like stormwater management/reuse of water, etc.) Focus on deterioration of system in remote/rural areas (note increased freight use on tribal lands) 	<ul style="list-style-type: none"> Environment/Wildlife Corridors as a part of Goal 3 (system) Goals 2 and 3 (system) go together? Integrate transition of new technology into goal 2 (system) Keep up with technology 	<ul style="list-style-type: none"> Lack of environmental focus - needed in policy and goals at beginning before project process Think holistically and include better definitions of environmental stewardship considerations From planning level into construction, include sustainability Plan longer term with communities, including land use consideration and right of way needs to be more cost effective For Goal Area 1 - more detail/emphasis needed on coordination with ADOT, local partners and connectivity Match goals with priorities Little to no mention of technology 	<ul style="list-style-type: none"> Coordination with private sector Economic growth? Call out more specifically Reference to public transportation Consideration of communities and impacts, not just national/international focus Cost/benefit to system users (money, time, stress, etc.) Adapting to change; mode shift should be a criterion for quality of life Greater emphasis on future freeways and parkways User-based funding Need measurable objectives (See goal areas 4 and 6) How are goals related to existing problems we are trying to fix? Under partnership objectives, remember it's not just other state agencies need partnership with local, county, regional, national entities as well. Need leadership that transcends long-range planning horizon Advocacy is needed

*Participants were asked: Whats Missing from the Draft Goals?

Table 1B Input Applied to Goals and Objectives

Major Comment Themes

How We Responded

Funding - Many stakeholders commented on the need for ADOT to raise additional revenues for transportation and/or develop sustainable/ alternative funding strategies to replace the current reliance on fuel taxes.

Incorporated in an objective under the “Program Delivery” goal. It is important to recognize, however, that ADOT’s role is to articulate need and the benefits from increased transportation investment, not to advocate for increased funding.

Demographic Changes - ADOT must ensure its investment decisions reflect the State’s changing demographic make-up and associated transportation needs.

Trends such as an aging population and greater urbanization have influenced the development of all WMYA goals and objectives. As the Plan is finalized, consideration will be given to project selection criteria and project/program delivery policies that reflect changing demographic factors.

Public Transit/Alternative Modes - Stakeholders expressed a range of opinions about public transportation options. Many feel the Plan should focus State investment on expanding transit services and options in both urban and rural areas.

ADOT’s role in transit investment is currently statutorily limited to administering federal pass through funding to local transit agencies; it would be a Legislative decision, not ADOT’s, for this to change. The updated Plan, will address the transportation benefits of expanded transit services throughout the State.

Asset Management - There is a clear mandate from stakeholders to prioritize system preservation.

ADOT has and will continue to place high importance on preserving the existing State Highway System. The scenario process that will be conducted this summer will evaluate the trade-offs between spending on asset management and other investment options and lead to a “Recommended Investment Choice” that strives to achieve an optimal balance between spending on preservation, modernization, and expansion.

Rural Needs - Rural stakeholders articulated the need for improved access, connectivity, and redundancy in rural portions of the State Highway System.

It is important to recognize that financial constraints will make it difficult to focus significant investment on any expanded capacity, including the development of new access facilities and/or redundant routes in rural areas. That said, the refinement of ADOT’s project selection process as part of the planning effort will provide an opportunity to identify evaluation criteria that integrate consideration of rural access needs into ADOT’s project selection process.

Security Concerns - The draft goals do not directly address considerations associated with improved security, resiliency, and emergency preparedness.

These items will be considered in the refinement of ADOT’s project selection process as part of the Plan development effort.

Table 1B Input Applied to Goals and Objectives

Major Comment Themes	How We Responded
<p>Tourism & Receptions - Many stakeholders asked that the Plan address the importance of transportation to promoting and supporting the State’s tourism and recreation industry.</p>	<p>Tourism and recreation benefits will be considered in the refinement of ADOT’s project selection process as part of the Plan development effort, and the development of policy recommendations.</p>
<p>Technology & Communications Infrastructure – Some provided input that ADOT should accelerate the deployment of technology and communications infrastructure.</p>	<p>An objective associated with emphasizing the deployment of technology and communications infrastructure will be added under the “Mobility, Reliability, and Accessibility” goal.</p>
<p>Environment and Wildlife - Several stakeholder expressed concern about the lack of direct mention about the environment, wildlife, and related topics as in the draft goals.</p>	<p>Language about the environment will be added to the “Improve Program Delivery” goal.</p>
<p>Improved Program Delivery - Several noted the need for DOT to do a better, more efficient job at delivering projects and programs.</p>	<p>These issues are addressed through objectives under the “Improve Program Delivery” goal.</p>
<p>ADOT Adaptability - A wide range of stakeholder comments focused on the need for ADOT to become more flexible and responsive with respect to its workforce, policies, practices, and relationships with the private sector.</p>	<p>The “strengthen Partnerships” goal will include an objective that emphasizes the importance of ADOT expanding its relationship with the private sector. Moreover the final Plan will identify policy recommendation to improve agency adaptability.</p>
<p>Bicycles & Pedestrians - Several people expressed the desire to see greater emphasis on addressing bicycle and pedestrian needs</p>	<p>A related objective is identified under the “Mobility, Reliability, and Accessibility” goal.</p>
<p>Improved Coordination - A few stakeholders commented on the need for ADOT to coordinate more with local jurisdictions.</p>	<p>The “Strengthen Partnerships” goal will include specific objectives associated with this.</p>
<p>Specific Project Concerns - Stakeholders identified a variety of concerns and interests associated with individual projects and facilities.</p>	<p>Since WMYA is a policy plan, specific project issues are not addressed through this planning process. These Stakeholder comments, however, are being taken seriously and have been passed on to the appropriate ADOT district or headquarters office that deals with project/individual facility-level concerns.</p>

Section 2. About the Workshops: Agenda and Highlights

The five-part agenda for each workshop was the same:

1. Welcome and Introductions
2. ADOT Overview Of Long Range Plan
3. Presentation and Small Group Discussion: Thinking Ahead About Transportation
4. Presentation: Transportation in Arizona
5. Full-group Discussion: Long-Range Plan Goals

The workshop presentation is included in Appendix A.

The workshops focused on the participants thinking far in to the future about transportation in Arizona and what goals should be used to guide decisions on how resources are invested.

Key points from the Overview presentation were that this is a long-range plan, looking 25 years in to the future, and that it is a policy plan that sets goals, and weighted evaluation criteria, to arrive at a Recommended Investment Choice indicating how funds should be used on the transportation system in the areas of Preservation, Modernization, and Expansion. This Plan does not include a list of specific projects. ADOT's Planning to Program (P2P) Link process identifies how projects are scored using the goals and evaluation policies set forth in the LRTP, and how these project eventually end up being included in the 5-year construction program, i.e., funded for implementation. Information about the P2P process is available at www.azdot.gov/planning/currentstudies, click on Linking the Long-Range Plan and Construction Program.

Presentation and Small Group Discussion: Thinking Ahead About Transportation

One of the biggest challenges with long-range transportation planning is thinking far in to the future. It is much easier to relate to issues that we face today. To aide in this challenging discussion, the National Cooperative Highway Research Program (NCHRP) developed a tool that ADOT used for this workshop to help people think far in to the future about transportation. The tool, consisting of six comprehensive reports (available at www.trb.org, keyword Foresight Report 750 Series) provides information about trends in the areas of freight, climate change, technology, sustainability, energy/fuels, and socio-demographics as they relate to transportation, as well as things to think about, or "signposts" that might help shape different possible futures.

The four future scenarios developed by NCHRP and used by ADOT as a tool to encourage discussion about the futureof transportation were as follows:



Momentum Scenario:

- Economy - Concentration of wealth/activity in "mega-regions"
- Technology - Technology change favors gradual, not disruptive changes
- Politics - Slow adoption of new transportation funding mechanisms, stymies investment
- Society - Aging, more diverse population grows slowly and favors urban areas
- Environment - Environmental changes stay manageable



Global Chaos Scenario:

- Economy - Growing global financial instability; trade wars, another Great Recession
- Technology - Technology Advances are minimal due to instability
- Politics - Isolationist policies hinder economic growth
- Society - Population grows slowly and favors urban areas
- Environment - Increasing and visible impact of climate change



Tech Triumph Scenario:

- Economy - Productivity gains unleash rapid economic growth
- Technology - Autonomous cars create 'disruptive change'
- Politics - Stable economy promotes political harmony
- Society - Population grows and technology allows more dispersed development
- Environment - Economic growth puts pressure on environment



Gentle Footprint Scenario:

- Economy - Many economic goals and aspirations are limited by efforts to make society more sustainable
- Technology - Energy consumption reduced
- Politics - Public consciousness and political will shift toward action on climate change
- Society - Substantial regulation and greater social economic control
- Environment - Droughts and super storms plague U.S.

Once the participants were oriented to the "signposts," they were asked to work in four small groups and discuss what the implications might be on transportation if one of the four future scenarios were to come to pass. Appendix B includes the small group session notes for each of the twelve workshops. Each small group was also asked to think about where Arizona's transportation system might be vulnerable in this future scenario, understanding that the exercise was intended to be fun and help think out side the box and think big when it comes to our future as a state. There were no right or wrong answers the discussion was focused on "what if." The Potential Vulnerabilities Identified for Arizona's Transportation Future are listed by workshop in Table 2A (page 7).

Table 2A: Potential Vulnerabilities Identified for Arizona's Transportation Future

Kingman Western Arizona Council of Governments (WACOG) January 27	Prescott Valley Central Yavapai Metropolitan Planning Organization (CYMPO) January 28	Holbrook Northern Arizona Council of Governments (NACOG) February 3	Benson SouthEastern Arizona Governments Organization (SEAGO) and Sierra Vista Metropolitan Planning Organization (SVMPO) February 11	Flagstaff Flagstaff Metropolitan Planning Organization (FMPO) February 17	Tucson Pima Association of Governments (PAG) February 18	Lake Havasu City Lake Havasu Metropolitan Planning Organization (LHMPO) February 23	Yuma Yuma Metropolitan Planning Organization (YMPO) February 24	Flagstaff Northern Arizona Council of Governments February 25	Casa Grande Sun Corridor Metropolitan Planning Organization (SCMPO) February 25	Miami Central Arizona Governments (CAG) April 13	Phoenix Maricopa Association of Governments (MAG) May 12
<ul style="list-style-type: none"> Rural areas most vulnerable technology changes are delayed Private business will catch up to demand What happens to communities delayed with status quo Where do taxes come from if private sector handles alternative fueling How to keep up with quick vast change AZ is massive (thousands of miles of maintenance) could take years to adopt alternative fuel stations Limited resources Aging infrastructure Attraction to rural areas technology advances solve problems and create new problems Redundancy of system is needed E-commerce means goods travel from farther areas more travel "on demand" Efficiency of System Lessen footprint per passenger Intelligent ROW planning (modes, utilities) Transportation funding (and P3s) Resiliency of infrastructure Partnerships/policies to take advantage of private sector advances Lack of connectivity and redundancy/duplicity is a vulnerability (routes/modes) Real-time communication Policies related to emergency response 	<ul style="list-style-type: none"> Funding and how it is collected and distributed Deteriorating infrastructure Lack of public transportation Congestion Population increase Redundancy of system Data reporting capability Wildlife/nature interaction Lack of walkability System to system connectivity Slow speed of freight rail Need emphasis on railroad and alternative modes of transportation due to younger population Lack of public transportation options Impact from higher density Concern over rural transportation needs Need to have development address impacts including wildlife crossings Funding transportation with changing fuel types More walkable communities; mixed-use sustainable communities Technology input changing 	<ul style="list-style-type: none"> Lack of sustainable funding source Advanced planning for targeted investment and ROI Alternative modes (under-investment) Lack of redundancy on system impacts economy, safety, and more! Large amount of public land creates pressure (regulatory) on AZ Resiliency (weather/emergency) Ability to adapt to change Communication systems associated with transportation system Current thinking on funding splits (should more population mean more funding?) Large amount of non-private land in Arizona → pressure on state and federal regulations Environmental regulations Climate concerns variable geography throughout Arizona (Flagstaff vs. Phoenix) Arizona limited resources Highly reliant on other states Economic disadvantaged More centrally located with more diverse infrastructure Affluent living on rural/peripheral areas with singular (less divers/more expensive) mode choices and infrastructure Elderly population reluctant/unable to adopt modern technology 	<ul style="list-style-type: none"> Rural areas have less option for mobility Delivery mode shift: changing dynamics and consequences Uber etc. Can Public/Private Partnership (P3) shift infrastructure costs to private sector? Accommodate long distance trucking with better infrastructure Invest in rail tech.-changing demographics Young driver decreased V.M.T. Cyber safety - connected vehicles ☺ Need safeguards Technology can/may help reduce cost of enforcement and enhance safety Health and multi-modal mobility Bike tourism, balance public row for users Mexican freight may stress local products/national traffic equals opportunity and vulnerability Connection - system to system planning such as Hwy 11 Migration (senior citizens) Planning around railroads Multiple POEs Crimes, drugs P3 needed as agencies have less changing demographics (may burden) Paradigm shifts: Trade comes through area but only creates need for infrastructure with less benefit Fund for need not just population: State too focused on those population/industry centers Politics does not allow for funding of transportation in rural communities Funding is for megacities but aging populations very affected (medical, emergency services) 	<ul style="list-style-type: none"> Lack of funding, particularly in more rural areas (new ways, more flexible/nimble need more education on this!) Preparation for statewide growth/associated travel for recreation Increasing emphasis on/necessity of partnership (IGA and P3) Impacts on small local economies Increasing freight/trucks strain the system Lack of preparation for deteriorating infrastructure Need for HHTC (public) transportation options Preparation (lack of) for aging population Lack of redundancy (route and modal) Workforce/ability to keep up with innovation and technology 	<ul style="list-style-type: none"> Connectivity Availability of water Funding Transportation options Need to think differently Facilities needed for increased freight at borders Modal balance is needed! Need options Lack of redundancy in system (routes and modes) Not forward-thinking? Slow to adapt to innovation? Need proactive land use policies Security of system Increased environmental controversy? Existing laws and restrictions Lack of options in non-urbanized areas Jurisdictional and even international coordination 	<ul style="list-style-type: none"> Lack of funding, particularly in more rural areas (new ways, more flexible/nimble need more education on this!) Preparation for statewide growth/associated travel for recreation Increasing emphasis on/necessity of partnership (IGA and P3) Impacts on small local economies Increasing freight/trucks strain the system Lack of preparation for deteriorating infrastructure Need for HHTC (public) transportation options Preparation (lack of) for aging population Lack of redundancy (route and modal) Workforce/ability to keep up with innovation and technology 	<ul style="list-style-type: none"> Aging infrastructure/preserving Isolated communities Funding for infrastructure Maintain/creating connection Ability to attract commerce Limited N/S routes Alternative funding sources will be needed Funding for transportation in urban and rural areas Delays will require more planning Commerce/business may not be as attracted to AZ Unable to meet demands of mega-regions Lack of standardization of alternative fuels Need more community/DOT self-sustainability Air for rural travel Balanced funding Rural connectivity Accommodating new technology Openness to new trends Need for linkages between different modes Public understanding Lack of public/private partners (P3) cooperation Lack of focus on air travel and regulation 	<ul style="list-style-type: none"> Lack of funding/alternate sources Lack of understanding of funding problem Outdated/irrelevant funding distribution formula and ways of funding Wildlife connectivity Lack of transportation options and bike/pedestrian/HCT connectivity Security issues Coordination needed with auto industry/private sector Lack of redundancy Emphasis on tourism and recreation as important to the economy Emphasis on communication systems as integral to transportation system Need forward-thinking design standards 	<ul style="list-style-type: none"> People will stop moving here because of lack of new/good infrastructure, loss of commerce Increased population/freight stresses system Not prepared for possible calamities Institutional barriers Respond faster/quicker Think about future now Ability to adopt and adapt to new technology Attract tech workers Funding; New revenue streams (alt. fuels, e-commerce, unemployed) Need more freight infrastructure (Roads, Bridges, Rail) North-South Connectivity Additional/Multi-Modal Needs Flight Regulations Technology in design (repurpose ROW) Partnership: Local (Tribal), State-State, Regional, Global Technology Transition Plans New Revenue Needed 	<ul style="list-style-type: none"> Educate public on new transportation systems Partnering and being sensitive environmentally and culturally Use transportation systems to enhance environment Incorporate technology into facilities "trails and connectivity" Resistance and slow to change Focusing only on one thing, preservation or infrastructure due to funding constraints Connectivity burden on rural communities Focus on economic development may eclipse other needs Rural needs include pedestrian's and transit equity issues Uncertainty about method of delivery Funding issues due to reduced gas tax revenue Lack of resiliency Politics versus consensus building Paying for new technology inequity in tax methods if relies on gas tax mileage based Collaboration and cooperation with new transportation technology Funding, mechanism revisions, decrease and redundancy Lack of resiliency in supporting tourist and remote areas Lack or slowness of adapting Politics skew priorities Log jams in leadership, leadership stability 	<ul style="list-style-type: none"> Ability to deliver products Deterioration of infrastructure Transportation options, especially for aging population Revenue/funding Rural vs. Urban needs Creativity, flexibility, adaptability Need for system redundancy (routes, modes) Work force preparedness; re-education of emerging workforce Emergency preparedness Need for education of leadership and public Private sector role is unclear ROW Repurposing Capacity to move freight Inability to innovate Need to maintain current system Political will to pay for major infrastructure investment Political leadership (negative impact of term limits) 

Presentation and Full-Group Discussion: Transportation in Arizona and Long-Range Plan Goals

Once each of the groups reported to the larger group about the content of their discussion and the potential vulnerabilities for Arizona's future transportation system that they had identified, ADOT provided information from their "Transportation in Arizona" report (available at www.azdot.gov/whatmovesyouarizona, click on Documents). This provided context for the status of Arizona's transportation system as it currently stands, and, combined with the forward-thinking small group discussions, set the stage for the group to provide comments on DRAFT goals for the LRTP.

