Appendix 24B Regional and Project Landscape Description

Appendix 24B Regional and Project Landscape Description

24B.1 Introduction

This appendix provides further details regarding the setting for the regional and Project landscapes. The regional landscape discussion includes setting information for Glenn, Colusa, and Yolo Counties. The Project landscape is described in terms of the natural and cultural environments and the resulting natural harmony, where viewers inherently evaluate and determine if the composition is harmonious or inharmonious, and cultural order, where viewers inherently evaluate and determine if the composition is orderly or disorderly, are established. Natural harmony and cultural order are combined to determine the overall visual quality. Visual quality is a function of what the viewer wants or expects to see and what is actually seen. If people see what they want or expect to see, then the visual quality is good or high because the viewer is pleased. However, if what is seen is lacking or not what is expected, then visual quality is poor or low because the viewer is disappointed. Viewer sensitivities are discussed in Section 24.3, *Methods of Analysis*.

24B.2 Regional Landscape

24B.2.2. Glenn County

Glenn County's natural and cultural landscape consists of urban development in relatively flat land that is associated with small cities and towns (e.g., Orland, Willows, Hamilton City, and Artois), rural residences beyond the borders of the communities, undeveloped open space, agricultural land (crops and orchards), industrial and highway commercial land uses along the Interstate 5 (I-5) corridor, and recreation areas (e.g., Black Butte Lake, Sacramento River, wildlife areas, and wildlife refuges). Away from the town centers, fewer roadways exist and public access to lands is limited.

The western portion of the county consists of hilly forested terrain and oak woodlands. In the lowlands, the landscape is characterized by grassland and woodland vegetation, with occasional wetlands, vernal pools, and riparian areas. The attributes of the landscape change over the course of a year in response to seasonal changes and weather. Vegetation, agricultural crops, and land use patterns vary according to the time of year and farming activities. The grasslands and cultivated areas of Glenn County are a lush green in spring and early summer; as the hot weather continues, the grasslands turn a honey-brown hue and the crops mature.

Water features in Glenn County include Black Butte Lake and Stony Gorge Reservoir, which provides flood protection for the nearby towns and agricultural lands. They are located on Stony

Creek west of the city of Orland and the Sacramento River which forms a portion of the county's eastern border with Butte County.

Scenic resources include the Sacramento River and streams, foothill and mountain areas, agricultural landscapes on the valley floor, the Sacramento NWR, glimpses of wildlife, and a distant view of Mount Lassen. The Glenn County General Plan identifies 12 important biological resource areas in Glenn County that are of outstanding scenic value. Six of the areas (Llano Seco Unit of the Upper Butte Basin Wildlife Area [WA], Oxbow Waterfowl Area, Oxbow Heron Rookery, Princeton Riparian Woodland, Sacramento River WA, and Sacramento River Oxbow Preserve) are associated with the Sacramento River and are intended to protect the unique riparian forest, marsh, and floodplain bordering the Sacramento River. Two of the areas (St. Johns Mountain and Sheetiron Mountain) are in the Mendocino National Forest. The remaining areas are the Sacramento National Wildlife Refuge (NWR), Black Butte Lake, Stony Gorge Reservoir, and Orland Buttes (Glenn County 1993).

The visual quality of Glenn County is moderate to high due to the expansive open space provided by the Yolla Bolly, Middle Eel, and Snow Mountain designated wilderness areas; biological resource areas; large agricultural areas; and the undeveloped upland areas in the west. Existing sources of light and glare in the county include residential, agricultural, commercial, and industrial development; vehicles on roadways; and safety lighting on tall structures, such as electrical transmission towers and cellular towers.

24B.2.3. Colusa County

Colusa County's landscape includes urban development in relatively flat terrain. Small cities and towns, such as Williams, Colusa, Willows, Arbuckle, Princeton, Stonyford, and Maxwell, are along the major transportation corridors (I-5 and State Routes [SRs] in the county). Land uses include the rural residences beyond the borders of the communities, undeveloped open space, agricultural land (crops and orchards), industrial and highway commercial land uses along the I-5 corridor, and recreation areas (several wildlife refuges and the Sacramento River). Away from the town centers, fewer roadways exist and public access to lands is limited.

