PUBLIC OUTREACH SUMMARY

Prioritized Statewide
BICYCLE NETWORK PLAN

PUBLIC OUTREACH

INTRODUCTION

The NM Bike Plan incorporated a series of outreach techniques to solicit input and guide the development of the Plan. Outreach efforts included a combination of public meetings, workshops and presentations to public agencies and bicycle technical committees and was broken into two phases. The purpose of Phase 1 was to generate awareness of the project, introduce the planning process, articulate the benefits of having a Prioritized State-wide Bicycle Network Plan, and solicit input on the most critical considerations for a network of bicycle facilities across the state. Phase 2 provides opportunities for comments and feedback on draft Plan products. This section summarizes the techniques used and the feedback collected during Phase 1 of public outreach.

IN-PERSON OUTREACH SUMMARY

As New Mexico is a large state, in-person outreach efforts were targeted to more heavily populated areas of the state, with meetings held in Las Cruces, Santa Fe, and Farmington. In person attendees were given the opportunity to provide direct input on plan goals and objectives and preferred bikeway infrastructure types, based on their level of comfort as cyclists.

Additional outreach activities targeted agencies that participate in transportation planning activities across New Mexico. Presentations and outreach were conducted for each of the six NMDOT districts, as well as and the state's metropolitan planning organizations (MPOs) and rural transportation planning organizations (RTPOs). MPOs and RTPOs contributed to the outreach by disseminating information among their agency and public contacts. Sessions were also held with bicycle technical advisory committees in Albuquerque, Las Cruces, and Santa Fe to solicit input on bicycle infrastructure and safety issues. Attendees and participants in each of these agency and committee meetings were encouraged to participate further using the online engagement tools.

ONLINE OUTREACH SUMMARY

Online outreach efforts ensured that information on the NM Bike Plan and opportunities to participate were accessible to residents across the state. The primary online public engagement tools were a survey, which collected user responses to questions about their bicycling habits, and an interactive public input map that allowed respondents to comment about their bicycling experiences on specific roadways and locations. Though each method was designed to gather different types of information, consistent themes emerged from both tools. These tools and other materials were made available on the project webpage.

Online Survey Results

The question and answer survey, available on the project webpage from October to December 2017, was completed by nearly 600 people. Respondents were asked 33 questions about their bicycling habits, as well as demographic information. Through the survey, people identified how frequently, for what purposes, and where they bicycled. Respondents also indicated how comfortable they were bicycling on different types of state roadways, and provided answers to questions related to economic development, such as their general spending habits while on recreational rides. Finally, the survey provided the opportunity to share feedback related to goals for the Plan.

Of the 593 people who participated, the majority of respondents (64 percent) live in urbanized areas, are male (63 percent) and are between the ages of 35 and 64 (67 percent). A large majority of people (84 percent) also reported that they ride a bicycle frequently, compared to 12 percent who ride infrequently and four percent who rarely or never ride a bicycle.[1]

Figure 1. Types of U.S. Bicyclists

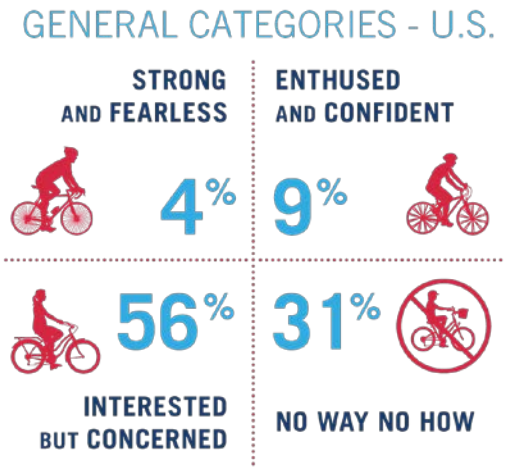
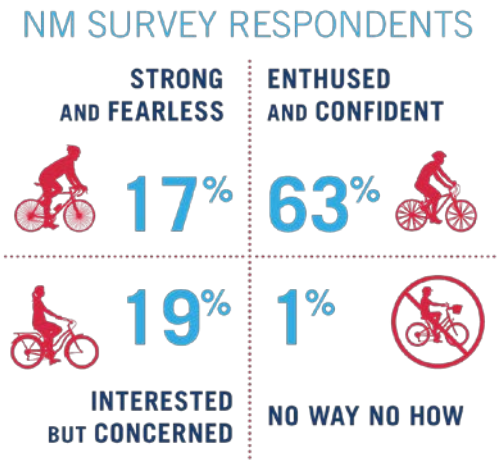


Figure 2. Types of Bicyclists – NM State Bike Plan Survey



National research has established that most Americans can be grouped into four categories representing different types of perceptions around bicycling: Strong and Fearless, Enthused and Confident, Interested but Concerned, and No Way No How. Research suggests that Strong and Fearless riders typically will ride despite challenging traffic conditions, and comprise four percent of the U.S. population. Enthused and Confident riders, who will ride in most traffic conditions, but prefer dedicated bicycle facilities, comprise approximately nine percent of the population. The majority of people, 56 percent, falls into the Interested but Concerned group, or those who will ride, but only if comfortable bicycle facilities are provided.

[1] Out of respondents who bicycle frequently, 52 percent bike one or more times per week and 32% bike every day. Of those who bicycle infrequently, six percent bike once a month and six percent bike a few times a year.

