



Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation

Appendix E9, Visual Effects on Selected Viewpoints and Landscapes

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Acronyms

1		
2	amsl	above mean sea level
3	AVE	Area of Visual Effect
4	I	Interstate
5	KOP	Key Observation Point
6	LU	Landscape Unit
7	ROW	Right-of-Way
8	SR	State Route
9	US	United States
10		
11		



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1 E9 Visual Effects on Selected Viewpoints and Landscapes

2 This visual resources inventory and the assessment of potential impacts include the evaluation
3 of visual character, visual quality, viewer sensitivity, and visual contrast levels of the proposed
4 project.

5 The inventory and assessment methods are based on FHWA's *Guidelines for the Visual Impact*
6 *Assessment of Highway Projects* (FHWA 2015). As part of the inventory methods, existing
7 geographic conditions were characterized to identify the limits of individual landscape units
8 (LUs). A LU can be visualized as an outdoor room that exhibits a distinct visual character, and
9 the LU will often correspond to a place or district that is commonly known among local viewers.
10 LUs were identified based on land use (cultural environment) and landscape character (natural
11 environment) considerations. Representative viewpoints within each LU were selected for
12 detailed analysis to further characterize the existing conditions and potential impacts to each
13 LU. In addition, specific key observation points were identified and evaluated within Saguaro
14 National Park and Tucson Mountain Park.

15 E9.1 Description of Landscape Units

16 Fifteen distinct landscape unit (LU) types were defined within the area of visual effect (AVE).
17 The LU determination was based in part on landform, existing land uses, visual character,
18 viewpoints, and presence of special features. The relative distinctness, intactness, and unity of
19 the landscape also were evaluated. The existing visual quality of the Interstate 11 (I-11) Corridor
20 Study Area is generally in the moderate to low range for most LUs. Two LU types, one in the
21 South Section and the other in the North Section, are relatively undisturbed or have lower levels
22 of disturbance over a larger area. The most common LU type is associated with rural residential
23 development in varied landscape settings.

24 LU 1: Santa Cruz River Valley/Small Communities/Agriculture

25 This LU is defined primarily by the Santa Cruz River Valley, between Nogales and South
26 Tucson, which is a highly constrained river corridor adjacent to highly dissected bajadas. The
27 bajada landscape associated with the basin and range is a gently sloping landform that typically
28 occurs at the base of surrounding mountains. Several small communities and rural residences
29 occur within the Santa Cruz River Valley, including Nogales, Rio Rico, Tumacácori, Tubac,
30 Arivaca Junction, Green Valley, and Sahuarita. These communities are characterized by denser
31 development with residential and mixed land uses such as commercial, light industrial, and
32 agricultural. Views of adjacent mountains and steep bajadas constrain the viewshed to the
33 Santa Cruz River Valley. The overall rating of visual quality for this LU is moderate, primarily
34 due to the encroachment of development within this unique river valley landscape.

35 LU 2: Undeveloped Mountain/Bajada

36 Primarily characterized by rugged mountains and dissected bajadas, this LU is relatively
37 undisturbed with modifications limited to dirt roads and very isolated rural residences with
38 limited developed services such as electricity. Roads within this LU may require high clearance
39 vehicles and are minimally maintained. The mountain landforms are more memorable and
40 striking, whereas the bajada landform is above average in vividness. Views may be partially to
41 completely restricted depending on terrain and viewer orientation. Superior views are likely at



1 higher elevations on the bajada or mountain ridges. Overall, this LU is harmonious and unified,
2 which contributes to a high rating of visual quality. No viewpoints were selected in this area.

3 **LU 3: Bajada/Rural Residential**

4 This LU is associated with gently sloping bajadas where rural residential development is
5 intermixed with undeveloped land. Bajadas are typically occupied by a more diverse vegetative
6 community including saguaro, cholla, ocotillo, and paloverde trees, particularly as the bajada
7 gets higher in elevation. These unique vegetation specimens bring diversity to this simple
8 landscape. Rural residential development is typically organized in a grid formation, but each
9 residence is surrounded by a large amount of land that is primarily intact. Views within this LU
10 are typically open and unrestricted with superior views at higher elevations on the bajada.
11 Overall, the character of the rural development intermixed with undeveloped lands contribute to
12 the landscape's visually cohesive appearance, resulting in a moderate visual quality rating.

13 **LU 4: Heavy Industrial/Mining**

14 Heavy industrial land uses, specifically mining, are the most distinctive and dominating feature
15 in this LU. Mining pits, tailings facilities, and associated infrastructure characterize a portion of
16 the Santa Cruz River Valley near Green Valley and Sahuarita. Mixed land uses may occur
17 within this unit, including residences, commercial, agricultural, and other industrial uses.
18 Unrestricted views are of the distant Sierrita Mountains, Santa Rita Mountains, and mining
19 facilities. These large-scale modifications and facilities diminish the visual cohesiveness of the
20 landscape and contribute to an overall visual quality rating of low.

21 **LU 5: Flat Valley/Limited Development**

22 This LU is characterized by flat valleys that are primarily undeveloped with the exception of a
23 major road or other local roads. These alluvial flats are occupied by creosote vegetation with
24 little variety and are occasionally dissected by ephemeral washes that flow from the surrounding
25 bajadas and mountain ranges. Views within this LU are typically open and unrestricted. These
26 valley plains are associated with moderate visual quality due to lack of distinctiveness and
27 encroachment of modifications such as rural residences, utility corridors, roads, and other
28 structural features that detract from the natural setting.

29 **LU 6: Flat Valley/Rural Residential**

30 This LU is associated with flat valleys where rural residential development is intermixed with
31 undeveloped land. Flat valleys are typically occupied by vegetation that is less diverse and may
32 include creosote, saltbush, and other shrubs that are occasionally interrupted by palo verde or
33 mesquite trees. The lack of diversity results in a common or plain setting that is interrupted by
34 rural development. Rural residential development is typically organized in a grid formation, but
35 each residence is surrounded by a large amount of land that is primarily intact. Views within this
36 LU are typically open and unrestricted. Overall, the character of the rural development
37 intermixed with undeveloped lands contribute to the landscape's visually cohesive appearance,
38 resulting in a low/moderate visual quality rating.

**1 LU 7: Flat Valley/Abandoned Agricultural**

2 Flat valley areas within proximity to a major river corridor typically have been converted to
3 agricultural land use. This LU has been modified for agricultural land use but is not in use or is
4 fallow. Land may be occupied by sparse grassland with shrubs and desert trees that line canals.
5 Rural residences may be present but are not the primary land use in this landscape setting.
6 Agricultural fields generally lack striking visual patterns, or landforms, and built features are
7 mostly limited to canals, roads, and small structures. Views within this LU are typically open and
8 unrestricted. The overall rating of visual quality for this LU is low.

9 LU 8: Suburban Residences/Mixed Land Uses

10 Dense suburban residences intermixed with commercial, public, industrial, and open space land
11 uses are the dominant feature in this LU. The Tucson metropolitan area is primarily associated
12 with this LU. The landscape has been highly modified but orderly with some design integrity;
13 however, there are few remnants of the natural setting intact. Views are highly constrained by
14 dense development. This LU has a high degree of visual adsorption because of the urban
15 development in the region. These suburban to urban landscapes are associated with low visual
16 quality due to the intensity of development.

17 LU 9: Commercial/Light Industrial Mixed Use

18 The existing I-10 corridor through Tucson is characterized by large scale light industrial land
19 uses and some commercial uses such as hotels, shopping centers, and office parks. This LU is
20 specific to the urban core of Tucson where high-voltage transmission lines and canals also
21 parallel the highway. This LU is highly modified mixed with some residences, although it is not
22 the primary land use. Views are highly constrained by dense development. This LU has a high
23 degree of visual adsorption because of the urban development in the region. The overall visual
24 quality rating is low primarily due to the dominance and scale of industrial facilities.

25 LU 10: Flat Valley/Active Agricultural

26 This LU is characterized by active agriculture. This land use typically dominates the setting and
27 extends throughout Avra Valley, Santa Cruz Flats, Little Rainbow Valley, and near the Gila
28 River. Rural residences may be present but are not the primary land use in this landscape
29 setting. Agricultural fields generally lack striking visual patterns, or landforms, and built features
30 are mostly limited to canals, roads, and small structures. Vegetative cover from crops is
31 seasonal. Views within this LU are typically open and unrestricted. The overall rating of visual
32 quality for this LU is low/moderate, primarily due to the encroachment of development.

33 LU 11: Transitional Development

34 The I-10 corridor between Casa Grande and Tucson is currently transitioning from a rural,
35 agricultural setting with limited development to a residential mixed use landscape. Land uses
36 are in transition where new developments are intermixed with active or inactive agricultural land.
37 The new residential communities under construction are at a higher density than what is typical
38 for a rural residential setting. The juxtaposition of varied land uses during this transitional phase
39 disrupts the unit of the landscape setting. This LU is expected to trend towards LU 9 as
40 agricultural land uses are replaced with mixed land uses. Views within this LU are typically open

1 and unrestricted due to flat terrain and lower density of development. Overall visual quality of
2 this unit is low primarily due to the lack of integrity and disjointed nature of this transitional land.

3 **LU 12: Picacho Peak**

4 This LU was primarily defined for an area associated with Picacho Peak, which is a unique
5 feature that is prominent in the landscape. The peak can be seen for several miles along the
6 I-10 corridor. The peak is a dramatic landform that is isolated to a small area and viewed in
7 context with the surrounding flat agricultural areas. Development within this LU is generally
8 limited to state park facilities including picnic areas, hiking trails, and parking areas. There are
9 limited commercial facilities at the interchange for I-10 and private recreational vehicle/camping
10 facilities. Superior views are likely at higher elevations on this landform. The overall visual
11 quality rating for this LU is moderate due to encroaching development that disrupts the unity of
12 the setting.

13 **LU 13: Bajada/Limited Development**

14 This LU is characterized by gently sloping to rolling bajada landscapes that are primarily
15 undeveloped with the exception of a major road or other local roads. These lands are typically
16 occupied by saguaro, cholla, ocotillo, and paloverde trees. These unique vegetation specimens
17 bring diversity to this simple landscape. Views within this LU are typically open and unrestricted
18 with superior views at higher elevations on the bajada. This LU is associated with moderate
19 visual quality because there are few modifications that detract from the natural setting.

20 **LU 14: Bajada/Light Industrial/Utilities**

21 This LU is characterized by gently sloping to rolling bajada landscapes that are associated with
22 light industrial development, including high-voltage transmission lines, underground pipelines,
23 substations, landfills, and other industrial uses. These lands are typically occupied by saguaro,
24 cholla, ocotillo, and paloverde trees, which add interest to the landscape. Views within this LU
25 are typically open and unrestricted with superior views at higher elevations on the bajada. This
26 LU is associated with low/moderate visual quality because of the industrial scale modifications
27 that co-dominate the LU.

28 **LU 15: Undeveloped Rolling Hills/Plains**

29 Primarily characterized by smaller mountain chains, rolling hills, and extensive valley plains
30 dissected by several washes, this LU is relatively undisturbed. Modifications are limited to dirt
31 roads and very isolated rural residences. Roads within this LU may require high clearance
32 vehicles and are minimally maintained. The mountain landforms are more unique in this flat
33 valley setting and the presence of dense vegetation along washes contributes to an above
34 average rating in vividness. Views within this LU type may be partially to completely restricted.
35 This depends on terrain and viewer orientation. Superior views are likely at higher elevations on
36 the bajada or mountain ridges. Overall, this LU is harmonious and unified, which contributes to a
37 moderate/high rating of visual quality.

38 **Figure E9-1** through **Figure E9-6** show the LU boundaries, the location of representative
39 viewpoints, and visibility of the Recommend and Preferred Alternatives.