The western portion of the county is typified by undulating hills of grassland and oak woodland terrain, which transition to the rugged Klamath and Coast Ranges reaching elevations in excess of 7,000 feet above the valley floor. In the lowlands, the landscape is characterized by grasslands and agricultural and rural landscapes, with occasional wetlands, vernal pools, and riparian areas. The agricultural landscape is dominated by crops (e.g., rice, almonds, vegetables, tomatoes, wheat, and hay), rangeland livestock, and ancillary equipment and infrastructure (e.g., outbuildings, tractors, irrigation systems, and drainage works). Vegetation, agricultural crops, and land use patterns vary according to the time of year and farming activities. The seasonal transitions in the rangelands and cultivated areas of Colusa County are similar to those in Glenn County.

Water features in Colusa County include East Park Reservoir, which is located on Little Stony Creek west of the community of Sites; Funks Reservoir, east of Sites; and the Sacramento River that represents part of the county's eastern border with Glenn and Sutter Counties. In addition, there are wetlands associated with the Sacramento NWR's Willow Creek-Lurline Wildlife

Management Area (WMA) and the Delevan NWR that are located north and south of Colusa, between I-5 and the Sacramento River.

Although Colusa County contains numerous areas and viewsheds with relatively high scenic value, there are no officially designated scenic vista points in the county. Scenic resources and unofficial scenic vistas include features such as the Sacramento River, Snow Mountain, Sutter Buttes, Mendocino National Forest, Colusa NWR, Delevan NWR, Sacramento NWR, Willow Creek-Lurline WMA, North Central Valley WMA, Colusa Bypass WA, Sacramento River WA, and Colusa-Sacramento State Recreation Area, as well as the vast agricultural lands throughout the county (Colusa County 2011).

The general visual quality of Colusa County is moderate to high due to the expansive open space provided by the large agricultural areas, water features (including rivers, lakes, reservoirs, and wetlands), and the undeveloped upland areas on the west. Existing sources of light and glare include residential, agricultural, commercial, and industrial development; vehicles on roadways; water features (which can reflect light), and safety lighting on tall structures, such as transmission towers and cell towers.

24B.2.4. Yolo County

Yolo County's landscape includes urban development in relatively flat terrain. Cities and small towns, such as Dunnigan, West Sacramento, Woodland, Davis, Winters, Esparto, and Knights Landing, are along the major transportation corridors (I-5, I-80, I-505, and SRs in the county). Land uses include the rural residences beyond the borders of the communities, undeveloped open space, agricultural land (crops and orchards), industrial and highway commercial land uses along the interstate corridors, and recreation areas (including the Steve Thompson North Central Valley WMA, which is part of the Sacramento NWR, and the Sacramento River). Away from the town centers, fewer roadways exist and public access to lands is limited.

The western portion of the county is typified by the undulating hills of grassland and oak woodland associated with Blue Ridge and Rocky Ridge that reach elevations of 700 to 800 feet above the valley floor. As in Glenn and Colusa Counties, the lowland landscape of Yolo County is characterized by grasslands and agricultural and rural landscapes, with occasional wetlands, vernal pools, and riparian areas. The agricultural landscape is dominated by crops (e.g., almonds, walnuts, grapes, tomatoes, rice, wheat, and hay), rangeland livestock, and ancillary equipment and infrastructure (e.g., outbuildings, tractors, irrigation systems, and drainage works). Vegetation, agricultural crops, and land use patterns vary according to the time of year and farming activities. Similar to conditions in Glenn and Colusa Counties, the rangelands and cultivated areas of Yolo County are a lush green in spring and early summer; as the hot weather continues, the grasslands turn a honey-brown hue, and the crops mature.

Water features in Yolo County include Cache Creek that flows north of Esparto and Woodland, the Sacramento River that forms the county's eastern border with Sutter and Sacramento Counties, and the Deep Water Ship Channel that connects the Port of West Sacramento to the Delta. In addition, the Yolo Bypass is a large seasonal wetland that resembles a bay when filled with water in the winter.

