U.S. Department of Transportation
**Federal Highway Administration**

**Nevada Division**

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April 24, 2014

In Reply Refer To:
HTE1-NV
DE-015-02 (040)

Mr. Rudy Malfabon, P.E.
Director, Nevada Department of Transportation
1263 South Stewart Street
Carson City, Nevada 89712

Subject: Finding of No Significant Impact (FONSI) for Interstate 15 Interchange at Milepost 118, Mesquite, Nevada

Dear Mr. Malfabon:

The Nevada Department of Transportation's March 17, 2014 letter requested a Finding of No Significant Impact (FONSI) for the Interstate 15 Interchange at Milepost 118 located in Mesquite, Nevada. FHWA has determined that the project will have no significant environmental impacts. Please refer to the enclosed FONSI.

The Environmental assessment (EA) was approved for circulation on August 12, 2012 and Public Design Hearing (Public Hearing) was conducted on November 8, 2012 in Mesquite, Nevada. On April 8, 2014 The Federal Highway Administration (FHWA) has approved the Change in Control of Access Request (CCAR) for operation and engineering acceptability.

Based on the information included in the transmittal letter, other letters from NDOT, the EA, public hearings transcripts, the CCAR report, and the design recommendation report, FHWA made the no significant environmental impacts determination. Please refer to the enclosed FONSI. Please contact me at (775) 687-1206 if you have any questions.

Sincerely,

I. alattar

Iyad Alattar
Transportation Engineer

Enclosure

ec: Sue Klekar, FHWA
Paul Schneider, FHWA
Andrew Soderborg, FHWA
Abdelmoez Abdalla, FHWA

# FEDERAL HIGHWAY ADMINISTRATION
# FINDING OF NO SIGNIFICANT IMPACT (FONSI)
# for
# Interstate 15 Interchange at Milepost 118 Project in Mesquite, Nevada

**Federal Aid Number: FHWA-DE-015-02 (040)**
**NDOT Project Number: 73553**
**EA Document Number: FHWA-NV-EA-12.01**

## 1. Study Area Description

The Federal Highway Administration (FHWA) and the Nevada Department of Transportation (NDOT) prepared an Environmental Assessment (EA) to analyze transportation alternatives for a proposed Interstate 15 (I-15) interchange between Milepost (MP) 117.5 and MP 118.8 in Mesquite, Clark County, Nevada. The city of Mesquite has experienced significant growth over the last few decades, and continued growth in the next 10 to 20 years is anticipated. Currently, the City's Master Plan has a 20-year build-out horizon through 2027.

The Mesquite Technology and Commerce Center (MTCC) is a planned commercial and industrial area adjacent to and north of I-15 in western Mesquite. The MTCC started developing in 2004 and is expected to be a major employment center.

The existing Exit 120 interchange on I-15 provides the main link for transportation from I-15 to the western area of Mesquite and from I-15 to the MTCC. As early as 2006, the City of Mesquite started looking at solutions to address increased congestion issues at the Exit 120 interchange, and the idea of a new interchange at MP 118 along I-15 has been under consideration for several years. The City of Mesquite's Transportation Plan includes a future interchange at MP 118 to provide additional access to and from West Pioneer Boulevard and alleviate congestion at the Exit 120 interchange.

The proposed project would be located within the city limits of Mesquite in the southwestern part of the city and centered on I-15 at MP 118. The northern logical terminus for the proposed project would be the intersection of Lower Flat Top Parkway and West Pioneer Boulevard. The southern logical terminus would be the proposed ramps for northbound I-15 at the proposed new interchange.

## 2. Project Description

FHWA and NDOT are proposing to build a new interchange and approach roadway (the extension of Lower Flat Top Parkway south of West Pioneer Boulevard), interchange ramps, and a bridge over I-15. Based on NDOT's design, the new interchange bridge would consist of four vehicle travel lanes (two general-purpose lanes in each direction: northbound and southbound). The approach roadway would also consist of the same four travel lanes, two bicycle lanes immediately adjacent to the outermost travel lanes (one in each direction on the east and west), and a sidewalk (on the east immediately adjacent to the bicycle lane). The bicycle lanes and sidewalk would not traverse the interstate but would facilitate bicycle and pedestrian movements on only the north side of the interchange. Other temporary components would include construction staging areas, material borrow areas, and other support facilities.

## 3. Purpose and Need

The purpose of the proposed project is to relieve congestion and delays at the I-15 Exit 120 interchange, accommodate the anticipated transportation demands of existing and planned development in western Mesquite north of the Virgin River, and enhance regional mobility and improve a more direct interstate access for western Mesquite by separating local and residential traffic at the Exit 120 interchange and industrial and commercial traffic at the proposed Exit 118 interchange.

The need for the project is to accommodate planned growth in western Mesquite, improve local access to I-15, and alleviate congestion and delays at the existing Exit 120 interchange. The interchange improvements at Exit 120 are expected to begin to fail sometime between 2024 and 2034.

## 4. Selected Alternative

The Selected Alternative—selected by FHWA and NDOT and supported by the City of Mesquite—consists of the following elements:

- A 300-foot-long, four-lane bridge constructed over I-15 (two lanes in each direction)
- A new 1,950-foot-long, four-lane (two lanes in each direction) approach roadway (an extension of Lower Flat Top Parkway) constructed north of the I-15 corridor between the proposed new bridge and West Pioneer Boulevard
- New ingress and egress ramps on I-15 (northbound and southbound)
- Two bicycle lanes (one in each direction) extending along the roadway only, not traversing the interstate, to facilitate movement and connections to future trails
- One sidewalk compliant with the Americans with Disabilities Act (ADA) extending along the roadway only, not traversing the interstate, to facilitate movement and connections to future trails

The Selected Alternative would provide access to the area north of I-15 near MP 118. Due to the location of the Virgin River and associated land-use restrictions, no local network tie-in to the south is proposed.

## 5. Project Impacts and Mitigation

Table 1 below lists measures that will be implemented during the design and/or construction phases of the project to avoid, reduce, or otherwise mitigate environmental impacts associated with the project's preferred alternative. Mitigation measures and actions are to comply with federal, state, and local laws/regulations in the areas of noise, air quality, water quality, wetlands, protected species, Section 4(f) resources, floodplains, hazardous materials, and engineering design, as well as those listed below.

The following mitigation measures and commitments are not subject to change or modification without prior written approval from FHWA. This list does not include any of FHWA's permits, approvals, or reviews that are required related to Plans, Specifications, and Estimates; rights-of-way (ROWs); contracts; or other design or administrative aspects of the project.

**Table 1. Project Mitigation Measures**

| Resource | Impact | Mitigation Requirements |
|---|---|---|
| Land Use | None. | None. |
| Socioeconomics | Improved mobility and access. | None. |
| Environmental Justice | None. | None. |
| Floodplains | None. | None. |
| Wetlands | None. | None. |
| Jurisdictional Waters of the U.S. | 0.307 acre dredged or filled. | As stipulated in the Section 404 permit issued by the U.S. Army Corps of Engineers. |
| Hydrology and Water Quality – Surface Water | 11.5 additional acres of impervious surface resulting in small, local increases in runoff and stormwater inputs into the Virgin River. | Erosion-control measures will be incorporated for site soil stabilization and to reduce deposition of sediments in the adjacent surface waters. Measures could include the application of soil stabilizers such as landscaping and mulch and rock slope protection, storm drain outfalls such as riprap aprons, and level spreaders. Compliance with applicable federal, state, and local water quality standards will be required during construction and operation. The development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) will serve to protect surface water quality during construction. |
| Hydrology and Water Quality – Groundwater | None. | If previously unidentified wells are encountered during project construction, the contractor will notify the Nevada Division of Water Resources and will retain an authorized driller to abandon the well. In the event of a release of hazardous substances by vehicles, construction equipment, or hazardous-material containers, the contractor will take immediate action to facilitate cleaning and remediating the release to prevent the contaminants from leaving the project area and from reaching the groundwater table. |
| Biological Resources and Sensitive Species – Vegetation | Removal of about 23 acres of vegetation, resulting in 11.5 acres of permanent removal of creosote bush scrub. | Clearing of vegetation will be limited to the areas necessary for construction, areas where future routine maintenance activities might be required, and areas that need to be maintained for freeway sight distance. Temporarily impacted areas will be recontoured and revegetated with a native, certified, weed-free seed mix. Prior to any construction activities, the project boundaries will be flagged, and cactus and yucca that cannot be avoided will be salvaged in coordination with the landowner and in accordance with State of Nevada administrative codes. |
| Biological Resources and Sensitive Species – Noxious Weeds | None. | A noxious weeds controls plan will be developed in coordination with the local jurisdictions. In compliance with Executive Order 13112 regarding noxious weeds, all earth-moving and -hauling equipment will be washed prior to arriving on site to prevent the introduction of noxious weeds and invasive weed seeds. Contract documents will specify a noxious weed management plan to control noxious weeds. |
| Biological Resources and Sensitive Species – Wildlife | Minor impacts due to loss and alteration of wildlife habitat including loss of food sources and cover, temporary or permanent displacement, and incidental mortality of resident species. | Equipment and vehicles will remain within the project ROW. Grading, access, and storage areas will be limited to areas that are within construction limits. A litter-control plan will be implemented. All trash will be collected and put in proper receptacles so that ravens and other predators are not attracted to the site. Receptacles will be emptied at the end of each work week so that ravens do not congregate around dumpsters. |

**Table 1. Project Mitigation Measures**

| Resource | Impact | Mitigation Requirements |
|---|---|---|
| Biological Resources and Sensitive Species – State Listed Species | *Gila Monster.* The Gila monster is not expected to be present within the proposed project area, and direct impacts to this species are not anticipated as a result of the proposed project. However, if a Gila monster were to move into the area during construction, it could be injured or killed.<br><br>*Three Corner Milkvetch.* Removal of 22.9 acres of potential three corner milkvetch habitat. Constructing the Selected Alternative could also kill any individual plants in the construction area. Only one individual was found during follow-up field surveys. However, because construction might not occur for several years, it is possible that new individuals could colonize the area. | *Gila Monster.* If a Gila monster is discovered during biological field surveys conducted prior to construction, it will be removed in accordance with guidelines established by the Nevada Division of Wildlife (NDOW). If a Gila monster is observed during construction, activities will be halted in the immediate area, and NDOW will be notified immediately per NDOW's recommended construction site protocols.<br><br>*Three Corner Milkvetch.* Mitigation for potential impacts to three corner milkvetch will be determined during the permitting consultation with the Nevada Division of Forestry. Mitigation measures could include conducting additional surveys in the area prior to construction or collecting individual plants found in the project area for relocation or use in research. |
| Biological Resources and Sensitive Species – Federally Listed Species | The U.S. Fish and Wildlife Service (USFWS) has concurred with the project team's finding of "May Affect, but Not Likely to Adversely Affect" desert tortoises. | Prior to the initiation of construction, an environmental awareness education program, including information on desert tortoises, will be presented to all personnel who would be on site. Project activity areas and staging areas will be fenced to exclude tortoises. Workers will be told to report all observations of desert tortoises. If a desert tortoise is observed in the project areas, the contractor will halt all work and will contact NDOT, who will notify USFWS. |
| Biological Resources and Sensitive Species – Migratory Birds | Loss of habitat for migratory birds that use the creosote bush shrub habitat. | Schedule ground-clearing activities outside the general migratory bird breeding season, which is generally March 1 through July 31. If construction activities occur during this period, preconstruction surveys will be conducted to identify nests in the area. If nests are found, no construction activities will occur near the nests until the young have fledged. An appropriate buffer will be established by NDOT in conjunction with USFWS. In addition, USFWS recommends that construction activities avoid disturbance to burrows that could be used by burrowing owls, which are a USFWS species of interest and are protected under the Migratory Bird Treaty Act. |
| Cultural Resources | "No adverse effect" to seven archaeological sites. | To ensure avoidance of sites 26CK3529 and 26CK3530 during construction activities, orange barrier fencing or concrete jersey barriers will be installed prior to construction around the sites' perimeters to prohibit access and disturbance, and a qualified archaeological monitor will be present during construction activities in this sensitive area of the proposed project. To ensure avoidance of sites 26CK3531, 26CK9235, 26CK9236, 26CK9237, and 26CK9331, which are set back from construction activities, the sites' perimeters with be marked with lathe and flagging tape for protection. If cultural resources are discovered during construction, project activities will cease immediately within 100 feet of the discovery, and the contractor will notify FHWA. FHWA will notify the State Historic Preservation |

**Table 1. Project Mitigation Measures**

| Resource | Impact | Mitigation Requirements |
|---|---|---|
| | | Office (SHPO), the appropriate land-managing agency, and appropriate Native American groups(s) regarding the nature of the find. A professional archaeologist will examine the find to determine whether it is cultural and to make an initial assessment for treatment and recommendation of eligibility to the National Register of Historic Places. If human remains or funerary objects are discovered, the SHPO will be notified, as required by Nevada Revised Statutes 383.150–383.190, and the provisions of Native American Graves Protection and Repatriation Act (43 Code of Federal Regulations [CFR] 10) will be followed. |
| Air Quality | None. | None. |
| Noise | None. | None. |
| Visual Resources | Low visual impact not substantially altering the existing scenery. | Select finish, color, and surface patterns to coordinate structures with the surrounding landscape; apply a consistent color palette for all structures; incorporate transportation art motifs; and create visual design unity among all highway structures and facilities. Replace, repair, or improve any disturbance to vegetated areas such as restabilizing disturbed soils and generally restoring or improving natural resources that have been disrupted. Reduce earthwork contrasts by retaining rocks, trees, and shrubs and adding mulch or topsoil, and repair any disruption to existing drainages. |
| Hazardous Materials | None. | Stop all subsurface activities if potentially hazardous materials are encountered, an odor is identified, or significantly stained soil is visible. Contractors will follow all applicable regulations regarding discovery and response for hazardous materials encountered during the construction process. |
| Mobility, Access, and Safety | Would improve regional access and reduce travel and traffic volumes, resulting in improved operations and safety and improved mobility for residents, commuters, and interstate commerce. | A transportation management plan will be developed and specified in contract documents to maintain traffic safety and access on I-15 during construction. The contractor will coordinate with the City of Mesquite and NDOT to minimize access impacts and construction concerns. |
| Section 4(f) Resources | None. | None. |
| Construction Impacts | Temporary impacts to air quality, noise, and visual resources. | The contractor will comply with federal, state, and local regulations for the control of air pollution, including those requiring the use of ultra-low-sulfur diesel fuel and prohibiting unnecessary idling. Standard mitigation measures and best management practices will be implemented to prevent fugitive dust from becoming airborne. Exhaust emissions will be reduced whenever possible by keeping machinery engines and exhaust systems in good mechanical condition and avoiding unnecessary vehicle and equipment idling. Mitigation measures for mobile equipment will be addressed in the contract documents as needed and could address hours of operation, noise-level limits, or performance of proper maintenance on construction equipment. |

## 6. Coordination

Public involvement and agency coordination have been conducted throughout the EA development process. Activities have included an agency and public scoping period, a public hearing, and distribution of a range of outreach materials. The public involvement and agency coordination effort for the project was designed to be inclusive, comprehensive, and transparent. Input received was considered during alternative development and selection of the Selected Alternative.

The EA was approved for circulation on August 28, 2012, and a Location/Design Public Hearing was conducted on November 8, 2012, in Mesquite. One comment letter was received during the public comment period. Other comments were verbally recorded at the August Location/Design Public Hearing. A summary of the one comment received and a response to the comment are provided in Table 2 below. Appendix A includes a transcript of the public hearing, which includes the public comments and project team responses made during the hearing, and a copy of the original comments submitted.

### Table 2. Comment and Responses

| Comment Summary | Response |
|---|---|
| I concur in the desirability of this project. I see no serious negative aspect as regards to the environment and it should speed up traffic transfer to Mesquite's north side. | Thank you for your comment in support of the project. |
| I would like to request that consideration be given to the construction of a bicycle lane to accompany the Flat Top Drive. I have cycled Flat Top in its current state and find it to be a lovely and challenging cycling experience. In its present state the road is a bit narrow and presents a bit of a hazard in some locations and those hazards should be eliminated with a small but parallel bike lane. I realize the project is directed to motor vehicles, but every encouragement should be made for exercise and cycling is an activity enjoyed by all ages. | The new four-lane (two lanes in each direction) extension of Lower Flat Top Drive that will be constructed north of the I-15 corridor between the proposed new bridge and West Pioneer Boulevard will include two 5-foot bicycle lanes (one in each direction) to facilitate movement and connections to future trails. |

## 7. FONSI Requirements

This FONSI is based on the EA, supplied materials, and the NDOT's Hearing Certification, which have been independently evaluated by the FHWA and determined to adequately and accurately discuss the need for, environmental issues concerning, and impacts of the proposed project. In addition to mitigation commitments described in the EA, a list of mitigation measures is part of this FONSI (see Table 1). These documents provide sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. FHWA takes full responsibility for the accuracy, scope, and content of the EA and its attachments.

With respect to a FONSI, 23 CFR 771.111(f) requires evaluation of the following:

1. The project must connect logical termini and be of sufficient length to address environmental matters on a broad scope,
2. The project must have independent utility or independent significance, and
3. The project must not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

### Logical Termini

The proposed project would be located within the city limits of Mesquite in the southwestern part of the city and centered on I-15 at MP 118. The northern logical terminus for the Selected Alternative would be the intersection of Lower Flat Top Parkway and West Pioneer Boulevard. The southern logical terminus would be the proposed ramps for existing northbound I-15 at the proposed new Exit 118 interchange. Due to the location of the Virgin River and associated land-use restrictions, no local network tie-in to the south is proposed.

### Independent Utility

The project segment of I-15 provides a vital transportation corridor for local residents as well as for interstate trucking. In the project area, there are two travel lanes along I-15 in both the northbound and southbound directions. Full-access interchanges are located approximately 6 miles to the south at MP 112, 2 miles to the north at MP 120, and 4 miles to the north at MP 122. Additionally, the MTCC is a planned commercial and industrial area located adjacent to and north of I-15 in western Mesquite that is accessed from West Pioneer Boulevard and Lower Flat Top Parkway. The Selected Alternative does not depend on the construction of other improvements to be usable and is a reasonable expenditure of public funds.

### Other Transportation Projects

As proposed, the Selected Alternative would not prevent the City of Mesquite or Clark County from implementing other transportation projects.

## 8. Statute of Limitations

FHWA will publish a notice in the Federal Register, pursuant to 23 United States Code 139(1), stating that one or more federal agencies have taken final action on permits, licenses, or approvals for this project. After the notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within a shorter time period as specified in the federal laws pursuant to which judicial review of the federal agency action is allowed.

## 9. Concluding Statement

This project is needed to accommodate existing and planned growth in western Mesquite, improve local access to I-15, and alleviate congestion and delays at the existing Exit 120 interchange. FHWA has determined that there has been proper consideration of avoidance alternatives to environmentally sensitive areas. Where avoidance is not practical, proper mitigation has been provided for impacts resulting from the Selected Alternative.

## 10. Determination

FHWA has determined that the Selected Alternative, as presented in the EA and described above, would have no significant impact on the human environment. This FONSI is based on the attached EA dated August 2012, which has been independently evaluated by FHWA and has been determined to adequately and accurately discuss the need for, environmental issues concerning, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an EIS is not required. FHWA takes full responsibility for the accuracy, scope, and content of the attached EA.

a. a. Abdalla

April 24, 2014

Abdelmoez Abdalla
Environmental Program Manager
Federal Highway Administration

Date

Iyad Alattar

4/24/'14

Iyad Alattar
Transportation Engineer
Federal Highway Administration

Date

# Appendix A

NDOT

I-15 PROPOSED INTERCHANGE

at

MP 118 PROJECT MESQUITE, NEVADA

LOCATION/DESIGN PUBLIC HEARING

Held at:

City of Mesquite City Council Chambers

10 East Mesquite Boulevard

Mesquite, Nevada

November 8, 2012

4:00 - 7:00 p.m.

Reported by Russel D. Morgan, CSR

JULIE MAXEY: Good evening. Go ahead and let you find your seats. And we'll get started with our presentation tonight for our location design hearing for our proposed Mile Post 118 on I-15, a brand new interchange. Kind of exciting.

Our project manager for this project is Adam Searcy up here in the second row. Many of you have spoken to him when you came into the room. Also here tonight we have Chris Young of our Environmental Services. He handles anything environmental, along with Steve Cooke, who is also referenced in your handout materials as far as receiving comments tonight.

A couple of other people I would like to recognize in the room tonight is Karl Gustaveson, councilman.

KARL GUSTAVESON: That's close.

JULIE MAXEY: Okay. Then we have, many of you know Karl Sawyer, who is the development services director for the City of Mesquite back in the back.

So, I want to thank you for joining us tonight for the proposed interchange. Before we get started, we will go through the presentation. If you could hold your questions and comments until afterwards we will be taking questions and comments at that time after the presentation. At that time, if you can state your name for our court reporter, who we have here tonight, who is taking down your testimony

verbatim. And we need that for our permanent record.

So, with that, I'll go ahead and hand it over to Adam. Thank you.

ADAM SEARCY: Thanks, Julie. It's a great turn-out. Great to see everybody here tonight. How many of you folks were out to see the construction of the interchange at 120? You all watched that in person? It's great to be back here for that. I was here for a lot of that. There are a lot of folks that are here tonight helped us with that project. So, we are really excited to talk about where we are at with Exit 118 Interchange.

So, kind of an overview. Julie touched on a couple of these points, but, really, what we are going to explain tonight is what we have been doing for the last couple of years regarding Exhibit 118. I know there hasn't been a lot of activity. Everything's been focused at Exit 120. But, in fact, we have completed some very important environmental studies associated with this proposed new construction, this new interchange. It's a tremendous hurdle as far as securing federal funding and then possibly actually constructing the interchange.

So, we are going to talk a little bit about the history of this interchange, the idea where it came from, where it is today, a little bit about what we learned during our environmental studies, a little bit about what the

proposed project looks like today, and a little bit about what it might look like in the future and where it can go.

Then, of course, as Julie mentioned, have a nice opportunity for some open dialogue, both during this presentation and then after this is over.

So, the project history, most of you folks, I'm sure, have been in Mesquite for a number of years are well aware of this. But it's been ongoing, the conversations regarding the commerce center, going back to early 2000s. A lot of potential in the northwest area of Mesquite, the commercial center, sports industrial center, et cetera. How can we make use of that land area, and how can we fit it within the existing infrastructure in the City of Mesquite.

So, way back in the early 2000s, plans were being developed. Ultimately, really, Mile Post 118 kind of came into reality along with improvements to Exit 120. As you are well aware, as it's transpired, the improvements for 120 were really identified as more critical to the current state of Mesquite. There was some immediate needs there, that's why we focused our time and dollars at that location.

Meanwhile, we are actually -- so that's the second bullet point. Everyone's been here for the construction and spectacular completion of the new roundabouts and the new bridges there. Meanwhile, we have been actually building towards this original plan. The city was able to complete

some extension of west Pioneer and lower Flattop this summer, some really tremendous new infrastructure up in this northwest area to service all of this area. And this really brings us, connects into what we are talking about here tonight, Exit 118.

During this time period, the environmental studies have been going on. We'll get into a little bit more detail, and a lot more detail if anybody's curious. But just kind of wanted to tell the broad story of this conversation, how we have been working with the City and with your local infrastructure with your needs as the development and the commercial opportunities have grown and waned and will grow again and prepare for the future.

So, with Exit 118, really, the focus of the environmental assessment, in addition to addressing specific cultural, biological and environmental type of issues, it really seeks to define what the true purpose and need of a project is. So, some of the key elements that 118, for lack of a better name, we'll call it just Exit 118 Interchange, is to release some of the future congestion at Exit 120.

I had a few conversations earlier tonight about the existing congestion. That's truly not the case now. However, in the future, as the City of Mesquite does grow, there will come a time where Exit 120 is at capacity, and that's where 118 will help with that situation.

In addition, as I have been mentioning quite a bit of plan development in the northwest area of Mesquite, some tremendous commercial opportunities, it's going to really help segregate the commercial traffic from the residential traffic if we have a separate exit at 118.

Then, finally, really, the regional mobility is kind of a broad statement, but some of these commercial facilities, potentially, would have strong ties and needs to access Las Vegas. And their ability, really, to gain in and out access from Mesquite without having to traverse the roundabout, to go through a maze of local roads is an important point to that project.

So, again, the insufficient long-term past Exit 120, this is the tremendous aerial of the final roundabout configuration. And the need for the direct connection to I-15 from the industrial area is really a couple of key drivers for the need of 118. And, then, this is an image of some of the proposed land use near Exit 118. So, you see the extension of lower Flattop and west Pioneer and a couple of these other local roads in blue. Some of these are being built as we speak. Some of them are proposed in the future. But, really, this area of Mesquite has a lot of potential for some tremendous commercial, industrial and otherwise development that really doesn't fit within the capacity of 118, and it really doesn't work well together. So, that

helps support the need for this new interchange at Exit 118.

So, really, the driver, road and economic development in western Mesquite in a balanced way. There's a plan for all of this where subdivisions get built, where industrial centers get built, things like that, and it really helps with the flow and function of the city. And, ideally, as the city grows, and industry comes back to life, this is going to be a key piece of the puzzle.

So, the project itself is a new interchange at 118. It's actually an overpass. I had that question earlier tonight. It's not exactly clear sometimes from just aerial images. This would be a bridge over I-15 rather than Exit 120 where the local road goes beneath I-15, accommodates future growth.

And the study itself records possible environmental impacts for the project. So, it's difficult to gauge where Exit 118 is since it doesn't exist currently. There's a median crossover. If you have ever headed through that way, you'll see one of those paved median cross-overs that you are not supposed to cut through. That's approximately where this is planned to be constructed. But, also, if you take the end of west Pioneer, the project will eventually connect into that.

So, this next slide shows our very preliminary footprint for this new interchange. This entire footprint

includes the run-out of the ramps. But then the road would actually be built up the hill and connecting into what the city just constructed this summer. It's almost a half mile from the interchange up to that intersection through the city right-of-way, but all of this included, really, everything outlined in yellow there, was included in our environmental study in order to make sure that the construction of this project not only is reasonably warranted but that it wouldn't extremely negatively impact any environmentally sensitive aspect.

So, this is really a high overview of the project. Here's a cross-section kind of what the road might look like, a bridge. Again, very preliminary, kind of more important take-away that it's a bridge over I-15. Just to clarify, this would actually have access on both sides, or pardon me, in both directions on I-15. So, on and off ramps to the north and south, it would not have an extension to the south. Okay? Because the Virgin River is right here. And there's really no need and really no feasible engineering way to bridge that. So, it's only going to access lower Flattop and west Pioneer here. But there will be four ramps at the location.

The bridge over I-15 will have two lanes in each direction, a median and bike paths down the portion of the city street. The bike paths won't go over the interstate

necessarily, no need to access the interstate with their bikes, but there will be trails potentially that will be able to connect into this road. So, very preliminarily, it's exciting. We like the opportunities that this project might present, really, to the community overall.

Along the lines of opportunities, always important to touch on landscape and esthetics. I personally am very pleased with the way Exit 120 turned out. I think it really did a lot to brighten up that area. And I know that if and when this interchange gets built, not only is it going to present yet another opportunity to really improve the attractiveness of the City of Mesquite, it's actually going to be much more conspicuous. You know, Exit 120 is kind of below grade. If you are driving through, you don't really notice all the really nice improvements.

This being a bridge over I-15, you have seen many of them in Las Vegas and even Grapevine here in town. It's going to be a tremendous opportunity to do something really neat for the community. So, we put this slide in here. It's very generic. We have a standard corridor theme that we like to stick with. But, at the end of the day, it will be something very spectacular to see.

So, this is not even a comprehensive list. So, you can see all of the elements that we studied in the environmental. We looked in the environmental assessment.

So, a very detailed, very broad investigation of impact that this project might have on that footprint you saw outlined in yellow.

The short version is that there were really no significant impacts that were found to be placed on this area by this project. There are some items of note, some endangered plant species that might be disturbed. Obviously, there is the Desert Tortoise to look out for, and a couple of cultural sites that we are actually going to be able to avoid but need to be aware of.

In general, again, it's an important step from a federal standpoint that we go through this process, investigate the impact, determine if there are impacts, what are we going to do about it? If there are not, then we can potentially proceed when the time is right. So, really, that's where we are at with the project. This voluminous document has been available for public review and comment for some time. And it is still available. It has a tremendous amount of detail on all of these items, including a couple of washes that will have to impact with the project that carry a certain sensitivity to it that we just need to be aware of, no different than any of the other washes that drain directly into the Virgin River.

But it's important, if anyone has any specific concerns, it's definitely the time to discuss them. So, the

short-term impact, with any construction project, this one, hopefully, will be slightly less impactful because it's new construction. This isn't an existing road that you have to drive through. So, not so much going to be a detour, however, we would end up going about constructing a bridge over I-15. Obviously, we'll do so in a manner that will be least impactful to the traveling public on I-15. I don't know if we'll be able to slide this one into place or not. But I know they will come up with something pretty spectacular.

So, that's just a basic construction slide when we get into the future. But the long-term benefits is really what's important. I kind of opened with this a little tonight. Improved mobility reduce traffic volumes at 120 provide vehicle and truck access to the northwest area of Mesquite. Whatever it's developed with, commercial industrial, other, you know, recreational areas, an opportunity to get directly to those locations rather than going through some of the city streets and provide new and continuous bike lanes. So, this has a lot of benefits to the city. It does appear to have limited impact from an environmental standpoint.

And, really, where we are at is, at this point in time, so we open up the environmental study document to the public. Right? We have this conversation with you all here

tonight, give you an opportunity to comment, potentially re-evaluate our findings, if necessary, and then we ask for approval for a federal highway.

The future of this project is a little uncertain as with all construction projects. For many, it's funding dependent. We do have plans to complete the final design by NDOT at this point, but those plans are somewhat dependent on the timeframe of construction funding.

So, tentatively, we have these dates up here. It's really about when the time is right for the community. I think there's pieces falling into place as far as the construction of lower Flattop and west Mesquite -- or pardon me, west Pioneer as well. And when the funding is available, whether it's from the city, Southern Nevada Transportation, or the state or federal sources, a combination of which could get this project built, but these are some reasonable timeframes that we felt comfortable putting up here is where NDOT, at least, has this being considered.

So, this is kind of wrapping up some of the comment points. Just to kind of wrap things up from my end, this is a very viable project. There are concerns from a funding standpoint. So, that's an ongoing conversation. But there's a lot of upside to this project and relatively few risks. So, I'm optimistic about it, although I don't

have certainty for you here tonight about when this is going to be funded, built, et cetera. I do like the project. I do believe it will be constructed. And, really, I believe when the time is right for the community, the money, the businesses will come together, and we'll figure out a way to get this project actually in the ground.

So, I appreciate your attention tonight. And I guess last, but not least, we not only wanted to present this to you, but we want to hear back from you. I had some great conversations before the presentation tonight. Welcome some comments here on the mic. We are going to pass this around. State your name. We'll put it on the record. And we'll potentially reevaluate some of our decisions moving forward.

Even after the fact, a number of ways that you can comment, in writing, via email, et cetera to the department. And we'll put those all in the file with the environmental assessment for consideration with the FHWA.

I guess here are all the different manners in which you can submit comment forms tonight, verbal input, mail in a form in the future, or send email comments. And this is just some more information about how typically we go about conducting our public meetings and taking all of your comments.

All of that information, really, is in your

handout. So, the contact information for myself, for the other gentlemen and ladies at NDOT Carson City, there are a number of different ways you can submit comments. I really urge you to do so, including right this second.

So, I'll let Julie pass this around, if anyone has a comment. If you can speak up. It will really help our court reporter, just for the record, so, we do get the questions and concerns straight in the future. Does anyone want to start? Positive comments?

FRANK GARNER: Hi. I'm Frank Garner. I live on Pioneer Boulevard in Highland Fairways. And my questions would be the impact on Pioneer Boulevard, East Pioneer Boulevard with additional truck traffic going from the west side to the east side to primarily use the casinos. If in fact -- you know, we talked about possibly a truck stop out there. There's going to be some industrial building out on the west end where this off ramp is going to be. If there were to be a truck stop or a big exit there for trucks to use, they could proceed east on Pioneer up through the residential areas and, environmentally, you have exhaust from the motors. You have wear and tear on the roads that I don't know if they are capable of dealing with that kind of traffic, if there were that kind of traffic. So, plus the noise going otherwise east of Wal-Mart?

ADAM SEARCY: Yes, sir.

FRANK GARNER: Okay. That would be my comments. And could there be -- and if there were, could there be restrictions placed on trucks over a certain weight or to use East Pioneer Boulevard.

ADAM SEARCY: Sure. Well --

FRANK GARNER: My preference is on Pioneer Boulevard. I mean, there is a lot of other bedrooms on Pioneer Boulevard as well.

ADAM SEARCY: Thank you. That's a good comment. I think in some ways, part of the driver, the need for Exit 118, if there were to have some of this commercial development or industrial development in the northwest area actually come to fruition, these trucks will be well served or segregated from the community by this Exit 118. Presumably, they will have limited need or desire to drive through town on Pioneer. I understand your comment. If they have Exit 118, they can just come and go in and out of the community without having to drive even off at 120, and up into the northwest. So, I think that's part of the idea behind Exit 118.

And, you know, beyond that, as far as restrictions, I know there's a sign that we put up on Exit 120 regarding engine brakes and city municipal codes. So, I'm sure there are a few municipal codes in place to kind of help manage that currently and possibly something that the

city could look at in the future, if necessary. Does that --

FRANK GARNER: Yes. In addition, I think the idea to put that exit out there for trucks in the industrial area is probably a pretty good idea, you know, as far as segregating the traffic, especially on the two roundabouts we have now.

ADAM SEARCY: I think the potential concern that you described initially is a big part of the driver for 118. To alleviate that traffic, potentially, if we have the development, we have the truck traffic, does it need to go through the residential areas to get to the commercial sites or does it have another exit that accesses those business. It's not the entire driver, but it is a big part of the conversation here.

FRANK GARNER: I'm not concerned about them getting off. It's when they go to get back on the freeway, the route they take to get to it, they would drive right past 120 and go up to the next exit, and I'll call the Virgin River Exit. And that would take them through the residential side of town on both sides of the road to get to their, where casinos, food, yadda, yadda, yadda are all available.

ADAM SEARCY: Well, I mean, it depends on their destination, their needs, where they want to go. I mean, if

they are literally just moving freight of some nature, they are either getting on or they are getting off at 118, driving to their business and getting back on and heading either north or south. So, if they want to go get a Big Mack, they will have to drive on Mesquite Boulevard, but, otherwise, they will just probably hop on here. But that's a good point. Does that answer your question?

FRANK GARNER: Well, I think it would impact Mesquite Boulevard as well if that were the case, that it was going to put additional trucks in the downtown area, heavy trucks, semi-trucks. We already have enough trucks. But I just hate to see the two main roads through Mesquite being used by a 3- or 400, potentially 2- or 3- or 4-, 500 semi-trucks every day. I think that would -- that's something that we need to look at controlling or providing for --

ADAM SEARCY: I agree.

FRANK GARNER: -- if this goes through. It's great to get off here and use our facilities. That's wonderful. But getting from A to B is my concern.

ADAM SEARCY: Okay. Thank you.

DAVE BALLWEG: My name's Dave Ballweg. I own the industrial facility out in the industrial park right now in that area. The new 120 Exit is an exceptionally big improvement for the city. But one thing that was not taken

into consideration was for heavy trucks through that circle. And, unanimously, all the truck drivers that I have come into our facility to pick up or drop off hate that circle. They detest it. Most of them are coming from the south. They come up, and they have a terrible time with the circle. So, kind of one of the comments to bringing truck traffic through Mesquite, I think we are going to eliminate most of that because those trucks don't want to go up and down the hills of Mesquite. They want to get on the freeway and off the freeway and move on.

But one of the things I want to urge, I know it's funding and everything else, but I actually think it will enhance and lessen traffic in Mesquite once this exit is done. Because I've got some returning truck drivers that hate the circles so much they are literally now taking Exit 122 and coming down Pioneer so they don't have to work that maze of a circle that they really hate.

So, one of the things about my comment is, I think this is going to enhance, because the current, even though the previous Exit 120 did not enhance exit of trucks, it didn't do anything to improve that, it made it a better exit for traffic, but not trucks. So, I think it's going to be key as fast as we get this built so we can expand the industrial park, as the truck drivers definitely don't like going through that circle.

ADAM SEARCY: Thank you.

KARL GUSTAVESON: Karl Gustaveson. 529 Long Arm Drive. You know, I can't say enough about 120. And I think most people in the committee feel that it was tremendous when that was built. You know, the City, planning the 120, always looked at 118 as part of the package. We didn't look at just -- 120 was not the only thing that we had an emphasis on. Our real goal was to build the two. And I think you alluded to that a little bit earlier. And I think that there's another issue, too, that hasn't been spoken of.

Above the area near the hospital, some of that area there could well be a lot of residential, which hasn't even been brought up. But that exit coming from the west certainly will help the traffic flow and the area I live in, which is over near the hospital. And that whole area of Pulte, we need to keep in mind will be as big as the current Mesquite is total now when it's built out.

So, you are going to see a lot of traffic that's going to be residential traffic coming off that one. They won't have to go through the industrial center, they will be to either take the upper or lower Flattop, preferably the upper, and accomplish getting over to residential without having to drive over to Pioneer and then on Falcon Ridge. So, it will take a lot of the residential traffic off 120 as well as the commercial traffic.

And I agree with what's been said about the trucks. I think that just the reverse will happen. I think they'll come in. If they want to go to a casino, there's a casino right at the 120 Exit there. That does have some available parking. So, I think that they are not going to be wanting to come down Pioneer. I don't think that's going to be an issue. But, anyway, we are looking forward to 118. And, hopefully, we can move the timeframe up a little bit and get lucky. Thank you.

ADAM SEARCY: Thank you. I appreciate you putting that perspective a little bit about the future development. I know at times in Mesquite it feels like maybe there isn't a need or a congestion issue. But there really is some tremendous development, both residential and commercial, that's very real potential. And when that does occur, Exit 120 will be a little bit congested, and it will be appropriate to have an additional interchange. So, I appreciate you bringing that point up. Thank you.

Yes, sir?

GEORGE GAULT: My name's George Gault. I'm the chair of a new group in town called Mesquite Regional Business. Initiative is to recruit new business. As an example, we are just barely organized. And we are currently working on several projects that would go into that industrial area. They all involve trucking. So, from our

perspective, my question is how quickly can you get it done, because it's going to be a key part of what we do in the future and the growth that we see in terms of new jobs and new business and new tax base and so on.

ADAM SEARCY: I appreciate you coming tonight. I'm glad to see you guys organizing like that. And, hopefully, we can work together with the City and everyone to find a way to get funding for this project. Thank you.

GEORGE GAULT: Be happy to help with that.

ADAM SEARCY: Thank you.

JULIE MAXEY: Any more questions or comments?

GEORGE LARSEN: Karl Larsen. 1544 Harbor. Adam, do you have any idea on how far they are going to extend Pioneer Boulevard west, southwest? I understood it was just going to go all the way down to Mile Post 114. Is that correct?

ADAM SEARCY: Mr. Sawyer just stepped out of the room.

KARL GUSTAVESON: That's where the City property is going to, so that's approximately right.

GEORGE LARSEN: There's an underpass now at 114, a couple lanes, so this offramp will also cover a need for the trucks going back southwest?

ADAM SEARCY: If the city was to extend west Pioneer further to the west, obviously, anyone exiting at

Exit 118 could go to the west or to the east. But, as far as this project is concerned, really, we just have that interchange and the connection to lower Flattop and west Pioneer.

GEORGE LARSEN: Do you think we'll have truck and automobile traffic on those offramps on 118? Do you think it will mix in there?

ADAM SEARCY: Sure. I mean, just like any interchange, there will be a mix. But depending on the destinations best served by that interchange will kind of indicate which vehicles get off there and which go to 120. But, yeah, it will be a very standard type interchange with street lamps and whatnot.

GEORGE LARSEN: So, trucks will have to stop at the "T" and make a left turn? What's the loading on that bridge?

ADAM SEARCY: Well, I don't have the specifics for you. But it will be a big boy bridge, that's for sure.

GEORGE LARSEN: I hope.

ADAM SEARCY: This is very conceptual, I should state as far as the design is concerned. But highly likely it will have that basic look. And it will be just as substantial as any of the overpasses over I-15 that you see in Las Vegas, some of those larger intersections.

GEORGE LARSEN: What is the length of that

stacking area? What is that from the "T" down to the off/on-ramp?

ADAM SEARCY: It's probably pushing 2,000 feet.

GEORGE LARSEN: Is it?

ADAM SEARCY: Yes. They have some pretty high standards for acceleration and deceleration lanes. And, also, they have to climb grade from I-15 to get up to the bridge heighth. And that can't be too steep. So, it's dictated by a couple different factors. I'm estimating 2000 feet. But it's pretty substantial. Those will probably have to be, in part, retaining walls. So, it will be an exciting construction project. But it will be a big bridge.

GEORGE LARSEN: Thank you.

ADAM SEARCY: Thank you.

JULIE MAXEY: All right. It looks like we are through with the Q and A this evening. Please keep in mind the comment period is open until November 26th. You can get online. You can submit your comment form, which is attached to your packet tonight. Or you can write a letter and send it to the addresses in your handout packet. So, with that, we'll go ahead and close this. My name is Julie Maxey. I am the public hearings officer for the Nevada Department of Transportation. Thank you for coming out tonight.

C E R T I F I C A T E

STATE OF UTAH

COUNTY OF WASHINGTON

THIS IS TO CERTIFY THAT THE FOREGOING PROCEEDINGS WERE TAKEN BEFORE ME, RUSSEL D. MORGAN, A CERTIFIED SHORTHAND REPORTER IN AND FOR THE STATE OF UTAH, RESIDING AT WASHINGTON COUNTY, UTAH;

THAT THE PROCEEDINGS WERE REPORTED BY ME IN STENOTYPE, AND THEREAFTER CAUSED BY ME TO BE TRANSCRIBED INTO TYPEWRITING, AND THAT A TRUE AND CORRECT TRANSCRIPTION OF SAID TESTIMONY SO TAKEN AND TRANSCRIBED TO THE BEST OF MY ABILITY IS SET FORTH IN THE FOREGOING PAGES 2 to 23.

_____

RUSSEL D. MORGAN, CSR

LICENSE #87-108442-7801

November 19, 2012.

*William C. Prescott, M.D.*
*1226 Pebble Beach Drive*
*Mesquite, NV 89027*
*Phone 702-346-1168*
*Email: billprescott69@yahoo.com*


October 31, 2012

Mr. Steve M. Cooke, P.E.
NDOT Chief of Environmental Services
1263 So. Stewart Street
Carson City, NV 89712

Dear Mr. Cooke:

I have received your single page informational brochure on the proposed I-15 interchange in Mesquite. I concur in the desirability of this project. I see no serious negative aspect as regards the environment and it should speed up traffic transfer to Mesquite's north side.

I would like to request that consideration be given to the construction or provision for a bicycle lane to accompany the Flat Top Drive. I have cycled Flat Top in its current state and find it to be a lovely and challenging cycling experience. However, in its present state the road is a bit narrow and presents a bit of a hazard in some locations and those hazards should be eliminated with a small but parallel bike lane. Please be advised that W. Pioneer road and W. Hardy are quite wide and safe for cycling.

I realize the project is directed to motor vehicles, but every encouragement should be made for exercise and cycling is an activity enjoyed or potentially enjoyed by all ages.

Sincerely,

William Prescott

# Environmental Assessment

## Interstate 15 Interchange at Milepost 118 Project in Mesquite, Nevada

Federal Highway Administration
in cooperation with
Nevada Department of Transportation

FHWA-DE-015-02 (040)
NDOT Project ID: 73553
EA Document Number: FHWA-NV-EA-12.01

**August 2012**

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Environmental Assessment
for
Interstate 15 Interchange at Milepost 118 Project
Federal Aid Number: FHWA-DE-015-02 (040)
NDOT Project Number: 73553
EA Document Number: FHWA-NV-EA-12.01
August 2012

Approved by: Steve M. Cooke Date: 8/21/12
Steve M. Cooke, PE
Environmental Services Division
Nevada Department of Transportation

Approved by: A. A. Abdalla Date: 8/28/12
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U.S. Department of Transportation
Federal Highway Administration

Approved by: I. Alattar Date: 8/28/12
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This Environmental Assessment has been prepared in accordance with the provisions and requirements of Chapter 1, Title 23, Code of Federal Regulations (CFR) Part 771 relating to the implementation of the National Environmental Policy Act (NEPA) of 1969.

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# Abstract

The Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT), has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA). This EA examines the potential environmental impacts of the alternatives being considered for the proposed Interstate 15 (I-15) interchange between Milepost (MP) 117.5 and MP 118.8 located in Mesquite, Clark County, Nevada. This document describes the proposed project, the purpose of and need for the project, alternatives considered (including the No Build Alternative), the existing environment that could be affected by the project, the potential impacts of the alternatives, and proposed mitigation measures.

FHWA (as the project lead) and NDOT are proposing to build a new interchange and approach roadway (the extension of Lower Flat Top Parkway south of West Pioneer Boulevard), interchange ramps, and a bridge over I-15. The northern logical terminus for the proposed Build Alternative would be the intersection of Lower Flat Top Parkway (that is currently under construction by Mesquite) and West Pioneer Boulevard. The southern logical terminus would be the proposed ramps for existing northbound I-15 at the proposed Exit 118. Due to the location of the Virgin River and associated land restrictions, there is no local network tie-in to the south.

Based on NDOT's design, the new interchange bridge would consist of four vehicle travel lanes (two general-purpose lanes in each direction, northbound and southbound). The approach roadway would also consist of the same four travel lanes, two bicycle lanes immediately adjacent to the outermost travel lanes (one in each direction on the east and west), and a sidewalk (on the east immediately adjacent to the bicycle lane). The bicycle lanes and sidewalk would not traverse the interstate but would facilitate bicycle and pedestrian movements on only the north side of the interchange. Other temporary components would include construction staging areas, material borrow areas, and other support facilities.

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# Contents

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# Acronyms and Abbreviations

| | |
|---|---|
| AADT | average annual daily traffic |
| AASHTO | American Association of State Highway and Transportation Officials |
| ACHP | Advisory Council on Historic Preservation |
| AOI | area of influence |
| APE | area of potential effects |
| BA | Biological Assessment |
| BFE | base flood evaluations |
| BLM | Bureau of Land Management |
| BMP | best management practices |
| CAAA | Clean Air Act Amendments |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| cfs | cubic feet per second |
| CIA | Community Impact Assessment |
| CO | carbon monoxide |
| CWA | Clean Water Act |
| dBA | A-weighted decibel |
| DU | dwelling units |
| EPA | Environmental Protection Agency |
| ESA | Endangered Species Act |
| ESA | Environmental Site Assessment |
| FEMA | Federal Emergency Management Agency |
| FHWA | Federal Highway Administration |
| FIRM | Flood Insurance Rate Map |
| FTA | Federal Transit Authority |
| HDR | HDR Engineering, Inc. |
| IDT | Interdisciplinary Team |
| $LA_{eq}1h$ | Average decibels over one hour, A-weighted |
| LEP | limited English proficiency |
| LOS | level of service |
| LUST | leaking underground storage tank |
| LWCF | Land & Water Conservation Fund |
| MBTA | Migratory Bird Treaty Act |
| mg/L | milligrams per liter |
| mph | miles per hour |
| MSATs | mobile-source air toxics |
| NAAQS | National Ambient Air Quality Standards |

| | |
|---|---|
| NAC | Nevada Administrative Code |
| NAC | noise abatement criteria |
| NCHRP | National Cooperative Highway Research Program |
| NDEP | Nevada Division of Environmental Protection |
| NDOT | Nevada Department of Transportation |
| NDOW | Nevada Department of Wildlife |
| NDSL | Nevada Division of State Lands |
| NEPA | National Environmental Policy Act |
| NHPA | National Historic Preservation Act |
| $NO_2$ | nitrogen dioxide |
| $NO_x$ | nitrogen oxides |
| NPDES | National Pollution Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NRS | Nevada Revised Statute |
| NWI | National Wetlands Inventory |
| NWP | Nation Wide Permit |
| $O_3$ | ozone |
| OHV | off-highway vehicle |
| OHWM | ordinary high-water mark |
| Pb | lead |
| $PM_{10}$ | particulate matter 10 microns in diameter or less |
| $PM_{2.5}$ | particulate matter 2.5 microns in diameter or less |
| ppm | parts per million |
| PRCSD | Parks, Recreation, and Community Services Department |
| PUD | Planned Unit Development |
| RMP | Resource Management Plan |
| ROW | right-of-way |
| RSA | resource study area |
| SAFETEA-LU | Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users |
| SHPO | State Historic Preservation Office |
| SNTC | Southern Nevada Transit Coalition |
| $SO_2$ | sulfur dioxide |
| SWPPP | Stormwater Pollution Prevention Plan |
| TCM | Transportation Control Measures |
| TDS | total dissolved solids |
| TSM | Transportation Systems Management |
| U.S. | United States |
| USACE | United States Army Corps of Engineers |
| USC | United States Code |

| | |
|---|---|
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| UST | underground storage tank |
| VHT | vehicle-hours of travel |
| VMT | vehicle-miles traveled |
| VOCs | volatile organic compounds |
| WOUS | Waters of the United States |
| WQC | Water Quality Certification |

# List of Mitigation Measures

Table 1 below lists measures that will be implemented during the design and/or construction phases of the project to avoid, reduce, or otherwise mitigate environmental impacts associated with the project's preferred alternative.

Mitigation measures and actions are to comply with federal, state, and local laws/regulations in the areas of noise, air quality, water quality, wetlands, protected species, Section 4(f) resources, floodplains, hazardous materials, and engineering design as well as those listed below.

The following mitigation measures and commitments are not subject to change or modification without prior written approval from the Federal Highway Administration (FHWA). This list does not include any of FHWA's permits, approvals, or reviews that are required related to Plans, Specifications, and Estimates; rights-of-way (ROWs); contracts; or other design or administrative aspects of the project.

**Table 1. Project Mitigation Measures**

| Responsible Party(ies) | EA Section Reference | Mitigation/ Compliance Category | Description |
|---|---|---|---|
| Designer and Construction Contractor | 3.6.4.2.1 | Hydrology and Water Quality – Surface Water | Erosion-control measures will be incorporated for site soil stabilization and to reduce deposition of sediments in the adjacent surface waters. Measures could include, but are not limited to, the application of soil stabilizers such as landscaping and mulch and rock slope protection. In addition, storm drains associated with the new interchange will include water quality measures to support compliance with water quality standards and regulations. |
| Construction Contractor and NDOT | 3.6.4.2.1 | Hydrology and Water Quality – Surface Water | Compliance with applicable federal, state, and local water quality standards will be required during the construction and operation of the Build Alternative. The development and implementation of a project-specific construction Stormwater Pollution Prevention Plan (SWPPP) as part of the CWA NPDES permitting processes will serve to protect surface water quality during construction of the Build Alternative. |
| Construction Contractor | 3.6.4.2.2 | Hydrology and Water Quality – Groundwater | If previously unidentified wells are encountered during project construction, the contractor will notify the Nevada Division of Water Resources and will retain an authorized driller to abandon the well, if necessary. |
| Construction Contractor | 3.6.4.2.2 | Hydrology and Water Quality – Groundwater | During construction, water quality parameters such as turbidity will be monitored in accordance with the CWA Section 401 Water Quality Certification requirements. Due to the nature of surface disturbances related to construction of an interchange and bridge, it is anticipated that there will be no impacts to groundwater. |
| Construction Contractor | 3.6.4.2.2 | Hydrology and Water Quality – Groundwater | In the event of a release of hazardous substances by vehicles, construction equipment, and/or hazardous material containers, the contractor will take immediate action to facilitate the action to clean and remediate the release to prevent the contaminants from leaving the project area and from reaching the groundwater table. |
| Designer and Construction Contractor | 3.5.5.2.2 | Wetlands and Jurisdictional Waters | Any mitigation to the 0.307 acre of WOUS will depend on the determination of jurisdictional status from USACE and the conditions of the Section 404 as determined by USACE. |
| Designer and Construction Contractor | 3.7.1.3.2 | Biological Resources and Sensitive Species – Vegetation | All construction and associated activities will occur within the existing transportation ROW. Clearing of vegetation will be limited to the areas necessary for construction, areas where future routine maintenance activities would be required, and areas that need to be maintained for freeway sight distance. Temporarily impacted areas will be recontoured and revegetated with a native, certified, weed-free seed mix. Prior to any construction activities, the project boundaries will be flagged, and cactus and yucca that cannot be avoided will be salvaged in coordination with the landowner and in accordance with State of Nevada administrative codes. |

**Table 1. Project Mitigation Measures**

| Responsible Party(ies) | EA Section Reference | Mitigation/ Compliance Category | Description |
|---|---|---|---|
| NDOT and Construction Contractor | 3.7.1.3.2 | Biological Resources and Sensitive Species – Vegetation | Mitigation for the threecorner milkvetch will be determined through consultation with the Nevada Division of Forestry and could include salvage of the individual plant. Disturbed soils will be stabilized as soon as possible using best management practices for erosion control. |
| Construction Contractor | 3.7.1.3.2 | Biological Resources and Sensitive Species – Vegetation | A noxious weeds control plan will be developed in coordination with the local jurisdictions. Common mitigation is to have the contractor wash its equipment before it arrives onsite and before it leaves the site. In compliance with Executive Order 13112 regarding noxious weeds, all earth-moving and -hauling equipment will be washed prior to arriving onsite to prevent the introduction of noxious weed and invasive weed seeds. Noxious weed control and abatement will be implemented as part of ongoing project maintenance by the local jurisdictions' public works departments. |
| Construction Contractor | 3.7.2.3.2 | Biological Resources and Sensitive Species – Wildlife | To minimize impacts to wildlife, equipment and vehicles will remain within the project ROW. Grading, access, and storage areas will be limited to areas that are within construction limits. A litter-control plan will be implemented. All trash will be collected and put in proper receptacles so that ravens and other predators are not attracted to the site. Receptacles will be emptied at the end of each workweek so that ravens do not congregate around dumpsters. |
| Construction Contractor | 3.7.3.2.2 | Biological Resources and Sensitive Species – State Listed Species | Conduct preconstruction surveys. If Gila monsters are discovered during preconstruction surveys, it would be removed in accordance with established NDOW guidelines. In the unanticipated event that a Gila monster is observed during construction, activities would be halted in the immediate area and NDOW would be notified immediately per NDOW's recommended construction site protocols. |
| NDOT and Construction Contractor | 3.7.3.2.2 | Biological Resources and Sensitive Species – State Listed Species | Mitigation for potential impacts to threecorner milkvetch will be determined during the permitting consultation with the Nevada Division of Forestry. Mitigation measures could include conducting additional surveys in the area prior to construction, collecting individual plants found in the project area for relocation or use in research, or other efforts deemed appropriate for the limited level of impact expected. |
| Construction Contractor | 3.7.4.3.2 | Biological Resources and Sensitive Species – Federally Listed Threatened and Endangered Species | Prior to the initiation of construction, an environmental awareness education program, including information on desert tortoises, will be presented to all personnel who would be onsite.<br>Project activity areas and staging areas will be fenced to exclude tortoises.<br>Workers will be informed to report all observations of desert tortoises.<br>In the unanticipated event that a desert tortoise is observed in the project area, the contractor will halt all work and contact NDOT, who will notify USFWS. |

**Table 1. Project Mitigation Measures**

| Responsible Party(ies) | EA Section Reference | Mitigation/ Compliance Category | Description |
|---|---|---|---|
| Construction Contractor | 3.7.5.3.2 | Biological Resources and Sensitive Species – Migratory Birds | Potential impacts on migratory birds will be minimized by scheduling ground-clearing activities outside the general migratory bird breeding season, which is generally March 1 through July 31. If construction activities occur during this period, pre-construction surveys will be conducted to identify nests in the area. If nests are found, no construction activities will occur near the nests until the young have fledged. An appropriate buffer will be established by NDOT in conjunction with USFWS. In addition, USFWS recommends that construction activities avoid disturbance to burrows that could be used by burrowing owls, which are a USFWS species of interest and are protected under the Migratory Bird Treaty Act. |
| NDOT and Construction Contractor | 3.8.5 | Cultural Resources | NDOT's Design Division considered and implemented geometric design modifications and the installation of permanent avoidance measures for sites 26CK3529 and 26CK3530, which are close to where heavy earth-moving activities would take place. To ensure avoidance of sites 26CK3529 and 26CK3530 during construction activities, orange barrier fencing or concrete jersey barriers will be installed prior to construction around their perimeters to prohibit access and disturbance, and a qualified archaeological monitor will be present during constructions activities in this sensitive area of the proposed project. To ensure avoidance of sites 26CK3531, 26CK9235, 26CK9236, 26CK9237, and 26CK9331, which are set back from construction activities, the sites' perimeters with be marked with lathe and flagging tape for protection. |
| NDOT and Construction Contractor and FHWA | 3.8.5.1 | Cultural Resources | If cultural resources are discovered during construction, project activities will cease immediately within 100 feet of the discovery, and the contractor will notify FHWA. FHWA will notify the SHPO, the appropriate land managing agency, and appropriate Native American groups(s) regarding the nature of the find. A professional archaeologist will examine the find to determine if it is cultural and to make an initial assessment for treatment and recommendation of eligibility to the NRHP. If human remains or funerary objects are discovered, the SHPO will be notified, as required by NRS 383.150-383.190, and the provisions of Native American Graves Protection and Repatriation Act (43 CFR 10) will be followed. |
| Construction Contractor | 3.9.4.2 | Air Quality | Standard mitigation measures and best management practices (BMPs) would be implemented to prevent fugitive dust from becoming airborne.<br>Exhaust emissions would be reduced whenever possible by keeping machinery engines and exhaust systems in good mechanical condition and avoiding unnecessary vehicle and equipment idling.<br>Odors would be minimized by covering loads of hot asphalt.<br>The construction contractor would comply with federal regulations requiring the use of ultra-low-sulfur diesel fuel in on-road trucks and construction equipment. |
| NDOT and Construction Contractor | 3.10.3.2 | Noise | Mitigation measures for mobile equipment could be addressed in the contract documents as needed and could address hours of operation, noise-level limits, or performance of proper maintenance on construction equipment. |

**Table 1. Project Mitigation Measures**

| Responsible Party(ies) | EA Section Reference | Mitigation/ Compliance Category | Description |
|---|---|---|---|
| Designer | 3.11.3.2 | Visual Resources | Select finish, color, and surface patterns to coordinate structures with the surrounding landscape.<br>Apply a consistent color palette for all structures.<br>Incorporate transportation art motifs.<br>Create visual design unity among all highway structures and facilities. |
| Construction Contractor | 3.11.3.2 | Visual Resources | Replace, repair, or improve any disturbance to vegetated areas such as restabilizing disturbed soils and generally restoring or improving natural resources that have been disrupted will also mitigate aesthetic conditions. Reducing earthwork contrasts by retaining rocks, trees, and shrubs and adding mulch or topsoil and repairing any disruption to existing drainages will also help relieve visual changes. |
| Construction Contractor | 3.12.3.2 | Hazardous Materials | Construction contractors will immediately stop all subsurface activities if potentially hazardous materials are encountered, an odor is identified, or significantly stained soil is visible. Contractors will follow all applicable regulations regarding discovery and response for hazardous materials encountered during the construction process. |
| City of Mesquite and Construction Contractor | 3.13.3.2 | Mobility, Access, and Safety | Develop and implement a transportation-management plan to maintain traffic safety and maximize access on I-15 during construction. All construction traffic–related impacts to businesses will be minimized whenever possible, ending on completion of the project. The contractor will coordinate with the City of Mesquite and NDOT to minimize access impacts and construction concerns. |

# 1.0 Introduction

The City of Mesquite has experienced significant growth over the last few decades, and continued growth in the next 10 to 20 years is anticipated. Currently, the City's Master Plan has a 20-year build-out horizon through 2027. The Mesquite Technology & Commerce Center (MTCC) is a planned commercial and industrial area located adjacent to and north of Interstate 15 (I-15) in western Mesquite. The MTCC started development in 2004 and is identified in the City's Master Plan for continued development (COM 2007). The MTCC is expected to be a major employment center, and existing and projected development in this area includes predominantly light and heavy industrial uses. For this reason, the percentage of truck traffic and travel demand would increase in this area as development increases.