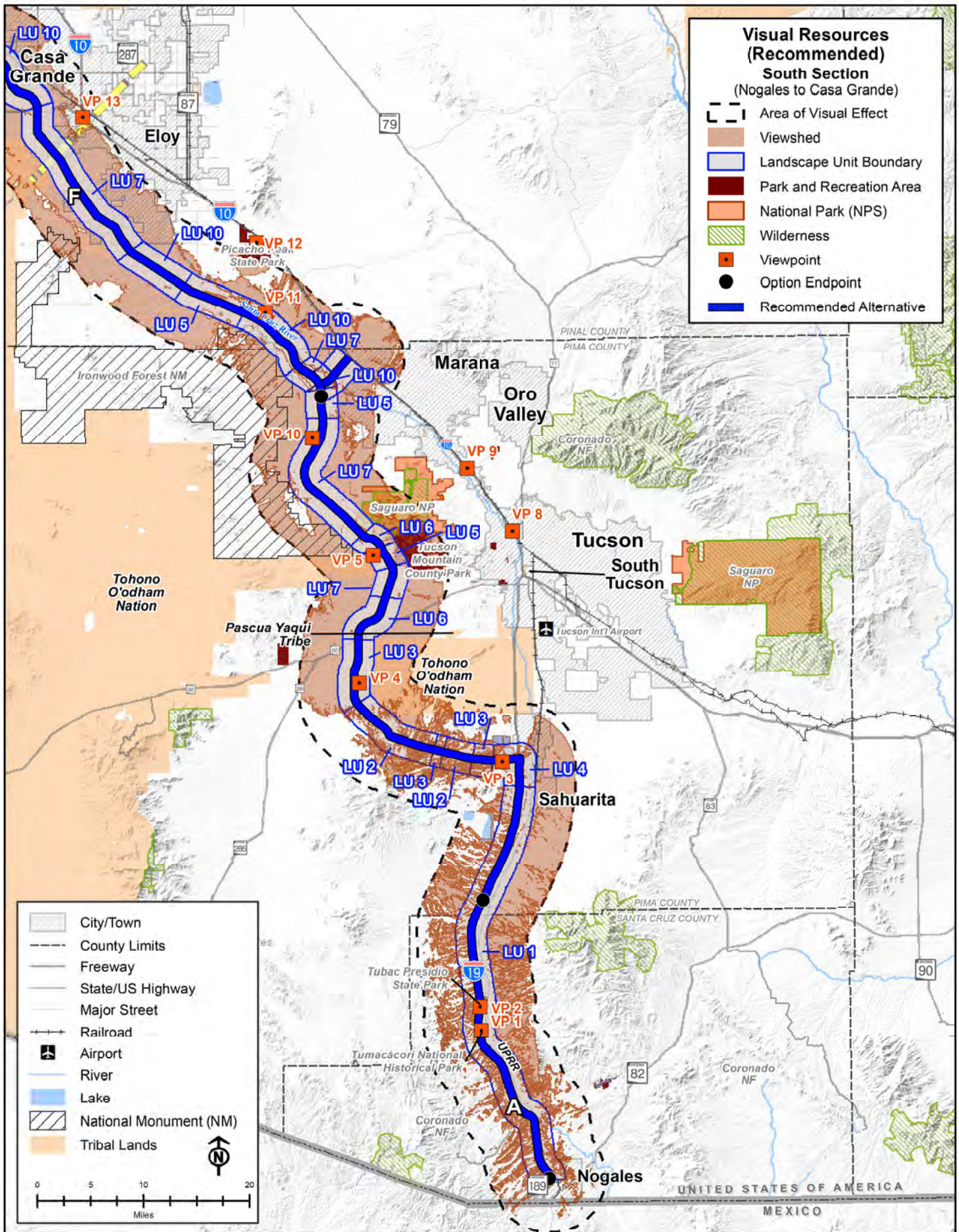


Figure E9-1. Visual Resources Recommended Alternative: South Section

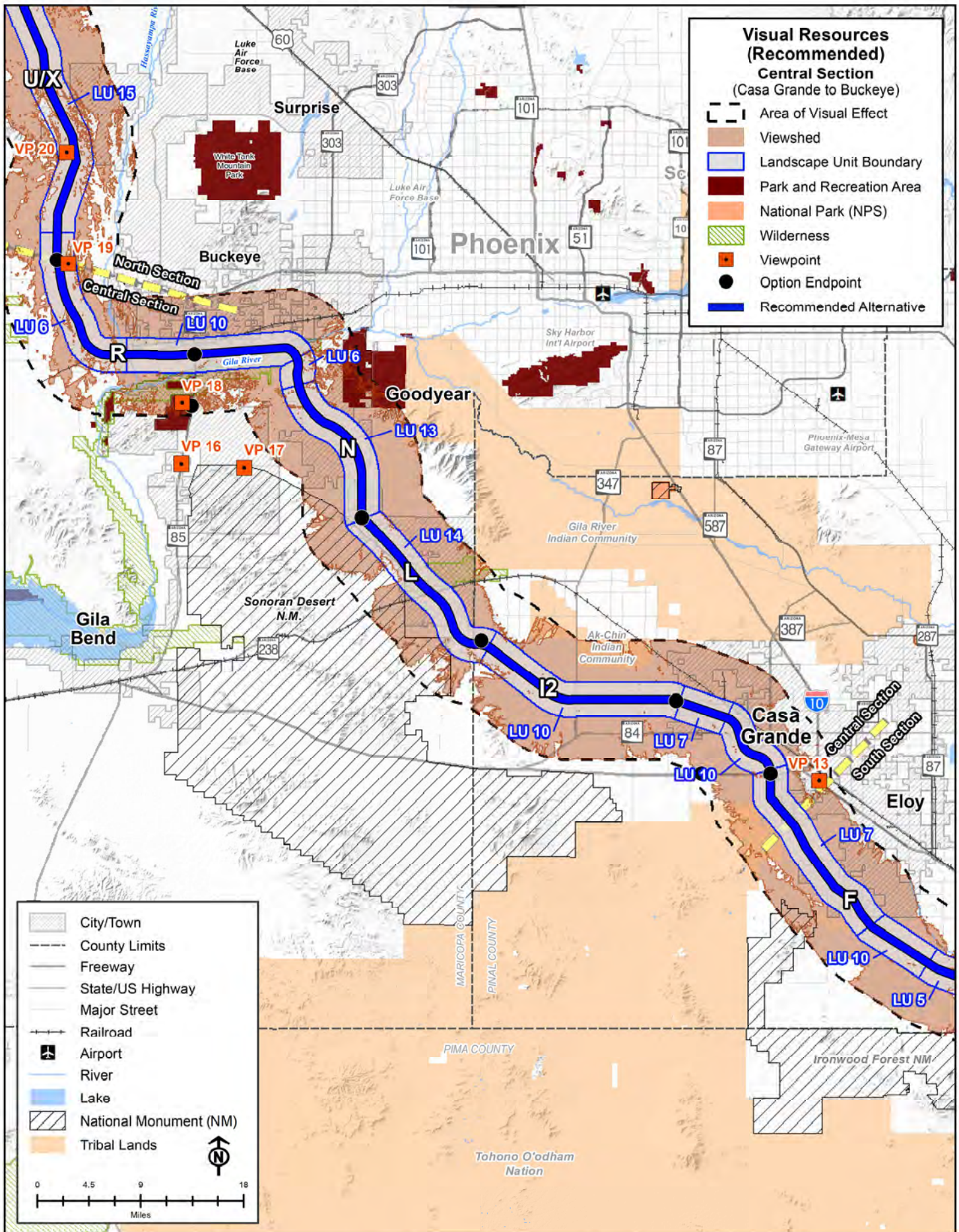


Figure E9-2. Visual Resources Recommended Alternative: Central Section

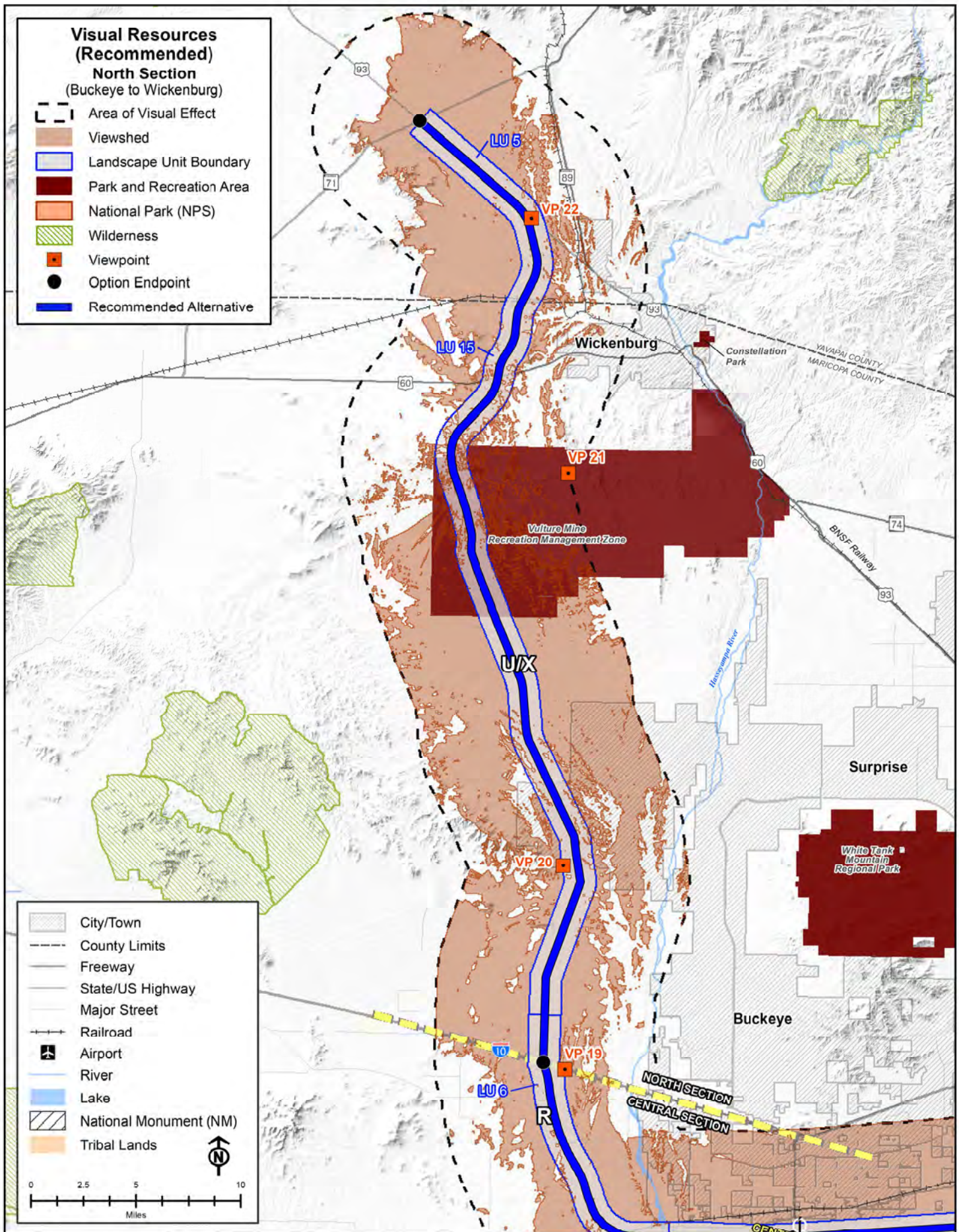


Figure E9-3. Visual Resources Recommended Alternative: North Section

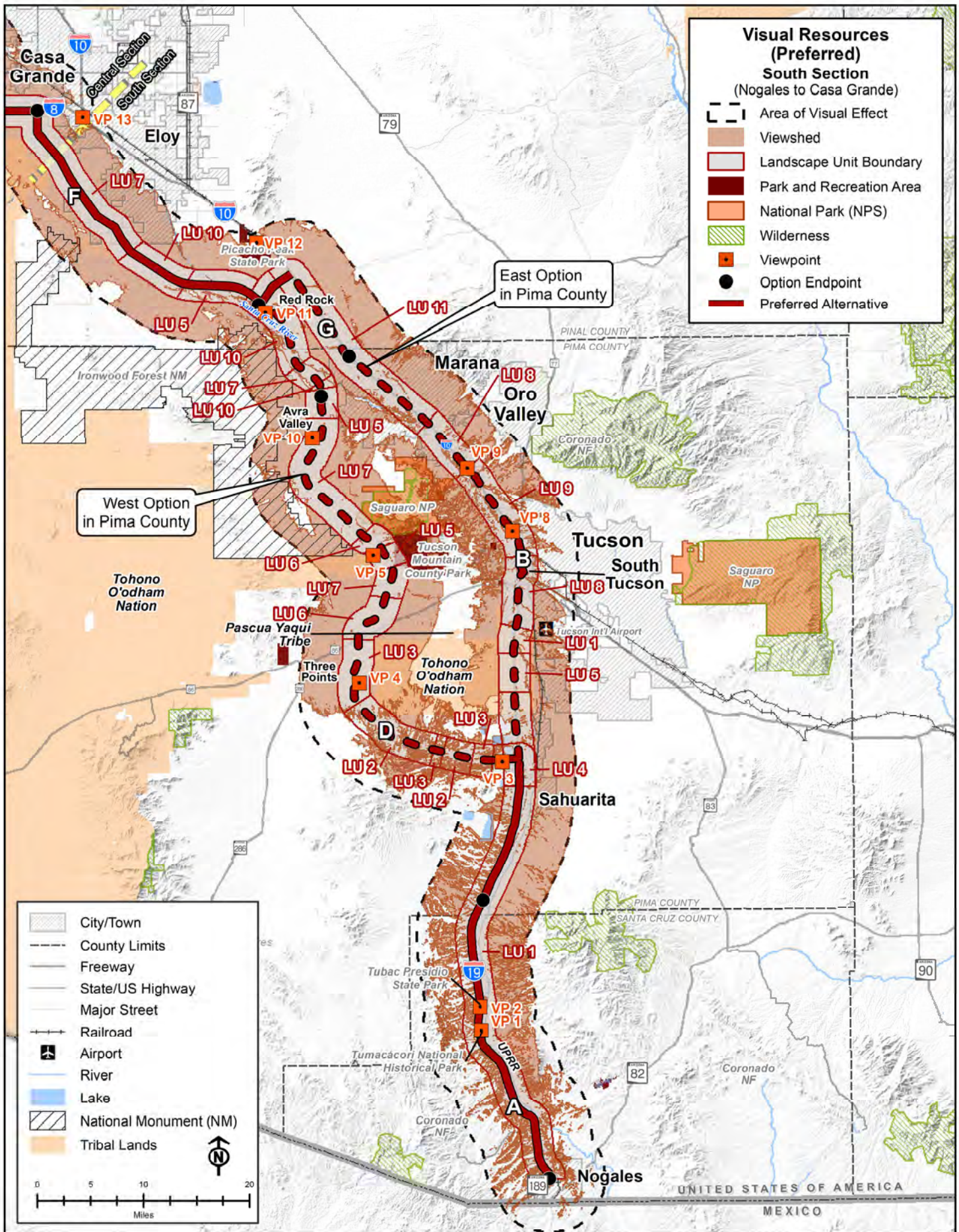


Figure E9-4. Visual Resources Preferred Alternative: South Section

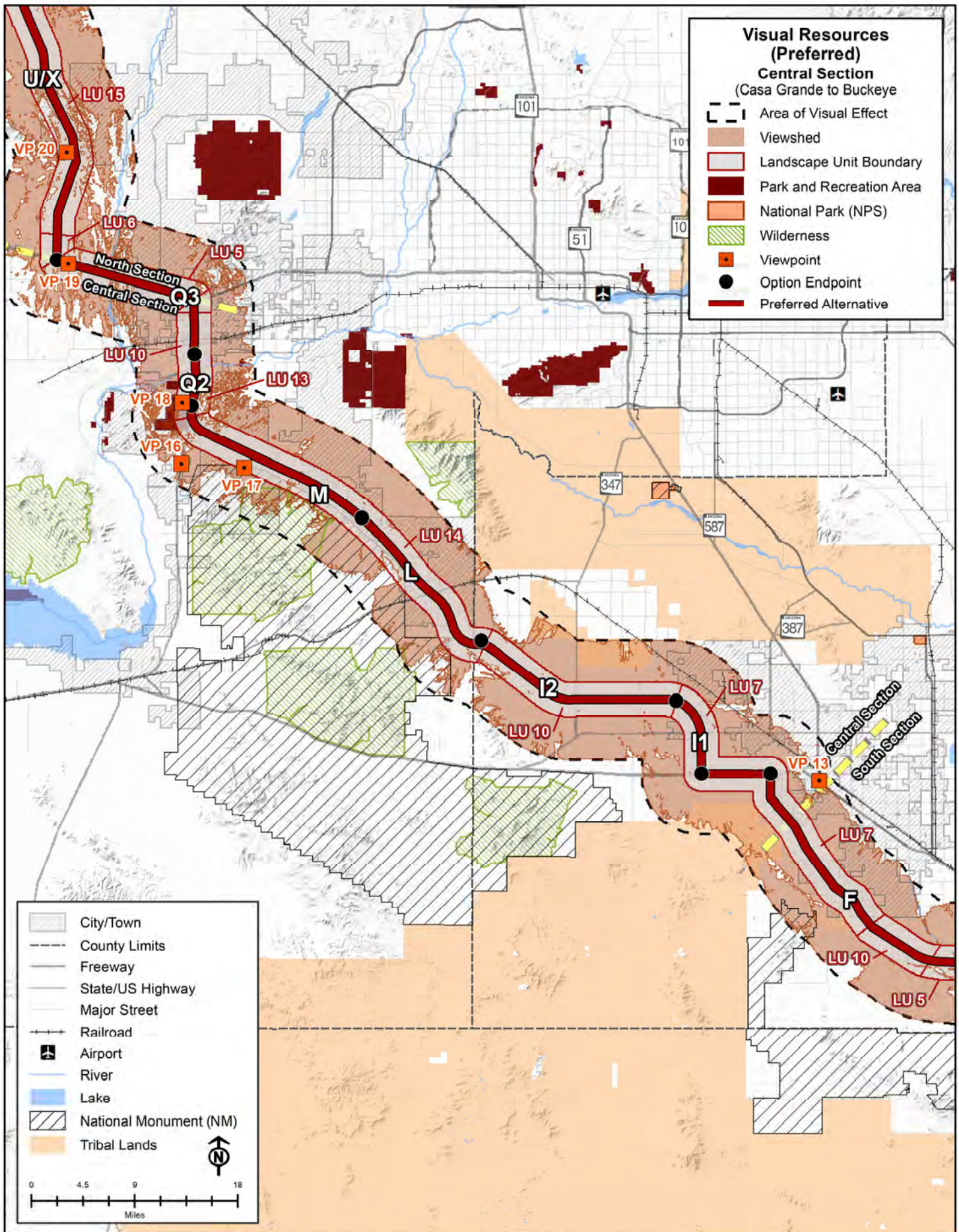


Figure E9-5. Visual Resources Preferred Alternative: Central Section

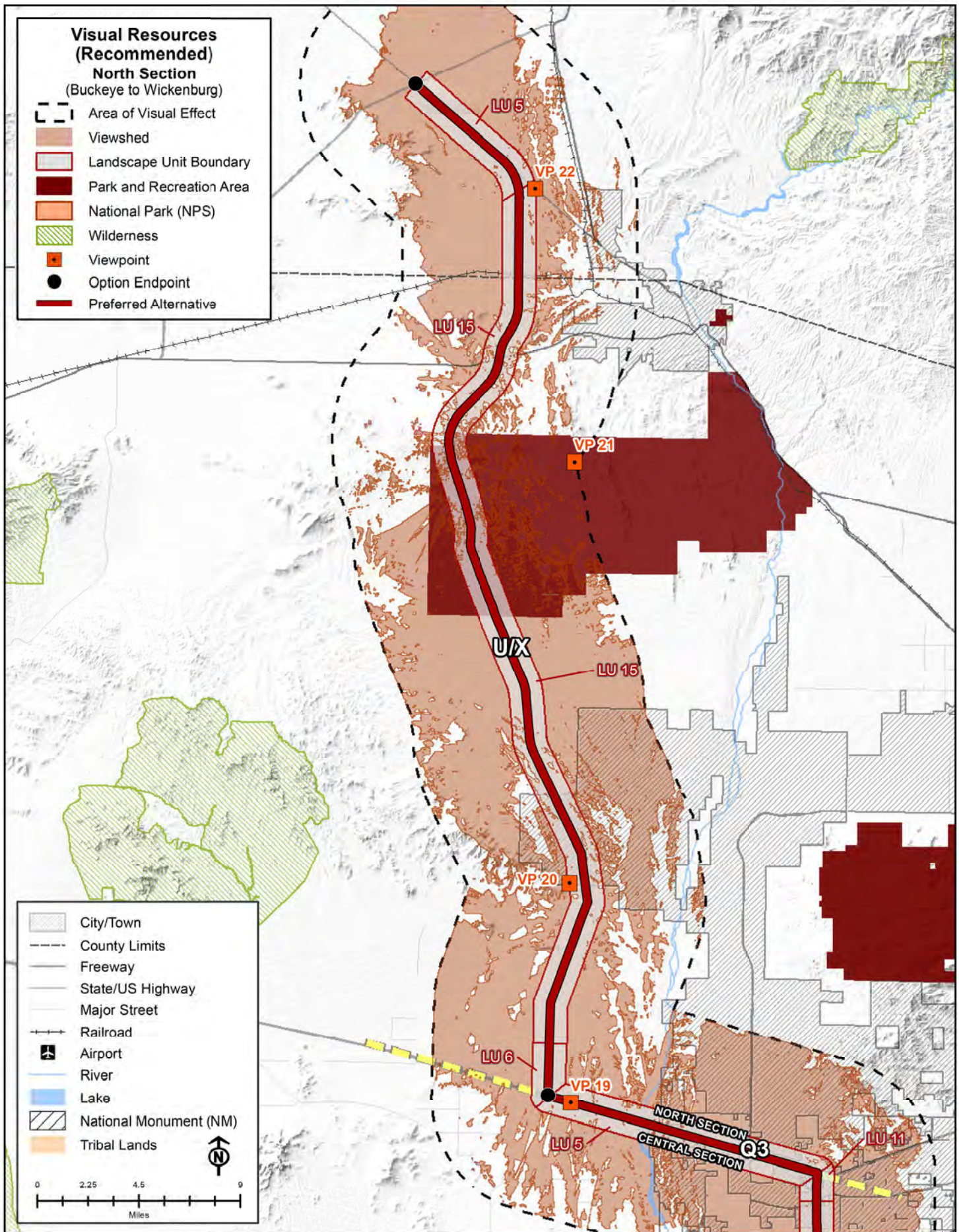


Figure E9-6. Visual Resources Preferred Alternative: North Section



1 **E9.2 Viewer Types and Awareness**

2 The two distinct groups of viewers within the AVE are neighbors and travelers. Neighbors are
3 those people who are adjacent to the highway and have “views of the road.” Travelers are those
4 people who are using the highway and have “views from the road.” Neighbors and travelers are
5 further subdivided into categories that help establish viewer preferences and their awareness to
6 changes in visual resources. **Table E9-1** identifies the categories and general viewer awareness
7 within the AVE.

8 **Table E9-1. Viewer Types and Awareness**

Viewer Type	Description	Viewer Awareness
Neighbors: Residential	Those who would live within viewing distance of the I-11 Corridor. They can be owners or renters and tend to be permanent rather than transitory. Their visual preferences tend toward a desire to maintain the existing landscape as it is—they settled where they are for a reason, including how their neighborhood looks. They are not very interested in change, even change that purports to improve the quality of their lives, unless they participated in defining the changes. Depending on their location, residential neighbors are often interested in cultural order and natural harmony, with less emphasis on project coherence unless it impacts their ability to appreciate the other two aspects of visual quality.	High
Neighbors: Recreational	Recreation includes organized sporting events, indoor and outdoor leisure activities, and cultural events. Those who supply a recreational service for others to consume and enjoy, are sometimes permanent; visitors are consumers of the recreational service and are more transitory. The visual preferences of recreational neighbors tend to be focused on and associated with their recreational activity. Neighbors tend to prefer the status quo and are leery of visual encroachments that may cause adverse effects on the setting of their activity. They also may show willingness to entertain improvements to visual resources that enhance their recreational experience. Depending on the type of recreation, recreational neighbors are very interested in cultural order and natural harmony, with some emphasis on project coherence as it impacts their experience traveling to their recreational activity	High