Although Yolo County contains numerous areas and viewsheds with relatively high scenic value, there are no officially designated scenic vista points in the county. Scenic resources and unofficial scenic vistas include views of vast agricultural lands and rural night skies, trees, water courses, rock outcroppings, historic structures, and ridgelines and hillsides located throughout the county (Yolo County 2009).

The general visual quality of Yolo County is moderate to high due to the expansive open space provided by the large agricultural areas, water features (including rivers and wetlands), and the undeveloped upland areas on the west. Existing sources of light and glare include residential, agricultural, commercial and industrial development, vehicles on roadways, water features (which can reflect light), and safety lighting on tall structures, such as electrical transmission towers and cellular towers.

24B.3 Project Landscape

24B.3.1. Sacramento River Diversion—Hamilton City Pump Station

24B.3.1.2. Existing Visual Resources

The most important visual resources in the viewshed of Hamilton City Pump Station, based on analysis of aerial and satellite mapping and policy documents, include:

- **Sacramento River:** The Hamilton City Pump Station is located on a cutoff channel along the river. The running river waters provide scenic views of the waterway and the waters provide access to a valued recreational resource to the region. The Irvin Finch River Access point, east of the city of Hamilton and just south of SR 32, is the closest public access to the river in proximity to the pump station.
- **Riparian areas:** The riparian areas along the river provide a scenic backdrop to the river.

24B.3.1.3. Viewer Groups

Viewer groups for the Hamilton City Pump Station include recreationists using the Sacramento River and local roadways near the pump station, pump station employees, and nearby agricultural workers. Rural residences do not have views of the Hamilton City Pump Station because orchards and earthen berms along Road 6 prevent views of the pump station.

24B.3.1.4. Existing Visual Character and Quality

The Hamilton City Pump Station is located 3.5 miles northwest of the city of Hamilton along the Sacramento River, where it diverts water into the GCID Main Canal through a cutoff channel that is separated from the main stem of the river by a vegetated sand bar. The natural environment surrounding the pump station is dominated by views of the natural form of the Sacramento River, cutoff channel, and the riparian areas, orchards, and hay farms that surround the Hamilton City Pump Station. Atmospheric visibility can range from moderately high to moderate because of natural weather patterns, which can include seasonal haze, rain, and overcast conditions. The existing natural setting is fairly harmonious because of the predominance of the vegetation within the area and the largely undeveloped nature of much of the river corridor, resulting in moderately high natural harmony.

The cultural environment is dominated by cultural modifications associated with the GCID Main Canal diversion structure and the earthen GCID Main Canal. In addition, nearby ranches and rural residences, local roadways, aboveground utility infrastructure (e.g., wooden utility poles with lines), and fencing (e.g., chain-link, split rail, and barbed wire) contribute to the cultural environment. There is little vegetation surrounding these built features to soften their presence in the landscape. Existing development blends well within the natural landscape and rural setting and results in a cultural order that is moderately high.

The overall visual quality of the Hamilton City Pump Station is *moderately high*.

24B.3.1.5. Light and Glare

Daytime light and glare levels associated with the Hamilton City Pump Station are moderate because the area is more naturalized and vegetated, but the Sacramento River and cutoff channel provide a source of glare. Nighttime light and glare levels are low because development is limited and there are few vehicles on roadways near the Hamilton City Pump Station to contribute to illuminating small portions of the surrounding area.

24B.3.2. Sacramento River Conveyance to Regulating Reservoirs

24B.3.2.2. Existing Visual Resources

The Sacramento River water conveyance facilities to the regulating reservoirs include the TC Canal and GCID Main Canal (hereafter, canals). The replacement railroad siphon and the new siphons for Walker and Willow Creeks would be installed along the GCID Main Canal. The canals travel through visually similar landscapes and would be operated in a comparable manner; therefore, they are discussed together. The most important visual resources in the viewshed of the canals, based on analysis of aerial and satellite mapping and policy documents, include:

- **Creeks:** The canals cross several creeks and riparian corridors, including the larger Thomes and Stony Creeks. The running waters and riparian corridors provide scenic views of the waterway and the waterways provide access to a valued recreational resource to the region. These waterways are accessed by formal and informal access points along the creek corridors.
- **Foothills:** South of the city of Willows, the TC Canal travels along the base of foothills along the western edges of Glenn and Colusa Counties.