Approximately 31 percent of the population will never ride a bicycle, for personal or physical reasons (No Way No How).[2]

The NM Bike Plan online survey asked respondents to identify the types of roadway conditions they would be comfortable riding. The project team used the results of these questions to assign bicyclists to the four categories. By contrast, the majority of respondents to the online survey for the NM Bike Plan were far more likely to be experienced, confident bicyclists than the US population at-large: approximately 17 percent reported being Strong and Fearless riders, 63 percent reported being Enthused and Confident, 19 percent reported being Interested but Concerned, and only one percent indicated they never ride a bicycle. These statistics are presented in Figures 1 and 2.

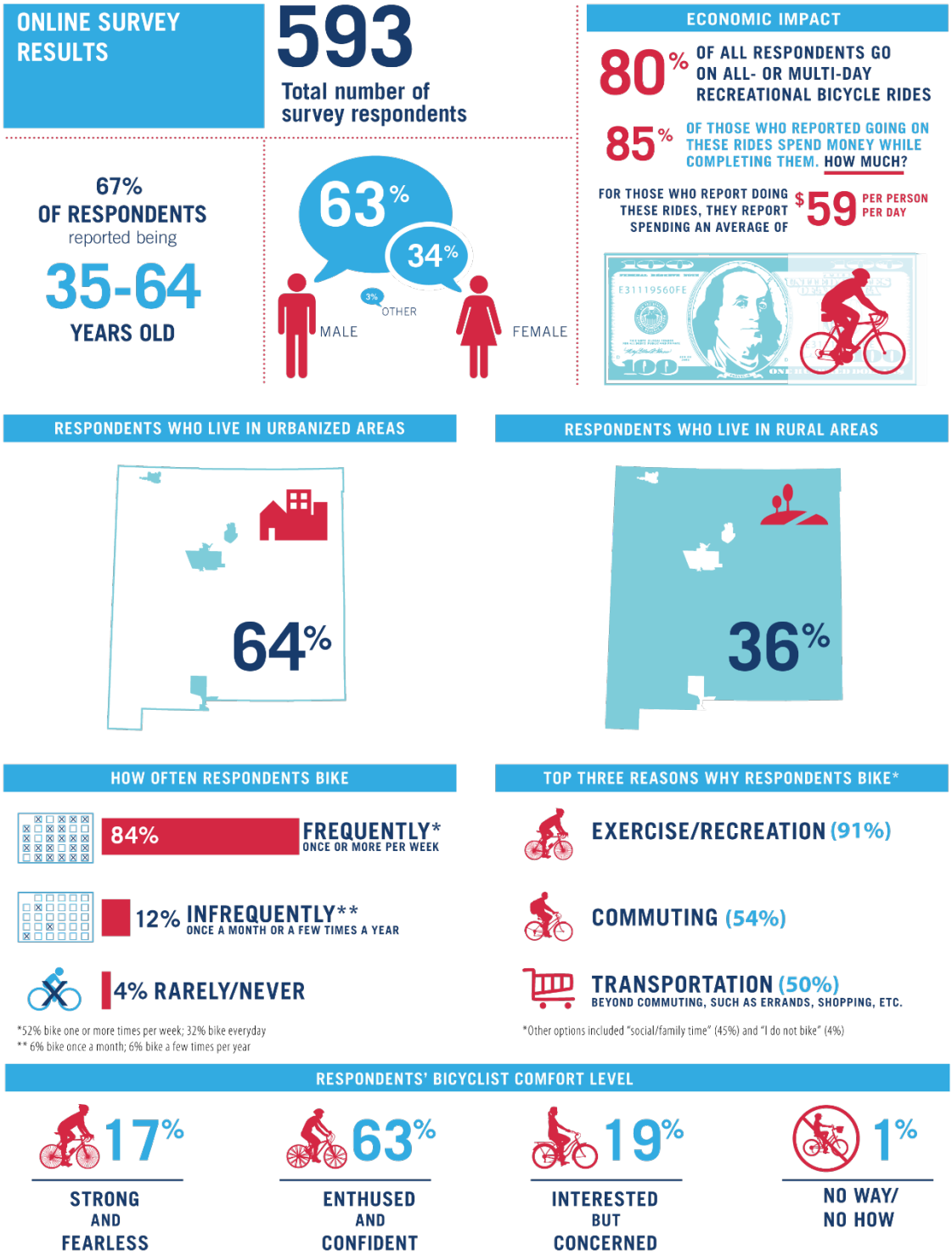
Respondents were asked to answer questions related to images showing different state roadways with varying posted speed limits, contexts (urban or rural), and traffic volumes, and to indicate how comfortable they would be riding on these example roadways. In general, the presence of shoulders was the factor that most consistently influenced bicyclist comfort, while the influence of speed, traffic volume, and context were less clear. When asked in a separate question to identify the top three factors that influence their decision to take a particular bicycle route, 75 percent of people chose the presence of a bikeway facility, such as a bike lane or shoulder, followed by low to moderate traffic volumes (68 percent), smooth pavement (39 percent), low traffic speeds (29 percent), and shortest distance (21 percent).

The most consistent conclusion from the online survey was a need for improved bicyclist safety on state roadways. Overall, respondents identified a concern for safety as the top obstacle to more frequent bicycling, and most people identified bike lanes and wider shoulders as the preferred action to improve bicyclist safety. Considering the makeup of the survey respondents, the results indicate that even more confident bicyclists in New Mexico desire dedicated bikeway facilities. The results of the online survey are summarized graphically on the following pages.

Overall, most respondents indicated that they bicycle primarily for exercise or recreation. Transportation to work and for other purposes, such as running errands or to shop, were also top reasons why people bike. Of particular interest, given New Mexico's potential as an adventure tourism and long-distance bicycling destination, is the extent to which respondents engaged in all-day or multi-day rides (80 percent of survey participants). For those who reported that they participate in these rides, 85 percent also reported that they spend money on food, supplies, or transportation while completing them, with the average person indicating that they spend $59 per person per day.