Neighbors: Commercial	Those who occupy or use office buildings, warehouses, and other commercial structures. Workers are often permanent, while visitors and customers are transitory. The visual preferences of commercial interests vary depending on the business. Those with many visitors and customers mimic the visual preferences of retail neighbors. Others are more inclined to align themselves with the visual preferences of institutional or industrial neighbors. Retail neighbors are dependent on good cultural order and project coherence. Some commercial developments use natural harmony as a method for attracting and keeping tenants.	Low



Viewer Type	Description	Viewer Awareness
Neighbors: Industrial	Industrial neighbors mine or harvest raw materials, manufacture goods and services, or transport goods, services, and people. They tend to require large amounts of land. They tend to limit the extent to which their activities are exposed to the public. Industrial neighbors tend to be primarily workers with few transitory visitors. Industrial neighbors may benefit from good cultural order, natural harmony, and project coherence, but may not depend on these attributes.	Low
Neighbors: Agricultural	Farmers of crops or herd animals. They often work in fields and pastures. Some are permanent; many are migratory but may return to the same area again and again over the years. Agricultural neighbors regard cultural order and natural harmony as critical components of the landscape. They are less interested in project coherence.	Low
Travelers: Recreational/ Touring	Those who are traveling on a highway, primarily for enjoyment, usually to a pre-determined destination. These types of trips tend to be more adventuresome, cover longer distances, and take more time than commuting trips. Touring travelers frequently are traveling in groups with both a driver and passengers. Touring travelers are equally interested in project coherence, cultural order, and natural harmony. Motorist traveling for recreation, particularly along scenic routes, have a higher degree of concern of changes in the landscape.	Moderate to High
Travelers: Commuting	Commuters are regular travelers of the same route. The frequency of the travel may vary, but there tend to be peaks—such as morning and evening rush hours and holidays. Most commuting occurs as short trips in urban areas between home and work. These commutes tend to be by single drivers. Other types of commuting involve longer distances, travel through rural or even wilderness settings, and involve passengers as well as drivers. Such trips may include commuting to a favorite or frequent destination, such as a campground, cabin, sports arena, or relative's home. Such trips are considered to be commuting because as they are repeated, the trips tend to become routine and not an adventure. Commuters, like all travelers, are particularly interested in project coherence. They also are interested in cultural order and natural harmony to the extent that it contributes to wayfinding.	Low
Travelers: Shipping	Shippers make a living using a highway primarily to move goods. The type of vehicle and the distance traveled vary. Most shipping travel is routine. Frequently, shipping travelers are only drivers. Shipper's primary interest lies in project coherence.	Low

1 SOURCE: FHWA 2015. *Guidelines for the Visual Impact Assessment of Highway Projects*. Federal Highway Administration.
 2 Washington, D.C.