24B.3.2.3. Viewer Groups

Viewer groups for the canals include drivers and recreationists on local roadways; recreationists using the canals' levees and adjacent creek corridors; residents; and employees of businesses that are located adjacent to the canals in rural and developed areas; and agricultural workers.

24B.3.2.4. Existing Visual Character and Quality

The canals wind their way from the Sacramento River through the Sacramento Valley. The canals are cleared of vegetation but have grassy berms. The natural environment surrounding the canals is dominated by views of a patchwork of agricultural lands that primarily consist of orchards and rice fields. Views range from limited by the trees within the orchards to being more expansive over rice fields, pasturelands, fallow fields, or fields with low-growing crops. At the

creek crossings in the valley, the canals are typically routed underneath the creeks. The Walker Creek and Willow Creek siphons would be in more natural settings, near agricultural fields, whereas the railroad siphon is in a developed setting (i.e., along the railroad in the city of Willows). To the south of Willows, the TC Canal nears the base of foothills along the western edges of Glenn and Colusa Counties. The canals are generally dry in the winter and wet in the summer. Atmospheric visibility can range from moderately high to moderate because of natural weather patterns, which can include seasonal haze, rain, and overcast conditions. The existing natural setting is fairly harmonious because of the predominance of the agricultural fields and the largely undeveloped nature of much of the area surrounding the canals and siphons; however, it is very common to the agricultural landscape in the valley, resulting in moderate natural harmony.

The cultural environment is dominated by developed areas that the canals either pass by or cross. This development consists of scattered rural businesses, ranches, and residences and suburban areas such as Proberta, Willows, and the outskirts of Corning and Orland. The replacement railroad siphon would be installed in a more developed setting next to residential, industrial, and agricultural land uses. In addition, local roadways, aboveground utility infrastructure (e.g., utility poles with lines), and a variety of fencing types contribute to the cultural environment. Existing development surrounding the canals and siphons is very common to that seen throughout the valley and results in a cultural order that is moderate.

The overall visual quality of the canals and siphons is *moderate*.

24B.3.2.5. Light and Glare

Daytime light and glare levels associated with the canals are moderately low because the area is more naturalized and vegetated, but the canal channels provide a source of glare when filled. Nighttime light and glare levels are moderate to moderately low because development tends to be limited and vehicles on roadways near the canals contribute to illuminating the surrounding area.

24B.3.3. Terminal Regulating Reservoir East Complex

24B.3.3.2. Existing Visual Resources

The TRR East complex includes Project features and facilities that are geographically associated with TRR East. This complex would be composed of the TRR East, TRR East PGP, an electrical substation, and the Project buffer. The TRR East pipelines are discussed below with conveyance pipelines and tunnels. The most important visual resources in the viewshed of the TRR East complex, based on analysis of aerial and satellite mapping and policy documents, include:

- **Foothills and mountains:** Distant background views of Table Mountain to the north, the Coast Ranges to the west, and the Sutter Buttes to the southwest are available from the areas surrounding the site. In addition, views of the foothills lining the western edge of the Sacramento Valley are located less than 3 miles west of the TRR East complex.

24B.3.3.3. Viewer Groups

Viewer groups for the TRR East complex include drivers and recreationists on local roadways; residents; employees at an almond processing plant, which is located adjacent to the site; and agricultural workers.

