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Permanent Impacts after Construction is Complete

Permanent Impacts after Construction is Complete

Table 17D-1. Pipeline/Tunnel Alignment Alternatives (1A, 2A, 3, 5, 6A, 7, and 8)

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
CH E9 and SR 160 from cKOP 1 to Intake 1 (includes cKOPs 2–7)	Foreground and middleground views from CH E9, SR 160, and Cliff’s Marina	Highway travelers experience views of large, mature trees and shrubs along roadside, wide meandering waters of the Sacramento River, intermittent expansive views of flat, large agricultural areas depending on traveler’s perspective on this segment of CH E9 and SR 160 that includes row crops and orchards. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, nursery, and farmstead buildings.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	N/A	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas and RTM area would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 1 and 2 associated pumping plants and surge shafts	Landscape Sensitivity Level: High Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CH E9 and SR 160 from Intake 1 to Intake 2 (includes cKOPs 8–18)	Foreground and middleground views from CH E9 SR 160, and Clarksburg Marina	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Orchards and vineyards are also present. Curvilinear form and wide meandering waters of the Sacramento River, curvilinear form and marshy areas associated with Elk Slough, and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields on one side and toward Sacramento River on the other. Human made features in the area include levees, farmstead residences, railroads, roadways, the Sugar Mill complex, and the town of Clarksburg. Area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Clarksburg.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structures, pumping plants, surge shafts, access roads, tunnel work and RTM areas, and transmission lines would be visually prominent in vista foreground and middleground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 1 and 2 associated pumping plants and surge shafts	Landscape Sensitivity Level: High Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

¹ Refer to Chapter 17–Aesthetic and Visual Resources: Section 17.3.1, *Methods for Analysis*, for definitions.

Table 17D-1. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
Area surrounding pipeline/tunnel alignment from Intake 1 to Intake 2	Foreground to middleground views from Scribner Road, Sacramento Southern Branch of the Union Pacific Railroad, and local farm roads and private drives	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides and near small farmstead buildings. Orchards and vineyards are also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Clarksburg. Angular irrigation and drainage ditches also define the landscape. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	New sources of security light from Intakes 1 and 2, associated pumping plants, and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CH E9 and SR 160 from Intake 2 to Intake 3 (includes cKOPs 18–34)	Foreground to middleground views from CH E9, SR 160, and Clarksburg Boat Launch	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structures, pumping plants, surge shafts, access roads, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and pumping plants would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	New sources of security light from Intakes 2 and 3, associated pumping plants, and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 2 to Intake 3 (includes cKOPs 18–25)	Foreground to middleground views from River Park Drive and local farm roads and private drives	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and levees of the Sacramento River and angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	New sources of security light from Intakes 2 and 3, associated pumping plants, and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-1. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
CH E9 and SR 160 from Intake 3 to Intake 4 (includes cKOPs 35–46)	Foreground to background views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings, depending on traveler’s perspective on this segment of CH E9 and SR 160 that includes row crops, vineyards, and orchards. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough and Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields and the town of Hood on the east side of the Sacramento River. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structure, pumping plant, access roads, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and pumping plants would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 3 and 4 and associated pumping plant	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 3 to Intake 4 (includes cKOPs 31–35, 37, and 71–75)	Foreground to middleground views from Hood Franklin Road, 3 rd Street, 4 th Street, 5 th Street, 8 th Street, Blair Street, Cork Lane, and Sacramento Southern Branch of the Union Pacific Railroad. and local farm roads and private drives	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Orchards and vineyards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and levees of the Sacramento River and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 3 and 4 and associated pumping plant	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-1. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
CH E9 and SR 160 from Intake 4 to Intake 5 (includes cKOPs 37–54)	Foreground to middleground views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural areas, including row crops and orchards. Some momentary views of Sacramento River coursing toward horizon. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough and Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structure, pumping plant, access roads, forebay, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed Intake 4 and pumping plant would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 4 and 5 and associated pumping plant	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 4 and 5 to the proposed forebay area south of Hood (includes cKOPs 81–88)	Foreground to middleground views from Lambert Road, Russell Road, and local farm roads and private drives; and I-5	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Row crops, orchards, and vineyards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences and farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. These features would be visually discordant with the area’s existing characteristics.	Proposed forebay, pumping plant, and transmission lines would be visually prominent in vista foreground and middleground views	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 4 and 5 and associated pumping plant	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-1. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