1 E9.3 Effects on Visual Quality and Viewers

2 E9.3.1 Visual Quality

3 Visual quality is a result of the interactive experience between viewers and their environment.
4 This relates directly to the intrinsic qualities of a landscape, or the elements and characteristics
5 of a place that makes it distinct and memorable. Overall visual quality of the landscape is
6 determined by evaluating the landform, vegetation, water, color, and cultural features. Typically,
7 more complex or distinct landscapes have a higher visual quality rating or value.

8 The landscapes in the AVE were assigned a range of high to low ratings based on a
9 combination of the following key indicators of visual quality:

- 10 • **Vividness:** The memorability of the visual impression received from contrasting landscape
11 elements as they combine to form a striking and distinctive visual pattern. Ratings include
12 memorable, striking (high), above average (moderate), and plain or common (low).
- 13 • **Intactness:** The integrity of visual order in the natural and built landscape, and the extent to
14 which the landscape is free from visual encroachment. Ratings include free of encroaching
15 elements (high), developed elements retain integrity (moderate), and cluttered or lacking
16 integrity (low).
- 17 • **Unity:** The visual coherence and harmony of a landscape when considered as a whole.
18 Ratings include coherent/harmonious (high), partially contiguous (moderate), and
19 disjointed/jarring (low).

20 E9.3.2 Anticipated Viewer Response

21 The impact assessment in **Section E9.3.3** attempts to predict viewer response to landscape
22 changes by evaluating viewer awareness, exposure to the project, and visual contrast levels
23 anticipated as a result of the project.

24 Viewer Awareness

25 Viewer awareness is a measure of public concern for change to the characteristic landscape.
26 Viewer awareness is determined by evaluating “use” of the resource by viewers (type of use,
27 user attitude and expectations, quantity of use, and use duration).

28 Viewer Exposure

29 Viewer exposure reflects how the project would be seen and at what distance. It is typically
30 assessed by measuring the number of viewers exposed to the project, type of viewer activity,
31 duration of the viewer’s view, the speed at which the viewer moves, and viewer position.

32 Factors that may limit views include viewer orientation and distance from the project and the
33 physical elements of topography and vegetation that may screen project elements. In general,
34 the closer a resource is to the viewer, the more dominant it is and the greater its importance to
35 the viewer.

36 Federal Highway Administration (FHWA) guidelines define three distance zones (FHWA 2015):



- 1 • Foreground views: 0.25 to 0.5 mile from the viewer
- 2 • Middleground views: from foreground zone to 3 to 5 miles from the viewer
- 3 • Background views: beyond the middleground zone

4 **Visual Contrast Level**

5 The magnitude of visual change is determined by assessing the compatibility of the project
6 features with the existing visual quality of the LU and the viewer exposure. The visual character
7 elements of scale, diversity, continuity, and dominance are assessed to determine compatibility
8 of the impact. Four visual contrast levels for the I-11 analysis were established:

- 9 • **Not Noticeable:** Changes in the landscape scenery or views that would not be evident
10 unless pointed out due to such factors as previous disturbance, viewshed limiting factors
11 (e.g., distance, viewer orientation, and terrain), dominance of adjacent landscape features,
12 and background terrain. Changes are typically viewed in the background and are
13 unobstructed. This level may include middleground views that are partially screened or
14 foreground views that are completely screened.
- 15 • **Noticeable:** Changes in the landscape scenery or views that would be evident but visually
16 subordinate to the setting due to such factors as previous disturbance, viewshed limiting
17 factors (e.g., distance, viewer orientation, and terrain), dominance of adjacent landscape
18 features, and background terrain. These changes may attract slight attention but do not
19 compete with adjacent landscape scenery or views. Changes are typically viewed in the
20 middleground or background or are unobstructed. However, this level may include
21 foreground views that are partially screened.
- 22 • **Co-Dominant:** Changes in the landscape scenery or views that attract attention and begin
23 to compete with adjacent landscape scenery or views. Changes are typically viewed in the
24 middleground and are unobstructed or partially screened in the foreground.
- 25 • **Dominant:** Changes in the landscape scenery or views that become the focal point or most
26 dominant feature in the setting. Changes are typically viewed in the foreground and are
27 unobstructed. In extreme cases, they may be partially screened. Such changes often cause
28 a lasting impression when viewed from the landscape.

29 **E9.3.3 Viewpoint Impact Assessment**

30 The following discussion characterizes potential impacts to visual resources resulting from the
31 Preferred and Recommended Alternatives.

32 **Viewpoint 1: Tumacácori National Historical Park (Recommended Alternative and** 33 **Preferred Alternative)**

34 The Recommended and Preferred Alternatives would be co-located with I-19, which has an
35 existing right-of-way width of approximately 300 feet. The current footprint would accommodate
36 the Recommended and Preferred Alternatives without additional improvement such as right-of-
37 way acquisition. Anticipated visual impact for viewers associated with Tumacácori National
38 Historical Park would be Not Noticeable because the Project Area is screened by vegetation
39 and other structures and no changes to the existing cross section are proposed.

- 1 **Figure E9-7** is a photograph of the viewpoint for the landscape along the Recommended and
- 2 Preferred Alternatives. **Table E9-2** and **Table E9-3** describe the visual quality rating of the
- 3 landscape and the anticipated viewer response to a change in the landscape, respectively.



4
5 Elevation: 3,261 feet above mean sea level (amsl)

6 **Figure E9-7. Viewpoint 1: View West from Tumacacori National Historical Park**
7 **Grounds**

8 **Table E9-2. Viewpoint 1 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 1: Santa Cruz River Valley/Small Communities/Agriculture		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate/high (4)	Moderate/high (4)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Moderate (3)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Low/moderate (2)	Low/moderate (2)
Visual Quality Rating	Moderate (3)	Moderate (3)



1 **Table E9-3. Viewpoint 1 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 1: Tumacácori National Historic Park		
National Park recreation destination with historical significance. Recreational viewers are associated with high awareness.	Viewers have inferior foreground views of the existing I-19 corridor. The majority of views from the National Park would be obstructed by vegetation.	Response to affected views is anticipated to be low due to obstructed views of the existing I-19 corridor and no new traffic lanes are required to co-locate I-11 and I-19.
LU 1: Santa Cruz River Valley/Small Communities/Agriculture		
Visual Contrast Level	Not Noticeable	

2 **Viewpoint 2: Tubac Residential Community (Recommended Alternative and Preferred**
3 **Alternative)**

4 Similar to Viewpoint 1, the Recommended and Preferred Alternatives would be co-located with
5 I-19, which has an existing corridor width of approximately 300 feet. The current cross section
6 would accommodate the alternatives without additional ROW or lanes. Anticipated visual
7 contrast level for residential viewers in Tubac would be Not Noticeable for the Recommended
8 Alternative and Preferred Alternative because vegetation and other residential structures
9 partially screen views of the Project Area, and no changes to the existing cross section are
10 proposed.

11 **Figure E9-8** is a photograph of the viewpoint for the landscape along the Recommended and
12 Preferred Alternatives. **Table E9-4** and **Table E9-5** describe the visual quality rating of the
13 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 3,274 feet amsl

3 **Figure E9-8. Viewpoint 2: View West from I-19 Toward the Town of Tubac**

4 **Table E9-4. Viewpoint 2 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 1: Santa Cruz River Valley/Small Communities/Agriculture		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate/high (4)	Moderate/high (4)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Moderate (3)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Low/moderate (2)	Low/moderate (2)
Overall Visual Quality Rating	Moderate (3)	Moderate (3)



1 **Table E9-5. Viewpoint 2 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 2: Tubac Residential Community		
Residences typically have high awareness due to long duration of views and greater concern to changes in the landscape.	Tubac residences are within 500 feet of the existing I-19 corridor and would have at-grade views of the Recommended and Preferred Alternatives with partial screening by vegetation.	Response to affected views is anticipated to be low, as corridor views are partially obstructed and no new traffic lanes are required to co-locate I-11 and I-19.
LU 1: Santa Cruz River Valley/Small Communities/Agriculture		
Visual Contrast Level	Not Noticeable	

2 **Viewpoint 3: Twin Buttes Road (Recommended Alternative and Preferred Alternative**
3 **[West Option])**

4 This viewpoint is located along the Recommended Alternative and the Preferred Alternative
5 (West Option) where modifications include unimproved roads, high-voltage transmission lines,
6 and adjacent mining operations, including railroad infrastructure. This setting is dominated by
7 the landscape scale modifications associated with the mine and utilities. The introduction of a
8 400-foot typical section would result in changes to the visual character (new form, lines, and
9 colors) of the unit. Changes would be Noticeable to recreational viewers, but the overall visual
10 impact is anticipated to be moderate because of the influence of adjacent mining.

11 **Figure E9-9** is a photograph of the viewpoint for the landscape along the Recommended and
12 Preferred Alternatives. **Table E9-6** and **Table E9-7** describe the visual quality rating of the
13 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 3,065 feet amsl

3 **Figure E9-9. Viewpoint 3: View Southeast from Twin Butte Road near Green Valley**

4

Table E9-6. Viewpoint 3 - Visual Quality Rating

Visual Quality Indicators	Pre-Project	Post-Project
LU 4: Heavy Industrial/Mining		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate (3)	Low/moderate (2)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low/moderate (2)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Low/moderate (2)	Low (1)
Overall Visual Quality Rating	Low/moderate (2)	Low (1)

5



1

Table E9-7. Viewpoint 3 - Anticipated Viewer Response

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 3: Twin Buttes Road		
Travelers along this local recreational access road would generally have a moderate level of visual awareness.	Travelers would have foreground views of the Recommended Alternative and the Preferred Alternative west option. Viewing duration is typically moderate for recreation focused travelers, including off highway vehicles and motorcycling.	Response to affected views is anticipated to be moderate due to the influence of mining modifications and utilities.
LU 4: Heavy Industrial/Mining		
Visual Contrast Level	Noticeable	

2
3

Viewpoint 4: Three Points Area Rural Residences (Recommended Alternative and Preferred Alternative [West Option])

4 This viewpoint is located along the Recommended Alternative and the Preferred Alternative
5 (West Option) where landscape modifications include unimproved roads, distribution lines, and
6 rural residences. This LU is fairly intact with a low level of encroachment with some visual
7 interest associated with the upper Sonoran Desert, sloping bajada landform, and adjacent
8 mountains. The scale of rural residential development is less noticeable than more intensely
9 developed or subdivided residences; therefore, the overall unit is cohesive with the surrounding
10 undeveloped landscape. The introduction of a 400-foot typical section would result in changes
11 to the visual character (new form, lines, and colors) of the unit. The visual contrast would be Co-
12 Dominant because of the contrast between residential and transportation uses. The freeway
13 would be incongruous in the overall setting and would create visual contrast due to scale. The
14 Recommended Alternative and the Preferred Alternative (West Option) would be visible to
15 residential viewers, although portions of the highway may be screened by vegetation and
16 topography for certain residences. Overall visual impact is anticipated to be high due to high
17 viewer awareness to a Co-Dominant level of visual change.

18 **Figure E9-10** is a photograph of the viewpoint for the landscape along the Recommended and
19 Preferred Alternatives. **Table E9-8** and **Table E9-9** describe the visual quality rating of the
20 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 2,943 feet amsl

3 **Figure E9-10. Viewpoint 4: View West from Rural Residences Located Along**
 4 **Hilltop Road South of Three Points, Arizona**

5 **Table E9-8. Viewpoint 4 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 3: Bajada/Rural Residential		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate (3)	Low/moderate (2)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Low (1)
Visual Quality Rating	Moderate (3)	Low (1)

6



1 **Table E9-9. Viewpoint 4 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 4: Three Points Area Rural Residences		
Residential viewers typically have high awareness due to long duration of views and greater concern to changes in the landscape.	Three Points area rural residences would be within 600 feet of the Recommended Alternative and Preferred Alternative (West Option) and would have foreground, at-grade views of these alternatives with minimal to partial screening by vegetation.	Response to affected views is anticipated to be high due to limited visual intrusions associated with LU.
LU 3: Bajada/Rural Residential		
Visual Contrast Level	Co-Dominant	

2 **Viewpoint 5: Sandario Road at the Tucson Mitigation Corridor (Recommended Alternative**
3 **and Preferred Alternative [West Option])**

4 This viewpoint is located along the Recommended Alternative and the Preferred Alternative
5 (West Option) where landscape modifications include paved roads and transmission lines and
6 the Central Arizona Project canal. The introduction of a 400-foot typical section would result in
7 changes to the visual character (new form, lines, and colors) of the unit. The improvements
8 would be Noticeable to travelers along Sandario Road in the middleground but would be
9 partially screened by vegetation and topography. Overall visual impact is anticipated to be
10 moderate due to the level of change to visual quality and partially unobstructed views.

