


Executive Summary

The Connecting Nevada Plan is a 50-year look ahead, originating from a need to plan for Nevada's long-term transportation needs. The Plan defines transportation goals to make our economy more competitive, enhance our quality of life, and ensure that our environment provides quality places to live for future generations. The implementation portion describes some of the methods identified to realize these goals.

Between August 2011 and December 2012, the Nevada Department of Transportation (NDOT, the Department) and its partners worked to develop the Plan. The Plan is for all of Nevada, urban and rural—including local, regional, and state partners who make decisions about future transportation investments. A total of eight Technical Advisory Committee (TAC) meetings, five Steering Committee meetings, two rounds of stakeholder meetings, and numerous briefings at regularly scheduled meetings of transportation partners were conducted to gather guidance and input resulting in the Plan.

The resulting Plan was presented in January 2013 at public open house meetings in Las Vegas, Reno, and Elko. Connecting Nevada was developed not only as a plan, but as a process whereby stakeholders could engage with planners and others in developing a vision for the statewide transportation system for the next 50 years.

This Plan describes the outcome of this process, but the process is by no means over. The Plan lays out a program to continually revisit and refresh Connecting Nevada to ensure that it maintains a relevant collection of projects and transportation issues to discuss with stakeholders statewide to set the 50-year, long-term vision for transportation in the state.



"What We Heard"

Stakeholder Workshop Series 1 (November 2011–January 2012)

More than 150 stakeholders representing businesses and industry, trade associations, economic development agencies, environmental groups, federal, state, and local government entities from across Nevada identified

FIVE KEY PRIORITIES FOR CONNECTING NEVADA

Safety

- Reduce crashes and fatalities on Nevada's roads
- Improve signage to address issues with consistency and communication of information to drivers (intelligent transportation systems)
- Provide additional turn-out and passing lanes for improved efficiency and safety
- Address issues of access to emergency services and communication, especially in rural areas of state

Economic Development

- Include long-term transportation planning processes that support and encourage economic development and diversification
- Identify key sectors for which long-range transportation planning will impact economic development; including renewable energy, mining, distribution, and tourism
- Emphasize the importance of coordinating long-range transportation planning with Nevada's economic development goals and objectives

Partnership Development

- Partner with stakeholders to identify opportunities for shared or multiuse corridors for transportation, utility, and communication infrastructure
- Incorporate more proactive and inclusive processes that encourage collaboration with federal, state, regional, and local government agencies
- Identify and expand opportunities for public/private partnerships in transportation planning and development

Improved Multimodal Access

- Determine appropriate means to expand freight capacity; consider the incorporation of dedicated truck lanes and urban bypass routes
- Incorporate walkable communities plans, complete streets plans, and other planning processes that emphasize sustainability and quality of life
- Coordinate long-term transportation planning processes in ways that strengthen the network of bike lanes and regional trails and encourage improved transit access throughout the state

Environmental Issues

- Understand implications of the National Environmental Policy Act (NEPA) on transportation planning
- Identify opportunities to better integrate the NEPA process into transportation planning
- Understand constraints of water availability, threatened and endangered species, and conservation areas and issues on long-term transportation planning

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Project Guidance

NDOT reached out to a broad spectrum of stakeholders in developing the plan. Through this dialogue, trends, issues, and opportunities shaping Nevada's transportation past, present, and future were identified. A core group of participants provided guidance and direction for this process. This group represents organizations responsible for planning and implementing Nevada's transportation system, NDOT, and the state's Metropolitan Planning Organizations (Regional Transportation Commission [RTC] of Southern Nevada; Regional Transportation Commission [RTC] of Washoe County; Carson Area Metropolitan Planning Organization [CAMPO]; and the Tahoe Metropolitan Planning Organization [TMPO]), as well as representatives of the three NDOT Districts.

Project Principles

Early in the Connecting Nevada process, principles and goals were established to help guide the process. The guiding principles identified through Connecting Nevada include:

The mission of the Connecting Nevada plan is ...