CHE9, SR 160, and River Road from Intake 5 to Russell Road, off of River Road (includes cKOPs 55–61 and 76)	Foreground to middleground views from CHE9, SR 160, and River Road	Highway travelers experience views of large, mature trees and shrubs along roadside, wide meandering waters of the Sacramento River, occasional expansive views of mature ornamental tree groupings, row crops, vineyards, tree orchards, and other agricultural land located on nearby properties. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk and Steamboat Sloughs; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Courtland and Paintersville.	These project features would be visible from these segments of the roadways, but would be located at such a distance that they would not dominate the view	No project features would be immediately visible in foreground and middleground	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance and tunnel work areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities. Some ornamental vegetation and agricultural land would be removed and/or altered to build proposed permanent access road.	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intake 5 and associated pumping plant	Landscape Sensitivity Level: High Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
SR 160, River Road, and Isleton Road from Russell Road, off of River Road, to Andrus Island Road (includes cKOPs 61–70 and 93–96)	Foreground to middleground views of surrounding area from SR 160, River Road, and Isleton Road	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Orchards and row crops are also present. The curvilinear form and wide meandering waters of the Sacramento River and marshy areas associated with Snodgrass, The Meadows, and Georgiana Slough also defines landscape. Levee roads slope down toward agricultural fields on one side and toward Sacramento River on the other. Views of Walnut Grove and historic town of Locke. Human made features in the area near include levees, farmstead residences, communication towers, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Locke and Walnut Grove.	Project facilities would be visible to the southeast on this segment of SR 160. Views toward the project area are limited by vegetation along SR 160 and Isleton Road, mature ornamental tree groupings, and orchards. The project area would be across the river, at a lower ground elevation than the raised roadway and would not be visible because intervening vegetation and lower elevation would preclude views from this side of the river.	Ventilation and shaft site northwest of Twin Cities Road would not be visible in vista middleground available from SR 160. RTM area and transmission lines would be visually prominent	No changes to views from this segment of SR 160 would occur. The project area would be across the river, at a lower ground elevation than the raised roadway and would not be visible because intervening vegetation and lower elevation would preclude views from this side of the river.	Negligible	Landscape Sensitivity Level: High Project’s Visual Dominance: Subordinate Project’s Overall Effect: Moderately Noticeable Project’s Overall Effect: Noticeable

Table 17D-1. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
Area surrounding pipeline/tunnel alignment from Russell Road to Sacramento River, near River and Vorden Roads	Foreground to middleground views of surrounding area from Russell Road; Herzog Road; River Road; Alfalfa Plant Road; and Vorden Road.	Flat, expansive primarily agricultural terrain. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways. Orchards and row crops are also present. Curvilinear form and wide meandering waters of the Sacramento River and marshy areas associated with Snodgrass Slough also defines landscape. Human made features in the area near include levees, farmstead residences, communication towers, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Project facilities would considerably alter area’s existing character, introducing large-scale visually towering industrial structures and new landforms that would be discordant with the area’s existing characteristics. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the Vorden Road connection to shaft site northeast of Sacramento River	Ventilation and shaft site northwest of Twin Cities Road and transmission lines would be visible in vista foreground available from Twin Cities Road and middleground available from River Road.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Sacramento River, near River and Vorden Roads, to Georgiana Slough	Foreground views of surrounding area from South River Road; River Road; Isleton Road; Leary Road; Georgiana Slough Road; Tyler Island Road; Andrus Island Road; CH E9; SR 160; Ko Ket Resort; and other nearby roads in the vicinity.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides and near small farmstead buildings, as well as thick vegetation associated with orchards. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Georgiana Slough; and more angular irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways. Human made features in the area include levees, farmstead residences, communication towers, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting off in distance in more developed areas such as Locke and Walnut Grove.	Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the Isleton Road connection to shaft site south of Sacramento River.	RTM area and transmission lines would be visually prominent in vista available from Isleton Road	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Moderately Noticeable
Area surrounding pipeline/tunnel alignment from Georgiana Slough to North Mokelumne River	Foreground to middleground views from Georgiana Slough Road; Tyler Island Road; Andrus Island Road; CH E9; SR 160; Georgiana Slough Fishing Access; and other nearby roads in the vicinity.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides and near small farmstead buildings, as well as thick vegetation associated with orchards. Curvilinear form and marshy areas of Georgiana Slough, and North Mokelumne River; and more angular irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways. Human made features in the area include levees, farmstead residences, communication towers, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed RTM area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the following locations: Brunk and Tyler Island Road connection Tyler Island Road connection to shaft site north of North Mokelumne River tunnel undercrossing	N/A	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-1. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