Section 3. Participation and Publicity

There were a total of 438 participants in the 12 workshops, representing the general public as well as the following 203 organizations.

- AAA Arizona
- AARP
- AECOM
- Ak-Chin Indian Community
- Arizona Daily Star
- Arizona Department of Environmental Quality
- Arizona Department of Transportation
- Arizona Desert Museum
- Arizona Game and Fish Department
- Arizona Independent Drivers Association
- Arizona State Land Department
- Arizona State Transportation Board
- Apache County
- AZTEC Engineering
- Bureau of Land Management
- Camp Navajo
- Center for Neighborhood Leadership
- Central Arizona Governments
- Central Yavapai Metropolitan Planning Organization
- Chandler Gilbert ARC
- Citizens for Picture Rocks
- City of Apache Junction
- City of Avondale
- City of Benson
- City of Buckeye
- City of Bullhead City
- City of Casa Grande
- City of Chandler
- City of Coolidge
- City of Cottonwood
- City of El Mirage
- City of Eloy
- City of Flagstaff
- City of Glendale
- City of Globe
- City of Goodyear
- City of Kingman
- City of Maricopa
- City of Nogales
- City of Phoenix
- City of Prescott
- City of Safford
- City of San Luis
- City of Scottsdale
- City of Sedona
- City of Show Low
- City of Sierra Vista
- City of St. Johns
- City of Surprise
- City of Tempe
- City of Tucson
- City of Willcox
- City of Yuma
- Civic Service Institute at NAU
- Civtech
- Cochise Bicycle Advocates

- Cochise County
- Coconino Community College
- Coconino County Board of Supervisors
- Coconino County Public Health Services District Injury Prevention
- Coconino County Sheriff's Office
- Cocopah Indian Tribe
- Dibble Engineering
- Echo Trucking
- Economic Collaborative of Northern Arizona
- El Dorado Holdings
- Eldridge Construction Management
- Federal Highway Administration
- Flagstaff Biking Organization
- Flagstaff Convention and Visitors Bureau
- Flagstaff Dark Skies Coalition
- Flagstaff Metropolitan Planning Organization
- Flagstaff Planning and Zoning Commission
- Flagstaff Police Department
- Flagstaff Transportation Commission
- Flagstaff Unified School District
- FNF Construction
- Foothills Caring Corps
- Gila County
- Globe-Miami Chamber of Commerce
- Golden Valley Fire District
- Gompers Habilitation Center
- Greater Flagstaff Chamber of Commerce
- Greater Yuma Economic Development Corporation
- Harper Rentals, LLC
- Hopi Tribe, Department of Transportation
- Hopi Police/Rangers
- Hopi Tribe, Community Planning and Economic Development
- Hualapai Tribe
- J-6 Mescal CDO
- Kaneen Advertising & Public Relations
- Kingman Daily Miner
- Kingman Police Department
- Kingman Public Works
- Kingman Visitor Center
- KT Consulting
- Lake Havasu City
- Lake Havasu Metropolitan Planning Organization
- Lake Havasu Realtors
- Lake Havasu Unified School District
- Langley Properties
- Legends of Superior Trail
- Lifewell
- LKY Developers
- Local First Arizona
- Logan Simpson
- Marana Police Department
- Marana Unified School District
- Maricopa Association of Governments
- Maricopa City Council
- Maricopa Community Colleges
- Maricopa County Department of Transportation
- Michael Baker International
- Mohave County
- Mohave County Supervisors
- Mohave County Transportation Commission
- Mohave County Republican Party
- Navajo County
- Navajo Division of Transportation Planning Department
- New River-Desert Hills
- Northern Arizona Council of Governments
- Northern Arizona University
- Northwest Fire
- Northwest Valley Connect
- Northern Arizona Intergovernmental Public Transit Authority
- Nathan and Associates Inc.
- NV5
- Patriot Disposal
- Pima Association of Governments
- Pima County
- Pima County Regional Reclamation Department
- Pinal County
- Pinal County Board of Supervisors
- Pinal County OEM
- Pinal Partnership Open Spaces & Trails
- Prescott Meals on Wheels
- Prescott National Forest
- Prescott Transit
- Ray Associates
- Raytheon

- Residents/Citizens
- Rural Transportation Advocacy Council
- Sabino Town and Country Homeowners Association
- San Luis Police Department
- Schloss/Castle Advisors
- SEAGO Greenlee County Private Sector
- Sierra Club Grand Canyon Chapter
- Sierra Vista Metropolitan Planning Organization
- Smart Energy, LLC
- Sonoran Institute
- Southeastern Arizona Governments Organization
- Southern Arizona Logistics Education Organization
- Southern Arizona Transit Advocates
- Southwest Behavioral and Health Services
- Stantec
- STAR (Stand Together and Recover)
- Sun City West Foundation
- Sun Corridor Metropolitan Planning Organization
- Sunbelt Holdings
- Sunrise Nursery
- SWCA, Inc.
- Synthesis Three
- Territorial Transit
- Today's News-Herald
- Tohono O'odham
- Town of Chino Valley
- Town of Dewey-Humboldt
- Town of Florence
- Town of Gilbert
- Town of Marana
- Town of Oro Valley
- Town of Paradise Valley
- Town of Payson
- Town of Pinetop Lakeside
- Town of Prescott Valley
- Town of Queen Creek
- Town of Winkelman
- Tribune News
- Tucson Airport Authority
- Turner Engineering, Inc.
- US Fish & Wildlife Service
- United Way of Yavapai County
- Valley Metro
- Walton Development and Management
- Western Arizona Council of Governments
- WESTMARC
- White Hills Development
- White Mountain Apache Tribe
- Wickenburg Freedom Express
- WMRTC/Parsons
- Woodson Engineering and Survey
- WSP-Parsons Brinckerhoff
- WV Co.
- Yavapai County
- Yavapai County Community Health Services
- Yavapai Regional Transit
- Yuma County
- Yuma County Airport Authority
- Yuma County Planning & Zoning
- Yuma International Airport
- Yuma Metropolitan Planning Organization
- Zia Engineering & Environmental Consultants

The workshops were advertised in a number of ways. The stakeholder and public outreach team worked closely with the MPO and COG partners, because the COGs and MPOs work closely and collaboratively within their regions, to develop diverse and comprehensive stakeholder lists for email invitations to the workshops. ADOT also issued a series of news releases which resulted in coverage of the meetings and generated traffic to the project website where comments could be provided as well. The workshops were also advertised in newspapers statewide (sample ads pictured here).

Publicity also encouraged people to provide comments through the project website at www.azdot.gov/whatmovesyourizona. The Comments received via the project website are listed in Appendix C.

Section 4. Next Steps

The Goals and Objectives having been finalized through stakeholder and public involvement, the next steps include technical work to develop measurements and criteria for how projects are selected for funding. The Team will need stakeholder input to finalize the project selection criteria and how it is weighted so the right projects are programmed at the right time based on Arizona's goals as a state. The engagement tools that will be used for the next phase include an interactive online survey that will be publicized widely for broad public input.

Long-Range Transportation Plan (2015-2040)
ADOT
Please Plan to Join Us! Thinking Ahead About Transportation
What Moves You Arizona
Goals Workshops for Western Arizona
Wednesday, Jan. 27, 1 p.m. - 3 p.m.
Mohave County Public Works Turquoise Room
 3675 E. Andy Devine Ave., Kingman, AZ 86401
Tuesday, Feb. 23, 2 p.m. - 4 p.m.
Lake Havasu City Police Facility Meeting Room
 2360 McCulloch Blvd. N., Lake Havasu City, AZ 86403
 The Arizona Department of Transportation plans 25 years ahead for maintenance and improvement of the state transportation system, and updates its Long-Range Plan every five years. The more that Arizona residents and businesses are involved, the better the plan will be. Transportation is important because it is how people move about and how commerce flows. Our quality of life and our economy depend on it.
 Join us for this workshop to learn about the plan and provide your ideas. RSVP to Dillon Kennedy at dkennedy@azdot.gov or 602-712-7106.

Long-Range Transportation Plan (2015-2040)
ADOT
Please Plan to Join Us! Thinking Ahead About Transportation
What Moves You Arizona
Goals Workshops for Central Arizona
Thursday, Feb. 11, 1 p.m. - 3 p.m.
City of Globe Municipal Building
 150 N. Pine St., Globe, AZ 85501
Thursday, Feb. 25, 12 p.m. - 2 p.m.
Casa Grande Council Chambers
 510 E. Florence Blvd., Casa Grande, AZ 85122
 The Arizona Department of Transportation plans 25 years ahead for maintenance and improvement of the state transportation system, and updates its Long-Range Plan every five years. The more that Arizona residents and businesses are involved, the better the plan will be. Transportation is important because it is how people move about and how commerce flows. Our quality of life and our economy depend on it.
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Long-Range Transportation Plan (2015-2040)
ADOT
Please Plan to Join Us! Thinking Ahead About Transportation
What Moves You Arizona
Goals Workshops for Northern Arizona
Thursday, Jan. 28, 10 a.m. - noon
Prescott Valley Library
 Crystal Room
 7401 E. Olive Cir., Prescott Valley, AZ 86314
Wednesday, Feb. 17, 1:30 p.m. - 4:30 p.m.
Little America Hotel
 2515 E. Butler Ave., Flagstaff, AZ 86004
Thursday, Feb. 25, 1 p.m. - 3 p.m.
High Country Conference Center Against Bullroom
 201 W. Butler Ave., Flagstaff, AZ 86001
 The Arizona Department of Transportation plans 25 years ahead for maintenance and improvement of the state transportation system, and updates its Long-Range Plan every five years. The more that Arizona residents and businesses are involved, the better the plan will be. Transportation is important because it is how people move about and how commerce flows. Our quality of life and our economy depend on it.
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January 2016-May 2016 Goals Workshops | Appendix A

Workshop Presentation

What Moves You Arizona

State Long-Range Transportation Plan 2015-2040
Public and Stakeholder Outreach



WELCOME AND INTRODUCTIONS

WhatMovesYouArizona

Workshop Agenda

- Overview of Long-Range Plan
- Group Discussion: “Thinking Ahead About Transportation”
- Presentation and Discussion: Long-Range Plan Goals
- Next Steps

WhatMovesYouArizona

Appendix A – Workshop Presentation

About the Plan Update

- 25-year Planning Horizon; Statewide, Multimodal Focus
- Updated Every 5 Years
- Data-driven, Performance-based
- Provides High-level Direction to Drive Transportation Investment Decisions



WhatMovesYouArizona

Stakeholder Roles

- Provide Input, Reactions, and Ideas
- This Session
 - Learn about Arizona's Transportation Planning Context
 - Consider Future Trends and Potential Transportation Impacts
 - Discuss Statewide Transportation Issues
 - Provide Input on Potential Plan Goal Revisions
- Next Session
 - Provide Input on Recommended Investment Choice

"Think About the Future of Transportation"

WhatMovesYouArizona

Appendix A – Workshop Presentation



"Think About Arizona as a Whole"

WhatMovesYouArizona

MAP-21/FAST

- Federal Transportation Reauthorization; enacted October 1, 2012
- Requires a National Highway Performance Program

"It is in the interest of the United States to focus the Federal-aid highway program on the following national goals:"

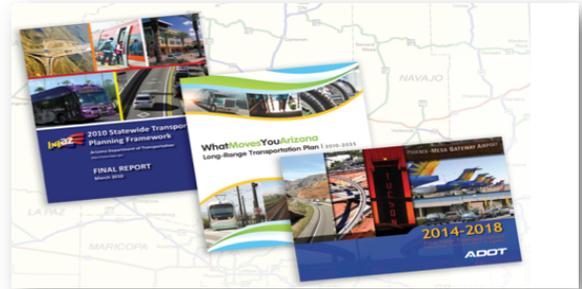
- Safety
 - Infrastructure Condition
 - Congestion Reduction
 - System Reliability
 - Freight Movement and Economic Vitality
 - Environmental Sustainability
- Planning to Programming Linkages (P2P): Preparation for MAP-21 Performance Program

WhatMovesYouArizona

Appendix A – Workshop Presentation

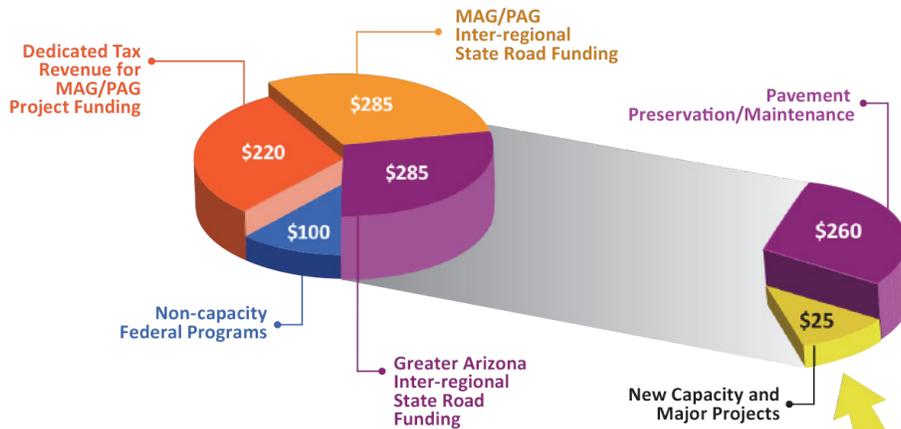
Foundation for Performance-Based Planning

- Building a Quality Arizona (BqAZ) - Fiscally Unconstrained
- What Moves You Arizona Long Range Plan – Recommended Investment Choice
- Linking the Long Range Plan and Construction Program (P2P) – Evaluation Criteria



WhatMovesYouArizona

Transportation Funding Snapshot



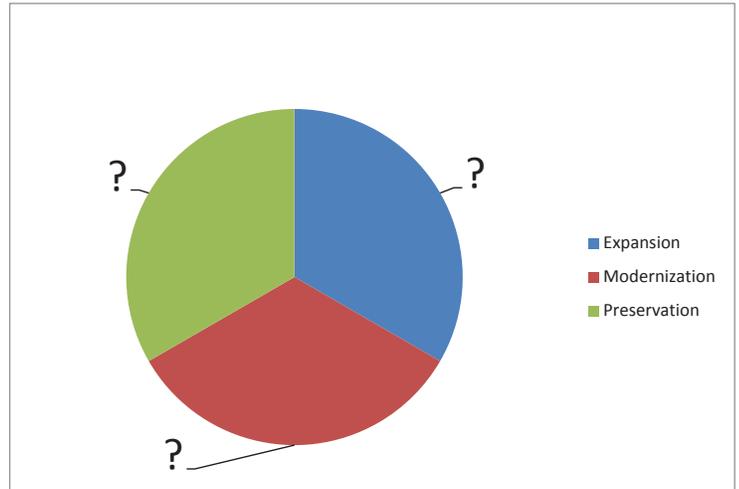
\$25 million per year is not enough to keep Arizona's transportation system competitive in the global marketplace.