To provide a transportation system that delivers mobility solutions for residents and the traveling public of Nevada. Enhancing the system's safety, improving access throughout the state, promoting environmental stewardship, and strengthening partnerships with MPOs and local governments will position Nevada for effective transportation choices for future generations. Investments in transportation infrastructure, coordinated land uses, and diverse economic opportunities will connect Nevada's communities, residents, and commerce to ensure sustainable growth for Nevada's transportation system.

Health and Safety - Optimizing safety is one of NDOT's goals and will be included as a key component in future updates to Connecting Nevada. The transportation system should be planned, designed, and operated in a way that protects the health and safety of people and enhances the quality of life in communities.

Access - People are entitled to reasonable access to other people, places, goods, and services. Mobility, safety, and access all must be balanced.

Connected Land Use - Transportation investments should be supportive of and integrated with land use planning.

Environmental Responsibility - Transportation needs should be met without threatening public health, climate, biological diversity, or the integrity of essential ecological processes.

Partnership with Local Governments - We are committed to the principle of partnership with local governments. We appreciate the vital role of local government decision-making and delivery of transportation services that improve mobility in our cities, counties, and throughout the state.

NDOT has processes in place that foster communication

and collaboration with the MPOs. These processes help ensure that the transportation network in the MPO areas is fully functioning with the NDOT transportation network.

Support Economic Growth - Provide a seamless mix of multimodal transportation options to ensure Nevada's economic vitality and future growth opportunities to move people and goods throughout the state.

Give the Public a Place in the Process - Provide members of the public with complete information and with opportunities for full participation in the transportation decision-making process.

Population and Employment Projections

The current economic slowdown that started in 2008 resulted in the reversal of the unprecedented population growth that the state had experienced during the past two decades. The State Demographer anticipates a relatively flat growth rate until 2014.

Socioeconomic projections prepared for the Connecting Nevada study are based on the MPOs' models, State Demographer projections, and other data sources (refer to 'Data Compilation' in Section 2 for a listing of the specific sources used). These projections show Nevada's population and employment more than doubling by 2060 (refer to Table ES-1 below). Similar growth is expected in the surrounding western states. Most of the growth projected for Nevada will occur in existing urban areas.

Table ES-1. Nevada Population and Employment Projections

	2010	2020	CAGR	2030	CAGR	2060	CAGR
Population	2,664,397	3,226,632	1.9%	3,589,898	1.1%	5,675,183	1.5%
Employment	1,110,237	1,329,508	1.8%	1,552,774	1.6%	2,617,024	1.8%

CAGR - Compounded Annual Growth Rate

Population projections are forecasts that illustrate plausible courses of population change. The population projections developed for Connecting Nevada provided key inputs into the Nevada State Travel Demand Model and represent the best available information.

Nevada Statewide Travel Demand Model

The Nevada Statewide Travel Demand Model (NVTDM) is one of the primary tools developed to support the Connecting Nevada planning effort. The model can test new major corridors and identify deficiencies on state highways and interstate facilities outside the coverage area of the current urban transportation models.

Traffic Forecasts

Traffic forecasts reflect the regions population growth trend and that significant infrastructure is needed to accommodate future travel demand within the metropolitan areas. On most highways outside of the metropolitan areas of Northern and Southern Nevada, daily traffic is forecast to double by 2060. While adequate capacity remains on most of Nevada's rural highway network to accommodate this traffic growth, the forecasts show capacity deficiencies emerging on several regional corridors by 2060, including:

- I-80 – Reno to Fernley
- US 50 – Carson City to Silver Springs
- US 95 – Silver Springs to Fernley
- State Route (SR) 160 – Pahrump to Las Vegas
- I-15 – Los Angeles to Las Vegas
- US 95 to Boulder City
- US 93 – Kingman to Boulder City

The NVTDM forecasts show that portions of SR 789 near Winnemucca and SR 227 near Elko may also experience congestion by 2060.

NVTDM Recommendations and Limitations

The model should be used to monitor the effects of growth and test “what-if” scenarios based on alternative land use or transportation improvements outside of the MPO areas.