Area surrounding pipeline/tunnel alignment from North Mokelumne River to Woodward Canal (includes cKOP 98)	Foreground to middleground views from Staten Island levee, Bouldin Island levee, Kettleman Lane, Venice Island Levee, Mandeville Island levee, Bacon Island levee, Bacon Island Road, and Woodward Island levee; SR 12; and the Burlington Northern Santa Fe Railroad.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along levees and roadsides. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways. The curvilinear form and marshy areas of North Mokelumne River, South Mokelumne River, Potato Slough, San Joaquin River, Connection Slough, Middle River, and Old River; and the straight form of Woodward Canal defines the landscape. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, passing trains, and vehicles on roadways.	Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the following locations: Venice Island Road connection to shaft site north of San Joaquin River N. Bacon Island Road connection to shaft site north of Connection Slough N. Bacon Island Road connection to shaft site west of Middle River S. Bacon Island Road connection to shaft site west of Middle River and north of Old River/Railroad Cut	Ventilation and shaft site north of SR 12 and transmission lines would be visible in vista foreground available from SR 12. Ventilation and shaft site on Bacon Island would not be visible from Bacon Island Road because of levees, vegetation, and low profile but transmission lines would be visible.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Moderately Noticeable
Travelling by boat on Middle River between Connection Slough and Empire Cut	Foreground to middleground views from Middle River of Mandeville Island levee; Bacon Island levee; Bacon Island Road; and the Burlington Northern Santa Fe Railroad.	Narrow riparian vegetation strips along levees with occasional islands within the waterways. Riparian vegetation is primarily herbaceous. The curvilinear form and marshy areas of San Joaquin River, Connection Slough, and Middle River; and the straight form of Columbia Cut and Empire Cut defines the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, boats, passing trains, and vehicles on roadways.	Proposed RTM area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat.	N/A	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-1. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
Area surrounding pipeline/tunnel alignment from Woodward Canal to Byron Highway (includes cKOPs 99, 100, 107-111, 254, and 255)	Foreground to middleground views from Woodward Island levee, Victoria Island levee, Coney Island levee, Herdlyn Road, Lindemann Road, Kelso Road, and Byron Highway; SR 4 and CH J4; and River’s End Marina & Boat Storage.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways in some locations. The curvilinear form and marshy areas of Old River; straight form of Woodward Canal, North Victoria Canal, Victoria Canal, West Canal, Fabian and Bell Canal, and Grant Line Canal; the angular form of Central Valley Project Canal; and open water of the Clifton Court Forebay defines the landscape. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, industrial areas, boats, and vehicles on roadways. The River’s End Marina & Boat Storage is located at junction of Lindeman Road, Central Valley Project Canal, and Old River and includes some residences and businesses.	Proposed RTM area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the SR 4 connection to shaft sites north and south of the highway.	Ventilation and shaft site north of SR 4 and transmission lines would be visible in vista foreground available from SR 4. RTM area would be visually prominent from SR 4. Byron Tract Forebay would introduce a large scale water body into vista from Lindemann Road. Spoil/borrow area and transmission lines may be visually prominent from Lindemann Road.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Moderately Noticeable
Travelling by boat on Woodward Canal and Old River, from Woodward Canal to SR 4 bridge	Foreground to middleground views from Woodward Canal and Old River to Old River levees; Woodward Island levees; Victoria Island levees; and SR 4.	Narrow riparian vegetation strips along levees with occasional islands within the waterways. Riparian vegetation is primarily herbaceous. The curvilinear form and marshy areas of San Joaquin River, Connection Slough, Middle River, and Latham Slough; and straight Columbia and Empire Cuts defines the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, boats, and vehicles on roadways.	Proposed RTM area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat.	N/A	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-1. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers ¹
Byron Highway from Clifton Court Road to Lindeman Road (includes cKOPs 102-106)	Foreground to middleground views from Byron Highway, Clifton Court Road, Herdlyn Road, Mountain House Road, Byron-Bethany Road, Lindemann Road, and Kelso Road; CH J4; and Union Pacific Railroad.	Large, flat agricultural areas to north, in close proximity to hulking water conveyance features associated with Clifton Court Forebay, and south of highway. California Aqueduct and Central Valley Project Canal visible from highway. Transmission lines and a raised railroad bed on berm, running parallel to the northeast of the highway, are prominent in the immediate foreground. Some undulating elevated topography is visible in the foreground and Mount Diablo and the Black Hills are visible in the middleground and background. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, roadways, and California Aqueduct infrastructure. The local area is generally dark with lighting associated with residences, boats, trains, vehicles, and forebay facilities.	Loss of large agricultural area to accommodate the proposed forebay. Proposed tunnel work area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. Introduction of a new, large water body.	N/A	N/A	Negligible	Landscape Sensitivity Level: Low Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Head of Old River at San Joaquin River (Alternatives 2A)	Foreground to background views of surrounding area from Upper Roberts Island and Stewarts Tract.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of San Joaquin and Old Rivers, more angular irrigation and drainage ditches, fluid nature of water, and riverine and riparian vegetation also define the landscape. The view includes an impressive, prominent view of Mount Diablo in background. Human made features in area include levees and roadways. The local area is generally dark with lighting associated with boats traveling on the San Joaquin River and Old River.	The large scale of the proposed operable barrier would span across Old River and alter area’s existing character by introducing a large-scale industrial structure that is visually discordant with the area’s existing characteristics. Operable barrier would have a boat lock to permit continued boat access to the San Joaquin River and Old River. Any tunnel work area associated with construction of the barrier would also alter landforms by creating prominent sunken or elevated features. Short segment of new transmission lines would be visible in the area.	N/A	N/A	Proposed operable barrier would require elevated security lighting	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Source: Data compiled by DHCCP in 2010 and revised by ICF in 2011 and 2012.