The Exit 120 interchange provides the main link for transportation from I-15 to the western area of Mesquite and from I-15 to the MTCC (Figure 1). The City of Mesquite started looking at solutions to address increased congestion issues at the Exit 120 interchange as early as 2006, and the idea of a new interchange at Milepost (MP) 118 along I-15 has been under consideration for several years. The City of Mesquite's Transportation Plan (May 2009a) includes a future interchange at MP 118 to provide additional access to and from West Pioneer Boulevard and alleviate congestion at the Exit 120 interchange (Figure 2).

The interchange improvements currently under construction at the Exit 120 interchange will be completed in May 2012 and will coincide with the issuance of this environmental assessment (EA); therefore, these improvements are discussed as existing conditions. The improvements will result in traffic operations at level of service (LOS) A. However, these upgrades would not accommodate anticipated traffic demands in 2034, and the operational conditions of this interchange are expected to fail sometime between 2024 (LOS C) and 2034 (LOS F) as planned development in the MTCC and surrounding areas is realized without the addition of the Exit 118 interchange. Level of service is explained in *Section 1.4.3.1, Current (2010) and Future (2034) Level-of-Service Deficiencies and Travel Delay*.

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**Project Location**
**Figure 1**
I-15 Proposed Interchange at MP 118 Project

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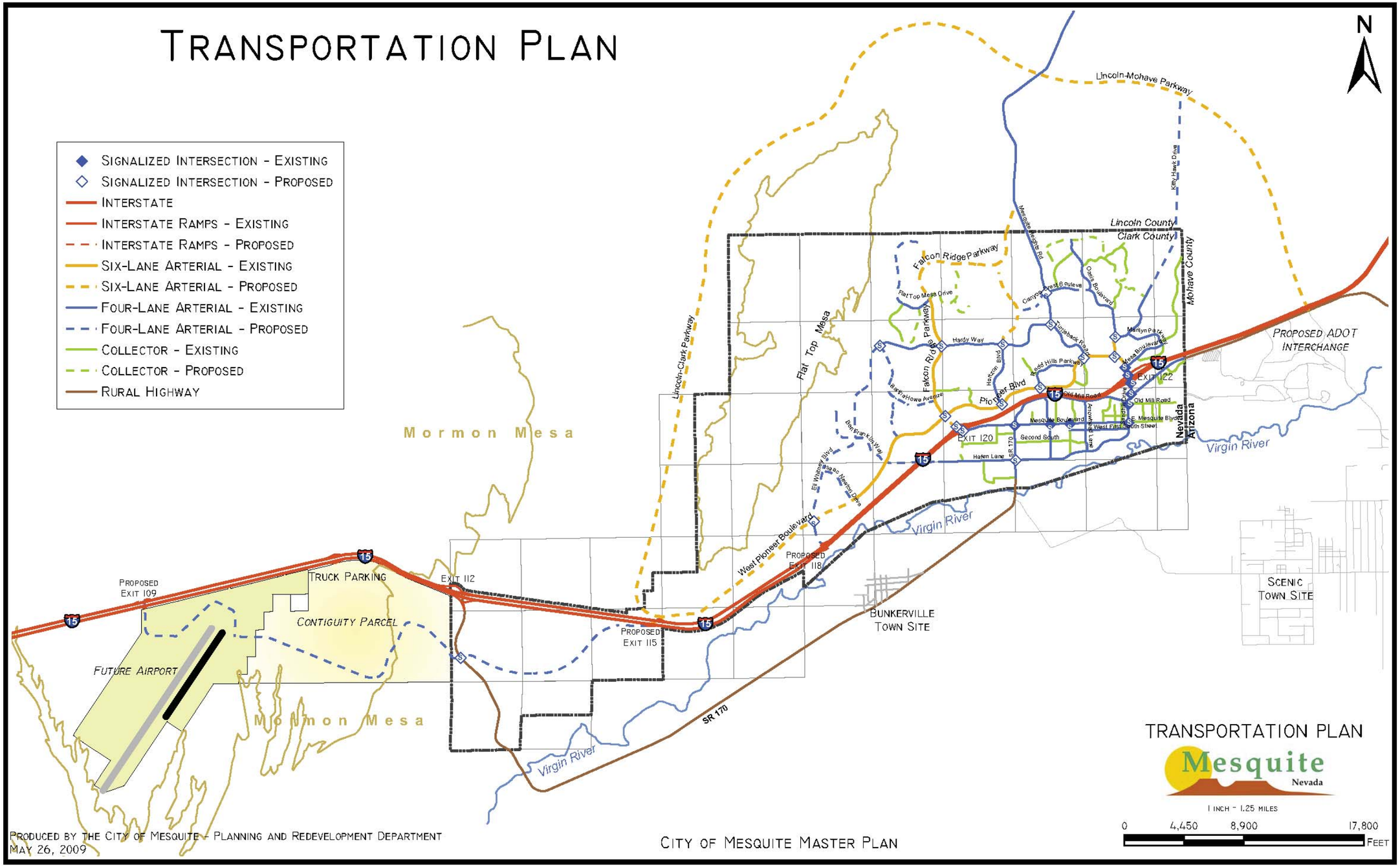
# TRANSPORTATION PLAN

- SIGNALIZED INTERSECTION - EXISTING
- SIGNALIZED INTERSECTION - PROPOSED
- INTERSTATE
- INTERSTATE RAMPS - EXISTING
- INTERSTATE RAMPS - PROPOSED
- SIX-LANE ARTERIAL - EXISTING
- SIX-LANE ARTERIAL - PROPOSED
- FOUR-LANE ARTERIAL - EXISTING
- FOUR-LANE ARTERIAL - PROPOSED
- COLLECTOR - EXISTING
- COLLECTOR - PROPOSED
- RURAL HIGHWAY

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**City of Mesquite Transportation Plan**
**Figure 2**
I-15 Proposed Interchange at MP 118 Projects

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## 1.1 Proposed Project

In order to accommodate existing and planned growth in western Mesquite and address congestion issues at the existing Exit 120 interchange, the Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT), is proposing to construct a new interchange on I-15 near MP 118 in the city of Mesquite, Clark County, Nevada (Figure 1). Based on NDOT's design, the proposed interchange would include:

- A 300-foot-long, four-lane bridge constructed over I-15 (two lanes in each direction)
- A new 1,950-foot-long, four-lane (two lanes in each direction) approach roadway (an extension of Lower Flat Top Parkway) constructed north of the I-15 corridor between the proposed new bridge and West Pioneer Boulevard
- New ingress and egress ramps on I-15 (northbound and southbound)
- Two bicycle lanes (one in each direction) extending along the roadway only, not traversing the interstate, to facilitate movement and connections to future trails
- One sidewalk compliant with the Americans with Disabilities Act (ADA) extending along the roadway only, not traversing the interstate, to facilitate movement and connections to future trails

The proposed new interchange would provide access to the area north of I-15 near MP 118. Due to the location of the Virgin River and associated land-use restrictions, no local network tie-in to the south is proposed. Project construction is anticipated to begin in mid-2013 and is expected to last approximately 24 to 28 months.

## 1.2 Intent of This Environmental Assessment

FHWA (the federal lead agency), in cooperation with NDOT, has prepared this EA to comply with the National Environmental Policy Act (NEPA). This EA examines the potential environmental impacts of the proposed new interchange on I-15. The environmental analysis conducted as part of this EA—and the comments received in response to it—will help decision-makers consider the potential environmental effects of the proposed project before deciding how to proceed.

This document describes why the project is being proposed, examines alternatives to the proposed project (including the No Build Alternative), describes the existing environment that may be affected by the project, discloses the potential impacts from each alternative, and presents proposed mitigation measures.

This EA was written in accordance with applicable statutes, executive orders, and federal, state, and local laws.

It is FHWA's policy (23 Code of Federal Regulations [CFR] 771.105) that:

- To the fullest extent possible, all environmental investigations, reviews, and consultations be coordinated as a single process, and compliance with all applicable environmental requirements be reflected in the environmental document required by this regulation
- Alternative courses of action be evaluated and decisions be made in the best overall public interest based upon a balanced consideration of the need for safe and efficient transportation; of the social, economic, and environmental impacts of the proposed transportation improvement; and of national, state, and local environmental protection goals
- Public involvement and a systematic interdisciplinary approach be essential parts of the development process for proposed actions
- Measures necessary to mitigate adverse impacts be incorporated into the action

## 1.3 Purpose of the Proposed Project

The purpose of the proposed project is to:

- Relieve congestion and delays at the I-15 Exit 120 interchange
- Accommodate the anticipated transportation demands of existing and planned development in western Mesquite north of the Virgin River
- Enhance regional mobility and improve a more direct interstate access for western Mesquite by separating local/residential traffic at the Exit 120 interchange and industrial/commercial traffic at the proposed Exit 118 interchange

## 1.4 Need for the Proposed Project

The need for the project is defined with respect to the traffic conditions that are projected to be present in the transportation needs study area in 2034 under No Build conditions. The No Build conditions consist of all planned transportation improvements in the transportation needs study area except those associated with this proposed project.

The discussion below establishes the need for the project, which would accommodate planned growth in the western portion of Mesquite, improve local access to I-15, and alleviate congestion and delays at the existing Exit 120 interchange. The interchange improvements that are currently being constructed are expected to result in operations of LOS A but would begin to fail sometime between 2024 (LOS C) and 2034 (LOS F).

### 1.4.1 Existing and Future Development

Population growth and existing and future development are all important factors in determining travel demand. Large increases in these factors over an extended period would cause substantial increases in travel demand. The City of Mesquite has experienced significant growth over the last decade and anticipates continued growth over the next 10 to 20 years. According to the City of Mesquite Population Element (COM 2009b), low-range

population projections for the greater Mesquite area show the population growing from 24,800 in 2011 to 87,000 in 2035. These projections are the population numbers currently approved and adopted by the City of Mesquite City Council. The City regularly reviews and revises these projections. Within the study area, this growth would result in substantial changes to the undeveloped nature of the land uses.

According to the City of Mesquite Master Plan's Land Use and Zoning Map (Figure 3) (COM 2010c), the land surrounding the project area currently has some established service-related businesses and public service facilities and 800 acres of prepared building sites (including appropriate services such as power, water, and sewer) that are planned to contain numerous small manufacturing and service-related businesses and a distribution center. Additional planned development for the area includes residential development and a sport and events complex. In support of the City of Mesquite's economic goals, developments have been built close to the proposed Exit 118 interchange within the MTCC.

Land sales and development in the MTCC began in 2004. The MTCC is identified in the Mesquite Master Plan for continued development and is expected to be a major employment center. Currently, the MTCC is approaching full land transfer, with approximately 83% of its 660 acres sold or under contract (Figure 4) (COM 2012a). Slightly over 200 of those acres are being developed in joint ventures to allow the sale of smaller parcels (COM 2012b).

To address the anticipated population growth and development, the City of Mesquite's Transportation Plan (COM 2009a) includes a future I-15 interchange at MP 118 to provide additional access to and from this area to support the continued economic viability of the MTCC and to alleviate anticipated congestion at the Exit 120 interchange due to development of the MTCC (Figure 2). The economic development need for the proposed Build Alternative is best understood in the context of the city-wide economic development objectives of the City's Economic Plan Element of the Master Plan, which includes creating new jobs, increasing the tax base, and keeping consumer dollars local. Recently, several developers submitted letters of support for the proposed Build Alternative stating that the project is needed, would be beneficial for stimulating economic and business development, and would provide improved tractor-trailer access to western Mesquite (Appendix A).

### 1.4.2 Regional Mobility and Local Access

I-15 is an essential element of the local, regional, and national transportation circulation system. As part of the national interstate system, it provides a north-south link between southern California and the Canadian border and is one of the major truck transport routes in the western United States (U.S.). The functional classification of I-15 from Las Vegas to the Arizona state line is Rural Principal Arterial Interstate. The project segment of I-15 provides a vital transportation corridor for local residents as well as for interstate trucking. In the project area, there are two travel lanes along I-15 in both the northbound and southbound directions. Full-access interchanges are located approximately 6 miles to the south at MP 112, 2 miles to the north at MP 120, and 4 miles to the north at MP 122.

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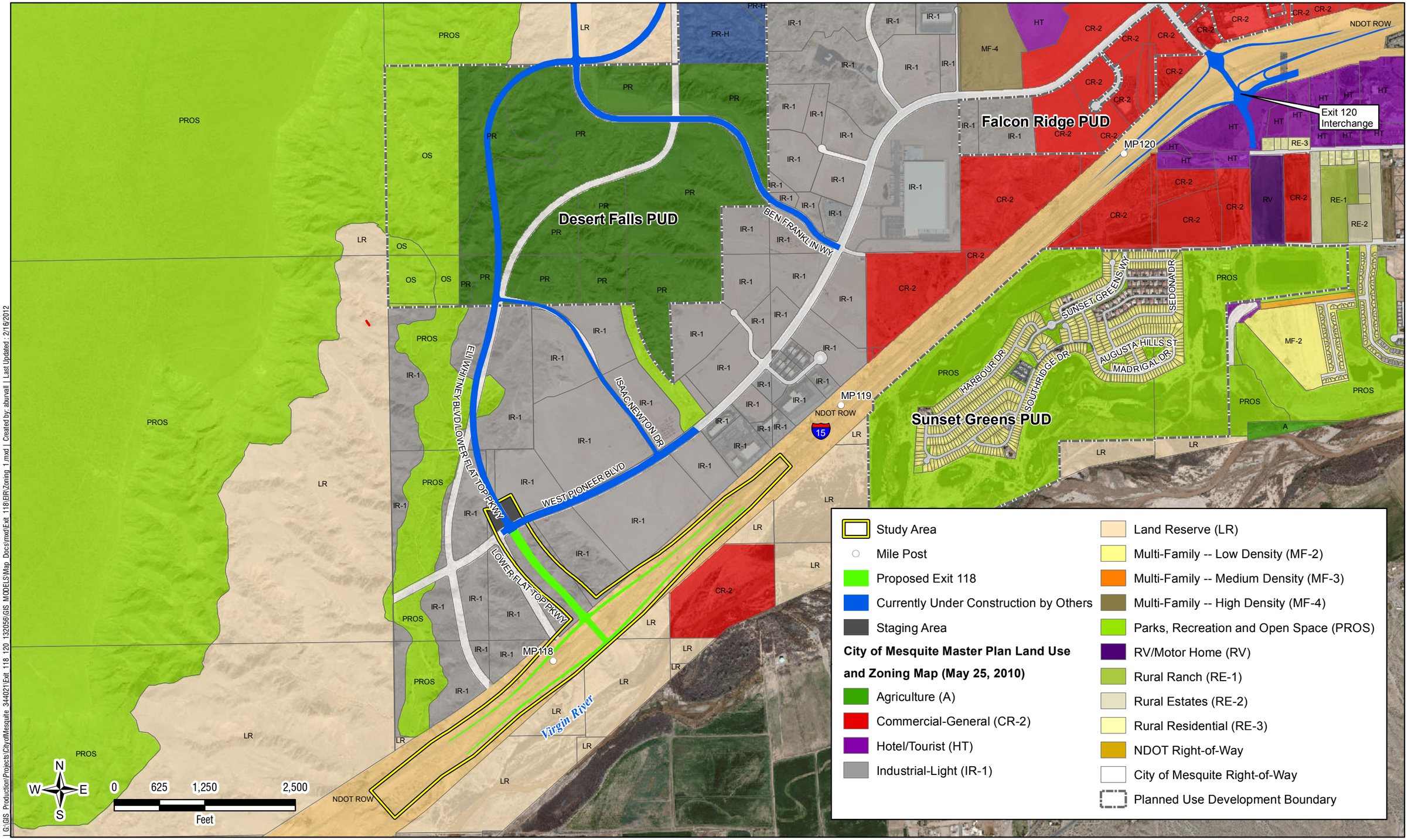


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# Land Use and Zoning
## Figure 3
I-15 Proposed Interchange at MP 118 Project

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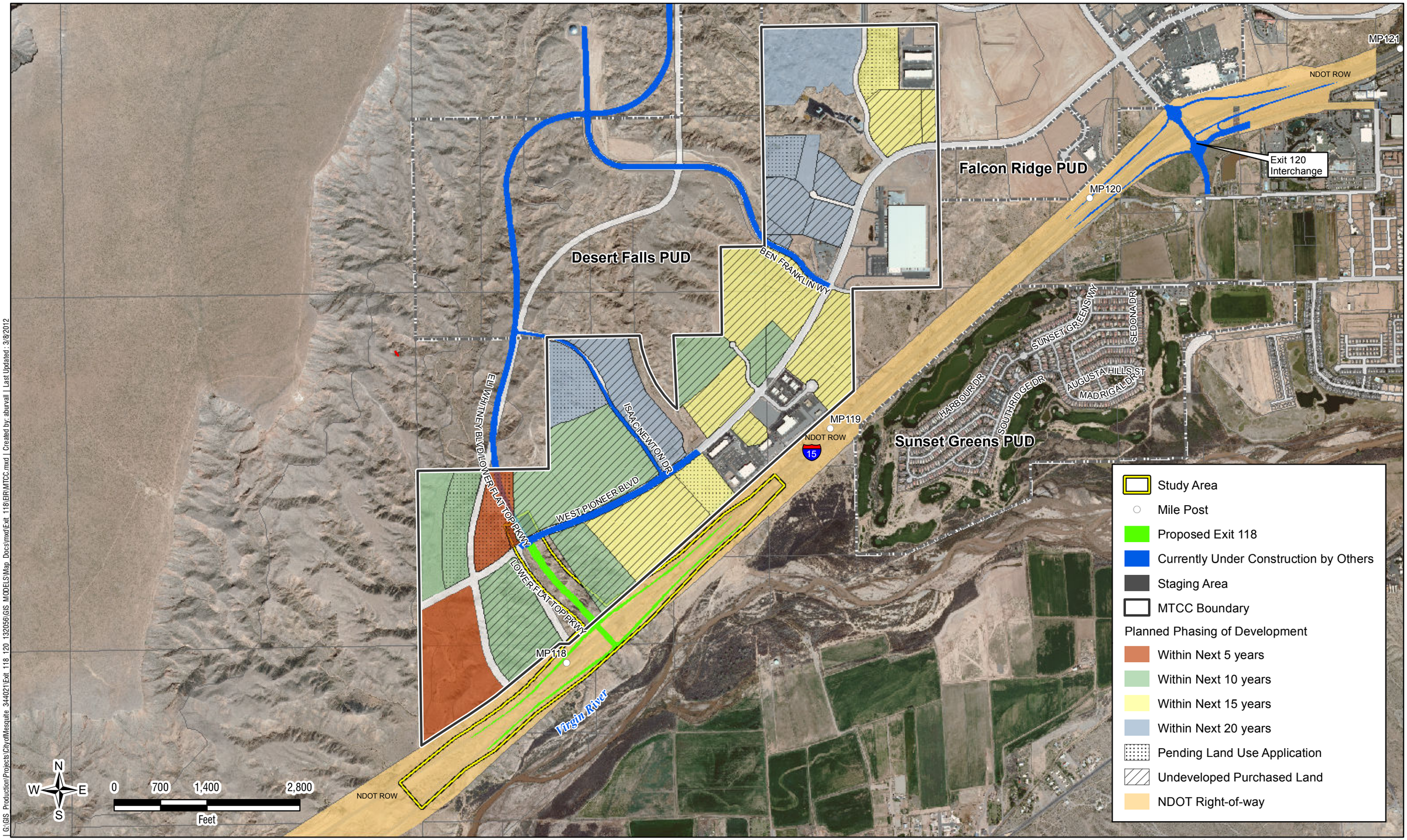


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**Mesquite Technology and Commerce Center (MTCC)**
**Figure 4**
**I-15 Proposed Interchange at MP 118 Project**

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Within the study area, the interchange at Exit 120 (MP 120) provides the main link for transportation from I-15 to the north and western area of Mesquite that is seeing rapid growth in industrial and commercial development. Currently, vehicular access (including freight trucks) to the industrial and commercial land uses in this area is from the Exit 120 interchange heading west on Falcon Ridge Parkway to West Pioneer Boulevard. Locally the dominant traffic movement at the existing Exit 120 interchange, primarily in the afternoon peak hour (2:00–3:00 PM) but also occurring throughout the day, is westbound toward Falcon Ridge Parkway. With the current and planned development in this area under No Build conditions, access to this area of western Mesquite would be focused on Exit 120.

In addition, proposed future development (*Section 1.4.1, Existing and Future Development*) would require additional interchange infrastructure to improve traffic circulation and regional mobility. A transportation improvement is needed because the existing Exit 120 interchange does not support the transportation system linkage that would support planned residential and commercial growth; the area around Exit 118 is intended for industrial use. Under the No-Action Alternative, by 2034, the industrial-related truck traffic would place a burden on Exit 120, which is meant to serve residential traffic. The existing road network was primarily designed for local traffic that is served by Exit 120 and is inadequate to provide freeway connectivity for the developing and expanding industrial area.

The existing Exit 120 interchange does not provide a direct connection onto I-15 from the industrial area, thus resulting in increased truck traffic on surface streets that conflicts with automobile and truck traffic at Exit 120. Without the new interchange, focusing traffic into this developing area on the Exit 120 interchange and adjacent roads would constrain mobility on the new roadway infrastructure currently being built by the City to accommodate the growth and would also increase congestion at the existing interchange.

### 1.4.3 Congestion and Delays at the I-15 Exit 120 Interchange

The TransCAD Travel Demand Model (TDM), which was created in 2007, was used to develop the Exit 118 Change of Access Report (COM 2011a) for the Mesquite area to evaluate existing and future traffic conditions based on the implementation of the proposed No Build and Build Alternatives and their functional effect on the Exit 120 interchange. This TDM is a representation of the roadway facilities and the travel patterns associated with these facilities based on socioeconomic data. The analyses for the Exit 118 Change of Access Report assumed that the improvements at Exit 120 are in place as shown in Figure 1.

Data from the City of Mesquite's TransCAD TDM was used as the foundation for developing traffic volume forecasts for Exits 118 and 120 as part of the Change of Access Report. The modeled area consisted of the project area and a wider traffic shed study area to account for outside influences that would directly affect the proposed Build Alternative. Figure 5 represents the model network and boundary limits of the traffic shed study area. The model assumed that the city had reached "full build-out" status, meaning that all future development was accounted for. Using the City's official 2005 estimate of dwelling units and projecting to 2009 based on historical building permits from 2000 to 2008, 2063 was determined to be the horizon build-out year. Therefore, all forecasted volumes were tempered based on the historic reduction in development during the economic downturn in 2009. Traffic forecasts were determined for three future horizon years: 2014, 2024, and 2034.

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Lincoln County

Clark County

Study Area

Nevada

Arizona

0 0.5 1 2

Miles

N

W E

S

Study Area

Traffic Shed Study Area

# HDR Super TAZ Structure

# 2005 Mesquite Model TAZs

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# Traffic Shed Study Area
## Figure 5
I-15 Proposed Interchange at MP 118 Project

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In 2010, the average annual daily traffic (AADT) along the I-15 corridor in the study area around the existing Exit 120 interchange was 17,000. This is projected to increase to approximately 32,000 AADT in 2034 (COM 2011a). Based on the most recent 2009 information provided by the NDOT Traffic Information Division, the truck percentage in the study area on I-15 is approximately 25%.

#### 1.4.3.1 Current (2010) and Future (2034) Level-of-Service Deficiencies and Travel Delay

This section summarizes the needs assessment for the road network in the study area under the No Build conditions. To evaluate the road network, the project team reviewed data about level of service and travel time.

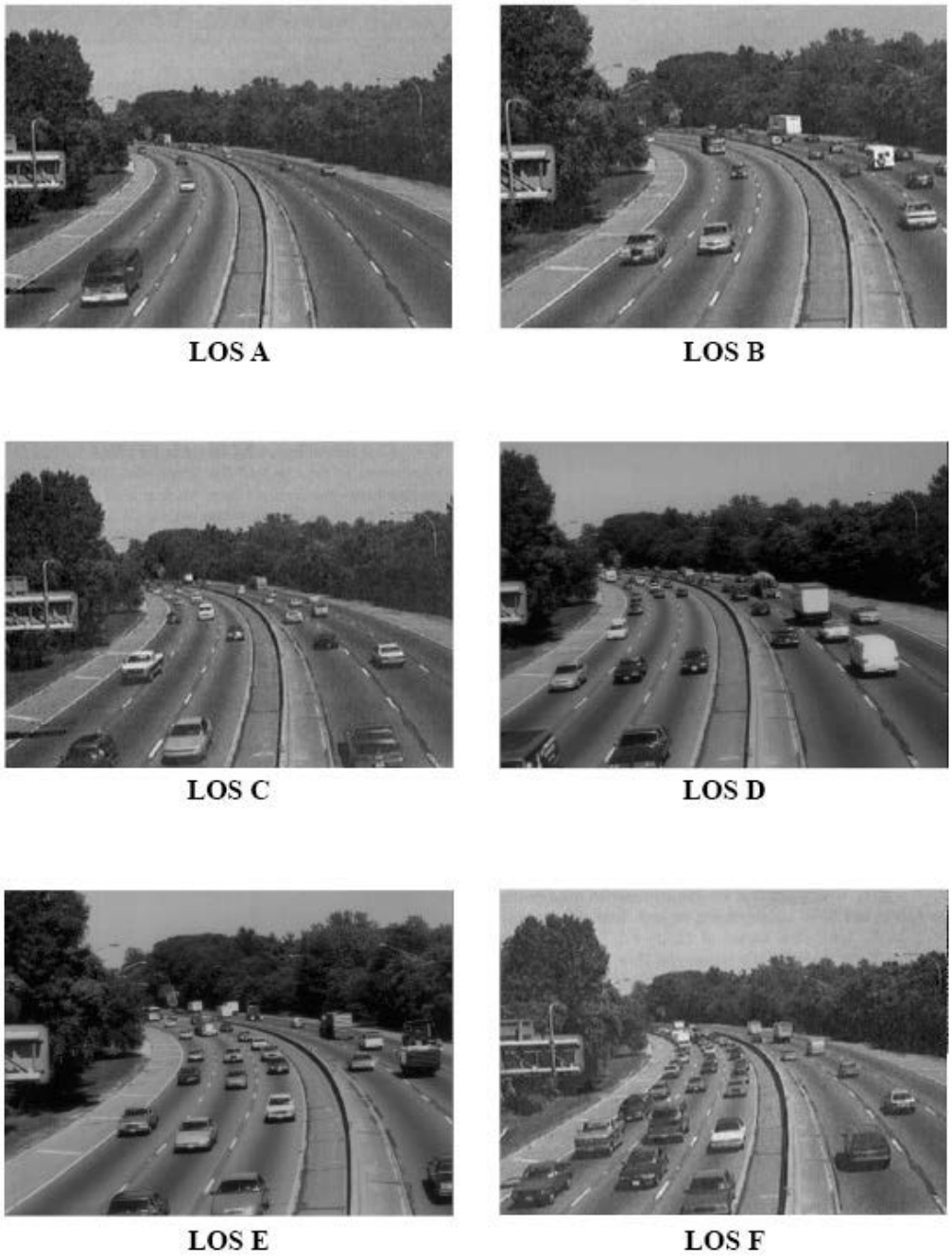
According to the *Highway Capacity Manual* (HCM) (TRB 2000), level of service is a quality measure describing operational conditions within a traffic stream. This is generally described in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Level of service values are designated from A to F, with LOS A representing the optimum operating conditions and LOS F representing the worst operating conditions (Figure 6 and Table 2). Most design or planning efforts typically target service flow rates (that is, the rates at which cars pass through the intersection) of at least LOS C or D to ensure an acceptable operating conditions for facility users. For this project, a minimum standard of LOS D was chosen, along with LOS C as a desirable goal based on the City of Mesquite's requirements for arterials.

Each of the Exit 120 intersections was analyzed under existing and No Build conditions. Under existing conditions, both the northbound and southbound ramps at Exit 120 operate at an acceptable level of service of LOS A in the AM and PM peak periods. However, the interchange improvements that are currently being constructed at Exit 120 would not accommodate anticipated traffic demands under full build-out conditions. A level of service of LOS F is expected under No Build conditions in 2034 on the Exit 120 northbound roundabouts at the interchange terminals during the PM peak hour. Table 3 is a summary of intersection average level of service for the existing Exit 120 roundabout interchange under Build and No Build conditions for Exit 118.

## 1.5 Project Location

The proposed project would be located within the city limits of Mesquite in the southwestern portion of the city and centered on I-15 at MP 118 (Figure 7). The lane/ramp configuration is presented in Figure 8. The northern logical terminus for the proposed project would be the intersection of Lower Flat Top Parkway (currently under construction by the City of Mesquite) and West Pioneer Boulevard. The southern logical terminus would be the proposed ramps for northbound I-15 at the proposed new interchange. The proposed interchange is predominantly located in Sections 23, 24, and 26 of Township 13 South (T26S) and Range East (R70E) of the U.S. Geological Survey (USGS) Flat Top Mesa and Mesquite 7.5-Minute Quadrangle Maps of Nevada.

**Figure 6. Levels of Service**




Source: Transportation Research Board. 2000. *Highway Capacity Manual.* Washington, D.C.

**Table 2. Highway Capacity Manual Level of Service Correlation**

| Level of Service | Intersections | Freeways |
|---|---|---|
| A | Most vehicles do not stop | Free flow |
| B | Some vehicles stop | Slight restrictions to free flow |
| C | Significant number of stops | Restrictions to free flow |
| D | Many stop, individual cycle failure | Noticeable restriction, declining speeds |
| E | Frequent individual cycle failure, at capacity | No gaps in traffic, volatile speeds |
| F | Arrival rate exceeds capacity | Breakdown, large queues, recurring congestion |

**Table 3. Intersection Level of Service Correlation at Exit 120**

| Year | Peak | I-15 Southbound On/Off Ramp | I-15 Northbound On/Off Ramp |
|---|---|---|---|
| ***Without Exit 118*** | | | |
| 2014 | AM | A | A |
| 2024 | | A | A |
| 2034 | | B | A |
| 2014 | PM | A | A |
| 2024 | | C | A |
| 2034 | | F | B |
| ***With Exit 118*** | | | |
| 2014 | AM | A | A |
| 2024 | | A | A |
| 2034 | | A | A |
| 2014 | PM | A | A |
| 2024 | | A | A |
| 2034 | | B | A |

These results are from Signalized and Unsignalized Intersection Design and Research Aid (SIDRA) software

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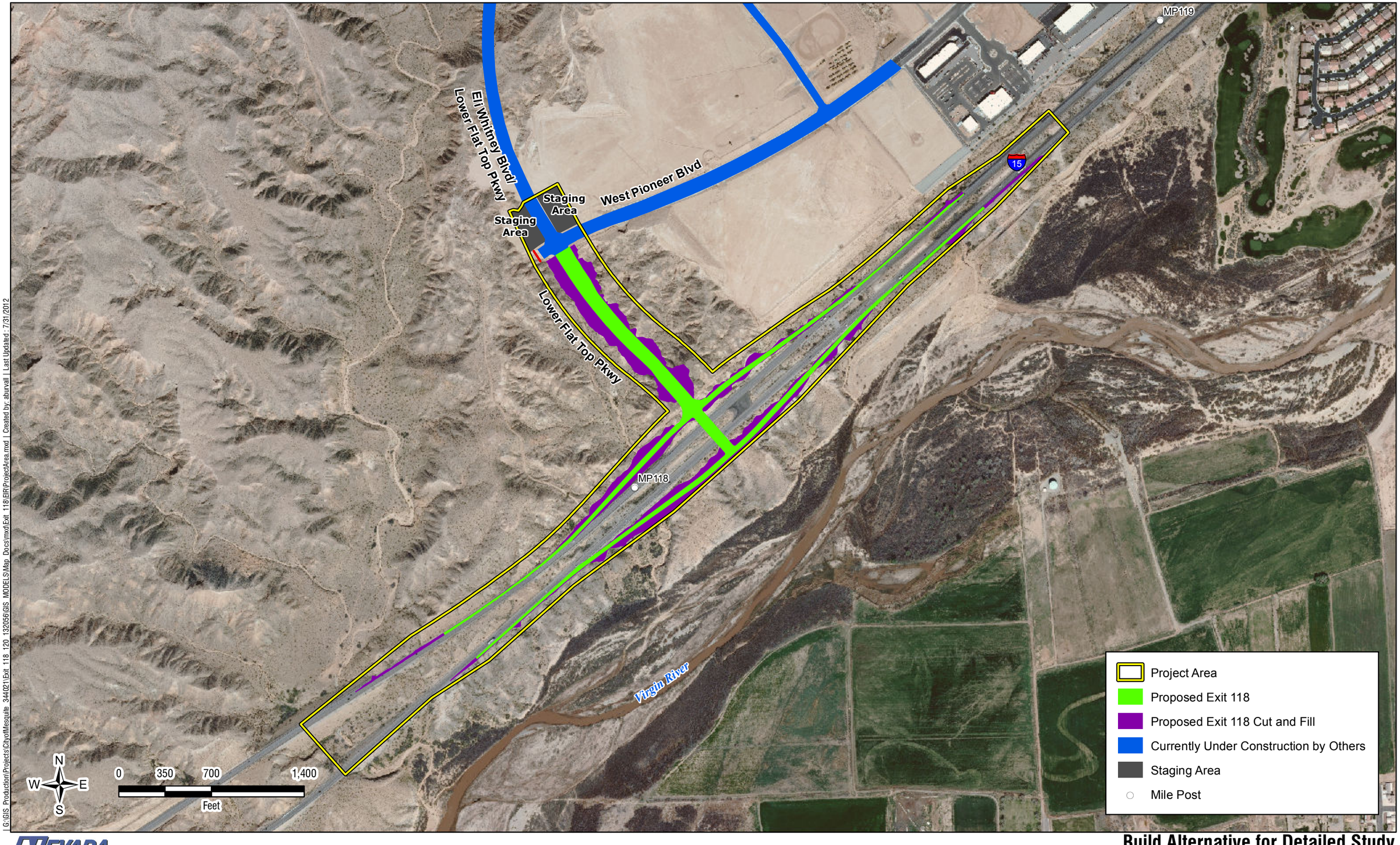


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**Build Alternative for Detailed Study**
**Figure 7**
**I-15 Proposed Interchange at MP 118 Project**

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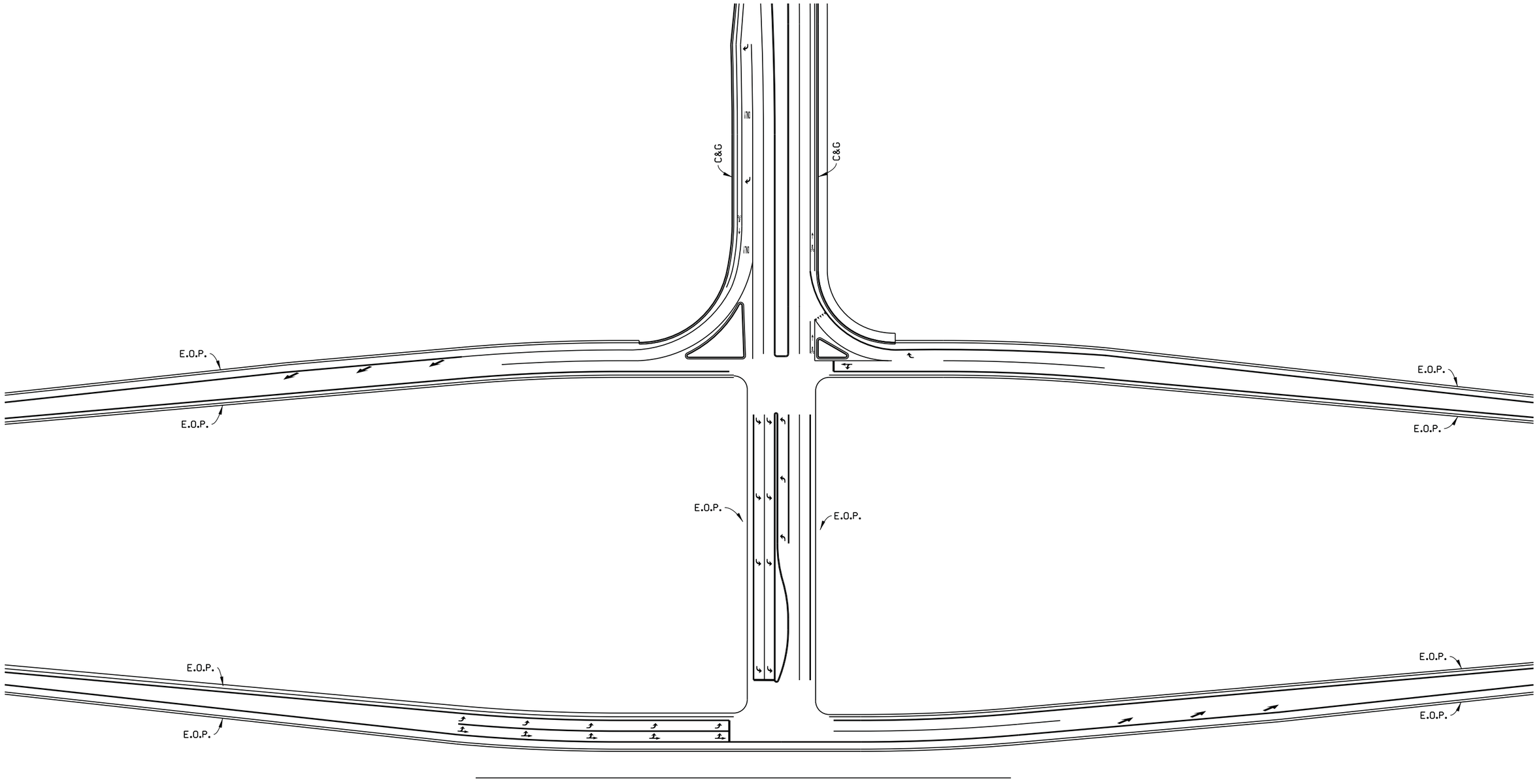


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**Proposed Lane Configuration**

**Figure 8**

I-15 Proposed Interchange at MP 118 Projects

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### 1.5.1 Development

The immediate project area is mostly undeveloped except for I-15 and the associated transportation facilities. However, according to the City of Mesquite Master Plan (COM 2010a), the majority of the area north of I-15 is planned for Industrial–Light (IR-1) uses (Figure 3). A strip of land northwest of I-15 has been reserved for parks, recreation, and open spaces (PROS). South of I-15, the majority of the area is zoned as Land Reserve (LR), and an isolated parcel is zoned for commercial development.

### 1.5.2 Physiographic Setting

The proposed project is located in an area between the southern end of a large mesa and the Virgin River floodplain. The area is marked by numerous steep washes that bisect the edge of the mesa, resulting in rugged rock pediments (broad surfaces at the base of a receding mountain), often referred to as badlands. Areas upstream of the eastern portion of the proposed project area have been graded through cut or fill in preparation for commercial development. The soils and topography adjacent to or within the existing interstate right-of-way (ROW) have been altered with materials used in the construction of the interstate. Based on the Natural Resources Conservation Service (NRCS) Soil Survey for Mesquite, soils found within the project area include the Typic Torriorthents-Badland association, which includes gravelly sand to deep fine sands, consistent with field observations (NRCS 2010).

The areas immediately adjacent to I-15 consist of rugged terrain. On the north side of I-15, rugged hills surround the project area. On the south side of I-15, slopes and drainages extend toward the Virgin River. The project area is entirely within creosote bush shrub habitat that is traversed by numerous washes. Common desert plant species observed in the area include creosote bush, white bursage, Nevada ephedra, desert globemallow, and a variety of cactus. Plants that were present in wash areas include catclaw acacia, threadleaf snakeweed, indigo bush, and mesquite plants. Non-native invasive grasses were also noted abundantly throughout the area and especially adjacent to the highway. These species included red brome, Sahara/Asia mustard, and Russian thistle.

## 1.6 Project Costs

The individual and total costs are summarized in Table 4. Project construction costs were estimated for year 2013 for the proposed Build Alternative. The 20% contingency would account for proposed mitigation costs and interchange construction cost fluctuations.

**Table 4. Summary of Estimated Construction Costs (Year 2013)**

| Proposed Build Alternative Design and Construction Components | Lower Flat Top Parkway |
|---|---|
| Interchange Construction Cost (with 20% contingency) | $10,100,000 |
| Bridge Construction Cost (with 20% contingency) | $5,700,000 |
| Estimated Right-of-Way Cost | $0 |
| Preliminary Engineering Cost (completed by NDOT) | $1,000,000 |
| Design Engineering and Construction Engineering | $3,500,000 |
| **Total Estimated Construction Cost** | **$20,300,000** |

## 1.7 Project Funding

Current potential funding for the proposed project includes federal, state, and local monies, as shown in Table 5. All elements of the proposed Build Alternative are included in the Regional Transportation Commission of Southern Nevada (RTCSNV) Transportation Improvement Program (TIP) Amendment for Fiscal Year (FY) 2011–2014 (Appendix B). The proposed project is identified in NDOT's Statewide Transportation Improvement Program (STIP) (FY 2012–2021) with funding provided for activities through construction (Appendix B). NDOT would be the owner of the new bridge and interchange ramping and would be responsible for the inspections and maintenance activities associated with those facilities. The City of Mesquite would be responsible for maintenance outside the interchange of control of access.

**Table 5. Summary of Potential Funding**

| Potential Funding Sources | Amount |
|---|---|
| Special Improvement District (Las Vegas) | $20,000,000 |
| SAFETEA-LU High Priority Projects | $342,189 |
| Local Funds | $4,000,000 |
| NDOT State Gas Tax | $482,500 |
| **Potential Total Funds Available** | **$24,824,689** |

# 2.0 Alternatives

As part of the proposed project development process, the Project Management Team (PMT), which consists of representatives from FHWA, NDOT, and the City of Mesquite, evaluated a range of potential alternatives based on a draft feasibility report (JACOBS 2006).

As part of the alternative development process, the PMT evaluated improving the existing Exit 120 interchange and building a new interchange. However, after review, the PMT determined that improving the Exit 120 interchange would not meet the project purposes of enhancing regional mobility and access in Mesquite, distributing traffic more evenly on the road network, or improving access to existing and planned development north of the Virgin River according to the City's Master Plan (COM 2010a).

Ultimately, the PMT decided to carry a new-interchange Build Alternative forward for detailed study because a new interchange would meet the project purpose of relieving congestion delays at the Exit 120 interchange, which would operate at a level of service of LOS B or better with a new interchange. A new interchange would also meet the project purpose of enhancing regional mobility and access in Mesquite by distributing traffic more evenly on the road network and by improving access to existing and planned development north of the Virgin River as depicted on the City's Master Plan (COM 2010a).

Lastly, by reducing congestion at Exit 120 and distributing traffic more evenly, a new interchange would improve the operations and safety levels of adjacent arterials and I-15. Locating the new interchange at MP 118 was the only option considered reasonable and viable given constraints such as extreme topography variations, large drainages, and the Virgin River at the western end of Mesquite. The proposed interchange location was based on existing and future development and land-use plans as well as interstate highway spacing requirements.

## 2.1 Alternatives Carried Forward for Detailed Study

A No Build Alternative and one Build Alternative (interchange with crossroad over I-15) were carried forward for detailed study in the subsequent sections of this EA.

### 2.1.1 No Build Alternative

NEPA requires an analysis of the No Build Alternative. The No Build Alternative is studied to assess what would happen if the proposed project were not built. The No Build Alternative also serves as a baseline against which to measure the potential impacts of the Build Alternative. The No Build Alternative means that the proposed I-15 interchange at MP 118 would not be constructed. This alternative would maintain the project area in its current transportation infrastructure without an additional proposed interchange. This would leave traffic capacity, operations, and safety conditions as they currently exist—worsening over time as development occurs and traffic volumes increase. The No Build Alternative is considered not feasible due to capacity issues generated by the increase in traffic by design year 2034.

### 2.1.2 Build Alternative (Preferred Alternative)

The proposed Build Alternative (Preferred Alternative) includes the construction of a new interchange on I-15 at MP 118 comprised of (Figure 7 and Figure 9):

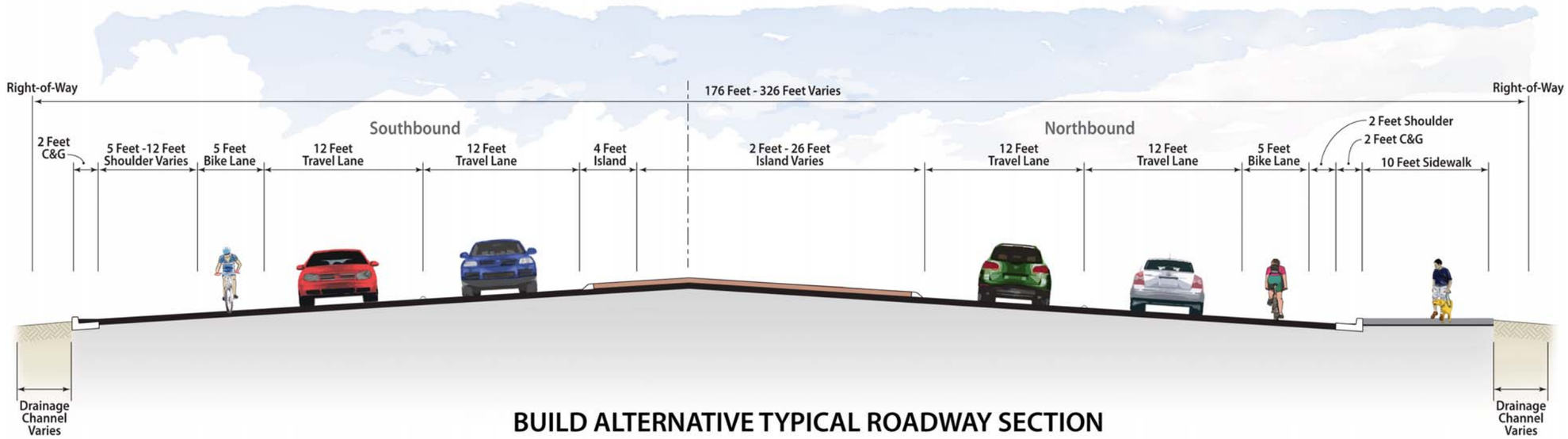
- A 300-foot-long, four-lane bridge constructed over I-15 (two lanes in each direction)
- A new 1,950-foot-long, four-lane (two lanes in each direction) approach roadway (extension of Lower Flat Top Parkway) constructed north of the I-15 corridor between the proposed new bridge and West Pioneer Boulevard
- New ingress and egress ramps on I-15 (northbound and southbound)
- Two bicycle lanes (one in each direction) extending along the roadway only, not traversing the interstate, to facilitate movement and connections to future trails
- One sidewalk compliant with the Americans with Disabilities Act (ADA) extending along the roadway only, not traversing the interstate, to facilitate movement and connections to future trails

The northern logical terminus for the proposed Build Alternative would be the intersection of Lower Flat Top Parkway and West Pioneer Boulevard. This intersection is currently under construction by the City of Mesquite (construction began in October 2011) and is scheduled to be completed in October 2012. The southern logical terminus would be the proposed ramps for northbound I-15 at the proposed Exit 118. Due to the location of the Virgin River and associated land restrictions, no local network tie-in to the south is proposed.

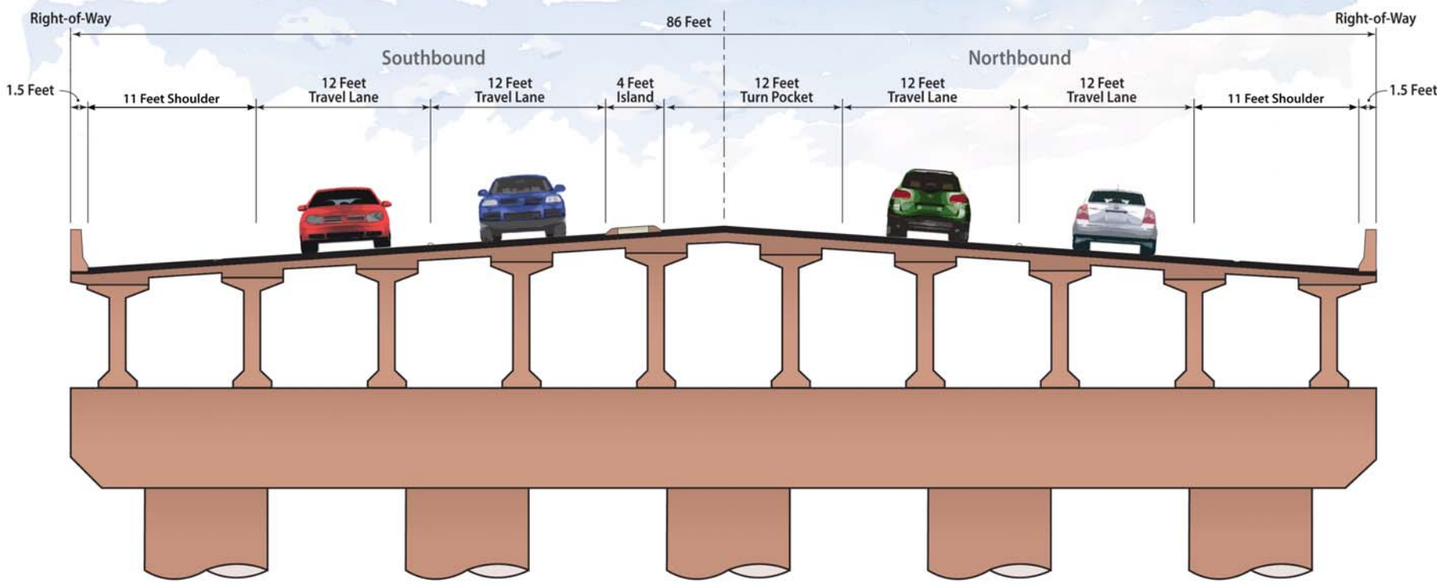
The proposed Build Alternative roadway would be constructed as four 12-foot travel-lanes with a posted speed of 35 miles per hour (mph) and would include two 5-foot bicycle lanes (immediately east and west of the outer travel lanes) and one adjacent 10-foot sidewalk on the east side of the roadway only to connect with two proposed trail extensions in the project area (Figure 10). The bicycle lanes and sidewalk would not traverse the interstate but would facilitate bicycle and pedestrian movements only on the north side of the interchange. The bridge would be constructed as four 12-foot travel-lanes. The southbound I-15 on ramp would have a free right-hand turn lane to promote the movement of truck traffic. The proposed Build Alternative roadway ROW would vary from 176 to 326 feet wide. The roadway would be constructed between 85 and 116 feet wide due to variances of the western shoulder and the middle island. The bridge would be constructed approximately 86 feet wide.

Based on current preliminary design, the proposed Build Alternative would be within the ROW currently controlled by Mesquite or NDOT. It is anticipated that approximately 11.5 acres of undeveloped land would be permanently converted to roadway and an additional 11.4 acres of land would be affected by cut or fill. Construction and other ground-disturbing activities for the road construction, cut and fill activities, and construction of acceleration and deceleration lanes would occur in the ROW and adjacent to the existing roadway. Approximately 94.4 acres of land within the ROW could be temporarily affected during construction staging and overland equipment travel activities.

The proposed Build Alternative would provide a safe and efficient northern transportation facility to accommodate bicyclists and pedestrians with the two bicycle lanes and a sidewalk compliant with the ADA. Construction is anticipated to begin in mid-2013 and is expected to last 24 to 28 months.




**BUILD ALTERNATIVE TYPICAL ROADWAY SECTION**




**BUILD ALTERNATIVE TYPICAL BRIDGE SECTION OVER I-15**

Note: Bridge cross section is for illustrative purposes only and does not limit the bridge type selection



NEVADA DOT

**Typical Street Section and Bridge Section for the Build Alternative**

**Figure 9**

I-15 Proposed Interchange at MP 118 Projects

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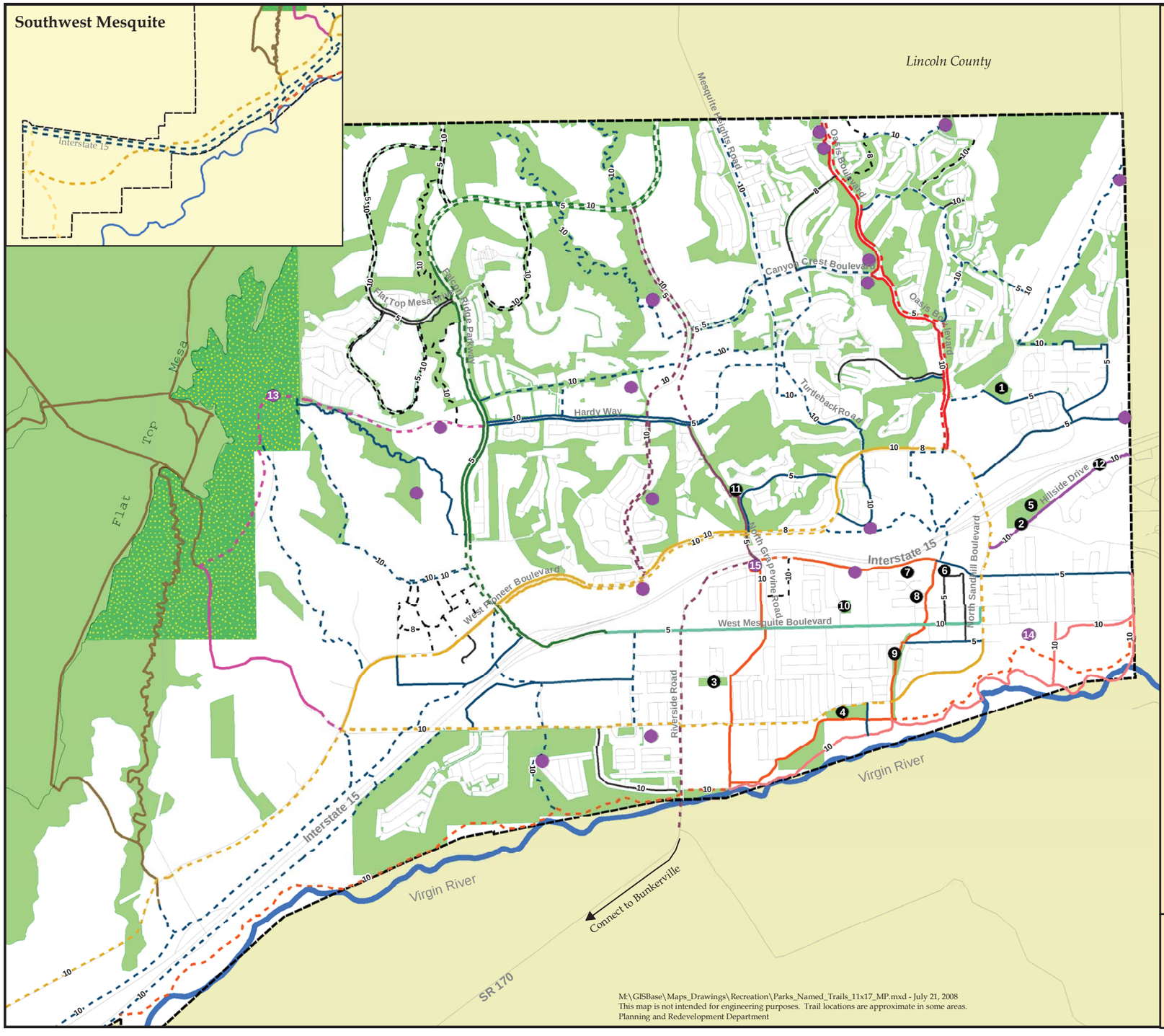


# Legend

## Parks and Open Space

- Parks, Recreation and Open Space
- Mesquite Regional Park (proposed)
- Existing Public Park
- Proposed Public Park
- Existing Private Park (open to public)
- Proposed Private Park (open to public)

Numbered parks can be cross-referenced in Table 1-5

## Trails

- Existing
- Proposed
- **Neighborhood Trail**
- **Community Trail**

## Regional Trails

- Jackrabbit Trail
- Joshua Tree Trail
- Rattlesnake Trail
- Roadrunner Trail
- Sagebrush Trail
- Scorpion Trail
- Southwestern willow flycatcher Trail
- Virgin River chub Trail
- Willow Trail
- Woundfin Trail
- Yuma clapper rail Trail

1 inch equals 0.5 miles

N W E S

Mesquite Nevada

**City of Mesquite Master Plan**
**Parks, Trails and Open Space**
**August 26, 2008**
**Figure 1-1**
**Page 17**

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NEVADA DOT

**City of Mesquite Parks, Trails, and Open Space**
**Figure 10**
I-15 Proposed Interchange at MP 118 Projects

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## 2.1.3 Build Alternative Design

All proposed project final designs would need to be formally approved by FHWA and NDOT prior to construction, which would occur after the NEPA process is complete. The primary permanent components of the proposed Build Alternative would include a new interchange along I-15 at Exit 118, a bridge crossing over I-15, an approach roadway (Lower Flat Top Parkway north to the intersection of West Pioneer Boulevard) and associated cut and fill slopes, and the interchange northbound and southbound ramps. Secondary temporary components associated with the proposed project would include construction staging areas, excavation disposal areas adjacent to the roadway, and other ancillary facilities. Both the permanent and temporary components would be within planned, designated ROW for the City of Mesquite and NDOT.