[2] Dill, J., McNeil, N. Four Types of Cyclists? Examination of Typology for Better Understand of Bicycling Behavior and Potential. Transportation Research Record, 2014.

Figure 3. Online Survey Results Summary



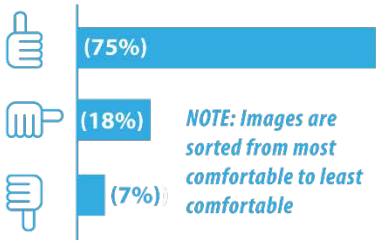
RESPONDENTS' COMFORT LEVELS BICYCLING ON VARIOUS ROADWAYS TYPES

The icons to the right reflect roadway factors that influence bicycling comfort, and are used to represent these factors on the roadways below:

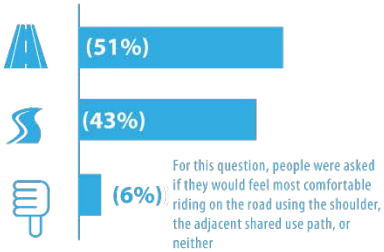
SPEED	CONTEXT	VOLUME	SHOULDERS?
XX MPH POSTED SPEED LIMIT	RURAL	<5,000 VPD	YES
	URBAN	>20,000 VPD	NO

Respondents were asked how they would feel bicycling on each roadway pictured. Available responses included:

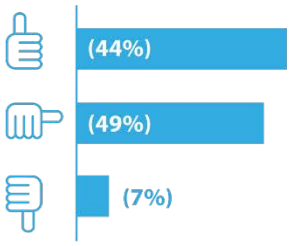
- COMFORTABLE
- CAPABLE, BUT NOT COMFORTABLE
- NOT CAPABLE

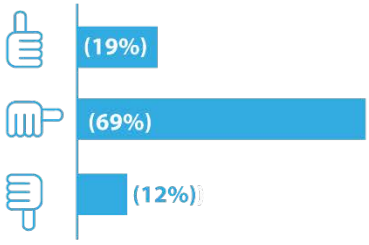


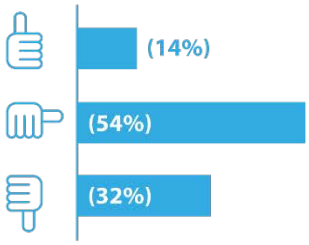
NOTE: Images are sorted from most comfortable to least comfortable



For this question, people were asked if they would feel most comfortable riding on the road using the shoulder, the adjacent shared use path, or neither







KEY FINDINGS FROM SURVEY IMAGE QUESTIONS:

Of all factors, the presence of shoulders had the most consistent impact on bicyclist comfort

Based on the images of roadways used in the survey, context, traffic volume, and speed have a less conclusive impact on bicyclist comfort than the presence of shoulders or bike lanes among respondents

FACTORS THAT INFLUENCE RESPONDENTS' CHOICE OF BICYCLE ROUTE

1. **DEDICATED BIKEWAY FACILITY** (BIKE LANE OR SHOULDER)
2. **LOW TO MODERATE TRAFFIC VOLUMES**
3. **SMOOTH PAVEMENT**
4. **LOW TRAFFIC SPEEDS**
5. **SHORTEST DISTANCE**

TOP OBSTACLES TO MORE FREQUENT BICYCLING

- **CONCERN FOR SAFETY (76%)**
- **LACK OF END-OF-TRIP FACILITIES** (BIKE PARKING, SHOWERS, LOCKERS, ETC.) **(29%)**
- **DISTANCE TO DESTINATIONS (24%)**

OTHER OPTIONS INCLUDED: LACK OF MOTIVATION OR OTHER PERSONAL REASONS, NO STREET LIGHTS, AND I DO NOT BIKE

TOP OBSTACLES TO RURAL BICYCLING

- **POOR PAVEMENT CONDITION/ LACK OF DEDICATED SHOULDERS (84%)**
- **HIGH VEHICULAR SPEEDS (57%)**
- **LACK OF SERVICES (21%)** (FOOD, WATER, RESTROOMS, ETC.)

OTHER OPTIONS INCLUDED: DISTANCES BETWEEN DESTINATIONS AND RISK OF BAD WEATHER

PREFERRED PLAN GOALS

- **SAFETY (79%)**
- **LOCAL CONNECTIVITY (67%)**
- **INFRASTRUCTURE QUALITY (60%)**

OTHER OPTIONS INCLUDED: FUNDING, REGIONAL/RURAL CONNECTIVITY, ENVIRONMENT AND HEALTH, USAGE, EDUCATION AND ENCOURAGEMENT, AND EQUITY

PREFERRED ACTIONS TO IMPROVE BICYCLIST SAFETY

- **MORE BIKE LANES & WIDER SHOULDERS (76%)**
- **MORE SEPARATED PATHS (47%)**
- **DRIVER EDUCATION (34%)**

OTHER OPTIONS INCLUDED: BETTER ROAD MAINTENANCE AND BICYCLIST EDUCATION

Online Input Map Results

The project team developed an online input map for the NM Bike Plan that helped identify locations where improvements should be focused. The interactive map was posted on the project website and open for public input from October to December 2017. The map allowed users to draw lines and drop points within the map, as well as add comments and votes to other people's input. The online input map used for the Plan included the following base layers: New Mexico State and U.S. roadways, locally owned arterial and collector roadways, cities, and points of interest, such as National Forests and Wildlife Refuges. In total, the map recorded over 2,330 interactions, including lines drawn, points placed, and people commenting on and liking lines and points that others had drawn.