1 **Table 17D-2. East Alignment Alternatives (1B, 2B, and 6B)**

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
CH E9 and SR 160 from ckOP 1 to Intake 1 (includes ckOPs 2–7)	Foreground and middleground views from CH E9, SR 160, and Cliff's Marina	Highway travelers experience views of large, mature trees and shrubs along roadside, wide meandering waters of the Sacramento River, intermittent expansive views of flat, large agricultural areas depending on traveler's perspective on this segment of CH E9 and SR 160 that includes row crops and orchards. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	N/A	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas and RTM area would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 1 and 2 associated pumping plants and surge shafts	Landscape Sensitivity Level: High Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
CH E9 and SR 160 from Intake 1 to Intake 2 (includes ckOPs 8–18)	Foreground and middleground views from CH E9 SR 160, and Clarksburg Marina	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Orchards also present. Curvilinear form and wide meandering waters of the Sacramento River, curvilinear form and marshy areas associated with Elk Slough, and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields on one side and toward Sacramento River on the other. Human made features in the area include levees, farmstead residences, railroads, roadways, the Sugar Mill complex, and the town of Clarksburg. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Clarksburg.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	Proposed intake structures, pumping plants, surge shafts, access roads, tunnel work and RTM areas, and transmission lines would be visually prominent in vista foreground and middleground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 1 and 2 associated pumping plants and surge shafts	Landscape Sensitivity Level: High Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Area surrounding canal conveyance alignment from Intake 1 to Intake 2	Foreground to middleground views from Scribner Road, Sacramento Southern Branch of the Union Pacific Railroad, and local farm roads and private drives	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides and near small farmstead buildings. Orchards and vineyards are also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Clarksburg. Angular irrigation and drainage ditches also define the landscape. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 1 and 2 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
CH E9 and SR 160 from Intake 2 to Intake 3 (includes cKOPs 18–34)	Foreground to middleground views from CH E9, SR 160, and Clarksburg Boat Launch	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, a railroad right of way, a boat launch, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, boats, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	Proposed intake structures, pumping plants, surge shafts, access roads, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and pumping plants would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 2 and 3 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Area surrounding canal conveyance alignment from Intake 2 to Intake 3 (includes cKOPs 18–25)	Foreground to middleground views from River Park Drive and local farm roads and private drives	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and levees of the Sacramento River and angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, a railroad right of way, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 2 and 3 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CRE9 and SR 160 from Intake 3 to Intake 4 (includes cKOPs 35–46)	Foreground to background views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings, depending on traveler’s perspective on this segment of CH E9 and SR 160 that includes row crops, vineyards, and orchards. The curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough and Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields and the town of Hood on the east side of the Sacramento River. Human made features in the area include levees, farmstead residences, roadways, railroads, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, boats, and vehicles on roadways. Higher intensity lighting is present in isolated locations within more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structure, pumping plant, access roads, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and pumping plants would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 3 and 4 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Area surrounding canal conveyance alignment from Intake 3 to Intake 4 (includes cKOPs 31–35, 37, and 71–75)	Foreground to middleground views from Hood Franklin Road, 3 rd Street, 4 th Street, 5 th Street, 8 th Street, Blair Street, Cork Lane, and Sacramento Southern Branch of the Union Pacific Railroad. and local farm roads and private drives	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Vineyards and orchards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and levees of the Sacramento River and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, roadways, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 3 and 4 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
CH E9 and SR 160 from Intake 4 to Intake 5 (includes cKOPs 37–54)	Foreground to middleground views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural areas, including row crops and orchards. Some momentary views of Sacramento River coursing toward horizon. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough and Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	Proposed intake structure, pumping plant, access roads, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structure 4, pumping plant, and transmission lines would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 4 and 5 and associated pumping plant	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from Intakes 4 and 5 to the Lambert Road (includes cKOPs 77–88 and 113)	Foreground to middleground views from Lambert Road and local farm roads and private drives	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Row crops, orchards, and vineyards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Riparian and wetland vegetation covers portions of the Stone Lakes National Wildlife Refuge. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed tunnel work areas would be new visually prominent sunken or elevated landforms introduced to a landscape that is currently predominantly flat. Proposed bridge would be a new visually dominant feature that would become part of Lambert Road. Mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed. New transmission lines would be visible near new canal and along Lambert Road. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	Proposed bridges, access roads, spoil/borrow areas, canal, and transmission lines would be visually prominent in vista foreground and middleground views from Lambert Road. Proposed canal and spoil/borrow areas would visible in vista middleground views from I-5	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 4 and 5 and associated pumping plant	Landscape Sensitivity Level: Low Project's Visual Dominance: Dominant Project's Overall Effect: Noticeable