Additional discussion of the geometric designs and construction methodologies for the project components are described below and in *Section 2.1.4, Construction of the Build Alternative,* to the degree that the information is currently available. These designs are conceptual in nature and are not intended to exclude other designs and/or methods or narrow the bridge-type selection process. They are based on a number of assumptions that are typical for NDOT interchange and bridge designs in Mesquite. These designs and methods could change as they proceed through final design but are not anticipated to exceed the evaluated current project area.

### 2.1.3.1 Bridge Design

The new interchange would require a single two-span bridge consisting of four 12-foot-wide lanes (two in each direction) over I-15 that connects into Lower Flat Top Parkway (Figure 9). The proposed bridge would be included in the state's highway system. The bridge would be designed to provide sufficient vertical height and horizontal span lengths for clearance purposes per NDOT's established design criteria (NDOT 2001), which also meets American Association of State Highway and Transportation Officials (AASHTO) load and resistance factor design specifications (AASHTO 2010a). The final specifications of the bridge components, geometric configuration, and construction methods would be developed during the bridge type/selection process and finalized at the end of the design process.

The proposed design for the bridge superstructure would consist of a concrete deck supported by structural steel or concrete girders. The deck would likely be constructed of traditional cast-in-place, conventionally reinforced concrete. While the configuration of the piers and abutments would be determined during final design, it is anticipated that the structure configuration would be similar to recent and typical construction in similar environments in the I-15 corridor. It is anticipated that the proposed piers would consist of conventionally reinforced concrete caps supported on multiple concrete columns and spread footing or drilled shaft foundations. Abutments would consist of similar concrete caps supported on spread footing or drilled shaft foundations.

### 2.1.3.2 Lower Flat Top Parkway Approach Design

The proposed roadway design for the approach (Lower Flat Top Parkway) to the north of I-15 and ramping to the bridge would be included in the state's highway system, so it would be designed per NDOT's established design criteria (NDOT 2001), which also meet AASHTO design specifications (AASHTO 2010b).

The extension of Lower Flat Top Parkway from West Pioneer Boulevard to I-15 would consist of four 12-foot-wide lanes (two in each direction), two 5-foot-wide bicycle lanes (one in each direction), a varying width (2- to 26-foot-wide) middle island, and varying width (2- to 12-foot-wide) shoulders on each side (Figure 9). The roadway improvements would include curb and gutter, a 10-foot-wide ADA-complaint sidewalk on the east side, striping and signage, streetlights, and roadway drainage facilities. Due to the extremely rugged topography, substantial cut and fill activities would be required, including placement of large volumes of fill material, in order to accommodate the steep topography and elevation differences.

The final specifications of the roadway components, geometric configuration, and construction methods would be developed as guideline requirements are incorporated and finalized in the design process. Final design cannot be initiated until a NEPA document determination has been issued by FHWA.

### 2.1.3.3 Ramp Design

The on and off ramps for the Build Alternative would be constructed adjacent and parallel to the existing I-15 corridor to allow proper deceleration when exiting the highway and acceleration when entering. The design of each of the ramps would be consistent with AASHTO design standards (AASHTO 2010b) but would be unique to the required grade separation for each location. Although details on design of these components are still preliminary, the following provides a general description of each ramp:

- **Southbound Off Ramp.** The ramp would include a single 12-foot-wide travel lane and a shoulder and would diverge away from I-15. The ramp would remain at a comparable elevation of the highway until linking with Lower Flat Top Parkway.
- **Southbound On Ramp.** The ramp would include a single, 12-foot-wide lane and a shoulder, would leave Lower Flat Top Parkway, and would gradually merge with the existing highway.
- **Northbound Off Ramp.** The ramp would include a single, 12-foot-wide lane and a shoulder and would diverge from the existing highway and begin a gradual ascent to reach the south end of the bridge that would be constructed to allow crossing of the existing highway.
- **Northbound On Ramp.** The ramp would include a single, 12-foot-wide lane and a shoulder and would begin at the south end of the bridge and gradually decline to an elevation similar to the interstate and merge with the existing lanes.

Rugged, steep topography in the area and the substantial elevation differences between the roadway and adjacent areas would require significant cut and fill activities, including a substantial volume of fill material. Part of the fill material would be generated on site from

the cut sections along Lower Flat Top Parkway, and additional fill material would be obtained from existing borrow sites maintained by NDOT or the City of Mesquite and subject to environmental review and approval prior to use. However, design speeds and grades for all of the ramps would remain consistent with design standards (AASHTO 2010b).

### 2.1.4 Construction of the Build Alternative

Primary activities associated with roadway construction would include vegetation clearing and grubbing; salvage of topsoil; cut and fill to the required grade (grading); installation of culverts, erosion protection, drainage structures, storm drain pipes, and associated swales; placement of sub-grade and sub-base materials; placement of pavement; curb/gutter as needed; and signing/striping. Details of the construction processes used to construct the bridge would be dependent on the type and configuration of the bridge that would be proposed.

A tentative staging area has been identified for the construction contractor to use for storage of materials and equipment (Figure 7). This area is adjacent to and north of West Pioneer Boulevard but outside the proposed ROW within an area that has been previously graded and leveled for future development. If additional staging areas are needed, they would be established outside of delineated waters of the U.S. and subject to environmental review and approval prior to use.

Materials required for this proposed action would be obtained from existing borrow sites maintained by NDOT or the City of Mesquite and subject to environmental review and approval prior to use. The specific borrow site(s) would be identified as detailed design is developed. Materials removed during construction (pavement, structures, or unusable overburden) would be recycled or disposed of in permitted landfills or other appropriate facilities.

# 3.0 Environmental Impacts and Mitigation

## 3.1 Land Use

This section addresses land-use policies, describes the existing uses in the evaluation area and the planned uses in and adjacent to the evaluation area, and evaluates how the existing and planned land uses would be affected by the proposed project alternatives. The land use evaluation area is the same as the project study area described in *Section 1.5, Project Location,* since this area includes the land where most direct and indirect land-use impacts are expected to occur.

### 3.1.1 Existing Conditions

This section describes the existing land uses and the planned land use and zoning in and adjacent to the land use evaluation area. Existing uses were identified by reviewing the land-use plans of public agencies.

#### 3.1.1.1 City of Mesquite Master Plan

##### 3.1.1.1.1 Land Use Element

The Land Use Element of the City of Mesquite General Master Plan is one of several elements that constitute the City of Mesquite Master Plan. The Master Plan translates community goals and values into realistic policies and action programs that would guide decisions about new growth and development. The Land Use and Zoning map (Figure 3) communicates the long-term development potential of public and private property within the city limits and operates as the community's zoning district map.

The City of Mesquite has designated the land use evaluation area as Industrial–Light on the north side of I-15. The Industrial–Light designation is intended to provide for light manufacturing and research uses in locations that are suitable based on adjacent land uses, access to transportation, and the availability of public services and facilities. Industrial–Light uses are typically located in planned business and industrial parks and in areas near other commercial development with adequate separation from low-density residential areas (COM 2010a).

Somewhat outside the land use evaluation area to the north and west, a swath of land is designated as Parks, Recreation, and Open Space. This designation is intended to provide for temporary and permanent open spaces in the community, to prevent irreversible environmental damage to sensitive areas, and to safeguard the health, safety, and welfare of the people by limiting development in areas where police and fire protection, protection against stormwater flooding, or other services cannot be provided without excessive cost to the community.

#### 3.1.1.1.2 Mesquite Technology and Commerce Center

Diversifying the economy from a heavy dependence on the seasonal tourism industry was the driving force behind the creation of the MTCC. The MTCC is a 660-acre planned industrial and commercial park that is considered a Special District in the Land Use Element of the Master Plan. Located between I-15 and Pioneer Boulevard and partly in the land use evaluation area, the MTCC is intended to provide for light manufacturing and research uses that would generate jobs and economic growth for the city. Land was purchased by the City of Mesquite for the MTCC from the Bureau of Land Management in 2003. Developers started developing land within the MTCC in 2004. Currently, the MTCC is approaching full land transfer, with approximately 83% of its 660 acres sold or under contract. As shown in Figure 4, the land within the MTCC is planned for development in 5-year increments over the next 20 years. Infrastructure is already currently in place within the MTCC.

#### 3.1.1.1.3 Transportation Element

The Transportation Element of the City of Mesquite General Master Plan (COM 2009a) is another of several elements that constitute the City of Mesquite Master Plan. The Transportation Element establishes goals and policies not only to guide decision-making but also to make certain that prior investments are not wasted. The Transportation Element includes a map, Figure 2, which illustrates the existing and planned roadway network that works in conjunction with the goals and policies. In view of future growth demands, the goals and policies adopted in the Transportation Element strive to ensure that the community character is preserved, air quality remains good, and congestion levels stay within adopted standards.

Currently, the city of Mesquite is served by two freeway interchanges on I-15. These are Exit 120 (West Mesquite) and Exit 122 (East Mesquite). Another interchange farther west is accessible at Exit 112 (Riverside). The City's Transportation Element proposes new interchanges at MP 118, MP 115, and MP 109 by the year 2027 (2009a). The Transportation Element stresses that future interchange access would be essential to the long-term viability of Mesquite and would create incentives for loop roads that divert traffic to and from Las Vegas, Arizona, and St. George, Utah. Without alternate routes around the city, Mesquite could face significant traffic congestion at the freeway access points (COM 2009a).

### 3.1.1.2 Zoning

Because the Master Plan land uses also regulate the use of the land today, the Land Use and Zoning map (Figure 3) also operates as the community's zoning district map. Since incorporation, the City has operated for 23 years under a single map classification system of land uses and zoning. The single map system ensures consistency between the Master Plan and zoning districts. It also promotes consideration of short- and long-term consequences when decisions about new developments are made (COM 2010a). The area surrounding the proposed MP 118 Interchange Project (north of I-15) is zoned for light industrial uses as described above in *Section 3.1.1.1.1, Land Use Element*.

#### 3.1.1.3 Other Regional Plans

##### 3.1.1.3.1 Transportation Improvement Program

A new I-15 interchange near MP 118 is included in the Regional Transportation Commission of Southern Nevada (RTCSNV) Transportation Improvement Program (TIP) Amendment for FY 2011–2014 (RTCSNV 2011) (Appendix B).

### 3.1.2 Impacts

#### 3.1.2.1 No Build Alternative

Under the No Build Alternative, the MP 118 Interchange Project would not be built. Based on the Mesquite Master Plan Elements, the land use evaluation area is expected to develop with similar types of land uses as shown in the Land Use and Zoning map (Figure 3), although development could happen at a slower pace without the interchange. A large part of the land in the land use evaluation area is planned for the MTCC employment center. Since infrastructure to support the MTCC is already in place, it's reasonable to assume that continued development of the MTCC would happen with or without the MP 118 interchange.

Given these expected trends, the No Build Alternative would not affect the existing and anticipated land use. However, the No Build Alternative is not consistent with the Transportation Element of the Mesquite Master Plan, which identifies the need for a new interchange on I-15 near MP 118, nor is it consistent with RTCSNV's TIP Amendment for fiscal year 2011–2014, which shows the new interchange.

#### 3.1.2.2 Build Alternative

The Land Use Element of the City of Mesquite General Master Plan designates the majority of land use in the land use evaluation area as light industrial. Based on the Master Plan and various resolutions passed by the City confirming the approved and continued development of the MTCC, the land use evaluation area is expected to develop with similar types of land uses as shown in the Land Use Element of the Master Plan. The MTCC is identified in the Master Plan for continued development and is expected to be a major employment center. It's reasonable to assume that the improved access provided by the interchange would enhance the pace of development. However, given that the infrastructure to support the MTCC is already in place, it appears that the area would develop in a similar manner without the project. Given these expected trends, the Build Alternative would not affect the existing and anticipated land uses and would be consistent with local and regional land-use and transportation plans.

***Conformance with Applicable Land-Use and Transportation Plans***

The Build Alternative would be consistent with the following goals in the Mesquite Master Plan which has a 20-year build out horizon ending in 2027 and the RTCSNV TIP:

- The Build Alternative would facilitate safe and efficient access to the MTCC and planned commercial and industrial areas north of I-15.
- The Build Alternative would connect to the West Pioneer Boulevard extension and the proposed lower Flat Top Parkway Extension.

A new I-15 interchange near MP 118 is included in the RTCSNV TIP Amendment for FY 2011–2014 (RTCSNV 2011) (Appendix B). In addition, the Mesquite Transportation Plan identifies the need for a new interchange on I-15 near MP 118 as shown in Figure 2. The Master Plan indicates that a new interchange at this location would provide access to the existing MTCC and planned commercial and industrial areas north of I-15 (COM 2009a).

### 3.1.3 Mitigation

No mitigation is required.

## 3.2 Socioeconomics

This section assesses how the proposed project would affect socioeconomic elements within and near the proposed evaluation area. Socioeconomic elements include population characteristics; housing trends; employment, community cohesion, and quality of life; public safety; and recreation and community resources.

**Methodology.** Information about the socioeconomic environment was obtained by reviewing city plans, maps, and websites and by consulting with local government representatives. In addition, land-use and population assumptions were developed using data from the City of Mesquite's 2007 Travel Demand Model. The Travel Demand Model is broken down into traffic analysis zones, which are geographical sub-units containing land-use assumptions that are translated via trip rates into traffic forecasts. Additional data sources included the following:

- 2000 U.S. Census data for comparison purposes to show changes in the last decade
- 2010 U.S. Census data (limited data sets)
- City of Mesquite Master Plan, as amended (COM 2009a, 2009b, and COM 2010a)
- Draft Change of Access Report for I-15 at Exit 118 (COM 2011a)

### 3.2.1 Socioeconomic Evaluation Area

The *broad socioeconomic evaluation area* is the same as the traffic shed study area described in *Section 1.4.3, Congestion and Delays at the I-15 Exit 120 Interchange*, and shown in Figure 5. The broad socioeconomic evaluation area is expanded to include traffic analysis zones surrounding the proposed project area. Due to the undeveloped nature of the area surrounding the proposed project, this broad socioeconomic evaluation area was used to identify socioeconomic characteristics. Forecasting models often use a 20-year horizon. However, based on historic permitting data for Mesquite, analysts determined that the full

build-out scenario is not expected to occur until about 2034. The expanded evaluation area and timeframe incorporates more recent population data and forecasting of foreseeable future population, housing, and employment increases. This approach allows the analysis to include a greater portion of the community and provide a more accurate description of existing and projected growth as well as community cohesion and quality of life.

This section also considers a *refined socioeconomic evaluation area* that consists of the area within a half-mile radius of the centerline of I-15 at MP 118. This refined socioeconomic evaluation area was used for resources such as recreation and community facilities, public safety and security, and public service and utilities, since this is the area that would likely experience any direct project-related impacts.

## 3.2.2 Existing Conditions

The City of Mesquite was incorporated in 1984, and the City Council began to lay plans for growth in the early 1990s. The Mesquite Vistas master-planned community was one of the first developments at this time. In the next few years, other resort hotels and golf course communities were established. Mesquite continues to grow and is anticipated to continue attract growing families, retirees, and seasonal residents (COM 2009b).

### 3.2.2.1 Population Characteristics

This section describes population trends for the broad socioeconomic evaluation area.

The City of Mesquite experienced rapid population growth with the development of numerous master-planned communities in the 1990s (Figure 3). As indicated in Table 6, a 400% increase in population occurred between 1990 and 2000 (U.S. Census Bureau 2000), and a 63% increase occurred between 2000 and 2010 (U.S. Census Bureau 2010a). During these same periods, Clark County experienced an 85.5% (U.S. Census Bureau 2000) and 41.8% (U.S. Census Bureau 2010a) population increase, respectively.

**Table 6. Population (1990–2010)**

| Area | 1990 Population | 2000 Population | 2010 Population |
|---|---|---|---|
| Mesquite | 1,871 | 9,389 | 15,276 |
| Clark County | 741,459 | 1,375,765 | 1,951,269 |

Sources: U.S Census Bureau 2000, 2010a

Over the years, many golf course communities have been established in Mesquite, and the population continues to grow. Although growth occurred at a slower rate between 2000 and 2010 compared to the previous decade, it remained steady, reaching 15,276 in 2010 (U.S. Census Bureau 2010a). Further, the population in the broad socioeconomic evaluation area is expected to increase by about 7.6% by 2014, 18.3% by 2024, and 32.3% by 2034 (COM 2011a).

### 3.2.2.2 Housing Trends

This section describes housing trends for the broad socioeconomic evaluation area.

The broad socioeconomic evaluation area is dominated by retirees and seasonal residents. About 58% of the residential development is single-family dwellings located in golf course communities. The existing and projected housing development for the broad socioeconomic evaluation area is detailed in Table 7.

**Table 7. Dwelling Units (Predicted)**

| Dwelling Unit (DU) Type | DU in 2010 | DU in 2014 | DU in 2024 | DU in 2034 |
|---|---|---|---|---|
| Single Family | 3,642 | 3,760 | 4,447 | 5,339 |
| Single Family Retired | 215 | 284 | 688 | 1,213 |
| Multi-Family | 688 | 690 | 703 | 719 |
| Condominium | 1,322 | 1,419 | 1,984 | 2,718 |
| Mobile Home | 349 | 365 | 459 | 581 |
| **Total DU** | **6,216** | **6,518** | **8,281** | **10,570** |

Source: COM 2011a

Housing occupancy rates in Mesquite and Clark Counties are high. Mesquite has weathered the economic and housing downturn experienced in other parts of the state, and as of 2010 in Mesquite, about 83.6% of homes were occupied, while 17% of housing units were vacant. Of this number, 55% of homes were owner occupied and 28% were renter occupied. Similarly, within Clark County, about 85% of homes are occupied while 14.9% are vacant. Of these occupied homes, 57.1% are occupied by owners while 42.9% are renter occupied (CLR Search 2011; U.S. Census Bureau 2010a).

Mesquite has a wide variety of available housing that is in good condition. In 2011, there were about 207 single-family homes and 150 townhomes and condos available for purchase or rent. The median home price in Mesquite was $236,100 with an average home size of 2,000 square feet located on about a quarter-acre lot. In addition, the approximate average rent within Mesquite was about $1,004 per month in 2010 (CLR Search 2011).

### 3.2.2.3 Employment Trends

This section describes employment trends for the broad socioeconomic evaluation area.

Over the past two decades, Mesquite's economy shifted from highway service catering to travelers and truckers, to a more diverse range of services. In the 1990s, construction of the CasaBlanca, Oasis, Virgin River, Mesquite Star, and Rancho Mesquite hotels and casinos, and the Palms, Oasis, and CasaBlanca golf courses expanded the recreation and service industries in Mesquite (COM 2007). Although there has been a downturn in the economy over the past several years and the service industry is seasonal and cyclical, employment in Service Occupations in 2010 was about 42.4% and has represented the largest employment sector in Mesquite (U.S. Census Bureau 2010b).

The broad socioeconomic evaluation area is identified as a high-growth area for commercial and industrial sectors. This is especially true of the current and planned development at the Mesquite Technology & Commerce Center, or MTCC (COM 2007). In support of the City's economic goals, recent developments have been built close to the proposed MP 118 interchange, including numerous small manufacturing and service-related businesses, a distribution center, and several hundred acres of prepared building sites at the MTCC. Developers started developing land within the MTCC in 2004.

Currently, the MTCC is approaching full land transfer, with approximately 83% of its 660 acres sold or under contract (Figure 4). The MTCC is identified in the Mesquite Master Plan for continued development, and is expected to be a major employment center. In addition, there are about 17 major renewable energy projects being planned within about 300 miles, making Mesquite part of a strategic supply chain and clean-tech manufacturing hub with plans to expand at MTCC (COM 2011f).

In 2010, the unemployment rate in Mesquite (3.9%) was much lower than that in Clark County (14%) (U.S. Census Bureau 2010b). Employment in the broad socioeconomic evaluation area is expected to increase about 49.5% between 2010 and 2034. Future employment projections indicate that, although the service and casino industries would continue to be significant employers in the area, they would not be the largest employment sector. Future projections as shown in Table 8 indicate that by 2034 the manufacturing sector would experience the greatest percent growth (141%) followed by the industrial sector (139%) and the retail sector (90.4%) (COM 2011a).

**Table 8. Employment in the Broad Socioeconomic Evaluation Area**

| Employment Sector | Employees in 2010 | Employees in 2014 | Employees in 2024 | Employees in 2034 |
|---|---|---|---|---|
| Retail | 716 | 761 | 1,023 | 1,363 |
| Service | 1,411 | 1,479 | 1,875 | 2,389 |
| Office | 549 | 566 | 668 | 800 |
| Public Office | 339 | 351 | 424 | 518 |
| Manufacturing | 249 | 273 | 416 | 602 |
| Industrial | 492 | 539 | 817 | 1,177 |
| Casino | 2,767 | 2,775 | 2,824 | 2,887 |
| **Total Employees** | **6,523** | **6,744** | **8,047** | **9,736** |

Source: COM 2011a

### 3.2.2.4 Community Cohesion and Quality of Life

This section describes community cohesion and quality of life in the broad socioeconomic evaluation area. Community cohesion involves the patterns of social networking and the degree to which residents have a sense of belonging to their neighborhood or community, including commitment to the community or a strong attachment to neighbors, institutions, or particular groups. Quality of life can be characterized as a person's well-being and happiness.

The factors that affect quality of life vary by person but often include safety, general living environment, accessibility to public services and shopping, affordable housing, and plentiful leisure, cultural, and recreation activities. As of 2010, there were 14 planned unit developments (PUDs) in Mesquite. These communities focus on providing a mix of housing types, access to recreation, and cultural and social amenities to increase the quality of life among residents (COM 2009d).

Development in the city is planned to provide convenient access to shopping and public services. Access to social, cultural, and recreation resources provide residents with a high quality of life. However, while the city provides many convenient amenities to the community, development is representative of an auto-oriented environment that discourages pedestrian activity (COM 2008). This type of development pattern could limit community connectivity and discourages walking between business and adjacent properties. Residential centers, employment centers, and commercial districts are dispersed throughout the city in numerous strip malls. Generally, when residents go through downtown, they are driving to a specific business or destination rather than spending time shopping or dining in their community (COM 2008).

In addition, there is limited transit service in Mesquite. Currently, two Silver Rider bus routes serve the city. Falcon Ridge Parkway, which connects to I-15 at MP 120, is a key road used by both bus routes. The City's Master Plan identifies goals to improve connectivity and provide access to a wide range of locations and sites throughout the community including major areas of employment, entertainment, recreation, and personal services (COM 2009a).

#### 3.2.2.5 Public Safety

This section describes the public safety facilities and security facilities and issues in the socioeconomic evaluation area.

The public safety and security needs of citizens are met by various emergency services such as fire, emergency medical service, and law enforcement. There are three fire stations and one police station that serve the population of Mesquite. However, none of these stations are located within the refined socioeconomic evaluation area. Emergency and fire service are currently evolving to provide more state-of-the-art service to the community. In addition, as Mesquite continues to grow, fire and police services would need to convert to more of a staffed personnel department and add more trained personnel to strengthen the mix between full-time staff and volunteers (COM 2009c).

Medical service is provided by the Mesa View Regional Hospital located on Bertha Howe Avenue just east of the refined socioeconomic evaluation area boundary. The Mesa View Regional Hospital has about 25 beds and specializes in in-patient, out-patient, and acute-care services and diagnostic and therapeutic imaging services. As population in the socioeconomic evaluation area increases, the medical services provided would also need to expand. A population of 20,000 is necessary to support a full-service community hospital with emergency facilities. Until Mesquite grows to that population, emergency patients would continue to be transported to Las Vegas for other medical services (COM 2009c).

#### 3.2.2.6 Recreation and Community Resources

This section describes the community and recreation facilities including churches, schools, libraries, and recreation facilities in the refined socioeconomic evaluation area.

The City of Mesquite Master Plan Parks, Trails, and Open Space Map, shown as Figure 10, shows that the Joshua Tree Trail comes from the Flat Top Mesa area and ends north of I-15 (COM 2008). The Joshua Tree Trail would connect to the planned Woodfin Trail. The City also plans to develop a community trail parallel to I-15 (both north and south). In addition, the Virgin River Chub Trail is planned south of I-15 and north of the Virgin River.

There are no other existing community facilities in the refined socioeconomic evaluation area.

### 3.2.3 Impacts

This section describes the expected impacts to the socioeconomic environment and the communities in the socioeconomic evaluation area.

Impacts to population and employment trends, housing trends, community cohesion, and quality of life were determined using a qualitative approach. Specifically, the analysis considers how the construction of the proposed project would affect the physical and social conditions that define the neighborhoods and communities in the broad social evaluation area.

Impacts related to recreation resources, community facilities, and public services were determined using a quantitative approach. The alternatives were evaluated to determine how the construction of the proposed project would directly affect properties that support recreation areas and community facilities in the refined social evaluation area.

#### 3.2.3.1 No Build Alternative

Under the No Build Alternative, the socioeconomic environment would continue to be defined by ongoing change and growth. Development would likely continue within the evaluation area with or without the proposed project. Traffic, congestion, and associated roadway accessibility and mobility problems could develop without the proposed project. Increased congestion could negatively affect access to public facilities and the efficient delivery of public services during peak travel periods.

The availability of housing, employment, recreation, and community resources would also continue to be defined by ongoing change and growth. Increases in services, such as the construction of new recreation and community facilities, medical facilities, and emergency service facilities, would be consistent with the Cities' adopted plans and expected regional growth. The No Build Alternative would not require acquisition of right-of-way, so no homes or businesses would be subject to relocation. However, residential and commercial development would likely continue in the broad socioeconomic evaluation area with or without the proposed project, although inadequate transportation capacity could influence developers, residents, and businesses to locate in areas where there is less congestion and better transportation service and accessibility. These issues could adversely affect how residents feel about their safety and quality of life.

#### 3.2.3.2 Build Alternative

In general, the improved mobility and access resulting from the new interchange would benefit future business and residential development in the area by reducing congestion on arterial and connector roads in Mesquite. The proposed interchange improvements are expected to improve access to locations north and south of I-15 and provide better access to the high-growth area for commercial and industrial development.

#### 3.2.3.3 Population Characteristics

Based on the same reduction factors that were used on vehicle traffic from the tempered historical building permits, the population in the broad socioeconomic evaluation area is expected to increase by about 7.6% by 2014, 18.3% by 2024, and 32.3% by 2034 (COM 2011a). Population growth would likely continue in the broad socioeconomic evaluation area with or without the proposed project. The project is planned in an area where development is already occurring and where future development is planned. Impacts on population characteristics as a result of the construction of the MP 118 interchange are not anticipated, although the proposed project would support this growth by offering improved accessibility to and from the socioeconomic evaluation area.

#### 3.2.3.4 Housing Trends

Housing development would likely continue within the broad socioeconomic evaluation area with or without the proposed project. The area surrounding the proposed MP 118 Interchange Project (north of I-15) is zoned for Industrial–Light uses as described above in *Section 3.1.1.1.1, Land Use Element.* The construction of the proposed project would not affect the availability of housing or the future development of housing in the broad socioeconomic evaluation area, although the proposed project would support future housing development plans by offering improved accessibility to and from the broad socioeconomic evaluation area.

#### 3.2.3.5 Employment Trends

Based on the same reduction factors that were used on vehicle traffic from the tempered historical building permits, employment in the broad socioeconomic evaluation area is expected to increase about 49.5% between 2010 and 2034 (COM 2011a). The proposed project would support future employment trends in the broad socioeconomic evaluation area by offering improved accessibility to and from the area. The City is planning for continued development at MTCC and adjacent areas north of I-15 with or without this project. Planned growth in the broad socioeconomic evaluation area would increase employment in Mesquite and provide more local business opportunities in the city. The Build Alternative would not require acquisition of ROW, so no businesses would be subject to relocation. The proposed project would benefit the community by facilitating better access to existing and future employment centers and businesses.

#### 3.2.3.6 Community Cohesion and Quality of Life

Traffic and congestion affect how people move in and through their communities and therefore how they interact. The proposed project is planned in an area where development is already occurring and where future development is planned. The community has access to many recreation, shopping, public service, social, and recreation facilities. Community cohesion is often reduced by policies that favor automobile travel to the detriment of other modes of travel, including walking, bicycling, and public transit.

However, the broad socioeconomic evaluation area is currently an auto-oriented community. Therefore, construction of the proposed project would not alter the current dynamic of community cohesion, although the improved access could lead to increased neighborhood and community interaction and therefore improved cohesiveness. More-convenient commutes, reduced travel time, and improved accessibility stemming from the proposed project would improve the quality of life for residents in the broad socioeconomic evaluation area. In addition, the proposed project would not alter the City's ability to further develop resources associated with community cohesion or quality of life. The proposed project would benefit the community by facilitating better access to social, leisure, and cultural facilities in the broad socioeconomic evaluation area.

#### 3.2.3.7 Recreation and Community Resources

The area surrounding the proposed MP 118 Interchange Project (north of I-15) is zoned for Industrial–Light uses as described above in *Section 3.1.1.1.1, Land Use Element.* There are no existing recreation or community resources near the proposed project. Construction of the project would not affect future development or connectivity of existing or planned trails in the refined socioeconomic evaluation area. The proposed project would benefit area residents and would improve access to recreation resources both in the refined socioeconomic evaluation area and in the Mesquite area overall.

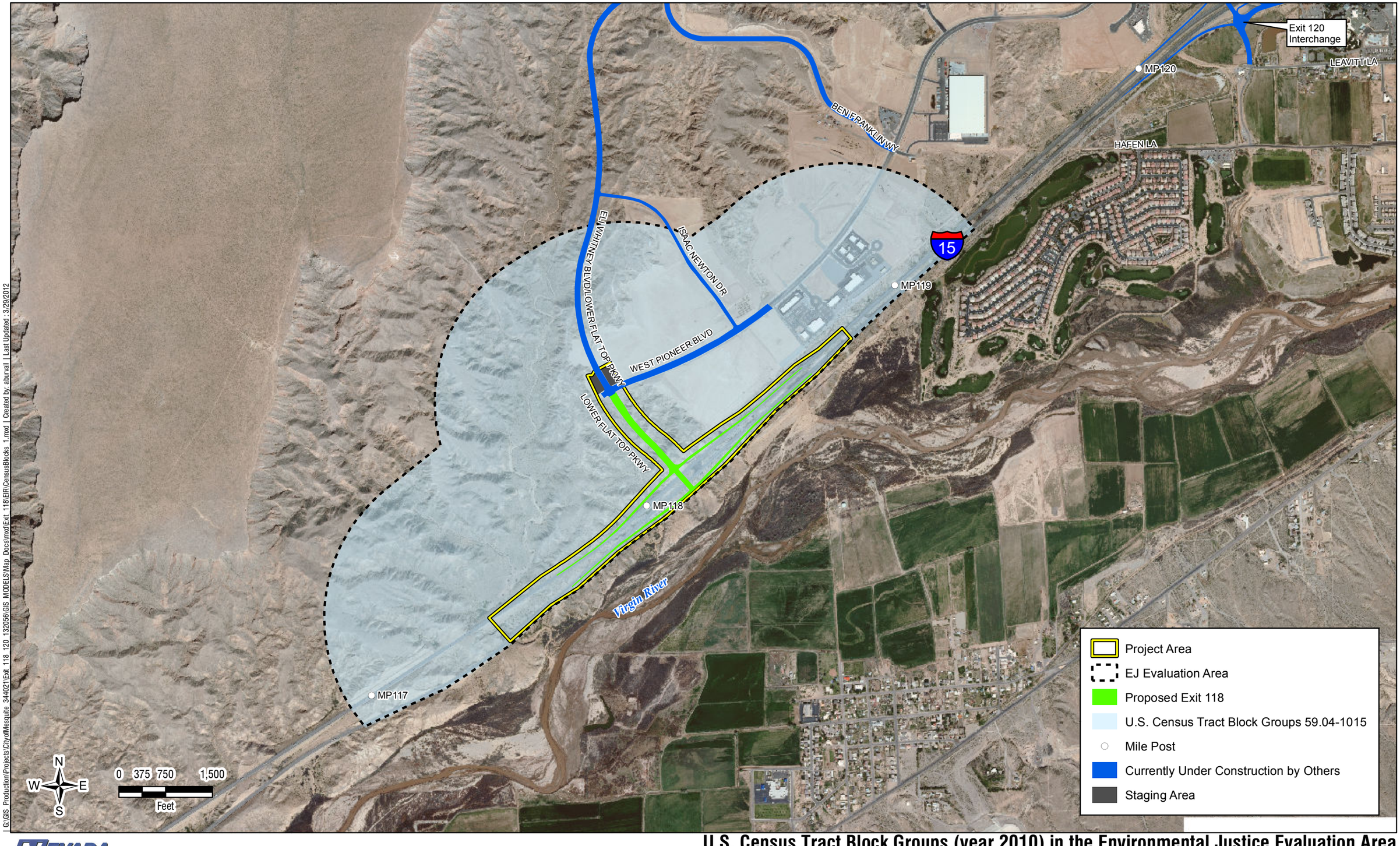
#### 3.2.3.8 Public Safety

The proposed project would add an additional access point for the delivery of public safety services to planned development in the northwestern portion of Mesquite.

## 3.3 Environmental Justice

*Environmental justice* is a term used to describe the fair and equitable treatment of minority and low-income people (environmental justice populations) with regard to all federally funded projects and activities.

The evaluation area for this environmental justice analysis was defined to include the area where any potential impacts resulting from the construction and operation of the proposed project could occur. To be conservative, the EJ evaluation area consists of the area within a half-mile radius of the proposed project on the north side of I-15 (Figure 11). The land surrounding the proposed MP 118 interchange is zoned for Industrial–Light uses, and no residential neighborhoods are included within this area. I-15 was used as a boundary to the south since the freeway already acts as a community boundary and because neither direct nor indirect project effects that are typically considered in an environmental justice analysis are likely to extend south of I-15.

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**U.S. Census Tract Block Groups (year 2010) in the Environmental Justice Evaluation Area**

**Figure 11**

I-15 Proposed Interchange at MP 118 Project

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## 3.3.1 Regulatory Background

Environmental justice addresses equity in all federally funded programs and activities in compliance with Title VI of the 1964 Civil Rights Act and Executive Order (EO) 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations). According

to Title VI and EO 12898, federal agencies must identify and address disproportionately high adverse environmental effects on minority and low-income populations, referred to as environmental justice populations, before permitting or approving a program or activity that uses federal funds. Potential impacts to environmental justice populations include long-term health, environmental, cultural, or economic effects. Federally funded programs and projects cannot be denied to environmental justice populations because of cost or physical barriers such as roadways.

## 3.3.2 Methodology

To comply with the regulations of Title VI and EO 12898, the environmental and socioeconomic makeup of the study area was examined to determine whether low-income or minority populations are present in the EJ evaluation area. Demographic data from the U.S. Census Bureau's 2010 Census were used. Data were gathered for census tracts/block groups in the EJ evaluation area and were verified via aerial imagery and on-the-ground field verification.

## 3.3.3 Existing Conditions

The EJ evaluation area is composed of a portion of one census tract/block group: 59.04, block 1015 (U.S. Census Bureau 2010a). Adjacent to I-15 and in the immediate vicinity of the proposed MP 118 interchange, block 1015 consists of a small cluster of industrial/commercial buildings off of West Pioneer Boulevard and Commerce Circle. The remainder of block 1015 within the evaluation area is undeveloped. No portion of block 1015 within the EJ evaluation area includes any neighborhoods or other residential areas, and, according to the 2010 Census, the population of block 1015 is zero (U.S. Census Bureau 2010a).

## 3.3.4 Impacts

Because the population of block 1015 that is located within the EJ evaluation area is zero, and because the area surrounding the proposed MP 118 interchange is zoned for Industrial–Light uses, it is reasonable to assume that any potential minority or low-income populations within census tract 59.04 are located outside the EJ evaluation area.

### 3.3.4.1 No Build Alternative

There would be no impact on potential EJ populations from the No Build Alternative because there are no EJ populations within the EJ evaluation area.

#### 3.3.4.2 Build Alternative

There would be no impact on potential EJ populations from the Build Alternative because there are no EJ populations within the EJ evaluation area. Because improvements would be distant from any residential area, the project would not affect residents of census tract 59.04. The site of the proposed MP 118 interchange is at least 0.5 mile away from the nearest residential area and is separated geographically by I-15; therefore, noise and air emissions (primarily $PM_{10}$ as fugitive dust) would not affect any residents. Based on the analysis and discussion provided above, the Build Alternative would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of EO 12898 and FHWA Order 6640.23.

### 3.3.5 Mitigation

#### 3.3.5.1 No Build Alternative

No mitigation is required.

#### 3.3.5.2 Build Alternative

No mitigation is required.

## 3.4 Floodplains

This section describes and evaluates how floodplains would be affected by the proposed project alternatives. The floodplain evaluation area is from the proposed staging area just north of West Pioneer Boulevard on the north to the Virgin River on the south and about a half-mile east and west of the proposed MP 118 exit. *Floodplains* are defined as normally dry areas that are occasionally inundated by snowmelt or stormwater runoff or high lake water. Development in floodplains can reduce their flood-carrying capacity and extend the flooding hazard beyond the developed area.

### 3.4.1 Regulatory Setting

#### 3.4.1.1 Federal Emergency Management

Flood zones are geographic areas that the Federal Emergency Management Agency (FEMA) defines based on studies of flood risk. Flood zones are divided into two distinct areas: the floodplain (adjacent to the water body) and the floodway (within the ordinary high-water mark of the water body). The flood zone boundaries are shown on flood hazard maps, also called Flood Insurance Rate Maps (FIRM) or FIRM panel maps. Some zones pose little to no risk of floods, while other zones, such as river bottoms, pose a higher risk of floods.

The only low-to-moderate-risk flood zone in the floodplain evaluation area is Zone X. Zone X is defined as an area with less than a 1% annual chance of flood risk to one or more of the following areas:

- Floodplains
- Areas where average flood water depths are less than 1 foot (shallow flooding risk)
- Drainage areas less than 1 square mile where there is a risk of stream flooding
- Areas protected by levees

High-risk zones in the floodplain evaluation area are defined as areas that have a 26% chance of flooding or higher over a 30-year period. The only high-risk zone in the evaluation area is Zone AE. This area has a 1% or greater chance of flooding in any given year.

#### 3.4.1.2 Executive Order 11988, Floodplain Management

Executive Order 11988, "Floodplain Management" (May 24, 1977), established federal policy "to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." Based on Executive Order 11988, FHWA adopted regulations governing the development of projects that could have impacts on floodplains (23 CFR 650, Subpart A). These regulations state that FHWA would not approve a project that involves a "significant encroachment" on a floodplain unless FHWA finds that the proposed significant encroachment is the "only practicable alternative" (23 CFR 650.113).

### 3.4.2 Affected Environment

In order to evaluate the potential for flooding, the project team obtained information about floodplains in the project area from the FEMA website and the local county flood control district website (Clark County Regional Flood Control). This information was evaluated based on the location of the proposed Build Alternative and field conditions within the floodplain evaluation area or directly adjacent to this area. A FIRM floodplain map was created to evaluate the location of the proposed Build Alternative relative to the flood zones (Figure 12). The project area is located within FIRM Community Panel Numbers 32003C0367F and 32003C0369F dated December 4, 2007.

The review of the FIRM shows that areas within and in the immediate vicinity of the Virgin River have been mapped as flood hazard areas, specifically the 100-year flood zone and floodway category Zone AE. However, this area of the 100-year flood zone is south and outside of the I-15 corridor.

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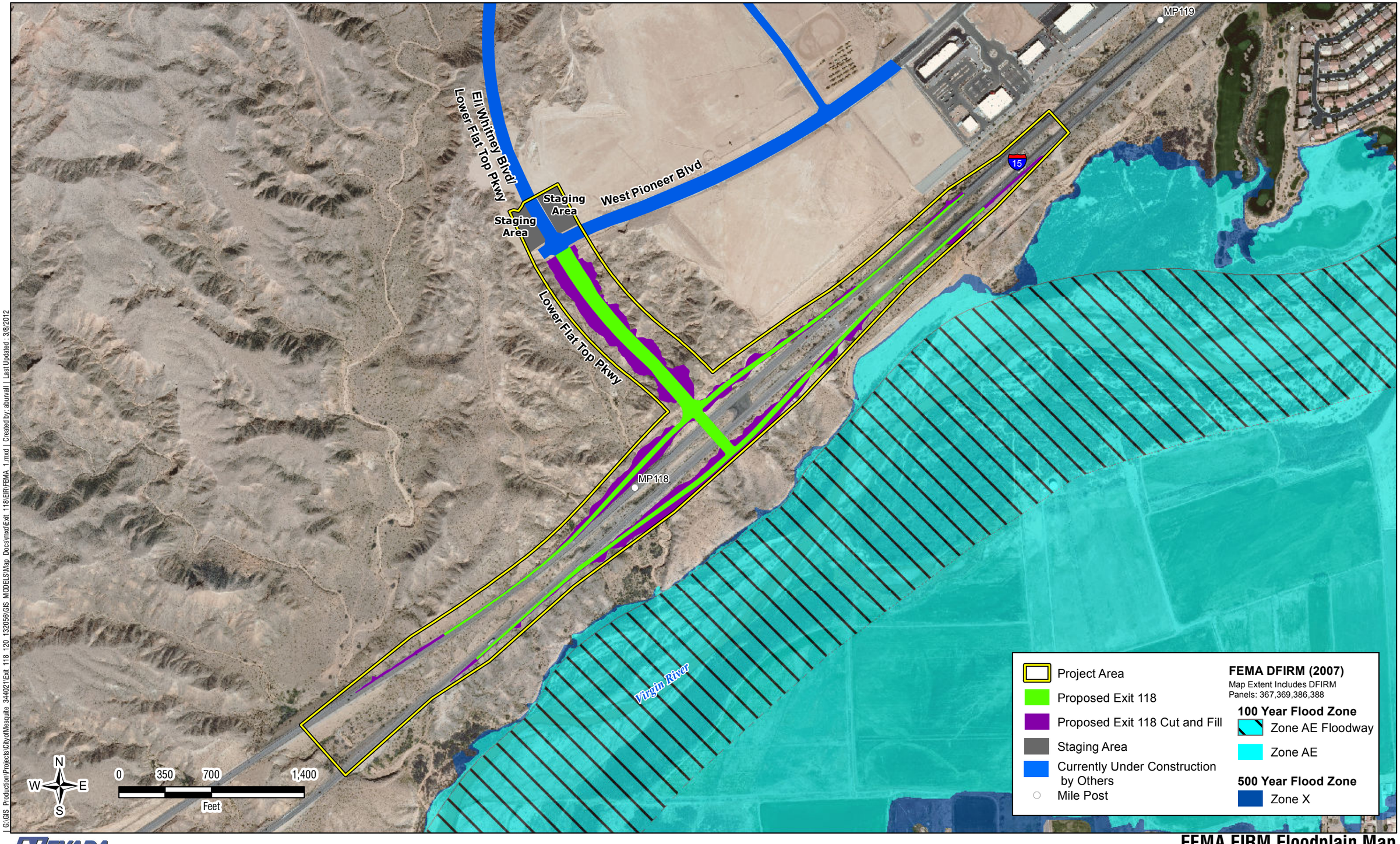


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# FEMA FIRM Floodplain Map
## Figure 12
I-15 Proposed Interchange at MP 118 Project

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### 3.4.3 Impacts

#### 3.4.3.1 No Build Alternative

No impacts to floodplains are anticipated from the No Build Alternative.

#### 3.4.3.2 Build Alternative

As shown in Figure 12, the Build Alternative is not within a designated flood zone; therefore, no impacts to floodplains are anticipated.

### 3.4.4 Mitigation

#### 3.4.4.1 No Build Alternative

No impacts are associated with the No Build Alternative; therefore, no mitigation is required.

#### 3.4.4.2 Build Alternative

No impacts are associated with the Build Alternative; therefore, no mitigation is required.

## 3.5 Wetlands and Jurisdictional Waters

This section describes how wetlands and other potential waters of the U.S. within the project area as shown in Figure 1 were identified and evaluated. Waters of the U.S. include streams, drainages, and wetlands. The U.S. Army Corps of Engineers (USACE) determines whether areas identified as wetlands or other waters are regulated as waters of the U.S.

This EA defines wetlands as they are described in the Federal Register for regulatory and permitting purposes:

> Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. (45 FR 85344, December 24, 1980, as amended at 58 FR 45037, August 25, 1993)

The term *jurisdictional waters* refers collectively to wetlands and surface water bodies (such as lakes and streams) that are regulated by federal, state, or local agencies. *Waters of the United States* (WOUS) are defined as wetlands and surface water bodies (such as lakes and streams) that are regulated by federal agencies.

### 3.5.1 Applicable Regulations

Wetlands are regulated at the federal level under Section 404 of the Clean Water Act (CWA), which is implemented by USACE with oversight by EPA. Applicants receiving a Section 404 permit from USACE are also required to obtain a Section 401 Water Quality Certification from NDEP. Issuing a Section 401 Certification means that, NDEP anticipates that the

applicant's project would comply with state water quality standards and other aquatic resource protection requirements under NDEP's authority.

## 3.5.2 Methodology

Wetlands and jurisdictional waters located within the proposed project area were delineated in accordance with the USACE 1987 Wetlands Delineation Manual (USACE 1987), 2006 Regional Supplement for the Arid West (USACE 2006), and the recent June 2007 Rapanos Guidance.

Prior to initiating field efforts, biologists reviewed aerial photographs and previously prepared documents, reports, and surveys for the project area. The purpose of this review was to identify hydric soils and to determine whether wetlands or other surface water bodies had been previously identified in the project area.

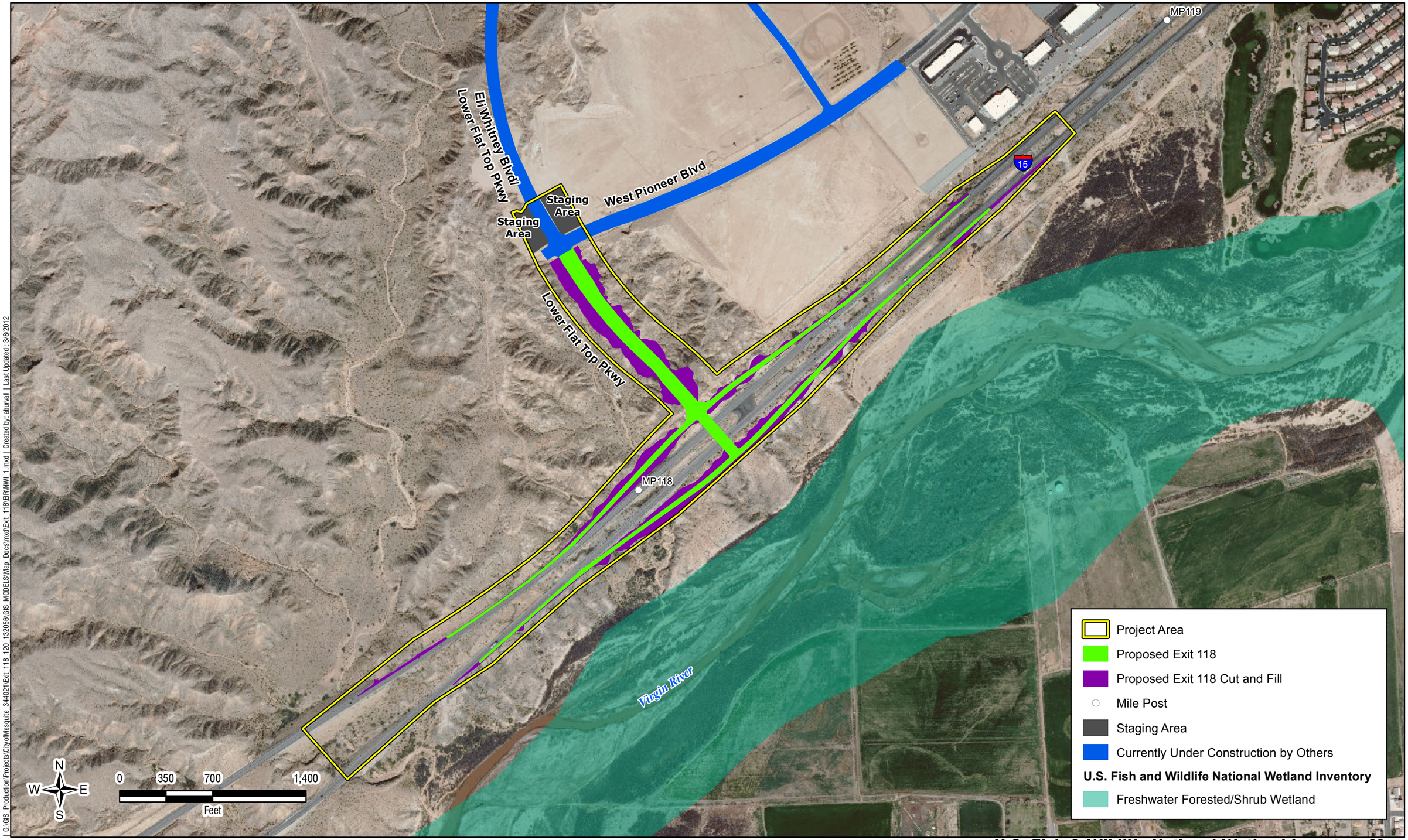
Biologists conducted field surveys of the WOUS within the project area on May 10, 2010, to identify washes or other drainages, areas dominated by hydrophytic vegetation, and areas with obvious signs of wetland hydrology. If areas had been identified as having dominant hydrophytic vegetation, they were further evaluated for potential wetland or other WOUS criteria. Within the proposed project area, no areas had been previously identified as wetlands, nor did the biologists identify any areas dominated by hydrophytic vegetation or that otherwise could be considered wetlands per USACE criteria.

Within the washes and drainages observed in the area, the biologists measured the width of the waterway between the ordinary high-water mark (OHWM) and the approximate depth to the top of the bank associated with the OHWM. Biologist mapped the waterways on aerial photographs, photographed the waterways, and made note of vegetation and hydrology indicators.

## 3.5.3 Existing Conditions

### 3.5.3.1 Wetlands

The wetlands and jurisdictional waters evaluation area is the same as the project area shown in Figure 1. The wetlands evaluation area was evaluated for the presence of wetlands and jurisdictional waters. The U.S. Fish and Wildlife National Wetland Inventory Map identifies the Virgin River floodplain as a freshwater forested wetland south of the proposed project area, as shown in Figure 13. However, no wetlands were identified within the proposed project area. During field delineations, indicators of wetland vegetation were searched for along the drainages and elsewhere in the proposed project area. No wetlands were found within the proposed project area.

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# U.S. Fish & Wildlife National Wetland Inventory Map
## Figure 13
I-15 Proposed Interchange at MP 118 Project

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### 3.5.3.2 Waters of the U.S.

WOUS that are not wetlands regulated under Section 404 include rivers, streams, ephemeral drainages, and certain irrigation and drainage ditches. These areas are not considered Section 404 regulated wetlands because they lack one or more of the three parameters necessary for an area to qualify as a wetland. Numerous potentially jurisdictional unnamed drainages were identified and delineated within the project area. *Delineation* means that the OHWMs of these drainages were located in the field, flagged, and surveyed. These drainages pass through the project area and eventually drain into the Virgin River Floodplain (Figure 13).

### 3.5.3.3 Jurisdictional Status

Because the drainages crossing the proposed project area have a direct surface linkage to the Virgin River and thus to the Colorado River, which is designated as a Traditional Navigable Waterway, the waters delineated along these drainages and their tributaries would fall within the regulatory authority of USACE under the CWA. Activities within the delineated areas would require appropriate permitting prior to any dredging or filling. The type of permitting required would be dependent on the amount of dredging or filling associated with the proposed project. NDOT did not submit the preliminary delineation report or a request for preliminary jurisdictional determination to USACE since the drainages described in Table 9 were obviously jurisdictional. Figure 13 and Table 9 present the results of the field delineations of WOUS within the proposed project area.

**Table 9. Washes and Drainages Identified in the Proposed Project Area**

| ID | Width (ft)[a] | Depth (ft)[a] | Length (ft) [a,b] | Area (sq ft) [a,b] | Preliminary Volume Estimates (cu ft) [a,b] | WOUS (Y or N) | Description |
|---|---|---|---|---|---|---|---|
| A | 6.0 | 1.0 | 242.1 | 1,452.5 | 1,452.5 | Y | Local drainage below development. Mesquite, Bromus, Croton. |
| B | 10.0 | 1.0 | 86.9 | 868.9 | 868.9 | Y | Large wash from storm drain outlet from pads above. Mesquite. Enters culvert under I-15. |
| C | 1.0 | 2.0 | 233.8 | 233.8 | 467.6 | Y | Local drainage below development. Upland spp. Mostly Salsola. |
| D | 6.0 | 1.0 | 108.5 | 651.2 | 651.2 | Y | Local drainage. Croton, globemallow, indigo bush. |
| E | 4.0 | 2.0 | 171.6 | 686.4 | 1,372.7 | Y | Local drainage. |
| F | 20.0 | 1.0 | 71.5 | 1,430.4 | 1,430.4 | Y | Main collection from area below development. No stormdrain observed. |
| G | 3.0 | 1.0 | 7.9 | 23.7 | 23.7 | Y | Local drainage. |
| H | 4.0 | 1.0 | 336.8 | 1,347.4 | 1,347.4 | Y | Wash from small watershed above interstate. Small culvert under interstate. |

**Table 9. Washes and Drainages Identified in the Proposed Project Area**

| ID | Width (ft)[a] | Depth (ft)[a] | Length (ft) [a,b] | Area (sq ft) [a,b] | Preliminary Volume Estimates (cu ft) [a,b] | WOUS (Y or N) | Description |
|---|---|---|---|---|---|---|---|
| I-1 | 2.5 | 0.2 | Not within Proposed ROW | | | Y | Small tributary. |
| I-2 | 6.0 | 0.2 | Not within Proposed ROW | | | Y | Small tributary. |
| I-3 | 7.0 | 0.2 | Not within Proposed ROW | | | Y | Small tributary. |
| I-4 | 5.0 | 3.0 | Not within Proposed ROW | | | Y | Small tributary. |
| I-5 | 4.0 | 0.8 | 269.3 | 1,077.0 | 861.6 | Y | Small tributary. |
| I-6 | 1.5 | 0.2 | 247.0 | 370.5 | 74.1 | Y | Small tributary. |
| I-7 | 6.0 | 0.7 | Not within ROW | | | Y | Small tributary. |
| I-8 | 18.0 | 0.7 | 158.7 | 2,856.4 | 1,999.5 | Y | Small tributary. |
| I-9 | 12.0 | 1.0 | 213.8 | 2,566.2 | 2,566.2 | Y | Main channel outside proposed project area (no photo). |
| I-10 | 5.0 | 0.3 | 197.7 | 988.6 | 296.6 | Y | Main channel at base of filled area. |
| I-11 | 3.0 | 0.4 | 217.6 | 652.7 | 261.1 | Y | Small tributary. |
| I-12 | 2.0 | 0.3 | 105.5 | 211.1 | 63.3 | Y | Small tributary. |
| I-13 | 4.5 | 0.3 | 158.6 | 713.7 | 214.1 | Y | Confluence of a couple of small tributaries. |
| I-14 | 8.0 | 1.0 | 277.5 | 2,219.8 | 2,219.8 | Y | Small tributary. |
| I-15 | 1.0 | 0.3 | 204.1 | 204.1 | 61.2 | Y | Main channel within proposed project area. |
| I-16 | 4.0 | 0.3 | 323.2 | 1,292.6 | 387.8 | Y | Tributary to main channel. |
| I-17 | 4.0 | 0.3 | 326.0 | 1,303.9 | 391.2 | Y | Small tributary. |
| I-18 | 3.0 | 0.2 | 60.3 | 180.9 | 36.2 | Y | Small tributary. |
| J | 3.0 | 2.0 | 219.1 | 657.2 | 1,314.5 | Y | Small drainage from watershed next to a road. Also drains from a culvert from Wash K. |
| K | 1.0 | 1.0 | 98.4 | 98.4 | 98.4 | Y | Local drainage. Feeds Wash J through a culvert. |
| L | 1.0 | 0.5 | 77.6 | 77.6 | 38.8 | Y | Small, local drainage into culvert. Minimal bed and bank. |
| M | 15.0 | 2.0 | 36.6 | 549.0 | 1,098.0 | Y | Large wash formed from culvert under interstate; associated with Washes A, B, C. |
| N | 1.0 | 1.0 | 200.5 | 200.5 | 200.5 | Y | Local drainage; flows into Wash O. |

**Table 9. Washes and Drainages Identified in the Proposed Project Area**

| ID | Width (ft)[a] | Depth (ft)[a] | Length (ft) [a,b] | Area (sq ft) [a,b] | Preliminary Volume Estimates (cu ft) [a,b] | WOUS (Y or N) | Description |
|---|---|---|---|---|---|---|---|
| O | 3.0 | 1.0 | 143.9 | 431.7 | 431.7 | Y | Large wash formed from culvert under interstate; associated with Washes D, E, F, G. |
| P | 1.0 | 1.0 | 134.1 | 134.1 | 134.1 | Y | Small wash formed from culvert under the interstate. Not associated with culvert on north side of interstate. |
| Q | 1.0 | 1.0 | 76.4 | 76.4 | 76.4 | Y | Local drainage that feeds into Wash P. |
| R | NA | NA | Not within ROW | | | N | Area appears to be drainage in aerial photos, but no bed-bank are present in ROW. No culvert. Local drainage. |
| S | 2.0 | 1.0 | 360.6 | 721.2 | 721.2 | Y | Wash formed by culvert under interstate. Associated with Wash H. |
| T | 1.0 | 1.0 | 271.6 | 271.6 | 271.6 | Y | Local drainage feeding into Wash V. |
| U | 1.0 | 1.0 | 129.0 | 129.0 | 129.0 | Y | Local drainage feeding into Wash V. |
| V | 8.0 | 1.0 | 153.9 | 1,231.4 | 1,231.4 | Y | Large wash formed from culvert passing under interstate. Associated with the major Wash I on north side of interstate. |
| W | 1.0 | 2.0 | Not within ROW | | | Y | Local drainage that forms among stand of mesquite and feeds into Wash U. Might be outside existing ROW. |
| X | 1.0 | 1.0 | 102.3 | 102.3 | 102.3 | Y | Local drainage feeding into Wash Y. |
| Y | 3.0 | 1.0 | 123.8 | 371.3 | 371.3 | Y | Wash formed from culvert under interstate. Unexplained second culvert present. Associated with Washes J and K. |
| Z | 2.0 | 0.5 | 115.3 | 230.6 | 115.3 | Y | Wash formed from culvert under interstate. No culvert observed north of the interstate. |

**Table 9. Washes and Drainages Identified in the Proposed Project Area**

| ID | Width (ft)[a] | Depth (ft)[a] | Length (ft) [a,b] | Area (sq ft) [a,b] | Preliminary Volume Estimates (cu ft) [a,b] | WOUS (Y or N) | Description |
|---|---|---|---|---|---|---|---|
| AA | 1.0 | 1.0 | 36.4 | 36.4 | 36.4 | Y | Local drainage; upland species. No culvert observed. |
| AB | 3.0 | 1.0 | 87.5 | 262.5 | 262.5 | Y | Culvert under the interstate; associated with Wash L. |
| **Total[a]** | | | | **26,912.6** | **23,679.9** | | |
| Total (acres) | | | | 0.618 acre | 0.544 acre-foot | | |

[a] Values are rounded to the nearest tenth.