24B.3.3.4. Existing Visual Character and Quality

The TRR East complex would be in an area of flat agricultural fields between McDermott Road to the east and the GCID Main Canal to the west. There are public views of the facility location from adjacent residences, McDermott Road to the east, and Lenahan Road to the southeast. The natural environment is dominated by views of a patchwork of grassy pastures, rice fields, almond orchards, and rural landscaping over terrain that varies from flat to gently rolling. There is minimal topographic variation and views range from being limited by the trees in the orchards to being more expansive over rice fields, pasturelands, fallow fields, or fields with low-growing crops. The nearby foothills can be seen in the background. In addition, distant background views of Table Mountain to the north, the Coast Ranges to the west, and the Sutter Buttes to the southwest are available from the site on clear days, in addition to limited views of the Sierra Nevada to the east. Where present, orchards, mature trees, and buildings may partially or fully limit such views. The GCID Main Canal, which is dry in the winter and wet in the summer, is a more utilitarian feature in the natural landscape. Funks Creek is located to the south of the site but is bordered by the almond processing plant and orchards and lacks a notable riparian corridor. Atmospheric visibility can range from moderately high to moderate because of natural weather patterns, which can include seasonal haze, rain, and overcast conditions. The existing natural setting is fairly harmonious because of the predominance of the agricultural fields and the largely undeveloped nature of much of area surrounding the site, but it is very common to the agricultural landscape in the valley and results in moderate natural harmony.

The cultural environment is dominated by fewer than 10 single-family rural residences located within 0.5 mile of the site and a large-scale almond processing facility located west of McDermott Road and the GCID Main Canal that is situated on either side of Funks Creek. In addition, the 31-acre Colusa Generating Station is visible in the middleground approximately 2.5 miles to the northwest of the TRR East complex. Utilitarian features in the middleground and background include electric distribution lines and poles, high-voltage lattice transmission structures, and fencing. In addition, local roadways and associated signage contribute to the cultural environment. Existing development surrounding the TRR East complex is very common to that seen throughout the valley and results in a cultural order that is moderate.

Overall, views of the TRR East complex and the surrounding areas are typically composed of large areas of flat agricultural land interspersed with farm roads, canals and associated infrastructure, tree clusters, electrical distribution lines and poles, and occasional rural residences. However, views of the TRR East complex are relatively unobstructed because the site abuts McDermott Road. Due to the common visual conditions at the site, the overall visual quality of the TRR East complex is *moderate*.

24B.3.3.5. Light and Glare

Daytime light and glare levels associated with the GCID Main Canal are moderate because the area is more naturalized and vegetated but nearby rice fields provide a seasonal source of glare

when inundated. Nighttime light and glare levels are low because development is limited to the scattered rural residences, Colusa Generating Station, and vehicles on roadways near the site that contribute to illuminating the surrounding area. The site is unlit, as are the surrounding roadways and intersections.

24B.3.4. Funks Reservoir and Terminal Regulating Reservoir West Complex

24B.3.4.2. Existing Visual Resources

The Funks Reservoir includes Project features and facilities that are geographically associated with the reservoir. The Funks Reservoir complex would be composed of the existing Funks Reservoir, new Funks PGP, new electrical substation, and the Project buffer. In addition, TRR West would be located to the northeast of Funks Reservoir across Funks Creek, in the same general area and viewshed as Funks Reservoir. The TRR West pipelines and Funks pipelines are discussed below with conveyance pipelines and tunnels. The most important visual resources in the viewshed of the Funks Reservoir, based on analysis of aerial and satellite mapping and policy documents, include:

- **Foothills and mountains:** Distant background views of Table Mountain to the north, the Coast Ranges to the west, and the Sutter Buttes to the southwest are available from the areas surrounding the site. In addition, Funks Reservoir and the TRR West location falls within the lower foothills lining the western edge of the Sacramento Valley.

24B.3.4.3. Viewer Groups

Viewer groups for the Funks Reservoir include agricultural workers and reservoir employees operating and maintaining the existing reservoir roads and facilities. The TRR West location is more remote and cannot be viewed as readily from existing agricultural areas.

24B.3.4.4. Existing Visual Character and Quality

There is no public visual access to Funks Reservoir, the TC Canal, or the TRR West location. In addition, there are no local roadways, residences, or businesses with views of these areas. Therefore, visual access is very limited. The natural environment is dominated by views of grasslands over gently rolling terrain, which is the primary visual character and quality of the TRR West location. The existing Funks Reservoir water levels fluctuate annually and seasonally. At full capacity, the approximately 230-acre reservoir is a water feature of high visual quality. During Dry Years and late summer months, the water retreats to expose a barren shoreline of moderate visual quality. The existing reservoir outfall to Funks Creek bisects the area and is lined with riparian trees and shrubs. The existing natural setting is fairly harmonious because of the predominance of rolling grasslands and the largely undeveloped nature of much of the surrounding area, which results in moderately high natural harmony.