WhatMovesYouArizona

Appendix A – Workshop Presentation

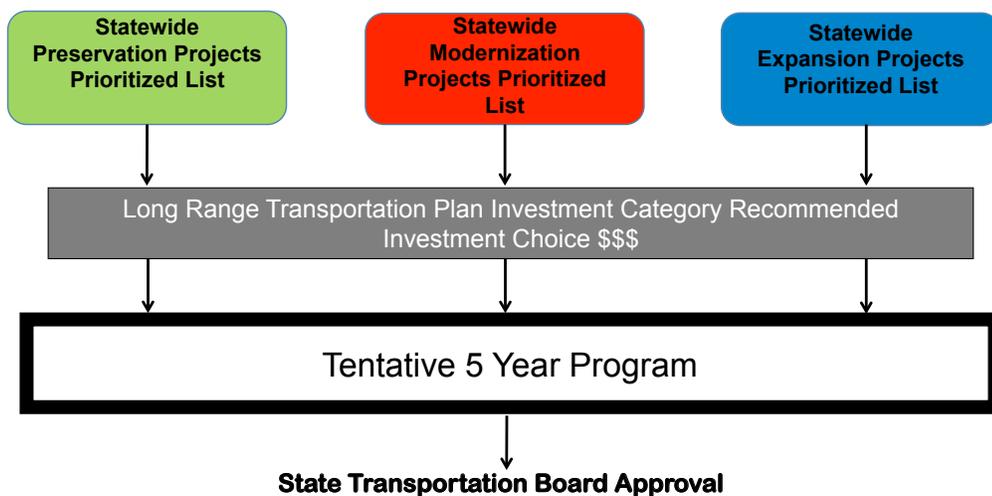
Recommended Investment Choice

- **Preservation:** sustain asset condition/extend service life
- **Modernization:** upgrade efficiency, functionality, safety of existing system
- **Expansion:** new facilities/ services that add capacity



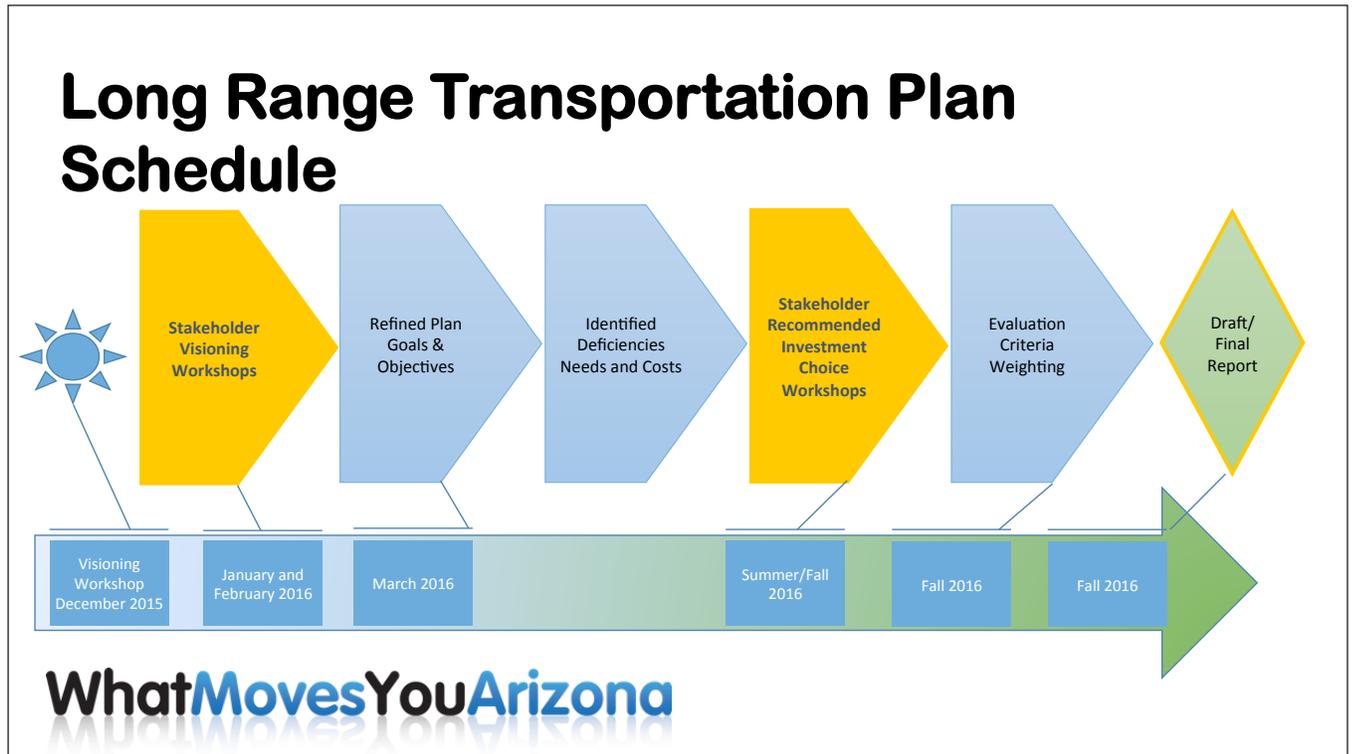
WhatMovesYouArizona

Planning to Programming: *Applying the LRTP RIC*



WhatMovesYouArizona

Appendix A – Workshop Presentation



FORESIGHT: FUTURE TRENDS & POTENTIAL IMPACTS

WhatMovesYouArizona

We Can't Predict the Future

*But, we can identify signposts
pointing in the right direction...*

**National Cooperative Highway
Research Program (NCHRP)
Foresight Report**

available at www.trb.org



WhatMovesYouArizona



It is easy to get the future wrong.

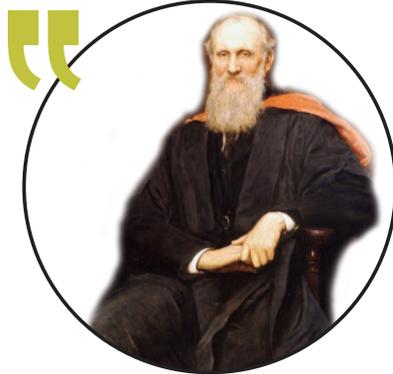
(We have a long history of it, in fact)

WhatMovesYouArizona

Appendix A – Workshop Presentation

LORD KELVIN 1895

Mathematical Physicist



“Heavier-than-air flying machines are impossible.”

WhatMovesYouArizona

HARRY WARNER 1925

One of the Warner Brothers



“Who the hell wants to hear actors talk?”

WhatMovesYouArizona

Appendix A – Workshop Presentation

THOMAS WATSON 1943

Chairman of IBM



“I think there is a world market for maybe five computers.”

WhatMovesYouArizona

Foresight

NCHRP Report 750 Series
Informing
Transportation's
Future

SOCIO-DEMOGRAPHICS

Model and envision the transportation impacts of shifting socio-demographics.



ENERGY & FUELS

Identify and assess strategies for a variety of future energy profiles.



SUSTAINABILITY

How to organize DOTs for a sustainable future.



SIX REPORTS AT-A-GLANCE



FREIGHT

Explore and plan for the future of freight with a profile planning toolkit.



CLIMATE CHANGE

How to prepare for extreme weather events.



TECHNOLOGY

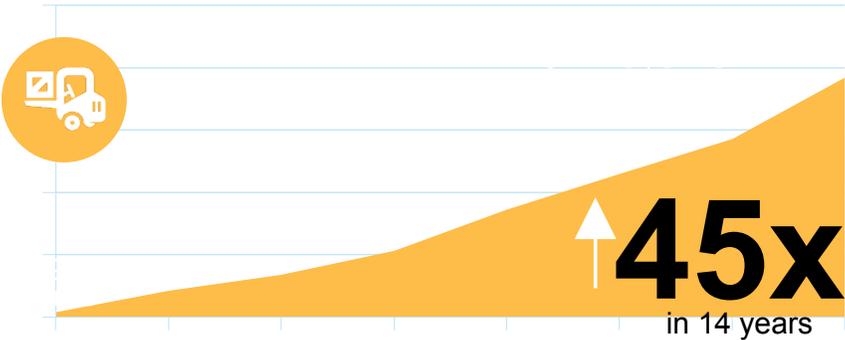
Select the right technology investments at the right time.

WhatMovesYouArizona

Appendix A – Workshop Presentation



Total U.S. e-commerce sales



Appendix A – Workshop Presentation



What to Look For in the Coming Years



VITAL SIGNPOSTS

Volume:

Will global freight trend up or down?

Technology:

Does a major advance in technology, like 3-D printing, fundamentally change how goods are delivered?

Protectionism:

Rising trade protectionism could shift global trade.

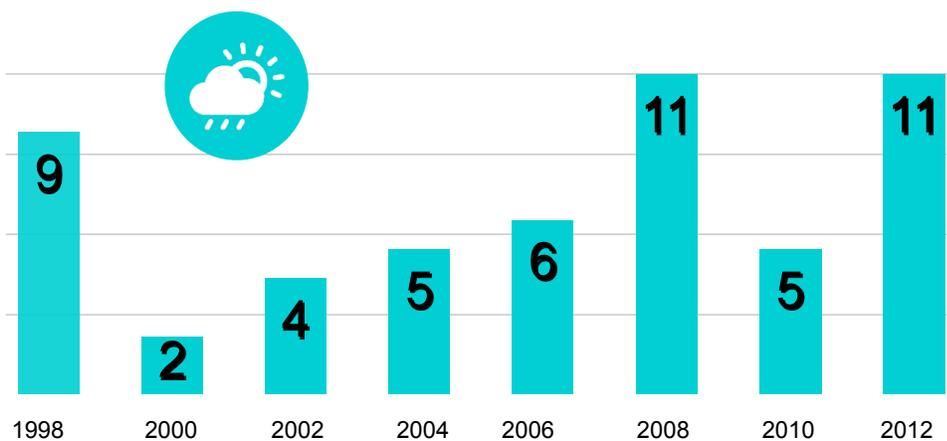
E-commerce:

With goods being delivered directly to consumers, what is the future of local retail stores?

Appendix A – Workshop Presentation



Number of U.S. Weather Events Per Year Costing Over \$1 Billion



Appendix A – Workshop Presentation



ASU Study:
Arizona could have as many as 205 above 95 degree days by 2099.

Arizona had 116 last year.



What to Look For in the Coming Years



VITAL SIGNPOSTS

Population Growth:

If global populations continue to boom, will technology come to the rescue?

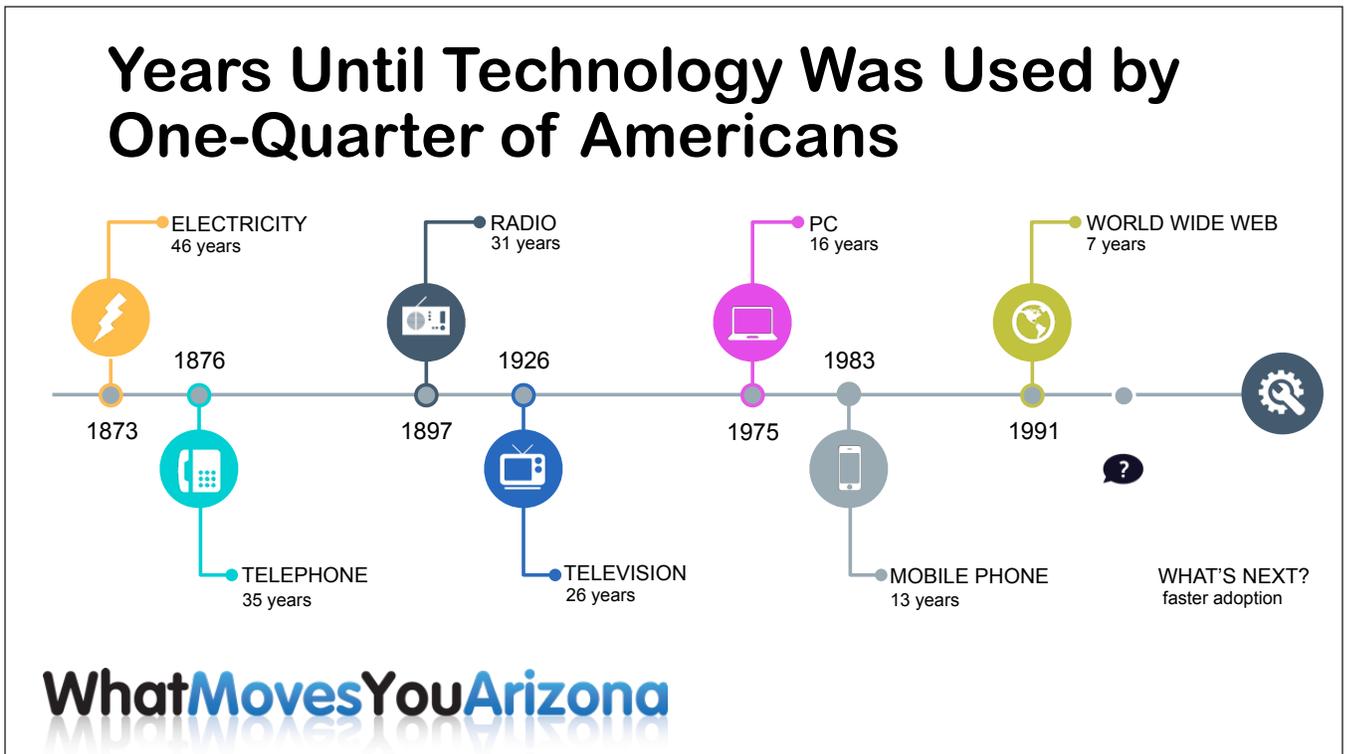
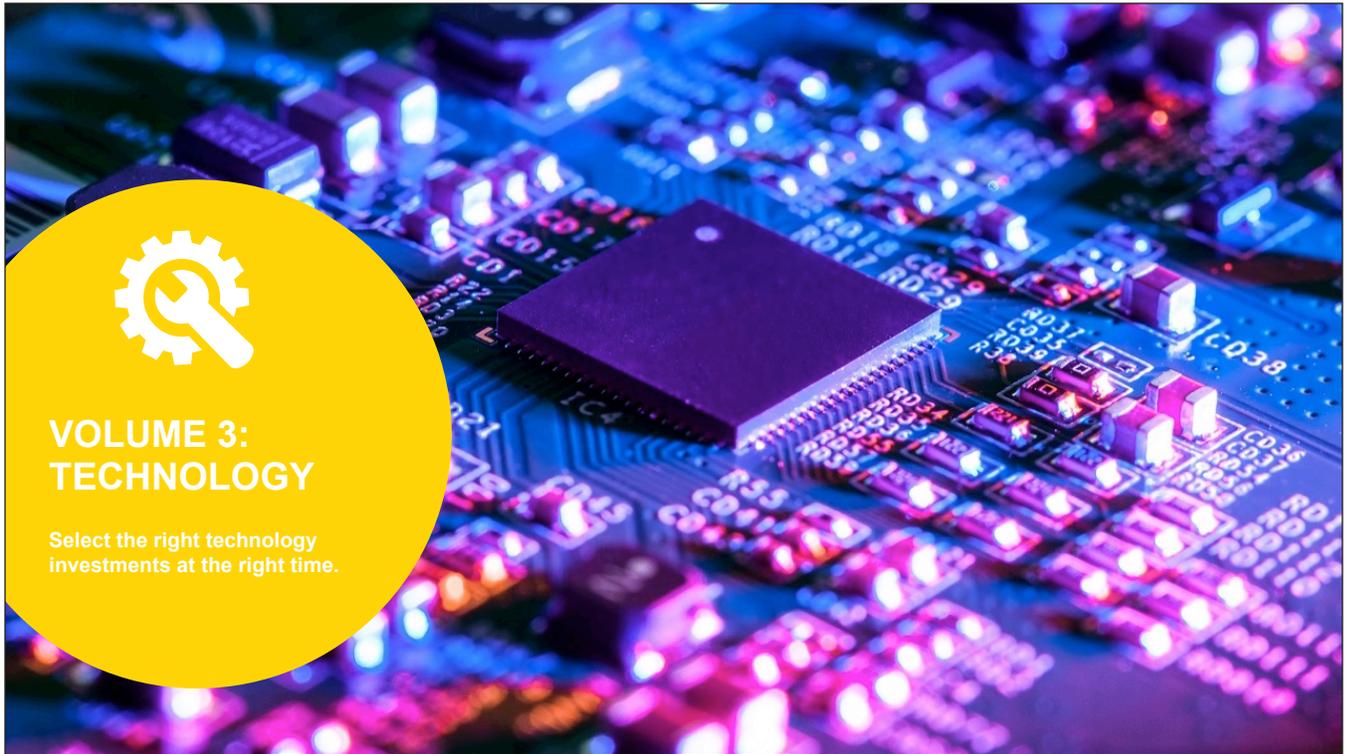
Extreme Weather:

Does increased rainfall and drought, alongside increased extreme weather events change how infrastructure is built?