The online input map was designed to solicit the following information:

- state roadways that users like to bike
- state roadways that users bike but that could be improved
- state roadways that users would like to ride along but need improvement

Though prompted to respond to state roadways, responses were also collected for roadways managed by other agencies across the state. While people identified 4,387 miles of roadway that they like to bike, they also drew nearly double the miles of roadway that could use or need improvement for bicycling (8,606 miles total). Users also placed 246 points identifying difficult locations for bicycling across the state.

After drawing a line, users were asked to identify how they typically use the route, whether for recreation, transportation (commuting, errands, etc.), both, or other purposes. Overall, recreation was the most

Figure 4. Online Input Map – Feedback Summary

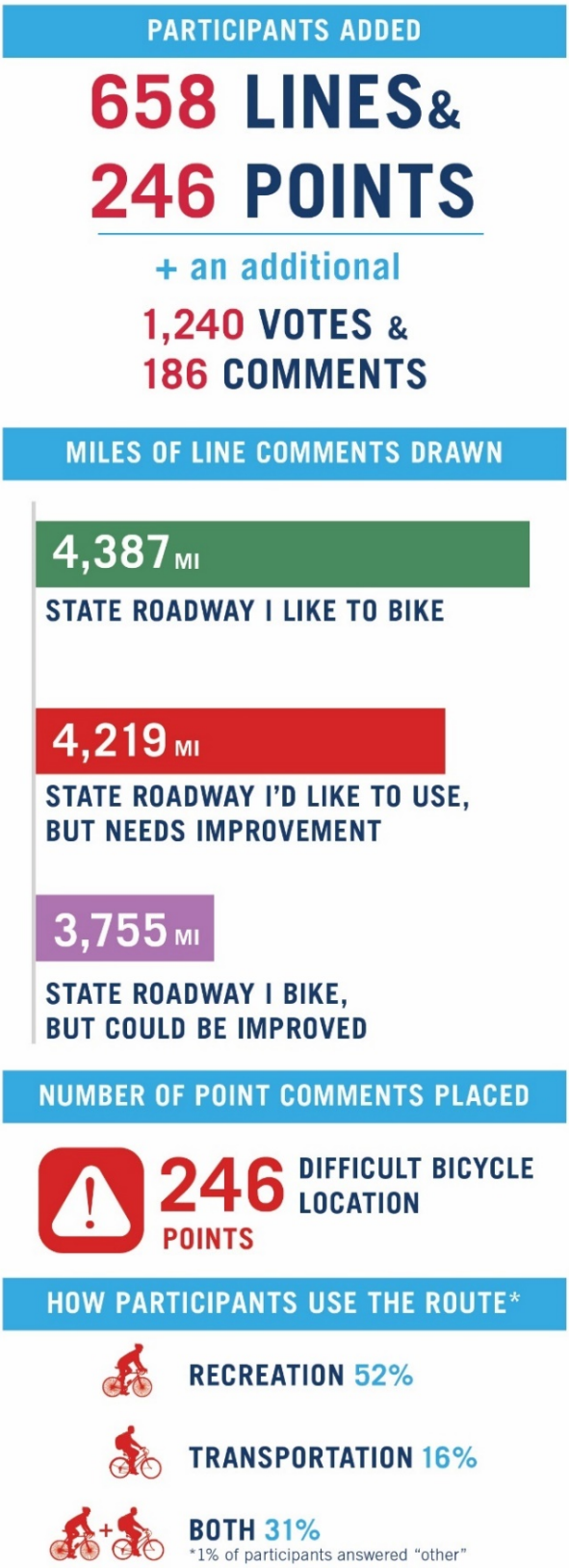
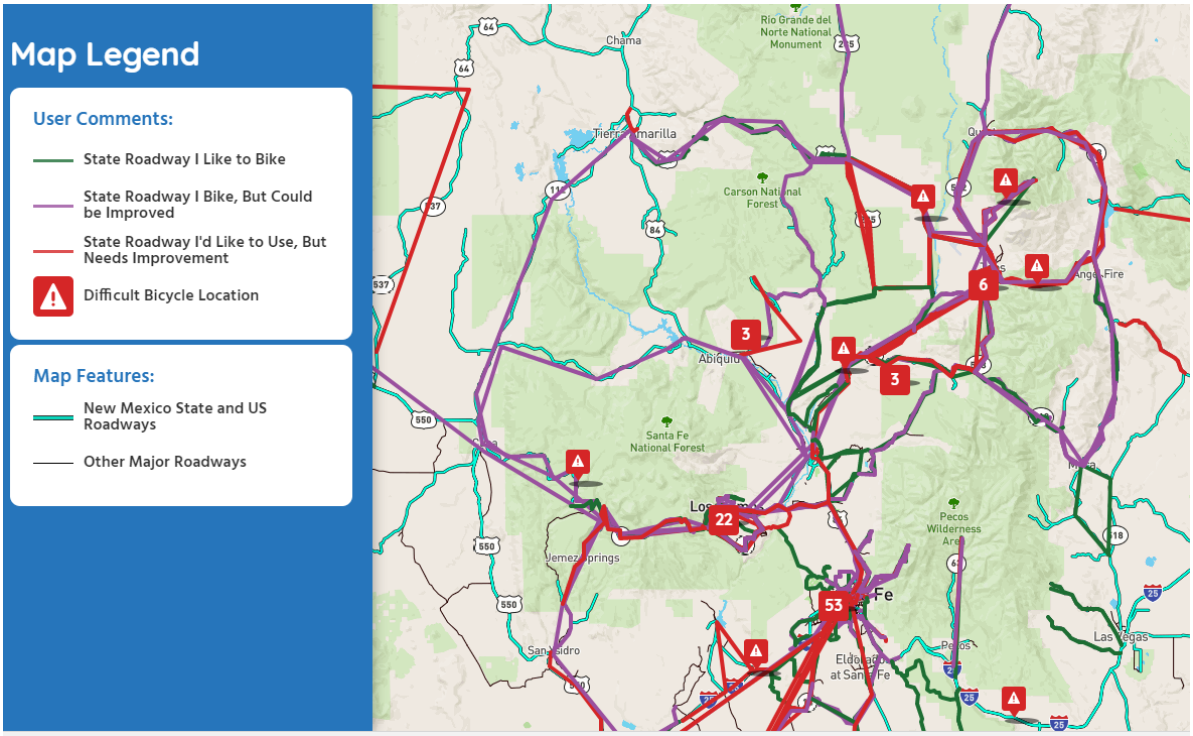