Area surrounding canal conveyance alignment from Lambert Road to Mokelumne River (includes cKOPs 114–116)	Foreground to middleground views from Lambert Road, Herzog Road, Russell Road, Dierssen Road, and Twin Cities Road; CH E13 and I-5; and the Stone Lakes National Wildlife Refuge and Cosumnes River Preserve	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Riparian and wetland vegetation covers portions of the Stone Lakes National Wildlife Refuge and Cosumnes River Preserve Areas. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed tunnel work areas would be new visually prominent sunken or elevated landforms introduced to a landscape that is currently predominantly flat. Proposed bridges would be new visually dominant features that would become part of Lambert, Dierssen, and Twin Cities Roads. Mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed. New transmission lines would be visible near new canal and along Lambert, Dierssen, and Twin Cities Roads. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	Proposed bridges, access roads, canal, and transmission lines would be visually prominent in vista foreground views from Twin Cities Road.	N/A		Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Area surrounding canal conveyance alignment from Mokelumne River to Disappointment Slough (includes cKOPs 117–139)	Foreground to middleground views from North Vail Road, West Barber Road, West Walnut Grove Road, North Blossom Road, West Peltier Road, West Woodbridge Road, North Guard Road, Guard Road, North Peatland Road, Rio Blanco Road, King Island Levee, West Eight Mile Road, and Bacon Island Road; CH J11, SR 12, and I-5; other nearby roads in the vicinity; White Slough Wildlife Area and Woodbridge Ecological Preserve; and The Reserve at Spanos Park Golf Course, the western edge of Spanos Park West Community, and Paradise Point Marina.	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. The curvilinear form and marshy areas associated with the Mokelumne River, Hog Slough, Sycamore Slough, White Slough, Disappointment Slough, and Honker Cut; straight Beaver Slough and Telephone Cut; and angular Bishop Cut, Pixley Slough, and irrigation and drainage ditches also define landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in the area include levees, farmstead residences, transmission lines, communication towers, a marina, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, trains, and vehicles on roadways.	Proposed tunnel work areas would be new visually prominent sunken or elevated landforms introduced to a landscape that is currently predominantly flat. Proposed bridges would be new visually dominant features that would become part of West Barber, W. Walnut Grove, W. Peltier, W. Woodbridge, N. Grand, and W. Eight Mile Roads and SR 12. Several residences, mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	Proposed canal, RTM and spoil/borrow areas, bridges, and transmission lines would visible in vista middleground views from North Vail and Blossom Hill Roads. Proposed canal, RTM and spoil/borrow areas, bridges, and transmission lines would visible in vista middleground views from North Rio Blanco Road. Proposed canal and RTM and spoil/borrow areas and transmission lines may be visible in vista middleground views from north end of North Holt Road and Windmill Cove Road.	N/A		Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Area surrounding canal conveyance alignment from Disappointment Slough to SR 4 (includes cKOPs 139–149)	Foreground to middleground views from West Rindge Road, West Neugerbauer Road, Windmill Cove, North Holt Road, Burns Cutoff, West House Road, North Inland Drive, West McDonald Road, South Holt Road, South Inland Drive, West Jacobs Road, South Landi Road, and West Lower Jones Road; SR 4; other nearby roads in the vicinity; the Burlington Northern Santa Fe Railroad; Windmill Cove Resort & Marina, Stockton Sailing Club, River Point Landing Marina, Buckley Cove Park, and Whiskey Slough Harbor.	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, and orchards. Curvilinear form and marshy areas associated with Honker Cut, Disappointment Slough, San Joaquin River, Black Slough, Burns Cutoff, and Whiskey Slough; straight Twentyone Mile Cut; and angular Fourteen Mile Slough, Pixley Slough, Mosher Slough and irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in the area include levees, farmstead residences, transmission lines, communication towers, marinas, a park, and roadways. The local area is generally dark with some subdued lighting associated with existing residences and farmstead buildings, marinas, boats, and vehicles on roadways. Project area is located just west of the highly developed outskirts of Stockton and would not be visible from I-5.	Proposed tunnel work areas would be new visually prominent sunken or elevated landforms introduced to a landscape that is currently predominantly flat. Proposed bridges would be new visually dominant features that would become part of W. McDonald Road and SR 4. A residence and farm buildings, mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. The large scale of the proposed pumping plant, located 0.5 mile south of W. McDonald Road, would span across the canal and would contribute to the mass, form, and amount of industrial structures that are visually discordant with the area's existing characteristics.	Proposed canal, RTM and spoil/borrow areas, bridges, and transmission lines would visible in vista middleground views from of North Holt and Windmill Cove Roads, South Inland Drive, and SR 4.	N/A	Project facilities would include new lighting systems used during the course of normal operations	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Area surrounding canal conveyance alignment from SR 4 to Clifton Court Forebay (includes cKOPs 102–111 and 146–155)	Foreground to middleground views from West Kingston School Road, South Inland Drive, West Klein Road, Cal Pack Road, Bonnetti Road, Clifton Court Road, and Herdlyn Road; Tracy Boulevard; SR 4 and CH J2; and West Kingston School and Union Point Marina.	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings and row crops. Curvilinear form and marshy areas associated with Middle River, and Old River; straight Trapper Slough, Victoria Canal, Grant Line Canal, and Fabian and Bell Canal; and angular irrigation and drainage ditches also define landscape. Flat terrain, combined with intervening large-form dense vegetation sometimes does not permit views of area's background features. Human made features in the area include levees, farmstead residences, transmission lines, communication towers, a school, a marina, and roadways. Area is generally dark with some subdued lighting associated with existing residences and farmstead buildings, a school, a marina, boats, and vehicles on roadways.	Proposed tunnel work areas would be new visually prominent sunken or elevated landforms introduced to a landscape that is currently predominantly flat. Proposed bridges would be new visually dominant features that would become part of SR 4; W. Kingston School, Cal Pack, and Clifton Court Roads; and Tracy Boulevard. A farm buildings, mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	Proposed canal, RTM and spoil/borrow areas, bridges, and transmission lines would visible in vista middleground views from SR 4, South Tracy Boulevard, and Clifton Court Road.	N/A		Landscape Sensitivity Level: Low Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Clifton Court Forebay to Byron Highway (includes cKOPs 102–111)	Foreground to middleground views from Coney Island levee; Herdlyn Road; Lindemann Road; Kelso Road; Byron Highway; CH J4; Union Pacific Railroad; and River's End Marina.	