- Close coordination between NDOT and the MPOs is necessary to maintain the NVTDM socioeconomic data and transportation network for these regions. NDOT should also partner with MPOs where possible to help maintain a statewide travel survey database.
- To support intercity transit planning, NDOT should consider adding a mode choice step to the NVTDM.
- The model should be expanded to cover all of North America to improve estimation of long-distance commodity flows and personal travel by reducing the number of user inputs at the perimeter of the model area.
- A statewide travel survey should be conducted and used to estimate more universal statewide trip production, attraction, and distribution models.
- The long-distance truck forecasts should be updated when new FHWA Freight Analysis Framework forecasts data become available.
- Enhancements to NVTDM’s short-distance truck model are needed to better simulate local truck activity statewide.
- More information on travel behavior is needed for rural areas, especially regarding long-distance travel. This information will improve the performance of the NVTDM.

Connecting Nevada Website

The Connecting Nevada website (www.connectingnevada.org) provides a portal for continuous access to important information on the project. NDOT will be maintaining the website and updating it periodically to keep it current with the ongoing Connecting Nevada effort.

Connecting Nevada Webmap

The Connecting Nevada webmap (refer to link on www.connectingnevada.org) brings together various data layers that were developed in support of the Connecting Nevada project, and allows easy access to the data that was assembled for the project.

Planning and Environmental Linkages

Planning and Environment Linkages (PEL) represents a collaborative and integrated approach to transportation decision-making that 1) considers environmental, community, and economic goals early in the transportation planning process, and 2) uses the information, analysis, and products developed during planning to inform the environmental review process.

On certain projects, NDOT’s PEL questionnaire and checklist may be used as tools to guide proper documentation and selection of information gathered during the

planning process that will later be made available for input, review, and possible incorporation by reference during the NEPA project development process.

Connecting Nevada Implementation Plan

The Connecting Nevada Plan serves as the long-range transportation plan for NDOT in partnership with stakeholders across the state. The Plan looks at a 50-year time horizon. The Plan is not required by any federal or state regulation but instead is a policy decision by NDOT.

Connecting Nevada is meant to operate in coordination with the current state-wide planning processes which follows federal guidelines (Federal Regulation 23CFR450, refer to Section 3 for additional information) and State statute (specifically N.R.S 408.203, again, refer to Section 3 for additional information) which provides guidance on the Department's reporting responsibilities to the Nevada State Legislature, and requires a short range, fiscally-constrained plan covering 4 to 5 years (State Transportation Improvement Plan or 'STIP'). The MPOs' transportation improvement plans (TIPs) must be consistent with the STIP. In addition, MPOs are required to prepare Long Range Plans that are fiscally constrained, and cover a period of 20 years.

Plan Structure

The Connecting Nevada Plan includes projects at various stages of development, some that have already been analyzed in detail and others that are new "ideas" and are in the beginning stages of development. The Plan is structured to be inclusive and not to limit the number of potential beneficial transportation improvements. The Plan is meant to enhance connections between communities and foster discussion among stakeholders.

Objective of the Implementation Process

NDOT desires to ensure that the Connecting Nevada Plan is dynamic and is updated on a regular basis. Over time it is envisioned that new projects suggested by stakeholders through the Plan outreach efforts and needs analysis will flow down into the State Long Range Plan (LRP). A project may also eventually flow down into the State Transportation Improvement Plan (STIP) and the MPOs' Transportation Improvement Plans (TIP). In addition, the Plan must foster and enhance communication among stakeholders to consider issues and concerns and respond to changes as necessary to meet the transportation needs of the state.

Connecting Nevada Update Process

The Connecting Nevada Update Process includes three parts :

- 1. Project updates.** Each project in the Plan must be kept up to date and provide relevant information on where the project is in the implementation process.
- 2. Stakeholder outreach.** The stakeholder outreach activities for requesting new plan input must be continued at an appropriate level to maintain good communication between agencies and stakeholders that are key to planning the transportation future in the State.