Figure 5: Online Input Map



The online interactive map provided the public the opportunity to provide both line and point based comments that reflected their opinions about bicycling on NMDOT roadways. The map was successful in soliciting input from respondents throughout New Mexico, and the information collected informed the development of the priority network.

popular category, comprising 52 percent of all lines drawn. Approximately 31 percent of lines were identified for both transportation and recreation purposes, while 16 percent were used exclusively for transportation. This indicates that half of the identified routes on the map are used for transportation purposes at least some of the time.

The majority of users gave inputs for roadways in the Albuquerque and Santa Fe metropolitan areas, northern New Mexico including the Enchanted Circle, and southwest New Mexico around Silver City and the Gila National Forest. Each of these locations is popular among recreational bicyclists, which is consistent with the composition of survey respondents.

Of the responses to the “State Roadway I like to Bide” option, over 60 percent of entries are used for recreation only, while entries for the other route categories (i.e. those routes needing improvements) were more evenly split between recreation, transportation, or both. This suggests that the majority of people who drew lines for roadways they like to bike may be more confident and experienced bicyclists. It is also important to note that there may be more flexibility in choosing a route for a recreational ride compared to transportation rides, so recreational bicyclists may select more comfortable routes.

The information contained in the online input map was integrated with other evaluation criteria, including demand and equity analyses, in the development of the statewide priority network. A summary of the data collected is included on the following maps.