11 **Figure E9-11** is a photograph of the viewpoint for the landscape along the Recommended and
12 Preferred Alternatives. **Table E9-10** and **Table E9-11** describe the visual quality rating of the
13 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 2,269 feet amsl

3 **Figure E9-11. Viewpoint 5: View North Along Sandario Road Near the Tucson**
 4 **Mitigation Corridor**

5 **Table E9-10. Viewpoint 5 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 5: Flat Valley/Limited Development		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low/moderate (2)	Low/moderate (2)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate (3)	Low (1)
Visual Quality Rating	Moderate (3)	Low (1)

6



1 **Table E9-11. Viewpoint 5 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 5: Sandario Road at the Tucson Mitigation Corridor		
Travelers along this local travel route are primarily commuting and would be associated with a moderate level of visual awareness.	Travelers would sustain foreground views of the Recommended Alternative and Preferred Alternative (West Option). Viewing duration would be typical of interstate travel.	Response to affected views is anticipated to be moderate due to limited visual intrusions associated with LU.
LU 5: Flat Valley/Limited Development		
Visual Contrast Level	Noticeable	

2 **Viewpoint 6: Saguaro National Park**

3 Viewpoint 6 in the Draft Tier 1 EIS was renamed KOP 7. See **Section E9.4.7.**

4 **Viewpoint 7: Picture Rocks Road**

5 Viewpoint 7 in the Draft Tier 1 EIS was renamed KOP8. See **Section E9.4.8.**

6 **Viewpoint 8: I-10 at Grant Road (Preferred Alternative [East Option])**

7 From this viewpoint along the Preferred Alternative (East Option), the developed metropolitan
8 Tucson area dominates the landscape setting where industrial and mixed land uses are visible
9 in the foreground, immediately adjacent to the I-10 corridor. The contrast level would be Not
10 Noticeable to Noticeable. Additional lanes are proposed, and could potentially be added within
11 the median, to the outside, or above. If an elevated facility were to be proposed in Tier 2, the
12 level of visual contrast and visibility could be greater.

13 **Figure E9-12** is a photograph of the viewpoint for the landscape along the Recommended and
14 Preferred Alternatives. **Table E9-12** and **Table E9-13** describe the visual quality rating of the
15 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 2,309 feet amsl

3 **Figure E9-12. Viewpoint 8: View South from I-10 at Grant Road**

4 **Table E9-12. Viewpoint 8 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 9: Commercial/Light Industrial Mixed Use		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low (1)	Low (1)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low (1)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Low/moderate (2)	Low (1)
Visual Quality Rating	Low (1)	Low (1)

5



1 **Table E9-13. Viewpoint 8 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 8: I-10 at Grant Road		
Travelers along this regional travel route are primarily commuting and shipping and would generally have a low level of visual awareness to changes in the landscape.	Travelers would have foreground views of the Preferred Alternative (East Option). Duration of views would be typical of those traveling along an interstate facility.	Impacts to visual quality are anticipated to be low. Response to affected views is anticipated to be low.
LU 9: Commercial/Light Industrial Mixed Use		
Visual Contrast Level	Not Noticeable to Noticeable	

2 **Viewpoint 9: I-10 at Ina Road (Preferred Alternative [East Option])**

3 Viewpoint 9 is located where the Preferred Alternative (East Option) is co-located with I-10.
4 From this viewpoint, the developed Tucson metropolitan area dominates the landscape setting
5 where commercial, light industrial, and mixed land uses are visible in the foreground,
6 immediately adjacent to the I-10 corridor. The change to visual landscape would be Not
7 Noticeable because the proposed modifications would be consistent with the existing
8 landscape. Overall visual impact is anticipated to be neutral due to the high degree of visual
9 absorption in this urban LU, low viewer awareness, and proposed modifications that are
10 consistent with the existing landscape.

11 **Figure E9-13** is a photograph of the viewpoint for the landscape along the Recommended and
12 Preferred Alternatives. **Table E9-14** and **Table E9-15** describe the visual quality rating of the
13 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 2,202 feet amsl

3 **Figure E9-13. Viewpoint 9: View North from I-10 at Ina Road**

4 **Table E9-14. Viewpoint 9 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 9: Commercial/Light Industrial Mixed Use		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low (1)	Low (1)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low (1)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Low/moderate (2)	Low/moderate (2)
Visual Quality Rating	Low (1)	Low (1)



1 **Table E9-15. Viewpoint 9 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 9: I-10 at Ina Road		
Travelers along this regional travel route are primarily commuting and shipping and would generally have a low level of visual awareness.	Duration of views would be typical of those traveling along an interstate facility.	Response to impacted views is anticipated to be low, as the proposed modifications to I-10 would be consistent with the existing landscape.
LU 9: Commercial/Light Industrial Mixed Use		
Visual Contrast Level	Not Noticeable	

2 **Viewpoint 10: Avra Valley Area Residences (Recommended Alternative and Preferred**
3 **Alternative [West Option])**

4 This viewpoint is located along the Recommended Alternative and Preferred Alternative (West
5 Option) where modifications include abandoned agricultural fields and near unimproved roads,
6 distribution lines, and rural residences. This LU is fairly intact with a low level of encroachment
7 with some visual interest associated with the lower Sonoran Desert and riparian washes along
8 the valley. The scale of rural residential development is less noticeable compared to more
9 densely developed areas. Overall, the LU is cohesive within the surrounding agricultural
10 landscape. The introduction of a 400-foot typical section would result in changes to the visual
11 character of the LU. For residents adjacent to the corridor, the change to visual quality would be
12 Co-Dominant because of the contrast between rural agricultural and transportation uses. The
13 freeway would be incongruous in the overall setting and would create visual contrast due to
14 scale. The alternatives would be visible to adjacent residential viewers. Overall visual impact is
15 anticipated to be moderate due to high levels of viewer awareness, at-grade and partial
16 screening of views, and anticipated change in the visual quality.

17 **Figure E9-14** is a photograph of the viewpoint for the landscape along the Recommended and
18 Preferred Alternatives. **Table E9-16** and **Table E9-17** describe the visual quality rating of the
19 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 2,012 feet amsl

3 **Figure E9-14. Viewpoint 10: View East from Residences Along Avra Valley Road**

4 **Table E9-16. Viewpoint 10 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 7: Flat Valley/Abandoned Agriculture		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low/moderate (2)	Low (1)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate (3)	Low (1)
Visual Quality Rating	Moderate (3)	Low (1)

5

1

Table E9-17. Viewpoint 10 - Anticipated Viewer Response

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 10: Avra Valley Area Residences		
Residential viewers typically have high awareness due to long duration of views and greater concern to changes in the landscape.	Avra Valley residences would have at grade, middleground views of the Recommended Alternative and Preferred Alternative (West Option). These views would be partially to completely obstructed by vegetation.	The change in visual quality is anticipated be moderate, but response to visual impact is anticipated to be moderate due to the high viewer awareness, partial screening, and at-grade views.
LU 7: Flat Valley/Abandoned Agriculture		
Visual Contrast Level	Noticeable to Co-Dominant	

2 **Viewpoint 11: Red Rock Agricultural Area and Rural Residences / Ironwood Forest**
 3 **National Monument (Recommended Alternative, and Preferred Alternative [West Option])**

4 Viewpoint 11 is located along the Recommended Alternative and Preferred Alternative (West
 5 Option) and in proximity to the Preferred Alternative (East Option). Modifications would occur
 6 within active agricultural fields near unimproved roads, distribution lines, and rural residences.
 7 This LU is fairly intact with a low level of encroachment with some visual interest associated with
 8 the lower Sonoran Desert and active agricultural landscape. The scale of rural residential
 9 development is less noticeable than more densely developed areas; the overall unit is cohesive
 10 with the surrounding agricultural landscape. The introduction of a 400-foot typical section would
 11 result in changes to the visual character (new form, lines, and colors) of the LU. The change to
 12 visual quality rating would be Co-Dominant because of the contrast between rural agricultural
 13 and transportation uses. The improvements would be incongruous in the overall setting and
 14 would create visual contrast due to scale. Visitors to Ironwood Forest National Monument would
 15 have middleground to background views of the Recommended Alternative and Preferred
 16 Alternative (West Option). Views would be obstructed by intermediate vegetation and
 17 residences, except from higher elevations within Ironwood Forest National Monument. The
 18 visual change would be Noticeable. The alternatives would be visible to adjacent residential
 19 viewers, although portions of the highway may be screened by vegetation and topography for
 20 certain residences. Overall visual impact is anticipated to be moderate due to the high viewer
 21 awareness, at-grade and partial screening of impacted views, and anticipated change in visual
 22 quality.

23 **Figure E9-15** is a photograph of the viewpoint for the landscape along the Recommended and
 24 Preferred Alternatives. **Table E9-18** and **Table E9-19** describe the visual quality rating of the
 25 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 1,812 feet amsl

3

Figure E9-15. Viewpoint 11: View East Along Sasco Road

4

Table E9-18. Viewpoint 11 - Visual Quality Rating

Visual Quality Indicators	Pre-Project	Post-Project
LU 10: Flat Valley/Active Agriculture		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate (3)	Low (1)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low/moderate (2)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate (3)	Low (1)
Visual Quality Rating	Moderate (3)	Low (1)



1

Table E9-19. Viewpoint 11 - Anticipated Viewer Response

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 11: Red Rock Agricultural Area and Rural Residences/Ironwood Forest National Monument		
Residential viewers typically have high awareness due to long duration of views and greater concern to changes in the landscape. Ironwood Forest National Monument is a recreation destination. Recreational viewers are associated with high awareness.	Residents of Red Rock would have middleground views of the Recommended Alternative and Preferred Alternative (West Option) and would have at-grade project views that would be partially to completely screened by vegetation. Visitors to Ironwood Forest National Monument would have middleground to background views of the Recommended Alternative and Preferred Alternative (West Option). Views would be obstructed by intermediate vegetation and residences, except from higher elevations within Ironwood Forest National Monument.	Response to visual impact anticipated to be high due to the lack of visual intrusions associated with LU.
LU 10: Flat Valley/Active Agriculture		
Visual Contrast Level	Noticeable to Co-Dominant	

2 **Viewpoint 12: Picacho State Park (Preferred Alternative [West Option] and Preferred**
 3 **Alternative [East Option])**

4 The southeast corner of Picacho Peak State Park is approximately 2 miles away from where the
 5 Preferred Alternative East and West Options converge at Park Link Drive. From higher
 6 elevations in the park introduction of the west option may be Noticeable in the middleground.
 7 The east option would be Not Noticeable because it is co-located with the existing I-10 and no
 8 additional lanes are needed. The Preferred Alternative north of the I-10 Connector would be
 9 Noticeable. Overall visual impact is anticipated to be low to moderate.

10 **Figure E9-16** is a photograph of the viewpoint for the landscape along the Recommended and
 11 Preferred Alternatives. **Table E9-20** and **Table E9-21** describe the visual quality rating of the
 12 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 1,884 feet amsl

3 **Figure E9-16. Viewpoint 12: View East from the Park Main Road/Entrance**

4 **Table E9-20. Viewpoint 12 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 12: Picacho Peak		
Vividness: Memorable (H), Above Average (M), Plain (L)	High (5)	High (5)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Moderate (3)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Low/moderate (2)	Low/moderate (2)
Visual Quality Rating	Moderate (3)	Moderate (2)

5

1

Table E9-21. Viewpoint 12 - Anticipated Viewer Response

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 12: Picacho State Park		
Picacho State Park is a recreation destination that is utilized by locals and visitors year-round. Recreational viewers are associated with high awareness.	The southeast corner of Picacho Peak State Park is approximately 2 miles away from where the Preferred Alternative east option and west options converge at Park Link Drive. The I-10 Connector portion of the Preferred Alternative (West Option) is approximately 1.6 miles away at the closest point and the Preferred Alternative north of the I-10 Connector is approximately 2 miles away. Both would be visible in the middleground at higher elevation within the park. The Preferred Alternative (East Option) would also be visible in the middleground.	Response to affected views is anticipated to be low to moderate for viewers at higher elevations within the park who would have middleground views of the new facility. Changes to the landscape would be Noticeable for the west option and Preferred Alternative north of the I-10 Connector and Not Noticeable for the east option. Despite the high viewer awareness and multiple superior viewing points within the park, changes to the landscape from the east option would be Not Noticeable because proposed modifications to I-10 would be consistent with the existing landscape.
LU 12: Picacho Peak		
Visual Contrast Level	Not Noticeable to Noticeable	

2 **Viewpoint 13 (from Draft Tier 1 EIS)**

3 This portion of the Orange Alternative characterized by Viewpoint 13 in the Draft Tier 1 EIS is
4 not part of the Recommended or Preferred Alternative.