Large, flat agricultural areas to north and east, in close proximity to hulking water conveyance features associated with Clifton Court Forebay, and south of highway. California Aqueduct and Central Valley Project Canal visible from highway. Transmission lines and a raised railroad bed on berm, running parallel to the northeast of the highway, are prominent in the immediate foreground. Some undulating elevated topography is visible in the foreground and Mount Diablo and the Black Hills are visible in the middleground and background. Curvilinear form and marshy areas associated with Old River; and straight Victoria Canal, Grant Line Canal, and Fabian Canal and Bell Canal also define landscape. Rivers End Marina & Boat Storage is located at junction of Lindeman Road, Central Valley Project Canal, and Old River and includes some residences and businesses. The local area is generally dark with lighting associated with residences, vehicles and boats traveling near confluence of Fabian and Bell Canal and Old River, the marina, trains, vehicles, and nighttime lighting of industrial and farmstead facilities.	Loss of large agricultural area to accommodate the proposed forebay. Proposed tunnel work area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. Introduction of a new, large water body. The proposed control structures would contribute to the mass, form, and amount of industrial structures that are visually discordant with the area's existing characteristics. New transmission lines would be visible along the southern edge of the new forebay.	Byron Tract Forebay would introduce a large scale water body into vista from Lindemann Road. Spoil/borrow and transmission lines area may be visually prominent from Lindemann Road.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Subordinate Project's Overall Effect: Moderately Noticeable

Table 17D-2. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Byron Highway from Clifton Court Road to Lindeman Road (includes cKOPs 102–106)	Foreground to middleground views from Byron Highway, Clifton Court Road, Herdlyn Road, Mountain House Road, Byron-Bethany Road, Lindemann Road, and Kelso Road; CH J4; and Union Pacific Railroad.	Large, flat agricultural areas to north, in close proximity to hulking water conveyance features associated with Clifton Court Forebay, and south of highway. California Aqueduct and Central Valley Project Canal visible from highway. Transmission lines and a raised railroad bed on berm, running parallel to the northeast of the highway, are prominent in the immediate foreground. Some undulating elevated topography is visible in the foreground and Mount Diablo and the Black Hills are visible in the middleground and background. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, roadways, and California Aqueduct infrastructure. The local area is generally dark with lighting associated with residences, boats, trains, vehicles, and forebay facilities.	Loss of large agricultural area to accommodate the proposed forebay. Proposed tunnel work area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. Introduction of a new, large water body. The proposed control structures would contribute to the mass, form, and amount of industrial structures that are visually discordant with the area's existing characteristics. New transmission lines would be visible along the southern edge of the new forebay.	N/A	N/A	Negligible	Landscape Sensitivity Level: Low Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
Head of Old River at San Joaquin River (Alternative 2B)	Foreground to background views of surrounding area from Upper Roberts Island and Stewarts Tract.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of San Joaquin and Old Rivers, more angular irrigation and drainage ditches, fluid nature of water, and riverine and riparian vegetation also define the landscape. The view includes an impressive, prominent view of Mount Diablo in background. Human made features in area include levees and roadways. The local area is generally dark with lighting associated with boats traveling on the San Joaquin River and Old River.	The large scale of the proposed operable barrier would span across Old River and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would have a boat lock to permit continued boat access to the San Joaquin River and Old River. Any tunnel work area associated with construction of the barrier would also alter landforms by creating prominent sunken or elevated features. Short segment of new transmission lines would be visible in the area.	N/A	N/A	Proposed operable barrier would require elevated security lighting	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
Source: Data compiled by DHCCP in 2010 and revised by ICF in 2011 and 2012.							

1 **Table 17D-3. West Alignment Alternatives (1C, 2C, and 6C)**

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
CH E9 and SR 160 from cKOP 1 to West Intake 1 (includes cKOPs 2–7)	Foreground and middleground views from CH E9 SR 160, and Clarksburg Marina	Highway travelers experience views of large, mature trees and shrubs along roadside, wide meandering waters of the Sacramento River, intermittent expansive views of flat, large agricultural areas depending on traveler's perspective on this segment of CH E9 and SR 160 that includes row crops and orchards. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible next to where pipeline was installed. Intake would result in a considerable loss of agricultural land, change in landform and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	N/A	Roadway realignment Yolo County scenic route, CH E9, near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas and RTM area would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 1 and 2 associated pumping plants and surge shafts	Landscape Sensitivity Level: High Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
CH E9 and SR 160 from West Intake 1 to West Intake 2 (includes cKOPs 8–18)	Foreground and middleground views from CH E9 SR 160, and Clarksburg Marina	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Orchards and vineyards also present. Curvilinear form and wide meandering waters of the Sacramento River, curvilinear form and marshy areas associated with Elk Slough, and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields on one side and toward Sacramento River on the other. Human made features in the area include levees, farmstead residences, railroads, roadways, the Sugar Mill complex, and the town of Clarksburg. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Clarksburg.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible next to where pipeline was installed. Intake would result in a considerable loss of agricultural land, change in landform and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area's existing characteristics.	Proposed intake structures, pumping plants, surge shafts, access roads, tunnel work and RTM areas, and transmission lines would be visually prominent in vista foreground and middleground views from CH E9. Proposed W2 intake structure and pumping plant would be visually prominent in vista foreground views from SR 160.	Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 1 and 2 associated pumping plants and surge shafts	Landscape Sensitivity Level: High Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-3. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Area surrounding canal conveyance alignment from West Intake 1 to West Intake 2 (includes cKOPs 158 and 159)	Foreground to middleground views from South River Road, River Road, Pumphouse Road, Willow Point Road, Willow Avenue, Clarksburg Road, Riverview Drive, Netherlands Avenue, and Scribner Road; CR 39, CH E19, CR 146B, CR 154, and CR 144.