Figure 6. How to Read the Online Input Map Exports

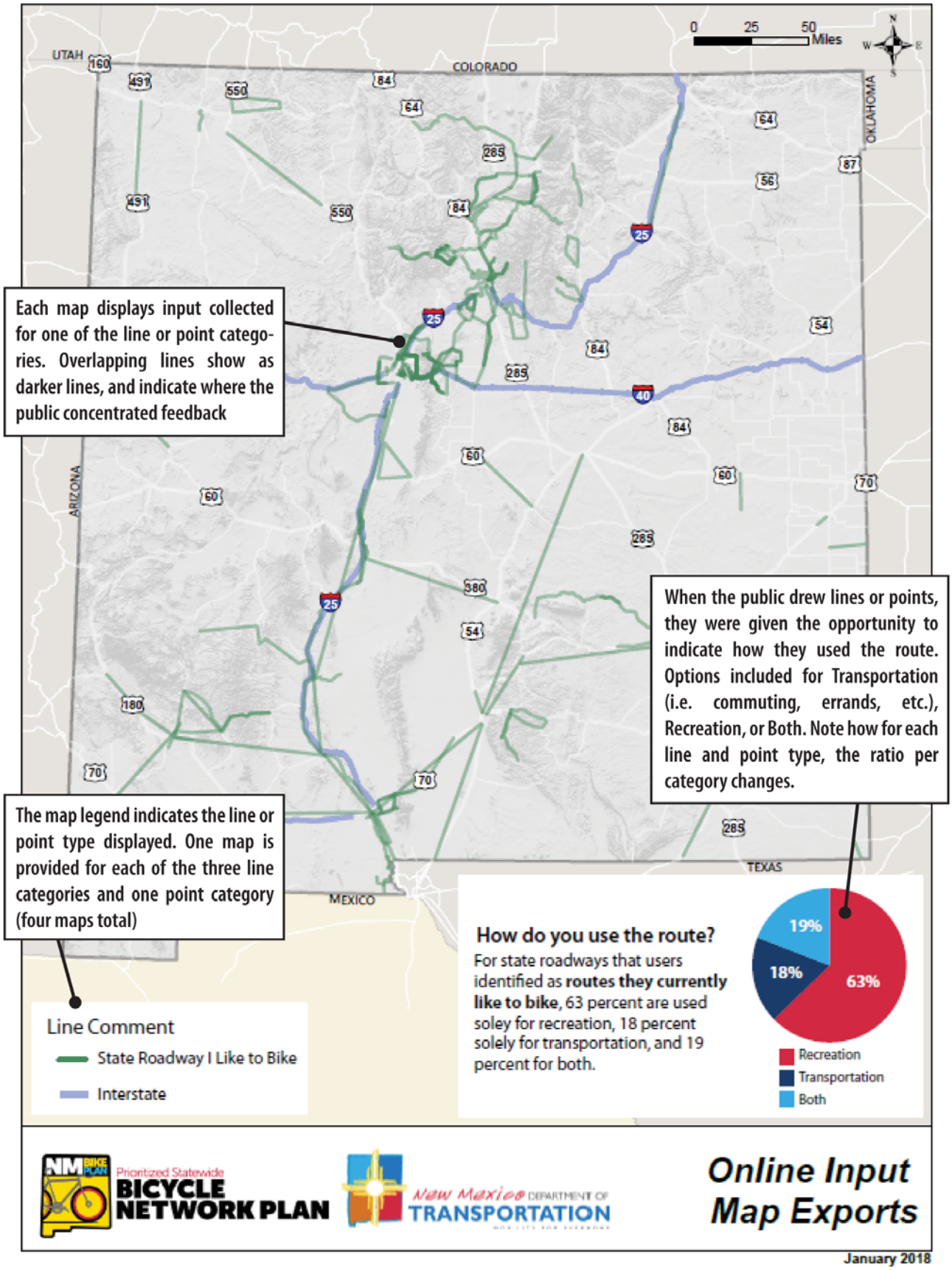
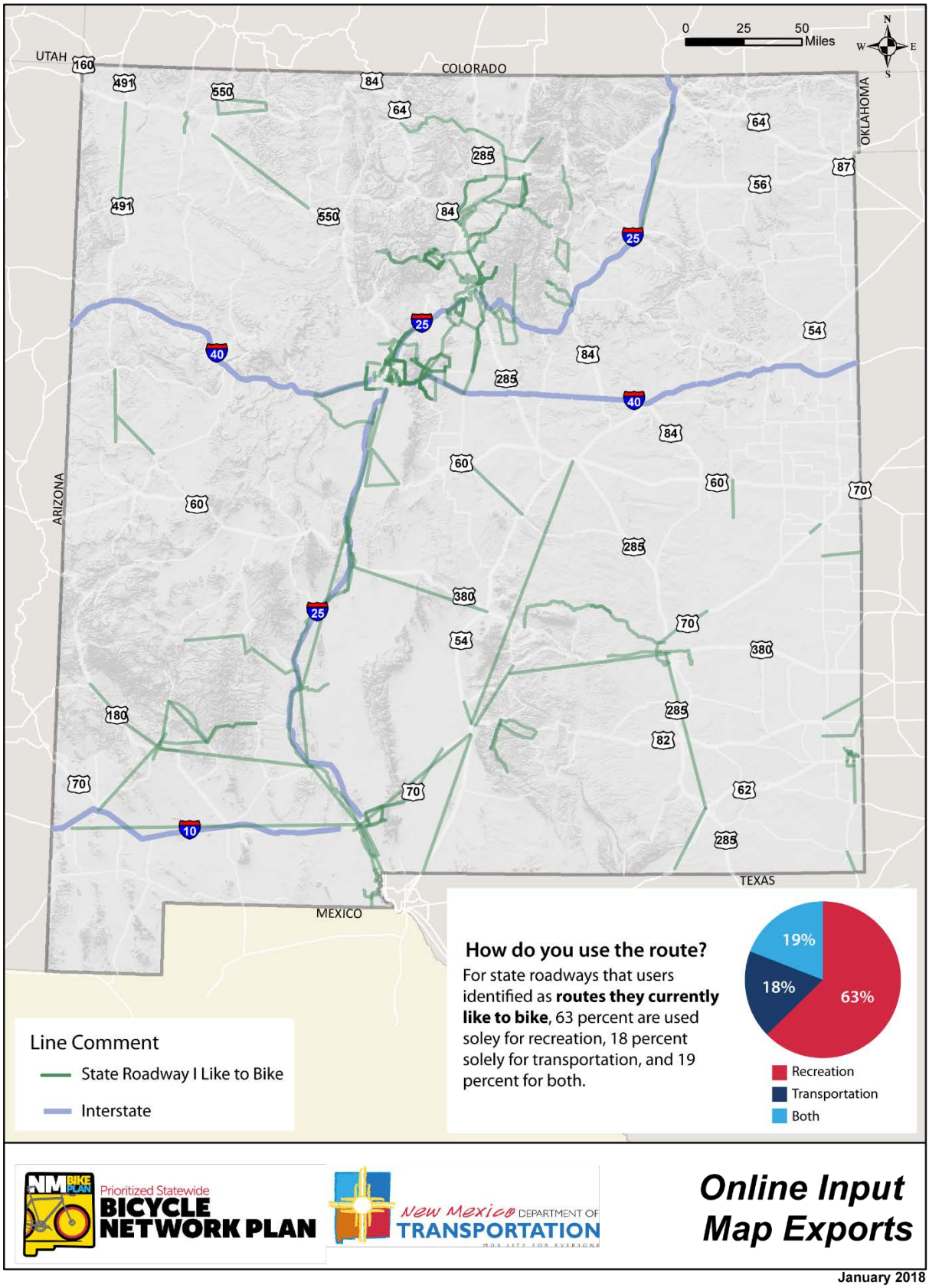
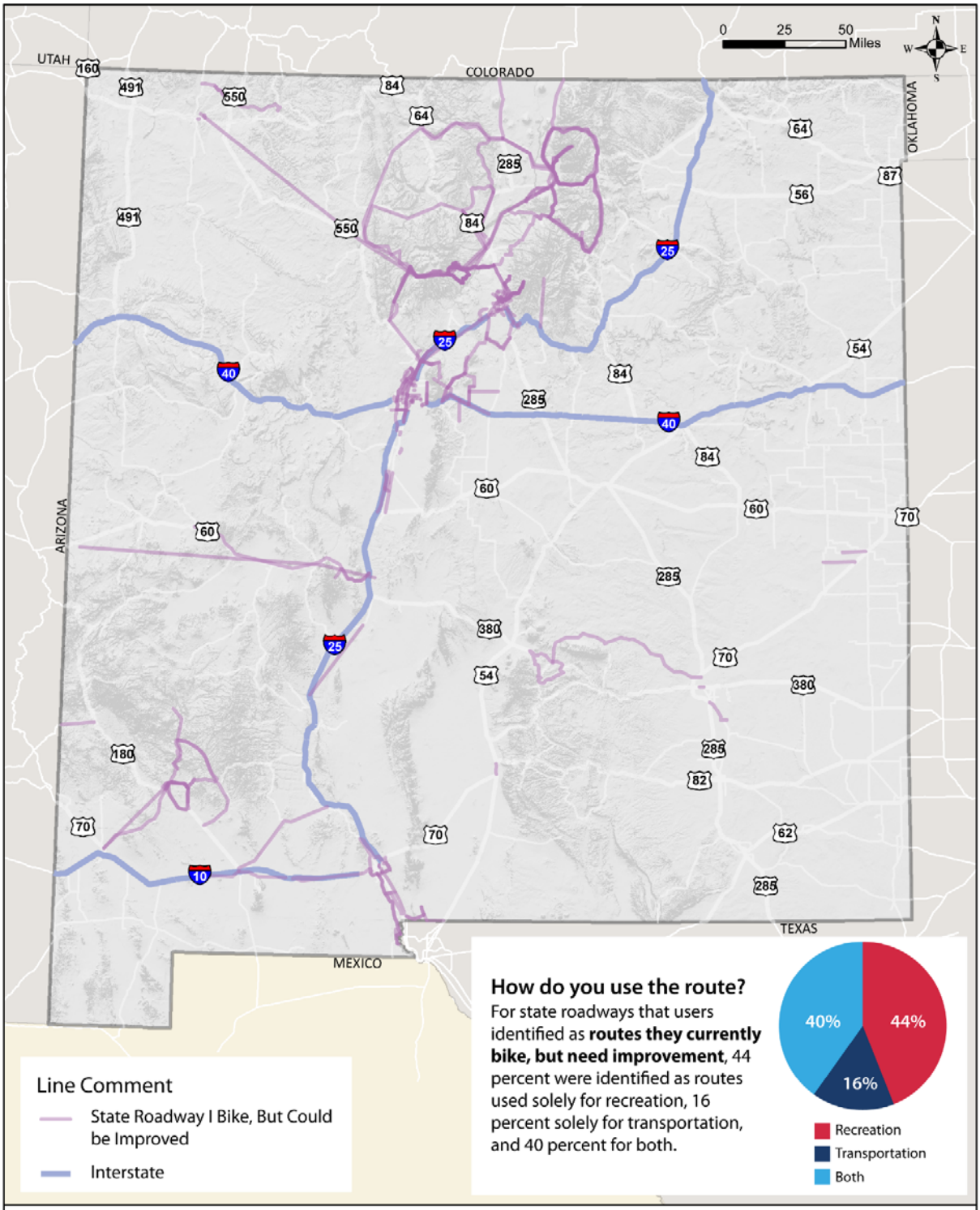