[b] Estimates are based on preliminary design and would be revised with the submittal of the preconstruction notice.

## 3.5.4 Impacts

### 3.5.4.1 Wetlands

#### 3.5.4.1.1 No Build Alternative

No impacts to wetlands would occur with the No Build Alternative.

#### 3.5.4.1.2 Build Alternative

No wetlands were found within the proposed project area; therefore, no impacts to wetlands would occur.

### 3.5.4.2 Waters of the U.S.

#### 3.5.4.2.1 No Build Alternative

No impacts to WOUS would occur with the No Build Alternative.

#### 3.5.4.2.2 Build Alternative

The Build Alternative would result in fill and dredging within several jurisdictional drainages regulated as WOUS. These are shown in Figure 13 as cut and fill and summarized below in Table 10. At the current level of design, the total area of WOUS to be dredged or filled with the Build Alternative would be approximately 0.307 acre.

Final determination of level of impacts would be made as progress toward a final design is made. If the total acreage of WOUS potentially affected remains under 0.5 acre, then a Nationwide Permit 14 would be sought. If the final design affects more than 0.5 acre, then an individual Section 404 permit would be required. NDOT would be responsible for obtaining

the appropriate permit when the design is completed to the extent that effects on WOUS can be adequately assessed.

The Flat Top Parkway connection would be constructed northeast of a wash (identified as Wash I in Figure 13) that drains a small watershed and would fill a portion of that wash as well as a number of tributaries. Although this watershed is small, the steep, sloping terrain results in rapid flows, and the sandy, erosive soils readily form bed and banks. The main wash was wide, and the OHWM was relatively shallow. The vegetation along the edges of the wash was similar to that in adjacent uplands, and no indicators of wetlands were observed. Numerous small washes and their tributaries would be affected by the construction of the ramps adjacent to the interstate. Washes on the north side of the highway (upstream) drain small, natural watersheds on the western end of the area.

However, the watersheds toward the east have been substantially altered from major fill activities on empty lots being prepared for development. In one of these empty lots, a storm drain collects stormwater and discharges it at the base of the fill, creating a large wash (Wash B). Characteristics of the washes and drainages on the south (downstream) side of the interstate are dictated by the presence or absence of culverts under the interstate.

**Table 10. Existing Washes and Drainages That Would Be Affected by Cut or Fill Areas**

| ID | Width (ft)[a] | Depth (ft)[a] | Length (ft) [a,b] | Area (sq ft) [a,b] | Volume (cu ft) [a,b] | WOUS? |
|---|---|---|---|---|---|---|
| A | 6.0 | 1.0 | Would not be affected by cut or fill | | | Y |
| B | 10.0 | 1.0 | 5.14 | 51.4 | 51.4 | Y |
| C | 1.0 | 2.0 | Would not be affected by cut or fill | | | Y |
| D | 6.0 | 1.0 | Would not be affected by cut or fill | | | Y |
| E | 4.0 | 2.0 | Would not be affected by cut or fill | | | Y |
| F | 20.0 | 1.0 | Would not be affected by cut or fill | | | Y |
| G | 3.0 | 1.0 | Would not be affected by cut or fill | | | Y |
| H | 4.0 | 1.0 | 87.5 | 349.8 | 349.8 | Y |
| I-1 | 2.5 | 0.2 | Would not be affected by cut or fill | | | Y |
| I-2 | 6.0 | 0.2 | Would not be affected by cut or fill | | | Y |
| I-3 | 7.0 | 0.2 | Would not be affected by cut or fill | | | Y |
| I-4 | 5.0 | 3.0 | Would not be affected by cut or fill | | | Y |
| I-5 | 4.0 | 0.8 | 119.6 | 478.2 | 382.6 | Y |
| I-6 | 1.5 | 0.2 | 189.0 | 283.6 | 56.7 | Y |
| I-7 | 6.0 | 0.7 | Would not be affected by cut or fill | | | Y |
| I-8 | 18.0 | 0.7 | 96.2 | 1,732.2 | 1,212.5 | Y |
| I-9 | 12.0 | 1.0 | 43.2 | 518.5 | 518.5 | Y |
| I-10 | 5.0 | 0.3 | 196.9 | 985.0 | 295.5 | Y |
| I-11 | 3.0 | 0.4 | 99.9 | 299.6 | 119.9 | Y |
| I-12 | 2.0 | 0.3 | 78.5 | 157.0 | 47.1 | Y |
| I-13 | 4.0 | 0.3 | 158.6 | 634.4 | 190.3 | Y |

**Table 10. Existing Washes and Drainages That Would Be Affected by Cut or Fill Areas**

| ID | Width (ft)[a] | Depth (ft)[a] | Length (ft) [a,b] | Area (sq ft) [a,b] | Volume (cu ft) [a,b] | WOUS? |
|---|---|---|---|---|---|---|
| I-14 | 8.0 | 1.0 | 260.4 | 2,083.2 | 2,083.2 | Y |
| I-15 | 1.0 | 0.3 | 204.1 | 204.1 | 61.2 | Y |
| I-16 | 4.0 | 0.3 | 195.3 | 781.4 | 234.4 | Y |
| I-17 | 4.0 | 0.3 | 208.3 | 833.4 | 250.0 | Y |
| I-18 | 3.0 | 0.2 | Would not be affected by cut or fill | | | Y |
| J | 3.0 | 2.0 | 104.2 | 312.5 | 625.0 | Y |
| K | 1.0 | 1.0 | 4.7 | 4.7 | 4.7 | Y |
| L | 1.0 | 0.5 | Would not be affected by cut or fill | | | Y |
| M | 15.0 | 2.0 | 40.1 | 601.4 | 1,202.8 | Y |
| N | 1.0 | 1.0 | 66.3 | 66.3 | 66.3 | Y |
| O | 3.0 | 1.0 | 41.6 | 124.9 | 124.9 | Y |
| P | 1.0 | 1.0 | 93.0 | 93.0 | 93.0 | Y |
| Q | 1.0 | 1.0 | 63.6 | 63.6 | 63.6 | Y |
| R | NA | NA | Would not be affected by cut or fill | | | N |
| S | 2.0 | 1.0 | 319.7 | 639.5 | 639.5 | Y |
| T | 1.0 | 1.0 | 119.8 | 119.8 | 119.8 | Y |
| U | 1.0 | 1.0 | 129.0 | 129.0 | 129.0 | Y |
| V | 8.0 | 1.0 | 160.2 | 1,282.0 | 1,282.0 | Y |
| W | 1.0 | 2.0 | Would not be affected by cut or fill | | | Y |
| X | 1.0 | 1.0 | 45.2 | 45.2 | 45.2 | Y |
| Y | 3.0 | 1.0 | 100.6 | 301.7 | 301.7 | Y |
| Z | 2.0 | 0.5 | 56.0 | 111.7 | 55.8 | Y |
| AA | 1.0 | 1.0 | Would not be affected by cut or fill | | | Y |
| AB | 3.0 | 1.0 | 35.7 | 107.1 | 107.1 | Y |
| **Total[a]** | | | | **13,394.1** | **10,717.6** | |
| Total (acres) | | | | 0.307 | 0.246 acre-foot | |

[a] Values are rounded to the nearest tenth.

[b] Estimates are based on preliminary design and would be revised with the submittal of the preconstruction notice.

In areas where no culvert is present, the local drainage is typically too small or flows too infrequently to form indicators of OHWM; therefore, these areas were not delineated and are not considered jurisdictional. In cases where culverts are present, sufficient flow generates cut banks and streambeds. In some cases, these culverts are associated with culverts draining areas north of I-15, and in others the culverts seem to drain only the area between the divided

northbound and southbound lanes. The areas between the lanes would not be affected by construction, so these areas were not delineated.

## 3.5.5 Mitigation

### 3.5.5.1 Wetlands

#### 3.5.5.1.1 No Build Alternative

No mitigation is required because no impacts to wetlands are associated with the No Build Alternative.

#### 3.5.5.1.2 Build Alternative

No mitigation is required because no impacts to wetlands are associated with the proposed project.

### 3.5.5.2 Waters of the U.S.

#### 3.5.5.2.1 No Build Alternative

No mitigation is required because no impacts to WOUS are associated with the No Build Alternative.

#### 3.5.5.2.2 Build Alternative

Any mitigation will be stipulated in the appropriate Section 404 permit issued by USACE.

# 3.6 Hydrology and Water Quality

This section presents an assessment of the expected project effects to stormwater runoff, surface waters, and groundwater in the project vicinity. The boundaries of the hydrology and water quality evaluation area include the area identified as the study area in Figure 1 and extend southeast to include the Virgin River.

## 3.6.1 Applicable Regulations

Surface water and groundwater quality is protected under federal, state, and local regulations. The Clean Water Act (33 USC 1251 et seq.) is the cornerstone of legislation protecting water resources in the U.S. EPA is the primary federal agency responsible for implementing and enforcing the Clean Water Act, which was passed in 1972 in response to widespread public concern about controlling water pollution and protecting America's water bodies. In many cases, however, EPA has delegated its authority and implementation duties to state agencies. In Nevada, EPA has authorized the Nevada Division of Environmental Protection (NDEP) to regulate discharges to the state's water resources.

The NDEP Bureau of Water Quality Planning (BWQP) is responsible for several water quality protection functions that include collecting and analyzing water data, developing standards for surface water discharges, and implementing programs to address surface water

quality. BWQP has guidance and permitting requirements for stormwater controls and water pollution prevention. BWQP issues National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permits and Clean Water Act Section 401 Water Quality Certifications for projects in compliance with EPA regulations 40 CFR 122.26 and the Clean Water Act.

## 3.6.2 Existing Conditions

### 3.6.2.1 Surface Waters in the Hydrology and Water Quality Evaluation Area

The primary surface water body in the project area is the Virgin River, which is a perennial river that runs roughly parallel to and just southeast of I-15. The 162 miles of the Virgin River stretch from approximately 100 miles north in Dixie National Forest, Utah, join with the Santa Clara River in Mesquite, and terminate into the Colorado River at Lake Mead, approximately 60 miles south of the project area. The Virgin River and its tributaries are the principal drainage for the Lower Colorado River watershed, which includes the Virgin River watershed.

The project area is located within a local watershed, the Western Washes Watershed, as defined in the 2007 City of Mesquite Flood Control Master Plan Update (MPU) (Figure 14). This 5.37-square-mile watershed is located at the western end of Mesquite and is characterized by relatively steep undeveloped uplands that are generally covered by sparse desert shrub vegetation. The steep, undeveloped uplands tend to experience overland flow, which then concentrates into gullies and dry washes, some of which flow through the project area.

Drainage patterns in the Western Washes Watershed are generally from the northwest to the southeast, with concentrated drainages passing under I-15 through culverts and toward the Virgin River. The project area is located near the lower end of the watershed about 0.10 mile from the Virgin River.

#### 3.6.2.1.1 Water Quality Standards

Water quality standards define the water quality goals of a water body by designating uses of the water and by setting criteria necessary to protect those beneficial uses. Beneficial uses include recreation, aquatic life, fisheries, irrigation, and drinking water. Water quality standards for Nevada are defined in the Nevada Administrative Code (NAC), Chapter 445A.118-445A.225. The Virgin River has established beneficial uses and water quality standards (NAC 445A.174-445A.176). Beneficial uses include:

- Irrigation
- Watering of livestock
- Recreation not involving contact with the water
- Industrial supply
- Propagation of wildlife
- Propagation of aquatic life


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NEVADA DOT

# Watersheds
## Figure 14
I-15 Proposed Interchange at MP 118 Project

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#### 3.6.2.1.2 Pollutants in Surface Water

When a lake, river, or stream fails to meet the water quality standards for its beneficial uses, Section 303(d) of the CWA requires the State to place the water body on a list of "impaired" waters (also known as a Section 303(d) list) and prepare an analysis called a Total Maximum Daily Load (TMDL). This analysis establishes the maximum amount of a pollutant that the water body can contain while maintaining all of its beneficial uses. The segment of the Virgin River from Mesquite to the river mouth at Lake Mead has been listed by NDEP as an "impaired waterbody" on Nevada's 2006 303(d) List of Impaired Waters (NDEP 2006). This "impaired" listing is based on manganese, total phosphorus, water temperature, and iron.

### 3.6.2.2 Groundwater in the Hydrology and Water Quality Evaluation Area

Groundwater is water that occurs in the pore spaces of soil and rocks. Groundwater is, essentially, precipitation that moves down through the soil to form aquifers. Aquifers are an underground bed or layer of permeable rock, sediment, or soil that yields water.

There are two types of aquifers: confined and unconfined. *Confined aquifers* are sandwiched between two confining beds (layers of impermeable materials such as clay that impede the vertical movement of water into and out of the aquifer). Confined aquifers are generally deeper than unconfined aquifers and provide more protection from surface water contamination. *Unconfined aquifers* receive water from the surface, and their water table surface is free to fluctuate up and down, depending on the recharge/discharge rate. In an unconfined aquifer, there are no overlying confining beds of low permeability to physically isolate the groundwater system. Unconfined aquifers are generally more susceptible to surface water contamination.

According to the Nevada Division of Water Resources well log database (Nevada Division of Water Resources 2010), there are shallow, unconfined aquifers in the project vicinity between 30 and 50 feet below the ground surface. Although this shallow groundwater is more vulnerable to surface water contamination, it does not serve as the drinking water source for the city of Mesquite.

Groundwater from deep confined aquifers is the primary water supply source in the Mesquite basin. The Virgin Valley Water District draws drinking water from nine wells ranging from 600 to 3,300 feet deep throughout the valley, and all of these wells are located outside the project area. There are no public water sources or protection zones in the hydrology and water quality evaluation area. The closest groundwater well is approximately 2 miles south of project area. Groundwater recharge in the basin derives primarily from precipitation. Additional recharge stems from urban irrigation, treatment plant effluent, and some upward flow from deep artesian aquifers.

## 3.6.3 Impacts

### 3.6.3.1 No Build Alternative

The No Build Alternative would not result in impacts to surface water or groundwater. Commercial and light industrial development would likely continue within the project area

and could lead to impacts to surface water quality and the installation of additional stormwater controls to reduce and/or control stormwater runoff from the urbanized and developed areas. No groundwater rights or wells would be affected.

### 3.6.3.2 Build Alternative

#### 3.6.3.2.1 Surface Water

Stormwater runoff from additional roadway sections associated with the proposed interchange would contain sediment, nutrients, hydrocarbons, metals, and other fine particulates that accumulate on roadway surfaces. Erosion-control measures would be incorporated as part of the interchange design to minimize impacts to stormwater discharge quality. During construction, a Stormwater Pollution Prevention Plan (SWPPP) would be implemented to satisfy the NPDES requirements. It would include best management practices (BMPs) to control surface water runoff and sediment transport. In addition, exposed ground areas will be revegetated after construction is completed. Therefore, construction-related impacts on water quality are not anticipated.

The Build Alternative would add an additional 11.5 acres of impervious surface in the project area, resulting in small, local increases in runoff and stormwater inputs into the Virgin River via small drainages that direct water from the project area under I-15 (*Section 3.5, Wetlands and Jurisdictional Waters*). Stormwater would drain from the proposed bridge into curb and gutter and then into a storm drain that carries water to the Virgin River. Due to the lag time between the peak offsite runoff and the freeway/interchange runoff, the peak flow from the proposed project would have substantially subsided by the time the watershed peak occurs. This lag, coupled with the relatively small local increases in runoff, would result in inconsequential effects to surface water in the project area. Lastly, NDOT roadway and bridge design specifications include requirements to avoid, minimize, and properly address stormwater accumulation; to address stormwater runoff; and to meet state and federal water quality standards. Therefore, water quality impacts to the Virgin River are expected to be negligible.

#### 3.6.3.2.2 Groundwater

The Build Alternative is not expected to adversely affect groundwater quality or regional drinking water supplies. Excavation for construction of the proposed project would generally not exceed 2 to 3 feet, with some isolated excavations of 10 to 15 feet to facilitate the installation of drainage facilities, structural foundations, or signs. Due to these relatively shallow excavation depths, impacts to groundwater are not expected.

## 3.6.4 Mitigation

### 3.6.4.1 No Build Alternative

No mitigation is required, since no water quality impacts are associated with the No Build Alternative.

### 3.6.4.2 Build Alternative

#### 3.6.4.2.1 Surface Water

As part of the freeway design, erosion-control measures will be incorporated for site soil stabilization and to reduce deposition of sediments in the adjacent surface waters. Measures could include, but are not limited to, the application of soil stabilizers such as landscaping and mulch and rock slope protection, storm drain outfalls such as riprap aprons, and level spreaders.

Compliance with applicable federal, state, and local water quality standards will be required during the construction and operation of the Build Alternative. The development and implementation of a project-specific construction Stormwater Pollution Prevention Plan (SWPPP) as part of the CWA NPDES permitting processes will serve to protect surface water quality during construction of the Build Alternative. Additionally, several federal, state, and local conservation and water quality plans have been developed and will further protect or improve water quality by promoting public awareness and promoting responsible conservation and restoration practices, including erosion-control measures and implementation of BMPs.

#### 3.6.4.2.2 Groundwater

If previously unidentified wells are encountered during project construction, the contractor will notify the Nevada Division of Water Resources and will retain an authorized driller to abandon the well.

In the event of a release of hazardous substances by vehicles, construction equipment, and/or hazardous material containers, the contractor will take immediate action to facilitate the action to clean and remediate the release to prevent the contaminants from leaving the project area and from reaching the groundwater table.

## 3.7 Biological Resources and Sensitive Species

This section describes the existing wildlife habitat and wildlife that could be present in the study area. The boundaries of the biological resources and sensitive species evaluation area include the area identified as the study area in Figure 1. Surveys for desert tortoises extended beyond this area as required in the standard preconsultation survey guidelines from the U.S. Fish and Wildlife Service (USFWS). Biological resources include plants and wildlife. The biological resources discussed in this section are:

- Vegetation
- Noxious weeds
- Wildlife
- State listed species
- Federally listed threatened and endangered species and migratory birds

## 3.7.1 Vegetation

### 3.7.1.1 Existing Conditions

The biological resources and sensitive species evaluation area is entirely within Mojave creosote bush scrub habitat with two vegetation zones: upland areas and wash bottoms. Common plant species in the upland areas include creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), Nevada ephedra (*Ephedra nevadensis*), white ratany (*Krameria grayi*), desert globemallow (*Sphaeralcea ambigua*), and diverse species but few individual cacti. Common plant species in washes and drainages include catclaw acacia (*Acacia greggii*), threadleaf snakeweed (*Gutierrezia microcephala*), indigo bush (*Psorothamnus fremontii*), and scattered mesquite species (*Prosopis* spp.). Red brome (*Bromus rubens*) and prickly Russian thistle (*Salsola tragus*), which are non-native invasive species, are also abundant throughout the area.

#### 3.7.1.1.1 Noxious Weeds

Noxious weeds are plants that have been designated by local, state, or federal agricultural authorities as detrimental to agricultural crops, natural ecosystems, human health, or livestock. Noxious weeds are typically non-native, invasive species but can include native species. Soil and vegetation disturbances can increase the potential for noxious weeds.

The only species of noxious weed that was observed in the biological resources and sensitive species evaluation area and is listed on the State of Nevada's noxious weed list is the Asian (Sahara) mustard (*Brassica tournefortii*). This species is listed as a Class B Noxious Weed by the Nevada Department of Agriculture. Class B Noxious Weeds are those species that are established in scattered populations in some counties of the state, for which measures are taken to exclude them where possible and to eradicate them from nursery stock, and whose control is required by the State where they are not well established.

#### 3.7.1.1.2 Protected Plants

Several small pricklypear cacti (*Opuntia* spp.) were observed in the project area during field visits. All cacti are protected from harm or collection by Nevada Revised Statute (NRS) 527.100. No federally threatened or endangered plant species were observed in the area, but one species of plant listed as critically endangered by the State of Nevada (threecorner milkvetch) was observed in the project area and is discussed in *Section 3.7.3, State Listed Species*.

### 3.7.1.2 Impacts

#### 3.7.1.2.1 No Build Alternative

The No Build Alternative would not result in impacts to vegetation. Under the No Build Alternative, ongoing development would continue to impact vegetation in the evaluation area.

#### 3.7.1.2.2 Build Alternative

The proposed project would result in removal and alteration of 22.9 acres of vegetative habitat. Substantial ground disturbance would occur during construction of the Build Alternative, and vegetation within construction zones (that is, roadway footprint and the cut/fill slopes) would be removed during grading activities. Vegetation outside these construction zones could be temporarily impacted as a result of construction equipment traveling within the project area. Loss of existing vegetation would indirectly affect resident wildlife that depends on it for forage and cover.

Potential direct impacts include changes in plant community composition (kind), plant structure (life form), and possibly weed invasion. Indirect impacts could include habitat degradation induced by erosion, sedimentation, and contaminants from highway runoff. Other indirect impacts on vegetation habitat are discussed in *Section 4.4.4, Biological Resources and Sensitive Species.*

It is anticipated that approximately 22.9 acres of undisturbed creosote bush scrub habitat would be impacted by the project, which includes 11.5 acres that would be permanently converted into roadway and an additional 11.4 acres that would be heavily disturbed by cut or fill with limited opportunities for revegetation. An undetermined portion of the vegetation in the remaining 94 acres in the project area could be temporarily impacted due to construction activities such as construction equipment traveling within this area. As discussed in *Section 3.7.3, State Listed Species*, the threecorner milkvetch and a small number of cacti would be directly affected.

### 3.7.1.3 Mitigation

#### 3.7.1.3.1 No Build Alternative

No mitigation is required because no impacts to vegetation are associated with the No Build Alternative.

#### 3.7.1.3.2 Build Alternative

All construction and associated activities will occur within the proposed transportation ROW. Clearing of vegetation will be limited to the areas necessary for construction, areas where future routine maintenance activities would be required, and areas that need to be maintained for freeway sight distance. Temporarily impacted areas will be recontoured and revegetated with a native, certified, weed-free seed mix. Prior to any construction activities, the project boundaries will be flagged, and cactus and yucca that cannot be avoided will be salvaged in coordination with the landowner and in accordance with State of Nevada administrative codes. Mitigation for the threecorner milkvetch will be determined through consultation with the Nevada Division of Forestry and could include salvage of the individual plant. Disturbed soils will be stabilized as soon as possible using best management practices for erosion control.

The Nevada Department of Agriculture requires mitigation (that is, weed control or removal) to prevent introduction of noxious weeds into a project area or the export of noxious weeds from a project site to surrounding areas (Nevada Department of Agriculture 2005). In order to comply with state regulations, a noxious weeds control plan will be developed in

coordination with the local jurisdictions. Common mitigation is to have the contractor wash its equipment before it arrives onsite and before it leaves the site. In compliance with Executive Order 13112 regarding noxious weeds, all earth-moving and hauling equipment will be washed prior to arriving onsite to prevent the introduction of noxious weed and invasive weed seeds. Noxious weed control and abatement will be implemented as part of ongoing project maintenance by the local jurisdictions' public works departments. Contract documents will specify a noxious weed management plan to control noxious weeds.

## 3.7.2 Wildlife

### 3.7.2.1 Existing Conditions

A large portion of the biological study area habitat is creosote bush scrub and salt desert scrub. Specialized wildlife species that can endure harsh desert conditions use this type of habitat. Bird species known to use these habitats include the common raven (*Corvus corax*), cactus wren (*Campylorhynchus brunneicapillus*), burrowing owl (*Athene cunicularia*), and roadrunner (*Geococcyx californianus*). Some reptile species that could inhabit the area include chuckwalla *(Sauromalus* sp.), Great Basin collared lizard (*Crotaphytus bicinctores*), and western whiptail (*Cnemidophorus tigris*).

Mammals could include kit fox (*Vulpes macrotis*), jack rabbit (*Lepus californicus*), and deer mice (*Perimyscus maniculatus*). Many other migratory birds and small mammals might use the Virgin River as a natural migratory or movement corridor; however, no willow, cottonwood, or saltcedar habitats are present within or adjacent to the evaluation area. Wildlife species protected by the State of Nevada or USFWS are discussed in *Section 3.7.3, State Listed Species*, and *Section 3.7.4, Federally Listed Threatened and Endangered Species*, respectively.

### 3.7.2.2 Impacts

#### 3.7.2.2.1 No Build Alternative

No impacts to wildlife would occur with the No Build Alternative.

#### 3.7.2.2.2 Build Alternative

The proposed project would result in the loss and alteration of wildlife habitat. Direct impacts would include the loss of food sources and cover, temporary or permanent displacement, and incidental mortality of resident species. Direct mortality to some species with small home ranges, particularly reptiles, could be caused by construction activities, especially during the initial grading phase. Smaller mammals are more mobile, and no direct mortality from construction is expected. There are numerous bird, small mammal, and reptile species in the biological resources and sensitive species evaluation area, and further development could alter their habitat and foraging areas.

Roads create barriers to migratory movement because they bisect and isolate habitat. This increases the potential for vehicle-wildlife collisions. An increase in vehicle noise could cause wildlife to avoid certain areas that are presently used for foraging and nesting. Some individuals of these species could succeed in relocating to adjacent lands. Studies have shown

that terrestrial animals move parallel to a roadway much more often than they cross a roadway (Bennett 2003).

However, the tendency of animals to cross a roadway can depend on other factors, such as the degree of similarity of habitats within and adjacent to the right-of-way, local population densities, resource availability, and various other physical parameters of the potential barrier (Bennett 2003). There are no known migration corridors through the study area, and, because of the proximity to I-15 and the heavy use of the surrounding area due to light industrial zoning, only minor impacts are expected due to habitat fragmentation and subsequent barriers to movement caused by the proposed project.

#### 3.7.2.3 Mitigation

##### 3.7.2.3.1 No Build Alternative

No mitigation is required since no impacts to wildlife associated with the No Build Alternative are anticipated.

##### 3.7.2.3.2 Build Alternative

To minimize impacts to wildlife, equipment and vehicles will remain within the project ROW. Grading, access, and storage areas will be limited to areas that are within construction limits. A litter-control plan will be implemented. All trash will be collected and put in proper receptacles so that ravens and other predators are not attracted to the site. Receptacles will be emptied at the end of each workweek so that ravens do not congregate around dumpsters. Specific mitigation measures for state and federal special-status species are addressed below.

### 3.7.3 State Listed Species

#### 3.7.3.1 Existing Conditions

##### 3.7.3.1.1 Gila Monster and Desert Tortoise

Wildlife species protected under the Nevada Administrative Code (NAC) with potential to be present in the project area are the Gila monster (*Heloderma suspectum*), which is listed as protected, and the desert tortoise (*Gopherus agassizii*), which is listed as threatened (NAC 503.080). The desert tortoise also is federally protected as a threatened species and is discussed in *Section 3.7.4, Federally Listed Threatened and Endangered Species*.

Species-specific surveys for the Gila monster were not conducted for this project. However, no Gila monsters were incidentally observed in the project area during field surveys for desert tortoises or wetlands and waters of the U.S. Gila monsters are known to be present in this region, but few burrows or potential shelter sites were present in the evaluation area. Further, Gila monsters are secretive and difficult to locate, and little is known about their habits except that they often use burrows for shelter and might use washes as travel corridors (NDOW 2005). Given the proximity of the project area to the Virgin River and the relatively undisturbed habitat along the washes, it is possible for Gila monsters to be present in the area, but the existing highway could be a deterrent to the species moving into the area.

#### 3.7.3.1.2 Threecorner Milkvetch

Threecorner milkvetch (*Astragalus geyeri* var. *triquetrus*) is classified by the State of Nevada as critically endangered and by BLM as a sensitive species. During a botanical survey conducted on April 20, 2009, two individual plants were located within the area (Newfields Environmental Planning and Compliance 2009). During subsequent field surveys for wetland delineations and desert tortoise surveys within the project study area, biologists searched for the previously located plants but were able to find only one of the specimens that had been previously observed at the single location during this effort (Figure 15).

### 3.7.3.2 Impacts

#### 3.7.3.2.1 No Build Alternative

No impacts to state protected species would occur with the No Build Alternative.

#### 3.7.3.2.2 Build Alternative

***Gila Monster***

The Gila monster is not expected to be present within the proposed project area, and direct impacts to this species are not anticipated as a result of the proposed project. However, if a Gila monster were to move into the area during construction, it could be injured or killed.

***Threecorner Milkvetch***

The Build Alternative would remove 22.9 acres of potential threecorner milkvetch habitat. Constructing the Build Alternative could also cause direct mortality of any individuals inhabiting the construction area. Only one individual was found during follow-up field surveys. However, because construction might not occur for several years, it is possible that new individuals could colonize the area.

### 3.7.3.3 Mitigation

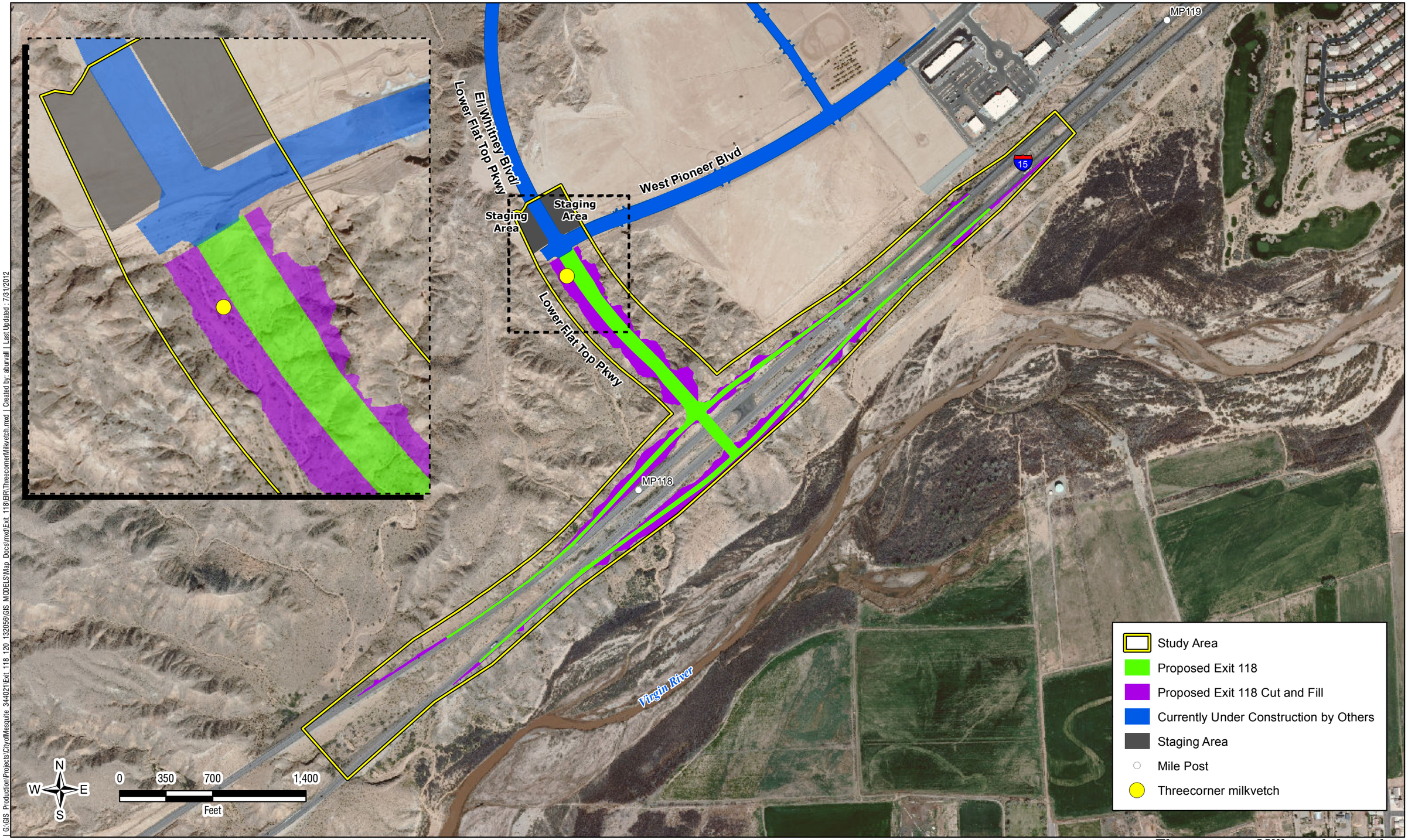
#### 3.7.3.3.1 No Build Alternative

No mitigation is required since no impacts to state protected species are associated with the No Build Alternative.

#### 3.7.3.3.2 Build Alternative

***Gila Monsters***

While the presence of Gila monsters is unlikely in the project area, in the unanticipated event that a Gila monster is discovered during biological field surveys conducted prior to construction, it would be removed in accordance with guidelines established by NDOW (2005). In the unanticipated event that a Gila monster is observed during construction, activities would be halted in the immediate area and NDOW would be notified immediately per NDOW's recommended construction site protocols (NDOW 2005).

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**Threecorner Milkvetch Location**
**Figure 15**
I-15 Proposed Interchange at MP 118 Project

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### *Threecorner Milkvetch*

Mitigation for potential impacts to threecorner milkvetch will be determined during the permitting consultation with the Nevada Division of Forestry (NRS 527.260-.300). Mitigation measures could include conducting additional surveys in the area prior to construction, collecting individual plants found in the project area for relocation or use in research, or other efforts deemed appropriate for the limited level of impact expected.

## 3.7.4 Federally Listed Threatened and Endangered Species

The federal Endangered Species Act (ESA) is an act of Congress passed in 1973 that governs how animal and plant species whose populations are dangerously in decline or close to extinction will be protected and recovered. Once listed as threatened or endangered, a species is afforded the full range of protections available under the Act.

No federally listed species are known to be present in the biological resources and sensitive species evaluation area. The only federally listed species with potential habitat in the evaluation area is the desert tortoise (Figure 16).

Pre-consultation surveys for desert tortoise were conducted. Because the project area is smaller than 2,789 acres, USFWS protocols indicate that the entire project area should be surveyed with 100% coverage. However, due to the extremely steep topography in the area, field surveys could not be completed for the most inaccessible portions of the proposed project area. Surveys involved searching for tortoises and signs of tortoises, such as scat, burrows (active or inactive), and carcasses (USFWS 2010). Some additional areas immediately adjacent to the project area were also surveyed for desert tortoises (Figure 16). The proposed staging area was visited by project biologists but was not surveyed for tortoises because the area had previously been filled and graded and no natural vegetation was present. Prior to construction, biologists will conduct a similar visit of the previously developed staging area but will not conduct biological surveys unless the biologists see new vegetation or other wildlife present in the area.

Biologists surveyed all other areas within the existing NDOT ROW (adjacent to I-15) despite the presence of tortoise fencing along the northern edge of the ROW. Field surveys were conducted on May 10, 2010. Temperatures did not exceed 90 °F during the surveys. Zone of influence (ZOI) surveys were conducted at 200-meter, 400-meter, and 600-meter distances on the northwest side of the project area. Steep and inaccessible terrain dictated some deviation from transects. In cases where biologists could not survey the exact transect, the nearest relatively flat route was surveyed in the general direction of the original transect. ZOI surveys were not conducted northeast of the project area because the area had previously been graded and filled and no natural vegetation is present. No ZOI surveys were conducted south of I-15 because the Virgin River isolates the proposed project area from adjacent tortoise habitat.

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NEVADA DOT

**Tortoise Survey Area**
**Figure 16**
I-15 Proposed Interchange at MP 118 Project

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### 3.7.4.1 Existing Conditions

No desert tortoise or tortoise signs were found within the surveyed project area, in adjacent areas, or along the zone of influence.

The biological resources and sensitive species evaluation area is within the range of the desert tortoise but does not include any designated critical habitat for desert tortoise. Furthermore, most of the previously disturbed areas along the existing interstate are of little value to desert tortoise as habitat.

### 3.7.4.2 Impacts

Under Section 7 of the ESA, federal agencies must consult with USFWS when any action the agency carries out, funds, or authorizes (such as through a permit) could affect a listed endangered or threatened species. This process usually begins as informal consultation. FHWA and NDOT have consulted with USFWS on potential impacts to listed species that could be present in the evaluation area, namely desert tortoise. Documentation of informal consultation with USFWS is provided in Appendix G.

#### 3.7.4.2.1 No Build Alternative

No impacts to desert tortoise are associated with the No Build Alternative.

#### 3.7.4.2.2 Build Alternative

The project is not within critical habitat. Field surveys found no signs of desert tortoise within the proposed project area or along the ZOI survey transects (COM 2010b). Biologists concluded that, due to topography, the interstate, and adjacent development, the site is likely isolated from the surrounding desert tortoise habitat, and it would be unlikely that a tortoise would move into the proposed project area.

FHWA and NDOT have informally consulted with USFWS on the potential for impacts to the desert tortoise, and USFWS has concurred with the project team's finding of "May Affect, but Not Likely to Adversely Affect" (Appendix G). This finding does not authorize the take of any listed species, including desert tortoise.

### 3.7.4.3 Mitigation

#### 3.7.4.3.1 No Build Alternative

No mitigation is required since no impacts to desert tortoise are associated with the No Build Alternative.

#### 3.7.4.3.2 Build Alternative

Because the project may affect, but is not likely to adversely affect, the desert tortoise, NDOT and USFWS have agreed that implementing the following BMPs and protective measures will provide the species adequate protection:

- Prior to the initiation of construction, an environmental awareness education program, including information on desert tortoises, will be presented to all personnel who would be onsite.
- Project activity areas and staging areas will be fenced to exclude tortoises.
- Workers will be informed to report all observations of desert tortoises.
- In the unanticipated event that a desert tortoise is observed in the project area, the contractor will halt all work and contact NDOT, who will notify USFWS.

## 3.7.5 Migratory Birds

The Migratory Bird Treaty Act prohibits the taking of birds identified as migratory, which includes all birds other than migratory game birds. Likewise, all migratory birds other than migratory game birds are classified as protected species by the State of Nevada (NAC 503.045-050), and may not be taken.

### 3.7.5.1 Existing Conditions

Formal surveys to identify migratory birds in the project area were not conducted. However, common migratory birds were observed during other field activities, including but not limited to common ravens, white-crowned sparrows, mourning doves, and western meadowlarks. Many of these species could breed in the region and nest in the native vegetation found in the proposed project area.

### 3.7.5.2 Impacts

#### 3.7.5.2.1 No Build Alternative

No impacts to migratory birds are likely to occur with the No Build Alternative.

#### 3.7.5.2.2 Build Alternative

The construction of the Build Alternative would result in the loss of a small amount of habitat for migratory birds that use the creosote bush shrub habitat for foraging or nesting. The loss of this habitat is not expected to have a substantial impact to these species given that creosote bush shrub habitat is common in this region and the project area is relatively small. However, if construction activities occur during the breeding season for any of these species, nests could be impacted, including any eggs or young in those active nests. In addition, temporary impacts could result from the noise and lights associated with the construction activities.

#### 3.7.5.3 Mitigation

##### 3.7.5.3.1 No Build Alternative

No impacts to migratory birds are associated with the No Build Alternative, so no mitigation is required.

##### 3.7.5.3.2 Build Alternative

Potential impacts on migratory birds will be minimized by scheduling ground-clearing activities outside the general migratory bird breeding season, which is generally March 1 through July 31. If construction activities occur during this period, pre-construction surveys will be conducted to identify nests in the area. If nests are found, no construction activities will occur near the nests until the young have fledged. An appropriate buffer will be established by NDOT in conjunction with USFWS. In addition, USFWS recommends that construction activities avoid disturbance to burrows that could be used by burrowing owls, which are a USFWS species of interest and are protected under the Migratory Bird Treaty Act.

## 3.8 Cultural Resources

This section describes the known historic, archaeological, and paleontological resources in the cultural resources evaluation area. The evaluation area for the cultural resources analysis is the area likely to be directly or indirectly affected by the proposed build alternative.

Federal and state laws protect historic properties (also called significant cultural resources), which can include historic buildings, structures, districts or objects, and archaeological sites; archaeological districts; and traditional cultural properties (places important to the beliefs, customs, or practices of local communities). *Historic properties* means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP) maintained by the Secretary of the interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term also includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian/Alaskan organization and that meet the NRHP criteria.

### 3.8.1 Applicable Regulations

The National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470), requires federal agencies to take into account the effects of their undertakings on historic properties and to afford the State Historic Preservation Office (SHPO) and other parties with a demonstrated interest a reasonable opportunity to comment on such undertakings. Regulations for Protection of Historic Properties (36 CFR 800) implement Section 106 of the NHPA.

Section 106 of the NHPA states that agencies must consider a project's effects on districts, sites, structures, and objects that are listed in or eligible for inclusion in the NRHP. These regulations define a process for responsible federal agencies to consult with the State and/or Tribal Historic Preservation Officer, Native American groups, other interested parties, and, when necessary, the Advisory Council on Historic Preservation to ensure that historic properties are duly considered as federal projects are planned and implemented. A cultural

resource is eligible for inclusion in the NRHP if it is as least 50 years old; possesses integrity of location, design, settings, materials, workmanship, feeling, and association; and meets at least one of the following four criteria:

Criterion A: Is associated with events that have made a significant contribution to the broad patterns of our history; or

Criterion B: Is associated with the lives of persons significant in our past; or

Criterion C: Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant distinguishable entity whose components may lack individual distinction; or

Criterion D: Has yielded, or may be likely to yield, information important in prehistory or history.

Properties may be of local, state, or national importance. Typically, historic properties are at least 50 years old, but younger properties may be considered for listing if they are of exceptional importance. Archaeological sites that may be eligible for the NRHP only under Criterion D are exempt from Section 4(f) evaluation [23 CFR 774.13(b)(1)].

FHWA is the lead federal agency responsible for Section 106 compliance for the MP 118 Interchange Project. On behalf of FHWA, NDOT coordinates and creates reports for the Section 106 compliance activities. Consultation with SHPOs and Native American tribes is discussed in *Section 6.2.2, SHPO Coordination and Consultation* and *Section 6.2.3, Native American Tribal Consultation.*

## 3.8.2 Methodology

The identification of historic, archaeological, and paleontological resources that could be affected by the proposed project was carried out using several methods including literature reviews, pedestrian surveys, and consultation with Native American tribes.

Prior to performing the Class III cultural resources survey, record checks and archive research were conducted to identify previously recorded sites within 1 mile of the project area. Record checks were conducted at the Southern Nevada Archaeological Archives at the Harry Reid Center for Environmental Studies, the Virgin Valley Heritage Museum in Mesquite, and the NRHP website. In addition, BLM General Land Office (GLO) maps were reviewed for information on historic activities within the area of potential effects (APE).

Methods are described in greater detail in the archaeological and architectural resource surveys technical report, *A Class III Archaeological Survey for the Interstate 15 Exit 118 Interchange Project, City of Mesquite, Clark County, Nevada* (COM 2011b).

## 3.8.3 Existing Conditions

The entire project area (Figure 1) for the Build Alternative was surveyed for cultural resources on August 2 to August 4, 2010. The results are reported in *A Class III Archaeological Survey for the Interstate 15 Exit 118 Interchange Project, City of Mesquite, Clark County, Nevada* (COM 2011b). The APE for the project for the consideration of direct impacts was defined as the existing I-15 ROW between MP 117.5 and MP 118.8 plus a

100-foot buffer surrounding it, and the new parcel of ROW for the northern approach roadway (Lower Flat Top Parkway extension) plus a 100-foot buffer surrounding it. No historic properties were identified near the project footprint that could be affected by visual or acoustic changes to the setting. Therefore, an expanded APE beyond that of the project footprint for the consideration of indirect impacts to historic properties was not required. On October 26, 2011, the Nevada SHPO concurred with the adequacy of the APE applied for the project (Appendix H).

The Class III cultural resources survey documented eight historic properties within the APE: seven prehistoric archaeological sites and one historic Paiute archaeological site (Table 11). No historic buildings or structures were present in the APE.

**Table 11. Historic Properties**

| Site | Type | Jurisdiction | Age | NRHP Eligibility |
|---|---|---|---|---|
| 26CK3528 | Storage feature (*a non-bell shaped pit for storing supplies*) | NDOT, BLM | Prehistoric (*of, relating to, or belonging to the era before recorded history*) | Eligible (D) |
| 26CK3529 | Habitation (*place where people lived, whether permanently or temporarily*) | NDOT, BLM | Prehistoric | Eligible (D) |
| 26CK3530 | Habitation | NDOT, BLM | Prehistoric | Eligible (D) |
| 26CK3531 | Artifact scatter (*Sites composed entirely of artifacts and lacking associated features. Some artifact scatters may be comprised of a single material, such as a flaked stone or ceramics, whereas others encompass multiple artifact types.*) | NDOT, BLM | Historic (*of, relating to, or belonging to the era after recorded history*) | Eligible (D) |
| 26CK9235 | Artifact scatter | NDOT, BLM | Prehistoric | Eligible (D) |
| 26CK9236 | Artifact scatter (lithics – *ground and chipped stone tools and the debris resulting from their manufacture*) | BLM | Prehistoric | Not Eligible |
| 26CK9237 | Artifact scatter (lithics) | BLM | Prehistoric | Eligible (D) |
| 26CK9331 | Habitation | BLM | Prehistoric | Eligible (D) |

The prehistoric sites include three habitation sites (26CK3529, 26CK3530, and 26CK9331), three artifact scatters (26CK9235, 26CK9236, and 26CK9237) and a storage feature (26CK3528). The historic site is an artifact scatter (26CK3531). One site, 26CK9236, was determined not eligible for NRHP listing. The other seven archaeological sites were determined eligible for listing on the NRHP under Criterion D for their information potential. On October 26, 2011, the Nevada SHPO concurred with FHWA's determinations of NRHP eligibility and project effects (Appendix H).

## 3.8.4 Impacts

Impacts to historic properties from the Build Alternative were documented using the Section 106 guidelines in 36 CFR 800.5. These impacts are described as No Effect, No Adverse Effect, or Adverse Effect. These degrees of effects can be considered under Section 4(f) when determining the appropriateness of avoidance alternatives. The types of impacts from the Build Alternative were documented by FHWA and NDOT in the Determination of Eligibility and Finding of Effect (Appendix H). The definitions of these impacts are as follows:

- **No Effect.** A No Effect determination is made when the alternative has no impact (direct or indirect) on the character, use, or historic qualities of an architectural property or archaeological site.
- **No Adverse Effect.** A No Adverse Effect determination is made when the alternative affects the minor aspects of the character, use, or historic qualities of an architectural property or archaeological site, but the property or site retains its essential historic characteristics.
- **Adverse Effect.** An Adverse Effect occurs when the alternative affects the essential character, use, or qualities of an architectural property or archaeological site.

As described in *Section 3.8.3, Existing Conditions*, no historic buildings or structures are present in the APE.

### 3.8.4.1 No Build Alternative

No impacts to historic properties are associated with the No Build Alternative. Under the No Build Alternative, no physical changes would be made in the MP 118 area. No impacts to historic, archaeological, or paleontological resources would occur as a result of the proposed project. The transportation projects identified in other agency long-range plans and by the local communities would be constructed, and these projects could cause impacts to historic, archaeological, or paleontological resources.

### 3.8.4.2 Build Alternative

Seven archaeological sites identified in the APE were determined to be eligible for the NRHP. All seven of the NRHP-eligible archaeological sites would be avoided by the proposed project; therefore, FHWA determined that a finding of “no adverse effect” was appropriate for the undertaking. The Nevada SHPO concurred with this finding on October 26, 2011 (Appendix H).

## 3.8.5 Mitigation

Since FHWA made a finding of “no adverse effect” for the proposed project and concurrence has been received from the SHPO, no mitigation measures are necessary to address impacts to cultural resources. The review process stipulated under Section 106 of the National Historic Preservation Act does, however, provide a procedure to seek ways to avoid, minimize, or mitigate adverse effects on historic properties.

NDOT's Design Division considered and implemented geometric design modifications and the installation of permanent avoidance measures for sites 26CK3529 and 26CK3530, which are close to where heavy earth-moving activities would take place. To ensure avoidance of sites 26CK3529 and 26CK3530 during construction activities, orange barrier fencing or concrete jersey barriers will be installed prior to construction around their perimeters to prohibit access and disturbance, and a qualified archaeological monitor will be present during constructions activities in this sensitive area of the proposed project. To ensure avoidance of sites 26CK3531, 26CK9235, 26CK9236, 26CK9237, and 26CK9331, which are set back from construction activities, the sites' perimeters with be marked with lathe and flagging tape for protection.

#### 3.8.5.1 Unanticipated Discovery Situations

If cultural resources are discovered during construction, project activities will cease immediately within 100 feet of the discovery, and the contractor will notify FHWA. FHWA will notify the SHPO, the appropriate land managing agency, and appropriate Native American groups(s) regarding the nature of the find. A professional archaeologist will examine the find to determine if it is cultural and to make an initial assessment for treatment and recommendation of eligibility to the NRHP. If human remains or funerary objects are discovered, the SHPO will be notified, as required by NRS 383.150–383.190, and the provisions of Native American Graves Protection and Repatriation Act (43 CFR 10) will be followed.

## 3.9 Air Quality

The air quality analysis was completed per FHWA's *Interim Guidance Update on Mobile-Source Air Toxic Analysis in NEPA* (FHWA 2009) and regulations and policies in place at the time of analysis.

The project area is located within Hydrographic Area (HA) 222, Mesquite, Clark County, Nevada (Figure 17). Available air quality data and classifications are organized by HAs; therefore, the study area for air quality is defined by HA 222. HAs in Nevada were delineated by the U.S. Geological Survey (USGS) and the Nevada Division of Water Resources in the 1960s for scientific, data collection, and administrative purposes. Generally, topographic and geologic features constitute the geographic boundaries of HAs, but sometimes they are defined by administrative or political divisions.

### 3.9.1 Regulations and Standards

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants known as *criteria pollutants*: ozone ($O_3$), carbon monoxide (CO), coarse and fine particulates ($PM_{10}$/$PM_{2.5}$), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), and lead (Pb). Criteria pollutants are defined as those air contaminants for which the federal government has established standards designed to protect human health and welfare.

HA 222 is currently classified as unclassifiable and in attainment for each of the six criteria pollutants listed above. Unclassifiable/attainment areas are defined by EPA as "meeting air quality standards or expected to be meeting air quality standards." Per 40 CFR 93.102, the transportation conformity requirements do not apply to projects located in unclassifiable/attainment areas.

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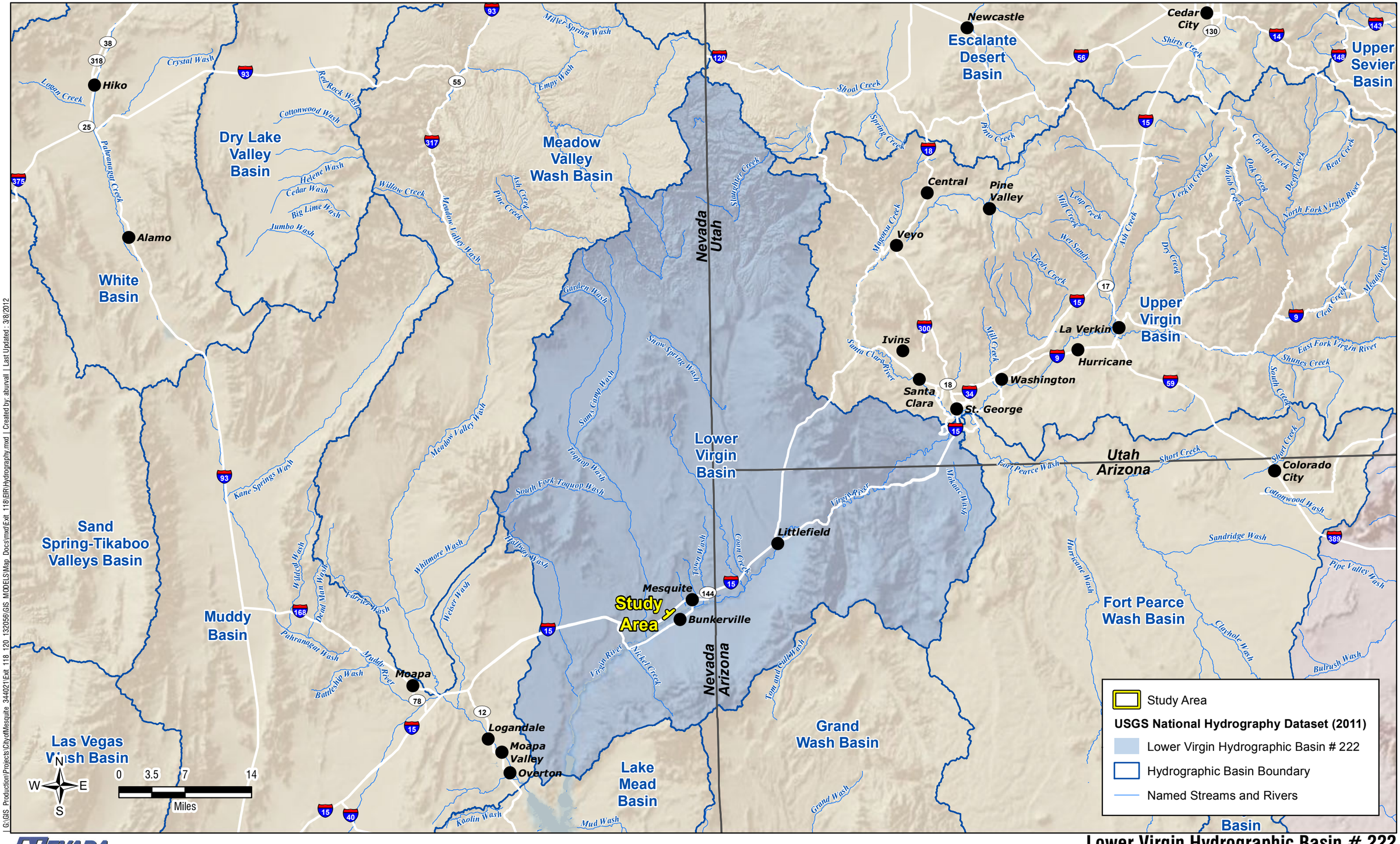


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**Lower Virgin Hydrographic Basin # 222**
**Figure 17**
I-15 Proposed Interchange at MP 118 Project

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## 3.9.2 Existing Conditions

Current land use in the project area is predominantly existing NDOT and City of Mesquite ROW and undeveloped Industrial–Light. Single-family residential (SFR) dwellings currently exist southeast of I-15, but the nearest SFRs are 1,950 feet south of the proposed project area. According to the City of Mesquite Master Plan (COM 2010a), the area between I-15 and these SFRs, and land immediately south of I-15, is zoned as Land Reserve and Commercial-General.

Within the I-15 corridor between the existing Exit 120 interchange and the proposed MP 118 interchange, the No Build Alternative PM peak-hour traffic volume for 2034 (design year) is 2,942 and for the Build Alternative is 2,712. For the same corridor in 2034, the AADT (average annual daily traffic) between the No Build Alternative (32,000) and the Build Alternative (31,700) is statistically insignificant. The current AADT is 17,000.

## 3.9.3 Impacts

### 3.9.3.1 No Build Alternative

The No Build Alternative is not anticipated to have adverse effects on air quality.

### 3.9.3.2 Build Alternative

The Build Alternative is not anticipated to have adverse effects on air quality and would not result in significant changes in traffic volumes or vehicle mix.

#### 3.9.3.2.1 Mobile-Source Air Toxics (MSATs)

This project has been determined to generate minimal air quality impacts for Clean Air Act Amendments (CAAA) criteria pollutants and has not been linked with any special MSAT concerns. As such, this project would not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts from those of the No Build Alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOBILE6.2 model forecasts a combined reduction of 72% in the total annual emission rate for the priority MSAT from 1999 to 2050, while vehicle-miles of travel are projected to increase by 145%. This will reduce both the background level of MSATs as well as the possibility of even minor MSAT emissions from this project.

#### 3.9.3.2.2 Construction

***Carbon Monoxide***

During the project construction phase, there would be short-term, localized increases in ambient concentrations of CO due to the slowing of traffic. There would also be localized

increases in CO from emissions of exhaust from construction equipment. However, these CO increases would be temporary and would not cause long-term adverse effects.

***$PM_{10}$***

Emissions of fugitive dust are anticipated during construction. The resulting increases of $PM_{10}$ concentrations would be temporary and would not cause long-term adverse effects.

***Ozone***

Existing federally enforceable control measures for nitrogen oxides ($NO_x$) and volatile organic compounds (VOCs) will limit the formation of ground-level ozone. These control measures include the new diesel and gasoline engine emission standards and also new standards for gasoline and diesel fuel.

## 3.9.4 Mitigation

### 3.9.4.1 No Build Alternative

No mitigation is required for the No Build Alternative.

### 3.9.4.2 Build Alternative

No mitigation is required for the Build Alternative. Mitigation measures to minimize air quality impacts *during construction* would include the following:

- The contractor would comply with federal, state, and local regulations for the control of air pollution, including those requiring the use of ultra-low-sulfur diesel fuel and prohibiting unnecessary idling.
- Standard mitigation measures and BMPs would be implemented to prevent fugitive dust from becoming airborne.
- Exhaust emissions would be reduced whenever possible by keeping machinery engines and exhaust systems in good mechanical condition and avoiding unnecessary vehicle and equipment idling.

# 3.10 Traffic Noise

The FHWA *Highway Traffic Noise: Analysis and Abatement Guidance* (FHWA 2011) and NDOT *Traffic and Construction Noise Analysis and Abatement Policy* (NDOT 2011) were used to evaluate traffic noise. Per these Policies, the proposed project is classified as a Type I project, which is defined as:

> …a proposed Federal or Federal-aid highway project for the construction of a highway on new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes.

### 3.10.1 Existing Conditions

The evaluation area for traffic noise is the project area as defined in this document and presented in Figure 1. Land use in the project area is predominantly existing NDOT and City of Mesquite ROW (Figure 3). The zoning designations for the project area shown in the City of Mesquite Master Plan (COM 2010a) are listed below along with the traffic noise activity category for each zone (described below in Table 12):

- **Industrial-Light (Activity Category F):** Land extending more than 0.5 mile north of the project area and I-15.
- **Parks, Recreation, and Open Space (Activity Category G):** Land northwest of the project area along an ephemeral drainage feature (Western Wash) approximately 400 feet at its closest portion to I-15 and 1,000 feet at its closest portion to the Lower Flat Top Parkway alignment.
- **Land Reserve and Commercial General (both Activity Category G):** Land south of the project area and I-15.

Within the I-15 corridor between the existing Exit 120 interchange and the proposed Exit 118 interchange, the PM peak-hour (2 PM to 3 PM) traffic volume for 2034 (design year) is 2,942 for the No Build Alternative and 2,712 for the Build Alternative. For the same corridor in 2034, the AADT (average annual daily traffic) is 32,000 for the No Build Alternative and 31,700 for the Build Alternative. The current AADT is 17,000.