The cultural environment is limited to a gravel access road and the inlet and outlet structures of the reservoir along the TC Canal and the reservoir spillway. In addition, there is a private canal that runs east west between TC Canal and GCID Main Canal. These features blend well with the natural landscape and agricultural landscape as it approaches the GCID Main Canal resulting in a cultural order that is moderately high.

The overall visual quality of the Funks Reservoir and the TRR West location is *moderately high*.

24B.3.4.5. Light and Glare

Daytime light and glare levels associated with Funks reservoir are moderate because the reservoir and water in the TC Canal are a source of glare. Nighttime light and glare levels are low because the site is unlit and there is no development to illuminate the surrounding area around the existing Funks Reservoir or the TRR West location.

24B.3.5. Sites Reservoir and Related Facilities

24B.3.5.2. Existing Visual Resources

The Sites Reservoir and related facilities include the Project features and facilities that are geographically associated with the reservoir. The Sites Reservoir complex would be composed of the reservoir, Golden Gate and Sites Dams, saddle dams and dikes, I/O Works, the bridge, roads, recreation areas, office/maintenance area, and the Project buffer. The most important visual resources in the viewshed for the Sites Reservoir and related facilities, based on analysis of aerial and satellite mapping and policy documents, include:

- **Foothills and mountains:** Distant background views of Table Mountain to the north, the Coast Ranges to the west, and the Sutter Buttes to the southwest are available from the areas surrounding the site. In addition, the reservoir inundation area is located within the lower foothills lining the western edge of the Sacramento Valley.

24B.3.5.3. Viewer Groups

Viewer groups for the Sites Reservoir and related facilities are limited to local residents, ranch workers, and drivers and recreationists on local roadways.

24B.3.5.4. Existing Visual Character and Quality

The Sites Reservoir and related facilities would encompass an area of approximately 13,820 acres of land, including the recreation areas, and 46 miles of roadways. The natural environment is characterized by moderate to low elevation and northwest-southeast trending ridgelines that are separated by valleys of varying steepness and width. Ridgelines surrounding the reservoir rise to between approximately 500 and 1,200 feet above mean sea level. The natural foothills landscape has been largely preserved and unaltered and consists of rolling grasslands, as well as ridgelines and hillsides that are densely vegetated with oak woodlands. Low-lying valley areas are predominantly grasslands that consist of a mixture of rangeland and active agricultural development (e.g., orchards and rice). Scattered wetlands are present in the landscape and the narrow creek corridors wind through the undulating terrain. Landscaping associated with rural residences in the area is also present. Views in the area are most commonly limited to the foreground, with occasional middleground views of surrounding hillsides. Background views from publicly accessible vantages (i.e., public roadways) are rare and consist of the vegetated hillsides and ridgelines. However, background views are more widely available from ridgelines on private properties. Atmospheric visibility can range from moderately high to moderate because of natural weather patterns, which can include seasonal haze, rain, and overcast conditions. The existing natural setting is very harmonious because of the foothill setting with

grasslands, oak woodlands, and largely undeveloped nature of much of the area, which results in high natural harmony.

The cultural environment consists of the rural development associated with the unincorporated community of Sites; scattered ranches, corrals, and livestock shade structures; the paved Maxwell Sites and Sites Lodoga Roads; and unpaved roadways (e.g., Huffmaster Road, Peterson Road, and private ranch roads). The community of Sites consists of a concentrated grouping of 13 rural residences and peripheral structures including fences, sheds, garages, barns, silos, pump houses, and water towers. A few rural residences and peripheral structures are also located north and south of Sites. In total, approximately 24 houses, 29 barns, and 50 other structures (e.g., sheds, silos, and pump houses) are located in the inundation area. Maxwell Sites and Sites Lodoga Roads wind through the foothills from the southeast and northwest, respectively. These roads meet at the community of Sites and provide public access to the scenic views associated with the Sites Reservoir and related facilities. Although Huffmaster Road is a public roadway, it is not heavily traveled by the public and is used more by local residents and for farming operations. Huffmaster Road travels through valleys and rolling hills to steeper terrain that is vegetated with grasslands, oak woodlands, and chaparral. Peterson Road and the private ranch roads are used by local residents and ranch workers. Automobiles traveling along the unpaved roads generate large plumes of dust visible from up to 1 mile. The cultural landscape also contains roadway signs, barbed wire fencing associated with ranches, and wooden utility poles and transmission lines along Maxwell Sites Road that terminate just north of Sites. However, these features are limited, blend well with the foothill environment, and do not detract from views. Overall, existing development associated with the Sites Reservoir and related facilities responds to and fits well within the rural foothill landscape, which results in a cultural order that is high.