Figure 7: State Roadway I Like to Bike



January 2018

Figure 8: State Roadway I Bike, But Could be Improved



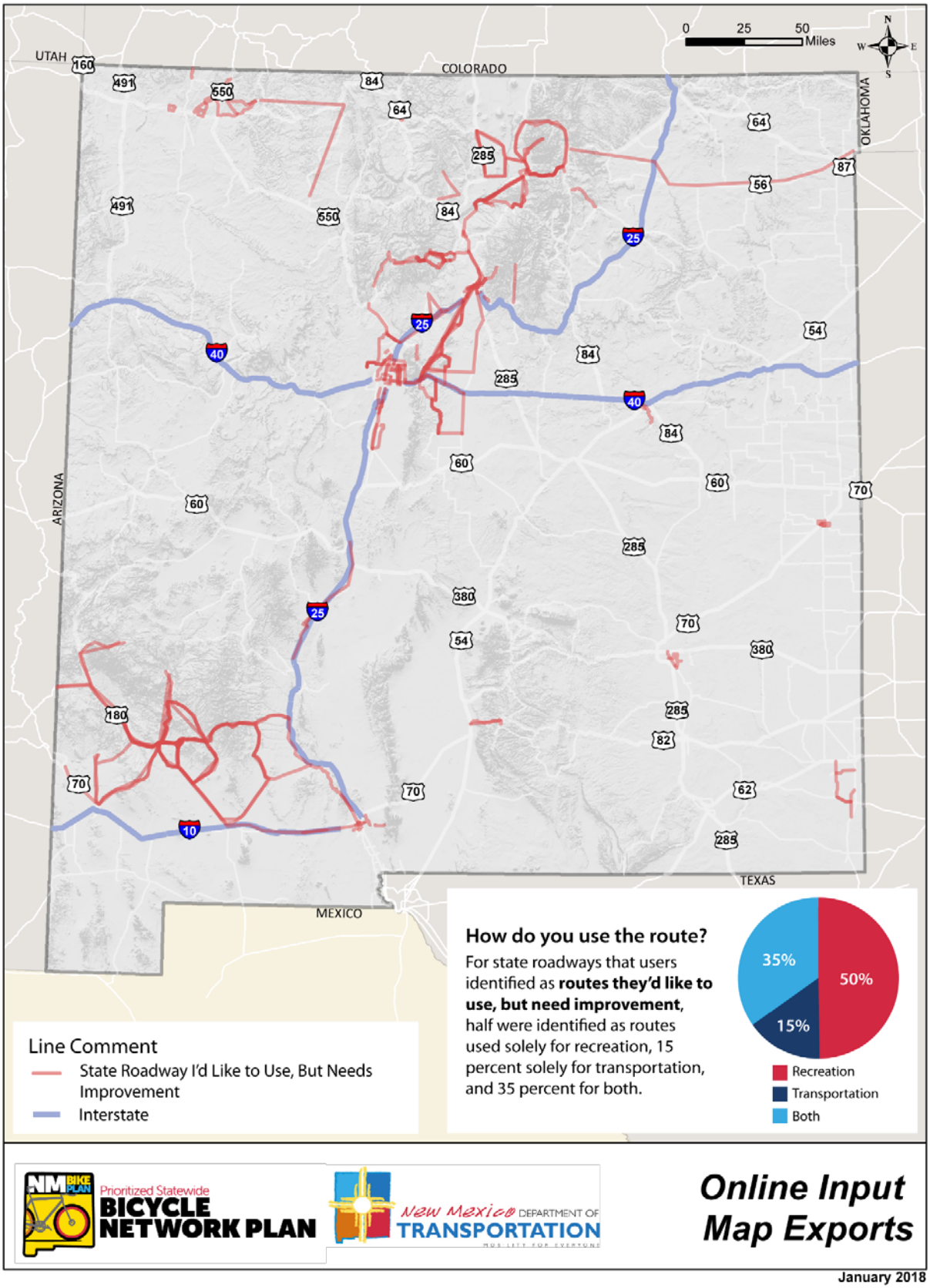
Prioritized Statewide BICYCLE NETWORK PLAN