As part of the traffic noise analysis, a short-term reading (20 minutes) of noise levels was collected November 9, 2011, in the noise evaluation area in order to establish an estimate of existing noise conditions along I-15. The short-term reading was taken south of I-15 near the NDOT ROW fence. The reading captured all sources of noise, since the equipment cannot distinguish traffic noise from other various noise sources, and recorded a level of 54.2 A-weighted decibels, equivalent sound level (dBA, $L_{eq}$). This reading corresponds to previous readings collected at similar distances near the Exit 120 interchange. A secure location for the equipment was not available to collect a continuous long-term measurement (for example, 24 hours).

According to the FHWA *Highway Traffic Noise: Analysis and Abatement Guidance*, highway traffic noise is not usually a serious problem for people who live more than 500 feet from heavily traveled freeways or more than 100 to 200 feet from lightly traveled roads. Given the current and projected AADT, I-15 would align more closely with the latter. However, land use within 500 feet of the proposed project was reviewed to conservatively evaluate potential impacts from traffic noise.

For those areas identified as Activity Category F, there is no impact criterion for the land-use facilities in this activity category, and no analysis of traffic noise is required.

**Table 12. Noise-Abatement Criteria (Hourly A-Weighted Sound Level Decibels (dBA)[a]**

| Activity Category | Activity Criterion[b] | | Evaluation Location | Activity Description |
|---|---|---|---|---|
| | $L_{eq}(h)$[c] | $L_{10}(h)$[d] | | |
| A | 57 | 60 | Exterior | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose |
| B[e] | 67 | 70 | Exterior | Residential (single-family and multi-family) |
| C[e] | 67 | 70 | Exterior | Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings |
| D | 52 | 55 | Interior | Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios |
| E | 72 | 75 | Exterior | Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F |
| F | — | — | — | Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing |
| G | — | — | — | Undeveloped lands that are not permitted (no land-use application submitted to local jurisdiction for development) |

Source: FHWA 2010

[a] Either $L_{eq}(h)$ or $L_{10}(h)$ (but not both) may be used on a project. $L_{eq}(h)$ is a 1-hour equivalent sound level. $L_{10}$ is the sound level that is exceeded 10% of the time (the 90th percentile) for the period under consideration, with $L_{10}(h)$ being the hourly value of $L_{10}$.

[b] The $L_{eq}(h)$ and $L_{10}(h)$ activity criteria values are for impact determination only and are not design standards for noise-abatement measures.

[c] The equivalent steady-state, A-weighted sound level which, in a stated period of time, would contain the same acoustical energy as the time-varying sound levels during the same period. In other words, it is the average noise level over a given period of time, usually 1 hour.

[d] The $L_{eq}$ for 1 hour.

[e] Includes undeveloped lands permitted for this activity category.

The area 400 feet west of the proposed project, zoned Parks, Recreation, and Open Space (PROS) (Activity Category G), is undeveloped and is separated by peaks and valleys that block the line of sight between this PROS area and the proposed interchange. Considering the PROS zoning, development is unlikely, and there are currently no submitted site plan applications or permits issued for development by the City of Mesquite Development Services Department in this area. Therefore, there is no impact criterion, and no analysis of traffic noise is required.

For the remaining areas identified as Activity Category G (undeveloped lands), there are currently no submitted site plan applications or permits issued for development by the City of Mesquite Development Services Department. Therefore, there is no impact criterion, and no analysis of traffic noise is required.

In addition, considering that the design-year traffic data between the Build (32,000 AADT) and No Build (31,700 AADT) Alternatives is statistically insignificant and given the current ambient noise level, it is unlikely that respective noise-abatement criteria would be satisfied for areas outside the NDOT ROW or would substantially exceed existing levels.

Per the Policies, NDOT will evaluate future changes in traffic noise as appropriate, but it is the responsibility of local officials and municipalities to evaluate the compatibility of development and proximity to traffic-noise sources and provide resulting traffic-noise abatement measures. Given that this project is in the city of Mesquite, all documentation was prepared for the City's use and record. Therefore, the City of Mesquite is aware of conditions for planning, zoning, and future traffic-noise aspects associated with development.

## 3.10.2 Impacts

### 3.10.2.1 No Build Alternative

The areas identified as Activity Category F do not have an impact criterion, and a traffic noise analysis is not required. The areas identified as Activity Category G are undeveloped and unpermitted land and therefore do not have an impact criterion, and a traffic noise analysis is not required. In addition, given the existing ambient noise level and projected AADT, traffic noise levels meeting the activity criteria are not expected.

### 3.10.2.2 Build Alternative

The areas identified as Activity Category F do not have an impact criterion, and a traffic noise analysis is not required. The areas identified as Activity Category G are undeveloped and unpermitted land and therefore do not have an impact criterion, and a traffic noise analysis is not required. In addition, given the existing ambient noise level and projected AADT, traffic noise levels meeting the activity criteria are not expected.

## 3.10.3 Mitigation

### 3.10.3.1 No Build Alternative

A traffic noise analysis is not required for the project area, and considering a traffic noise–abatement measure is not required.

### 3.10.3.2 Build Alternative

A traffic noise analysis is not required for the project area, and considering a traffic noise–abatement measure is not required. Construction noise would be temporary and intermittent, and the intensity would vary for different areas of the project and would depend on the construction activity. Given the identified staging area for the project in relation to identified noise receptors, a noise impact from stationary equipment is not expected. Mitigation

measures for mobile equipment could be addressed in the contract documents as needed and could address hours of operation, noise-level limits, or performance of proper maintenance on construction equipment.

# 3.11 Visual Resources

The visual resources evaluation area consists of a 1-mile buffer zone surrounding the project area (described in *Section 1.5, Project Location*) from its center point (Figure 18). The visual resources evaluation area is mostly undeveloped except for I-15 and associated structures, a small light industrial development adjacent to I-15 in the northeast quadrant of the visual resources evaluation area, and portions of the residential developments of Sunset Gardens Planned Unit Development (PUD) to the east and Bunkerville to the south.

The aesthetic quality of a community depends on its visual resources—the physical features that make up the visible landscape, including land, water, vegetation, and human-made features such as buildings and roads. The viewshed is influenced by existing topography, vegetation, and structures and diminishes with hilly topography and tall vegetation or structures.

## 3.11.1 Existing Conditions

The visual resources evaluation area was inventoried for existing foreground and background views. Foreground views are those that are immediately visible; they define the local character of an area. The foreground is defined as the area within 0 to 0.5 mile of the viewer. The background views are 0.5 to 4 miles away or more.

### 3.11.1.1 Overview of Visual Quality in the Visual Resources Evaluation Area

The visual resources evaluation area is located in the Virgin River Valley. In the evaluation area, immediately adjacent to I-15 within the existing ROW, the soils and topography indicate that substantial fill material was used to achieve the elevations necessary for the current highway. The areas adjacent to I-15 consist of rugged terrain. On the west side of I-15, unidentified rugged hills surround the proposed project area. On the east side of I-15, slopes and drainages extend toward the Virgin River. Common desert plant species observed in the area include creosote bush, white bursage, Nevada ephedra, desert globemallow, and a variety of cactus. Plants that were present in wash areas include catclaw acacia, threadleaf snakeweed, indigo bush, and mesquite plants. Non-native invasive grasses were also noted abundantly throughout the area and especially adjacent to the highway. These species included red brome, Sahara/Asia mustard, and Russian thistle.

The proposed project area is planned for development. According to the City of Mesquite Master Plan (COM 2010a), the majority of the area north of I-15 is planned for Light Industrial (IR-1), although a strip of land has been reserved for parks, recreation, and open space (PROS). South of I-15, the majority of the area is zoned as land reserve, and a small portion is zoned for commercial development.


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# Visual Resources Study Area
## Figure 18
I-15 Proposed Interchange at MP 118 Project

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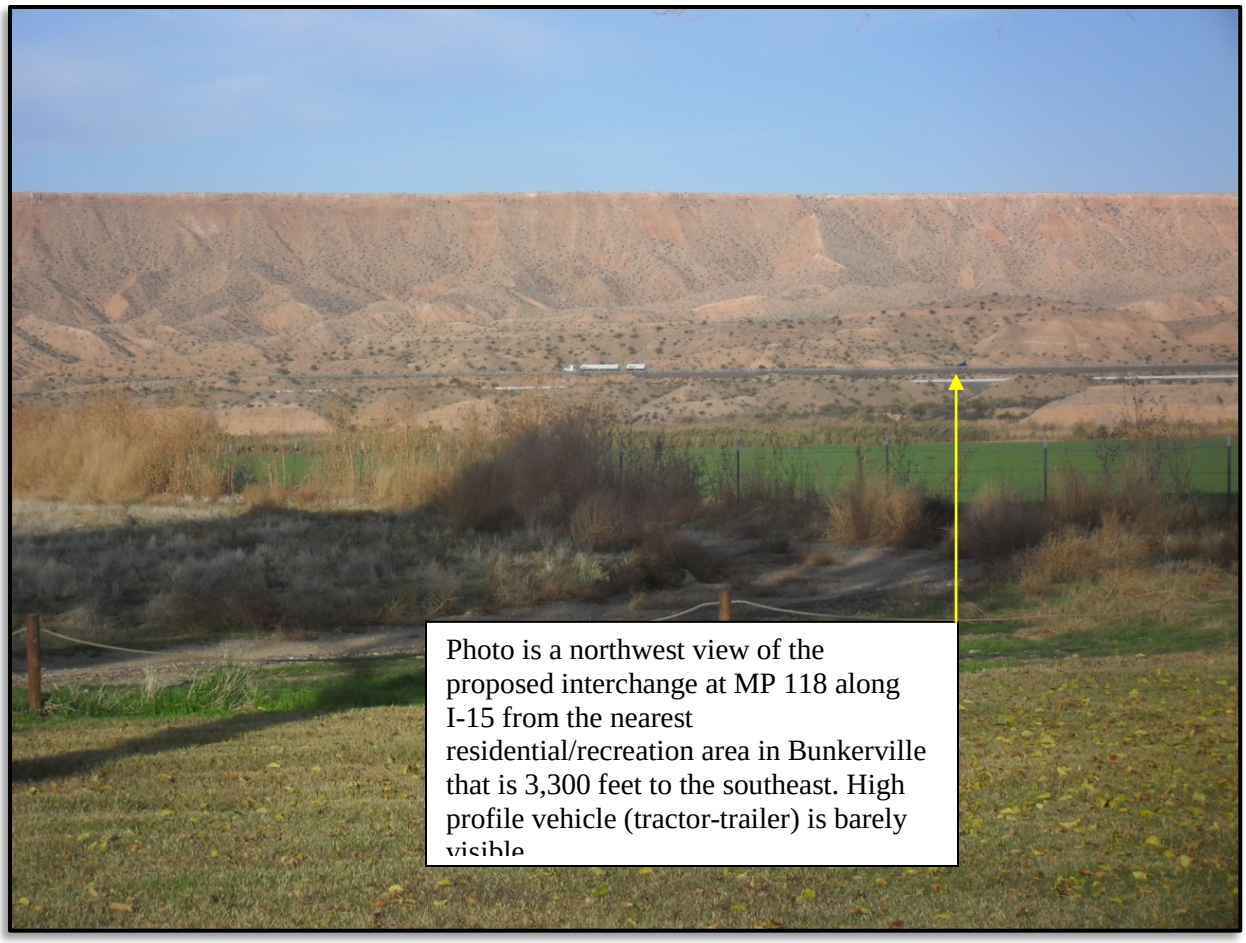
### 3.11.1.2 Key Observation Points

Typical views at two key observation points (KOPs) were selected to represent different types of views (Figure 18). These areas were selected because they are the closest areas of residential development within the visual resources evaluation area. Representative photos of the views at each KOP were taken and are described below.

#### 3.11.1.2.1 KOP 1

KOP 1 is located near residential and community/recreation (Bunkerville Library and Thomas Leavitt Memorial Park) land use on the northern edge of the town of Bunkerville approximately 3,300 feet southeast from the center of the proposed interchange bridge (highest point). Foreground views to the northwest include agricultural fields (Photo 1 taken from the nearest residential/recreation area to the southeast). Although the Virgin River is just beyond the fields, due to topography it is not visible. Background views of the project area looking north include rugged terrain and farther west include Flat Top Mesa in the distance.

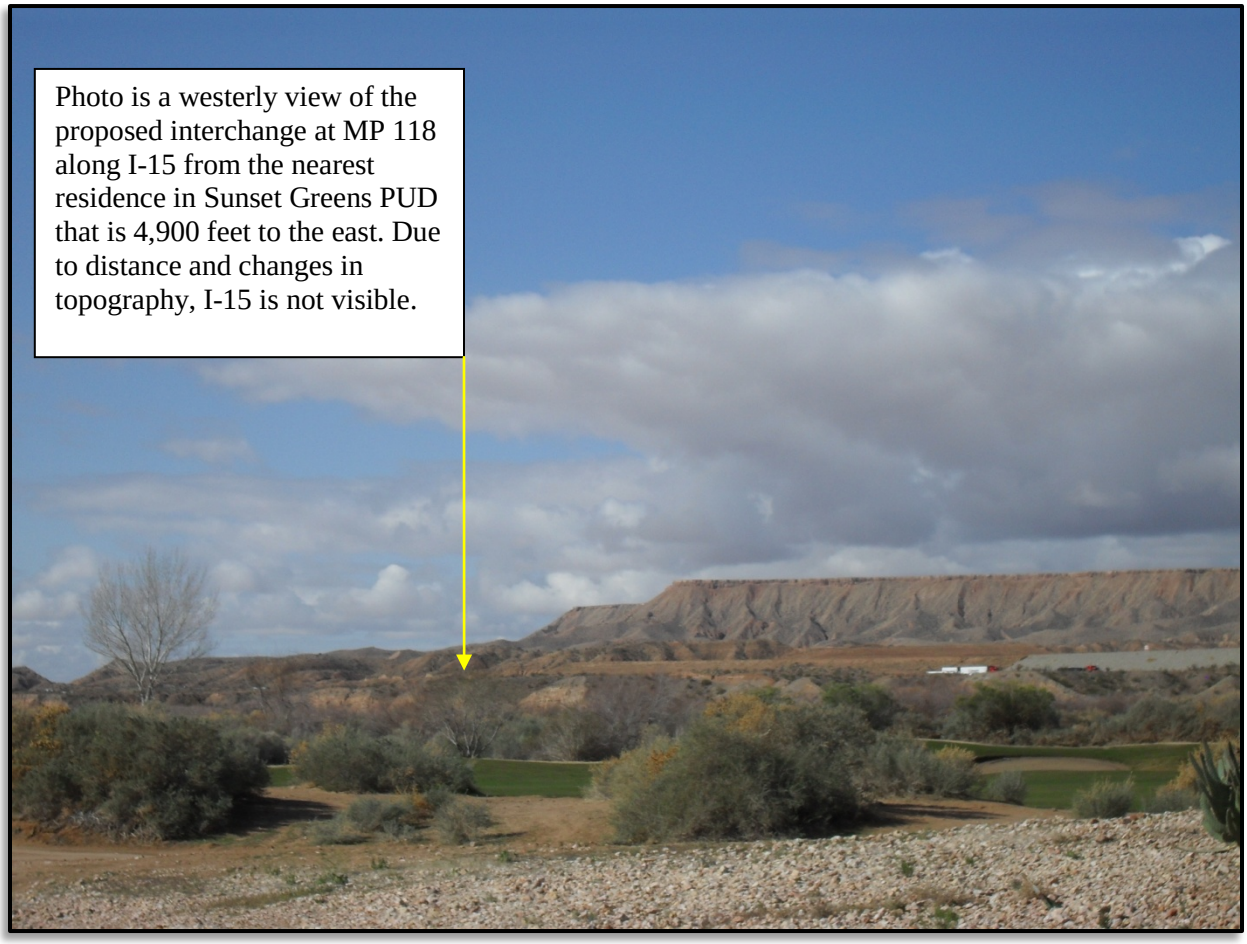
**Photo 1. KOP 1**



#### 3.11.1.2.2 KOP 2

KOP 2 is located at the western edge of the Sunset Greens PUD approximately 4,900 feet from the center of the proposed interchange bridge (highest point). The Sunset Greens PUD is surrounded by the CasaBlanca golf course. Foreground views from KOP 2 include the surrounding golf course (Photo 2 from the nearest residential area to the east). Although the Virgin River is just beyond the course, due to topography it is not visible. Background views of the project area looking west include rugged terrain and farther west include Flat Top Mesa in the distance.

**Photo 2. KOP 2**



## 3.11.2 Impacts

Impacts to visual resources consist of the amount of visual change near the project area and the effects of these changes on viewers who would see those changes. Certain land uses, including residential and recreation areas and publicly used lands, are considered to be more sensitive to visual changes.

Ratings for describing the levels of project impacts on the visual assets at or near each KOP are described in Table 13. The final impact ratings for each alternative take into consideration the impacts from the project alternatives, any planned mitigation measures, and the sensitivity of the viewer types near that KOP to changes in their visual environment.

**Table 13. Visual Impact Ratings**

| Impact | Definition |
|---|---|
| High | Indicates major changes to visual resources including the introduction of structures that obstruct scenic vistas or the removal of mature vegetation that provides landscape character. |
| Moderate | Indicates noticeable changes to visual resources such as the introduction of major elements into the existing landscape that obstruct or alter existing scenic vistas. Mitigation methods could be used to reduce impacts. |
| Low | Indicates minor changes to visual resources such as the introduction of elements in areas where existing transportation or utility facilities are located. |
| None/Negligible | Indicates no impact or negligible impact to visual resources or viewing conditions. |

### 3.11.2.1 No Build Alternative

#### 3.11.2.1.1 Temporary Construction Impacts

With the No Build Alternative, the MP 118 Interchange Project would not be built. Lower Flat Top Parkway and I-15 near MP 118 would remain in their current configurations. However, temporary light industrial and commercial construction (none/negligible impacts) would continue to occur in the visual resources evaluation area, which would result in typical construction views: cleared and graded parcels, construction equipment, construction fencing, and construction materials.

#### 3.11.2.1.2 Long-Term Impacts

The long-term visual impacts of the No Build Alternative would come from continued commercial and light industrial development (low impacts), especially of the MTCC. With or without the MP 118 Interchange Project, views near Lower Flat Top Parkway and from I-15 would change as development of the MTCC occurs. Most of the undeveloped land northwest and north of I-15 surrounding the visual resources evaluation area is planned for development in the City's land-use element of the Master Plan (*Section 3.1, Land Use*). Because the infrastructure is already in place in support of the MTCC, it's reasonable to assume that the

current types and rates of land use and development would continue with or without the proposed project, and the area would be fully developed by 2026. Given these assumptions, the views in the visual resources evaluation area would also continue to change to those of a more urban environment with or without the proposed project. The long-term visual effects of the No Build Alternative would be low.

### 3.11.2.2 Build Alternative

#### 3.11.2.2.1 Temporary Construction Impacts

Visual effects resulting from the construction of the proposed project are considered short-term and would include the implementation of mitigation measures (for example, dust abatement and phased construction) intended to minimize effects to the aesthetic environment. During construction, large equipment, vehicles, and materials would be present and visible on the project site. However, the closest neighborhoods are 3,300 to 4,900 feet away and construction activities are common in Mesquite, so the visual effects of construction are likely to be none/negligible.

#### 3.11.2.2.2 Long-Term Project Impacts

The proposed project approach roadway and bridge would have a low visual impact and would not substantially alter the existing scenery in the project area. The new interchange ramps would be directly adjacent to the highway; therefore, these improvements would be consistent with existing typical highway environment and similar to the other two freeway interchanges in Mesquite at Exit 120 (West Mesquite) and Exit 122 (East Mesquite) and would have none/negligible visual impacts. Existing lights in the visual resources evaluation area include streetlights and lights from distant neighborhoods (3,300 to 4,900 feet away) and existing businesses in the light industrial area. Nighttime lighting levels in the visual resources evaluation area are expected to increase over time due to future planned commercial and light industrial development in the area. The addition of new interchange lighting fixtures as part of the Build Alternative would not substantially change the existing lighting conditions in the project area and would have none/negligible visual impacts.

#### 3.11.2.2.3 Impacts at Specific KOPs

***KOP 1***

The center of the proposed project bridge (about a 30-foot elevation increase above the existing I-15 elevation) would barely be visible to residents in Bunkerville, which is about 3,300 feet south from the center of the proposed highway bridge (highest point). Based on the views shown in Photo 1, a new bridge over the highway would introduce a new vertical structure onto the highway but would not stand alone on the horizon because of the area's topography, including the steep, rugged terrain on the north side of I-15, and because of its north-south orientation. Therefore, the bridge would have a low visual impact. The new grade-separated interchange, ramps, and roadway improvements would not alter the foreground views for KOP 1 looking northwest toward the proposed interchange. Given the distance of the nearest residents in Bunkerville to the proposed project area, the overall project would have low visual impacts. For drivers along I-15, the proposed highway

modifications and highway bridge would be consistent with other interchanges along I-15 in Mesquite and would have none/negligible visual impacts.

***KOP 2***

The center of the proposed project bridge (about a 30-foot elevation increase above the existing I-15 elevation) would barely be visible at a few residences in the western portion of Sunset Greens PUD, which is about 4,900 feet from the center of the proposed highway bridge (highest point). Based on the views shown in Photo 2, a new bridge over the highway would introduce a new vertical and somewhat horizontal structure onto the highway but would not stand alone on the horizon because of the area's topography, including the steep, rugged terrain on the north side of I-15. Therefore, the bridge would have a low visual impact. The new grade-separated interchange, ramps, and roadway improvements would not alter the foreground views for KOP 2 looking southwest toward the proposed interchange. Given the distance of the nearest residents of the Sunset Greens PUD in Mesquite to the proposed project area, the overall project would have low visual impacts. For drivers along I-15, the proposed highway modifications and highway bridge would be consistent with other interchanges along I-15 in Mesquite and would have none/negligible visual impacts.

## 3.11.3 Mitigation

### 3.11.3.1 No Build Alternative

No mitigation is required since no impacts to visual resources are associated with the No Build Alternative.

### 3.11.3.2 Build Alternative

Visual impact mitigation measures are intended to reduce the impact of the proposed project within the existing landscape. Some mitigation measures will be incorporated into the final design of the bridge and roadways, and context-sensitive solutions (such as those listed below) can be sought to minimize impacts on natural resources. The overall goal of mitigation methods is to visually blend the proposed project with the environment and provide a sense of visual integration. The I-15 transportation corridor and project area are included in NDOT's Landscape and Aesthetics Corridor Plans (I-15: Speedway to Mesquite [Mojave High Desert Landscape Design Segment]). Mitigation for visual impacts will include following the Corridor Plan's visual guidelines and design recommendations for the area:

- Selecting finish, color, and surface patterns to coordinate structures with the surrounding landscape
- Applying a consistent color palette for all structures
- Incorporating transportation art motifs
- Creating visual design unity among all highway structures and facilities

Replacing, repairing, or improving any disturbance to vegetated areas such as restabilizing disturbed soils and generally restoring or improving natural resources that have been disrupted will also mitigate aesthetic conditions. Reducing earthwork contrasts by retaining

rocks, trees, and shrubs and adding mulch or topsoil and repairing any disruption to existing drainages will also help relieve visual changes.

# 3.12 Hazardous Materials

The hazardous materials evaluation area consists of a 1-mile buffer zone surrounding the project area (described in *Section 1.5, Project Location* from its center point (COM 2011c). A Phase I Environmental Site Assessment (ESA) for the proposed project was completed for the hazardous materials evaluation area in May 2010. The ESA was designed to generally comply with the level of documentation recommended in the American Society for Testing and Materials (ASTM) standard (ASTM E 1527-05) for the performance of a Phase I ESA. Deviations from the ASTM standard include the deletion of certain records sources determined to be inapplicable or of limited value to the specific needs of this project. The completed ESA may be used for future applications per the ASTM Standard and as deemed appropriate by NDOT. Typically, the ESA process would include interviews with specific site property owners, business operators, or public officials. However, due to the lack of regulatory listings and development within the project area, no interviews were conducted.

Land use within the hazardous materials evaluation area consists of mostly undeveloped land, with light industrial/commercial facilities located northeast of the hazardous materials evaluation area and residential developments located to the southeast. I-15 was constructed in the late 1950s but was expanded to its current configuration by 1980. The light industrial/commercial and residential developments in the hazardous materials evaluation area have been present since about the early 2000s.

## 3.12.1 Existing Conditions

### 3.12.1.1 Hazardous Materials Sites Listed in Environmental Databases

A database search was performed by EDR on May 4, 2010, and included federal, state, local, and tribal databases as well as EDR proprietary databases, as defined by ASTM E 1527-05 (COM 2011c). The EDR report identified one Emergency Response Notification System (ERNS) environmental record for a site located about 1 mile southeast of the proposed project area at 1 Main Street. The ERNS record ID 2004719838 indicates a reported release of oil or other hazardous substances.

### 3.12.1.2 Hazardous Materials Sites Reconnaissance Survey

On May 10, 2010, a site reconnaissance of the hazardous materials evaluation area was conducted. The proposed location for the Lower Flat Top Parkway portion of the proposed project was viewed on a field visit to the property and consisted of undeveloped land. The proposed location of the construction staging area for the project was viewed from the western terminus of Pioneer Boulevard and consisted of undeveloped land that had previously been leveled. No pits, ponds, lagoons, or other indications of buried or large-scale hazardous material use or disposal were identified during the site reconnaissance.

## 3.12.2 Impacts

### 3.12.2.1 No Build Alternative

Under the No Build Alternative, the MP 118 Interchange Project would not be built. Therefore, no impacts or disturbances to potentially hazardous materials sites would occur from improvements made as part of the project. In addition, there would not be any impacts from the handling of hazardous materials or substances, such as contaminated soils, associated with the No Build Alternative.

### 3.12.2.2 Build Alternative

The EDR report identified one environmental record for a site (release of oil or other hazardous substance) located about 1 mile southeast of the proposed project area at 1 Main Street. FHWA and NDOT determined that, based on the distance of the site from the project area and the nature of the listing, the site is not considered to be of concern to the proposed project, and therefore no impacts to this site are expected.

## 3.12.3 Mitigation

### 3.12.3.1 No Build Alternative

No mitigation is required, since no impacts to or resulting from the handling of hazardous materials and/or substances, such as contaminated soils, and no construction and/or disturbance of corridor study areas are associated with the No Build Alternative.

### 3.12.3.2 Build Alternative

Construction contractors will immediately stop all subsurface activities if potentially hazardous materials are encountered, an odor is identified, or significantly stained soil is visible. Contractors will follow all applicable regulations regarding discovery and response for hazardous materials encountered during the construction process.

# 3.13 Mobility, Access, and Safety

This section addresses mobility, access, and safety for trucks, vehicles, bicycles, and pedestrians. The evaluation area for mobility, access, and safety includes the project area shown in Figure 1, the MP 120 interchange, Falcon Ridge Parkway near I-15, and the area just north of I-15 on both the east and west sides of Lower Flat Top Parkway.

## 3.13.1 Existing Conditions

### 3.13.1.1 Transportation

As discussed in *Section 1.4, Need for the Proposed Project*, I-15 provides a vital transportation corridor for local residents as well as for interstate trucking. Currently, Mesquite is served by two freeway interchanges on I-15. These are Exit 120 (West Mesquite) and Exit 122 (East Mesquite). Another interchange farther west is accessible at Exit 112

(Riverside). In 2010, the average annual daily traffic (AADT) along the I-15 corridor in the study area around the existing Exit 120 interchange was 17,000, and this is projected to increase to approximately 32,000 AADT in 2034 (COM 2011a). Based on the most recent truck data, the truck percentage in the evaluation area on I-15 is approximately 25%. The improvements that are currently being constructed are expected to improve the interchange operations to LOS A but would begin to fail sometime between year 2024 (LOS C) and year 2034 (LOS F).

#### 3.13.1.2 City of Mesquite Master Plan Transportation Element

The City of Mesquite Master Plan's Transportation Element has a goal to maintain a transportation system that provides safe routes for people, goods, and services and is consistent with the character of the area being served (COM 2009a). The Transportation Element proposes new interchanges at MP 118, MP 115, and MP 109 (Figure 2). Mohave County, Arizona, is also encouraged to pursue Arizona freeway access near MP 3. According to the Transportation Element, future interchange access would be essential to the long-term viability of Mesquite and would create incentives for loop roads that divert traffic to and from Las Vegas, Arizona, and St. George, Utah. The Transportation Element further says that, without alternate routes around the city, Mesquite could face significant traffic congestion at the freeway access points.

#### 3.13.1.3 City of Mesquite Master Plan Land Use Element

Most of the land within the mobility, access and safety evaluation area is undeveloped except for the transportation facilities associated with I-15 (Figure 3). The land use surrounding the proposed MP 118 interchange is designated as light industrial. Recent developments built within close proximity to the proposed MP 118 interchange include small manufacturing and service related businesses, a distribution center, and several hundred acres of prepared building sites within the MTCC.

#### 3.13.1.4 Mesquite Technology and Commerce Center (MTCC)

The MTCC is located immediately north of I-15 and east of Lower Flat Top Parkway. The MTCC opened in 2004 and is identified in the Mesquite Master Plan for continued development. As the MTCC continues to develop, there would be more truck and vehicle traffic accessing the area north and east of the proposed new MP 118 interchange. Much of the anticipated truck traffic would come from out of state and would use I-15 to access the MTCC. Currently, there are two travel lanes along I-15 in both the northbound and southbound directions. Full-access interchanges are located about 6 miles to the south at MP 112, 2 miles to the north at MP 120, and 4 miles to the north at MP 122.

#### 3.13.1.5 Regional Transportation Commission of Southern Nevada

The Regional Transportation Commission of Southern Nevada (RTCSNV) is anticipating increased local bus service to the city of Mesquite as well as to areas surrounding the city. Currently, two Silver Rider bus routes serve the city. Falcon Ridge Parkway, which connects to I-15 at MP 120, is a key road used by both bus routes.

#### 3.13.1.6 City of Mesquite Master Plan Parks, Trails and Open Space Element

A recreational trail is located north and west of the proposed new interchange (Figure 10). This trail, named the Joshua Tree Trail, has both improved and unimproved surfaces and can accommodate equestrian, walking, hiking, bicycling, and some off-highway vehicle (OHV) uses. According to the City of Mesquite's Master Plan's Parks, Trails, and Open Space Element Map (COM 2008), there are future trail connections proposed on West Pioneer Boulevard (Woundfin Trail) and adjacent north of I-15 (community trail). The continuation of trails along transportation corridors would help provide accessibility to citizens and tourists for recreation and tourism. One of the Policy/Actions associated with the Master Plan Element is to identify and plan for access points and acquire easements for trails with new development. Sidewalks, bicycle lanes, and trails are intended to improve safety and roadway conflicts with bicyclists/pedestrians and vehicles.

## 3.13.2 Impacts

### 3.13.2.1 No Build Alternative

Under the No Build Alternative, increased traffic generated from developing areas near MP 118 would be forced to continue to use the Exit 120 interchange, which would lead to unacceptable congestion and a reduced level of service at this interchange. If a new interchange is not constructed at MP 118, the intersection of Falcon Ridge (Exit 120) with the I-15 on and off ramps is expected to operate at LOS F during the 2034 PM peak hour. This reduced level of service could exacerbate current safety issues at the MP 120 interchange (COM 2011a).

### 3.13.2.2 Build Alternative

With the Build Alternative, a new interchange would be constructed at MP 118. This new interchange would be constructed to be consistent with the City of Mesquite Master Plan Transportation Element and to accommodate the future expected transportation demand, so the interchange would operate at an acceptable level of service of LOS B or better. The Build Alternative would provide new vehicle and truck access to I-15, the intersection of Lower Flat Top Parkway and West Pioneer Boulevard, and proposed development north of I-15 near MP 118.

The proposed Exit 118 interchange would serve as the primary freeway access for industrial and residential developments in the area and would also provide access to the West Pioneer Boulevard extension. The new interchange would provide regional access to existing and planned development and would reduce travel and traffic volumes by distributing traffic more evenly in the broader project area. Reduction in traffic volumes would result in improved operations and safety levels.

In addition, the Build Alternative would include a 10-foot-wide, ADA-compliant sidewalk on the south side of the road on Lower Flat Top Parkway and two 5-foot-wide bicycle lanes (one in each direction) immediately adjacent to the outer vehicle travel lanes. These facilities would provide pedestrian and bicycle access to the area north of I-15 near MP 118 and to the Joshua Tree Trail and could improve safety for the users and are not intended to provide

access to the interchange or I-15 (Figure 10). The proposed interchange improvements are also expected to decrease future delays along Falcon Ridge Parkway, which serves two major bus routes in the area.

The proposed project would not only result in improved mobility for the southern and western areas of Mesquite but also would provide regional benefits. The proposed interchange at MP 118, along with roadway improvements and extensions already planned within the city, would significantly improve the mobility for residents, commuters, and interstate commerce in the area in a safe manner.

### 3.13.3 Mitigation

#### 3.13.3.1 No Build Alternative

There are mobility, access, and safety issues that are anticipated under the No Build Alternative, and the proposed mitigation is implementation of the Build Alternative.

#### 3.13.3.2 Build Alternative

Impacts to mobility, access, and safety associated with the Build Alternative would be beneficial. A transportation management plan will be developed and specified in contract documents to maintain traffic safety and access on I-15 during construction. All construction traffic-related impacts will be minimized to businesses whenever possible, ending upon completion of the project. The contractor will coordinate with the City of Mesquite and NDOT to minimize access impacts and construction concerns.

## 3.14 Section 4(f) Resources

Section 4(f) (49 USC 303) of the Department of Transportation Act (DOT Act) of 1966 applies to publicly owned parks, recreation areas, and wildlife and waterfowl refuges and publicly or privately owned significant historic properties. The requirements of Section 4(f) apply only to agencies within the U.S. Department of Transportation (USDOT) (for example, FHWA, the Federal Transit Administration, and the Federal Aviation Administration).

Section 4(f) prohibits FHWA from approving transportation projects that use land from public parks, recreation areas, wildlife refuges, or land containing historical sites of local, state, or federal significance unless (1) there is no feasible and prudent alternative and (2) the project includes all possible planning to minimize harm to these resources (49 USC 303).

If resources protected by Section 4(f) are involved in a project's planning, a determination whether there is a "use" of those resources is required. "Use" of resources protected by Section 4(f) takes place when the following conditions are present:

- Resource land is permanently incorporated into the transportation project.
- There is a temporary occupancy of land that is adverse in terms of Section 4(f)'s preservation purpose as determined by the criteria in §774.13(d), which is a subsection of Section 4(f).
- There is a constructive use of a Section 4(f) property as determined by the criteria in §774.15, another subsection of Section 4(f). Constructive use occurs when the transportation project does not incorporate land from a Section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the resource are substantially diminished.

For each Section 4(f) resource, FHWA makes one of the following findings:

- No use
- *De minimis* use
- Use; not *de minimis*

**No Use.** A finding of "no use" is made when an alternative *avoids any direct physical impact on a Section 4(f) property and there would be no constructive or temporary use*. For historic properties, this Section 4(f) finding of "no use" corresponds to a finding of "no effect" or "no historic properties affected" for the Section 106 process.

***De Minimis* Use.** A finding of "*de minimis use*" is made when an alternative involves *a direct physical impact on a Section 4(f) resource but no adverse effect on the significant qualities of the resource*. In general, a finding of *de minimis* use requires a determination that the project would have no adverse effect on the protected activities, features, or attributes of the resource. For historic properties, this Section 4(f) finding of "*de minimis use*" corresponds to a finding of "no adverse effect" for the Section 106 process.

**Use; Not *De Minimis*.** A finding of "use; not *de minimis*" is made when an alternative involves a direct physical impact on a Section 4(f) resource and that impact would cause an adverse effect on the significant qualities of the resource. This also includes temporary use or constructive use. This is the type of use that can be approved only if FHWA finds that (1) there is no prudent and feasible alternative to the use of the resource and (2) the project includes all possible planning to minimize harm. For historic properties, this Section 4(f) finding of "use" corresponds to a finding of "adverse effect" for the Section 106 process.

## 3.14.1 Existing Conditions

There are no public parks, designated recreation areas, or wildlife refuges within or immediately adjacent to the project area. As described in *Section 3.8, Cultural Resources*, eight historic properties—seven prehistoric archaeological sites and one historic Paiute archaeological site—were identified within the project's area of potential effects (APE). No historic buildings or structures were present in the APE.

## 3.14.2 Impacts

### 3.14.2.1 No Build Alternative

The No Build Alternative would avoid the use of any Section 4(f) resources because it would not involve construction of any transportation improvements.

### 3.14.2.2 Build Alternative

No impacts to public parks, designated recreation areas, or wildlife refuges are anticipated as a result of the Build Alternative.

Seven of the eight archaeological sites identified in the MP 118 Interchange Project APE were determined to be eligible for listing on the National Register of Historic Places (NRHP) under criterion D for their information potential. Archaeological sites that might be eligible for the NRHP only under Criterion D are exempt from Section 4(f) evaluation [23 CFR 774.13(b)(1)].

Further, because all seven of the NRHP-eligible archaeological sites would be avoided by the project, FHWA determined that a finding of "no historic properties affected" was appropriate for the proposed project. The SHPO concurred with this finding on October 26, 2011 (Appendix H). Therefore, there would be *No Use* under Section 4(f) of any historic properties resulting from the MP 118 Interchange Project.

## 3.14.3 Mitigation

### 3.14.3.1 No Build Alternative

No impacts to Section 4(f) resources are anticipated as a result of the No Build Alternative, so no mitigation is required.

### 3.14.3.2 Build Alternative

No impacts to Section 4(f) resources are anticipated as a result of the Build Alternative, so no mitigation is required.

# 4.0 Indirect Effects

This section evaluates the potential indirect effects of the Build Alternative identified in *Section 2.0, Alternatives*. For this project, the primary indirect effect associated with this type of transportation project would be changes to land use and their consequent environmental impacts.

**Indirect Effects Evaluation Area.** The indirect effects evaluation area is the area where improved access from the Build Alternative could induce development, thereby changing existing land uses and converting existing undeveloped land to developed land. Generally, interchanges from freeways can attract highway-oriented commercial uses within 1 mile to 2 miles and residential uses within 5 miles if travel connections are good. However, for the proposed project, the project effects would likely be limited by the natural barriers of I-15 to the south and the Flat Top Mesa to the north, so these features were used as the southern and northern limits of the indirect effects evaluation area. Development to the east of I-15 would likely be influenced by I-15, and the potential influence of the MP 118 interchange would be difficult to discern from that associated with I-15, which has been the dominant transportation facility in the area. Moreover, development south of the city of Mesquite is constrained by the Virgin River and the rugged terrain. The evaluation area for the indirect effects analysis is the area of influence (AOI) shown in Figure 19.

## 4.1.1 Regulatory Overview

The Council on Environmental Quality's (CEQ) regulations for implementing NEPA require that an EA analyze the direct and indirect effects of the proposed action. *Indirect effects* are defined by the CEQ regulations (40 CFR 1508.8) as effects that are caused by the proposed action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects can include growth-inducing effects and other effects related to the induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Federal agencies such as CEQ and FHWA have stated that there is no prescribed specific technique or method that must be used to analyze the indirect effects of transportation projects but they often refer to a specific technical guidance document (FHWA 1992). A national survey of recently completed NEPA documents (ICF 2005) found that a wide range of methods are being used to evaluate indirect effects.

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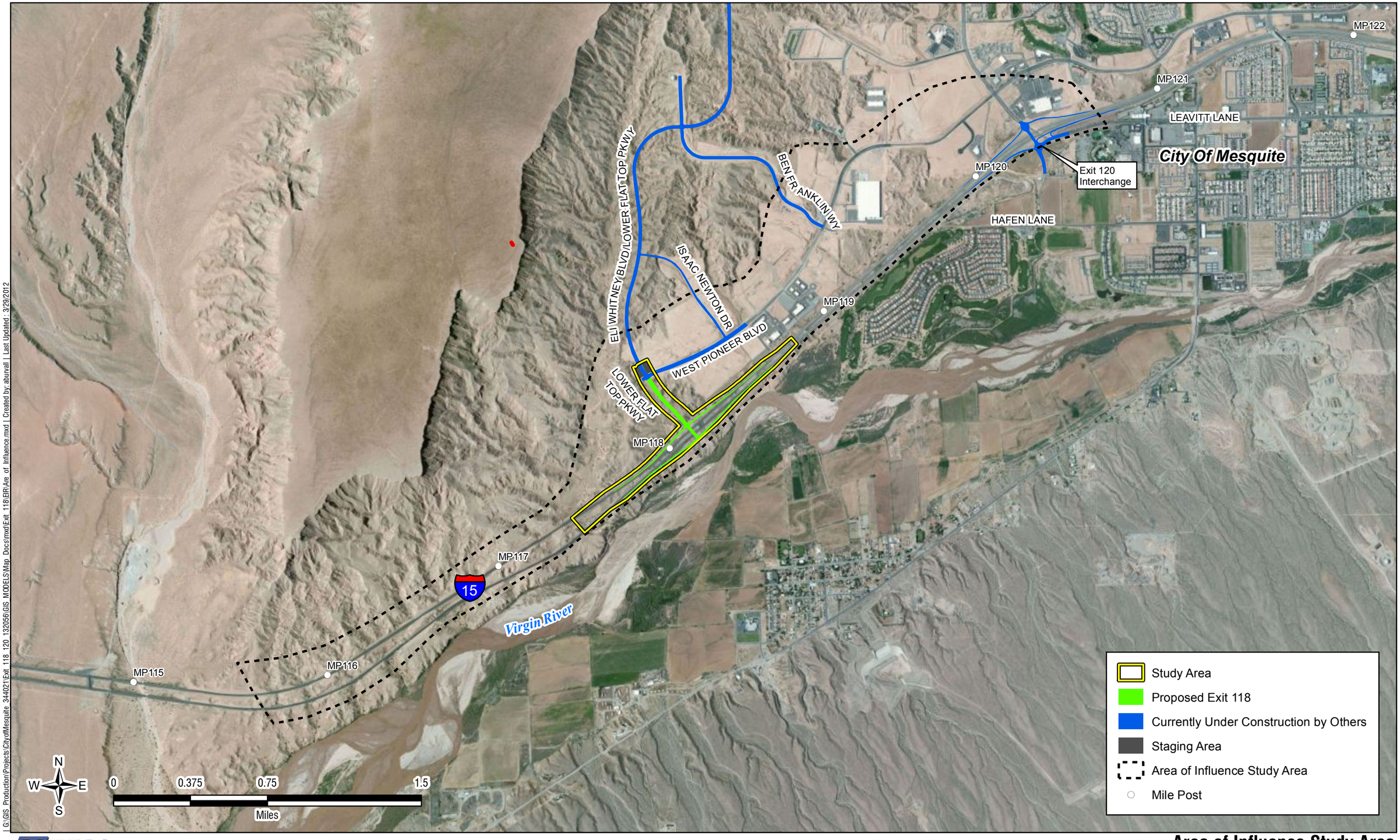


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**Area of Influence Study Area**
**Figure 19**
I-15 Proposed Interchange at MP 118 Project

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Indirect effects involve changes in the rate, intensity, location, and/or density of land development. Indirect effects to natural resources would typically be caused when undeveloped and partially developed land that contains such natural resources is converted to residential, industrial, commercial, or governmental land uses. For this project, indirect effects are defined as those that could result from the project beyond direct impacts to property and resources within the project ROW and the construction footprint. In this analysis, indirect effects are primarily the effects caused by land development that could occur due to the improved accessibility and mobility in the area that is influenced by the project. In addition to induced development, potential indirect effects associated with alteration and encroachment were evaluated. This section evaluates the effects of habitat alteration and encroachment of development on natural resources beyond the project ROW.

### 4.1.2 Methodology

Evaluating the indirect effects of transportation projects is a complex task. An indirect effects analysis involves evaluating how a given project could influence land-use patterns over a 20- to 30-year period. Land-use patterns are the product of interdependent decisions by numerous parties including local elected officials, local planning staff, developers, citizens, regional planning authorities, transportation agencies, and many other public and private entities. Moreover, land-use patterns are strongly affected by economic and demographic forces that are beyond the control of governmental authorities.

The indirect effects analysis was based on valid insight gained from planning officials with the City of Mesquite regarding the indirect effects evaluation area as well as available Master Plan elements, City resolutions, and current and projected economic conditions. Conversations between project team members and City officials yielded specific information about planned land-development projects, reasonably foreseeable development patterns, the potential impact of transportation planning decisions on future growth trends, and the degree to which future development and real estate investment decisions were related to the project.

These officials were asked how the indirect effects evaluation area would develop differently under the No Build Alternative compared to the Build Alternative. The expected land uses with the No Build Alternative were then compared to those with the Build Alternative, and the difference between these alternatives would be the indirect impacts associated with the proposed project.

## 4.2 Affected Environment

The affected environment in the indirect effects evaluation area includes a combination of undeveloped land, commercial/industrial uses, and residential uses. The land use designations within the immediate vicinity of the proposed project area include Industrial-Light, a designation intended to provide for light manufacturing and research uses. Slightly to the north and west of the proposed project area, a swath of land is designated as Parks, Recreation, and Open Space. This designation is intended to provide for temporary and permanent open spaces in the community. The land within the indirect effects evaluation area is affected mainly by the decisions of the City of Mesquite and BLM.

# 4.3 Planned Development and Development Potential in the AOI

The following sections summarize the planned development and the development potential within the AOI around the proposed Build Alternative. This information is provided to better understand and evaluate the potential indirect effects of this alternative.

## 4.3.1 Planned Development

Land use currently within the AOI is mostly undeveloped. According to the City of Mesquite's Planned Unit Development (PUD) and Subdivision Reference Map (dated February 2, 2011), several major PUDs are planned within the AOI to the north of I-15. Although the type and overall acreage of development associated with the PUD would not change with the project, the project could cause the development to occur earlier than planned.

The City of Mesquite has designated the area on the north side of I-15 as Industrial-Light. The Industrial-Light designation is intended to provide for light manufacturing and research uses in locations that are suitable based on adjacent land uses, access to transportation, and the availability of public services and facilities. Light-industrial uses are typically located in planned business and industrial parks and in areas near other commercial development with adequate separation from low-density residential areas (COM 2010a).

There is an area to the north and west of the proposed interchange designated as Parks, Recreation, and Open Space. This designation is intended to provide for temporary and permanent open spaces in the community, to prevent irreversible environmental damage to sensitive areas, and to safeguard the health, safety, and welfare of people by limiting development in areas where police and fire protection, protection against stormwater flooding, or other services cannot be provided without excessive cost to the community.

Based on conversations with City of Mesquite planners, the general land uses shown in the Land Use and Zoning Map within the indirect effects evaluation area would be the same with or without the proposed project (HDR 2011).

## 4.3.2 Development Potential

Mesquite has experienced significant growth over the last 10 years. According to the City of Mesquite Population Element (COM 2009b), population in the greater Mesquite area is expected to continue to grow from 24,800 in 2011 to 87,000 in 2035. Within the AOI, this growth would result in substantial changes to the undeveloped nature of the land uses. As shown in Figure 3, the land surrounding the project area has or would contain numerous small manufacturing and service-related businesses, a distribution center, several hundred acres of prepared building sites, residential developments, a sport and event complex, and a casino resort hotel.

To address this population growth and development, the City of Mesquite's Transportation Element of the Master Plan (COM 2009a) includes a future interchange at MP 118 to provide additional access to and from this area and to alleviate congestion at the Exit 120 interchange. The proposed project is concerned with improving transportation system linkages that would

support planned residential and commercial growth; the area around Exit 118 is intended for industrial use and would ease the burden on Exit 120, which is meant to serve residential traffic. The new interchange provides a direct connection on I-15 from the industrial area, thus resulting in decreased truck traffic on surface streets and reducing conflicts with automobile and truck traffic at Exit 120.

As part of an effort to diversify Mesquite's economy from a heavy dependence on seasonal tourism, the City of Mesquite developed the MTCC, a 660-acre planned industrial and commercial park that is considered a Special District in the Land Use Element of the Master Plan (COM 2010a). Located between I-15 and West Pioneer Boulevard and within the AOI, the MTCC is intended to provide for light manufacturing and research uses that would generate jobs and economic growth for the city. Land for the MTCC was included in the City of Mesquite's public land purchase of 10,260 acres from BLM in 2003. The land purchase included an approved environmental assessment (BLM 2002) that indicated that the City proposed to use the lands to promote future urban development.

Upon completion of the land sale, the City would sell and/or lease designated parcels to prequalified developers for use in establishing master-planned residential and mixed-use commercial developments that are consistent with the City's goals for the area. Infrastructure is already in place for the MTCC. The majority of the undeveloped land within the AOI (other than land uses designated as Industrial-Light and Parks, Recreation, and Open Space) is designated as areas for future development, and the City of Mesquite expects these areas to develop in the future regardless of whether or not the proposed project is constructed. The proposed Build Alternative is not expected to induce growth beyond that which is already forecasted, but the alternative could change the rate at which the development occurs.

## 4.4 Potential Indirect Effects

Based on review of the City of Mesquite Master Plan elements along with valid input from the local planners on current and projected economic conditions, the proposed project would increase the rate at which previously planned development in Mesquite occurs rather than induce new development (HDR 2011). Because the proposed project is not expected to induce growth, only to change the timing of growth, indirect effects are not anticipated to the social environment, including community cohesion, quality of life, recreational resources, community facilities, economics, public safety and security, public facilities and services, and minority and low-income populations; bicycle and pedestrian resources; air quality; floodplains; hazardous waste sites; or visual resources.

Potential indirect effects on land use, hydrology and water quality, the water quality of wetlands and jurisdictional waters of the U.S., biological resources and sensitive species, cultural resources, noise, and mobility, access, and safety are discussed in the following sections.

### 4.4.1 Land Use

Based on the local planners' input, it is likely that the proposed project would increase the rate at which the undeveloped land in the indirect effects evaluation area is developed in the foreseeable future. As described in *Section 4.3, Planned Development and Development Potential in the AOI*, this development would convert undeveloped land to primarily light

industrial and research uses. Although the Build Alternative is not anticipated to open up any major new areas to development or induce changes in land use types and densities within the AOI, the timing of development could change. This development would occur with or without the proposed interchange. It is reasonable to assume that improved access to the MTCC provided by the proposed interchange could be viewed by potential developers as an asset and could increase the rate at which the planned growth within the MTCC occurs.

If land use does change from undeveloped land to developed uses consistent with land-use plans and future zoning, this is not considered to be an adverse effect. Given that the proposed project would enhance the opportunities for development in Mesquite, it would not cause adverse indirect effects to land use. The land-use changes in the indirect effects evaluation area would occur with or without the project; therefore, the conversion of undeveloped areas would not be a result of the indirect effects of the proposed project.

### 4.4.2 Hydrology and Water Quality

Although the extent and nature of potential development in the AOI is unknown, future development—and the rate at which it occurs—could result in some adverse indirect effects to water resources through degradation of surface water and groundwater. In addition, future development could increase groundwater withdrawals as municipal water demand increases to support the operation of new businesses and industry. However, the future development in the AOI would occur with or without the project; therefore, any effects to hydrology and water quality would not be a result of the indirect effects of the proposed project.

### 4.4.3 Wetlands and Jurisdictional Waters

According to input from local planners, the proposed project would enhance the opportunity for previously planned development in the AOI rather than induce new development (HDR 2011). Potential indirect effects to wetlands and WOUS could occur as a result of planned development within the AOI. Although the proposed project could facilitate an increase in the rate of currently planned development, it would not induce additional development, and this planned development would happen with or without the proposed project. Therefore, the effects to wetlands or jurisdictional waters of the U.S. would not be a result of the indirect effects of the proposed project.

### 4.4.4 Biological Resources and Sensitive Species

According to input from the local planners, the proposed project would enhance the opportunity for previously planned development in Mesquite rather than induce new development (HDR 2011). Although the project would not induce new growth, the planned development could indirectly result in the conversion of vegetation and wildlife habitat to developed uses; however, the development would occur with or without the proposed project. Therefore, any habitat conversion would not be a result of indirect effects of the proposed project. For any of the development, regardless of whether it would be facilitated by the proposed project, it would be the responsibility of the individual developers, in coordination with the appropriate state entity, to determine if their projects have the potential to affect state and federally protected species.

### 4.4.5 Cultural Resources

According to input from the local planners, the proposed project would enhance the opportunity for previously planned development in Mesquite rather than induce new development (HDR 2011). Since the proposed project is not expected to induce growth, any indirect effects to cultural resources from the project are not anticipated to be adverse. Although the project would not induce new growth, the development could indirectly result in the disturbance of additional cultural resources.

### 4.4.6 Noise

The proposed Build Alternative is not expected to induce growth beyond that which is already forecasted, but it could increase the rate at which the development occurs. Future development would increase noise levels. To the extent that this development is induced by the proposed project, the increased noise levels would be an indirect effect of the project. Noise is essentially a local physical condition, and most of the noise from the anticipated development would result from increased traffic in the indirect effects evaluation area. The proposed project is anticipated to accelerate the rate of development rather than induce additional development in the evaluation area. As a result, the potential indirect effects of noise levels are not anticipated to be adverse.

### 4.4.7 Mobility, Access, and Safety

I-15 and the existing Exit 120 interchange provide a vital transportation corridor for local residents as well as for interstate trucking within the AOI. According to the Transportation Element of the City of Mesquite Master Plan (COM 2009a), future interchange access at Exit 118 would be essential to the long-term viability of Mesquite. The Transportation Element further says that, without alternate routes around the city, Mesquite could face significant traffic congestion at the freeway access points. The existing road network was primarily designed for local residential traffic that is served by Exit 120 and is inadequate to provide freeway connectivity for the developing and expanding industrial area that would be served by Exit 118.

The new interchange provides a direct connection on I-15 from the industrial area, thus resulting in decreased truck traffic on surface streets and reducing conflicts with automobile and truck traffic at Exit 120. Furthermore, using Exit 120 will result in 2 miles of out-of-direction movement for trucks trying to access the I-15. The proposed project is anticipated to facilitate only an increase in the rate of currently planned development rather than induce additional development within the AOI. The Build Alternative is not anticipated to result in population change or redistribution but would result in improved access to and mobility within the AOI. Therefore, the potential indirect effects to the transportation network within the AOI area are not anticipated to be adverse.

# 5.0 Cumulative Effects

*Cumulative effects* include a project's direct and indirect effects as well as other actions that are not caused by the project but that in combination with the project add to the overall effect, whether adverse or beneficial, on the environment. It is the objective of the cumulative effects analysis to focus on resource issues, potential effects to these resources, and potential mitigation opportunities, where applicable. The cumulative effects analysis would determine the magnitude of the potential cumulative effects on the resources.

This cumulative effects analysis was conducted to comply with the appropriate CEQ and NEPA regulations (see *Section 1.1, Proposed Project*) and used Considering Cumulative Effects under the National Environmental Policy Act (CEQ 1997) as a guidance document. The CEQ regulations for implementing NEPA define Cumulative Effects as:

> the impact on the environment which results from the incremental impact of the [proposed] action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR 1508.7)

The cumulative effects analysis considers the magnitude of the cumulative effect on the resource health. *Health* refers to the general overall condition, stability, or vitality of the resource and the trend of that condition. Therefore, the resource health and trend are key components of the cumulative effects analysis. Laws, regulations, policies, or other factors that could change or sustain the resource trend would be considered to determine if more or less stress on the resource is likely in the foreseeable future. Opportunities to mitigate adverse cumulative effects on a stressed resource, or a resource that would continue to be stressed, would be presented.

*Considering Cumulative Effects under the National Environmental Policy Act* (CEQ 1997) was used as the basis for this analysis. The following eight steps serve as guidelines for identifying and assessing cumulative effects:

1. Identify the resources to consider in the analysis.
2. Define the study area for each affected resource.
3. Describe the current health and historical context for each resource.
4. Identify the direct and indirect impacts that could contribute to a cumulative impact.
5. Identify other reasonably foreseeable future actions that could affect resources.
6. Assess potential cumulative effects to each resource.
7. Report the results.
8. Assess and discuss mitigation issues for all adverse effects.

Resources that would not be affected (directly or indirectly) by the project are not considered in the cumulative effects analysis. Specific resources and environmental effects categories evaluated in this EA are listed in Table 14 below. The table also summarizes each resource impact, presents a determination of which resources would be carried forward and evaluated in the cumulative effects analysis, and identifies why certain resources are eliminated from the cumulative effects analysis.

**Table 14. Resources Considered in the Cumulative Effects Analysis**

| Resources and Other Topics Evaluated in the EA | | Topic To Be Included in the Cumulative Effects Analysis? | Reason Eliminated from Cumulative Effects Analysis |
|---|---|---|---|
| Land use | | No | No adverse effects to land use. |
| Socioeconomics | | No | No adverse effects to socioeconomics. |
| Title VI and environmental justice | | No | No adverse effects to environmental justice populations. |
| Hydrology and water quality | Surface waters | Yes | — |
| | Surface water quality | Yes | — |
| | Groundwater quality | No | No adverse effects to groundwater quality. |
| Floodplain | | No | No adverse effects to floodplains. |
| Wetlands and jurisdictional waters | | Yes | — |
| Biological resources and sensitive species | Vegetation and noxious weeds | Yes | — |
| | Wildlife | Yes | — |
| | State-listed species (Gila monster) | No | Gila monsters are not expected to be present within the proposed project area. |
| | State-listed species (threecorner milkvetch) | Yes | — |
| | Federally listed species (desert tortoise) | No | The study area does not include any designated critical habitat for desert tortoise, and no individuals are expected to be present. |
| | Migratory birds | Yes | — |
| Cultural resources | Historic properties | No | The seven archaeological sites within the APE that were determined to be eligible for the NRHP would be avoided. FHWA determined that a finding of "no historic properties affected" was appropriate, and the Nevada SHPO concurred. |
| Air quality | | No | No adverse effects to air quality; the proposed project could reduce existing regional impacts on air quality. |
| Noise | | No | No adverse effects to noise. |
| Visual resources | | No | No adverse effects to visual resources. |
| Hazardous materials | | No | No adverse effects to hazardous materials. |
| Section 4(f) resources | | No | No adverse effects to Section 4(f) resources. |

The cumulative effects analysis considered both geographic and temporal study limits. A study area was defined for each resource and is described in the appropriate resource subsections. Cumulative effects are determined by considering the potential cumulative effect on the health and trend of the resource within a study area. As detailed in *Section 4.0, Indirect Effects*, the AOI used for the indirect effects analysis was deemed appropriate for the development study area and analysis of cumulative land-use effects. Other study areas are resource-specific and discussed in the appropriate subsections.