5 **Viewpoint 14 (from Draft Tier 1 EIS)**

6 This portion of the Orange Alternative characterized by Viewpoint 14 in the Draft Tier 1 EIS is
7 not part of the Recommended or Preferred Alternatives.

8 **Viewpoint 15 (from Draft Tier 1 EIS)**

9 This portion of the Orange Alternative characterized by Viewpoint 15 in the Draft Tier 1 EIS is
10 not part of the Recommended or Preferred Alternatives.

11 **Viewpoint 16 (from Draft Tier 1 EIS)**

12 This portion of the Orange Alternative characterized by Viewpoint 16 in the Draft Tier 1 EIS is
13 not part of the Recommended or Preferred Alternatives.

1 **Viewpoint 17: Sonoran Desert National Monument (Preferred Alternative)**

2 The Sonoran Desert National Monument is primarily undeveloped with few recreation amenities
 3 other than hiking trails. Three wildernesses exist within the monument boundaries: North
 4 Maricopa Mountains Wilderness, South Maricopa Mountains Wilderness, and Table Top
 5 Wilderness. Viewpoint 17 is located along the Preferred Alternative where existing modifications
 6 to the landscape include unimproved roads and a utility corridor containing two high-voltage
 7 transmission lines and several pipelines. The introduction of a 400-foot typical section would
 8 result in changes to the visual character (new form, lines, and colors) of the unit, in addition to
 9 the existing industrial modifications to the landscape. Recreational viewers at higher elevation
 10 would have Co-Dominant foreground and middleground views of the Preferred Alternative and a
 11 high level of viewer response. Overall visual impact would be moderate.

12 **Figure E9-17** is a photograph of the viewpoint for the landscape along the Recommended and
 13 Preferred Alternatives. **Table E9-22** and **Table E9-23** describe the visual quality rating of the
 14 landscape and the anticipated viewer response to a change in the landscape, respectively.



15
 16 Elevation: 1,192 feet amsl

17 **Figure E9-17. Viewpoint 17: View North from Sonoran Desert National Monument**
 18 **with Views of Utility Corridor in Foreground**

1 **Table E9-22. Viewpoint 17 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 14: Bajada/Light Industrial/Utilities		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate (3)	Low/moderate (2)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low/moderate (2)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate (3)	Low/moderate (2)
Visual Quality Rating	Moderate (3)	Low (1)

2 **Table E9-23. Viewpoint 17 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 17: Sonoran Desert National Monument		
Sonoran Desert National Monument is a recreation destination that is utilized by locals and visitors year-round. Recreational viewers are associated with high awareness.	Viewers have superior views of the Preferred Alternative in the foreground. Middleground views of the Preferred Alternative from viewpoints with higher elevation within the park would be unobstructed.	Viewer response from superior viewing points within the monument is anticipated to be high.
LU 14: Bajada/Light Industrial/Utilities		
Visual Contrast Level	Co-Dominant	

3 **Viewpoint 18: Buckeye Hills Regional Park (Preferred Alternative)**

4 Buckeye Hills Regional Park is a day use site for hikers and sightseers and has several picnic
 5 site amenities. The adjacent mountainous scenery and upper Sonoran Desert vegetation such
 6 as Saguaros contribute to a moderate level of vividness in the LU, although development
 7 associated with Buckeye and SR 85 are subordinate from this viewpoint. Along SR 85
 8 (Preferred Alternative), I-11 would be co-located with the existing travel lanes, within the current
 9 ROW of 500 feet. Anticipated visual impact for recreation viewers at this park would be neutral
 10 because the visual change is consistent with the existing landscape.

11 **Figure E9-18** is a photograph of the viewpoint for the landscape along the Recommended and
 12 Preferred Alternatives. **Table E9-24** and **Table E9-25** describe the visual quality rating of the
 13 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 902 feet amsl

3 **Figure E9-18. Viewpoint 18: View Northeast from Buckeye Hills Regional Park**
 4 **with SR 85 in Middleground**

5 **Table E9-24. Viewpoint 18 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 13: Bajada/Limited Development		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate (3)	Moderate (3)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Moderate (3)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate (3)	Moderate (3)
Visual Quality Rating	Moderate (3)	Moderate (3)

6



1 **Table E9-25. Viewpoint 18 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 18: Buckeye Hills Regional Park		
Buckeye Hills is a recreation destination that is utilized by locals year-round. Recreational viewers typically have high awareness to visual changes in the landscape. Visitors to Buckeye Hills would have foreground views of the Preferred Alternative that are associated with high awareness due to high viewer use and long viewing durations of the site and surrounding landscape.	Viewers within Buckeye Hills would have superior views of the Preferred Alternative in the foreground. Views would be unobstructed to partially screened by vegetation from viewpoints with higher elevation within the park.	Visual response is anticipated to be low as the Preferred Alternative along SR 85 is consistent with existing landscape.
LU 13: Bajada/Limited Development		
Visual Contrast Level	Not Noticeable	

2 **Viewpoint 19: I-10 at 355th Avenue (Recommended Alternative and Preferred Alternative)**

3 From this viewpoint, the existing I-10 corridor co-dominates the landscape setting where light
4 industrial and utilities are immediately adjacent to the corridor. The Preferred Alternative would
5 be co-located with I-10 at this location. The visual change to the landscape would be Not
6 Noticeable because the Recommended and Preferred Alternatives would be consistent with the
7 existing landscape. Overall viewer response is anticipated to be neutral for travelers along I-10.

8 **Figure E9-19** is a photograph of the viewpoint for the landscape along the Recommended and
9 Preferred Alternatives. **Table E9-26** and **Table E9-27** describe the visual quality rating of the
10 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 1,092 feet amsl

3 **Figure E9-19. Viewpoint 19: View West from I-10 at 355th Avenue Interchange**

4 **Table E9-26. Viewpoint 19 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 5: Flat Valley/Limited Development; LU 6: Flat Valley/Rural Residential		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate (3)	Moderate (2)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low/moderate (2)	Low/moderate (2)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Low (1)	Low (1)
Visual Quality Rating	Low/moderate (2)	Low/moderate (2)



1 **Table E9-27. Viewpoint 19 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 19: I-10 at 355th Avenue		
Travelers along this regional travel route are primarily commuting and shipping and would generally have a low level of visual awareness.	Travelers would have foreground views of the Recommended and Preferred Alternatives. Duration of views would be typical of those traveling along an interstate facility.	Modifications along I-10 associated with the Preferred Alternative would be consistent with the existing landscape and not noticeable, as would improvements associated with the Recommended Alternative. Viewer response is anticipated to be low.
LU 5: Flat Valley/Limited Development; LU 6: Flat Valley/Rural Residential		
Visual Contrast Level	Not Noticeable	

2 **Viewpoint 20: Aguila Road (Recommended Alternative and Preferred Alternative)**

3 Viewpoint 20 is located near the Recommended and Preferred Alternatives, which involve
4 improvements in a new corridor from I-10 to US 93 north of Wickenburg. This area is largely
5 undeveloped, and there are no highways or other industrial scale facilities within the LU, with
6 the exception of the Central Arizona Project Canal. Anticipated visual impacts for high sensitivity
7 recreational travelers along Aguila Road would be high because the visual change would be
8 Dominant in the context of this landscape with development limited to utilities, canals, and
9 unimproved roads.

10 **Figure E9-20** is a photograph of the viewpoint for the landscape along the Recommended and
11 Preferred Alternatives. **Table E9-28** and **Table E9-29** describe the visual quality rating of the
12 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 1,422 feet amsl

3

Figure E9-20. Viewpoint 20: View South from Aguilera Road

4

Table E9-28. Viewpoint 20 - Visual Quality Rating

Visual Quality Indicators	Pre-Project	Post-Project
LU 15: Undeveloped Rolling Hills/Plains		
Vividness: Memorable (H), Above Average (M), Plain (L)	High (5)	Moderate (3)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	High (5)	Low/moderate (3)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Low/moderate (3)
Visual Quality Rating	High (5)	Moderate (3)



1 **Table E9-29. Viewpoint 20 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 20: Aguila Road		
Recreational travelers are the primary viewers along this local route and would generally have moderate to high awareness to visual changes in the landscape.	Travelers along Aguila Road would have foreground views of the Recommended and Preferred Alternatives.	Viewer response is anticipated to be high.
LU 15: Undeveloped Rolling Hills/Plains		
Visual Contrast Level	Dominant	

2 **Viewpoint 21: Vulture Mine Road (Recommended Alternative and Preferred Alternative)**

3 This viewpoint is located in the proposed Vulture Mine Recreation Management Zone along
4 existing Vulture Mine Road. The alignments of the Recommended and Preferred Alternatives
5 are approximately 5 miles away. Anticipated visual impact for viewers associated with Vulture
6 Mine Road and future recreation users would be neutral for the Recommended and Preferred
7 Alternatives because the visual change would be Not Noticeable as I-11 would be screened by
8 intervening topography.

9 **Figure E9-21** is a photograph of the viewpoint for the landscape along the Recommended and
10 Preferred Alternatives. **Table E9-30** and **Table E9-31** describe the visual quality rating of the
11 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 2,543 feet amsl

3 **Figure E9-21. Viewpoint 21: View to the Northwest from Vulture Mine Road**

4 **Table E9-30. Viewpoint 21 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 15: Undeveloped Rolling Hills/Plains		
Vividness: Memorable (H), Above Average (M), Plain (L)	High (5)	High (5)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	High (5)	High (5)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Moderate/high (4)
Visual Quality Rating	High (5)	High (5)



1 **Table E9-31. Viewpoint 21 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 21: Vulture Mine Road		
Recreational travelers and neighbors are the primary viewers along this local route and would generally have moderate to high awareness to visual changes in the landscape.	Travelers and recreationalists along Vulture Mine Road would not have views of the Recommended or Preferred Alternatives due to distance, intervening terrain, and vegetation screening.	Viewer response is anticipated to be low because the alternatives would not be seen.
LU 15: Undeveloped Rolling Hills/Plains		
Visual Contrast Level	Not Noticeable	

2 **Viewpoint 22: US Highway 93 (Recommended Alternative and Preferred Alternative)**

3 The landscape setting at this location has limited development. Travelers along US 93 would be
4 the primary viewers of the project. The Recommended and Preferred Alternatives would be co-
5 located with US 93 and consistent with the existing visual landscape. The visual change in the
6 landscape would be Not Noticeable. The overall visual affect is anticipated to be neutral for
7 travelers along US 93.

8 **Figure E9-22** is a photograph of the viewpoint for the landscape along the Recommended and
9 Preferred Alternatives. **Table E9-32** and **Table E9-33** describe the visual quality rating of the
10 landscape and the anticipated viewer response to a change in the landscape, respectively.



1

2 Elevation: 2,618 feet amsl

3 **Figure E9-22. Viewpoint 22: View Northwest from US Highway 93**

4 **Table E9-32. Viewpoint 22 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 5: Flat Valley/Limited Development		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low/moderate (2)	Low/moderate (2)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Moderate (3)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate (3)	Moderate (3)
Visual Quality Rating	Moderate (3)	Moderate (3)



1 **Table E9-33. Viewpoint 22 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
Viewpoint 22: US Highway 93		
Travelers along this regional travel route are a combination of commuting, shopping, and recreational and would generally have low to high levels of visual awareness.	Travelers would have foreground views of the Recommended Alternative and Preferred Alternative.	Viewer response is anticipated to be low because the Recommended and Preferred Alternatives would be consistent with the existing landscape.
LU 5: Flat Valley/Limited Development		
Visual Contrast Level	Not Noticeable	

2 **E9.4 Effects on Saguaro National Park (West) and Tucson Mountain Park**

3 The following discussion describes the potential impacts on the key observation points (KOPs)
4 within the Saguaro National Park. **Figure E9-24** and **Figure E9-25** show the KOP locations.