New Mexico DEPARTMENT OF TRANSPORTATION

Online Input Map Exports

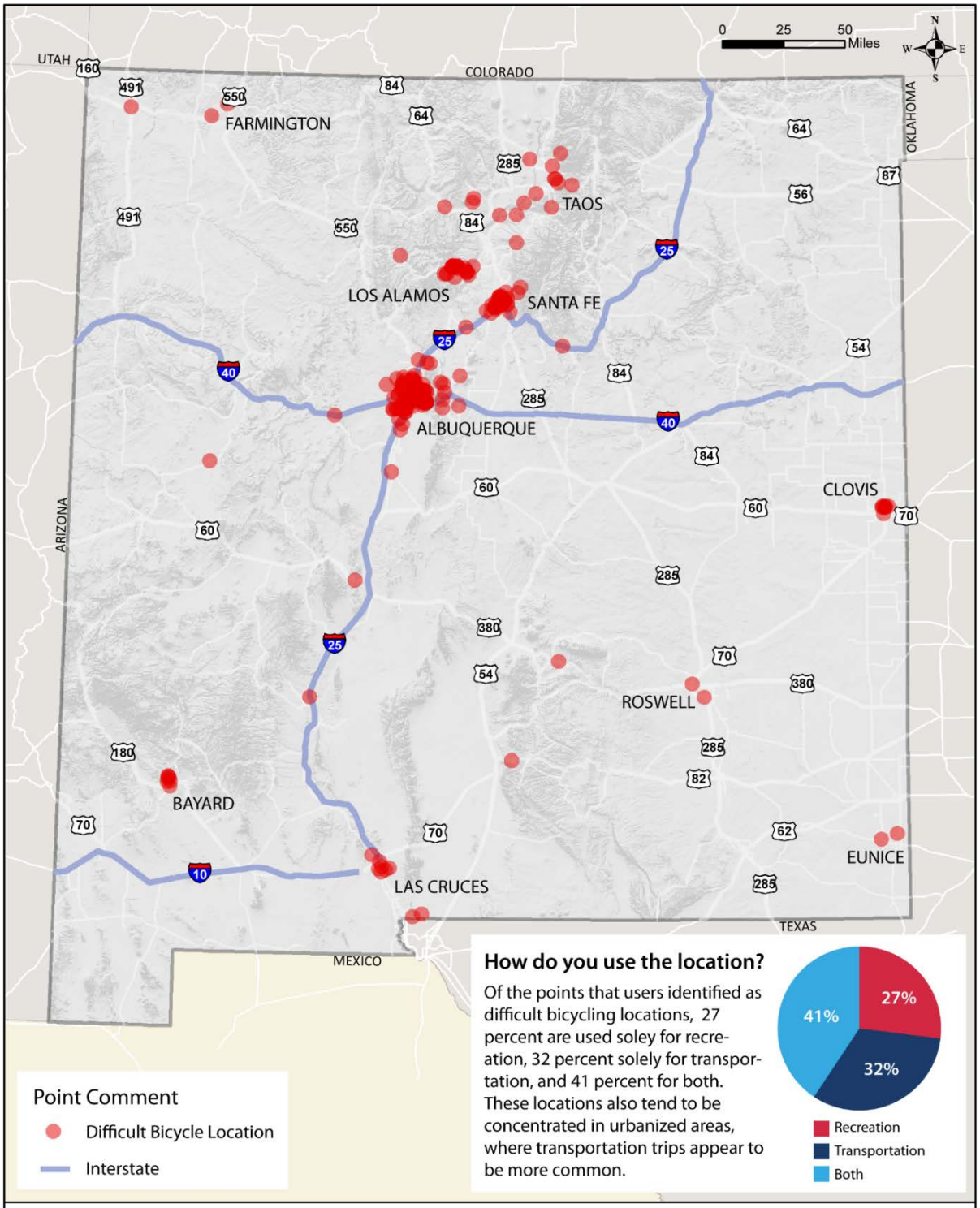
January 2018

Figure 9: State Roadway I'd Like to Use, But Needs Improvement



January 2018

Figure 10: Difficult Bicycling Location



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New Mexico DEPARTMENT OF TRANSPORTATION

Online Input Map Exports

January 2018