## 5.1.1 Past Actions

Additionally, temporal limits were considered for the cumulative effects analysis. In 1894, six young families from nearby Bunkerville rebuilt the irrigation canal (that was destroyed by flooding in the 1880s) and established themselves permanently in the Mesquite area (COM 2009b). Soon the successful town attracted more settlers, and the name was shortened from Mesquite Flats to Mesquite. For a time, raisins were the main cash crop in the community. As the automobile grew in popularity, Mesquite entrepreneurs opened motels and campgrounds for travelers and tourists. Tourists increased the demand for agricultural products such as milk and eggs, and surpluses soon made their way to markets in Las Vegas. Dairies dominated the landscape for much of the late 20th century.

Significant changes came to Mesquite after the completion of I-15 in the 1970s. The Western Village Motel was sold in the early 1980s to become the Peppermill Hotel and Casino, later known as the Oasis. Momentum gathered in 1984 as the town incorporated and the city council began to lay plans for growth. In the early 1990s, Primex Plastics began manufacturing operations, the Virgin River Hotel opened its doors, and the Mesquite Vistas master-planned community began developing. In the next few years, other resort hotels and golf course communities were established.

Over the last 15 years, much of the residential development in Mesquite has been designed under the PUD district. The PUD land-use district establishes a character for an area and furnishes specific guidelines for development. A PUD can include any combination of permitted residential, commercial, industrial, or public uses, as specified in the adopted plan for the area. As a result, 1995 serves as the past temporal limit. The future temporal limit is 2032, which is the planning year for the proposed project. Unless noted in the following study area sections, the temporal boundaries are 1995 to 2032 for all resources.

The historical context and current condition of each resource is described and presented in the resource sections. This information is important to establish the baseline condition and trend the resource is experiencing in order to be able to estimate the magnitude of the resource effect. The historical context is first described to provide an explanation of the factors that have caused the current health of the resource. As previously mentioned, *health* refers to the general overall condition, stability, or vitality of the resource and the trend of that condition.

## 5.1.2 Present and Reasonably Foreseeable Future Actions

Land use currently within the AOI north of I-15 is mostly undeveloped, and land use to the south consists of the Sunset Greens PUD and Bunkerville. The anticipated development discussed in *Section 4.3, Planned Development and Development Potential in the AOI*, is considered the reasonably foreseeable future land-use development actions. According to the

City of Mesquite's PUD and Subdivision Reference Map (dated February 2, 2011), several major PUDs are planned within the AOI to the north of I-15. These include:

- **Desert Falls Sports Park** – a 935-acre master-planned community centered around a large sports complex with mixed-use commercial and integrated resort residential uses, located north of the MTCC, east of Flat Top Mesa and the Mesquite Regional Park, south of Anthem at Mesquite, and west of Falcon Ridge Parkway.
- **Falcon Ridge** – a 769-acre master-planned community located on the north side I-15, northwest of the town center. It is bordered on the east by the Mesquite Vistas PUD. Falcon Ridge is planned to be a mixed-use community consisting of offices, retail commercial, industrial/business park, multi-family housing, a range of single-family housing types, an 18-hole golf course, parks, and open space and trails. It has a cap of 1,100 residential units, with a density of 4.2 units per acre.
- **Highland Vistas** – a 305-acre master-planned community located generally along both sides of Hardy Way between Falcon Ridge Parkway and Horizon Boulevard. Proposed uses include single-family and multi-family housing, neighborhood commercial, parks, and open space. It has a cap of 972 residential units, with an overall density of 3 dwelling units per acre.

The rate of implementation of this PUD development might change if the proposed Build Alternative is selected and constructed, but the development would occur with or without the project.

Finally, the traffic demand model for 2032 included the following network modifications. Based on input from local officials and local planning documents, these modifications are considered reasonably foreseeable.

- Reconfiguration of Exit 120 interchange
- Completion of western extension of West Pioneer Boulevard to Lower Flat Top Parkway (formerly proposed as Eli Whitney Boulevard)
- Completion of northern extension of Lower Flat Top Parkway (formerly proposed as Eli Whitney Boulevard) from West Pioneer Boulevard to Hardy Way
- Completion of Isaac Newton Drive between West Pioneer Boulevard and northern extension of Lower Flat Top Parkway (formerly proposed as Eli Whitney Boulevard)
- Completion of Ben Franklin Way between West Pioneer Boulevard and northern extension of Lower Flat Top Parkway (formerly proposed as Eli Whitney Boulevard)

### 5.1.3 Cumulative Impacts Analysis by Resource

This section describes cumulative impacts by resource. The cumulative effects analysis considered the direct and indirect effects of the proposed project together with the effects of past, present, and reasonably foreseeable future projects. The magnitude of the cumulative effect was determined by comparing the effect to the health and trend of the affected environmental resource. Opportunities for mitigation of adverse effects, where applicable, are discussed for each resource. These are not meant to be mitigation measures that NDOT would, or has the authority to, implement. Rather, they are intended to disclose steps or

actions that could be undertaken by local, state, or federal agencies and organizations to minimize the potential cumulative effect on each resource health and trend.

### 5.1.3.1 Hydrology and Water Quality (Surface Waters)

#### 5.1.3.1.1 Resource Study Area

For the purpose of this analysis, the study area for surface waters and surface water quality includes the project study area and extends southeast to include the Virgin River.

#### 5.1.3.1.2 Historical Context and Current Health

The hydrology and water quality (surface waters) study area is located within the Western Washes Watershed of hydrographic basin 222 (Lower Virgin). Detailed descriptions of these watersheds are included in *Section 3.6, Hydrology and Water Quality*. The majority of the 5.37-square-mile watershed is undeveloped City of Mesquite land and private property.

#### 5.1.3.1.3 Project Direct and Indirect Effects

Direct effects to surface waters and water quality would be minimal to negligible for the proposed Build Alternative. Surface water impacts caused by the interchange construction would be minimal due to the implementation of BMPs (to be specified in the SWPPP) to protect the Virgin River from sediment discharges.

The Build Alternative would add an additional 11.5 acres of impervious surface in the project area, resulting in small, local increases in runoff and stormwater inputs into the Virgin River via small drainages that direct water from the project area under I-15. Stormwater would drain from the proposed bridge in curb and gutter and then into a storm drain that carries water to the Virgin River. Due to the lag time between the peak offsite runoff and the freeway/interchange runoff, the peak flow from the proposed project would have substantially subsided by the time the watershed peak occurs. This lag, coupled with the relatively small local increases in runoff, would result in inconsequential effects to surface water in the project area. Lastly, NDOT roadway and bridge design specifications include requirements to avoid, minimize, and properly address stormwater accumulation; to address stormwater runoff; and to meet state and federal water quality standards. Therefore, water quality impacts to the Virgin River are expected to be negligible.

#### 5.1.3.1.4 Effects of Other Reasonably Foreseeable Future Actions

Future development effects that would contribute to water quality degradation include increased impermeable surface and increased non-point source pollution (for example, from fertilizers, pesticides, sediments, and vehicle residues). These actions could result in increased stormwater runoff velocities and pollutant loads leading to impacts to surface waters. It is expected that future development would occur with or without the project, but the pace of development could increase.

Any existing upland ephemeral drainages that would be affected by planned development would be designed in compliance with state and local drainage and water quality

requirements, and standard BMPs would be incorporated into the design and operation of the project with concurrence from appropriate agencies.

Effects from development could include increased stormwater runoff velocities and pollutant loads leading to impacts to surface waters. Considering the water quality regulations governing development, such as Section 402 of the CWA (NPDES) as well as the county and state regulations associated with stormwater, potential indirect effects to water quality are anticipated to be avoided and minimized to the extent practical and are not anticipated to be substantial.

#### 5.1.3.1.5 Results of the Cumulative Effects Analysis

The proposed project is expected to have negligible impacts on the Virgin River and thus would not substantially contribute to cumulative impacts. Although the Virgin River is an "impaired waterbody," federal, state, and local regulations provide protection to the water resources within and beyond the study area boundaries to minimize the cumulative effects to water resources. Mitigation measures for impacts to these resources are typically required within the regulatory framework, which governs public and private development, and are intended to offset degradation of water resources. As a result, cumulative effects to water resources are not anticipated to be substantial.

#### 5.1.3.1.6 Mitigation

As part of the proposed project, erosion-control measures will be incorporated for site soil stabilization and to reduce deposition of sediments in the adjacent surface waters. Measures will include the application of soil stabilizers such as landscaping and mulch and rock slope protection. In addition, storm drains associated with the new interchange will include water quality measures to support compliance with water quality standards and regulations.

Compliance with applicable federal, state, and local water quality standards will be required during the construction and operation of the Build Alternative. The development and implementation of a project-specific construction SWPPP as part of the CWA NPDES permitting processes will serve to protect surface water quality during construction of the Build Alternative. Additionally, several federal, state, and local conservation and water quality plans have been developed and will further protect or improve water quality by promoting public awareness and promoting responsible conservation and restoration practices, including erosion-control measures and implementation of BMPs.

### 5.1.3.2 Wetlands and Jurisdictional Waters

#### 5.1.3.2.1 Resource Study Area

For the purpose of this analysis, the study area for cumulative effects for wetlands and jurisdictional waters is the same as that for hydrology and water quality.

#### 5.1.3.2.2 Historical Context and Current Health

The USFWS National Wetland Inventory Map identifies the Virgin River floodplain as a freshwater forested wetland south of the proposed project area. However, no wetlands were identified within the proposed project area.

Numerous unnamed drainages were identified and delineated as jurisdictional within the project area. *Delineation* means that the OHWMs of these drainages were located in the field, flagged, and surveyed. These drainages pass through the project area and eventually drain into the Virgin River floodplain.

#### 5.1.3.2.3 Project Direct and Indirect Effects

No wetlands were found within the proposed project area; therefore, no impacts to wetlands would occur. The Build Alternative would result in fill and dredging within several jurisdictional drainages regulated as WOUS. The total area of WOUS to be dredged or filled by the Build Alternative would be approximately 0.307 acre. A final determination of the level of impacts would be made as progress on design is made. However, under the current design, the total acreage of WOUS potentially affected would fall within the thresholds of potential impacts for coverage under the Nationwide Permit 14, which is 0.5 acre of WOUS.

To the extent that the WOUS are considered jurisdictional, they would be subject to protection under Sections 404 and 401 of the CWA, which regulates the filling of and encroachment on these resources. USACE administers Section 404 of the CWA and operates under a “no net loss” policy for wetlands, requiring avoidance and minimization of impacts and compensatory mitigation for unavoidable impacts. Therefore, major effects to wetlands and WOUS from the project are not anticipated.

#### 5.1.3.2.4 Effects of Other Reasonably Foreseeable Future Actions

Potential effects to jurisdictional waters, including wetlands, from development include placement of fill and degradation of function through encroachment and as a result of increased runoff. To the extent that the surface waters are considered jurisdictional, they would be subject to protection under Sections 404 and 401 of the CWA, which regulates the filling of and encroachment on these resources. USACE administers Section 404 of the CWA and operates under a “no net loss” policy for wetlands, requiring avoidance and minimization of impacts and compensatory mitigation for unavoidable impacts. Therefore, substantial effects to jurisdictional waters are not anticipated.

#### 5.1.3.2.5 Results of the Cumulative Effects Analysis

Regardless of whether the anticipated development would be public or private, these developments would have to comply with Sections 404 and 401 of the CWA, which regulates the filling of and encroachment on these resources. Given the regulatory requirements governing impacts to waters of the U.S. and the mitigation measures discussed in the following section, substantial cumulative effects to these resources are not anticipated.

#### 5.1.3.2.6 Mitigation

Any mitigation to the 0.307 acre of WOUS will depend on the determination of jurisdictional status by USACE and the conditions of the Section 404 permit as determined by USACE. The federal regulatory framework will continue to positively affect the health of the resource. Future developers in the resource study area should incorporate methods to avoid or minimize impacts to these resources during the planning and design processes in order to preserve the existing conditions of the Virgin River and associated WOUS.

### 5.1.3.3 Biological Resources and Sensitive Species

#### 5.1.3.3.1 Resource Study Area

The boundaries of the biological resources and sensitive species study area include the area identified as the project study area. Surveys for desert tortoises extended beyond this area as required in the standard survey guidelines from USFWS. Biological resources include plants and wildlife. The biological resources discussed in this section are:

- Vegetation
- Noxious weeds
- Wildlife
- State listed species
- Federally listed threatened and endangered species and migratory birds

#### 5.1.3.3.2 Historical Context and Current Health

***Plants***

The biological resources and sensitive species study area is largely within Mojave creosote bush scrub habitat with two vegetation zones: upland areas and wash bottoms; and salt desert scrub. Several small pricklypear cacti (*Opuntia* spp.) were observed in the project area during field visits. All cacti are protected from harm or collection by Nevada Revised Statute (NRS) 527.100. No federally threatened or endangered plant species were observed in the area, but one species of plant listed as critically endangered by the State of Nevada (threecorner milkvetch) was observed in the study area.

***Listed Species***

This area does not include any designated critical habitat for desert tortoise. Furthermore, most of the previously disturbed areas along the existing interstate are of little value to desert tortoise as habitat.

***Noxious Weeds***

The only species of noxious weed that was observed in the biological resources and sensitive species study area and is listed on the State of Nevada's noxious weed list is the Asian (Sahara) mustard (*Brassica tournefortii*).

### *Wildlife*

Wildlife species protected under the NAC with potential to be present in the study area are the Gila monster, which is listed as protected, and the desert tortoise, which is listed as threatened (NAC 503.080). The desert tortoise is also federally protected as a threatened species. Based on field surveys, no state or federally listed species were found within the study area or in adjacent areas, or along the zone of influence.

Bird species known to use these vegetated habitats include the common raven, cactus wren, burrowing owl, and roadrunner. Some reptile species that could inhabit the area include chuckwalla, Great Basin collared lizard, and western whiptail. Mammals could include kit fox, jack rabbit, and deer mice. Many other migratory birds and small mammals might use the Virgin River as a natural migratory or movement corridor; however, no willow, cottonwood, or saltcedar habitats are present within or adjacent to the biological resources study area.

#### 5.1.3.3.3 Project Direct and Indirect Effects

The proposed project would result in the loss and alteration of vegetation/wildlife habitat and wildlife species. Direct impacts would include the loss of food sources and cover, temporary or permanent displacement, and incidental mortality of resident species.

### *Plants*

The proposed project would result in permanent removal and alteration of 22.9 acres of undisturbed creosote bush scrub habitat, which includes 11.5 acres that would be permanently converted into roadway and an additional 11.4 acres that would be heavily disturbed by cut or fill with limited opportunities for revegetation. Substantial ground disturbance would occur during construction of the Build Alternative, and vegetation within construction zones (that is, roadway footprint and the cut/fill slopes) would be removed during grading activities. An undetermined portion of the vegetation in the remaining 94 acres of the project area could be temporarily affected due to construction activities as a result of equipment storage and vehicle movement. Potential direct impacts include changes in plant community composition (kind), plant structure (life form), and possibly weed invasion. The threecorner milkvetch and a small number of cacti would be directly affected. The project is not within critical habitat for desert tortoise. Consultation with USFWS determined that the project may affect, but not likely to adversely affect, the desert tortoise.

### *Listed Species*

With regard to state-listed species, the Build Alternative would remove 22.9 acres of potential threecorner milkvetch habitat. One individual threecorner milkvetch plant was found during field surveys in the project study area. However, because construction might not occur for several years, it is possible that new individuals could colonize in this area.

### *Wildlife*

The construction of the Build Alternative would result in the loss of a small amount of wildlife habitat for migratory birds that use the creosote bush shrub habitat for foraging or

nesting. The loss of this habitat is not expected to have a substantial impact to these species given that creosote bush shrub habitat is common in this region and the project area is relatively small. However, if construction activities occur during the breeding season for any of these species, nests could be affected, including any eggs or young in those active nests. In addition, temporary impacts could result from the noise and lights associated with the construction activities.

#### 5.1.3.3.4 Effects of Other Reasonably Foreseeable Future Actions

According to the local officials and current land-use and transportation plans, development in the project area is planned with or without the proposed project. The majority of the planned development area contains the salt desert scrub and creosote bush scrub vegetation and wildlife habitat communities and species. Although the planned development would result in the conversion of this vegetation to developed uses, there is ample, similar vegetation near the AOI, so the Build Alternative is not anticipated to result in major effects to local vegetation, and wildlife habitat or species. With regard to state-listed species (threecorner milkvetch), it would be the responsibility of the individual developers, in coordination with the appropriate state entity, to determine if their projects have the potential to affect these species. Given the regulations governing state- and federally listed species, major effects from planned development are not anticipated. If development and construction activities within the AOI occur during the migratory bird breeding season, nests could be affected, including any eggs or young in those active nests. In addition, temporary impacts to wildlife could result from the noise and lights associated with development construction activities.

#### 5.1.3.3.5 Results of the Cumulative Effects Analysis

Land within the project study area contains salt desert scrub and creosote bush scrub vegetation communities. Although it is likely that the proposed project would result in the conversion of most of this vegetation and wildlife habitat to urban uses, the loss of this habitat is not expected given that these habitats are common in this region and the project area is relatively small. If construction activities occur during the migratory bird breeding season, nests could be affected, including any eggs or young in those active nests. In addition, temporary impacts to wildlife could result from the noise and lights associated with the construction activities. The planned development in the study area is consistent with local planning efforts. As a result, cumulative effects to vegetation and wildlife habitat and species are not anticipated.

Consultation with USFWS determined the project may affect, but is not likely to adversely affect the desert tortoise. The desert tortoise is a listed species because past development has resulted in cumulative impacts to this species. Proposed future development within the AOI could also have a cumulative effect on the desert tortoise, although habitat in the AOI is not critical habitat. Given that the proposed project is not expected to adversely affect the desert tortoise, it would not substantially contribute to cumulative impacts.

The Gila monster is not expected to be present within the proposed project area, and direct impacts to this species are not anticipated as a result of the proposed project. Therefore, the project would not contribute to cumulative impacts to this species.

The Build Alternative would remove 22.9 acres of potential threecorner milkvetch habitat. Future development in the study area could further encroach on threecorner milkvetch habitat and take individual species.

#### 5.1.3.3.6 Mitigation

Mitigation for biological resources and sensitive species can be found in *Section 3.7, Biological Resources and Sensitive Species*.

# 6.0 Coordination, Consultation, and Public Involvement

## 6.1 Scoping Process

Early and continuing coordination with appropriate resource agencies and the public is an essential part of the environmental process to determine the scope of environmental analysis, the appropriate level of detail for various aspects of the analysis, the expected impacts of the alternatives, mitigation measures, and applicable environmental requirements and regulations. Agency consultation and public participation for this project have been accomplished through a variety of formal methods including agency coordination meetings and letters and a public meeting.

This section summarizes the regulatory coordination and consultation and public involvement efforts carried out by the City of Mesquite, NDOT, and FHWA. The intent of the outreach effort was to identify, address, and resolve project-related issues through early and continuing coordination as well as support compliance with NEPA and other applicable environmental regulations.

Public outreach efforts were conducted to educate and inform citizens and stakeholders regarding the regulatory processes, to provide an opportunity to express concerns, and to provide an opportunity to make suggestions about the proposed project. Citizens and stakeholders had the opportunity to submit comments via a variety of means including comment forms, letters, e-mails, and comments posted through websites. Additionally, federal, state, and local governmental agencies with jurisdictional responsibility over a potentially impacted resource and tribal governments were invited and encouraged to participate in the NEPA process.

Outreach methods used for the project have included display advertisements in local newspapers and local civic facilities, a public meeting, agency meetings and coordination, and tribal consultation. Each of these is discussed in the following sections.

### 6.1.1 Intent-to-Study Letter

An Intent-to-Study letter was mailed to approximately 768 residences and businesses within a 1-mile radius of the proposed project area as well as regulatory agencies. The Intent-to-Study letter and the list of recipients to whom it was mailed are included in Appendix C. This letter, dated October 15, 2010, notified the recipients of NDOT and FHWA's intention to study the proposed project, invited comments, and advised interested parties of the scheduled Public Information Meeting (PIM). Comments were received from various governmental agencies and members of the public and stakeholders. A comment-response matrix and copies of the actual received comments are included in Appendix D.

### 6.1.2 Public Information Meeting (PIM)

A PIM was held at the Mesquite City Hall council chambers at 10 E. Mesquite Blvd., Mesquite, Nevada, on Thursday, November 4, 2010, from 4 PM to 7 PM. Sign-in sheets, a welcome letter, and information packets were provided at the entrance of the council chambers. Attendees were encouraged but not required to sign in. According to the sign-in sheets, 28 people attended the PIM. The welcome letter explained the purpose of the meeting, described the format of the meeting, and gave instructions on how to provide comments on the proposed project. The information packet included a flowchart of the project sequence process (including NEPA), an illustration of the existing conditions, an illustration of the proposed project, and a comment form.

The purposes of the PIM were to:

- Initiate the NEPA process.
- Notify the public about the proposed project.
- Share information about the project purpose and need, alternatives, and schedule.
- Solicit comments and answer questions about the proposed project.

Comment forms were available at the meeting for attendees to record their thoughts regarding the Build and No Build Alternatives.

Notification efforts for the PIM included mailed invitations, display ads in the local newspapers, and notification on the NDOT website. A copy of the invitation letter that was mailed out prior to the PIM is included in Appendix C. A 30-day comment period was established for the PIM from October 19, 2010, to November 19, 2010.

Display advertisements for the meeting were published 15 days prior to, the day before, and the day of each meeting in the local newspapers, as permissible. A Transportation Notice for the PIM was published in the *Mesquite Desert Valley Times* on October 19 and November 2, 2010, in English and on October 22 and 29, 2010, in the Spanish section (*La Voz del Valle*) of the paper. The Transportation Notice was also published in the *Las Vegas Review Journal* on October 20, November 3, and November 4, 2010. A copy of the notice is included in Appendix C.

The Transportation Notice was also displayed in the common public viewing area of the Mesquite Library (121 W. First North St.) and at the Mesquite Community and Senior Center (102 W. Old Mill Road) for the duration of the 30-day public comment period.

The meeting began as an open-house format. Display boards that showed large images of the NEPA process, the project area, and the proposed project elements were positioned near the front of the council chambers. People were free to look at the display boards as well as ask NDOT, Mesquite, and project team representatives project-related questions. The open-house format was interrupted twice for the duplicate delivery of a brief project presentation at 4:30 PM and 5:30 PM. Each presentation was followed by a short audience comment period in which a court reporter was available to record comments for the public record. Also, the court reporter was available to record comments from meeting attendees in private (in a one-on-one setting).

Upon conclusion of the audience comment periods, the meeting reverted to the open-house format. All comments are part of the administrative record. Transcripts of the presentation and the audience comments are available in Appendix E. In addition to the transcribed

comments from the meetings, approximately two other comments have been mailed to NDOT's Environmental Services Division. These comments and responses are included in Appendix D.

## 6.2 Coordination and Consultation with Resource Agencies

Several resource agencies were invited, via a letter dated December 20, 2010 (Appendix F), to initiate dialogue and participate in the proposed project development process as cooperating agencies. A *cooperating agency* is any federal, state, or local government agency that has jurisdiction either by law or special expertise regarding environmental impacts of a proposed action or a reasonable alternative for a federal action. The benefits of cooperating agency participation in the analysis for and preparation of an EA include:

- Disclosure of relevant information early in the analytical process
- Application of available technological expertise and staff support
- Avoidance of duplication of other federal, state, local, or tribal procedures
- Establishment of a formal process for addressing intergovernmental issues

Invitation letters to potential cooperating agencies included information about the proposed project purpose and need, the study limits, and the proposed build alternative to be carried forward for detailed study in the EA. The following agencies were invited to be cooperating agencies for the project:

- U.S. Bureau of Land Management (BLM)
- U.S. Army Corps of Engineers (USACE)
- U.S. Fish and Wildlife Service (USFWS)

Cooperating agency responses for the three agencies are still pending (as of December 2011), and coordination will be ongoing throughout the NEPA process.

### 6.2.1 USFWS Coordination and Consultation

Informal consultation efforts with USFWS were initiated on January 27, 2011, regarding the proposed project, the biological resources technical report (COM 2010b), permitting requirements, NEPA requirements, and requested concurrence regarding impacts to potentially affected ESA-listed and ESA-proposed species (Appendix G). No Biological Assessment or Biological Opinion was required. USFWS issued a response on February 14, 2011, stating its concurrence with the determination that the proposed project may affect, but is not likely to adversely affect the desert tortoise. Coordination efforts with USFWS will continue through project permitting and completion.

### 6.2.2 SHPO Coordination and Consultation

In a letter dated September 30, 2011, to Nevada SHPO, FHWA requested concurrence with the project team's determinations about whether cultural resources in the project area are eligible for listing on the National Register of Historic Places (NRHP) under the Secretary's criterion D and support for a *Finding of No Adverse Effect* for the project (Appendix H). In a letter dated October 26, 2011, to FHWA (Appendix H), SHPO concurred regarding the sites

that are eligible and not eligible for the NRHP and that the proposed undertaking would not pose an effect (Finding of No Adverse Effect) to any historic properties with the avoidance measures, both temporary and long-term. The letter also stated that, because BLM manages land within the area of potential effects (APE), BLM needs to be contacted prior to initiating construction for the project for additional requirements and formal consultation in the future.

### 6.2.3 Native American Tribal Consultation

Native American tribal consultation for the project was initiated by formal letter from FHWA to the respective tribal chairpersons on October 26, 2010 (Appendix I). Tribes and tribal organizations invited to participate in consultation with FHWA included the Moapa Business Council of Moapa, Nevada. NDOT cultural resource staff conducted a field visit in the project area with representatives from the Moapa Business Council on January 21, 2011. The Council provided comments (Appendix J) during that visit. Responses to the comments are also included in Appendix J. Although initial formal responses have been received, the tribal consultation process is ongoing and will continue throughout the NEPA process.

### 6.2.4 Next Steps

FHWA and NDOT will continue preliminary engineering and design work for the proposed project and will continue to work closely with Mesquite, interested regulatory agencies, and tribes to avoid and minimize environmental effects.

FHWA and NDOT might pursue additional environmental analysis, if warranted, to better inform final design and mitigation planning, or to address concerns raised by interested parties during the comment period for this EA.

FHWA and NDOT will review all comments received during the 30-day comment period for this EA and will consider design changes as appropriate to respond to comments. Comments received on this EA will be considered before FHWA and NDOT make a decision and prepare a decision document about how to proceed. The final decision document will be made available for public review.

After the NEPA process is completed, FHWA and NDOT may advance the project through final design and permitting, and then into construction. FHWA and NDOT will continue to coordinate with the public, local jurisdiction, regulatory agencies, and interested tribes throughout construction and operation of the proposed new interchange.

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# APPENDIX A

## Developers' Letters of Support

Date: 02/14/2012

Nevada Department of Transportation
Attn: Susan Martinovich, Director
1263 S. Stewart Street
Carson City, NV 89712

Dear Mrs. Martinovich:

Nevada Residential Construction, LLC supports the construction of the I-15 Exit 118 in Mesquite, NV.

We trust the volatile economy we face today will stabilize in the near future, and will allow for the project to go forward. If economic conditions fail to improve, we are still committed to support the project when the economy stabilizes and the project is needed.

We at Nevada Residential Construction, LLC believe that Exit 118 will be of a great benefit to the City of Mesquite, alleviating traffic congestion and aiding in expansion of existing businesses, as well as stimulate interest in business development here in Mesquite. For these reasons, we support the construction of Exit 118.

Sincerely,

Rick Anderson
Nevada Residential Construction, LLC
1646 W. Pioneer Blvd. #110
Mesquite, NV 89027

CC: City of Mesquite

# Mesquite Investment Group, LLC

536 Commerce Circle Mesquite, NV 89027
Ph: 702-345-3640 Fax: 702-345-3642

February 15, 2012

City of Mesquite
Attn: Kurt Sawyer
10 E. Mesquite Blvd.
Mesquite, NV 89027

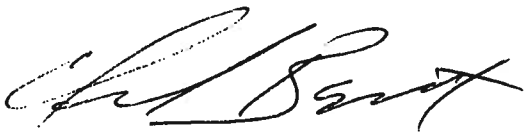
Dear Mr. Sawyer:

Mesquite Investment Group, LLC supports the construction for Exit 118 in Mesquite, NV.

We trust the economy will be stabilizing in the very near future and this project would be a great benefit to the Mesquite Technology and Commerce area. This Exit 118 will allow companies to move into the area and know they will have an easy access to Interstate 15. The large trucks will have an approach to North and South Interstate 15 with no worries about tourist and locals getting confused on the exit 120 roundabouts.

We at Mesquite Investment Group, LLC believe that Exit 118 will be of a great benefit to the City of Mesquite, aiding in expansion of existing businesses, as well as stimulate interest in business development here in Mesquite. For these reasons, we support the construction Exit 118.

Sincerely,



Chuck Bentley
Mesquite Investment Group, LLC

February 15, 2012

City of Mesquite
Attn: Kurt Sawyer
10 E. Mesquite Blvd.
Mesquite, NV 89027

Dear Mr. Sawyer:

Pride Contractors, LLC supports the construction for Exit 118 in Mesquite, NV.

We believe the construction of Exit 118 will be a huge benefit to the economy of Mesquite. It will be a selling point for new businesses to move their companies to the Mesquite Technology and Commerce area. The existing dead end of Pioneer Blvd is devastating to current and future business. Many would benefit from the construction of Exit 118, the access to and from Interstate 15 for the large transportation vehicles would be a tremendous plus for businesses.

We need to build for the future of Mesquite. The construction of the Exit 118 would encourage new business development.

Sincerely,

Brandon Bentley
Pride Contractors, LLC

536 Commerce Circle Mesquite, NV 89027 Phone: 702-345-3640 Fax: 702-345-3642

Mesquite Technology Investments Too, LLC
P.O. Box 1946
Mesquite, NV 89024

February 17, 2012

Nevada Department of Transportation
Attn: Susan Martinovich, Director
1263 S. Stewart Street
Carson City, NV 89712

Dear Mrs. Martinovich:

Mesquite Technology Investments Too, LLC supports the construction of the I-15 Exit 118 in Mesquite, NV.

We trust the volatile economy we face today will stabilize in the near future, and will allow for the project to go forward. If economic conditions fail to improve, we are still committed to support the project when the economy stabilizes and the project is needed.

We at Mesquite Technology Investments Too, LLC believe that Exit 118 will be of a great benefit to the City of Mesquite, alleviating traffic congestion and aiding in expansion of existing businesses, as well as stimulate interest in business development here in Mesquite. For these reasons, we support the construction of Exit 118.

Sincerely,

Scott Bulloch
Mesquite Technology Investments Too, LLC

CC: City of Mesquite

Pioneer Technology Investments, LLC
P.O. Box 2637
Mesquite, NV 89024

February 17, 2012

Nevada Department of Transportation
Attn: Susan Martinovich, Director
1263 S. Stewart Street
Carson City, NV 89712

Dear Mrs. Martinovich:

Pioneer Technology Investments, LLC supports the construction of the I-15 Exit 118 in Mesquite, NV.

We trust the volatile economy we face today will stabilize in the near future, and will allow for the project to go forward. If economic conditions fail to improve, we are still committed to support the project when the economy stabilizes and the project is needed.

We at Pioneer Technology Investments, LLC believe that Exit 118 will be of a great benefit to the City of Mesquite, alleviating traffic congestion and aiding in expansion of existing businesses, as well as stimulate interest in business development here in Mesquite. For these reasons, we support the construction of Exit 118.

Sincerely,

Scott Bulloch
Pioneer Technology Investments, LLC

CC: City of Mesquite

# APPENDIX B

# RTCSNV TIP and NDOT STIP

Regional Transportation Commission of Southern Nevada

# Transportation Improvement Program 2011 - 2014

REGIONAL TRANSPORTATION COMMISSION
RTC
OF SOUTHERN NEVADA

## Appendix 1, Table 1: List of Projects in the Transportation Capital Program 2009-2030

| Project # | Location / Title | From | To | Description | Sponsor Entity | Year Complete | Model Class |
|---|---|---|---|---|---|---|---|
| 243 | I-15 | CA State Line | Sloan Rd. | Widen from 6 to 8 lanes (PE, RW, Const.) | NDOT | 2027 | RS |
| 244 | I-15 | Sloan Rd. | SR.160 Blue Diamond Rd. | I-15 South Phase 2: Widen from 6 to 8 lanes and add additional auxiliary lanes | NDOT | 2020 | RS |
| 245 | I-15 | Sloan Rd. | SR.160 Blue Diamond Rd. | I-15 South Phase 4: Widen to 10 lanes and add additional auxiliary lanes | NDOT | 2030 | RS |
| 247 | I-15 | SR 160 Blue Diamond Rd. | Tropicana Ave. | I-15 South Phase 3: Widen to 10 lanes to include HOV lanes and additional auxiliary lanes and operational improvements | NDOT | 2030 | RS |
| 758 | I-15 | at Sloan Rd. | | Construct an interchange (PE, ROW, Construction) | Henderson | 2025 | RS |
| 961 | I-15 | @ Mile Post 108 | | Construct new interchange to serve Mesquite Airport | Mesquite | 2010 | XNAA |
| 4023 | I-15 | Las Vegas Valley | | PE and Right-of-Way for various widening and interchange improvements | NDOT | 2012 | EX-P |
| 4025 | I-15 | @ Starr Av. | | PE and RW for new Interchange | Henderson | 2010 | EX-P |
| 4138 | I-15 | Sahara Ave. | I-515/US 95 Interchange (Spaghetti Bowl) | PE and Right-of-Way for widening to 10 lanes, to include HOV lanes, plus auxiliary lanes and collector/distributer roads | NDOT | 2010 | EX-P |
| 4140 | I-15 | @ Mile Post 118 Pioneer Blvd. Extension | | Construct new interchange (PE) | Mesquite | 2010 | XNAA |
| 4142 | I-15 | Russell Rd. | Sahara Ave. | Widen from 8 to 10 lanes including 2 express lanes each way and 3 general purpose lanes each way | NDOT | 2010 | RS |
| 4144 | I-15 | I-215 | I-515 / US-95 Interchange (Spaghetti Bowl) | Widen from 10 to 14 lanes to include HOV lanes | NDOT | 2030 | RS |
| 4153 | I-15 | @ I-215 Southern Beltway | | System to sytem direct connector HOV ramps | NDOT | 2030 | RS |
| 4159 | I-15 | at US 93 (North) | | PE for construction of an interchange | NDOT | 2010 | EX-P |
| 4202 | I-15 | @ MP 3 | | Construct Ivanpah interchange on I-15 to access the airport | DoA | 2011 | RS |
| 4270 | I-15 | SR.573 Craig Rd | Speedway Blvd | PE for widening to 6 lanes | NDOT | 2011 | EX-P |
| 4149 | I-15 / US 95 | I-15 south of Oakey Blvd | US 95 east of Rancho Dr | Project Neon Phase 1: Construct a 4 lane system-to-system direct connect HOV ramps, including add/drop lanes at Oakey/Wyoming. Widen 1-15 to accommodate HOV ramps | NDOT | 2018 | RS |

# City of Mesquite

**Project #** 4140 **Location:** I-15 **From:** at Mile Post 118 Pioneer Blvd Extension **To:**
**Description:** Construct new interchange ☑ **PE** ☑ **ROW** ☑ **CON**

| **Fund Sources** | **FY2011** | **FY2012** | **FY2013** | **FY2014** | **Total Scheduled: $24,824,689** | **CL200801** |
|---|---|---|---|---|---|---|
| Local Funds | $0 | $4,000,000 | $0 | $0 | | |
| NDOT State Gas Tax | $0 | $482,500 | $0 | $0 | | |
| SAFETEA-LU High Priority Projects | $0 | $342,189 | $0 | $0 | | |
| Special Improvement District (SID) | $0 | $20,000,000 | $0 | $0 | | |

**Project #** 4180 **Location:** Mesquite Blvd **From:** at I-15 Mile Post 120 **To:**
**Description:** Reconstruction at Exit 120 ☑ **PE** ☑ **ROW** ☑ **CON**

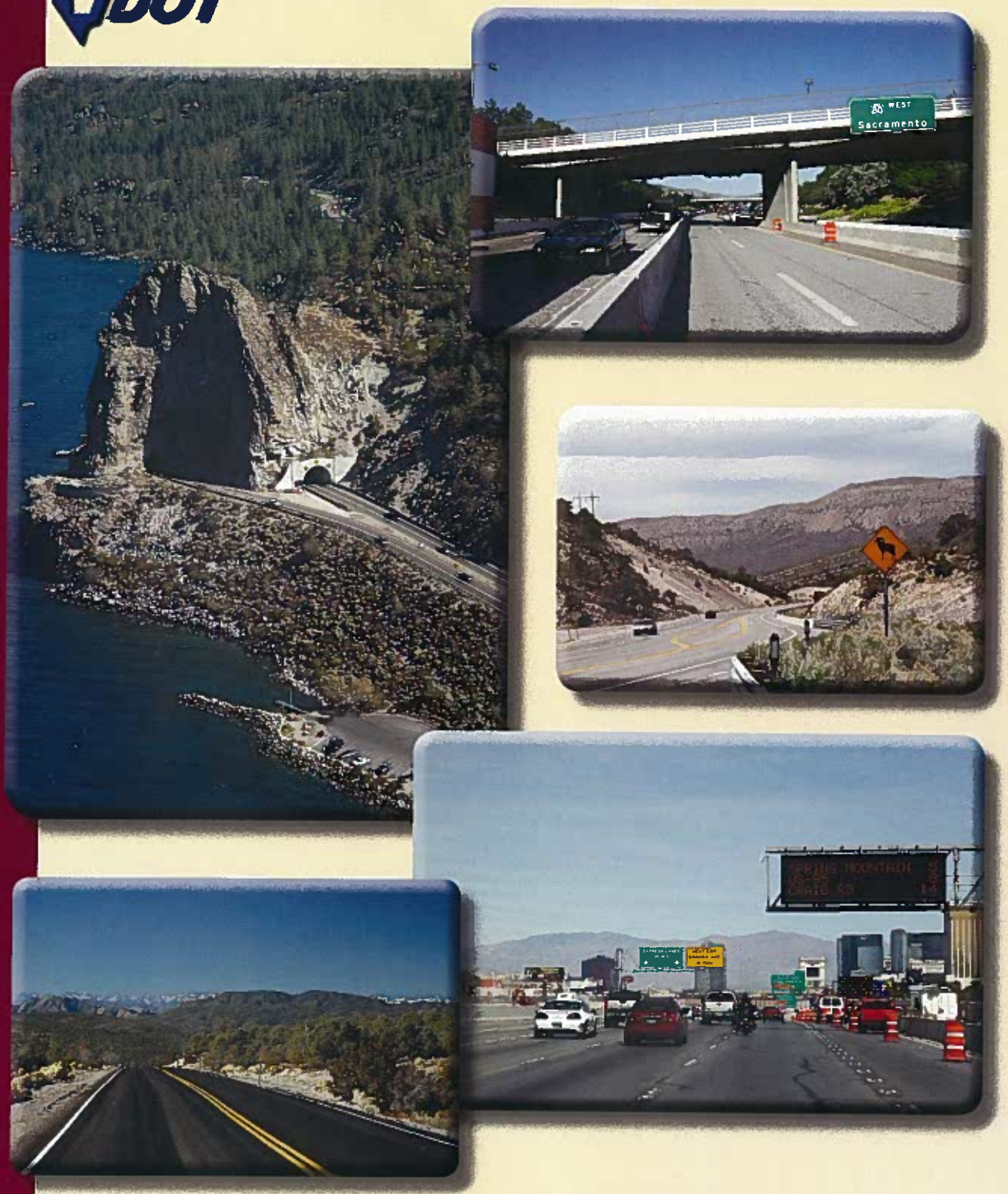
| **Fund Sources** | **FY2011** | **FY2012** | **FY2013** | **FY2014** | **Total Scheduled: $25,077,469** | **CL20100130** |
|---|---|---|---|---|---|---|
| Local Funds | $2,000,000 | $0 | $0 | $0 | | |
| NDOT State Gas Tax | $482,500 | $0 | $0 | $0 | | |
| SAFETEA-LU High Priority Projects | $7,185,969 | $0 | $0 | $0 | | |
| SB5 | $15,409,000 | $0 | $0 | $0 | | |

| | | | | | |
|---|---|---|---|---|---|
| **Total for City of Mesquite** | **$25,077,469** | **$24,824,689** | $0 | $0 | **Total Scheduled: $49,902,158** |

# TRANSPORTATION SYSTEM PROJECTS

NEVADA DOT

Nevada Department of Transportation




# FY 2012-2021

- Statewide Transportation Improvement Program FY 2012 - 2015
- Annual Work Program FY 2012 • Short Range Element FY 2013 - 2014
- Long Range Element FY 2015 - 2021

Draft ~ October 2011

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM NEVADA

Fiscal Years 2012 - 2015

FUND SOURCE: Special Improvement District (LV)

| Map Location | Program of Projects | FY 12 | FY 13 | FY 14 | FY 15 | Scheduled Amount | Project Administrator |
|---|---|---|---|---|---|---|---|
| CL200801 | I 15 at Mile Post 118 Pioneer Blvd extension. / Construct a new interchange (PE/RW/Const).(Const) CountyId: 4140<br>**Additional Funding**<br>High Priority, Safetea-Lu: $342,189<br>Local Funding (Lv): $4,000,000<br>State Gas Tax: $482,500<br>Total: $24,824,689 | $20,000,000 | | | | $20,000,000 | |
| | **Total:** | $20,000,000 | | | | | |

**Fund Summary Information**

| Summary | FY 12 | FY 13 | FY 14 | FY 15 |
|---|---|---|---|---|
| Unprogrammed Balance Forward | $0 | $0 | $0 | $0 |
| Anticipated Fund Allocation | $20,000,000 | $0 | $0 | $0 |
| Minimum Guarantee | $0 | $0 | $0 | $0 |
| **Total Available** | **$20,000,000** | **$0** | **$0** | **$0** |
| Scheduled Amount | $20,000,000 | $0 | $0 | $0 |
| **Balance Available** | **$0** | **$0** | **$0** | **$0** |

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM NEVADA

Fiscal Years 2012 - 2015

FUND SOURCE: HIGH PRIORITY, SAFETEA-LU

| Map Location | Program of Projects | FY 12 | FY 13 | FY 14 | FY 15 | Scheduled Amount | Project Administrator |
|---|---|---|---|---|---|---|---|
| CL200002 | Martin Luther King / Industrial Rd connector Project NEON Phase 2 Industrial Rd south of Wyoming Ave to M.L. King Blvd at Palomino Lane / PE and ROW for a 6 lane overpass across I 15 with grade separation at Oakey/Wyoming (PE/RW)(PE) CountyId: 4147<br>**Additional Funding**<br>State Gas Tax: $7,500,000<br>Total: $10,956,335 | $3,456,335 | | | | $3,456,335 | |
| CL200516 | I 15 at Cactus Avenue in Las Vegas. / Construct 6 lane roadway with an interchange at I 15 (PE/RW/Const).(Const) CountyId: 108<br>**Additional Funding**<br>Federal Appropriation Section 115: $200,000<br>Interstate Maintenance - Discretionary: $4,611,300<br>State Gas Tax: $28,200,000<br>Stp Clark: $13,220,000<br>Question 10 Hslm Program: $5,879,000<br>Total: $61,954,080 | $9,843,780 | | | | $9,843,780 | Clark County |
| CL200704 | CC 251 Northern Beltway @ US 95 from Hualapai to Tenaya Way. / Upgrade to system to system interchange and widen to six lanes.(PE) CountyId: 926<br>**Additional Funding**<br>National Highway System: $1,000,000<br>Federal Appropriation Section 112: $148,500<br>Total: $12,269,643 | $11,121,143 | | | | $11,121,143 | |
| CL200801 | I 15 at Mile Post 118 Pioneer Blvd extension. / Construct a new interchange (PE/RW/Const).(Const) CountyId: 4140<br>**Additional Funding**<br>Local Funding (Lv): $4,000,000<br>State Gas Tax: $482,500<br>Special Improvement District (Lv): $20,000,000<br>Total: $24,824,689 | $342,189 | | | | $342,189 | |
| | **Sub Total:** | $24,763,447 | | | | | |

View summary on page 3

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM NEVADA

Fiscal Years 2012 - 2015

FUND SOURCE: Local Funding (LV)

| Map Location | Program of Projects | FY 12 | FY 13 | FY 14 | FY 15 | Scheduled Amount | Project Administrator |
|---|---|---|---|---|---|---|---|
| CL200801 | I 15 at Mile Post 118 Pioneer Blvd extension. / Construct a new interchange (PE/RW/Const).(Const) CountyId: 4140<br>**Additional Funding**<br>High Priority, Safetea-Lu: $342,189<br>Special Improvement District (Lv): $20,000,000<br>State Gas Tax: $482,500<br>Total: $24,824,689 | $4,000,000 | | | | $4,000,000 | |
| NV20090260 | Las Vegas Area / Projects to be selected under the RTC Coordinated Public Transit - Human Services Transportation Plan(Other) CountyId: 2801<br>**Additional Funding**<br>Fta Section 5316 Jarc (Lv): $1,803,781<br>Total: $3,607,562 | | $884,206 | $919,575 | | $1,803,781 | |
| NV20090263 | Las Vegas Area / Projects to be selected under the RTC Coordinated Public Transit - Human Services Transportation Plan(Const, Other) CountyId: 2802<br>**Additional Funding**<br>Fta Section 5317 New Freedom (Lv): $1,163,842<br>Total: $1,454,801 | | $142,627 | $148,332 | | $290,959 | |
| NV20100168 | Routes to Opportunity - Clark County / Provide shuttle service to the various worksites in Las Vegas operated by Opportunity Village and provide access to transportation to the worksites for persons with disabilities(Other) CountyId: 2850<br>**Additional Funding**<br>Fta Section 5316 Jarc (Lv): $58,500<br>Total: $117,000 | $58,500 | | | | $58,500 | |
| NV20100210 | Aids for Aids of Nevada - Clark County Urbanized Area / Provide rides to interviews for medically frial persons who are associated with AFAN and who are looking to re-enter the workforce(Other) CountyId: 2849<br>**Additional Funding**<br>Fta Section 5316 Jarc (Lv): $73,375<br>Total: $146,750 | $73,375 | | | | $73,375 | |
| NV20110130 | Aid for AIS of Nevada BUDDY Transportation System / Provide transportation to medical & social support programs for non-ADA eligible medically fragile clients associated with AFAN.(Other) CountyId: 2856<br>**Additional Funding**<br>Fta Section 5317 New Freedom (Lv): $37,603<br>Total: $75,206 | $37,603 | | | | $37,603 | |
| | **Sub Total:** | $4,169,478 | $1,026,833 | $1,067,907 | | | |

View summary on page 4

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM NEVADA

Fiscal Years 2012 - 2015

FUND SOURCE: State Gas Tax

| Map Location | Program of Projects | FY 12 | FY 13 | FY 14 | FY 15 | Scheduled Amount | Project Administrator |
|---|---|---|---|---|---|---|---|
| CL200002 | Martin Luther King / Industrial Rd connector Project NEON Phase 2 Industrial Rd south of Wyoming Ave to M.L. King Blvd at Palomino Lane / PE and ROW for a 6 lane overpass across I 15 with grade separation at Oakey/Wyoming (PE/RW)(PE) CountyId: 4147<br>**Additional Funding**<br>High Priority, Safetea-Lu: $3,456,335<br>Total: $10,956,335 | $7,500,000 | | | | $7,500,000 | |
| CL2000104 | FAST Freeway Management System / Institution and Operation of a Freeway Arterial System of Transportation (FAST)(PE/RW/Const) (Const, Other) CountyId: 163<br>**Additional Funding**<br>National Highway System: $6,000,000<br>Total: $27,000,000 | $21,000,000 | | | | $21,000,000 | |
| CL200516 | I 15 at Cactus Avenue in Las Vegas. / Construct 6 lane roadway with an interchange at I 15 (PE/RW/Const).(Const) CountyId: 108<br>**Additional Funding**<br>High Priority, Safetea-Lu: $9,843,780<br>Federal Appropriation Section 115: $200,000<br>Interstate Maintenance - Discretionary: $4,611,300<br>Stp Clark: $13,220,000<br>Question 10 Hslm Program: $5,879,000<br>Total: $61,954,080 | $28,200,000 | | | | $28,200,000 | Clark County |
| CL200801 | I 15 at Mile Post 118 Pioneer Blvd extension. / Construct a new interchange (PE/RW/Const).(Const) CountyId: 4140<br>**Additional Funding**<br>High Priority, Safetea-Lu: $342,189<br>Local Funding (Lv): $4,000,000<br>Special Improvement District (Lv): $20,000,000<br>Total: $24,824,689 | $482,500 | | | | $482,500 | |
| CL20090291 | Downtown Las Vegas F Street from F - Street - McWilliams Ave to Bonanza Rd [I 15 at "F" Street] / 2-lane underpass beneath I 15 between McWilliams Ave and City Parkway (PE/RW/Const)(Const) CountyId: 4356<br>**Additional Funding**<br>Stp Statewide: $2,500,000<br>Ad Valorem Property Tax: $8,100,000<br>Sb 5: $4,000,000<br>Total: $16,000,000 | $1,400,000 | | | | $1,400,000 | |
| | **Sub Total:** | $58,582,500 | | | | | |

View summary on page 4

# APPENDIX C

# Intent-to-Study Letter and Notices

STATE OF NEVADA
**DEPARTMENT OF TRANSPORTATION**
1263 S. Stewart Street
Carson City, Nevada 89712

JIM GIBBONS
Governor

SUSAN MARTINOVICH, P.E., *Director*

October 15, 2010

In Reply Refer to:

Intent-to-Study
I-15 Proposed Interchange at MP 118 Project
Mesquite and Clark County, NV
Project ID: 73553

To Whom It May Concern,

The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA) and the Bureau of Land Management (BLM) are proposing to construct a new interchange located at approximate milepost (MP) 118 connecting over the existing Interstate 15 (I-15) in Mesquite, Clark County, Nevada.

In compliance with the National Environmental Policy Act (NEPA) of 1969, NDOT (in cooperation with the above mentioned agencies) is conducting an assessment of the proposed project's impacts. This letter is to inform you of the current study and solicit your comments concerning the project. Areas of potential impact could include, but are not limited to, the following:

1. Access
2. Aesthetics
3. Air Quality
4. Archaeological Resources
5. Geology
6. Hazardous Waste
7. Historic Buildings
8. Land Use
9. Public Parks & Recreation Areas
10. Noise
11. Safety
12. Social considerations
13. Biological Resources
14. Water Quality and Hydrology
15. Wildlife and Wildlife Refuges

A Public Information Meeting will be held on **Thursday, November 4, 2010** from 4 p.m. to 7 p.m. at Mesquite City Hall, Council Chambers, 10 E. Mesquite Blvd., Mesquite, Nevada to inform you, as interested individuals, groups, and agencies, about the project and to receive your comments and suggestions. Please see the enclosed Transportation Notice for additional information about the meeting location and format. If no response is received, the Department will assume you foresee no potential impacts in your particular area of responsibility or interest.

Comments or questions regarding the proposed project may be addressed to Steve M. Cooke, P.E., Chief Environmental Services Division, Nevada Department of Transportation, 1263 S. Stewart Street, Carson City, Nevada 89712, phone (775) 888-7013. Comments or questions may also be emailed to **info@dot.state.nv.us**; please include the above reference for this project in the subject line. We would appreciate receiving any response you may have by **Friday, November 19, 2010**.

Sincerely,

Steve M. Cooke, P.E., Chief
Environmental Services Division

# TRANSPORTATION NOTICE
# PUBLIC INFORMATION MEETING

## I-15 Proposed Interchange at MP 118 Project

**PURPOSE OF MEETING:** The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA) and the Bureau of Land Management (BLM) is conducting a public information meeting to provide information and receive comments on the proposed improvements to Interstate 15 (I-15), a new interchange at milepost (MP) 118 in Mesquite, Clark County, Nevada.

In compliance with the National Environmental Policy Act (NEPA) of 1969, NDOT is initiating an assessment of the proposed project's potential environmental impacts. This notice is to inform the public and stakeholders of the study and to solicit comments concerning the project.

The proposed project would consist of constructing a new tight-diamond interchange over the existing I-15. The interchange would include construction of a two-lane bridge and acceleration and deceleration lanes on both sides of I-15. Access to the north of the interchange would be achieved using Lower Flat Top Parkway. Lower Flat Top Parkway would intersect with West Pioneer Boulevard to the north providing a logical termini.

**WHEN AND WHERE: Thursday, November 4, 2010, from 4 p.m. to 7 p.m.** at Mesquite City Hall, Council Chambers, 10 E. Mesquite Blvd., Mesquite, NV.

**WHY:** The purpose of the project is to improve operational efficiency of the interstate in response to traffic associated with the existing and proposed residential, commercial, and light industrial growth in the southwestern portion of the City.

**WHERE YOU COME IN:** You are invited to attend the public meeting between 4 p.m. and 7 p.m. There will be a brief project presentation at 5:30 p.m., followed by a short open comment period. Before and after the presentation at 5:30 p.m., the meeting will be conducted as an "open house" format to provide you with an opportunity to view the displays and individually discuss the project with project representatives.

Your comments may be submitted for the public record in writing at the meeting or verbally to a court reporter who will be available throughout the meeting. In addition to any comments received at the meeting, written or email comments will be accepted through 5 p.m. Friday, November 19, 2010. Please email your comments to info@dot.state.nv.us with a reference to this project in the subject line. You may mail your comments to Steve M. Cooke, P.E., Chief of Environmental Services Division, NDOT, 1263 S. Stewart St., Carson City, NV 89712.

**IF RIGHT-OF-WAY IS NEEDED:** The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 will govern the acquisition of right-of-way that may be necessary for this project. More detailed information regarding right-of-way can be obtained from the NDOT's Right of Way Division, 1263 S. Stewart St., Carson City, NV 89712, or by calling (775) 888-7480.

**CONTACT:** For general project information, contact Adam Searcy, P.E., Project Manager, NDOT, 1263 S. Stewart St., Carson City, NV 89712, (775) 888-7597, asearcy@dot.state.nv.us.

**NOTE:** Reasonable efforts will be made to assist and accommodate physically handicapped persons desiring to attend the meeting. Requests for auxiliary aids or services to assist individuals with disabilities or limited English proficiency should be made with as much advance notice as possible to Julie Maxey, NDOT, Public Hearings Officer, at (775) 888-7171.