Sea Level Change:

Will rising waters in coastal areas alter where and how Americans live?

Appendix A – Workshop Presentation



Connected/Autonomous Vehicle Test Beds



WhatMovesYouArizona

If we no longer need traffic signals...
do we need to invest in ITS?



What to Look For in the Coming Years



VITAL SIGNPOSTS

Wireless Sensors:

How might smart infrastructure change the frequency of maintenance cycles if schedules can be better optimized?

Remote Working Capabilities:

Will the need for office space decline as secure file transfer needs increase? At what cost?

Vehicle Technology:

How will worker safety and training be impacted?



What to Look For in the Coming Years



VITAL SIGNPOSTS

Population:

Size, geographic distribution, and change in characteristics.

Economic Growth:

Increase or decrease in U.S. GDP will be a major factor in resources available for transportation.

Energy:

Changes in how cars fill-up change how DOT's are funded.

Technology:

Innovations may alter how vehicles use transportation infrastructure.

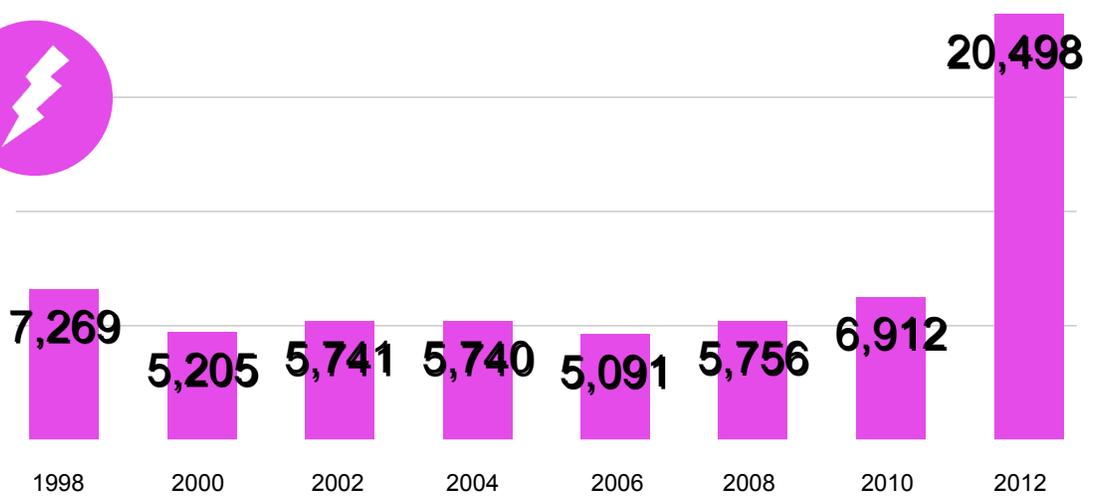
WhatMovesYouArizona



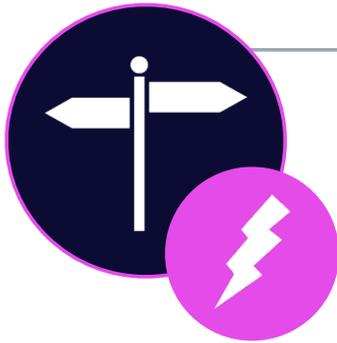
Appendix A – Workshop Presentation



U.S. Alternative Fuel Stations



What to Look For in the Coming Years



VITAL SIGNPOSTS

Technology:

Does new fuel technology lead to fewer carbon emissions and less fuel consumption?

Driverless cars:

How quickly do self-driving cars become the norm? Will they be safer? Will they increase fuel efficiency?

Costs:

Will new fuel technology advances make personal vehicles more or less affordable? More cars? More transit?

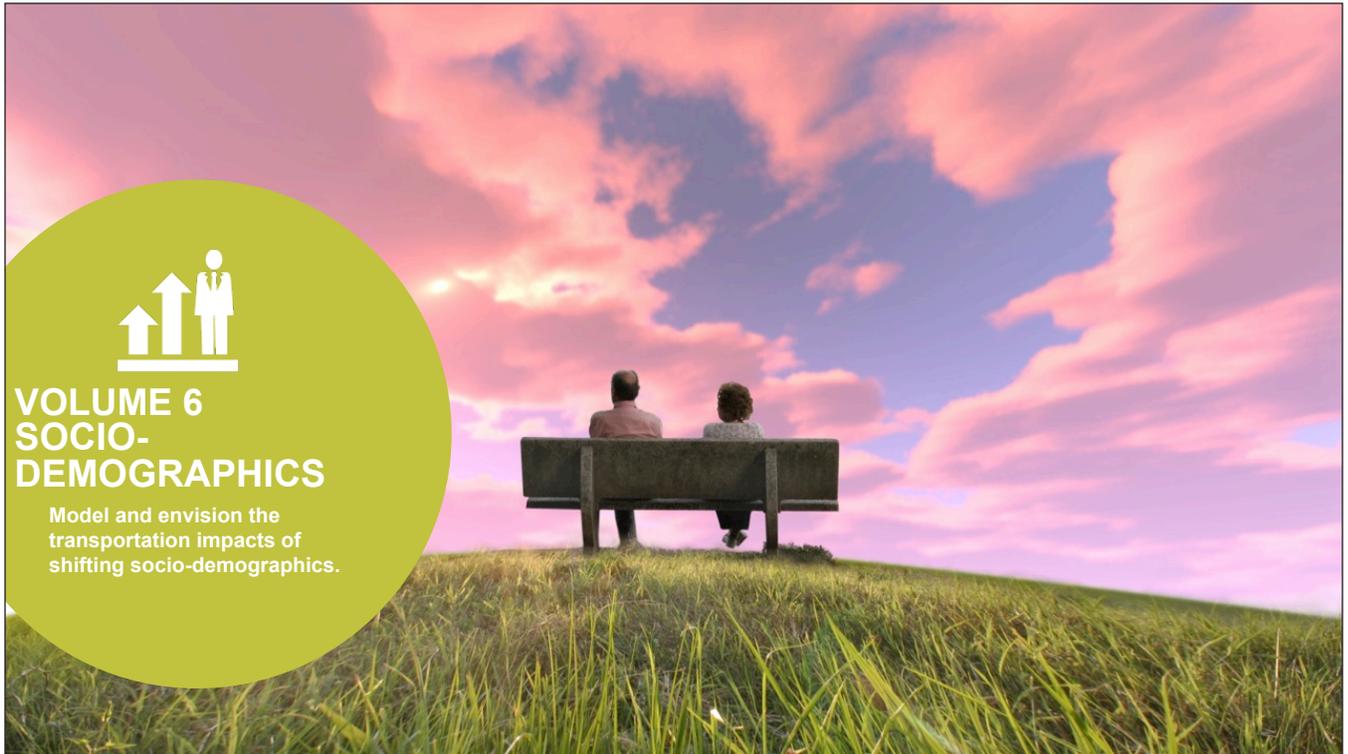
WhatMovesYouArizona



Arizona has 628
alternative fueling
stations.

384 are electric.

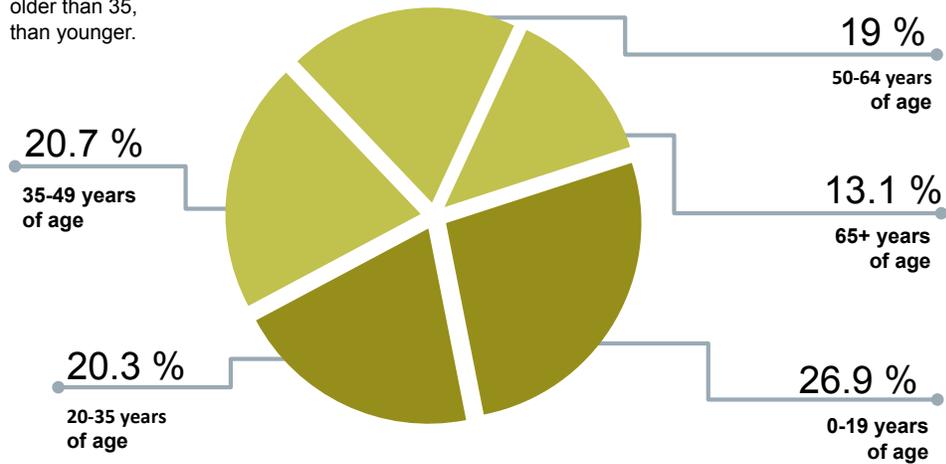
Appendix A – Workshop Presentation



U.S. Population by Age Group



More in U.S. older than 35, than younger.



Appendix A – Workshop Presentation

Maricopa Co. is projected to increase its population by 2,545,569 by 2050.

An increase of 61%.



2016:	4,152,807
2050:	6,698,376

*ADOA-EPS

What to Look For in the Coming Years



VITAL SIGNPOSTS

Life expectancy:

As people live longer, how does a growing senior population affect transit needs?

VMT:

With DOT budgets based largely on fuel tax, how do changing transportation needs affect VMT/fuel consumption?

Immigration:

Does immigration increase or decrease in the coming years? What will the transportation needs be for America's new additions?

Appendix A – Workshop Presentation

Alternative Future Profiles



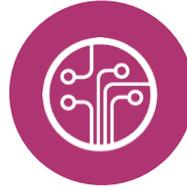
MOMENTUM

America gets older and more diverse. Global trade booms. Domestic growth flattens.



GLOBAL CHAOS

Worldwide financial instability leads to negative growth. Extreme weather increases its impact.



TECH TRIUMPH

New tech radically changes transportation. Economy booms and U.S. becomes more self reliant.



GENTLE FOOTPRINT

Public demands low-impact choices. Regulations reduce consumption, increase government control.

WhatMovesYouArizona



POLICY QUESTIONS for YOUR Profile

WHAT do you think would be most relevant and concerning for Arizona's transportation system if your future profile was to come to fruition?

HOW might transportation needs change if your future profile were to happen?

WHERE is Arizona most vulnerable or unprepared in relation to the demands of your future world?

WhatMovesYouArizona

POTENTIAL PLAN GOALS

WhatMovesYouArizona

Initial Observations

- Long Range Transportation Planning is Complex
- Arizona faces tough investment tradeoff decisions
- Transportation landscape is changing
- “Great recession” had a profound impact on Arizona
- Asset management will be a major challenge

WhatMovesYouArizona



Appendix A – Workshop Presentation

WMYA Goals	MAP-21 NATIONAL GOAL AREAS						
	Congestion Reduction	System Reliability	Safety	Infrastructure Condition	Freight and Economic Vitality	Environmental Sustainability	Project Delivery
Improve mobility, reliability and accessibility	✓	✓	✓		✓		
Preserve and maintain the state transportation system		✓	✓	✓	✓		
Support economic growth	✓	✓			✓		
Link transportation and land use	✓	✓			✓	✓	
Consider natural, cultural, and environmental resources						✓	✓
Enhance safety and security	✓	✓	✓		✓		
Strengthen partnerships						✓	✓
Promote fiscal stewardship							✓

WhatMovesYouArizona

Draft System Goals

- **Goal Area 1: Improve Mobility, Reliability, and Accessibility** – Implement critical/cost-effective investments to improve access to multimodal transportation and optimize mobility and reliability for passengers and freight.
- **Goal Area 2: Preserve and Maintain the System** – Maintain, preserve, and extend the service life of existing and future State Transportation System infrastructure.
- **Goal Area 3: Enhance Safety** – Continue to improve and advocate for transportation system safety for all modes.

Appendix A – Workshop Presentation

Potential System Objectives

Mobility Goal

- Reduce congestion/delay
- Improve travel time reliability
- Improve accessibility & connectivity
- Better accommodate bicycle/pedestrian
- Accelerate tech deployment
- Prioritize Corridor Profile Study implementation

Preservation Goal

- Maintain % of pavement in good/fair condition
- Maintain % of bridges in good/fair condition
- Reduce the percentage of rural transit vehicles that exceed useful life
- Maintain a state of good repair for rest areas, ports of entry, etc.

Safety Goal

- Reduce the number of highway fatalities
- Reduce the number of serious injuries
- Reduce the number of non-motorized fatalities

WhatMovesYouArizona

Draft Process Goals

- **Goal Area 4: Strengthen partnerships** – Develop and nurture partnerships that support coordination, integration, and preservation of ADOT’s investment.
- **Goal Area 5: Improve Program Delivery and Promote Fiscal Stewardship** – Continually enhance the ability of ADOT to efficiently and effectively deliver programs and projects, ensure responsible management of public resources, and implement funding strategies to ensure long-term balanced investment in the State Transportation System.
- **Goal Area 6: Make Effective Investment Decisions** – Better link planning and programming through performance-based decision-making that integrates the project evaluation criteria and weighting established by the Plan.

WhatMovesYouArizona

Appendix A – Workshop Presentation

Potential Process Objectives

Partnerships Goal

- Increase coordination with MPOs & COGs
- Improve coordination with other state agencies
- Increase the use of public-private partnerships
- Reduce hurdles to public-private partnerships

Stewardship Goal

- Increase % of projects delivered on time/on budget
- Address current and emerging staffing needs
- Accelerate technology & communications infrastructure deployment
- Communicate investment needs and articulate the benefit of improvements

Effectiveness Goal

- Implement the most cost effective solutions
- Prioritize projects that promote economic growth
- Enhance system resiliency and security
- Encourage and reward transportation-land use coordination
- Act as stewards for the state's natural, cultural, and



What's Next?

Schedule

- Finalize Goals
- Technical Analysis of Needs & Revenues
- Recommended Investment Choice (RIC)
- Project Selection Calibration
- Final Plan

Stakeholder Input Opportunities

- Plan Web Presence - Ongoing
- Vision Workshops – Now
- Stakeholder Survey – Summer 2016
- RIC Rollout– Early Fall 2016
- Draft Plan Review – Early 2017



Appendix A – Workshop Presentation

www.azdot.gov/whatmovesyouarizona

WhatMovesYouArizona

January 2016-May 2016 Goals Workshops | Appendix B

Notes from Small Group Discussions

What Moves You Arizona

State Long-Range Transportation Plan 2015-2040
Public and Stakeholder Outreach



Appendix B – Notes from Small Group Discussions



In 2008, the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Research (SCOR) established the forward-looking NCHRP Project 20-83 research series. Published as NCHRP Report 750: Strategic Issues Facing Transportation in Volumes 1-6, the series examines global and domestic long-range, strategic issues and their implications for state departments of transportation (DOTs). Each volume explores fields as varied as freight movement, climate change, technology, sustainability, energy, and socio-demographics and explains how events and trends may shape the transportation system of 30-50 years in the future. Together, the reports demonstrate the importance of foresight in navigating an uncertain --- and in some cases --- a rapidly changing future and they give state

DOTs and other Transportation agencies the tools to develop a better understanding of the opportunities and the challenges the future may present.

The NCHRP Report 750 Foresight Series reports are a resource for transportation decisionmakers and practitioners interested in the future of the transportation systems they oversee. In addition to the reports themselves, other resources have been developed to facilitate communication and discussion of these research results.

ADOT used information from the series to facilitate a discussion at each workshop about thinking far in to the future, how things might change, what the future might be like, and how that would impact transportation in Arizona. Specifically, the questions posed include :

- WHAT do you think would be most relevant and concerning for Arizona's transportation system if your future profile was to come to fruition?
- HOW might transportation needs change if your future profile were to happen?
- WHERE is Arizona most vulnerable or unprepared in relation to the demands of your future world?



Appendix B – Notes from Small Group Discussions

Participants were assigned to one of four small groups, each of which discussed these questions related to one of the following four potential future scenarios:



Momentum Scenario:

America gets older and more diverse. Global trade booms. Domestic growth flattens.

- Economy - Concentration of wealth/activity in “mega-regions”
- Technology - Technology change favors gradual, not disruptive changes
- Politics - Slow adoption of new transportation funding mechanisms, stymies investment
- Society - Aging, more diverse population grows slowly and favors urban areas
- Environment - Environmental changes stay manageable



Global Chaos Scenario:

Worldwide financial instability leads to negative growth. Extreme weather increases its impact.

- Economy - Growing global financial instability; trade wars, another Great Recession
- Technology - Technology Advances are minimal due to instability
- Politics - Isolationist policies hinder economic growth
- Society - Population grows slowly and favors urban areas
- Environment - Increasing and visible impact of climate change



Tech Triumph Scenario:

New tech radically changes transportation. Economy booms and U.S. becomes more self-reliant.