5

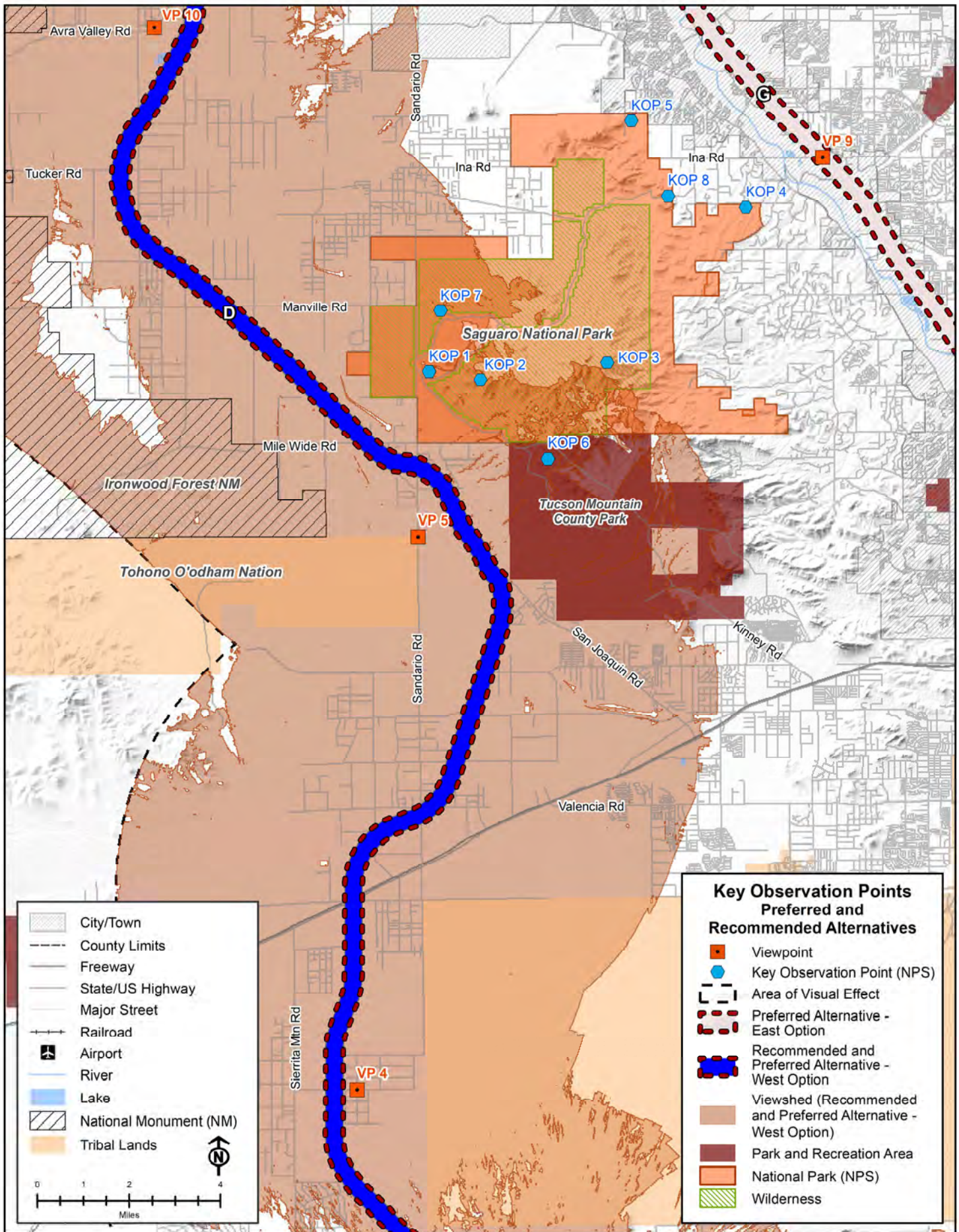


Figure E9-23. Saguaro National Park Key Observation Points: Recommended Alternative and Preferred Alternative (West Option)

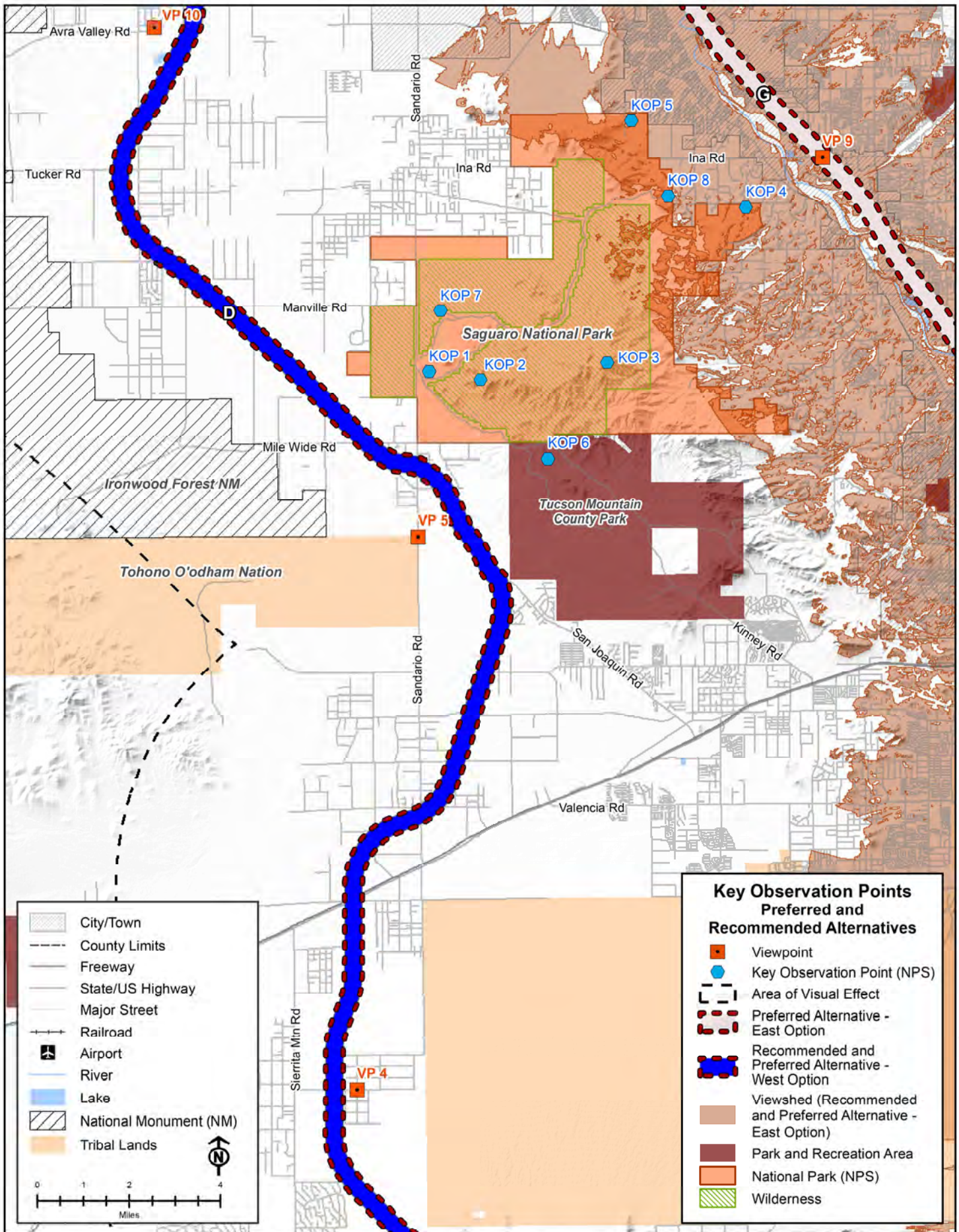


Figure E9-24. Saguaro National Park Key Observation Points: Preferred Alternative (East Option)

1 **E9.4.1 KOP 1: Sus Hill (Recommended Alternative and Preferred Alternative [West Option])**

2 Sus Hill KOP is located approximately 1.8 miles from the Recommended and Preferred Alternatives (West Option) where landscape
 3 modifications include paved roads, rural residences, and transmission lines. The introduction of a 400-foot typical section would
 4 result in visual changes to the landscape character. The visual contrast would be Noticeable (daytime) to Co-Dominant (nighttime)
 5 because of the contrast between the rural setting and transportation uses. The improvements would be incongruous in the overall
 6 setting and would create visual contrast due to scale. The improvements would be visible to park visitors in the middleground,
 7 although portions of the future improvements may be screened by vegetation and topography from certain picnic areas of Sus Hill.
 8 Overall visual impact is anticipated to be high due to the high viewer awareness and Noticeable to Co-Dominant level of visual
 9 change.

10 **Figure E9-25** is a photograph from the KOP. **Table E9-34** and **Table E9-35** describe the KOP visual quality rating and anticipated
 11 viewer response, respectively.

12



13



14

Elevation: 2,580 feet amsl

15

Figure E9-25. KOP 1: View West from Sus Hill (Panoramic view and Zoomed-in)



1 **Table E9-34. KOP 1 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 6: Flat Valley/Rural Residential		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low/moderate (2)	Low (1)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Low/moderate (2)
Visual Quality Rating	Moderate (3)	Low (1)

2 **Table E9-35. KOP 1 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
KOP 1: Sus Hill		
Sus Picnic Area is a recreation destination utilized by locals and visitors year-round within the Saguaro National Park. Recreational viewers are associated with high visual awareness.	Viewers have superior views of the existing Picture Rocks in the middleground and views of Avra Valley landscape in the background. Recreational viewers will have middleground views of the Recommended and Preferred Alternatives (West Option).	Response to affected views is anticipated to be high because of high viewer awareness and superior, unobstructed views.
LU 6: Flat Valley/Rural Residential		
Visual Contrast Level	Co-Dominant (daytime) to Dominant (nighttime)	

3 **E9.4.2 KOP 2: Hugh Norris Trail (Recommended Alternative and Preferred Alternative [West Option])**

4 Hugh Norris Trail KOP is located approximately 2.25 miles from the Recommended and Preferred Alternatives (West Option) where
 5 landscape modifications include paved roads, rural residences, and transmission lines. The introduction of a 400-foot typical section
 6 would result in visual changes to the landscape character. The visual contrast would be Noticeable (daytime) to Co-Dominant
 7 (nighttime) because of the contrast between the rural setting and transportation uses. The improvements would be incongruous in
 8 the overall setting and would create visual contrast due to scale. The improvements would be visible to park visitors, although

- 1 portions of the future improvements may be screened by vegetation and topography from certain locations along the trail. Overall,
2 visual impact is anticipated to be high due to the high viewer awareness and Noticeable to Co-Dominant level of visual change.
- 3 **Figure E9-26** is a photograph from the KOP. **Table E9-36** and **Table E9-37** describe the KOP visual quality rating and anticipated
4 viewer response, respectively.

5



6



7 Elevation: 3,192 feet amsl

8

Figure E9-26. KOP 2: View West from Hugh Norris Trail (Panoramic view and Zoomed-in)



1 **Table E9-36. KOP 2 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 6: Flat Valley/Rural Residential; LU 7: Flat Valley/Abandoned Agricultural		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate/high (4)	Moderate (3)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Low/moderate (2)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Moderate (3)
Visual Quality Rating	Moderate/high (4)	Moderate (3)

2 **Table E9-37. KOP 2 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
KOP 2: Hugh Norris Trail		
Hugh Norris Trail is a recreation destination utilized by locals and visitors year-round within the Saguaro National Park. Recreational viewers are associated with high visual awareness.	Viewers have superior views of the existing Picture Rocks in the middleground, and views of Avra Valley and Marana landscape in the background. Recreational viewers will have middleground views of the Recommended and Preferred Alternatives (West Option).	Response to affected views is anticipated to be high because of high viewer awareness and superior, unobstructed views.
LU 6: Flat Valley/Rural Residential; LU 7: Flat Valley/Abandoned Agricultural		
Visual Contrast Level	Noticeable (daytime) to Co-Dominant (nighttime)	

3 **E9.4.3 KOP 3: Wasson Peak (Recommended Alternative, Preferred Alternative [West Option], and Preferred Alternative**
 4 **[East Option])**

5 Wasson Peak KOP is about 6.5 miles west from the existing I-10 corridor and the Preferred Alternative (East Option). In the
 6 foreground, the vegetation partially screens views of the Preferred Alternative (East Option). The Tucson metropolitan area
 7 dominates the landscape and provides a high level of visual absorption in the middleground. The change to visual quality rating
 8 would be low because the Preferred Alternative (East Option) would be co-located with the existing I-10. Overall visual impact is

- 1 anticipated to be neutral for the recreational viewers due to viewing distance, dominance of the developed Tucson metropolitan area,
- 2 and the Preferred Alternative (East Option) is consistent with the existing landscape.

- 3 Wasson Peak KOP is about 5.2 miles east of the Recommended and Preferred Alternative (West Option). The alternatives would
- 4 have landscape modifications that include paved roads, rural residences, and transmission lines. The introduction of a 400-foot
- 5 typical section would result in visual changes to the landscape character; however, these changes would be in the background. The
- 6 visual contrast would be Noticeable because of the contrast between the rural setting and transportation uses. Overall visual impact
- 7 is anticipated to be moderate due to viewing distance, dominance of the developed residential area, and screening by vegetation and
- 8 topography in the foreground.