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500 S GRAND CENTRAL PKWY
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P O BOX 72411
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ABRAMS 2005 FAMILY TRUST
%S ABRAMS
1377 SEA PINES ST
MESQUITE, NV 89027-6722

ADAMS ALLEN M & LINDA R
1227 AUGUSTA HILLS ST
MESQUITE, NV 89027-6757

VERNON F & PATRICIA ADAMS
REV TRUST
1426 PINEHURST DR
MESQUITE, NV 89027-6743

JOHN R & LOIS DANSIE ALBRAND
1381 SEA PINE ST
MESQUITE, NV 89027-6722

LEO H & CHRISTINE ALDRIDGE
1420 PINEHURST DR
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1412 HARBOUR DR
MESQUITE, NV 89027-6720

ALLEN FAMILY TRUST
1384 HARBOUR DR
MESQUITE, NV 89027-6713

BARNEY L & BARBARA
ALVERSON
1238 PEBBLE BEACH DR
MESQUITE, NV 89027-6756

KIRBY & MICHELLE M AMBLER
636 SOUTHRIDGE DR
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DAVID N & MARY S ANDERSON
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BUNKERVILLE, NV 89007-307

ANDERSON FAMILY TRUST
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GARN & FARO ANDERSON IRR
FAM TRUST
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MESQUITE, NV 89027-6767

GORDON H & SHARON M
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1335 HARBOUR DR
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MESQUITE, NV 89024-1088

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WASHINGTON, UT 84780-8474

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G T & C M APPLEGATE REV LIV
TR
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MESQUITE, NV 89027-6744

MARGARET A AQUINO-FULKS
577 BEACON RIDGE WY
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GAYLAND & MYRNA ARCHIBALD
569 TORREY PINES DR
MESQUITE, NV 89027-6758

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%N HAFEN
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ST GEORGE UT 84790-4037

LOWELL E & J L ASHLEY REV LIV TR
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WHEAT RIDGE CO 80215-6502

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MESQUITE NV 89027-6711

WILLIAM F & SUSANNE BABCOCK
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BART & JACKIE BALLARD
2422 W 81 SOUTH
IDAHO FALLS ID 83402-5839

BALLWEG PROPERTIES
525 COMMERCE CIR
MESQUITE NV 89027-1900

BAM BAM PROPERTIES L L C
13231 BERRY PATCH CT
DRAPER UT 84020-7702

H S B C BANK USA NATL ASSN TRS
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DEPEW, NY 14043-2602

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MESQUITE, NV 89027-6713

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DARBY, MT 59829-9542

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DAWN R BETTS
2010 LODGEPOLE
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%BINGHAM & SNOW LLP
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BURHAM FAMILY TRUST
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MESQUITE, NV 89027-2110

BURKE FAMILY TRUST
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BURT J SHELDON TRUST
7258 DORSET CIR
SALT LAKE CITY, UT 84121-3845

DEBRA DAVIS & GLENN HARRY BURTON
826 SOUTHRIDGE DR
MESQUITE, NV 89027-6742

GLEN H BURTON
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CEDAR DEVELOPMENT COMPANY L L C
P O BOX 130
216 S 200 W
CEDAR CITY, UT 84720-3207

CEDAR DEVELOPMENT CORP
%A JONES
216 S 200 W
P O BOX 130
CEDAR CITY, UT 84721-130

BRYAN LEO CHAMBERLAIN
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BUNKERVILLE, NV 89007-405

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%FIN DEPT
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ELIZABETH A CLARK
1407 PINEHURST DR
MESQUITE, NV 89027-6747

ROBERT W CLARK TRS
1402 HARBOUR DR
MESQUITE, NV89027-6720

JAY L & PATRICIA A CLIFT
1231 PAYDON LN
RIVERTON, UT 84065-4135

DAVID S & KATHLEEN M CLITHEROW
1265 QUICKSILVER WY
MESQUITE, NV 89027-6726

LEONARD R & SANDRA J COGDILL
4407 E LAKE CIRCLE S
LITTLETON, CO 80121-3313

COLE FAMILY TRUST
505 BEACON RIDGE WY
MESQUITE, NV 89027-6703

COLER CHARLES L & JOANN E
1389 PINEHURST DR
MESQUITE, NV 89027-6746

LOUIE D & LINDA RAE COLETTI TR
585 TORREY PINES DR
MESQUITE, NV 89027-6758

ELAINE COMPAGNI REVOCABLE TRUST
1324 SAGEWOOD RD
PRICE, UT 84501-2220

MARILYN J CONDON REVOCABLE TRUST
599 PINE MEADOW CT
MESQUITE, NV 89027-6714

ANN CONGER
600 DEL LAGO DR
MESQUITE, NV 89027-6753

STEVEN M & JORI COOK FAM LIV TR
P O BOX 7293
BUNKERVILLE, NV 89007-293

ARTHUR L CORTEN
1426 HARBOUR DR
MESQUITE, NV 89027-6731

DENNIS & CAROLE COUCH TRUST FUND
5755 S WATERBURY WY
SALT LAKE CITY, UT 84121-1110

COUNTY OF CLARK (ADMINISTRATIVE)
500 S GRAND CENTRAL PKWY
LAS VEGAS, NV 89155-0

COUNTY OF CLARK(FLOOD CONTROL)
500 S GRAND CENTRAL PKWY
LAS VEGAS, NV 89155-0

COUNTY OF CLARK(PK & COMM SERV)
500 S GRAND CENTRAL PKWY
LAS VEGAS, NV 89155-0

COUNTY OF CLARK (PUBLIC WORKS)
%P WYATT
%REAL ESTATE ACQUISITIONS
500 S GRAND CENTRAL PKWY
2ND FLR
LAS VEGAS, NV 89155-0

MARK C & SHERI L CRANDALL
P O BOX 7205
BUNKERVILLE, NV 89007-205

WILL L & JACQUELYN CRAVER
612 DEL LAGO DR
MESQUITE, NV 89027-6753

DAVID & DANA CRUZ JOINT REV TR
3852 N CLARK-WOLVERINE RD
PALMER, AK 99645-8708

JOSEPH P & JANET E CULLINANE
1396 HARBOUR DR
MESQUITE, NV 89027-6713

LENNI KNAUS CUNNINGHAM
1348 HARBOUR DR
MESQUITE, NV 89027-6705

EDWARD M & AMY L CURTO
1253 QUICKSILVER WY
MESQUITE, NV 89027-6726

THOMAS F & REGINA M CZELUSNIAK
1234 AUGUSTA HILLS ST
MESQUITE, NV 89027-6757

D F A L L C
1714 W BONANZA
LAS VEGAS, NV 89106-4704

GREGORY & V DAGOSTINO REV LIV TR
708 CREST AVE S
KENT, WA 98030-6254

DAIRY HILLS L L C
843 E 970 S CIR
ST GEORGE, UT 84790-4037

LAWRENCE D & EILEEN M DALBEC
376 COLEBROOK
TROY, MI 48083-5001

WILLIAM & GRACE DALLACROCE
509 BEACON WY
MESQUITE, NV 89027-0

ORVILLE DALTON JUNIOR
P O BOX 7115
BUNKERVILLE, NV 89007-115

ELWYN J & LORRIANE L DANIELS
P O BOX 1100
HARDWICK, VT 5843-1100

GLORIA J & JOHN C DAVIS
442 OLD OAK RD
SALT LAKE CITY, UT 84108-1685

THEODORE L & MARILYN A DAVIS
P O BOX 7294
BUNKERVILLE, NV 89007-294

THOMAS & ELIZABETH DAVIS REV TR
1439 SEA PINES ST
MESQUITE, NV 89027-6734

FREDERIC JR FAM TR ETAL DAVISON
627 DEL LAGO DR
MESQUITE, NV 89027-6754

DEKOK FAMILY TRUST
1359 SEA PINES ST
MESQUITE, NV 89027-6721

FERN L DEKOK FAMILY TRUST
537 TORREY PINES DR
MESQUITE, NV 89027-6758

J L & J L DELAMARE REV LIV TR
1340 HARBOUR DR
MESQUITE, NV 89027-6705

WINTER & JOYCE DELAMARE
550 DEL LAGO DR
MESQUITE, NV 89027-6719

CARLOS & EVANGELINA DELEON
76 SECOND WEST ST
BUNKERVILLE, NV 89007-0

HERMELINDO ALVAREZ DELGADILLO
P O BOX 7378
BUNKERVILLE, NV 89007-378

ALAN L & DEBBIE L DEROO
1382 HARBOUR DR
MESQUITE, NV 89027-6711

DESERT ROCK MESQUITE L L C
1 FREMONT ST
LAS VEGAS, NV 89101-5601

AMELIA CALHOUN DEVLIN
525 TORREY PINES DR
MESQUITE, NV 89027-6727

JESUS DIAZ
279 E FIRST SOUTH ST
MESQUITE, NV 89027-6401

LUCIA DIAZ
P O BOX 3173
MESQUITE, NV 89024-3173

STEVEN M DICKSON
1408 SEA PINES ST
MESQUITE NV 89027-6729

MIKE DMITRICH TRUST
1207 MADRIGAL
MESQUITE NV 89027-6767

DO IT BEST CORP
%GEN COUNSEL
6502 NELSON RD
P O BOX 868
FORT WAYNE IN 46801-868

TERRY L DODD
1395 HARBOUR DR
MESQUITE NV 89027-6713

DARRYLL B & JANET DODENBIER
P O BOX 7636
BUNKERVILLE NV 89007-636

JOSEPH & BERTHA C DODENBIER
P O BOX 7636
BUNKERVILLE NV 89007-636

DODERO FAMILY TRUST
1534 MARJORIE ST
OCEANSIDE CA 92056-2313

GREGORY M & COLLEEN M DOUDT
P O BOX 1270
RIDGWAY CO 81432-1270

R SCOTT & D LUISA DOUGLAS
1383 SEA PINES ST
MESQUITE NV 89027-6725

GLENIS DOVE
444 BEACON RIDGE WY
MESQUITE NV 89027-6706

ROBERT & JENNIFER A DOWNING
1432 HARBOUR DR
MESQUITE NV 89027-6732

PATRICK M & ALANE B DOYLE
1264 QUICK SILVER WY
MESQUITE NV 89027-6726

MARK & ANGELA C
DRASKOVICH
P O BOX 7242
BUNKERVILLE NV 89007-242

ROBERT M & JANICE V
DRASKOVICH
P O BOX 1413
MESQUITE NV 89024-1413

JOHN R & SANDRA DROTAR
1391 SEA PINES
MESQUITE NV 89027-6725

DOUGLAS M & SANDRA DROVER
6724 DEHESA RD
EL CAJON CA 92019-1717

KEVIN & FAYE A DROVER
425 BEACON RIDGE WY
MESQUITE NV 89027-6707

DUNSHEE FAMILY TRUST
4213 HIBISCUS CT
SANTA MARIA CA 93455-3414

EDITH A DUNLAP
6700 LAWLOR CIR
ANCHORAGE AK 99502-1980

DOROTHY J DUNN LIVING TRUST
P O BOX 1360
GREEN RIVER WY 82935-1360

CAROLYN L EGGUM TRUST
15312 TUMULI RD
DALTON MN 56324-4634

ROGER D & CONNIE L DURRANT
1246 MADRIGAL DR
MESQUITE NV 89027-6751

MICHAEL D & JANET EDWARDS
3000 W 6000 ST
LAKE SHORE UT 84660-4713

JANEEN B ELLIOTT REVOCABLE
TRUST
1431 SEA PINES ST
MESQUITE NV 89027-6734

ELBERSON FAMILY TRUST
1402 SEA PINES ST
MESQUITE NV 89027-6729

SCOTT A & BARBARA J
ELLESTAD
1431 PINEHURST DR
MESQUITE NV 89027-6738

DENNIS M & DEBRA J ERICKSON
2009 16TH ST WEST
BILLINGS MT 59102-3031

ROBERT M & LINDA S ELLISON
7070 W 3800 S
WEST VALLEY CITY UT 84128-
3415

EMENEGGER REX ETAL
P O BOX 383
MESQUITE NV 89024-383

STEPHEN C ESKY
212 LAJOLLA DR
SANTA BARBARA CA 93109-0

ERICKSON GARY E & FELISA A
P O BOX 7044
BUNKERVILLE NV 89007-44

JOHN C SR & BARBARA E
ERICSON
4736 WEST ARM RD
SPRING PARK MN 55384-9701

PETER & MARIA EVANS
204 WASHINGTON AVE #204
SANTA MONICA CA 90403-3668

ELIZABETH H ETIE
521 TORREY PINES DR
MESQUITE NV 89027-6727

BOYD & MELANIE EVANS
P O BOX 812
LOGANDALE NV 89021-812

KIRK C & DELBERT C FAGG
1465 E 3900 S #B
SALT LAKE CITY UT 84124-1412

BURTON N FADICH JR
15408 MAIN ST #102
MILL CREEK WA 98012-9025

JOHN D & MARIAN J FAGAN
3 FAIRWAY DR
BUTTE MT 59701-4003

TRACY & NANCY FAILS
P O BOX 7082
BUNKERVILLE NV 89007-82

ROBERT G FAUGHT
50 MIDDLE LN
BUNKERVILLE NV 89007-0

JAMES M & JULIE P FAIR
9204 W CARIBON RD
POCATELLO ID 83204-0

GARY & DEBRA FAIRMAN FAM LIV TR
P O BOX 151105
ELY NV

ROBERT R FERRARO TRUST
18454 E COLUMBIA CIR
AURORA CO 80013-9441

FEDERAL NATIONAL MORTGAGE ASSN
400 COUNTRYWIDE WY SV-35
SIMI VALLEY CA 93065-6298

JONATHAN BRENT & AMY FELIX
P O BOX 7401
BUNKERVILLE NV 89007-401

GEORGE J & CAROL A FISHER
588 PINE MEADOW CT
MESQUITE NV 89027-6714

ROBERT & BARBARA FIELD
1421 SEA PINES
MESQUITE NV 89027-6730

FINDERUP LARS TRUST
5410 SOUTH 900 EAST
SALT LAKE CITY UT 84117-7204

JEAN M FOSTER REV LIV TR
646 SOUTHRIDGE DR
MESQUITE NV 89027-6718

FIZER FAMILY TRUST
1258 QUICKSILVER WY
MESQUITE NV 89027-6726

FORCHEMER HERBERT C FAMILY TRUST
%H DEMELLO & H FORCHEMER
581 BEACON RIDGE WY
MESQITE NV 89027-6704

STANLEY R FRANCIS
5001 W FLORIDA AVE #541
HEMET CA 92545-3861

WILLIAM D & CHARLES L FOUST
8742-B E AMHERST DR
DENVER CO 80231-4063

CINDY L FRALEY
1394 CATHEDRAL CANYON DR
MESQUITE NV 89027-6749

PAUL A & EILEEN F FREESE
405 BEACON RIDGE WY
MESQUITE NV 89027-6707

SCOTT & LAURA FREELOVE
21941 E RIDGE TRAIL CT
AURORA CO 80016-2665

JAMES C & JUDITH I FREESE
1352 SEA PINES ST
MESQUITE NV

JON & SHARON FRYE LIVING TR
P O BOX 1360
CALDWELL ID 83606-1360

ANNIE M FREHNER
605 MEADOWBROOK CT
MESQUITE NV 89027-6716

MICHAEL J & KATHY L FRITZ
15452 STEVENS ST
RATHDRUM ID 83858-8377

MARIA J GALINDO
%M ALEJOS
P O BOX 7020
BUNKERVILLE NV 89007-20

DAVID M & MARIAN FULLMER
5951 S 660 EAST
SALT LAKE CITY UT 84107-7685

GAFFNEY GAYLE TRUST AGREEMENT
1394 SEA PINES ST
MESQUITE NV 89027-6725

ELDEN & CAROLE GARDNER FAMILY TR
686 W ESCALANTE DR #10
VERNAL UT 84078-4318

ELUTERIO & AGNES GALLEGOS FAM TR
9859 S 3200 W
SOUTH JORDAN UT 84095-3110

GILBERT E & SHIRLEY A GARCIA
17299 WEST 61ST CT
GOLDEN CO 80403-7466

SCOTT & SUE GAUGHAN FAMILY TRUST
191 BARTIZAN DR
LAS VEGAS NV 89138-1528

HANS M & V SHIRLEEN GARDNER
P O BOX 7017
BUNKERVILLE NV 89007-17

JAMES W & B J GAUGER
1375 SEA PINES
MESQUITE NV 89027-6722

TERRY & GINGER GIBBONS
4808 KNICKERBOCKER ST
GILLETE WY 82718-5133

WESLEY & RITA GAUSS
595 PINE MEADOWS CT
MESQUITE NV 89027-6714

ANN B & RICHARD C GENTRY
6284 TELLER ST
ARVADA CO 80003-4826

WILLIAM & M GOBLE FAM LIV TR
8725 RUSSELL PARK RD
SALT LAKE CITY UT 84121-6142

DEE & DARLEANE GILL REV TR
11696 OAK MANOR DR
SANDY UT 84092-6214

JOHN & SHEREE GLEAVE
P O BOX 7176
BUNKERVILLE NV 89007-176

KARI LYNN & WILLIAM T GORIS
1378 VISTA DEL CIUDAD
MESQUITE NV 89027-2202

ERNEST J GOMEZ JR
45 S PARK VICTORIA DR #337
MILPITAS CA 95035-5720

REBECCA M GOOD LIVING TRUST
7730 S QUICKSILVER DR
SALT LAKE CITY UT 84121-5500

JONAS F GREEN
P O BOX 351
MT PLEASANT UT 84647-351

JOSEPH T GOW
P O BOX 7322
BUNKERVILLE NV 89007-322

MICHAEL E GRAJECK
P O BOX 7383
BUNKERVILLE NV 89007-383

DENNIS W & BARBARA GRIEDER
6645 LARABROOK WY
WEST JORDAN UT 84084-1849

GARY M & JOYCE GREENHALGH
1513 SUBLETTE
ROCK SPRINGS WY 82901-7331

KENNETH & CAROL GREGORY
1238 MADRIGAL DR
MESQUITE NV 89027-6751

EDWARD C & DOLORES I GUMPF
506 BEACON RIDGE WY
MESQUITE NV 89027-6700

GRUCELSKI-ELLQUIST
REVOCABLE TR
1357 HARBOUR DR
MESQUITE NV 89027-6710

JAMES & ELEANOR FGULENCHYN
718 SOUTHRIDGE DR
MESQUITE NV 89027-6740

RICHARD L & MONNA M HALE
1348 SEA PINES ST
MESQUITE NV 89027-6721

BRYAN & DAWN HAFEN TRUST
%N HAFEN
843 EAST 970 SOUTH CIR
ST GEORGE UT 84790-4037

KAREN COSBY HAFEN
148 S 200 W
IVINS UT 84738-6211

HALLSTROM FAMILY TRUST
7257 PROMENADE DR
SALT LAKE CITY UT 84121-4036

ALBERT A HALL
553 TORREY PINES DR
MESQUITE NV 89027-6758

WILLIAM A & JERI L HALL
11960 SHUGART FLATS RD
LEAVENWORTH WA 98826-9252

DENNIS W & EVA HARDY
P O BOX 7124
BUNKERVILLE NV 89007-124

ALONZO III & CAROLYN HANDY
813 FOX HILLS WY
MESQUITE NV 89027-6737

ELMER E & CAROLYN HARDING
1374 SEA PINES
MESQUITE NV 89027-6722

RICHARD E & TRACY L HART
816 S CALIFORNIA ST
HELENA MT 59601-5669

THOMAS & BARBARA HARKINS
1399 HARBOUR DR
MESQUITE NV 89027-6720

ROBERT M & VELDA HARMAN
1186 E COVINGTON CT
SANDY UT 84094-5668

TED C HATCH FAMILY TRUST
P O BOX 1200
VERNAL UT 84078-1200

PERRY & BETTY HARTLE
8272 DEPEW WY
ARVADA CO 80003-1820

DENNIS & LARAINE HARTLEY
1400 HARBOUR DR
MESQUITE NV 89027-6720

AUSTIN L HAYWARD
1401 HARBOUR DR
MESQUITE NV 89027-6720

EDWARD & MARGARET HAWKES
P O BOX 1174
BLOOMINGTON CA 92316-1174

DAN HAWKINS BYPASS TRUST
500 4TH AVE NORTH
GREYBULL WY 82426-1928

JAMES L & BERYL B HEIN
3124 W GLEN AVE
PEORIA IL 61615-3525

ROBERT & ANNABELLE HEBBERT
1395 PINEHURST DR
MESQUITE NV 89027-6746

JAMES L & BERYL B HEIN
3124 W GLEN AVE
PEORIA IL 61615-3525

SALLY J HENRIE FAMILY TRUST
3047 W 5500 S
ROY UT 84067-1215

MICHAEL J & NANCY A HEISER
1244 MADRIGAL DR
MESQUITE NV 89027-6751

DONALD W HENDON
1429 HARBOUR DR
MESQUITE NV 89027-6731

BETTY P HERMAN REV LIV TR
AGMT
5192 HALE
TROY MI 48085-3404

THOMAS B & INGE P HENRY
612 SOUTHRIDGE DR
MESQUITE NV 89027-6717

JAMES A HERB
706 SOUTH RIDGE DR
MESQUITE NV 89027-6740

HARRIE F HESS
444 HIGHLAND VIEW CT
MESQUITE NV 89027-8843

JOSE & OFELIA HERMOSILLO
P O BOX 692
MESQUITE NV 89024-692

DALLAS & JAN HERNAN
1355 HARBOUR DR
MESQUITE NV 89027-6710

TRACY & JOHN HILDEBRAND
1234 PEBBLE BEACH
MESQUITE NV 89027-6756

SHERRY A HEUSTON
P O BOX 2878
MESQUITE NV 89024-2878

HELEN J HIDESHIMA
P O BOX 2536
MESQUITE NV 89024-2536

JAMES H & JOANN HISE
1252 QUICKSILVER WY
MESQUITE NV 89027-6726

JAY D & RHONDA V HILLS
P O BOX 947
LOGANDALE NV 89021-947

DONALD & DARLENE HIRCOCK
355 W MESQUITE BLVD #D30-156
MESQUITE NV 89027-5196

RANDY HODSON REVOCABLE TR
417 BEACON RIDGE WY
MESQUITE NV 89027-6707

DAVID B & SALLI R HISLOP
247 E KRISTIN DR
SANDY UT 84070-3361

CHIH-HSIANG HO
768 TOZZETTI LN
HENDERSON NV 89012-7223

DANIEL & ALENE HOLDEN
P O BOX 7052
BUNKERVILLE NV 89007-52

EDWARD HOEPFNER
1394 HARBOUR DR
MESQUITE NV 89027-6713

FRED MARION HOUSTON
P O BOX 7094
BUNKERVILLE NV 89007-94

RALPH W HUFFMAN LIVING TR
421 BEACON RIDGE WY
MESQUITE NV 89027-6707

GLEN A & KELLEE A HORLACHER
P O BOX 7321
BUNKERVILLE NV 89007-321

SHIRLEE A HORNE REV TR AGMT
1399 SEA PINES ST
MESQUITE NV 89027-6729

JIMMIE A & ANGIE M HUGHES
1159 E PEPPERMILL PALMS BLVD
BEAVER DAM AZ 86432-0

DALE P & ANNETTE HOYT
P O BOX 7340
BUNKERVILLE NV 89007-340

FRANK M & CAROL L HUEY
1709 MONTE LARGO DR N E
ALBUQUERQUE NM 87112-4833

ROBERT C HUNT
536 BEACON RIDGE WY
MESQUITE NV 89027-6701

BRUCE E & CINDY HUGHES
P O BOX 7295
BUNKERVILLE NV 89007-295

JEFF & JODI HUGHES
373 CHAPEL WY
BUNKERVILLE NV 89007-0

STEPHEN M HYLAND
1351 HARBOR DR
MESQUITE NV 89027-6710

HULSE FAMILY TRUST
774 SOUTHRIDGE DR
MESQUITE NV 89027-6740

BERKELEY W HUNT FAMILY TR
285 W VIRGIN ST
P O BOX 7326
BUNKERVILLE NV 89007-326

NORMAN R IHME
582 PINE MEADOW CT
MESQUITE NV 89027-6714

LARRY M & PATRICIA A HUSO
18025 70TH PL W
EDMOND WA 98026-5608

TERRY A & LEE A HUTCHENS
2155 SW LINNELL
ROSEBURG OR 97471-4691

RUSSELL J & PEGGY JACKSON
1710 FOWLER LN
LONGMONT CO 80503-6954

MILDRED B ICCABAZZI TRUST
1369 E VINE ST
SALT LAKE CITY UT 84121-1940

ICE FAMILY TRUST
%W & R ICE
1368 CATHEDRAL CANYON DR
MESQUITE NV 89027-6749

STEPHEN A JEFFS FAMILY TRUST
1036 E 2750 N
OGDEN UT 84414-2406

ROBERT IKENOUYE
P O BOX 502
LA SALLE CO 80645-502

STEPHEN O & JUDITH INGRAHAM
1223 AUGUSTA HILLS ST
MESQUITE NV 89027-6764

ANDREW R & JANELL M JENSEN
P O BOX 7148
BUNKERVILLE NV 89007-148

HARVEY N & HARRIET I JASLOVE
1396 SEA PINES
MESQUITE NV 89027-6725

JAYJOANNA TRUST
1405 PINEHURST DR
MESQUITE NV 89027-6747

LAWRENCE & SHERILEE JENSEN
1222 MADRIGAL DR
MESQUITE NV 89027-6767

JENKINS FAMILY TRUST
588 DEL LAGO DR
MESQUITE NV 89027-6774

GEORGE D & FRANCES I JENKINS
1397 PINEHURST DR
MESQUITE NV 89027-6746

JAMES H & ROONGAROON JOHNSON
P O BOX 92
MESQUITE NV 89024-92

JENSEN FAMILY TRUST
11879 S 700 E
DRAPER UT 84020-9729

JAMES P & MICHELLE N JENSEN
353 CHAPEL WY
BUNKERVILLE NV 89007-0

GEORGE E JONES
3195 OAKLAND ST
AURORA CO 80010-1508

GARY P & LESLIE J JOCHUM
594 COUNTY RD #110
GLENWOOD SPRINGS CO
81601-9604

DAVID & ELLEN KATHLEEN
JOHNSON
251 E 7500 S
MIDVALE UT 84047-2643

NEPHI & MELISSA JULIEN
P O BOX 7361
BUNKERVILLE NV 89007-361

WESLEY A & PENNE S JOHNSON
P O BOX 48
CLYDE PARK MT 59018-48

ALVIN & MARILYN JONES REV
LIV TR
1240 AUGUSTA HILLS ST
MESQUITE NV 89027-6757

BYRON K & KAREN L JUSTUS
1999 TR
586 SUNFLOWER LN
IMPERIAL CA 92251-8942

GEORGE R & LINDA H JONES
1235 AUGUSTA HILLS ST
MESQUITE NV 89027-6757

MARK & JAN LEAVITT JUESCHKE
P O BOX 1436
YUCCA VALLEY CA 92286-1436

THOMAS P KEEFE TRUST
577 DELLAGO DR
MESQUITE NV 89027-0

JULIUS FAMILY TRUST
P O BOX 7327
BUNKERVILLE NV 89007-327

PATSY J JUNKER
640 SOUTHRIDGE DR
MESQUITE NV 89027-6718

JEANNETTE L KENDRICK
1204 MADRIGAL DR
MESQUITE NV 89027-6767

K & T MESQUITE L L C
302 WEST 900 NORTH
SPRINGVILLE UT 84663-1098

KAUFMAN LIVING TRUST
1385 SEA PINES ST
MESQUITE NV 89027-6725

ANNE T & DALE BONNIE KING
REV TR
833 FOX HILLS WY
MESQUITE NV 89027-6737

MARIAN KELLY
P O BOX 10334
KALISPELL MT 59904-3334

KELLY WILLIAM TRUST
%D BRAUNSTIEN
1523 S 1200 E
OGDEN UT84404-5960

KENNETH R & JEAN M KITT
959 E VINE ST
SALT LAKE CITY UT 84121-1731

DAVID E KENNEDY
1245 PEBBLE BEACH DR
MESQUITE NV 89027-6755

MARVIN & J LOVING KIESLING
TR
2415 DON ONOFRE TRAIL N W
ALBUQUERQUE NM 87107-3097

HERB C KNUDSEN
2526 BROOKSIDE AVE
OMAHA NE 68124-1836

DAVID J & JANICE KING FAM TR
1434 SEA PINES ST
MESQUITE NV 89027-6734

CRAIG L & PEGGY A KIRK
8404 S FAYEWAY DR
SANDY UT 84094-1313

KODIAK INVESTMENT GRP LLC
330 FALCON RIDGE PKWY #200
MESQUITE NV 89027-8881

KLUTH WESTPHAL FAMILY TR
4115 EL MACERO DR
DAVIS CA 95618-4303

LAWRENCE M & SUSAN K KNAPP
1389 SEA PINES ST
MESQUITE NV 89027-6725

LARRY & BIBI KUHLMAN
3146 KODI ELIZABETH ST
GRAND JUNCTION CO 81504-6275

KNUTSON FAMILY TRUST
608 MEADOWBROOK CT
MESQUITE NV 89027-6716

JOYCE M & THOMAS A KOCH
1382 SEA PINES ST
MESQUITE NV 89027-6725

JOSEPH R & BARBARA O LARSEN
1417 SEA PINES ST
MESQUITE NV 89027-6730

GEORGE KONTRA
1111 MISSION RD
KODIAK AK 99615-6541

DARLENE C KRAMBULE LIVING TRUST
1031 EAST 5285 SOUTH
OGDEN UT 84403-3921

LISA & KERRY G LARSON
P O BOX 7085
BUNKERVILLE NV 89007-85

KELLY & JUDITH KUMM
111 TRAIL CREEK RD
POCATELLO ID 83204-4005

LEE R & KAREN LANTZ
8469 LA VELA AVE
WHITTIER CA 90605-1140

LARRY W & LARRY LAYWELL
1350 HARBOUR DR
MESQUITE NV 89027-6710

M CARL & MARILYN B LARSEN
1344 HARBOUR DR
MESQUITE NV 89027-6705

LARSON FAMILY PARTNERSHIP
%M LARSON
1403 SEAPINES
MESQUITE NV 89027-6729

BENJAMIN E LEAVITT
P O BOX 7404
BUNKERVILLE NV 89007-404

ERIK LORIN & JUDITH L LAUB
P O BOX 7427
BUNKERVILLE NV 89007-427

DON R & BARBARA T LAWRENCE
1247 QUICKSILVER WY
MESQUITE NV 89027-6724

CLAUDIA LEAVITT
P O BOX 7228
BUNKERVILLE NV 89007-228

GIGI A LEAGUE
1117 TOBLER LN
BUNKERVILLE NV 89007-0

REA E LEAVER
601 RED ROCK DR
MESQUITE NV 89027-6761

THOMAS D LEAVITT SR EST
%D LEAVITT
P O BOX 130
CEDAR CITY UT 84721-130

CECIL R & CAROL LEAVITT
P O BOX 7119
BUNKERVILLE NV 89007-119

CLAUDIA LEAVITT LIVING TRUST
P O BOX 7123
BUNKERVILLE NV 89007-123

KENYON & MARIANNE LEAVITT
P O BOX 7064
BUNKERVILLE NV 89007-64

DANNIE ROLAN & SHARON LEAVITT
P O BOX 7073
BUNKERVILLE NV 89007-73

DAVID & NANCY LEAVITT
P O BOX 7233
BUNKERVILLE NV 89007-233

LARRY R LEAVITT
P O BOX 7086
BUNKERVILLE NV 89007-86

JOHNNY KAY & VELMA LYNN LEAVITT
P O BOX 7108
BUNKERVILLE NV 89007-108

JONATHAN & SUSAN LEAVITT TR
P O BOX 7228
BUNKERVILLE NV 89007-228

LUCILLE E MCCLELLAN REV LIV TR
1244 AUGUSTA HILLS ST
MESQUITE NV 89027-6757

VINCENT & KATHRYN LEAVITT
P O BOX 7155
BUNKERVILLE NV 89007-155

LEAVITT LAND & INVESTMENT INC
216 S 200 W
P O BOX 130
CEDAR CITY UT 84721-130

SAMUEL LEE
P O BOX 7016
BUNKERVILLE NV 89007-16

LILLIAN LEAVITT
P O BOX 7245
BUNKERVILLE NV 89007-245

RANDALL S & LAVERNE LEAVITT
P O BOX 7125
BUNKERVILLE NV 89007-125

LYNN & MARY ELLEN LITTLE
561 TORREY PINES DR
MESQUITE NV 89027-6758

KAROL E MCCONEGHY
P O BOX 7254
BUNKERVILLE NV 89007-254

LEE HAE UN & SUN JA
%LEES DISCOUNT LIQUOR
4427 E SUNSET RD
HENDERSON NV 89014-2265

J BRIAN & SANDRA G LOW
1246 AUGUSTA HILLS ST
MESQUITE NV 89027-6757

W SPENCER & REBEKAH DEE LINES
P O BOX 7424
BUNKERVILLE NV 89007-424

MICHAEL & DARLENE LISTER
215 SECOND WEST ST
BUNKERVILLE NV 89007-0

GARY O & JANNA R LUND
5882 S CASSIE DR
SOUTH OGDEN UT 84405-4812

JOHN B JR & ISABELLE M LOCKE
1241 PEBBLE BEACH DR
MESQUITE NV 89027-6755

NORMA & SALVATORE LOPRESTI
922 LARAMIE AVE
GENVIEW IL 60025-3370

JAMES E & MARTHA A LYNCH
1229 PEBBLE BEACH DR
MESQUITE NV 89027-6756

ROBERT L & SANDRA J LUMLEY
11861 PARTENIO CT
LAS VEGAS NV 89183-5544

LOUISE & WARREN LUMPKIN
1388 SEA PINES ST
MESQUITE NV 89027-6725

H SANDY & CRAIG A MAMALES
9777 HEARTHSTONE CIR
SOUTH JORDAN UT 84095-2813

JAMES & RHEA LYMAN REV TR
6432 WHEELBARROW PEAK DR
LAS VEGAS NV 89108-5715

LYNCH FAMILY TRUST
1425 SEA PINES ST
MESQUITE NV 89027-6730

PAULA D MARSTON
1539 ICE BOX CANYON
MESQUITE NV 89034-1114

EDWIN & WILMA J MACKENZIE
LIV TR
4012 S RAINBOW #K-731
LAS VEGAS NV 89103-2010

STEVEN & LILLIAN MALMGREN
600 MEADOWBROOK CT
MESQUITE NV 89027-6715

VAN J & LINDA L MARTIN
P O BOX 680656
PARK CITY UT 84068-656

NOEL E & LOUISE M MANOUKIAN
TRS
P O BOX 1794
MINDEN NV 89423-1794

GARY W & ROSLYN MARK
1426 SEA PINES
MESQUITE NV 89027-6730

WILLIAM & VALERIE MARTINEZ
430 COPPERSPRINGS DR
MESQUITE NV 89027-2935

CHARLES & CORINNE E MARTIN
5319 WILLOW SPRINGS DR #1
MORRISON CO 80465-2144

LOUIS G & J MARTIN 2001 FAM TR
1224 MADRIGAL DR
MESQUITE NV 89027-6767

SONNY J MORTENSEN REV TR
AGMT
13955 WHITE TAIL COVE
BLUFFDALE UT 84065-5522

EDWARD J & GRACE R MARTINEZ
572 BEACON RIDGE WY
MESQUITE NV 89027-6701

JOSE REFUGIO MARTINEZ
%AM FIRST FED CREDIT UNION
P O BOX 9199
OGDEN UT 84409-199

MCEWEN FAMILY TRUST
P O BOX 7084
BUNKERVILLE NV 89007-84

MARVIN & PATRICIA MARTINSON
584 BEACON RIDGE WY
MESQUITE NV 89027-6701

DENISE W MASON REVOCABLE
TRUST
55 WEST LAKE RIDGE DR
KAYSVILLE UT 84037-9655

VANCE MCKENZIE
832 LAKESIDE DR
CARBONDALE CO 81623-3110

ROBERT L & CAROL D MULHOLLAND
1376 CATHEDRAL CANYON DR
MESQUITE NV 89027-6749

BONNIE L MCCULLOUGH TRUST
P O BOX 295
VERMILION OH 44089-295

SMITA MEHTA
26400 GEORGE ZEIGER DR #201
BEACHWOOD OH 44122-7511

PAUL R MCGUIRK LIVING TRUST
613 LA SCALA DR
MESQUITE NV 89027-3916

ROSA J MCJUNKIN
1329 HARBOUR DR
MESQUITE NV 89027-6705

MENNENGA FAMILY TRUST
10294 CHARISSGLEN CIR
HIGHLANDS RANCH CO 80126-5523

PAUL II & M MCNICHOL REV TR AGMT
1342 HARBOUR DR
MESQUITE NV 89027-6705

LEONA J MCVAY
3426 W 98TH DR #A
WESTMINSTER CO 80031-7903

MESQUITE HOUSE L L C
22531 E LONG DR
AURORA CO 80016-2043

RICARDO & DELIA MENDOSA
236 DIAGONAL ST
BUNKERVILLE NV 89007-0

RAYMUNDO & SOFIA MENDOZA
P O BOX 3155
MESQUITE NV 89024-3155

RICHARD H & JOANN F MILLER AM TR
3695 S MIDLAND DR
WEST HAVEN UT 84401-9841

DAVID R MERKLEY
2195 W 1500 N
VERNAL UT 84078-9622

MESQUITE 18 HOLDINGS L L C
%G MCELROY & ASSOC INC
3131 S VAUGHN WY #301
AURORA CO 80014-3509

MIRCI JOSEPH TRUST
541 BEACON RIDGE WY
MESQUITE NV 89027-6704

MESQUITE INVESTMENT GRP LLC
1485 W PIONEER BLVD
MESQUITE NV 89027-7504

GEORGE P & JUDITH H MILLER
361 CALLE BORREGO
SAN CLEMENTE CA 92672-4834

MONTY THOMAS & ARLINE FAM LIV TR
320 S WESTFIELD CIR
ALPINE UT 84004-1594

ROBERT J & BESSIE FAYE MILLER
4150 S 1500 E
SALT LAKE CITY UT 84124-1539

STEVEN R & MYRNA K MILLER
P O BOX 7104
BUNKERVILLE NV 89007-104

MICHAEL D & SARA L MOORE
1419 HARBOUR DR
MESQUITE NV 89027-6731

JAMIE M MONSEN
P O BOX 7046
BUNKERVILLE NV 89007-46

ROBERT J & JO ANN MONSON
1349 HARBOUR DR
MESQUITE NV 89027-6710

RALPH J & MARJIE PAGE
1366 HARBOUR DR
MESQUITE NV 89027-6710

TROY J & BRANDIE LEE MONTY
1545 N STATE ST
PROVO UT 84604-2440

MARK L & SUSANNE MOORE
2207 S HIGHWAY 23
MENDON UT 84325-9750

NORBERT & ROSEMARY MUSIL
1416 HARBOUR DR
MESQUITE NV 89027-6731

ROBERT & CLAUDIA MORGAN
583 DEL LAGO DR
MESQUITE NV 89027-6719

JAMES R & SANDRA S MORROW
32 WEST MAIN
VERNAL UT 84078-2502

JOSE NAVARRO
P O BOX 7061
BUNKERVILLE NV 89007-61

BOYD D & JEAN PALMER TRUST
2174 W 5475 S
ROY UT 84067-2156

PAMELA JANE MULLIGAN
1396 CATHEDRAL CANYON DR
MESQUITE NV 89027-6749

LEOPOLD & PATSY NELLESSEN
566 DEL LAGO DR
MESQUITE NV 89027-6719

LISA S & DAVID R NAPOLETANO
3424 MCINTOSH LN
DARBY MT 59829-9640

FRANCISCO & IRENE J NAVARRO
P O BOX 7356
BUNKERVILLE NV 89007-356

ROBERT P & MARY R NELSON FAM TR
1410 HARBOUR DR
MESQUITE NV 89027-6720

NDKMT L L C
%N HAFEN
843 EAST 970 SOUTH CIR
ST GEORGE UT 84790-4037

NEAL FAMILY LIVING TRUST
24162 RIMVIEW RD
MORENO VALLEY CA 92557-3010

LYLE E & JACQUELIN S NOWICKI
625 HICKORY CT
BOWLING GREEN OH 43402-1400

ALBERT L & BEVERLY NELSON
P O BOX 1141
JACKSON WY 83001-1141

CYNTHIA J NELSON FAMILY TR
656 SOUTHRIDGE DR
MESQUITE NV 89027-6750

ROBERT K & P L ODLE REV LIV TR
1398 SEA PINES
MESQUITE NV 89027-6729

RONALD W & GLENNA N NELSON
%M BEASI
P O BOX 474
MESQUITE NV 89024-474

LARRY B & BONNIE B NICOL
1427 PINEHURST DR
MESQUITE NV 89027-6738

WILLIAM R & S OLMSTEAD REV TR
1361 HARBOUR DR
MESQUITE NV 89027-6710

O'BRIEN FAMILY TRUST
1367 PINEHURST DR
MESQUITE NV 89027-6745

RONALD W & MARY O'CONNELL
1422 SEA PINES ST
MESQUITE NV 89027-6730

EDWIN R & THEA B OLSON
1376 HARBOUR DR
MESQUITE NV 89027-6711

SEMISI & HEIDI OLIVE
P O BOX 7224
BUNKERVILLE NV 89007-224

GLEN W & VIRGINIA F OLIVER
413 BEACON RIDGE
MESQUITE NV 89027-6707

NORMAN R ORSTROM
1391 HARBOUR DR
MESQUITE NV 89027-6713

OLSEN FAMILY TRUST
1233 PEBBLE BEACH DR
MESQUITE NV 89027-6756

SCOTT RON & TRISCIA L OLSEN
P O BOX 7076
BUNKERVILLE NV 89007-76

MICHAEL C & JULIE B POPE
1260 COUNTRY RD #113
CARBONDALE CO 81623-0

GENE OLSON
P O BOX 1295
HAILEY ID 83333-1295

ROBERT J & LUCY M ORR
P O BOX 520484
BIG LAKE AK 99652-484

FE' OFAAKI K & LAVINIA PAONGO
P O BOX 7139
MESQUITE NV 89007-139

JOSEPH A & ANN K OTT LIVING TR
P O BOX 1106
CEDAR CITY UT 84721-1106

OXENREIDER FAMILY TRUST
1241 AUGUSTA HILLS ST
MESQUITE NV 89027-6757

BRANDON J & CAMRIN PARK
P O BOX 7055
BUNKERVILLE NV 89007-55

JANICE POTRATZ
1624 PALM #66
LAS VEGAS NV 89104-4798

V W P C PALMER REVOCABLE LIV TR
1181 PETERSEN BLUFF DR
RIVERTON UT 84065-4035

KALE B & HALLIE JO PEACOCK
173 S GRAPEVINE RD #6
P O BOX 3415
MESQUITE NV 89024-3415

DAVID A & DONNA K PAPINI
3525 COTTONWOOD CIR
FREDERICK CO 80504-5679

MICHAEL L & PAMELA J PAPINI
773 FOX HILLS WY
MESQUITE NV 89027-6736

RONALD C & DIXIE D PENROD
1434 PINEHURST DR
MESQUITE NV 89027-6738

JAMES K & CAROLE J PARKER
611 RED ROCK DR
MESQUITE NV 89027-6761

PATHWAY HOLDINGS NV L L C
619 S BLUFF ST
ST GEORGE UT 84770-3853

MAURICE & CHRISTINA PERKINS
P O BOX 7146
BUNKERVILLE NV 89007-146

VINCENT D PELLIS
663 DEL LAGO DR
MESQUITE NV 89027-6754

RICHARD PENNISE
P O BOX 7192
BUNKERVILLE NV 89007-192

RAY & SHANNON PETERSON
P O BOX 51330
IDAHO FALLS ID 83405-1330

ADOLFO A & PAULA B PEREZ
P O BOX 7014
BUNKERVILLE NV 89007-14

MICHAEL PERICLAKES FAMILY TRUST
3246 PICADILLY DR
SAN JOSE CA 95118-1547

RONALD P PETERSON
1371 PINEHURST DR
MESQUITE NV 89027-6745

GEORGE & KAREN J PERRY
589 BEACON RIDGE WY
MESQUITE NV 89027-6704

BOYD LEE & PEGGY D PETERSON
1363 SEA PINES ST
MESQUITE NV 89027-6721

PIONEER TECHNOLOGY INVEST LLC
P O BOX 2637
MESQUITE NV 89024-2637

RICHARD & SHEILA PETERSON
594 DEL LAGO
MESQUITE NV 89027-6753

ROBERT LYN PETERSON
1419 SEA PINES ST
MESQUITE NV 89027-6730

WILLIAM & SANDRA PLUMMER
BOX 2552
GREAT FALLS MT 59403-2552

KENNETH & ALINE A M PHILLIPS
1415 SEA PINES
MESQUITE NV 89027-6730

PHILLIPS WESTERN PPTYS L L C
5900 N GRANITE REEF RD #100
SCOTTSDALE AZ 85250-6280

ROAD CREEK RANCH INC
P O BOX 1027
CEDAR CITY UT 84721-1027

ROBERT PITELLI FAMILY REV TR
1360 SEA PINES ST
MESQUITE NV 89027-6721

RICHARD & SUZANNE PLAMONDON
393 HOEFT RD
LAKE LEELANAU MI 49653-9488

WILLIAM C PRESCOTT REVOCABLE TR
1226 PEBBLE BEACH DR
MESQUITE NV 89027-6756

VERNON & BONNIE POLLOCK FAM TR
P O BOX 7305
BUNKERVILLE NV 89007-305

VERNON & BONNIE POLLOCK FAM TR
P O BOX 536
MESQUITE NV 89024-536

LEVERN PRYOR
1415 PINEHURST DR
MESQUITE NV 89027-6743

SONNIE & CORRINE ROBERTS
1356 SEA PINES
MESQUITE NV 89027-6721

TIMOTHY M & JUDY K ETAL PRATHER
P O BOX 68
MCHENRY MD 21541-68

STAN A & VIOLET E PURRINGTON
1414 SEA PINES ST
MESQUITE NV 89027-6730

GEORGE E & JUDY PRINCE
1364 HARBOUR DR
MESQUITE NV 89027-6710

DAVID J & ELVIRA N PROFFITT
14656 E BROADWAY
WHITTIER CA 90604-1314

R & R FARM PROPERTIES L L C
%R BUNKER
P O BOX 7149
BUNKERVILLE NV 89007-149

MELISSA L PULSIPHER
P O BOX 7142
BUNKERVILLE NV 89007-142

JOHN R & CINDY R PURCELL
4364 N POWDER MOUNTAIN RD
EDEN UT 84310-9649

DAVID A & LOIS A RADFORD
1403 PINEHURST DR
MESQUITE NV 89027-6747

DONALD L QUICK REVOCABLE TRUST
843 GRAND CYPRUS CT
MESQUITE NV 89027-6735

JOHN P & JANET P QUINN
1423 PINEHURST DR
MESQUITE NV 89027-6743

REASONER REAL ESTATE TRUST
776 LOMA LINDA DR
BRIGHTON CO 80601-3644

R B G L L C
%CASABLANCA RESORT & CASINO
950 W MESQUITE BLVD
MESQUITE NV 89027-5204

R F M S MESTECH II
285 S FARNHAM RD
GALESBURG IL 61401-5323

LAVERNE A REID LIVING TRUST
1173 CORAL DESERT DR
LAS VEGAS NV 89123-3139

RAISKUMS FAMILY TRUST
1248 AUGUSTA HILLS ST
MESQUITE NV 89027-6757

TED L & VIRGINIA M RASMUSSEN
700 SOUTHRIDGE DR
MESQUITE NV 89027-6740

RALPH & S RICHARDSON LIV TR
1408 PINEHURST DR
MESQUITE NV 89027-6743

LARRY & COLLEEN REBER TRUST 2001
P O BOX 7065
BUNKERVILLE NV 89007-65

REID BUNKERVILLE L L C
P O BOX 7209
BUNKERVILLE NV 89007-209

MARIA DEL REFUGIO RIVAS
P O BOX 7134
BUNKERVILLE NV 89007-134

EDWARD P & DEANNA M REISCH
873 SAGEDELL RD
MESQUITE NV 89027-8814

MYRANN RICE TRUST
565 GREENS WY
MESQUITE NV 89027-7612

SCHOOL BOARD OF TRUSTEES
2832 E FLAMINGO
LAS VEGAS NV 89121-5205

JOAN E RIMBERT
801 SOUTHRIDGE DR
MESQUITE NV 89027-6742

ERNESTO & CARMEN RIOS
P O BOX 7075
BUNKERVILLE NV 89007-75

ROBINSON FAMILY TRUST
%G & W ROBINSON JR
1379 PINEHURST DR
MESQUITE NV 89027-6745

RIVER VIEW L L C
%N HAFEN
843 EAST 970 SOUTH CIR
ST GEORGE UT 84790-4037

WILLIAM & MARY L ROACH
1343 SEA PINES ST
MESQUITE NV 89027-6721

RODAS YANETH DEL CARMEN & LENIN
8986 SPRING PEEPER
LAS VEGAS NV 89148-3857

SCHROEPFER FAMILY TRUST
1399 PINEHURST DR
MESQUITE NV 89027-6746

DE VAN & RUBY J ROBINS
15 HOLIDAY DR
ALAMO CA 94507-2115

JUDITH ANN ROWE TRUST
1379 SEA PINES ST
MESQUITE NV 89027-6722

HOWARD & KATHLEEN ROBSON
1388 HARBOUR DR
MESQUITE NV 89027-6713

CHERYL & JACK ROCHFORD
P O BOX 621
THREE FORKS MT 59752-621

GEORGE R & GLORIA M RULIFFSON
1032 TRIUMPHANT ST
HENDERSON NV 89052-3918

TIMOTHY K ROE REVOCABLE LIV TR
%BONAVENTURE
4001 BELL AVE #164
BILLINGS MT 59106-2431

ROGERS N C
%E ANGELL
BOX 7212
BUNKERVILLE NV 89007-212

JAMES E & KATHLEEN S RYAN
558 PINE MEADOW CT
MESQUITE NV 89027-6714

JOE PAUL ROWELL TRUST
P O BOX 1578
VERNAL UT 84078-5578

PATTIE L RUDER
1423 HARBOUR DR
MESQUITE NV 89027-6731

DAN D & L VIRGINIA SAMPLE
1055 FALCON NEST CT
MESQUITE NV 89027-8829

RUSSO FAMILY TRUST
401 BEACON RIDGE WY
MESQUITE NV 89027-6707

EDWARD J & NORMA J RUTT
4009 16TH ST LN
GREELEY CO 80634-3439

SANTOS & LEONOR SANDOVAL
P O BOX 7331
BUNKERVILLE NV 89007-331

GABRIEL C SALAZAR
1733 W 12600 S #126
RIVERTON UT 84065-7043

DENNIS & JOSEPHINE SALT
7426 S GREENBERG CT
MIDVALE UT 84047-0

JOSEPH & CATHERINE SARDINA
103 WILCOX DR
BARTLETT IL 60103-4679

ROMAN PEREZ SANCHEZ
P O BOX 7332
BUNKERVILLE NV 89007-332

JOSE CLEOFAS SANDOVAL
74 W VIRGIN ST
BUNKERVILLE NV89007-0

MICHAEL R & ANNAMARIE B SCHAFFER
1387 SEA PINES ST
MESQUITE NV 89027-6725

DOYLE P & ELIZABETH V SANSOM
1242 PEBBLE BEACH DR
MESQUITE NV 89027-6755

JONE WHITE SANZO FAMILY TRUST
1374 HARBOUR DR
MESQUITE NV 89027-6711

JUDY K SMITH REVOCABLE TRUST
P O BOX 430
PINEDALE WY 82941-430

RONNIE J & JANET O SAYER
120 W STONE RUN LN
IDAHO FALLS ID 83404-7927

ROBYN L & KATHY R SCHAEFERMEYER
P O BOX 7392
BUNKERVILLE NV 89007-392

JEFFREY J & VICKI MOON SCHULTZ
P O BOX 1817
PARK CITY UT 84060-1817

JOSEPH D & MARIE A SCHLESINGER
1351 SEA PINES ST
MESQUITE NV 89027-6721

JOSEPH & KATHRYN SCHOLLER FAM TR
219 S TALBOT
LAYTON UT 84041-4405

RANDALL L & EVELYN W SCHWANDT
211 LAKEVIEW
TOOELE UT 84074-9611

RAYMOND E & DOROTHY S SMITH TR
1622 E 3150 S
SALT LAKE CITY UT 84106-3464

DAVID H & JINNY L SCHULTZ
16220 FERRIS ST
GRAND HAVEN MI 49417-9601

HEIDI & ARTHUR SEAGER
1409 SEA PINES ST
MESQUITE NV 89027-6729

JOSEPH I & CYNTHIA M SCHUMACHER
735 INDUSTRIAL RD
ST GEORGE UT 84770-3124

TERESA SCHUMACHER FAMILY TRUST
1187 LIZZIE LN
ST GEORGE UT 84790-2234

VIKI R SEGER
545 TORREY PINES DR
MESQUITE NV 89027-6758

MICHAEL K SCHWARTZ
6363 MOUNT LOGAN WY
WEST JORDAN UT 84084-5355

JOHN M & SANDRA K SCIBEK
1239 PEBBLE BEACH DR
MESQUITE NV 89027-6755

LORIN & JEAN SHEFFIELD
1416 SEA PINES ST
MESQUITE NV 89027-6730

ROSCOE B & MARIAN SNEDEKER
1395 SEA PINES ST
MESQUITE NV 89027-6725

SECURITY LAND & LIVESTOCK
216 S 200 W
P O BOX 130
CEDAR CITY UT 84721-130

ROBIN A & SCOTT D SHERWOOD
P O BOX 950
BIG PINEY WY 83113-950

LARRY & HESTER SHARKEY TR
1370 SEA PINES ST
MESQUITE NV 89027-6722

00225310059
ROBERT A & LANA D SHAW
P O BOX 7246
BUNKERVILLE NV 89007-246

GILBERT L & ESPERANZA SHIRLEY
1394 CALLE PEQUENO
GARDNERVILLE NV 89410-6612

CLAYTON A & KAREN S SHEPLOR
428 E THUNDERBIRD RD #130
PHOENIX AZ 85022-5229

ERNEST D & SANDRA SHEPPARD
881 S ARBUTUS ST
LAKEWOOD CO 80228-3003

DANA DEE SIMONICH
562 DEL LAGO DR
MESQUITE NV 89027-6719

DAVID & NADINE SHINER
1435 W SHELBY LN
HELPER UT 84526-2419

PHILIP F & JUDITH A SHIPLET
513 BEACON RIDGE WY
MESQUITE NV 89027-6703

ANTHONY T SMITH
4510 S SUNSET CIR
BOUNTIFUL UT 84010-5884

RANDOLPH W SHOPSHIRE FAMILY TR
554 TURTLEBACK RD
MESQUITE NV 89027-4910

PHILLIP D & LINDA C SHORT
1365 HARBOUR DR
MESQUITE NV 89027-6710

RICHARD E & LOIS E SWAYNE
1042 RAPTOR CIR
MESQUITE NV 89027-8828

SKYWAY-PROPERTIES
P O BOX 40381
GRAND JCT CO 81504-381

DAVID G & GLORIA N SMART
1371 SEA PINES
MESQUITE NV 89027-6722

JAMES M & SHARON SNELL
1215 AUGUSTA HILLS ST
MESQUITE NV 89027-6764

HELEN M SMITH TRUST
1390 SEA PINES ST
MESQUITE NV 89027-6725

JOHN L & KATHERINE SMITH
1252 AUGUSTA HILLS DR
MESQUITE NV 89027-6757

DONALD E & SALLY R SPECHT
421 MARIANA POINTE CT
LOVELAND CO 80537-7993

KENNETH & CHRISTINE SWINT
1404 HARBOUR DR
MESQUITE NV 89027-6720

HENRY J & GWENDA A SZERSZEN
1236 AUGUSTA HILLS ST
MESQUITE NV 89027-6757

LAWRENCE G & DEBORAH F SPITALE
1421 HARBOUR DR
MESQUITE NV 89027-6731

WESLEY R & SANDRA SNOW
13 APPLE HILL
SANDY UT 84092-5504

TERRY L & CYNTHIA R SPAWN
1246 QUICKSILVER WY
MESQUITE NV89027-6724

RICHARD & RANAE STALLINGS FAM TR
1485 E CEDAR ST
POCATELLO ID 83201-3102

CHRIS & CATHLEEN SPEIDEL
12067 E AMHERST PL
AURORA CO 80014-3101

JAMES D & ALLISON M SPENCER
P O BOX 7174
BUNKERVILLE NV 89007-174

BONNIE J STEWART
1389 HARBOUR DR
MESQUITE NV 89027-6713

STEVE & LINDA SQUIRE
1410 SEA PINES
MESQUITE NV 89027-6729

STALLINGS FAMILY TRUST
520 N HILLSIDE CIR
ALPINE UT 84004-1348

DAN T & PEGGY J STOKER
441 E 835 N
OREM UT 84097-3366

JOHN & BARBARA A STALLONE
P O BOX 201172
ANCHORAGE AK 99520-1172

RICHARD T STCLAIR
P O BOX 271
SUN VALLEY ID 83353-271

CLINT & KELLE SUDWEEKS
P O BOX 7454
BUNKERVILLE NV 89007-454

EMILY S & TIMOTHY STEWART REV TR
1371 HARBOUR DR
MESQUITE NV 89027-6711

LARRY W & TINA M STEWART
5744 S WASATCH BLVD
SALT LAKE CITY UT 84121-3522

SUN DEVELOPMENT CORP
21 MAIN ST
RAPID CITY SD 57701-2831

STANLEY L & MINA G STONE
1373 HARBOUR DR
MESQUITE NV 89027-6711

KYLE M & COLLEEN H STUBBS
1423 SEA PINES ST
MESQUITE NV 89027-6730

SUNSET LAKE FARMS L L C
4471 NORTH 5000 WEST
REXBURG ID 83440-3059

CLINTON B SUDWEEKS
P O BOX 7148
BUNKERVILLE NV 89007-148

SULLIVAN FAMILY TRUST
854 GRAND CYPRUS CT
MESQUITE NV 89027-6735

GERALD & KATHLEEN SZMURIO
P O BOX 257
DANIEL WY 83115-257

SUNROC CORPORATION
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ST GEORGE UT 84770-7118

SUNSET GREENS HOMEOWNERS ASSN
%TAYLOR ASSN MGT
259 N PECOS RD #100
HENDERSON NV 89074-7366

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1375 CATHEDRAL CANYON
MESQUITE NV 89027-6749

CAROL L SUVOSKI LIVING TRUST
1401 SEA PINES ST
MESQUITE NV 89027-6729

BRADLEY SWANSON
243 CHAPEL WY
BUNKERVILLE NV 89027-0

RALPH W & KRISTEN D TAYLOR
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HELPER UT 84526-1147

ROBERT C & LINDA S SZUCH
1439 PINEHURST DR
MESQUITE NV 89027-6738

DAVID S & CARMEN J TALBOT
66 W BAMBERGER WY
CENTERVILLE UT 84014-2802

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EVAN TANNER
P O BOX 7234
BUNKERVILLE NV 89007-234

CHARLES & REBECCA TAVENNER
9270 HAZEL CT
WESTMINSTER CO 80031-2723

PEGGIE L THOMAS LIVING TRUST
7248 W 3100 S
MAGNA UT 84044-1518

00224619053
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636 RED ROCK DR
MESQUITE NV 89027-6761

WILBUR L SR & KATHLEEN A TAYLOR
1247 PEBBLE BEACH
MESQUITE NV 89027-6755

TOLLACKSON FAMILY TRUST
1387 HARBOUR DR
MESQUITE NV 89027-6713

THOMAS & JENNIFER TEMPFER
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SALT LAKE CITY UT 84121-6307

MICHAEL A & DANIELLE TERRIL
P O BOX 1705
LOGANDALE NV 89021-1705

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MESQUITE NV 89027-6742

THOMPSON FAMILY TRUST
753 FOX HILLS WY
MESQUITE NV 89027-6733

TIBOLT FAMILY LIVING TRUST
9860 SW LUMBEE LN
TUALATIN OR 97062-7352

TRI-STATE VENTURES L L C
7150 PLACID ST
LAS VEGAS NV 89119-4203

DONALD L & TERESA A TONELLI
5087 LEWSINDA
KALAMAZOO MI 49009-3823

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1430 SEA PINES
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UNKNOWN OWNER
%D LEAVITT
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CEDAR CITY UT 84721-130

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BUNKERVILLE NV 89007-267

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%P REX
575 E 875 N
OREM UT 84097-3381

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ELK GROVE CA 95757-3053

TRUSTEE CLARK COUNTY TREASURER
%LEE STUART & MELANIE
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BUNKERVILLE NV 89007-314

TURNER FAMILY TRUST
P O BOX 7088
BUNKERVILLE NV 89007-88

LESLIE L ZIVKOVICH
2321 GREEN RIDGE DR
WICKLIFFE OH 44092-2071

URTHEIL FAMILY TRUST
853 GRAND CYPRUS
MESQUITE NV 89027-6735

USA BUREAU LAND MANAGEMENT
LAND SALES & ACQUISITION DIV
4701 N TORREY PINES DR
LAS VEGAS NV 89130-2301

STEVE & SHERRY WILDER
533 BEACON RIDGE WY
MESQUITE NV 89027-6704

NORMAN & PEGGY VIELMETTE REV TR
1337 HARBOUR DR
MESQUITE NV 89027-6705

POHL PATRICIA VOGEL
144 CHAPARRAL DR
SAINT PAUL MN 55124-9720

W PIONEER 8 13 ACRES L L C
7912 W SAHARA
LAS VEGAS NV 89117-1990

RICARDO & KAREEN VALDEZ
16865 E KENYON DR
AURORA CO 80013-2826

LINDA VANNORMAN SEPARATE PPTY TR
1368 HARBOUR DR
MESQUITE NV 89027-6711

DORLENE WAITE ETAL
5271 VIA DE PALMA
LAS VEGAS NV 89146-6864

STEVE & DEBORAH WILKEN
29 BRONCO DR
THREE FORKS MT 59752-9305

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WADE HOLDINGS L L C
P O BOX 610
MESQUITE NV 89024-610

WAGNER FAMILY TRUST
792 SOUTHRIDGE DR
MESQUITE NV 89027-6741

WANLASS FAMILY TRUST
1063 CHAPEL RIDGE DR
SOUTH JORDAN UT 84095-7826

MICHAEL & LYNNETTE WAITE
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STEPHEN DOUGLAS & EMILY P WAITE
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BUNKERVILLE NV 89007-249

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WARD CHARLES A JR FAMILY TR
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P O BOX 7287
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WELFARE FARM L L C
P O BOX 7209
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HAROLD & A WITTWER 1999 REV TR
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WILLIAM & ROMA R WOLFE EV LIV TR
1346 HARBOUR DR
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RENEE N WRIGHT FAMILY TRUST
524 BEACON RIDGE WY
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# APPENDIX D

# Comments and Responses

During the audience comment period for the PIM on November 4, 2010, the court reporter recorded the public comments and NDOT or City of Mesquite representatives' responded to comments. Table 1 below states the person or stakeholders name, the page of the actual transcript where the comment starts, a summary of the comment, and a summary of the response.