- Economy - Productivity gains unleash rapid economic growth
- Technology - Autonomous cars create ‘disruptive change’
- Politics - Stable economy promotes political harmony
- Society - Population grows and technology allows more dispersed development
- Environment - Economic growth puts pressure on environment



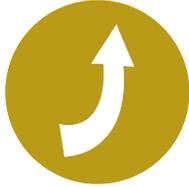
Gentle Footprint Scenario:

Public demands low-impact choices. Regulations reduce consumption, increase government control.

- Economy - Many economic goals and aspirations are limited by efforts to make society more sustainable
- Technology - Energy consumption reduced
- Politics - Public consciousness and political will shift toward action on climate change
- Society - Substantial regulation and greater social economic control
- Environment - Droughts and super storms plague U.S.

Appendix B – Notes from Small Group Discussions

Alternative Future Profiles



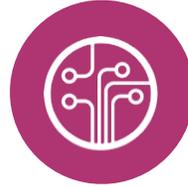
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TECH TRIUMPH

New tech radically changes transportation. Economy booms and U.S. becomes more self reliant.



GENTLE FOOTPRINT

Public demands low-impact choices. Regulations reduce consumption, increase government control.

The pages that follow include notes from the small group discussions from each of the 12 workshops.

Appendix B – Notes from Small Group Discussions

Kingman Jan 27 Small Group Notes

Momentum

- Drones will have an impact
- Less revenue, less wear and tear
- Less demand for roads, more transit + public transportation increase
- More population, more road usage
- Political power translates to political power
- Older generations may shift to transit-serviced areas
- More private vehicles being used for transit
- Job growth may lead to noise congestion
- Shopping centers may become obsolete due to online commerce
- Noise pollution
- Redundancy is important due to services being decentralized
- Better coordination of traffic control
- Jobs may decrease due to decentralization
- Regional and state roads may become more important, but there may be a lack of funding

Global Chaos

- Global chaos in process now/constant
- Globalization impact on local economies
- HURF funding vs. Tribal funding
- Lack of necessary resources cause governments to cooperate and work jointly on projects
- Impact of snowbirds on infrastructure needs
- Highest priority will be to focus on maintaining current infrastructure rather than expansion
- Baby Boomers' impact on economic growth; increased recessionary cycles will create an increased impact on alternate modes of travel
- Support for Great Recession
- Key Areas of Focus:
 - Competition for scarce dollars
 - Autonomous vehicles
 - Competition for relocating companies
 - Education concerns
 - Focus on infrastructure maintenance with limited funding
 - Need to address impact of new development on existing infrastructure (nexus analysis)

Tech Triumph

- What
 - Taxability for any fuel method shifting to VMT taxes (not gas tax)
 - Mobility improvements (those unable to drive can be transported)
- o Increases personal taxes on driving taxes (per mile)
- Less wear and tear on major roadways
- o With diversified transportation
 - o Drone deliveries
 - Rural roads may improve due to greater freight transportation
 - o Amazon ordering everything
- How Needs Change
 - Fueling infrastructure necessary
 - Great city infrastructure necessary
 - o Potentially enabling ADOT to invest in other infrastructure

Gentle Footprint

- More rigid commitment to policies
- Resiliency need to establish a resilient infrastructure
- Droughts and superstorms
- Could magnetize rural populations along primary routes (rather than spidering out)
- Higher and better use of corridor ROW for energy and technology
- Greater need for alternate modes such as high speed/commuter rail
- Greater emphasis on partnerships, particularly public/private
- Shift funding emphasis from pavement conditions to alternate funding options
- Storms need for more duplicity between points A and B
- Adopt policies to promote resiliency, safety regulations
- Rural areas need more options for alternative fuel
- North-south connectivity is limited
- Improved emergency response services/assistance
- Increased communication for incidents

Appendix B – Notes from Small Group Discussions

Prescott Valley Jan 28 Small Group Notes

Momentum

- Where
- Vulnerable
- Preserving what we have
- Public transportation
- Deadlocked peak hours
- Heat island effect more move to rural Arizona
- Diminishing workforce rural
- Transportation dollars
- Ineffective supply chains
- More traffic POE
- Wildlife
- Development
- Outdated taxes
- Expanding to meet future needs
- Not as much federal funding

Global Chaos

- Under extreme weather events
- Increase in telecommunication (telecommute)
- Funding shift elsewhere
- Infrastructure used more exclusively for freight
- Mass evacuation
- I-17 insufficient capacity
- Roadways insufficient for evacuation
- Wildfires, floods, snowstorms
- Transportation
- Less road miles occur for preservation
- Central line and transit networks more prominent
- Resorting to low-tech solutions
- Letting roads return to dirt (low traffic locations)
- Focus solely on critical infrastructure
- Providing adequate local food resources challenging
- Declining water resources and limited land for food decline
- Local transit of produce necessitated
- Leading to potential population exclusion
- Proactive gas tax is necessary before costs are astronomical
- Potentially focusing small amount of money towards centralized populations
- Road mile costs could decline
- Labor rates would decline

Tech Triumph

Gentle Footprint

- Less reliance on SOV
- Greener city centers alternative mode focus
- Availability of water
- Densification of urbanized areas
- Need for technology in rural areas
- Loss of personal freedom
- Increased intercity modal choices (duplicity)
- Raise taxes
- Greater focus on wildlife corridors
- Reduction in rural population
- Need more passenger rail transport
- Funding for alternative modes
- Highway funding needs to be increased for rural areas
- Greater emphasis on improving our existing facilities
- Policies to enforce reduction in truck freight rail freight and more technology for rail
- Education at citizen, state and federal level for transportation funding needs
- Public/private partnerships
- Modernization to incorporate/respond to technology
- Growing emphasis on funds to support safety enhancements

Appendix B – Notes from Small Group Discussions

Holbrook Feb 3 Small Group Notes

Momentum

- Reduced VMT for aging population
- Improved technology enables mobility/travel
- Technologically challenged will be mitigated
- Impact of global trade increase on rural routes
- Need for capacity increase on key rural routes
- Increased travel to rural recreation destinations with increase in urban growth
- Greater concentration of diverse population in urban centers
- Increased pressure on multimodal transportation systems in urban areas
- Pass-through trade from global growth impacts state transportation network
- Opportunity for Arizona to capitalize trade increase with target investments
- Distribution center, economic activity increase will create needs for investment on key corridors
- Need to position Arizona for increased freight activity with strategic investment
- Funding is key to future opportunity for economic growth
- Need to accommodate wildlife corridors on key (all) corridors
- Mobility needs for rural Arizona in 25-year planning timeframe
- Increase need for alternate mode investment in urban core

Global Chaos

- Economy falters; less people moving to the state
- Supporting maintenance of infrastructure affected by populations entering and leaving the state
- Lack of redundancy for access to rural areas in the event of a closure
- If world economy falters, immigration may increase to take advantage of stronger US economy
- More populated metropolitan areas increase in political influence resulting in migration from rural areas to access services/employment
- Water to dictate the population growth or decline

Tech Triumph

- Manual driving is a thing of the past
- Transportation becomes a large interconnected transit system
- Better materials available
- Raw materials transportation
- Manufactured goods assembled at the consumption point
- Individual consumption increases
- Reduces impact on the network (roadways)
- Increases other infrastructure (electric infrastructure)
- Individual homes occupied longer (less concentrated resources)
- Connected vehicles
- Safety benefits
- Capacity increases highly reliable travel
- Highly privatized transit infrastructure
- Potential road tolling if public sector abandons responsibility of roadways
- Major innovation coming from private industry (continuation of current trend)

Gentle Footprint

- Not enough money to keep roads repaired
- What is ratio of spending in urban vs. rural?
- Increased weather events = increased need for drainage
- Minimize our footprint, preserve what we have
- Make what we have last longer through technological enhancements (materials)
- Alternative fuel technologies policies made available to rural areas
- More duplicity and redundancy of routes needed in modal choices for rural travel transit/rail
- Connectivity and sensitivity to environment could lead people to more rural lifestyle or urbanized for pedestrians/bikes or telecommute (change in commute patterns)
- No telecommunications redundancy in rural areas
- Need for alternate revenue sources and/or public/private partnerships/tire taxes
- Right-of-way constraints could limit opportunities possibly provide fiber optic role but crowds out room for expansion

Appendix B – Notes from Small Group Discussions

Benson Feb 11 Small Group Notes

📌 Momentum

- Allocation of funding
- o Population vs. miles
- Public/Private partnerships
- Technology/Shipping
- Economy: future/now/Mexico
- Funded by population or need
- Technology
- Politics: Understand the need, lack of will to fund
- Society: Funding for mega cities? Aging society
- Environment: Manage and Sustain
- Paradigm shifts
- o Trade comes through area but only creates need for infrastructure with less benefit
- Trucks could be linked together?
- Economy - fund for need, not just population
- o State too focused on those population/industry centers
- Politics does not allow for funding of transportation in rural communities
- Funding is for megacities but aging populations very affected (medical, emergency services)

📌 Global Chaos

- Connection - system to system connection/completion
- Routes to get "here to there" thinking ahead of time (before landlocked like Tucson)
- Migration to Arizona weather-related
- Rural Arizona livability - places burden on community
- Railroads/Highways (planning around them)
- What if Guaymas Port stopped or other ports, what does that do to us?
- Multiple gates and POE's
- Crime (drugs) traveling through ports
- Extreme cold or heat - our state will boom in population
- Many will retire here- social services burden
- If public agency has no money, public investment necessary?
- Increase cycling
- Older retirees like to ride bikes
- Trucks scary!
- If economy is bad, may not have money for personal vehicles- so transit/ interconnection needed
- Transportation for elders
- Migration (senior citizens)
- Planning around railroads
- Multiple POE's
- Crimes, drugs
- Boom in population due to bad weather [EPSE? Where]
- P3 needed as agencies have less changing demographics (may burden)

Appendix B – Notes from Small Group Discussions

Benson Feb 11 Small Group Notes (cont)

📍 Tech Triumph

- Focus tech investments in rural areas
- Rural areas have less options for mobility
- Consistent need for capacity expansion
- Potential impact of delivery mode shift
- Can partnerships be formed to reduce public costs.
- Concern over impact of Technology Security Branch on system function and our reliance on new operations
- Ability of technology to reduce cost of DPS Enforcement
- Connection between health and mobility; human powered transport
- Rural areas need more options for mobility and communication
- Safety concern over increased use of bicycles
- Need for investment in complete streets
- Arizona unique in US with Tribal lands
- Arizona needs to become more competitive globally with key investments
- Impact of increased shipments of goods to/from Mexico
- Need for LPOE investment (existing & new)
- Impact of increased truck trips
- Technology advances impact travel behavior
- Need to accommodate long-distance trucking on dedicated smart lanes
- Balance use of rail corridors looking forward/preservation
- Invest in rail transit local, regional, state-to-state
- Lower VMT demand for younger population (the new normal)
- Older population in rural areas in need of public transport
- Broad investment in public transport for younger population as well
- Technology changes for transport needs for school age (non-auto or bus)
- Optimize technology investment to make expanding systems work with increased use/efficiency
- Public/Private partnerships (P3) to improve communications and mobility options (Uber)

📍 Gentle Footprint

- Economic Goal: More population and commerce (tourism)
- Less availability of natural resources (minerals, water, quality air)
- More population and commerce leads to more demand for adequate infrastructure funding for technology
- Serious discussion concerning revenue to pay for infrastructure. How to pay for it!! And keep taxes low
- Politics
- Climate change?
- Economics of a changing climate
- More public transportation
- Rail (Tucson -- Phoenix)
- Alt. Trans.
- Change mode
- Society
- More regulation means more funding
- Longer to complete projects
- Environment
- More money to design
- Change in design standards
- Construction leads to more funding for repair, more diverted funding away from transportation projects

Appendix B – Notes from Small Group Discussions

Flagstaff Feb 17 Small Group Notes

📌 Momentum

- Losing existing infrastructure maintenance
- Decreasing HURF funding
- Lack of modes major metro
- Increasing traffic
- Exceeding design capacity
- More of everything (people, cars, MPOs)
- Mobility/accessibility elderly
- Limited alternate routes for major disruptions to system
- Difficulty to implement technology in rural areas and in general
- Increased isolation tribes
- Alternate ways to generate transportation funding (license tax, vehicle weight, other taxes)
- Weekend gridlock Snowbowl
- Life span of future infrastructure expansion
- Incorporate technology into all projects
- Funding distribution to rural Arizona
- Wildlife connectivity/safety
- Interconnectivity of outlying rural communities
- Development (land/community) policy issues
- Planning for college areas walkability/traffic congestion/growth
- Reduce red tape streamlining programming process

📌 Global Chaos

- Flooding (I-40)
- Fire water/power
- Hacking
- Sanctuary/refugee
- Poor connectivity isolates rural areas
- Aging infrastructure
- Poverty/low-income disproportionate impact
- Economic collapse
- Shift to public transit if private funding fail
- Goal flexibility/resiliency
- Access to supplies
- Economic precious metals
- Asphalt, etc.
- Fracturing of system players fail
- Goal intermodal (fast switch)
- Access to fuel fails
- Note missing modes (train)
- Don't pigeonhole
- Needs
- May see more local/regional focus work from home
- Tech adoption slows or reverses
- Local food production capacity limited how does food arrive?
- States become independent
- Resiliency
- I.D. supplies
- Farm to market
- Vulnerable
- Funding: fuel-based/not indexed
- Politics: tax averse
- Isolated parts of state (see I-17)
- Reliant on one mode/one road
- Flagstaff Region:
 - Good multimodal/could use train
 - Car train
 - Single fiber optic line
 - Bottlenecks/trains/redundancy

Appendix B – Notes from Small Group Discussions

Flagstaff Feb 17 Small Group Notes (cont)

Tech Triumph

- Increase in small truck shipments to local residents
- New technologies to optimize use of public transportation
- Increased use of ZIP cars
- Need to listen to the changing needs of young and older populations (ability for technology to improve options)
- New “Complete Street” emphasis or focus
- Impact of Uber/Lyft
- Car ownership change
- Implement tax for online purchases
- Impact on historic revenue streams due to changes in VLT and gas tax
- Potential for alternate funding (VMT) linked to actual travel and use of infrastructure by vehicles
- Congestion and toll roads could be considered for new funding
- Potential to expand use of sales tax to fund MM transportation improvements
- All who benefit from infrastructure contribute to funding for maintenance and expansion
- Consider “VAT” for funding infrastructure
- Impact of new travel options with autonomous cars on commuting patterns
- Impact of technology on historic trend in work location (remote work)
- Cost of living concerns in certain regions of the state must be considered as solutions are developed; custom-tailored solutions targeted to local conditions
- Consider a structure for fair tax (national, state, local)
- Changes in travel pattern with mix in vehicle fleet (old vs. new tech advance) address safety concern

Gentle Footprint

- More alternative mode travel
- Local economy lower distance freight
- Shared economy/resources (e.g., car share)
- Decommissioning roads
- Repurposing of facilities
- Less urban sprawl
- Ore telecommuting
- Higher food prices and lower food supply
- Slow to change
- Over-dependent on roads/cars
- Lack of policies to support land use/transportation links (TOD)
- Willingness to support alternate funding sources
- More investments in alternative energy choices and/or technologies
- Roadway preservation costs would be disproportionate to VMT
- Lack of redundancy/duplicity for modal choices between rural areas (transit/rail) and roads
- Alternative fuels at rest stops
- Policies to regulate and prioritize funding different types of transport
- Alternatives for freight transport

Appendix B – Notes from Small Group Discussions

Tucson Feb 18 Small Group Notes

📌 Momentum

- Funding shortfalls/ policies
- Federal government nudging technology thinking in sleepy communities
- Allowing focus to remain on traditional modes
- “But we’ve always done it this way” mentality
- Building facilities without foreseeing future tech changes so instill accountability and metrics in planning
- Increase infrastructure investment at ports egress/ ingress for freight
- For mega-regions, bigger diversity and choices of transportation systems
- Noise containment/ control structures will be needed- How to integrate into developed/ urban areas
- Anticipate lag behind of funding and planning more construction
- Inaction
- Aging population not thinking of or investing in future
- Support need for increased capacity
- Connectivity statewide, including rural areas to megaregions
- Impact of transportation systems on climate change