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides. Curvilinear form of Sacramento River and Elk Slough also defines landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Agricultural areas are mixed with row crops, vineyards, and orchards present. Human made features in the area include levees, farmstead residences, wineries, roadways, and the town of Clarksburg. Angular irrigation and drainage ditches also define the landscape. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Clarksburg.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible next to where pipeline was installed. Intake would result in a considerable loss of agricultural land, change in landform and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 1 and 2 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CH E9 and SR 160 from West Intake 2 to West Intake 3 (includes cKOPs 18–34)	Foreground to middleground views from CH E9, SR 160, and Clarksburg Boat Launch	Mature ornamental tree groupings, row crops, vineyards, orchard trees, and other agricultural land uses are present. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, a boat launch, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, boats, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Proposed bridge would be new visually dominant feature that would become part of CR 142. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structures, pumping plants, surge shafts, access roads, tunnel work areas, canals, and transmission lines would be visually prominent in vista foreground and middleground views from CH E9. Proposed intake structure and pumping plant would be visually prominent in vista foreground views from SR 160.	Roadway realignment Yolo County scenic route, CH E9, near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 2 and 3 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-3. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Area surrounding canal conveyance alignment from West Intake 2 to West Intake 3 (includes cKOPs 160 and 161)	Foreground to middleground views from South River Road, River Road, Scriber Road, South Center Street, and South School Street; CR 144, CR 141, and CR 142; and local farm roads and private drives.	Mature ornamental tree groupings, row crops, vineyards, orchard trees, and other agricultural land uses are present. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, wineries, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with Clarksburg and Hood, existing residences, farmstead buildings, wineries, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 2 and 3 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CH E9 and SR 160 from West Intake 3 to West Intake 4 (includes cKOPs 35–46)	Foreground to background views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings, depending on traveler’s perspective on this segment of CH E9 and SR 160 that includes row crops, vineyards, and orchards The curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough; and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields. Human made features in the area include levees, farmstead residences, wineries, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, wineries, boats, and vehicles on roadways. Higher intensity lighting is present in isolated locations within more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structure, pumping plant, access roads, tunnel work areas, canals, and transmission lines would be visually prominent in vista foreground and middleground views from CH E9. Proposed intake structure and pumping plant would be visually prominent in vista foreground views from SR 160.	Roadway realignment Yolo County scenic route, CH E9, near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 3 and 4 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-3. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Area surrounding canal conveyance alignment from West Intake 3 to West Intake 4	Foreground to middleground views from South River Road and River Road; and CR 142, CH E9, and SR 160.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Vineyards and orchards also present. The curvilinear form of Sacramento River and Elk Slough; and the more angular irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Human made features in the area include levees, farmstead residences, wineries, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, wineries, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 3 and 4 associated pumping plants and surge shafts	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CH E9 and SR 160 from West Intake 4 to West Intake 5 (includes cKOPs 37–54)	Foreground to background views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural areas, including row crops and orchards. The curvilinear form of Sacramento River and Elk Slough; and the more angular irrigation and drainage ditches also define the landscape. Human made features in the area include farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, boats, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structure, pumping plant, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160	Roadway realignment Yolo County scenic route, CH E9, near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 4 and 5 and associated pumping plant	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-3. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Area surrounding canal conveyance alignment from West Intakes 4 and 5 to Jefferson Boulevard (includes cKOPs 122–165)	Foreground to middleground views from South River Road, River Road, South Netherlands Road, Waukeena Road, North Courtland Road, and Jefferson Boulevard; CH E9, SR 160, and SR 84.	While travelling along roadway, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, and orchards. The curvilinear form of Sacramento River and Elk Slough; and the more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, communication towers, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed tunnel work areas would be new visually prominent sunken or elevated landforms introduced to a landscape that is currently predominantly flat. Proposed bridge would be a new visually dominant feature that would become part of Jefferson Boulevard. Mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of West Intakes 4 and 5 and associated pumping plant	Landscape Sensitivity Level: Low Project’s Visual Dominance: Dominant Project’s Overall Effect: Noticeable