The overall visual quality of the Sites Reservoir and related facilities is *high*.

24B.3.5.5. Light and Glare

Daytime light and glare levels associated with the Sites Reservoir and related facilities are moderate to moderately high because areas with open grasslands are brighter and have moderately high levels of light and glare due to lack of cover, whereas oak woodlands and areas with residential landscaping have trees that provide sources of shade to reduce daytime light and glare to a moderate level. Nighttime light and glare levels are low because development is limited to scattered rural residences, only the intersection of Maxwell Sites Road with Sites Lodoga and Huffmaster Roads is lit, and local roadways are not heavily traveled at night with vehicles that contribute to illuminating the surrounding area.

24B.3.6. Conveyance Pipelines and Tunnels

24B.3.6.2. Existing Visual Resources

Pipelines and tunnels include the TRR East pipelines, Funks pipelines, I/O tunnels, and the Dunnigan Pipeline and associated outlets. The most important visual resources in the viewshed of the pipelines, based on analysis of aerial and satellite mapping and policy documents, include:

- **Foothills and mountains:** Distant background views of Table Mountain to the north, the Coast Ranges to the west, and the Sutter Buttes to the southwest are available from the areas surrounding the site. In addition, the pipelines are located in or close to the lower foothills lining the western edge of the Sacramento Valley.

24B.3.6.3. Viewer Groups

Viewer groups for the pipelines include drivers and recreationists on local roadways, water-based recreationists on the Sacramento River, agricultural workers, and employees at Ritchie Bros. Auctioneers.

24B.3.6.4. Existing Visual Character and Quality

The TRR East pipelines, Funks pipelines, I/O tunnels, and the Dunnigan Pipeline and associated outlets would primarily cross areas that are undeveloped. Therefore, the cultural environment would be nominally affected. The TRR East pipelines pass through a small portion of agricultural lands before travelling through gently undulating grasslands. The Funks pipelines and I/O tunnels travel through the grassy, rolling terrain associated with the lower foothills. The Dunnigan Pipeline passes through agricultural fields before reaching the CBD outlet or the Sacramento River discharge. The CBD outlet is located just east of created wetlands that lie between agricultural fields and the CBD. The outlet parallels an existing drainage canal that is located immediately to the north. The Sacramento River discharge lies east of the CBD outlet, past existing rice fields and near Tyndall Landing. The Sacramento River discharge would be installed upstream of the Sycamore Slough outlet to the Sacramento River, where a thin band of riparian vegetation borders existing orchards and row crops that abut the rice fields. The existing natural setting is fairly harmonious because of the predominance of the agricultural fields and the largely undeveloped nature of much of the area surrounding the pipelines, but it is very common to the agricultural landscape in the valley and results in moderate natural harmony.

The cultural environment would only be affected by the Dunnigan Pipeline, which travels under I-5 and Road 99 West and through the Ritchie Bros. Auctioneers paved storage yards. This development has an industrial look that stands out in the rural landscape and results in a cultural order that is moderately low.

The overall visual quality of the I/O tunnels and pipelines is considered to be *moderate* because the natural environment dominates the Project viewsheds.

24B.3.6.5. Light and Glare

Daytime light and glare levels associated with the I/O tunnels and pipelines are moderate because the area is predominantly grasslands or in agricultural production. Nighttime light and glare levels are moderately low because development is limited to scattered rural residences, agricultural facilities, and vehicles on roadways and highways near the pipelines that contribute to illuminating the surrounding area.