🌐 Global Chaos

- Decrease of fossil fuels
- Decrease use of fossil fuels
- Identify new funding source
- Infrastructure costs
- More demand on US oil
- Trade will increase exports with Mexico/Canada
- Impacts safety, congestion, condition
- Shift to urban areas
- Public Transportation
- Bike/pedestrians
- Trade is limited by security measures imposed
- Could also have more rural population shifts
- Environmental shifts and impacts to infrastructure
- Electric grid fails, impacts on moving people to safety, healthcare
- More focus on alternative forms of transportation
- Impacts new Arizona growth areas (economy)
- Enhanced technology/manufacturing
- Is a 5-year plan needed?
- More focus on public safety and ensure people/goods can be moved; need existing infrastructure today to support that future movement
- Innovation outpaces policy
- Lack of police to address needs
- Land use
- Compact/urban focus
- Focus on trade corridors
- Connect urban areas
- New routes
- Priority to move people/goods
- Need mass transportation
- Total cost of system must be accounted for
- Cost will go up relative to people’s way to pay for it
- Can’t afford to maintain existing system
- Infrastructure development needed to have good economy. What are the other options?
- Highway/rail routes
- Dependent on interstate for connectivity
- Need to prioritize where it is going
- Water supply: Prolonged normal is we don’t have water
- Mass exodus to other areas
- Completely change the way we think and plan
- Stability of supply
- Imports multi modes of travel

Appendix B – Notes from Small Group Discussions

Tucson Feb 18 Small Group Notes (cont)

🔗 Tech Triumph

- Where will people want to live if there is more autonomy?
- More satellite facilities
- Changing demographics equals different needs
- Aging-projections
- Driverless vehicles
- More?
- Readjust infrastructure
- "Transport" personal vehicle- long distances
- Changing work patterns
- Need more motivational/incentives for sustainability - HOV
- Alternative options in rural areas - vulnerability
- Not as many roads needed: Safer, and more self-sustaining and walkable communities
- Who will use roads and why?
- More public transportation
- More options: High speed rail, transit, high volume
- Environmental controversy: Larger groups with different views
- New/different infrastructure
- For alternatives vehicles & fuels- all types
- Laws/restrictions would need to change
- E-Commerce going through state - higher
- Types of vehicle changes - just in time delivery
- Number of vehicles could increase
- Number of workers could change

🌱 Gentle Footprint

- Increased connectivity
- Lack of budget
- Need more emphasis on safety planning
- More public transportation
- Increase emphasis on pedestrian/bike
- ROW use for technology
- Resource, reclaim
- More emphasis on technology
- Policy shift to VMT
- More self-regulating infrastructure (i.e. roundabouts)
- Policies to promote heavy rail
- More partnership with rail
- Government cooperatives for resource shaping
- Need for more air capacity
- Decommissioning and repurposing of roadways
- Less travel
- More public transportation, particularly youth
- Less SOV
- New construction product/tech
- Additional technology related to public transit
- TOD/mixed use
- Pedestrian/Bike use
- More urbanization
- De-emphasis on trucking, More rail/intermodal
- Drones
- More cross-border needs
- Alternative fuel/power sources

Appendix B – Notes from Small Group Discussions

Lake Havasu City Feb 23 Small Group Notes

Momentum

- Higher speed/high capacity transit solution between major urban centers
- Historic limits on available funds have impacted rural Arizona
- Maintain relevance of local communities in comparison to the urban centers
- Higher impact in communities with snowbird populations with lower contribution to tax base
- Increased impact on roadway and rail systems related to shipping of goods to support growth
- ADOT to address new vehicle technology and changes in fleet characteristics over time
- Potential benefit of system operations
- Concern over funds being spent in mega regions to cope with growth
- Rural areas may struggle to simply maintain existing infrastructures
- Local economy in rural areas are different than urban center characteristics
- Full multimodal systems are required to assist sustainability in rural areas
- Local funding strategies may need to evolve to solve local issues
- Transportation systems need to meet the needs of local communities and support economic base
- Consider use of waterways for transporting goods
- Improve partnerships between state, federal and local governments to optimize the return on investment and improve responsiveness to local needs
- Increased age plus increased migration results in increased need for alternative modes of transit
- ADOT to become a more active participant in finding viable funding solutions (PR, lobbying, education) full focus on \$\$
- Aging population may not want to fund maintenance of older infrastructure
- Arizona attracting large percentage of older residents in retirement years (lower taxes)
- Need to develop new solutions to old problems
- Consider new funding strategy to break away from gas tax
- Place great emphasis on maintenance/preservation in new reality of limited funds

Global Chaos

- Financially challenged
- Traditional/surface transportation halts/deteriorates
- Public transportation grows/alternatives
- Employment opportunities decline (traditional), Creating new opportunity
- Technology becomes even more important
- Infrastructure limitations (e.g., airspace)
- Population trends
- Urbanization vs. mega regions
- Highly competitive/hostile regional relationships
- Water resources compromised
- Weather/heat impacts: Un-ideal summer temperatures, existing seasonal populations
- Main corridors become more important
- Invest in transit systems and alternative methods
- New funding mechanisms (more than gas tax) (e.g., regional/local tax and toll roads)
- Neighborhood structure changes
- Carshare/rideshare/rental cars
- Necessitates innovation

Appendix B – Notes from Small Group Discussions

Lake Havasu City Feb 23 Small Group Notes (Cont)

🔒 Tech Triumph

- Decreased security increased risk
- Negatives
- Terrorism
- Hacking
- Less human interaction
- Positives
- Borders
- Drones
- Less use on roads
- Still need roads
- Dedicated lanes for autonomous
- In existing right-of-way
- New infrastructure
- Decreased threat if power goes out
- Working from home less impact on system

🌿 Gentle Footprint

- Smaller homes
- More green space
- Growth regulated/planned
- Decreased need to travel outside your community
- More need for renewable energy
- Increased reliance on public transport
- Increased densities and multi-use development

Appendix B – Notes from Small Group Discussions

Yuma Feb 24 Small Group Notes

Momentum

- Going to need more non-roadway
- Infrastructure in future to support driverless and alternative fuel vehicles
- Maintenance of existing system
- How fast will auto technology actually change?
- Alternative revenue generation will be needed
- Distribution of funds into rural areas
- Justification/distribution of funds in urban areas vs. rural areas
- Policy to balance transportation needs with agriculture

Global Chaos

- Regionally isolated (equals localized economies)
- Highly specialized economies
- Instability/unreliability
- Global political realignment
- Deteriorating infrastructure
- Increasing trade activity with Mexico
- Highly targeted investments
- Preserving
- Droughts/heat waves increase in frequency

Tech Triumph

- Great emphasis on transit service
- Potential for people mover systems?
- Improved access to alternative fuel delivery infrastructure (natural gas, and electric)
- Potential from new funding strategies (user benefit/user tax)
- Lack of standardization for alternative fuel sources and complexities for delivery of multiple options
- Mobility needs evolving for younger and older population sectors
- Trend to use a rental for vehicle for longer trips
- Younger population doesn't want to be burdened with vehicle costs or potential licenses
- Bike travel to increase with link to public transportation
- Home delivery of good change travel patterns
- Limit on construction of new roads. DOT's need to adapt to changing travel patterns. Local community self-sustainability/ remote working
- Upgrade aviation facilities with emphasis on rural needs
- Opportunities within mega-regions still impact rural communities (under 50,000 pop.)
- Winner and losers will exist in funding improvements to connect rural communities
- Potential for local funding strategies to support needs at a county-wide level
- Farm to market emphasis shift to key commerce corridors
- Need to also focus on secondary systems linked to key corridors
- Need for a national vision and guide Federal funding for system improvements
- Potential need for new dedicated lanes to take advantage of smart vehicles in the overall fleet
- Need to consider special tolls for special lanes
- Open to experience and lessons from other countries (capitalize on best practices)
- Potential concerns over conversion to narrow lanes with truck travel
- Potential benefit of core densification and trip making reductions, link to increased public transport

Appendix B – Notes from Small Group Discussions

Yuma Feb 24 Small Group Notes (Cont)

☺ Gentle Footprint

- Funding
- Enforcement (no sweeps)
- Education
- Alternative Sources
- P3 Initiatives
- Partnerships
- Locally
- State
- Privately
- Internationally
- Technology
- Materials (construction & maintenance)
- Roadway design
- Repurposing existing row
- Airspace regulations
- Increase waterway use
- Alternative Mode Choices
- Decommissioning of roads for alt. modes
- Complete street focus
- Move away from fossil fuels
- Route redundancy
- Roads
- Rail
- Alt. Modes
- Air cargo
- More freight rail or passenger rail for cross-border
- Federal policies determine state outcomes
- Lose institutional knowledge as transportation professionals age and retire
- Adjustments may be needed in ways funding is distributed, priorities and performance-based rather than population
- Investment to ensure movement of goods through rural to get to urban
- Increased need for multi mobility modes
- Desert regions might be great space ports
- Move away from fossil fuels, increase alternative fuels
- Solar power
- Urbanization
- Alternative modes
- Limiting impact on environment
- Aging pop equals decreased equal less VMT/smaller vehicles
- More mass transportation
- Less infrastructure
- Link mass transportation to alternative modes (Last mile i.e. bikes)
- More modal choice for linkages

Appendix B – Notes from Small Group Discussions

📌 Momentum

- Not enough funding
- Politicians need more information
- Funding formula should be needs-based (not based on population)
- Increased demand in urban areas
- Peak travel during weekends
- Accommodating future growth
- Rural safety, school bus turnouts, maintenance
- Rural is second to urban/urban-rural inequities
- Law enforcement needs rural, especially DPS
- Increased local freight traffic (e-commerce)
- Increased need for multimodal competing interests/accommodations
- Wildlife connectivity/safety for road users
- Alternative funding: user fees, tolls, permitting fees (freight), new tax structure (update gas tax), other sources of funding within agencies
- Policy: Don't build a new facility unless you can build access, bus pull-outs, etc.
- Funding available to maintain facility
- Shared responsibility from users/agencies needing facility
- Seasonal damages to rural roadways
- More mass transit/rail
- Safety education, outreach change human behavior
- Media campaigns agency partnerships
- Increased elderly needs for mobility

🌪️ Global Chaos

- Security concerns with infrastructure
- Broad mix of vehicle types (tech)
- Greater need to work with manufacturers (P3)
- Transportation tech reverts
- Manufacturers need greater communication
- Land compliance concerns
- Rural funding shrinks
- Rural development halted
- Intercity linkages reduced
- Rural highways forfeiting ownership
- Zero infrastructure redundancy
- Emergency management concern
- Greater need for self sufficiency
- Resorting to less tech-dependency
- Preserve major use roadways
- Emergency funds needed
- Main points:
 - Self sufficiency
 - Lack of redundancy
 - Freight liability
 - Food resources

Appendix B – Notes from Small Group Discussions

Flagstaff Feb 25 Small Group Notes (cont)

Tech Triumph

- Technological improvements and ability to improve safety
- EMS response improves
- Law enforcement response improves
- Rural areas improve ability to communicate for safety enhancement
- Concern over use of hand-held devices and traffic safety
- Technological improvements could prevent text and email while driving
- Private sector need to support infrastructure improvements (fuel stations)
- Improved fleet efficiency will reduce gas tax revenue (new funding strategy)
- ADOT to make good decisions on internal fleet modernization
- Need to perform cost-benefit analysis
- Increased emphasis on bike and pedestrian facilities; linkages to public transportation
- Further densification of urban regions and demand for mobility choices
- Improved connectivity of public transportation systems in rural Arizona (accessibility, coordination, connections)
- All public transportation systems need to acknowledge changes in population age and needs
- Compare and contrast expansion of existing systems versus investing in new alternative mode infrastructure (high-speed rail)
- Potential concern over environmental impacts from expansion policy
- Private sector absorb cost of poor infrastructure (impact on vehicles private and commercial)

Gentle Footprint

- Existing system focus
- Mobility/movement/tourism
- Local population
- Safety
- Alternate income streams
- Technology
- Multimodal friendly
- More involvement in ground transportation instead of airports
- Lighting
- "Connected"
- Google
- Politics
- Alternative energy
- Alternative modes
- Incentive-based programs politics vs. performance
- Tourism draw for money vs. local
- Society
- Do more with existing
- Privatization of transportation/roads/tolls
- Environment
- Restrictions
- Design standards
- Water infiltration
- Wildlife
- Lighting impact performance
- Health impacts

Appendix B – Notes from Small Group Discussions

Casa Grande Feb 25 Small Group Notes

Momentum

- Technology
- Driverless Vehicles (need to pay for it)
- Will reduce gas tax
- Need Funding
- Fossil Fuels (need to fund)
- Ex: \$0.10 (similar to current funding mechanism)
- Passenger rail
- We still love our vehicles
- Population (centered in Phoenix)
- Need statewide connectivity
- Shopping (E-Commerce)
- Online
- Packages still need to be delivered
- Building for our kids
- Small circle
- Don't want to drive
- This is millennial metro
- Rural is different
- More autonomous
- Can't afford to live in central community
- Millennial
- No loyalty to employers
- Change jobs more often
- 3-5 yrs
- Faster deliver of transportation project
- Flexibility in the planning process
- Infrastructure will fall apart if nothing changes
- Mega-regions grow
- Not keeping up with infrastructure
- Prioritization of infrastructure
- Biggest challenge
- Commuters need to pass through Pinal County
- (North-South Sun Corridor): important piece of puzzle
- Most of growth will be here
- Only trans-continental freeway
- I-10 becoming more congested
- Will stop going through here (Phoenix - Tucson)
- Deliveries/ Freight
- Cheapest Investment
- I-10 Chunk (Phoenix - Casa Grande)
- This would be priority
- Look at all routes (the "whole pie")
- Funding mechanism to keep momentum
- Interstate system is priority
- Deterioration will occur
- Shoot ourselves
- Freight will stop going through AZ
- People will move away
- Less desirable place to live
- Cannot stay this way
- Local elected officials
- More pressure
- No progress
- Stop driving on roads because they are not safe

Global Chaos

- Govt. concerns (tougher choices)
- Is the status quo
- Shifts focus to maintenance
- Focus on other modes
- Urbanization
- Millennials grow up
- Increased importance of transport
- AZ becomes more popular
- Investment focus on core corridors
- Needs to invest in state
- Locals become more active in solving needs
- Growing parochialism
- Increasing population
- Bring in more people to work
- Impact on transport needs
- Changes and Vulnerabilities
- Road warrior
- Funding
- Already hitting wall on capacity
- Decision-making processes (ill suited)
- P3 - institutional Environment (not there)
- Need for creativity/partnerships
- Resistance to an ability of Govt. to get out of the way of tech drones

Appendix B – Notes from Small Group Discussions

Casa Grande Feb 25 Small Group Notes (cont)

Ⓢ Tech Triumph

- Rapid Change
- Response rate
- New Tech. needs to be acquired
- Workforce
- Dedicated Lanes will current infrastructure support?
- Positive or Negative on Environment
- Improved Air Quality
- Driverless Vehicles on Demand
- Improved Safety - quicker response time instant messaging
- Underutilized Infrastructure
- Drones
- Mgmt of airspace
- Congestion
- Maintenance
- Public/Private P3's
- Reliance on private sector
- Technology & funding
- Political Influence (ADOT Gov. Director)
- Less role for ADOT
- Communication
- Coordination
- Innovation
- Education
- Incentives
- Tuitions
- Partnerships

Ⓢ Gentle Footprint

- Less reliance on fossil fuels
- Less manufacturing/more freight
- More urbanization/village centers
- More agricultural
- Reuse/use of public land for Parks & Rec.
- Drones
- Alt. Fuels
- Drought management
- Fires
- Linkages/Connectivity/Access
- Tribal Lands

Appendix B – Notes from Small Group Discussions

Miami April 13 Small Group Notes

Momentum

- Economic development increases as needed
- Need to prioritize and address system, doesn't go away
- Growing challenges meeting transportation needs of next generation
- Challenges transporting older generations, but still deliver highways
- Accommodating pedestrians
- Small cars equal less dollars, better environment
- Uber/Carstogo to parking/funding issues
- Trucking growth in rural areas, wear and tear
- Online shopping
- Driving truck demand
- What needs to change?
- More rural transit investment/programs, will Uber solve?
- Transportation spending
- Equity issues grow
- Increased need for transportation, investment to support economic development
- Increase expectations about travel speed/reliability to demand
- Increase local road needs, also more capacity/access demand for freight on major corridors

Global Chaos

- Resistant to change
- Highly favorable to funding preservation
- Shrinking communities, limited resources focus to serve largest number of people
- Agency changing abilities to fund, minimal main street funding potential
- Multimodal potential
- Bridge maintenance challenges
- Concentrated major urban centers (Phoenix, Tucson, Prescott)
- Water is the new gold
- Vulnerabilities
- Connectivity
- Funding Preservation
- Ability to react to incidents, disasters and accidents
- Safety hazards
- Geography-based inequity
- Opportunities
- Forced sustainable communities
- Proactive modeling efforts for scenarios
- Adaptation and viability of resources creates innovation

Appendix B – Notes from Small Group Discussions

Miami April 13 Small Group Notes (Cont)