**Table 1. Summary of comments and responses made during the public information meeting**

| Person/Stakeholder Name | Page# Comment Start | Comment Summary | Response Summary |
|---|---|---|---|
| Kurt Lytle<br>Southern Nevada Water Authority | 10 | Mr. Lytle wanted to know if NDOT and the City, as they work together, are reserving utility corridors? SNWA and other utility companies would prefer that utility borders are reserved out for possible uses in the future. | **NDOT Response:** At this point in the project, that subject hasn't been discussed. This project will be an overpass so the potential for crossing under I-15 is unlikely. The short answer is no. |
| Angela Brooks-Reese | 11 | Mrs. Brooks-Reese wanted to know if the road would be expanded to the north, south, west. She is also very excited about the proposed project. | **NDOT Response:** The road may be extended to the north and west. Regarding the south side expansion, NDOT is not certain of the detail of the City's future development plans to the south, but expansion is constrained by the river. |

Additionally, two comments were received (Table 2 and following documentation) regarding the proposed project during the 30-day comment period. Table 2 lists the organization or person's name, how the comment was received, a summary of the comment, and the comment response. Copies of comments are located in Appendix I.

**Table 2. Summary of other comments and responses made during the comment period.**

| Organization/Name Comment Type | Comment | Comment Response |
|---|---|---|
| City of Mesquite Planning and Environmental Resources **Letter (11/17/10)** | 1) Access, Land Use, and Safety: The new exit will provide access for the expanding Mesquite Technology and Commerce Center (MTCC). Any design for this area should consider the surrounding industrial uses. Industrial areas generally consist of a higher number of larger transport vehicles that require additional design considerations. | 1) The purpose and need for the proposed project is to accommodate larger transport vehicles and vehicular movement within the commercial and industrial areas. |
| | 2) Aesthetics: The new exit will offer a gateway entrance in to the community and the MTCC. The MTCC is a newly developed industrial center, intended to attract high quality manufacturing and industrial businesses. As such, Design and Development Standards for the MTCC have been adopted and enforced, in order to improve the quality of the area. Design and landscaping should reflect the high quality of the MTCC. | 2) Design and development standards will be coordinated between NDOT and the City of Mesquite. |
| | 3) Archaeological Resources, Noise, Biological Resources, Water Quality, Hydrology, Wildlife, and Wildlife Refuges. The exit is in vicinity of the Virgin River, as well as, Western Wash. Western Wash, is a tributary to the Virgin River, therefore, best management practices for storm water protection are required during construction. The Virgin River has been identified as habitat for four endangered species and segments of the Virgin River have been designated as Areas of Critical Environmental Concern. Furthermore, the corridor is habitat for several types of wildlife that are reliant on the Virgin River ecosystem. In proximity to the Virgin River, please be aware that archaeological resources have been known to be found. | 3) The EA will analyze impacts to the Virgin River and water quality. The project proponent will obtain all required Section 404 Clean Water Act permits and comply with the terms and conditions of each permit. The contractor will comply with all mitigation and minimization measures identified in the EA regarding impacts to water quality and Waters of the U.S. This will include a stormwater pollution prevention plan for construction and BMPs. The EA will also analyze impacts to wildlife, and threatened and endangered species. The project proponent will comply with all restrictions and mitigation specified during informal consultation with the USFWS. The project proponent and contractor will also comply with all mitigation and minimization measures specified in the EA. The EA will analyze impacts to cultural resources in compliance with |

| Organization/Name<br>Comment Type | Comment | Comment Response |
|---|---|---|
| | | Section 106 consultation and the project proponent and contractor will comply with all mitigation and minimization measures identified in the EA. |
| | 4) <u>Public Parks and Recreation Areas:</u> The City of Mesquite Master Plant has established a network of trails, in order to connect a variety of uses to parks and open spaces. The Mesquite Master Plan identifies three trails in the location of the proposed exit. A community trail is located parallel to I-15, the Woundfin Trail is proposed along Pioneer Blvd, and the Joshua Tree Trail is located along Western Wash. Safety and access of trails users should be provided in the design | 4) NDOT will work with the City of Mesquite throughout the design process to maintain access to the trail network. |

| Organization/Name<br>Comment Type | Comment | Comment Response |
|---|---|---|
| Frank and Carol Huey<br>**Letter (11/01/10)** | 1) We do not believe that an extension of the existing interchange system is necessary in such a small area of population.<br>2) Presently the economy of Mesquite has deteriorated to the extent that a major casino, the "Oasis," is closed with its attendant loss of jobs, the large sports complex which was planned for Mesquite has been canceled, and the promise of new jobs with the power company has also fallen through. More growth and more traffic have come to a halt.<br>3) We believe that in the present poor economy of Nevada and Mesquite a revised interchange system appears to be a wasteful use of public money. Even though a small number of temporary jobs might be deployed to this project, we believe these funds would responsibly serve the state much better if allocated to health, education, public safety or other more pressing human needs.<br>4) As business have been forced to reconsider their options in the current economic picture, we hope that you and other government agencies will reconsider expenditures on this unnecessary public road project. | 1) The proposed project traffic model indicates the necessity of this interchange to facilitate traffic operations for Exit 120 in addition to providing new access to developing areas.<br><br>2), 3) and 4) The proposed project is not only designed for existing conditions, but must also accommodate future anticipated growth through the year 2032. |

**Planning and Environmental Resources**
Catherine Lorbeer, AICP, Director
10 E. Mesquite Blvd., Mesquite, NV 89027
Phone: (702) 346-2835 Fax: (702) 346-5382

November 17, 2010

Mr. Steve M. Cooke, P.E.
Chief Environmental Services Division
Nevada Department of Transportation
1263 South Stewart Street
Carson City, Nevada 89712

Dear Mr. Cooke:

The City of Mesquite appreciates the opportunity to provide comments in response to National Environmental Policy Act (NEPA) requirements. Please consider the following potential impacts with respects to the proposed construction of a new interchange at MP 118.

1. Access, 8. Land Use, and 11. Safety:
The new exit will provide access for the expanding Mesquite Technology and Commerce Center (MTCC). Any design for this area should consider the surrounding industrial uses. Industrial areas generally consist of a higher number of larger transport vehicles that require additional design considerations.

2. Aesthetics:
The new exit will offer a gateway entrance into the community, as well as, the MTCC. The MTCC is a newly developed industrial center, intended to attract high quality manufacturing and industrial businesses. As such, Design and Development Standards for the MTCC have been adopted and enforced, in order to improve the quality of the area. Design and landscaping should reflect the high quality of the MTCC.

4. Archaeological Resources, 10. Noise, 13. Biological Resources, 14. Water Quality and Hydrology, 15. Wildlife and Wildlife Refuges:
The exit is in vicinity of the Virgin River, as well as, Western Wash. Western Wash, is a tributary to the Virgin River, therefore, best management practices for storm water protection are required during construction.

Endangered plants are regulated by the Nevada Division of Forestry and endangered species are regulated by the Fish and Wildlife Services.

The Virgin River has been identified as habitat for four (4) endangered species and one (1) threaten species. In addition, segments of the Virgin River have been designated has Areas of

Critical Environmental Concern (ACEC). Furthermore, the corridor is habitat for several types of wildlife that are reliant on the Virgin River ecosystem.

In proximity to the Virgin River, please be aware that archaeological resources have been known to be found.

9. Public Parks and Recreation Areas:
The City of Mesquite Master Plan has established a network of trails, in order to connect a variety of uses to parks and open spaces. The Mesquite Master Plan identifies three trails in the location of the proposed exit. A community trail is located parallel to I-15, the Woundfin Trail is proposed along Pioneer Blvd, and the Joshua Tree Trail is located along Western Wash. Safety and access of trails users should be provided in the design.

The City of Mesquite staff supports interchange construction to address transportation needs. Please do not hesitate to contact me if you have any questions at (702) 346-2835 or clorbeer@mesquitenv.gov.

Sincerely,

Catherine J. Lorbeer

Catherine J. Lorbeer, AICP
Planning and Environmental Resources Director

cc: Tim Hacker, City Manager
Kurt Sawyer, Capital Projects Director
John Willis, Associate Planner

1709 Monte Largo Dr., NE
Albuquerque, NM 87112
November 1, 2010

Nevada Department of Transportation
1263 South Stewart Street
Carson City, NV 89712


ATTN: Steven M. Cooke, Environmental Services Division

Dear Sir:

SUBJECT: Intent-to-Study
I-15 Proposed Interchange at MP 118 Project
Mesquite and Clark County, NV
Project ID: 73553

In line with the Public Information Meeting to be held November 4, 2010 in Mesquite, Nevada, we wish to register our personal opinions on the proposed new interchange system.

We own a property at 1369 Harbour Drive in the Sunset Greens Subdivision at Mesquite, where we reside for an extended period each year. This is one of the nearest residential areas to the proposed new interchange at MP 118.

We definitely opposed the proposed interchange for the following reasons:

1) We do not believe that an extension of the existing interchange system is necessary in such a small area of population;

2) Presently the economy of Mesquite has deteriorated to the extent that a major casino, the "Oasis," is closed with its attendant loss of jobs, the large sports complex which was planned for Mesquite has been canceled, and the promise of new jobs with the power company has also fallen through. More growth and more traffic have come to a halt.

3) We believe that in the present poor economy of Nevada and Mesquite a revised interchange system appears to be a wasteful use of public money. Even though a small number of temporary jobs might be deployed to this project, we believe these funds would responsibly serve the state much better if allocated to health, education, public safety or other more pressing human needs.

As businesses have been forced to reconsider their options in the current economic picture, we hope that you and other government agencies will reconsider expenditures on this unnecessary public road project.

Sincerely,

Frank M. & Carol L. Huey

Frank M. and Carol L. Huey

# APPENDIX E

# Transcript for the Public Meeting

NEVADA DEPARTMENT OF TRANSPORTATION

PUBLIC INFORMATION MEETING

FOR

I-15 PROPOSED INTERCHANGE AT MILEPOST 118 PROJECT

MESQUITE, NEVADA

THURSDAY, NOVEMBER 4, 2010

4:00 TO 7:00 P.M.

MESQUITE CITY HALL COUNCIL CHAMBERS

10 EAST MESQUITE BOULEVARD

MESQUITE, NEVADA

REPORTED BY: DANA J. TAVAGLIONE, RPR, CCR 841

APPEARANCES:

CITY OF MESQUITE:
Robin Cude, Administrative Assistant,
Capital Projects

NEVADA DEPARTMENT OF TRANSPORTATION:
Adam Searcy
Julie Maxey
Isabel Alacorn
Chris Peterson

HDR ENGINEERING:
Sherri McMahon, Senior Planner
Laycee Kolkman

LIST OF SPEAKERS:
Kurt Lytle, SNWA
Angela Brooks-Reese

MESQUITE, NEVADA; THURSDAY, NOVEMBER 4, 2010

PUBLIC INFORMATION MEETING

5:35 P.M.

-oOo-

Whereupon --

MR. SEARCY: Thanks for coming.

Good evening. My name is Adam Searcy. I'm with the Nevada Department of Transportation.

If anybody is not here to listen to a presentation on the Proposed Interchange at Milepost 118 on Interstate 15, I hope I don't disappoint you because that's what we're here to talk about. Thanks for coming out.

In a second, we'll go through some more detailed team introductions, but I'd like to welcome everyone for taking time out of your evening tonight. We've got a broad team involved in this project. This is an early stage in the project, so we have a lot of stakeholders and cooperating agencies involved.

We'll go through, in a little bit more detail in a second, we'll go through tonight the overview of the project. Preliminary, though it is, we do have a general footprint in mind we'll show you. We'll detail the public comment process that

the environmental portion, the environmental phase of this project that we're in requires and enables the public comment incorporation.

So just a little summary, to get into the project team members, you have a number of federal and state agencies, as you can see. FHWA doesn't have a representative here tonight but is involved in every step of this process.

NDOT, I'm with Nevada Department of Transportation. I have a handful of other representatives from NDOT that are contributing to this project.

City of Mesquite is working in close cooperation, representative from City of Mesquite tonight here also, and as I mentioned various federal agencies.

I should mention also HDR, Incorporated, is our consultant engineer guiding us and doing the actual leg work on this project. So those are some of the team members involved here tonight.

We're working on the environmental phase of this project, specifically titled an Environmental Assessment. It has to do with the level of impact that this project is anticipated to cause in the area. I won't go through and read all of that.

But the key word here is the National Environment Policy Act. "NEPA" is an acronym you'll hear from time to time. We're in the middle phases, early stages of the NEPA process. It's a federal requirement for any project that involves federal funding, and part of that process is outlined on that board in a little more detail.

But it involves these Public Information Meetings in which we solicit public feedback, look at alternatives and incorporate some analysis. So we'll go through that in a little more detail, but that's really why we're here tonight.

Here in a little more detail, the E.A. process of the NEPA. Develop the project scope, a Purpose and Need, and initial alternatives. These are some things that we've begun to do behind the scenes before we came to you today, kind of flesh out what we're looking to do with this project.

And here we are tonight at the Public Information Meeting. So we're looking for input, public concerns, perhaps things that we're not aware of, from a design standpoint, that your input could be beneficial to the ultimate product here.

Continuing on, we will finalize and incorporate your comments, actually submit a

document summarizing all of our field investigations, all of the sensitivity concerns, and our proposed impacts to the federal government various agencies that I mentioned earlier, will evaluate it, voice their opinions. We will incorporate their feedback, if necessary, and ultimately receive approval. That is our intent, so the NEPA decision document.

In there, I should mention, there is also a Final Public Meeting. Toward the conclusion of this process, when we have had most of our findings approved, we'll hold a public meeting identical to this one to go through kind of where we're at before it is finalized.

So some of the thought process involved in this E.A. document is kind of outlined here. "Is the project technically feasible, economically reasonable, and environmentally responsible?" Those seem like broad questions, but those are some pretty important questions on every project, and as you can imagine, apply to this project to add some, you know, serious thought put to them.

Again, some additional questions: "Is the project compatible with local transportation and land use plans? Is the project socially and fiscally responsible?" I mean, those two questions

have big impacts when you think about why this interchange is likely being constructed and when it will be constructed.

Let's wrap it up. This is the exhibit that's shown over there, Existing Conditions. To zoom you in a little bit, you can see on that larger exhibit, this is the western end of -- gosh, is it West Pioneer Boulevard, I believe. This is the I-15 heading back towards Las Vegas, and Sunset Greens subdivision is over in this vicinity. So that's kind of where we're at out there right now.

The Proposed Project Elements, again, illustrated in a little more detail in this larger exhibit, basically shows our proposed tight diamond interchange. We have a brand new interchange at this location, on and off-ramps on both sides of the freeway so both northbound and southbound would be able to get on and off.

Right now, we're proposing an overpass at this location, so there would be essentially no impacts to the main line of I-15 right there, and then this would be an extension of this Parkway, connecting into Pioneer Boulevard.

The Purpose and Need. This is, again, some broad bullet points to describe the Purpose and Need

of the project itself. Access to industrial areas and accommodation of future land growth. All of you know that those are two major drivers of this interchange, and they're the top two bullet points in our Purpose and Need Statement.

So this Purpose and Need Statement is a portion of the E.A. document that gets submitted that goes through some changes, some development with our project team, to summarize in words why we're looking to do this project.

Some other important aspects of the project: Improve local connectivity, alleviate congestion and improve operational efficiency. Obviously, with proposed development in that region, this would potentially alleviate traffic that would otherwise be going to other interchanges within Mesquite. Important aspect of this proposed project.

Just some high level project funding numbers. This is currently what is in the planning documents for the State of Nevada and what we're looking at as how we anticipate the funding being allocated and spent for this project. So as with the design details, the funding details and time line are subject to change, but currently this is

what is projected.

Similarly, with the project schedule, we're here in the Environmental Assessment phase. Preliminary engineering, you're pretty much looking at the majority of the engineering that's been completed for the project. This is ongoing, and we expect to wrap up the environmental phase of this project in spring, early summer next year.

And, again, subject to postponement, the project is anticipated to move into final design 2011 into 2012, and potentially move into construction late 2012, early 2013. It's kind of a broad schedule just to summarize what we are considering.

So that's the extent of the content to my presentation, just kind of summarize the Q and A that we were hoping to have this evening. Try and limit everybody a little bit. We do have a court reporter.

Sorry, Dana, for knocking down your sign.

If you guys would like to speak to her on the side, we're going to be publishing a transcript of this presentation, any comments that you'd like to have on the record. It's important. That's why we're holding this meeting, to get your input on the

project.

You can also complete a comment form, which are included in your handouts. Mail it in. You can send e-mails, fax, and you can call me and come to my office, and you can put a comment in the comment box in the back of the room anonymously, however you would like. So lots of options, but we're here to solicit your feedback really.

There's my contact information, as well as Steve Cooke, who couldn't be here tonight. He's the leader of the Environmental Services Division, who kind of leads up the environmental phase for NDOT for this project. All of our contact information available there.

And that's the conclusion of the project. I'll leave this up if you guys want to jot it down. Steve's contact information is in the handout, but I'd be more than happy to answer any questions you might have.

I know the gal does like to have you state your name, just for her record, if you could.

MR. LYTLE: I'm Kurt Lytle from Southern Nevada Water Authority.

And just curious if NDOT and the city, as they work together, if they are reserving utility

corridors at all in this project, if there's any thought to that.

MR. SEARCY: You know, at this point, with this project, it hasn't come up. This will be an overpass. So the potential for crossing under I-15 maybe might not be as real, as perhaps with another interchange. So I think we're a little preliminary on this particular project.

So the short answer to your question is no.

MR. LYTLE: Well, just a thought. SNWA, we, as any utility organization would, prefer that utility borders are reserved out for possible uses in the future, whether it be our organization or anyone else. That's just a thought. Probably might apply more so to the city than to NDOT, but nonetheless ...

MR. SEARCY: Okay. Appreciate your input.

MS. BROOKS-REESE: Angela Brooks-Reese, Mesquite, Nevada.

MR. SEARCY: Hi, Angela.

MS. BROOKS-REESE: Hi. I was just wondering, because you said it's really tight, and I'm looking at the terrain and thinking that's probably the reason.

Are we going to, in the future, be able to

expand from that road as we grow that direction from that interchange?

MR. SEARCY: To the north?

MS. BROOKS-REESE: To the -- yeah, and west.

MR. SEARCY: The north and west, absolutely, yeah.

MS. BROOKS-REESE: On the south side.

MR. SEARCY: On the south side, no.

MS. BROOKS-REESE: Okay.

MR. SEARCY: No. I mean, I'm not certain on all the details of the City's future development plans on the south. But for the most part, we're constrained by that river, and just to leave my $0.02 in, it's subject to flooding and just not a good option.

I don't know if you guys would like to clarify my answer at all.

MS. KOLKMAN: Yeah, there's some serious environmental issues with the Virgin River, and it's not to say that you could never build a bridge across it. But right now, there's no real driving force.

There's no receptor on the other side to meet that type of a bridge or structure, especially

since you've already got Exit 112 that takes you down around into Bunkerville, if you wanted to, or Riverside Road, which is right up the way.

So I think you would find that the cost associated with, not only environmental issues, but with actually building the structure would be pretty steep right now.

MR. SEARCY: So not impossible, but highly --

MS. KOLKMAN: Yeah, certainly not impossible, but right now, there's no thought that that will extend to the south.

MR. SEARCY: Certainly not a part of our project as it's currently proposed.

MS. BROOKS-REESE: I think it's great. I think it's great.

MR. SEARCY: On the record.

MS. BROOKS-REESE: Very excited, on the record.

MR. SEARCY: Thanks for the enthusiasm.

Well, thanks for sticking around. I appreciate your feedback.

And, again, feel free to contact me directly, and if I don't know the answer, I'll point you to somebody who does. Even if it is to, you

know, put in your $0.02 for the future, we'll keep it in mind.

Thanks, guys.

(Applause.)

(Presentation concluded at 5:50 p.m.)

(No comments with the court reporter offered.)

(Attachments: Handout in re I-15 Proposed Interchange at MP 118 Project, Mesquite, Nevada.)

(The proceedings adjourned at 6:30 p.m.)

-oOo-

CERTIFICATE OF REPORTER

STATE OF NEVADA )
)SS:
COUNTY OF CLARK )

I, Dana J. Tavaglione, a duly commissioned and licensed Court Reporter, Clark County, State of Nevada, do hereby certify: That I reported the proceedings had in the above-entitled matter at the place and date indicated.

That I thereafter transcribed my said shorthand notes into typewriting and that the typewritten transcript of said proceedings is a complete, true and accurate transcription of said shorthand notes.

IN WITNESS HEREOF, I have hereunto set my hand, in my office, in the County of Clark, State of Nevada, this 12th day of November, 2010.

_____

DANA J. TAVAGLIONE, RPR, CCR NO. 841

# APPENDIX F

# Cooperating Agency Invitations and Response Letters

U.S. Department
of Transportation
**Federal Highway**
**Administration**

**Nevada Division**

705 N. Plaza Street
Suite 220
Carson City, NV 89701
775-687-1204

December 20, 2010

In Reply Refer To:
DE-015-2 (040)
EA: 73553

Bob Ross, Field Manager
Bureau of Land Management, Las Vegas Field Office
4701 N. Torrey Pines Drive
Las Vegas, Nevada 89130

Subject: I-15 Proposed Interchange at MP118, Mesquite, NV
Request for Cooperating Agency Participation

Dear Mr. Ross:

The Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT), has initiated an Environmental Assessment for a proposed new interchange along I-15 at approximate milepost 118 in Mesquite, Nevada (see enclosed map). The purpose of the project is to improve the operational efficiency of the interstate in response to traffic associated with existing and proposed residential, commercial, and light industrial growth in the southwestern portion of the city.

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a cooperating agency with the FHWA in the development of the Environmental Assessment for the subject project. This designation does not imply that your agency supports the proposed project.

The transportation improvements would be within established designated right-of-way. The proposed project would consist of constructing a new tight-diamond interchange over the existing I-15. The interchange would include construction of a two-lane bridge and acceleration and deceleration lanes on both sides of I-15. Access to the north of the interchange would be achieved using Lower Flat Top Parkway. This project extends from north of the intersection of the Lower Flat Top Parkway and West Pioneer Boulevard to the intersection of Lower Flat Top Parkway and I-15. The No Action alternative will also be considered.

Your agency's involvement should entail those areas under its jurisdiction or expertise and no direct writing or analysis will be necessary for preparation of the document. The following are activities we will take to maximize interagency cooperation:

- Invite you to coordination meetings;
- Consult with you on any relevant technical studies that will be required for the project;
- Organize joint field reviews;
- Provide you with project information, including study results;
- Encourage your agency to use the process to express your views on subjects within your jurisdiction or expertise; and
- Include information in the project environmental document that Cooperating Agencies may need to discharge their National Environmental Policy Act (NEPA) responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.

You have the right to expect that the environmental document will enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process, the environmental document will satisfy your NEPA requirements including those related to project alternatives, environmental consequences, and mitigation.

We look forward to your response to this request and your role as a Cooperating Agency on this project. We ask that you please respond in writing with your agency's commitment as a Cooperating Agency, a point of contact, specific issues, relevant information, and review requirements by January 20, 2011.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the completion of this process, please contact me by telephone: (775) 687-1231 or email at abdelmoez.abdalla@dot.gov.

Sincerely,

A. A. Abdalla

Abdelmoez A. Abdalla
Environmental Program Manager

Enclosure

cc: Steve Cooke, NDOT
Adam Searcy, NDOT

ec: Iyad Alattar, FHWA


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NEVADA DOT

**Proposed Project Elements**

**I-15 Proposed Interchange at MP 118 Project**

U.S. Department
of Transportation
**Federal Highway
Administration**

**Nevada Division**

705 N. Plaza Street
Suite 220
Carson City, NV 89701
775-687-1204

December 20, 2010

In Reply Refer To:
DE-015-2 (040)
EA: 73553

Patricia McQueary
U.S. Army Corps of Engineers
321 N. Mall Drive, Suite L-101
St. George, UT 84790

Subject: I-15 Proposed Interchange at MP118, Mesquite, NV
Request for Cooperating Agency Participation

Dear Ms. McQueary:

The Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT), has initiated an Environmental Assessment for a proposed new interchange along I-15 at approximate milepost118 in Mesquite, Nevada (see enclosed map). The purpose of the project is to improve the operational efficiency of the interstate in response to traffic associated with existing and proposed residential, commercial, and light industrial growth in the southwestern portion of the city.

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a cooperating agency with the FHWA in the development of the Environmental Assessment for the subject project. This designation does not imply that your agency supports the proposed project.

The transportation improvements would be within established designated right-of-way. The proposed project would consist of constructing a new tight-diamond interchange over the existing I-15. The interchange would include construction of a two-lane bridge and acceleration and deceleration lanes on both sides of I-15. Access to the north of the interchange would be achieved using Lower Flat Top Parkway. This project extends from north of the intersection of the Lower Flat Top Parkway and West Pioneer Boulevard to the intersection of Lower Flat Top Parkway and I-15. The No Action alternative will also be considered.

Your agency's involvement should entail those areas under its jurisdiction or expertise and no direct writing or analysis will be necessary for preparation of the document. The following are activities we will take to maximize interagency cooperation:

- Invite you to coordination meetings;
- Consult with you on any relevant technical studies that will be required for the project;
- Organize joint field reviews;
- Provide you with project information, including study results;
- Encourage your agency to use the process to express your views on subjects within your jurisdiction or expertise; and
- Include information in the project environmental document that Cooperating Agencies may need to discharge their National Environmental Policy Act (NEPA) responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.

You have the right to expect that the environmental document will enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process, the environmental document will satisfy your NEPA requirements including those related to project alternatives, environmental consequences, and mitigation.

We look forward to your response to this request and your role as a Cooperating Agency on this project. We ask that you please respond in writing with your agency's commitment as a Cooperating Agency, a point of contact, specific issues, relevant information, and review requirements by January 20, 2011.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the completion of this process, please contact me by telephone: (775) 687-1231 or email at abdelmoez.abdalla@dot.gov.

Sincerely,

A. A. Abdalla

Abdelmoez A. Abdalla
Environmental Program Manager

Enclosure

cc: Steve Cooke, NDOT
Adam Searcy, NDOT

ec: Iyad Alattar, FHWA


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NEVADA DOT

**Proposed Project Elements**

**I-15 Proposed Interchange at MP 118 Project**

U.S. Department
of Transportation
**Federal Highway**
**Administration**

**Nevada Division**

705 N. Plaza Street
Suite 220
Carson City, NV 89701
775-687-1204

December 20, 2010

In Reply Refer To:
DE-015-2 (040)
EA: 73553

Tiffany Parson, Assistant Field Supervisor
Southern Nevada Field Office
U.S. Fish and Wildlife Service
4701 Torrey Pines Drive
Las Vegas, NV 89130

Subject: I-15 Proposed Interchange at MP118, Mesquite, NV
Request for Cooperating Agency Participation

Dear Ms. Parson:

The Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT), has initiated an Environmental Assessment for a proposed new interchange along I-15 at approximate milepost118 in Mesquite, Nevada (see enclosed map). The purpose of the project is to improve the operational efficiency of the interstate in response to traffic associated with existing and proposed residential, commercial, and light industrial growth in the southwestern portion of the city.

Your agency has been identified as an agency that may have an interest in the project. With this letter, we extend your agency an invitation to become a cooperating agency with the FHWA in the development of the Environmental Assessment for the subject project. This designation does not imply that your agency supports the proposed project.

The transportation improvements would be within established designated right-of-way.. The proposed project would consist of constructing a new tight-diamond interchange over the existing I-15. The interchange would include construction of a two-lane bridge and acceleration and deceleration lanes on both sides of I-15. Access to the north of the interchange would be achieved using Lower Flat Top Parkway. This project extends from north of the intersection of the Lower Flat Top Parkway and West Pioneer Boulevard to the intersection of Lower Flat Top Parkway and I-15. The No Action alternative will also be considered.

Your agency's involvement should entail those areas under its jurisdiction or expertise and no direct writing or analysis will be necessary for preparation of the document. The following are activities we will take to maximize interagency cooperation:

- Invite you to coordination meetings;
- Consult with you on any relevant technical studies that will be required for the project;
- Organize joint field reviews;
- Provide you with project information, including study results;
- Encourage your agency to use the process to express your views on subjects within your jurisdiction or expertise; and
- Include information in the project environmental document that Cooperating Agencies may need to discharge their National Environmental Policy Act (NEPA) responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.

You have the right to expect that the environmental document will enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process, the environmental document will satisfy your NEPA requirements including those related to project alternatives, environmental consequences, and mitigation.

We look forward to your response to this request and your role as a Cooperating Agency on this project. We ask that you please respond in writing with your agency's commitment as a Cooperating Agency, a point of contact, specific issues, relevant information, and review requirements by January 20, 2011.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the completion of this process, please contact me by telephone: (775) 687-1231 or email at abdelmoez.abdalla@dot.gov.

Sincerely,

A. A. Abdalla

Abdelmoez A. Abdalla
Environmental Program Manager

Enclosure

cc: Steve Cooke, NDOT
Adam Searcy, NDOT

ec: Iyad Alattar, FHWA


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NEVADA DOT

**Proposed Project Elements**

**I-15 Proposed Interchange at MP 118 Project**

# APPENDIX G

# USFWS Coordination and Consultation

U.S. Department
of Transportation
**Federal Highway**
**Administration**

**Nevada Division**

705 N. Plaza Street
Suite 220
Carson City, NV 89701
775-687-1204

January 27, 2011

In Reply Refer To:
HENV-NV

Acting Field Supervisor
U.S. Fish & Wildlife Service
1340 Financial Blvd., Suite 234
Reno, Nevada 89502

Subject: Request for "Not Likely Adversely Effect" Opinion. I-15 Proposed Interchange at Milepost118 in Mesquite, Clark County, Nevada. EA: 73553

Dear Sir/Madam:

The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to construct a new interchange on Interstate 15 (I-15) at milepost (MP) 118.1, in the western portion of Mesquite, Nevada. The proposed project limits are located predominately in Sections 23, 25, and 26 of Township 13 South and Range 70 East on the Flat Top Mesa and Mesquite, NV 7.5 quadrangles (see attached figure).

The proposed project includes the following: construction of highway on and off ramps that will be adjacent and parallel to the existing I-15; the extension of Lower Flat Top Parkway from West Pioneer Boulevard to I-15 that will consist of four 12-foot-wide lanes (two in each direction) and shoulders on each side for emergency access; and a tight-diamond interchange will require a single overpass.

The U.S. Fish & Wildlife Service (USFWS) list of threatened, endangered, proposed, and candidate species, as well as species of concern for Clark County was reviewed by qualified biologists Danny Rakestraw and Stephanie Locke of HDR Engineering, Inc. to determine species that may potentially occur near the proposed action. Additionally, the HDR biologists requested data on federally protected or at-risk species from the USFWS and Nevada Natural Heritage Program (NNHP) to clarify which of the federal status species within the proposed action has potential to occur within or near the proposed action. Of the 15 species or population segments with state or federal status identified as "likely to occur" within Clark County, only the desert tortoise has been identified as occurring within or adjacent to the action area. Desert tortoise surveys were conducted on May 10, 2010. Subsequently, zone of influence surveys were conducted on October 20, 2010. The biologists looked for live desert tortoises and signs of it within the proposed action area and throughout the surrounding area. The field surveys conducted by the biologists did not confirm the existence of live desert tortoise or sign of it within the action area. However, the project activity areas and staging area will be fenced at the outer boundaries before construction activities begin to exclude desert tortoises that may wander into the construction zone.

FHWA and NDOT, acting as the designated representative of the FHWA under Section 7 of the Endangered Species Act of 1973, as amended, recommend a "not likely to adversely affect" opinion regarding impacts to any listed and proposed species, specifically the threatened desert tortoise. Your concurrence with this finding is requested. NDOT will notify all appropriate personnel if a listed or proposed listed species, specifically the desert tortoise, is encountered on site during construction of this project. The appropriate personnel to be contacted would be the following: the NDOT resident engineer of the project, NDOT Assistant Director, Operations, Fish and Wildlife Service, and FHWA. Activities must be halted in the specific area and NDOT Environmental Services Division notified. The appropriate action would be to start formal consultation under FHWA's programmatic agreement. Basically, this stops the project from any further work.

If you have any question or concerns regarding this information, please do not hesitate to contact NDOT Environmental Service Division's Biologist Julie Ervin-Holoubek at (775) 888-7689 or me at 775-687-1231. As always, I appreciate your continued assistance.

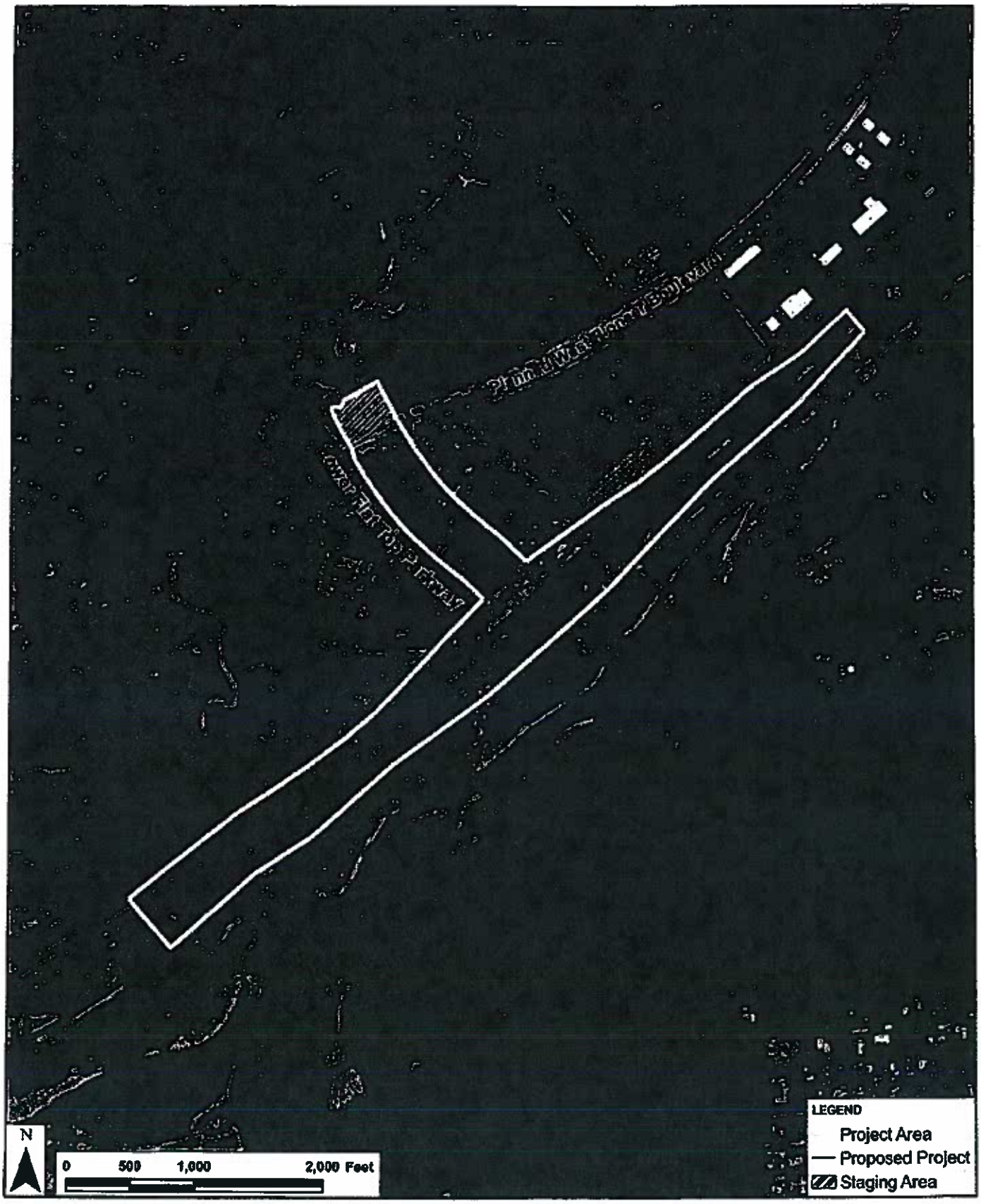
Sincerely,

A. A. Abdalla

Abdelmoez A. Abdalla
Environmental Program Manager

Enclosure

ecc: Julie Ervin-Holoubek, NDOT
Iyad Alattar, FHWA




# Interchange 118 Proposed Project

**FIGURE**

City of Mesquite, I-15 Proposed Interchange at MP 118

# United States Department of the Interior

**FISH AND WILDLIFE SERVICE**
Nevada Fish and Wildlife Office
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130
Ph: (702) 515-5230 ~ Fax: (702) 515-5231



February 14, 2011
File No. 84320-2011-I-0149

Mr. Abdelmoez A. Abdalla
Environmental Program Manager
Federal Highway Administration
705 North Plaza Street, Suite 22P
Carson City, Nevada 89701

Dear Mr. Abdalla:

Subject: Informal Consultation on the Proposed Interstate 15 (I-15) Interchange, Mesquite, Clark County, Nevada

This responds to your request for informal consultation received February 7, 2011. The Nevada Department of Transportation (NDOT), with funding from the Federal Highway Administration (FHWA), proposes to construction of an interchange on I-15 at Milepost 118 near Mesquite, Nevada.

FHWA requests our concurrence that the subject project "may affect, but is not likely to adversely affect" the threatened desert tortoise (*Gopherus agassizii*) (Mojave population) in accordance with section 7(a)(2) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

The project includes construction of highway ramps adjacent and parallel to I-15; extension of Lower Flat Top Parkway from Pioneer Boulevard to I-15 that would consist of four 12-foot-wide lanes and shoulders on each side; and a diamond interchange with a single overpass.

On May 10 and October 20, 2010, desert tortoise surveys were performed within and adjacent to the action area. No desert tortoise or their sign was found during the surveys. Although no sign of desert tortoise was seen, FHWA and NDOT propose the following measures to minimize the potential effects to desert tortoises that may occur in the area:

- project activity and staging areas will be fenced to exclude desert tortoises,
- workers will be informed to report all observations of desert tortoises, and
- if a desert tortoise appears in the action area, activities will cease in the area and appropriate notification will occur.

lition to the measures above, we suggest you provide desert tortoise awareness training to ɛrs on the project.

ipated effects to the desert tortoise are likely to be discountable and insignificant due to the ɛs' low probability of occurrence in the project area, and because FHWA and NDOT will ment minimization measures during construction activities to ensure that no take of desert ɜe occurs.

ish and Wildlife Service concurs with the determination of "may affect, not likely to ɜely affect" the desert tortoise based on the information in the request. This concludes ıal consultation pursuant to the regulations implementing the Act, promulgated under R § 402.13. This informal consultation does not authorize any take of any listed species.

have any questions or comments regarding this letter, please contact Michael Burroughs in ɛvada Fish and Wildlife Office in Las Vegas at (702) 515-5230.

Sincerely,

Catrina Martin
Acting State Supervisor

e Biologist, Nevada Department of Wildlife, Las Vegas, Nevada
Environmental Services, Nevada Department of Transportation, Carson City, Nevada

# APPENDIX H

# Cultural Resources Coordination and Consultation

U.S. Department of Transportation
**Federal Highway Administration**

**Nevada Division**

705 N. Plaza Street, Suite 220
Carson City, NV 89403
Phone 775 687-1204
Fax 775 687-3803

September 30, 2011

In Reply Refer To:
HENV-NV

#2012-1835
Report #7531



Mr. Ron James
State Historic Preservation Office
100 North Stewart Street
Carson City, Nevada 89701-4285

Subject: I 15 New Interchange at Milepost 118, Mesquite, Clark County

Dear Mr. James:

The Nevada Department of Transportation (NDOT) and the Federal Highway Administration (FHWA) propose to construct a new interchange on I-15 at milepost 118 west of the City of Mesquite in Clark County. FHWA seeks your review and concurrence on the area of potential effects, new determinations of eligibility for sites CK9235, CK9236, CK9237 and CK9331 and the determination of No Historic Properties Affected for the project. Enclosed are the report entitled *A Class III Archaeological Survey for the Interstate 15 Exit 118 Interchange Project, City of Mesquite, Clark County, Nevada*, Figure 1 map, and the Native American Consultation Report.

The project includes the construction of a new tight-diamond interchange and two-lane bridge, which connects the existing I-15 freeway with West Pioneer Boulevard by Lower Flat Top Parkway. The proposed project includes the existing I-15 right-of-way between approximately mileposts 117.5 and 118.8.

Area of Potential Effects

The area of potential effects (APE) is the "geographic area or areas within which an undertaking may directly or indirectly cause changes to the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking and the kinds of effects caused by the undertaking" (36CFR 800.16(d)). The project will construct a new interchange at I-15 milepost 118 that will connect the Interstate with the Mesquite Technology and Commerce Center and the Desert Falls International Sports Resort Planned Unit Development. The Mesquite Technology Development is part of the City of Mesquite's Master Plan. In the transportation element, that Master Plan outlines construction for the arterial[1] road system that includes West Pioneer Boulevard, Eli Whitney Boulevard/Lower Flat Top Road, Isaac Newton Drive and Ben Franklin Way. The Mesquite Technology Development geographic area is now owned by the City of Mesquite. Funding for the currently contracted roads is from the City of Mesquite.

[1] Arterial – A high capacity urban road which primary function is to deliver traffic from collector roads to freeways.

The geographic area of the direct impact includes the tight diamond interchange[2] on I-15 and the new portion of Lower Flat Top Road that connects the interchange with the Mesquite Technology Development at West Pioneer Boulevard. An extra 100-foot buffer is proposed beyond existing right-of-way as part of this direct impact.

Visual and audible impacts from the new construction will not exceed the current levels on I-15 and will not exceed the direct impact survey area for the new section of Lower Flat Top Road. The Mesquite Technology Development is on the City of Mesquite's Master Plan. This Master Plan has not only outlined the arterial road system for the development, it has also already set contracts to construct these roads. The new interchange has the potential to increase the rate at which the development happens, but it is not reasonably foreseeable that the interchange will increase the amount of development. For these reasons there are no further induced developments involved with construction of the new interchange and the indirect impact will not exceed the direct impact APE.

The APE for the interchange project is defined as:

- existing I-15 right-of-way between milepost 117.5 and milepost 118.8 plus a 100 foot buffer
- a new parcel of right-of-way for the northern approach to I-15 plus a 100 foot buffer

Findings and Eligibility

The following eight sites were documented by the Class III survey: CK3528, CK3529, CK3530, CK3531, CK9235, CK9236, CK9237, and CK9331. Sites CK3528, CK3529, CK3530 and CK3531 were previously recorded, updated by this survey, and previously determined eligible for listing in the National Register of Historic Places (NRHP). FHWA and NDOT recommend that these eligibilities remain as previously determined.

Sites CK9235, CK9236, CK9237, and CK9331 were located and recorded within the area of potential effect by this survey. FHWA and NDOT determine that site CK9236 is not eligible and sites CK9235, CK9237, and CK9331 are eligible.

Many of these sites are close to the highway and avoidance measures have been inserted into construction plans to mark sites with lathe and flagging, restrict vehicle access and have a monitor for specific sites, see table.

| Site Number | Management Recommendations |
|---|---|
| CK3528 | Avoidance<br>Mark site with lathe and flagging during construction<br>Restrict vehicle access by using barrier railing for long-term preservation of the resource |

[2] Tight Diamond Interchange – A road junction where a freeway crosses a minor road, the freeway is at ground level and the interchange is a "bridge" over the freeway. A tight diamond interchange differs from a common diamond interchange because the off and on ramps connect with the bridge close to structure.

| | |
|---|---|
| CK3529 | Avoidance<br>Protect site with orange barrier fencing or concrete jersey barriers during construction<br>A qualified archaeological monitor should be present during heavy earthmoving activities near the site<br>Restrict vehicle access by using barrier railing for long-term preservation of the resource |
| CK3530 | Avoidance<br>Protect site with orange barrier fencing or concrete jersey barriers during construction<br>A qualified archaeological monitor should be present during heavy earthmoving activities near the site<br>Restrict vehicle access by using barrier railing for long-term preservation of the resource |
| CK3531 | Avoidance<br>Mark site with lathe and flagging during construction |
| CK9235 | Avoidance<br>Mark site with lathe and flagging during construction |
| CK9236 | Avoidance<br>Mark site with lathe and flagging during construction |
| CK9237 | Avoidance<br>Mark site with lathe and flagging during construction |
| CK9331 | Avoidance<br>Mark site with lathe and flagging during construction |

FHWA determines that this project has No Historic Properties Affected due to the avoidance of the eligible sites by project effects.

If you have any questions contact me at (775) 687-1231 or by email at abdelmoez.abdalla@dot.gov or Cliff Creger of NDOT at (775) 888-7666 or email at ccreger@dot.state.nv.us .

Sincerely,

A. A. Abdalla

Abdelmoez A. Abdalla
Environmental Program Manager

Enclosures

cc: Cliff Creger, NDOT
Suzanne Rowe, BLM

ec: Andrew Soderborg, FHWA

LEO M. DROZDOFF, P.E.
*Director*
Department of Conservation and
Natural Resources

RONALD M. JAMES
*State Historic Preservation Officer*

BRIAN SANDOVAL
*Governor*

STATE OF NEVADA



Address Reply to:
*901 S. Stewart Street, Suite 5004*
*Carson City, NV 89701-5248*
*Phone: (775) 684-3448*
*Fax: (775) 684-3442*

*www.nvshpo.org*

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

# STATE HISTORIC PRESERVATION OFFICE

October 26, 2011

Abdelmoez A. Abdalla
Federal Highway Administration
Environmental Program Manager
705 North Plaza Street, Suite 220
Carson City, NV 89701-0602

RE: *I-15 New Interchange at Milepost 118, Mesquite, Clark County, Nevada.*
FHWA Project: DE-01S-02(040)/ NDOT EA: 73553/ Undertaking #2012-1831.

Dear Mr. Abdalla:

The Nevada State Historic Preservation Office (SHPO) has reviewed the subject undertaking in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The SHPO concurs with the Federal Highway Administration's (FHWA) determination that the following cultural resource is not eligible for the National Register of Historic Places under any of the Secretary's criteria:

26CK9236.

The SHPO concurs with the FHWA's determination that the following properties are eligible for the National Register of Historic Places under the Secretary's criterion D:

| | | | |
|---|---|---|---|
| 26CK3528 | 26CK3529 | 26CK3530 | 26CK3531 |
| 26CK9235 | 26CK9237 | 26CK9331. | |

The SHPO concurs with the FHWA's determination that the proposed undertaking will not pose an effect to any historic properties with the avoidance measures, both temporary and long-term, within the above-mentioned subject documents.

As the Bureau of Land Management (8LM) manages land within the above-mentioned undertaking's area of potential effect (APE) please contact them for any additional requirements and consultation prior to initiating this undertaking.

If any buried and previously unidentified resources are located during the project activities, the SHPO recommends that all work in the vicinity of the find cease and this office be contacted for additional consultation per 36 CFR 800.13.b.3.

If you have any questions concerning this correspondence, please contact Jessica Axsom by phone at (775) 684-3445 or by e-mail at jaxsom@shpo.nv.gov.

Sincerely,

Rebecca Lynn Palmer, Deputy
State Historic Preservation Officer

cc. C. Cliff Creger, NDOT Archaeologist

# APPENDIX I

## Native American Consultation Invitation

705 North Plaza St. Suite 220
Carson City, NV 89701

U.S.Department
of Transportation
**Federal Highway Administration**

Nevada Division

October 26, 2010

In Reply Refer To:
HENV-NV

Subject: Proposed I-15 Exit 118 Interstate Reconfiguration Project: DE-015-02(040), EA: 73553

Mr. Darren Daboda, Chairperson
Moapa Business Council
P.O. Box 340
Moapa, Nevada 89025

Dear Mr. Daboda:

In recognition of your Tribe's status as a sovereign Tribal Government, and the Federal Highway Administration's (FHWA) responsibilities under the National Historic Preservation Act (NHPA), the FHWA is requesting your Government-to-Government consultation on a proposed Federal-aid highway project.

As prescribed by the NHPA, the FHWA follows a process (36 CFR §800) to locate historic properties which may be affected by the proposed project. These historic properties include pre-historic and historic archaeological sites as well as traditional cultural properties (TCPs). As part of this effort, FHWA would like to know if there are historic properties in the proposed project area to which your tribe attaches religious or cultural significance. If there are, please let us know if you would like to consult with FHWA on those historic properties.

This request for information, some of which may be sensitive in nature, is not intended as an offense to the Southern Paiute people, but instead is our good faith attempt to protect any historic properties that may be affected by this proposed project. Public access to any information you provide concerning the location, character, or ownership of these religious and cultural properties can be restricted as per Section 304 (16 U.S.C. §4702.3) of the NHPA as amended.

**Project Description**

The Federal Highway Administration is considering a reconfiguration of the existing interchange located on I-15 at approximately milepost CL 118.15 (see attached map). The purpose of the project is to alleviate congestion at the existing interchange resulting from recent and current growth in this portion of Mesquite and to address public safety concerns related to commercial traffic in the area. The project proposes to construct a new interchange and two-lane bridge, connected north over the existing I-15 freeway. The southbound I-15 on-ramp will have a free right-hand turn lane to promote the movement of truck traffic. The proposed project includes the

existing I-15 Right of Way (ROW), an easement across BLM administered land, and a parcel of new ROW from land currently owned by the City of Mesquite.

**Existing Information on Historic Properties**

In preparation for this proposed project, a Class I background archaeological research was conducted to reveal historic properties within one mile of the project's area of potential effect (APE), and a Class III cultural resource survey and report was conducted for the APE. The combined background research and survey found nine historic properties in or adjacent to the APE. Site 26CK6440, commonly known as the Bunkerville Ditch, is located south of the river and will not be affected by the project. Site 26CK3528 is a possible cist feature, eligible to the National Register of Historic Places (NRHP) under Criterion D. Criterion D eligible historic properties are sites that have yielded, or may be likely to yield, information important in prehistory or history. Sites 26CK3529 and 26CK3530 are habitation sites with pithouse features likely associated with the Basketmaker cultural tradition. Both sites are eligible to the NRHP under Criterion D. Site 26CK3531 is an artifact scatter of groundstone, ceramics, and lithics. Some surface collection appears to have taken place between the time it was first recorded in 1985 and the resurvey of it this year. Despite the missing artifacts, it is still eligible to the NRHP under Criterion D. Site 26CK4894 is a Basketmaker habitation with two pithouses, eligible to the NRHP under Criterion D. Site 26CK9235 is a lithic and ceramic artifact scatter with four associated rock concentrations eligible to the NRHP under Criterion D. Site 26CK9236 is a sparse lithic scatter which is not eligible to the NRHP under any of the criteria. Site 26CK9237 is a lithic scatter and a pile of limestone rocks eligible to the NRHP under Criterion D.

It has not been determined yet to what extent any of the later (eight) historic properties may be affected by the proposed project. As the proposed project progresses through the design phase, that information will become available and will be the subject of future consultation. If your cultural resource representative would like a copy of the final cultural resources survey report when it becomes available, please indicate so on the attached Consultation Response Form.

Based on the project description, existing survey information and a review of existing historic properties information, please respond to the following:

1. Do you have any concerns regarding the previously located prehistoric or historic properties?

2. Do you have any concerns regarding properties that are of a religious or cultural significance to your Tribe? These types of properties are also referred to as traditional cultural properties.

3. Do you have any concerns regarding the overall proposed project or specific parts of it?

Please mail the attached consultation response form, or FAX it to 775-687-3803. If you would like additional information, have concerns regarding this proposed project, or the overall FHWA program; please contact me at 775-687-1231. If desired, I will meet with you to discuss this proposed project or the overall program.

Sincerely yours,

A. A. Abdalla

Abdelmoez A. Abdalla
Environmental Program Manager

Enclosures

cc: Deanna Domingo, Cultural Committee Chairperson
S. Gilbert-Young, NDOT

ec: Iyad Alattar, FHWA

**Nevada Division Office**
**Federal Highway Administration**
**Native American Consultation**
**Response Form**

Subject: Proposed reconfiguration of Exit 118 on I-15, Clark County, Nevada.
Project: DE-015-02(040), EA: 73553

Return to: Mr. Abdelmoez Abdalla
Federal Highway Administration
705 North Plaza Street, Suite 220
Carson City, Nevada 89701

From: Mr. Darren Daboda, Chairperson
Moapa Business Council
P.O. Box 340
Moapa, Nevada 89025

Reply: Please check one of the options below and return by November 26, 2010.

[ ] The Moapa Business Council does not request a consultation with FHWA regarding the proposed project. The Council has no further comment regarding this matter.

[ ] The Moapa Business Council requests a consultation with FHWA regarding the proposed project. Please contact the following person to set a time and date for the initial consultation meeting.

Contact Person: _____ Telephone Number: _____

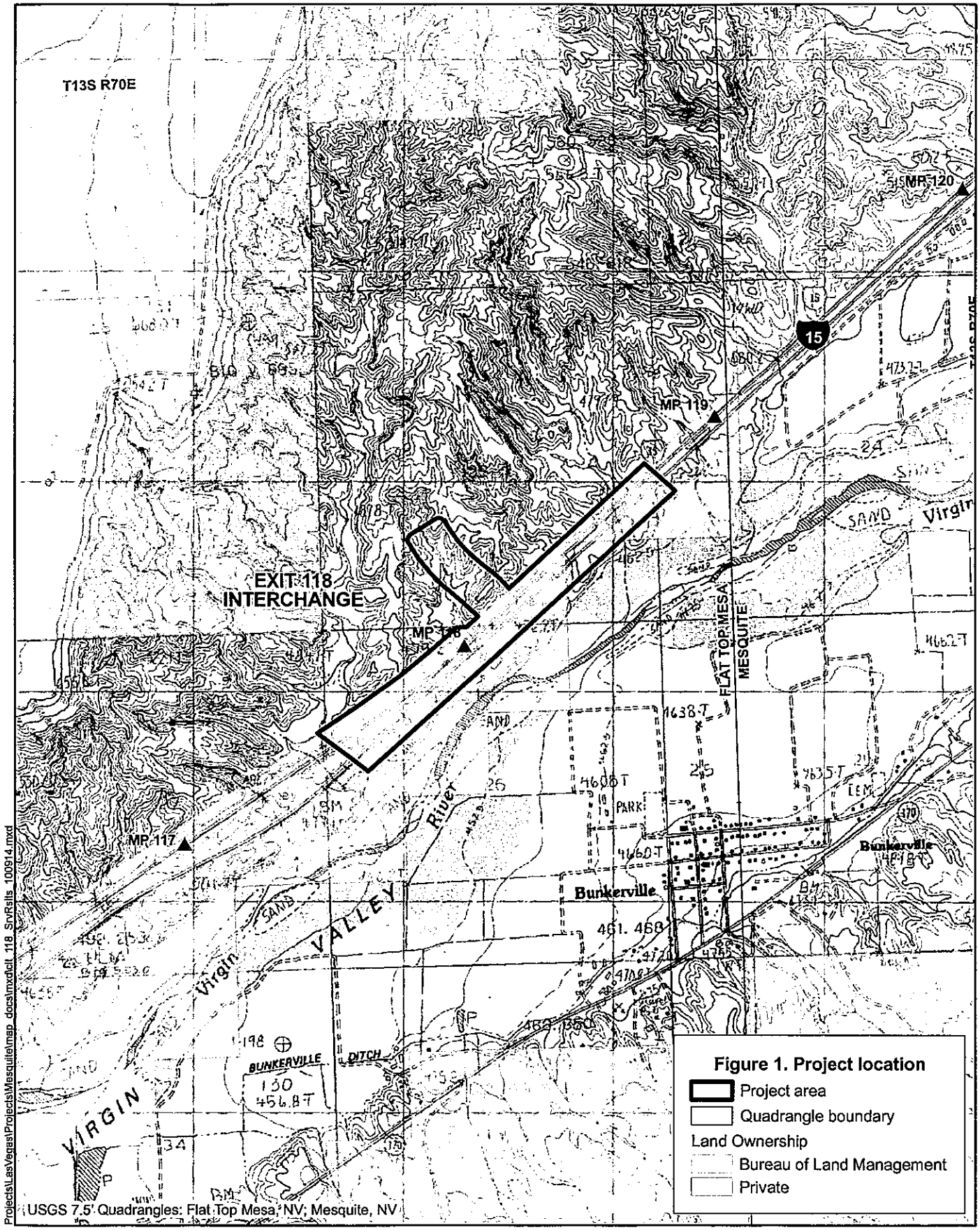
[ ] The Moapa Business Council does not have specific cultural concerns regarding the proposed project, but requests a consultation regarding _____
_____
_____.
Please contact the following person to discuss these concerns.

Contact Person: _____ Telephone Number: _____

Signature: _____

Title: _____

Date: _____


T13S R70E
MP 120
15
MP 119
EXIT 118
INTERCHANGE
MP 118
MP 117
FLAT TOP MESA
MESQUITE
Virgin River
VALLEY
Bunkerville
BUNKERVILLE DITCH
VIRGIN
SAND
PARK
Figure 1. Project location
Project area
Quadrangle boundary
Land Ownership
Bureau of Land Management
Private
USGS 7.5' Quadrangles: Flat Top Mesa, NV; Mesquite, NV
0 500 1,000 2,000 3,000 4,000
feet
0 0.125 0.25 0.5 0.75 1
Mile
N
Projects\LasVegas\Projects\Mesquite\map_docs\mxd\cit_118_SrvRslts_100914.mxd

# APPENDIX J

# Native American Consultation Comments

NDOT cultural resource staff conducted a field visit within the project area with representatives from the Moapa Business Council (MBC) on January 21, 2011. The Council provided verbal comments as follows:

| Organization/Name<br>Comment Type | Comment | Comment Response |
|---|---|---|
| Moapa Business Council<br>Verbal Comments during Site Visit (01/21/11) | MBC requests NDOT to avoid disturbance to any cultural resource sites currently within project right-of-way by modifying the current preliminary design. NDOT has altered the preliminary design that was current as of January 21, 2011 and current preliminary design (as of publication of this EA) now avoids the cultural resources within the proposed Build Alternative. | NDOT committed to avoiding further disturbance of the eight archaeological sites w/in the ROW for the project by making design modifications to the I-15 northbound ramping, cut and fill, and retaining walls to avoid them. In addition, NDOT (or construction contractor) will provide a temporary barrier to keep construction activities out of 26CK3529 and 26CK3530, will employ a qualified archaeological monitor during construction activities at those two sites, and will provide a permanent barrier to restrict vehicles from driving onto those two sites after the project is over. |
| Moapa Business Council<br>Verbal Comments during Site Visit (01/21/11) | MBC expressed interest in salvaging the cactus/yuccas that would be displaced by construction activities. | NDOT is required to salvage those plants prior to construction and will replant them after construction is over. |
| Moapa Business Council<br>Verbal Comments during Site Visit (01/21/11) | MBC recommended that some rip-rap be placed on the fresh slope shoulders to decrease erosion and reduce the amount of sediment being discharged into the Virgin River. | NDOT will follow Clean Water Act and NDEP regulations for water quality. NDOT will employ their design and construction specifications that avoid and minimize runoff and water quality impacts. |