24B.3.7. South Road Alignment and Huffmaster Road Realignment

24B.3.7.2. Existing Visual Resources

The South Road alignment and Huffmaster Road realignment include the segments of existing dirt and paved roadways in the study area that would be upgraded/improved and portions of unaffected open space that would be converted to roadway corridor to accommodate the roadway around the reservoir. The most important visual resources in the viewshed, based on analysis of aerial and satellite mapping and policy documents, include:

- **Foothills and mountains:** Foreground and middleground views of Pence Mountain, Greasewood Mountain, and Lodoga Peak surrounding the roadway alignments. Distant background views of Table Mountain to the north, the Coast Ranges to the west, and the Sutter Buttes to the southwest may be available from a limited amount of locations where the terrain and vegetation allow. In addition, the alignments are located in the lower foothills lining the western edge of the Sacramento Valley.

24B.3.7.3. Viewer Groups

Viewer groups for the South Road alignment and Huffmaster Road realignment would be limited to drivers and recreationists on portions of Maxwell Sites Road, Huffmaster Road, and Sites Lodoga Road that connect to the alignments. Most of these drivers are local residents and ranch workers. In addition, viewers include drivers on private dirt track roads that travel along Grapevine Creek and Wilson Creek.

24B.3.7.4. Existing Visual Character and Quality

The South Road alignment and Huffmaster Road realignment would involve approximately 39 miles along existing dirt roadways and dirt track roads, as well as through natural, undeveloped lands. The natural environment is characterized by northwest-southeast trending ridgelines that are separated by small valleys of varying steepness and width. Foothills along the eastern segment of the South Road alignment transition to steeper mountains as the roadway corridor continues westward and elevations range between approximately 200 feet and 2,440 feet above mean sea level. The natural foothills landscape along the eastern portion of the corridor has been largely unaltered and consists of rolling grasslands, as well as ridgelines and hillsides that are densely vegetated with oak woodlands. Low-lying valley areas are predominantly grassland areas that consist mostly of rangelands. The natural landscape along the western portion of the corridor has also been largely left intact and consists of steeper terrain that is vegetated with pine and oak woodland and chaparral. Scattered wetlands are present in the landscape and the narrow creek corridors wind through the undulating terrain. Views in the area are most commonly limited to the foreground, with occasional middleground views of surrounding hillsides. Background views consist of the vegetated hillsides and ridgelines that are available on private properties. Atmospheric visibility can range from moderately high to moderate because of natural weather patterns, which can include seasonal haze, rain, and overcast conditions. The existing natural setting is very harmonious because the foothill and mountainous settings are mostly undeveloped, which results in high natural harmony.

The cultural environment consists of the paved roadway segments that are located at each end of the alignment along Maxwell Sites Road and Sites Lodoga Road, near Lodoga; a number of dirt

track roads and trails that wind through the landscape; Mills Orchard near the eastern terminus at Maxwell Sites Road; scattered ranches along Huffmaster Road; and a rural residence near the western terminus at Sites Lodoga Road. The cultural landscape also contains roadway signs, barbed wire fencing associated with ranches, and wooden utility poles and transmission lines along Maxwell Sites Road. Roadway signs and barbed wire fencing for ranches along Sites Lodoga Road are also present in the cultural landscape. However, these features are limited, blend well with the foothill environment, and do not detract from views. Overall, existing development associated with the South Road alignment and Huffmaster Road realignment responds to and fits well within the landscape and results in a cultural order that is high.

The overall visual quality of the South Road alignment and the Huffmaster Road realignment is *high*.

24B.3.7.5. Light and Glare

Daytime light and glare levels associated with the potential road alignments are moderate to moderately high because areas with open grasslands are brighter and have moderately high levels of light and glare due to lack of cover, whereas oak woodlands and oak and pine woodlands have trees that provide sources of shade to reduce daytime light and glare. Nighttime light and glare levels are low because development is limited to scattered rural residences and Mills Orchard and local roadways are not heavily traveled at night with vehicles that contribute to illuminating the surrounding area.

24B.4 References

Colusa County. 2011. Public Draft Environmental Impact Report for the 2030 Colusa County General Plan Update. November. Colusa County, CA.

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