Tech Triumph

- Expansion limited
- Continued population and growth in urban areas - 'choices'
- Revenue source collected from technology - risk of bonding new technology
- Usage fees - electric cars
- Privacy
- Airspace
- Monitors
- Equity for those in rural areas
- Workforce
- Partnerships with colleges and private sector
- Attract independent contractors
- Socialization
- Technology in the roadways
- Rural needs more than urban
- Electrical
- Cell phone

Gentle Footprint

- More personal interaction
- Increased community values
- Village center concept with connectivity and sustainability
- Increase use of alternative fuels
- Increase non-motored amenities
- Transportation corridors within human scale
- Complete streets
- Trails and connectivity (local and regional)
- Community partnering
- Environmental stewardship
- Wildlife
- Natural Resources
- Need for increased education
- Educated and informed public cooperative approach
- Context-sensitive solutions
- Communities
- Environmental
- With alternative fuels, decreased need for expansion
- Alternate and flexible funding sources
- Emphasis on alternative modes
- Increase coordination between transport and land use planning
- Planning for technology
- Increase partnering with locals (Native American communities)
- Right-of-way use for technology and alternative fuels and communication links (part rural)
- Habitat enhancement (animal and plant)
- Policy for environmental stewardship
- Safety

Appendix B – Notes from Small Group Discussions

Phoenix May 12 Small Group Notes

Momentum

- Risks include reaction time for project delivery, high dependence on vehicle travel, and continuing infrastructure deterioration
- Endless expansion perpetuates congestion
- Intermixing freight vehicles leads to great congestion and delay; expansion may be the solution to congestion
- Transit opportunities do not meet the needs of the population. Land use patterns lead to sprawl.
- Funding limitations on implementation of transit; revenue sharing and higher densities better connect transit opportunities.
- Urban vs Rural needs/goals vary
- Education components are limited; emphasize use of alternatives
- Elderly population opportunities very limited; mobility concerns
- Limited rural route redundancy; importance of keeping routes functional
- Rural regions become more rural?
- Lived experience is missing from decision-making process
- How to prioritize current maintenance with shift in ITS/ autonomous shifting in near future
- Funding/coordination risks
- Geographical/climate concerns
- Fuel Tax insufficient for future generations

Global Chaos

- Resources for transit
- Evacuation
- Focus on mega-region
- Climate (ozone, heat)
- Diverse source of funding (Sales, property, gas tax?)
- Consensus on prioritizing projects
- Jobs=Funding. Must attract, retain.
- Linking land use and transportation
- Demographics need public transportation
- Security=Delay; possible over-build
- Risk; private sector? Toll roads?
- Change: less cars, more transit, more walking
- Identify/support funding
- Ability to adapt quickly
- Most vulnerable: lack of redundancy (17, rural, north/south, and east/west) consider parkway concept
- Vulnerable also in ability to adapt (flexibility, technology)
- Need more choices
- Think nationally/global

Appendix B – Notes from Small Group Discussions

Phoenix May 12 Small Group Notes (Cont)

Tech Triumph

- It is likely that we know less about the future than we think; this poses a challenge for the public sector in terms of decision making timeframes
- A change like a hyperloop may influence use of transit, nature of transit
- Per-capita “consumption” of transportation may change
- Increased demand for alternative energy
- Movement toward privatization
- Impacts on resiliency
- Definition of “work” may change radically
- Use of physical space is different (urban form)
- Customization/personalization of transportation
- Different partnerships, particularly with private sector
- Be proactive about responding to client changes
- Investing to add value to state’s economy
- Consider non-traditional ways of meeting demand
- Better funding mechanisms

Gentle Footprint

- More mass transportation
- Sustainable does not limit economic growth it inspires it
- Robust recycling
- More neighborhood gardens
- Resource sharing
- More at home/closer to home work
- Increase in urban nodes
- Increased digital infrastructure in rural areas
- Focus on alternative energy
- Smaller urban living spaces
- More innovative resource production
- More personalized technology
- Self sufficiency
- Shifting cultural composition and diversity in design
- Local/community service focus
- Changing water resources/usage
- Design for health
- Changes in education
- Increased cooperation/partnership among local agencies
- More focus on quality of life
- Alternative modes
- Decreasing emphasis on personal vehicle
- Freight shift to rail
- More hybrid/flexible transportation options
- Multiple modes and utility infrastructure in corridors
- Sharing of resources not mode-specific
- Tolling/congestion pricing
- Alt fuel vehicles
- Decrease in vehicle miles traveled (telecommute, schooling, health)
- Transportation to support recreation
- Connected vehicles

January 2016-May 2016 Goals Workshops | Appendix C
Comments Received via Project Website, and LRTP Team Responses

What Moves You Arizona

State Long-Range Transportation Plan 2015-2040
Public and Stakeholder Outreach



Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: January 21, 2016

Comment¹: Section 5.2 discusses the use of a consultant team, but no where else in the report is a consultant team discussed or described. How was this consultant team chosen and who is on this consultant team?

Team Response: The consultant team for the What Moves You Arizona update was selected using a competitive procurement process through ADOT's planning on-call consultant contract. The selected consultant team, composed of High Street Consulting Group (prime), Wilson & Company, Burns & McDonnell, Decision Lens, and Spy Pond Partners was selected by an ADOT consultant selection committee composed of ADOT Planning Department staff from several submitted proposals. The public involvement consultant was selected by reviewing proposals submitted by firms on the ADOT Public Involvement consultant on-call contract. Central Creative was selected as the primary public involvement consultant with Gordley and Associates as a subcontractor.

Date: January 22, 2016

Comment¹: : More commuter rail and integrated transit options, please! Also, more pedestrian/bike crossings over freeways.

Team Response: ADOT's role in transit investment is currently statutorily limited to administering federal pass through funding to local transit agencies; it would be a Legislative decision, not ADOT's, for this to change. The updated Plan, will address the transportation benefits of expanded transit services throughout the State.

Date: January 22, 2016

Comment¹: Expand light rail, train, and other mass transit. I want to ditch my car, but the bus system gets stuck in the same traffic my car does.

Team Response: ADOT's role in transit investment is currently statutorily limited to administering federal pass through funding to local transit agencies; it would be a Legislative decision, not ADOT's, for this to change. The updated Plan, will address the transportation benefits of expanded transit services throughout the State.

Date: January 22, 2016

Comment¹: I believe that using the existing canalways in Arizona would be a perfect opportunity for a commuter rail system. Capping the canals, in order to lay rail, would also reduce evaporation of this precious resource. Additionally, the median of our highways could be fitted with two sets of rail to link our cities to each other and other states. I have a map here: <http://rdhamouris.tripod.com/images/smart1.jpg>

Team Response: Thank you for identifying an interesting approaches for acquiring or providing the right of way needed for rail development. ADOT's role in commuter rail and transit investment is currently statutorily limited to administering federal pass through funding to local transit agencies, thus the development of rail/transit systems would be the responsibility of local and regional governments. We will pass on your ideas to the appropriate agencies.

Date: January 22, 2016

Comment¹: I hope that our future transportation system encourages bicycle use through dedicated bike lanes, easy bike storage/transportation on bus & metro cars, and by ensuring cyclist safety through intersections. And bicycle enhancement features along bike routes. I also encourage placement of HAWK or similar on-demand stop lights to assist non-motorists in crossing major streets where there is no other stop sign/stop light. Lastly, I hope that some shade structures could be placed at the corners of well-used pedestrian intersections to make walking more tolerable in summer time.

Team Response: ADOT views bike and pedestrian as an important mode of transportation and is exploring the need for associated investments, such as adding shoulders to rural roadways and improving signalization, as part of the plan. The updated plan will include an objective related to improving bicycle and pedestrian accommodation on the state highway system.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: January 23, 2016

Comment¹: You did not mention Payson or Star Valley! Hwy 260 going EAST out of Star Valley is extremely dangerous! It is the last section to be completed and really needs to be finished.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: January 30, 2016

Comment¹: The Riggs Road overpass of I10 is in need of pot hole repair, is this in your plans anytime soon.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: January 30, 2016

Comment¹: We moved to the east valley from Globe-Miami in early 1990's and Gold Canyon in 1998. Traffic continues to increase in the east valley yet we see very little being done to keep up with the increase while every other part of the valley gets new highways. To make it WORSE we are inflicted with the Renaissance Festival for two months on the weekends. When is there going to be monies and attention to Highway 60 especially through the Gold Canyon area? Bypass or no bypass, give us some help, please. Last year we saw traffic going toward the Festival backed up to a crawl to almost Ellsworth. You cannot hardly get out onto 60 from Kings Ranch unless you really plan your times. Not only that we have four churches on Kings Ranch Road. Yes, they have DPS help on Sundays in key months, but they often leave the lights during the week all messed up. ONE OF THE BIGGEST SOLUTIONS, perhaps is BETTER LIGHTS. Either the lights get left set wrong or they are do not have the cameras and logic to respond to the traffic properly. For example, there can be no one in the left turn lane on 60 westbound by the Bashas store yet it keeps opposite eastbound 60 traffic held stopped up until all the east bound 60 left turn onto Superstition Mtn. goes. Even after all the left turns are gone there is still a 5-8 second delay before the light turns green to let east bound go. Another example is Kings Ranch road turns green but there may be no left turners onto 60E or they have already gone through, with only right turners onto 60 westbound--- why can't the light let 60east left turns to Kings Ranch and 60 eastbound go ahead at the same time. Why can't we get lights with the cameras and logic to accomodate this? And also, if there vehichles are turning left from 60 eastboundonto Kings, why can't there be a Kings Ranch Road right turn signal simultaneously. Many drivers just sit there on Kings Ranch instead of making the right after stop when all you have is people left turning onto Kings Ranch (there's no collision issue as the two turns are compatible). Adjustments in these lights all during the day would so improve traffic. As it is, this going on all day with traffic getting more backed up. I have seen traffic backed up completely from Mountainbrook to Kings Ranch Rd at the end of the day. Then you have people who want to turn left in the way stopped waiting to get to the turn, which makes that area then only one moving lane east. This can be a setup for getting rearended. Burning more fuel and people getting frustrated. And the DPS have to see this and never call it in we wonder? The Rennissance Festival traffic is a safety hazard. How do you get ambulance or fire response even through? I understand Queen Valley cannot get emergency vehicles to them except through Florence. Folks, this is Not right. Its time the festival move to some other area and see how the decision makers would like it in their neighborhood with the roads we have. Really 25 years. Please help us. If you can't spend money on Highway 60 in this area, bypass it. How long are you going to dangle that carrot. Highway 60 is an important highway and a commerical one that carries goods to and from the Globe-Miami area. It was there long before winter visitors influx who do not register their vehicles but think they can drive on a major highway at 35 mph. Its time for the far east valley to get some real help. Come out and study it for a week or two.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments regarding US 60 are forwarded to the appropriate individuals within ADOT.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: February 1, 2016

Comment¹: We need to have 3 lanes from Phoenix to Casa Grande, Az. Both ways.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: February 1, 2016

Comment¹: One of the most serious transportation problems is the amount of traffic into and out of San Tan Valley. I believe it is critical to extend the 24 freeway to at least Ironwood ASAP to relieve the amount of traffic on surface streets.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: February 1, 2016

Comment¹: Please don't plan any more "roundabouts" in place of signals. Those on Happy Valley Road at I-17 are a good example. Truckers and many cars detour South to Pinnacle Peak Road to avoid them. The bridges across the I-17 freeway need to be replaced with four lane bridges to alleviate the backup that occurs on the East side of Pinnacle Peak Road from 3:00 PM to 6:00 PM every week day. This is largely the result of motorists avoiding the roundabouts on Happy Valley Road.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: February 1, 2016

Comment¹: I'm worried about the bridges, large and small, around the state (ie the problem in desert city, ca). Let's not wait until they fall apart and cause accidents.

Team Response: Thank you for your comment. Preservation of our existing system, including bridges, is a high priority of ADOT.

Date: February 2, 2016

Comment¹: Rail is really the future for moving people and freight without having to build more miles of road and putting more pollution into our air. The new locomotives are models for emission standards and the class 1 RRs are buying them. (Tier 3/4?) The Tuscon/Phoenix corridor would benefit in so many ways if that line could be built. Just think of all the people who could commute on it or use it to visit family WITHOUT having to drive that sometimes impossible section of I10. One caution: be sure to site the stations in strategic locations, not just downtown to downtown. Another location for rail is to parallel the US60 and the new I11. Using the present freight tracks is not the greatest idea but another dedicated passenger track (for light rail/interurban) would alleviate any congestion. And, just think of the smaller communities that are out there in the desert who could really use such a link to either Phoenix or Las Vegas or Tuscon if that line gets built. Having seen the interurban cars in museums, it is amazing how well they are built, how well they ride, and how many miles they covered. Think about the northeast corridor and try to duplicate it in the southwest.

Team Response: ADOT's role in transit investment is currently statutorily limited to administering federal pass through funding to local transit agencies; it would be a Legislative decision, not ADOT's, for this to change. The updated Plan, will address the transportation benefits of expanded transit services throughout the State.

Date: February 3, 2016

Comment¹: 18 wheeler trucks go too fast in this state. We need a speed limit on them like some other states impose. Make it a law to keep them in the right lane through Phoenix and Tucson.

Team Response: Safety on the transportation system is ADOT's highest priority and we continuously monitor data to identify areas where safety problems exist and address them through a wide range of strategies.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: February 5, 2016

Comment¹: Interstate 11: 1) I-11 in Southern Arizona is about exporting American jobs. The Corridor Justification Report sees “nearshoring” and “integrative manufacturing” as the future. Nearshoring is attracting US companies from China to Mexico, where wages are expected to be even lower. Integrative manufacturing means research and development in Arizona and Nevada, manufacture and assembly in Mexico. The report also projects stealing good US jobs from the West Coast by attracting container cargo to the Mexican Port of Guaymas, being expanded with Chinese funding. 2) An Avra Valley I-11 route is too expensive, too disruptive, and has some major problems. While the cost-per-mile of double-decking a bit of I-10 is higher than building a new highway, double-decking six miles of I-10, from Ruthrauff to I-19, would cost one-third the cost of a new 56-mile Avra Valley highway. ADOT’s own numbers provided by ADOT State Engineer Jennifer Toth and confirmed by ADOT’s John McNamara. Toth said double-decking would do everything they wanted for the next 30 years. An Avra Valley I-11 highway, as proposed by Pima County Administrator Chuck Huckelberry, would seriously disrupt the communities, wildlife and archaeological riches of the valley. It would bring traffic fumes-caused illness, disrupt Kitt Peak’s light, degrade Saguaro National Park and the Desert Museum. It would, however, enrich real estate speculator (and failed politician) Wil Cardon who owns some 1500 acres along the Huckelberry Highway route. I-11 needs an 800 to 2,000 foot right-of-way (ROW) according to ADOT. At Sandario and Mile Wide there is only 80 feet ROW, with the Tohono O’odham Nation on one side and the US Bureau of Reclamation’s Wildlife Mitigation Corridor (set up when the CAP canal was built) on the other. Huckelberry proposes using Sandario as the base for an elevated highway to get around this bottleneck. 3) The Sonoran Corridor is a Trojan Horse. The Sonoran Corridor, rejected by voters in November’s bond election, would link I-10 and I-19 west of I-19, serving Raytheon, the airport, and the UA Tech Park. If it were a straight line, it might make some sense. But it drops south alongside an unbuilt 3000-acre Diamond Ventures Swan Southlands development and then west to duplicate an already-planned El Toro Corridor and link up with the Avra Valley route at I-19 -- making the Huckelberry Highway the “logical” choice with a connection already in place.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments regarding I-11 are forwarded to the appropriate individuals within ADOT.

Date: February 5, 2016

Comment¹: Promote carpooling! It requires no new infrastructure, no new taxes, it cuts down on total VMT, reduces air pollution, saves wear and tear on our vehicles, and frees the county governments from the tyranny of transit unions.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: February 6, 2016

Comment¹: By transporting goods from Canada to Mexico and bypassing the good ‘ole USA we are putting Americans out of work again!!! Bad idea!!! If you need more roads, build the roads East and West and transport our own goods faster and better!!! Build the economy here and not ship outside goods thru our country!!