- 3. Maintain planning tools.** The tools that were developed during the Connecting Nevada Initial Plan Phase must be updated periodically to determine any necessary changes or additional elements that should be considered to maintain their relevant data analysis capabilities. These tools include the Nevada Statewide Travel Demand Model and the Connecting Nevada website and webmap. (The Connecting Nevada Planning Tools are described in more detail in Section 2.)

Project Updates

Each project on the Connecting Nevada Project list will be assigned a project sponsor (either internal or external to NDOT). Information on the projects will be maintained in the Planning Portal database (the repository for planning information being developed by NDOT). An optional feature related to project information would be for the database to be web based. A follow-up activity for Connecting Nevada (currently underway) will be to make the Plan consistent with the department's overall GIS strategy of providing information via the web through the Planning Portal.

Stakeholder Outreach

Every 3 years NDOT will update the Connecting Nevada Plan. The timing and details of the update will be determined in cooperation with NDOT's existing Statewide Transportation Technical Advisory Committees (STTAC) committee and staff. A review committee, comprised of department staff and outside representatives (similar to Connecting Nevada's TAC and SC), may be formed to assist and provide guidance on the update process.

As part of the stakeholder outreach conducted as part of the update process, stakeholders would be requested to evaluate the overall effectiveness of the Connecting Nevada Plan based on criteria identified in the Connecting Nevada Plan.

Maintaining Planning Tools

Regular updates to the ConnectingNevada.org website will be done to ensure it is current. In addition, on a less frequent basis, but at least every 3 years (consistent with the Plan update), the Travel Demand Model should be evaluated for compatible socioeconomic information, population, and traffic analysis zones to maintain a relevant and accurate model. This effort will need to reach out to the MPOs statewide, and also neighboring states, to incorporate their forecasts.

Planning and Environmental Linkages

Environmental regulations and environmental issues are continually being refined and updated. Therefore, the PEL document should be updated for any changes in regulations and processes for environmental work as time passes.

Webmap

It is recommended that every 3 years these maps be reviewed and updated to show current information.

Department Resource/Processes Assessment

Updating the Plan will require resources and manpower on an annual basis as well as larger efforts to complete the three-year and five-year updates. These resource needs have been identified in the Plan for use by NDOT in budgeting the efforts.

Recommendations

The Connecting Nevada goal of expanding the Department's planning horizon from 20 years to over 50 years is a worthwhile effort and should have specific resources dedicated to the effort. It is recommended to:

- Assign a specific NDOT Update Planning Manager for Connecting Nevada. It will require significant effort, and the Update Planning Manager needs to have the ability to dedicate the appropriate amount of time to manage the maintenance and update of the Connecting Nevada Plan.
- Complete yearly project updates and three-year Plan updates to maintain the Plan as a dynamic process and vision for the state transportation system in the future.
- Establish an Advisory Committee to review the annual Connecting Nevada project updates and the three-year overall plan update. The Advisory Committee could be composed of the same members as the current project Technical Advisory and Steering Committees.
- Convert the Connecting Nevada project database to a GIS database and include it in the Department's overall GIS database effort. Also, the webmap tools should be integrated into the Department's GIS system and be maintained by the GIS group at NDOT.
- Apply the Statewide Travel Demand Forecast model to assist in evaluating regionally significant projects during the Connecting Nevada annual project and 3-year plan update process.
- Review the Plan every 3 years to ensure that it is compliant with new federal regulations.
- Periodically update the ConnectingNevada.org website with project updates and information to keep current.
- Continue to identify public outreach opportunities (e.g., speaking engagements, op-ed pieces in media]
- Review other documents associated with project (e.g., Transit Propensity) to ensure continuing relevancy.
- Further classify projects as short-, medium-, or long-range in the Connecting Nevada Plan List of Projects. (Projects identified as such would still need to move through the appropriate NDOT process for advancement.)

A successful implementation of Connecting Nevada will result in an expanded process that creates a 50-year vision for the State's transportation infrastructure needs.