- 9 **Figure E9-27** and **Figure E9-28** are photographs from the KOP. **Table E9-38** and **Table E9-39** describe the KOP visual quality
- 10 rating and anticipated viewer response, respectively.



11
12 Elevation: 4,608 feet amsl

13 **Figure E9-27. KOP 3: View West from Wasson Peak (Panoramic view) (Recommended Alternative, Preferred**
14 **Alternative [West Option])**



1
2
3
4

Elevation: 4,608 feet amsl

Figure E9-28. KOP 3: View East from Wasson Peak (Panoramic view) (Preferred Alternative [East Option])

Table E9-38. KOP 3 - Visual Quality Rating

Visual Quality Indicators	Pre-Project	Post-Project
LU 6: Flat Valley/Rural Residential; LU 7: Flat Valley/Abandoned Agricultural; LU 8: Suburban Residences/Mixed Land Uses; LU 9: Commercial/Light Industrial Mixed Use		
Vividness: Memorable (H), Above Average (M), Plain (L)	High (5)	Moderate/high (4)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low (1)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Moderate (3)
Visual Quality Rating	Moderate (3)	Low/moderate (2)

1 **Table E9-39. KOP 3 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
KOP 3: Wasson Peak		
Wasson Peak is a recreation destination utilized by locals and visitors year-round within the Saguaro National Park. Recreational viewers are associated with high visual awareness.	Viewers have superior panoramic views of the existing landscape on the west and east side of the Saguaro National Park West - Tucson Mountain District area in the background. Views of the Recommended Alternative and Preferred Alternative (West Option), and Preferred Alternative (East Option) in the background would be unobstructed from Wasson Peak.	Response to affected views is anticipated to be high because of high viewer awareness and superior, unobstructed views.
LU 6: Flat Valley/Rural Residential; LU 7: Flat Valley/Abandoned Agricultural; LU 8: Suburban Residences/Mixed Land Uses; LU 9: Commercial/Light Industrial Mixed Use		
Visual Contrast Level	Not Noticeable to Noticeable	

2 **E9.4.4 KOP 4: Vertical Cliffs Trail (Preferred Alternative [East Option])**

3 Vertical Cliffs Trail KOP is about 2 miles from the existing I-10 corridor and Preferred Alternative (East Option). In the foreground, the
 4 vegetation completely screens views of the Preferred Alternative (East Option). There would be no change to visual quality rating
 5 because the Preferred Alternative (East Option) would be co-located with the existing I-10. Overall visual impact is anticipated to be
 6 neutral for the recreational viewers due to the obstructed at-grade views, and the Preferred Alternative (East Option) is consistent
 7 with the existing landscape.

8 **Figure E9-29** is a photograph from the KOP. **Table E9-40** and **Table E9-41** describe the KOP visual quality rating and anticipated
 9 viewer response, respectively.

1



2



3

Elevation: 2,330 feet amsl

4

Figure E9-29. KOP 4: View East from Vertical Cliffs Trail (Panoramic view and Zoomed-in)

5

Table E9-40. KOP 4 - Visual Quality Rating

Visual Quality Indicators	Pre-Project	Post-Project
LU 8: Suburban Residences/Mixed Land Uses		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low/moderate (2)	Low/moderate (2)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate/high (4)	Moderate/high (4)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Moderate/high (4)
Visual Quality Rating	Moderate (3)	Moderate (3)



1 **Table E9-41. KOP 4 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
KOP 4: Vertical Cliffs Trail		
Vertical Cliffs Trail is a recreation destination utilized by locals and visitors year-round within the Saguaro National Park. Recreational viewers are associated with high visual awareness.	Viewers have inferior views of the existing I-10 landscape within the foreground. At-grade views of the Preferred Alternative (East Option) would be completely screened by vegetation within the park.	Response to affected views is anticipated to be low because of obstructed at-grade views.
LU 8: Suburban Residences/Mixed Land Uses		
Visual Contrast Level	Not Noticeable	

2 **E9.4.5 KOP 5: Packrat Trail Loop (Preferred Alternative [East Option])**

3 Packrat Trail Loop KOP is about 2.5 miles from the existing I-10 corridor and Preferred Alternative (East Option). In the
 4 middleground, the Tucson metropolitan area dominates the landscape, and provides a high level of visual absorption. There would
 5 be no change to visual quality rating because the Preferred Alternative (East Option) would be co-located with the existing I-10.
 6 Overall visual impact is anticipated to be neutral due to viewing distance, dominance of the developed Tucson metropolitan area, and
 7 the Preferred Alternative (East Option) is consistent with the existing landscape.

8 **Figure E9-30** is a photograph from the KOP. **Table E9-42** and **Table E9-43** describe the KOP visual quality rating and anticipated
 9 viewer response, respectively.

1



2



3

Elevation: 2,367 feet amsl

4

Figure E9-30. KOP 5: View East from Packrat Trail Loop (Panoramic view and Zoomed-in)

5

Table E9-42. KOP 5 - Visual Quality Rating

Visual Quality Indicators	Pre-Project	Post-Project
LU 8: Suburban Residences/Mixed Land Uses		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate (3)	Moderate (3)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low/moderate (2)	Low/moderate (2)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate (3)	Moderate (3)
Visual Quality Rating	Moderate (3)	Moderate (3)

1 **Table E9-43. KOP 5 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
KOP 5: Packrat Trail Loop		
Packrat Trail Loop is a recreation destination utilized by locals and visitors year-round within the Saguaro National Park. Recreational viewers are associated with high visual awareness.	Recreational viewers would sustain middle to background views of the Preferred Alternative (East Option).	Response to affected views is anticipated to be low because of the partial vegetation screening in the foreground, high visual absorption capacity of the metropolitan Tucson area in the background, and proposed modifications consistent with the existing landscape.
LU 8: Suburban Residences/Mixed Land Uses		
Visual Contrast Level	Not Noticeable	

2 **E9.4.6 KOP 6: Arizona-Sonora Desert Museum (Recommended Alternative and Preferred Alternative [West Option])**

3 Arizona-Sonora Desert Museum KOP is located approximately 2 miles from the Recommended and Preferred Alternatives (West
 4 Option) where landscape modifications include paved roads, rural residences, and transmission lines. The introduction of a 400-foot
 5 typical section would result in visual changes to the landscape character. The visual contrast would be Noticeable (daytime) to Co-
 6 Dominant (nighttime) because of the contrast between the rural setting and transportation uses. The improvements would be
 7 incongruous in the overall setting and would create visual contrast due to scale. The improvements would be visible to park visitors,
 8 although portions of the future improvements may be screened by vegetation and topography from certain points of the Arizona-
 9 Sonora Desert Museum. Overall visual impact is anticipated to be high due to the high viewer awareness and Noticeable (daytime) to
 10 Co-Dominant (nighttime) level of visual change.

11 **Figure E9-31** is a photograph from the KOP. **Table E9-44** and **Table E9-45** describe the KOP visual quality rating and anticipated
 12 viewer response, respectively.



1
 2 Elevation: 2,831 feet amsl

3 **Figure E9-31. KOP 6: View West from Arizona-Sonora Desert Museum (Panoramic view)**

4 **Table E9-44. KOP 6 - Visual Quality Rating**

Visual Quality Indicators	Pre-Project	Post-Project
LU 5: Flat Valley/Limited Development; LU 6: Flat Valley/Rural Residential		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low/moderate (2)	Low (1)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Low/moderate (2)
Visual Quality Rating	Moderate (3)	Low (1)

1 **Table E9-45. KOP 6 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
KOP 6: Arizona-Sonora Desert Museum		
Arizona-Sonora Desert Museum is a recreation destination utilized by locals and visitors year-round within the Tucson Mountain Park. Recreational viewers are associated with high visual awareness.	Viewers have superior views of the existing limited residential development in the middleground. Brown Mountain screens the south views and the Saguaro National Park screens the north views. Views would be unobstructed to partially screened by vegetation from viewpoints with higher elevation within the museum. Recreational viewers will have middleground views of the Recommended and Preferred Alternatives (West Option).	Response to affected views is anticipated to be high because of high viewer awareness and superior views.
LU 6: Flat Valley/Rural Residential		
Visual Contrast Level	Noticeable (daytime) to Co-Dominant (nighttime)	

2 **E9.4.7 KOP 7 (Viewpoint 6 in Draft Tier 1 EIS): Signal Hill Picnic Area (Recommended Alternative and Preferred**
3 **Alternative [West Option])**

4 Viewpoint 6 is located at Signal Hill Picnic Area and is approximately 3.2 miles away from the Recommended and Preferred
5 Alternatives (West Option). Landscape modifications include paved roads, rural residences, and transmission lines. The introduction
6 of a 400-foot typical section would result in visual changes to the landscape character. The visual contrast would be Co-Dominant
7 (daytime) to Dominant (nighttime) because of the contrast between the rural setting and transportation uses. The improvements
8 would be incongruous in the overall setting and would create visual contrast due to scale. The improvements would be visible to park
9 visitors and motorists on portions of Bajada Loop Drive, although portions of the future improvements may be screened by vegetation
10 and topography from certain park use areas and trails. Overall visual impact is anticipated to be high due to the high viewer
11 awareness and Co-Dominant (daytime) to Dominant (nighttime) level of visual change.

12 **Figure E9-32** is a photograph from the KOP. **Table E9-46** and **Table E9-47** describe the KOP visual quality rating and anticipated
13 viewer response, respectively.



Elevation: 2,441 feet amsl

Figure E9-32. KOP 7: View Southwest from Signal Hill Picnic Area. Sandario Road Evident in Middleground

Table E9-46. KOP 7 - Visual Quality Rating

Visual Quality Indicators	Pre-Project	Post-Project
LU 6: Flat Valley/Rural Residential		
Vividness: Memorable (H), Above Average (M), Plain (L)	Low/moderate (2)	Low (1)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Moderate (3)	Low (1)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate/high (4)	Low/moderate (2)
Visual Quality Rating	Moderate (3)	Low (1)



1 **Table E9-47. KOP 7 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
KOP 7: Signal Hill Picnic Area		
Saguaro National Park is a recreation destination utilized by locals and visitors year-round. Recreational viewers are associated with high visual awareness.	Viewers have superior views of the existing Avra Valley landscape in the middleground. Views of the alternatives would be unobstructed from viewpoints with higher elevation within the park.	Response to affected views is anticipated to be high because of high viewer awareness and multiple superior, unobstructed viewing points within the park.
LU 6: Flat Valley/Rural Residential		
Change in Visual Contrast	Co-Dominant (daytime) to Dominant (nighttime)	

2 **E9.4.8 KOP 8 (Viewpoint 7 in Draft Tier 1 EIS): Picture Rocks Road (Tucson Mountains) (Preferred Alternative [East**
 3 **Option])**

4 West Picture Rocks Road is about 3 miles from the existing I-10 corridor and Preferred Alternative (East Option). In the foreground,
 5 the vegetation partially screens views of the Preferred Alternative (East Option). In the background the Tucson metropolitan area
 6 dominates the landscape and provides a high level of visual absorption. The change to visual quality rating would be low because the
 7 Preferred Alternative (East Option) would be co-located with the existing I-10. Overall visual impact is anticipated to be neutral due to
 8 viewing distance, dominance of the developed Tucson metropolitan area, and the Preferred Alternative (East Option) is consistent
 9 with the existing landscape.

10 **Figure E9-33** is a photograph from the KOP. **Table E9-48** and **Table E9-49** describe the KOP visual quality rating and anticipated
 11 viewer response, respectively.



Elevation: 2,406 feet amsl

Figure E9-33. KOP 8: View East from Picture Rocks Road Overlook

Table E9-48. KOP 8 - Visual Quality Rating

Visual Quality Indicators	Pre-Project	Post-Project
LU 8: Suburban Residences/Mixed Land Uses		
Vividness: Memorable (H), Above Average (M), Plain (L)	Moderate (3)	Moderate (3)
Intactness: Free of encroachment (H), retain integrity (M), cluttered (L)	Low/moderate (2)	Low/moderate (2)
Unity: Harmonious (H), partially contiguous (M), disjointed (L)	Moderate (3)	Moderate (3)
Visual Quality Rating	Moderate (3)	Moderate (3)



1 **Table E9-49. KOP 8 - Anticipated Viewer Response**

Viewer Awareness	Viewer Exposure	Anticipated Viewer Response
KOP 8: Picture Rocks Road		
Travelers along Picture Rocks Road are largely recreational and commuting and would be associated with a moderate level of awareness.	Travelers along Picture Rocks Road would sustain middle to background views of the Orange Alternative.	Response to affected views is anticipated to be low because of the partial vegetation screening in the foreground, high visual absorption capacity of the metropolitan Tucson area in the background, and proposed modifications consistent with the existing landscape.
LU 8: Suburban Residences/Mixed Land Uses		
Visual Contrast Level	Not Noticeable	

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