Team Response: Both the plan update and other ADOT initiatives such as the key Commerce Corridor plans are exploring how transportation connections in all directions can best support and grow Arizona’s economy.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: February 12, 2016

Comment¹: I attended your 11 February outreach meeting in Benson. The following are initial comments based upon this meeting: The draft Long-Range Goals had draft System and Process Goals Goal Area 6 mentioned effective investment and performance-based decision-making. I support both, but suggest that the “effective” goal be expanded to “cost effective.” Some investment decisions might be very effective; but if they are very costly, they might not be worth it. Something at a lower cost with a reasonable amount of effectiveness would be a better choice as long as it met some base level goal of effectiveness. The draft Long-Range Goals had draft System and Process Goals none of these goals talks about “social responsibility,” so suggest a new draft System Goal of “Provide Basic Non-Driver Transport Support.” By this, I mean elderly, disabled, mentally ill, etc. personnel that do not have relatives/friends that can drive them around. They need transportation at some basic level to get to the doctors, grocery stores, etc. This basic level of transportation support should be a goal of ADOT and not just in urban areas I am talking about all areas, as rural needs definitely exist. The vast majority of the presentations covered vehicular transportation. There was a brief mention of the State Bike & Pedestrian Master Plan and ensuring roadway shoulders were wide enough to accommodate bicycles. Bike and pedestrian planning needs to be an integral part of the ADOT Long Range Transportation Plan and not an afterthought. It is much more cost effective to include bike and pedestrian requirements while planning highway development, enhancement or maintenance. This is not only a safety issue; it is also a tourism issue. In addition, the scope for bike and pedestrian requirements should also include multi-use paths next to/by highways/streets. Multi-use paths have a positive impact of vehicular traffic flow and they definitely enhance safety and tourism.

Team Response: Thank you for taking the time to provide several well-thought recommendations. The following respond to the three themes you raise:

1. Cost effectiveness -- ADOT’s intention is to explore integrating considerations of cost effectiveness and benefit optimization as part of our implementation of Goal Area 6.
2. Social responsibility -- ADOT’s role in providing transit investment and other services associated with the needs you identify is currently statutorily limited to administering federal pass through funding to local transit agencies; it is a Legislative decision, not ADOT’s, if this should change. The updated Plan, however, will speak to the transportation benefits of expanded transit services throughout the State.
3. Bike/Pedestrian Facilities -- ADOT views bike and pedestrian as an important mode of transportation and is exploring the need for associated investments, such as adding shoulders to rural roadways and improving signalization, as part of the plan. The updated plan will include an objective related to improving bicycle and pedestrian accommodation on the state highway system, and working with local partners to encourage investment on their part.

1. Individuals who provided comments also provided their email addresses and were added to the notification list for the project.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: February 13, 2016

Comment¹: Thank you for the opportunity to express my concern about traffic conditions in northwest Cochise County. I am a resident of Mescal, and affected by traffic conditions on I-10 at the Exit 297 area, as are many in the Mescal/J-Six communities. Currently, we have no road access to either Benson or Tucson without using the 297 interchange/overpass/ramp structures. You will remember a couple of years ago that the overpass was closed for several months because of an accident causing fire under the overpass. Many residents were forced to drive miles extra daily in order to get to work, school, doctor or hospital service, shop for groceries, or for any other reason. At the time, Mescal/J-Six residents expressed their concern that there was no alternative to the I-10 Exit 297 construction for entry/exit by road. There was talk of providing an access road to Benson. To my knowledge, nothing has happened to promote that plan. In my view, the original construction of I-10 from Benson to Tucson was faulty in that it overlaid the original Benson Highway, but did not provide a separate access road which could be used as an alternative to the interstate highway. Had we realized that lack, my husband and I would not have built in the Mescal area. At the current time (mid-February), I-10 is experiencing almost daily back-ups of highway traffic of as many as 5 and 6 miles, due to construction and affected by increased traffic load because of the winter season (snowbirds and trucking using the southern routes) and the annual gem show in Tucson. Had the original plan to build the interstate been expanded to include a secondary access road from Benson to Tucson (replacing the old Benson Highway), an alternate route would be available for use during construction, for access to accidents by those providing medical and other assistance, by local traffic to reduce overload on the interstate highway during the winter high-traffic time periods. It is now time to plan for and provide that separate access road. Please include such a route in your new plan.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: February 21, 2016

Comment¹: I suggest that projects in Maricopa County should be focused on alleviating metro Phoenix's terrible traffic congestion. This means funding should be dedicated to projects that directly benefit the taxpayers, instead of building roads on the edge of the town that promote urban sprawl and mostly benefit real estate developers.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. It is important to note that the LRTP covers the state system only, not regional or local roads. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: February 22, 2016

Comment¹: I think that it is structurally important as well as key to the economic strength of the city to connect/ continue Aviation highway westbound to Ajo way at Cholla/ West of Cholla. This would create a high speed arc internal to Tucson connecting Davis-Monthan AFB to downtown to the westside's Starr Pass, the Tucson MT park, and Casino Del Sol and everything in between.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: February 22, 2016

Comment¹: Providing comments first as a Hopi Tribal member, second as the Hopi Department of Transportation, Director for the Hopi Tribe. The Hopi Tribe is in support of our Arizona States Long Range Transportation Plan (LRTP), and it have now been for quite sometime that our transportation need is have gone unheard. The recent development of our Transportation program have gone to listen to our tribal membership and many others residing on our tribal lands and traveling within and have not had opportunity to truly express concern or where to elevate these concerns. The Tribe is excited to share within the States LRTP these long standing issues and concerns and would like to share this with the state as a united effort as the tribe too is in support of others and need. We feel as we look to the past LRTP as we expressed have gone on unheard as we have lost valuable lives of our tribal membership to the current conditions we encounter daily, its negative economic impact to our already hard losses. We have not had any State Law Enforcement presence in Hopi now going on over two years and yet the only minimal resource that may become available in Highway User Revenue Funds is being taken away continually by the Dept. of Public Safety for the metropolitan areas and we are left unprotected. We too as public highway users contribute to these taxes. Amongst these resources being redirected else our state transportation system within our Tribal land is in need of repair. Due to limited lobbying capability it is not hard to witness that in entering on to from all directions roadways leading into Hopi are in continual improvement and in addressing safety thereafter conditions are unacceptable and totally unsafe. We have partnered with the State for now going on three years and because of the lack of knowledge in transportation and its policies our voices have gone on unheard. We understand the large numbers in the metropolitan areas but, these areas continue to get its need met while are being subjected to the conditions provided. We as the Tribe are a willing participant and therefore challenge the state to take a good look at our need that we are not wanting to an obstacle but, that our concerns be taken with seriousness as our lives matter as do the rest of the state. Therefore we (Hopi) are a willing partner and with excitement share your enthusiasm that we have safe roadways anywhere within our great state of Arizona.

Team Response: Thank you for providing your comments through the website. ADOT is committed to consultation and partnership with tribal governments, and will be reaching out to set a meeting with the appropriate representatives of the Hopi Tribe. It is important to us that we understand your concerns and have a rich dialogue about how the problems you reference can get solved, working together.

Date: February 26, 2016

Comment¹: I-10 access at exit 297: the sizable communities in Mescal and J-6 have no outlet other than I-10 itself, which of late has been almost constantly under construction. We need a frontage road to Benson. If a major fire broke out in the area, we could be trapped under existing circumstances. Understand long range plans call for a frontage road in 20 years. Thanks a lot. I'll be dead and gone by then - probably trapped and trying to get out of J-6!

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: March 9, 2016

Comment¹: I would like to make two comments: 1. an alternative route needs to put in place for J6/Mescal and Empirita and others to have a bypass route to and from Benson. With all the accidents on this stretch of I-10 it is ridiculous that people have to take a 67 mile detour because of construction or accidents. This is simply poor planning. Many people in the Benson area used March Station exit to get to Tucson and bypass the construct on I-10. You need to be more proactive here. My second comment (2) concerns the recently repaired overpass at J6/Mescal. You are to be commended for the speed that you made the repairs and put that route back into operation. However, my complaint concerns the West bound exit ramp. The pedestrian wall and fence makes it very difficult to see traffic coming up from J6 and crossing the bridge. You have to stick the nose of your vehicle out into the lane before you can see clear enough to see if a vehicle is approaching. Sometimes even when you clear it, because you can not see vehicles coming up from the J6 side until you start to make the turn towards J6. I think that you need to take a look at this and figure out a solution.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: March 29, 2016

Comment¹: I-40 is in serious need of lane extensions. From the New Mexico border to Flagstaff, there is heavy truck congestion on a daily basis. I am aware that there is work being done in several locations in that stretch of highway. If a truck lane was added to both East and West sections, much congestion and possible danger could be alleviated. On a regular basis, trucks are attempting to pass each other and backing up traffic, and posing dangerous road conditions, especially during high wind weather like we currently have. It would benefit the state greatly to have additional lanes added to I-40

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: April 4, 2016

Comment¹: I recently moved to Tucson from Minneapolis MN. Though the weather was a shock, the most serious problem that I have seen is the lack of well organized, efficient roads. Tucson is not that large of a city by surface area, however it takes an unacceptable amount of time to travel anywhere that is not directly off the interstate. The lack of central, reduced stop-light, main arteries across town is a daily thorn in this cities livability. Tucson needs higher speed and, imperatively, few stoplight thoroughfares that run N-S and E-W. Speedway, Kolb, and Sunrise/Ina are prime candidates for this transformation. Take a look at a map of Minneapolis. Notice not only the interstates, but also highways 169, 100, 55, 52, 36, 61, 77. Many of the run directly through high property value areas, but they are accepted. Tucson needs to have a vision for it's future, and a significantly better network of roads in order to grow. Not only for business, but also for the convenience of it's residents. There are many other ways that Tucson can improve as a city. It has tremendous potential. It could be a city that has charm and livability. A city that draws professionals to live and work. But a change that it must make, is to improve the roads. I would be more than happy to speak and share more about this issue.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: April 6, 2016

Comment¹: Black Canyon Hill on I-17 (NB) is a safety and mobility concern between MP 245 and 253. Slow trucks and wildlife crossing create safety hazards. Interim measures are needed. 1. Extend the Sunset Pt TI entrance ramp to MP 251. 2. Excavate/ fill west of I-17 to add a third lane and paved shoulder between MP 249 and 251. 3. Replace fill slope with a bridge at MP 249 in accordance with AZGF 2006 wildlife corridor study. 4. Relocate “End Truck Lane Restriction” sign to MP 251.

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Date: April 7, 2016

Comment¹: For the long-range plan, I think that ADOT will need to focus on more intermodal transportation. First and foremost, would be high speed rail to Los Angeles. Running from Phoenix with stations in Goodyear, Yuma, Coachella/Indio, Palm Springs, then ending in Riverside would be more cost effective than expanding I-10 or expanding Sky Harbor Airport, and door-to-door travel time would be faster. This would also help to reduce airfares during peak congestion periods when we're hitting maximum airlift, which then means more visitors, and more disposable income left in their pockets to spend at local businesses upon their arrival. As you know, California now has 120 miles of their initial operating segment of their high speed rail system under construction, with the first major segment from Bakersfield to San Francisco opening in 5 1/2 years. We should start the planning now. I think this needs far more attention than a Phoenix to Tucson rail segment, for sure. It's better to connect 42 million Californians with Metro Phoenix than it is to connect 1 million metro Tucson residents with Metro Phoenix. California could possibly see a population of 100 million reached in 35-50 years, and we need to be ready to serve those neighbors so that they can support our economy. We should also be taking the evolution of autonomous vehicles very seriously... with most manufacturers planning such vehicles, and now several aftermarket companies working on systems that you can add to existing vehicles for under \$750 by 2020, I think you're going to see a lot of people sharing one vehicle between 2-10 people... this will mean far fewer cars on the road, even with projected population growth, especially considering the trend of more and more people working from home instead of from an office. I also think that new freeways should not need illumination - there's no reason for the roadways to be lit with streetlights anywhere... it just doesn't make sense... even new freeways in Los Angeles don't have lights, so let's just eliminate that from the budget... after all, cars have far better headlights today than they did in the 1950s to the 1990s! Building freeways with sensors, overhead information signage, etc., etc. is no longer necessary now that swarm-theory mobile phone applications like Google Maps and Waze are providing this data for free - it's interesting to see hundreds of millions, maybe even billions, of dollars of in-road sensors made completely obsolete by a single free mobile phone application! With automatic cruise control and autonomous braking becoming standard on many vehicles by 2017 (next year!) and mandatory soon thereafter, we should be able to increase speed limits to 85mph while still decreasing accidents, injuries, and fatalities. There should be an expansion effort for I-17 between Black Canyon City and Schnebly Hill Road... this should be 3 lanes in each direction, and vehicles over x axles or x tons should be required to use the right lane, with zero ability to pass another vehicle. Finally, HOV lanes... these really should go from HOV lanes to HEV lanes - “High Efficiency Vehicle” lanes, meaning a moving target of vehicles that get 50mpg today or higher, then this adjusts annually to higher and higher efficiency. There's no reason a 15mpg SUV with 2 people should be able to ride in these lanes when a 110mpg hybrid vehicle cannot... this doesn't solve the equation of reduced emissions and fuel consumption. Encourage rapid adoption of HEVs instead of trying to get people to carpool.

Team Response: Thank you for the thoughtful input. The following response to two themes you bring up:

1. ADOT's role in transit investment is currently statutorily limited to administering federal pass through funding to local transit agencies; it would be a Legislative decision, not ADOT's, for this to change. The updated Plan, will address the transportation benefits of expanded transit services throughout the State.
2. The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: May 6, 2016

Comment¹: I am interested in Commuter Rail from Center St in Wittmann, to 19th Ave and Jefferson. If that cannot be accomplished in the next 20-year transportation tax renewal, then at least have buses twice a weekday from Center St to the State Capitol, and back. Stops should be at 163rd Ave and Grand (US 60). Bell and Grand, 75th Ave and Grand, and finally the Capitol area.

Team Response: ADOT administers Federal grants for transit programs that are implemented at the regional and local level. There are not state funds for public transportation.

Date: May 6, 2016

Comment¹: As a 51 year old AZ native and avid bicyclist I would like to remind the ADOT planners of the economic benefit by planning our roadways for safe bicycle passage. I read the ADOT report MPD 64-12 published in June of 2003 suggesting bicycle tourism brings in \$88 million in tourist dollars in to our state. But having bicycled across the United States, and many other bicycle trips within the United States and Europe, I also realize the potential to attract many times more in bicycle tourism is easily possible by supporting state and national bicycle routes across and within the state. My request to you now is that in your future planning you ensure the safety of bicyclists by expanding the current roadways from 49% (according to the 2003 report) having four foot wide shoulders to 100%. In addition signage to inform motorists and educate motorists on the bicycle laws are also strongly encouraged.

Team Response: ADOT views bike and pedestrian as an important mode of transportation and is exploring the need for associated investments, such as adding shoulders to rural roadways and improving signalization, as part of the plan. The updated plan will include an objective related to improving bicycle and pedestrian accommodation on the state highway system.

Date: May 6, 2016

Comment¹: Please rapidly ramp our rail programs (commuter and light rail)

Team Response: ADOT administers Federal grants for transit programs that are implemented at the regional and local level. There are not state funds for public transportation.

Date: May 8, 2016

Comment¹: As a 51 year old native Arizonan and avid bicyclist I have bicycled many of Arizona's highways. For your ADOT's Long-Range Transportation Plan I did want to suggest that we do not forget the value for everyone (AZ residents, bicycle tourism, etc..) it is to have safe roadways. According to the June 2013 ADOT report MPD 64-12 "An Economic Impact Study of Bicycling in Arizona" bicycle tourism and jobs brings in \$147 million to the AZ economy. I have bicycled in most of the United States, rode across the US and Europe and have seen what bicycle friendly environments can do for the economy and Arizona can learn from these more bicycle friendly destinations. Arizona with its natural beauty and weather could do far better than most of these places I have visited. My comment and request to ADOT is that it never loses sight on ensuring Arizona continues to improve its bicycle capacity. In the 2013 report it claimed Arizona had 49% of its highways with four foot or greater shoulders to accommodate bicyclists. Arizona should strive to grow its bicycle network to 100% as it repaves and improves its highways. Concentration on routes across the state and routes to it national parks should be a priority to help grow bicycle tourism.

Team Response: ADOT views bike and pedestrian as an important mode of transportation and is exploring the need for associated investments, such as adding shoulders to rural roadways and improving signalization, as part of the plan. The updated plan will include an objective related to improving bicycle and pedestrian accommodation on the state highway system.

Appendix C – Comments Received via Project Website, and LRTP Team Responses

Date: May 13, 2016

Comment¹: As a frequent traveler on Hwy. 260, I would love to see the stretch of road east of Star Valley finally completed as soon as possible. (I believe this is referred to as the Lion Springs section).

Team Response: The LRTP does not include a specific list of projects; rather it provides policy guidance for how project implementation decisions are made. Our team will ensure that your comments are forwarded to the appropriate individuals within ADOT.

1. Individuals who provided comments also provided their email addresses and were added to the notification list for the project.