Area surrounding canal conveyance alignment from Jefferson Boulevard to control structure located 1 mile south of SR 220 (includes cKOPs 163–108)	Foreground to middleground views from Jefferson Boulevard, South Netherlands Road, North Courtland Road, Alameda Avenue, Mallard Road, Widgeon Road, Z Line Road, Courtland Road, Ryer Avenue, Teal Road, Sutter Road, Oxford Road, Holland Road, Ryer Road, and Elevator Road; SR 84, CR 149, CR 150, CR 158, CR 107, CR 161, and SR 220; other nearby roads in the vicinity; and Arrow Head Harbor Marina.	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. Curvilinear form and marshy areas associated with Miner Slough, Sutter Slough, and Elkhorn Slough; straight Sacramento River Deep Water Ship Channel; and more angular Duck Slough and irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area’s background features. Human made features in the area include levees, farmstead residences, transmission lines, a marina, and roadways. Area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, a marina, boats, and vehicles on roadways.	Proposed tunnel work areas would be new visually prominent sunken or elevated landforms introduced to a landscape that is currently predominantly flat. Proposed bridges would be new visually dominant features that would become part of Jefferson Boulevard, CR 161, SR 84, SR 220, and Elevator Road. Residences and farm buildings, mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed. New transmission lines would be visible near new canal. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. The large scale of the proposed pumping plant would span across the canal and would contribute to the mass, form, and amount of industrial structures that are visually discordant with the area’s existing characteristics.	Proposed canal/canal levee, access roads, bridges, tunnel work areas, and transmission lines would be visually prominent in vista foreground and middleground views from CR 158 and Ryer Road. Proposed canal/canal levee, access roads, and tunnel work areas would be visually prominent in vista foreground and middleground views from Holland Road. Proposed canal/canal levee, access roads, bridges, tunnel work and RTM areas, and pumping plant would be visually prominent in vista foreground and middleground views from SR 84.	N/A	Pumping plant would include new lighting systems used during the course of normal operations in the area SR 84 and SR 220	Landscape Sensitivity Level: Low Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-3. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from control structure located 1 mile south of SR 220 to tunnel terminus located 0.5 mile south of E. Cypress Road (includes cKOPs 180–183 and 241)	Foreground to middleground views from Ryer Island Road, East Ryer Road, Grand Island Road, River Road, West Brannan Island Road, West Twitchell Island Road, Twitchell Island Ferry Road, Sunset Drive, Taylor Road, Bethel Island Road, West Willow Road, Harbor Road, Canal Road, Gateway Road, Cottage Lane, Dutch Slough Road, Sandmound Boulevard, and East Cypress Road; SR 84, SR 160, and SR 12; other nearby roads in the vicinity; and Hidden Harbor Marina, Vieira’s Resort, Franks Tract State Recreation Area, Willowest Harbor, Bethel Harbor, Anchor Marina, Bethel Island Golf Course, Seahorse Marina, Sunset Harbor, and Hennis Marina.	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. Curvilinear form and marshy areas associated with Sacramento River Deep Water Ship Channel, Elkhorn Slough, Steamboat Slough, Sacramento River, Sevenmile Slough, San Joaquin River, False River, Taylor Slough, and Piper Slough; straight Fisherman’s Cut, Dutch Slough, and Sand Mound Slough; and more angular irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area’s background features in some locations. Human made features in the area include levees, farmstead residences, transmission lines, communication towers, marinas, a recreation area, and roadways. The local area is generally dark with some subdued lighting associated with existing residences and farmstead buildings, marinas, boats, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Bethel Island.	Proposed RTM area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. This is most notable at beginning of pipeline/tunnel, between SR 160 and SR 12, and tunnel terminus. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the following locations: Ryder Road connection SR 160 connection to shaft site north of SR 12 Twitchell Island Road connection Bethel Island Road connection	Proposed RTM area would be visually prominent in vista foreground and middleground views from SR 12. Ventilation and shaft site west of Bethel Road would be visible in vista foreground available from road. Proposed canal/canal levee, access roads would be visually prominent in vista foreground and middleground views from E. Cypress Road.	N/A	Negligible	Landscape Sensitivity Level: Low Project’s Visual Dominance: Subordinate Project’s Overall Effect: Minimally Noticeable

Table 17D-3. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Area surrounding canal conveyance alignment from tunnel termini located 0.5 mile south of E. Cypress Road to SR 4 (includes cKOPs 182–197)	Foreground to middleground views from Jersey Island Road, East Cypress Road, Bethel Island Road, Sycamore Drive, Watchtide Way, Sandmound Boulevard, Holland Tract Road, Fire Place, Cow Poke Lane, Tule Lane, Bartels Drive, Blaine Lane, Delta Road, Eden Plains Road, Hotchkiss Road, Pastor Lane, Byron Highway, Baldocchi Court, Eagle Lane, Poe Lane, Mountain View Drive, Ironhorse Road, Sunset Road, Penny Lane, Crystal Lane, Orwood Road, Bixler Road, Chestnut Street, Balfour Road, Fallman Boulevard, Point of Timber Road, Fertado Lane, Ellisa Lane, Marsh Creek Road, Valley Oak Drive, and Taylor Lane; SR 4, CR J4; a number of nearby roads in the vicinity; Knightsen, Brentwood, Discovery Bay, and surrounding suburban developments; a number of rural residences and businesses located in between E. Cypress Road in the north and SR 4 in the south; and the Burlington Northern Santa Fe Railroad.	While travelling along roadways, expansive views of flat, large agricultural areas, rural residential and outlying suburban development, including mature ornamental tree groupings, row crops, and vineyards. The straight Sand Mound Slough, Rock Slough, Werner Dredger Cut, Main Canal, Indian Slough, and Kellogg Creek; and angular Contra Costa Canal and irrigation and drainage ditches also define the landscape. Human made features in the area include levees, rural residences, suburban development, businesses, transmission lines, parks, schools, detention basins, lakes, a railroad corridor, and roadways. The local area is fairly lit due to amount of development and roadways in the area.	Proposed tunnel work areas would be new visually prominent sunken or elevated landforms introduced to a landscape that is currently predominantly flat. Proposed bridges would be new visually dominant features that would become part of Delta, Orwood, Balfour, Point of Timber, and Marsh Creek Roads; Cow Poke and Eagle Lanes; and Taylor Lane/SR 4. A large number residences and farm buildings, mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area.	Proposed canal/canal levee, access roads, and tunnel work areas would be visually prominent in vista foreground and middleground views from Orwood and Bixler Roads	N/A	Negligible	Landscape Sensitivity Level: High Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-3. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Area surrounding canal conveyance alignment from SR 4 to Clifton Court Forebay (includes cKOPs 195–200 and 101–111)	Foreground to middleground views from Byron Highway, Taylor Lane, Hoffman Lane, Kellogg Creek Road, Bixler Road, Byer Road, Camino Diablo Road, Western Farms Ranch Road, and Clifton Court Road; SR 4 and CH J4; a number of nearby roads in the vicinity; Discovery Bay, Byron, and surrounding suburban developments; and a number of rural residences, schools, and businesses located along the SR 4 corridor.	While travelling along roadways, expansive views of flat, large agricultural areas with rural residential development, including mature ornamental tree groupings and row crops. The curvilinear form Italian Slough and Old River; the straight Kellogg Creek; more angular irrigation and drainage ditches; and large water body of the Clifton Court Forebay also define the landscape. Human made features in the area include rural residences, nearby suburban development, transmission lines, marinas and homes with boat slips, and roadways. Area is generally dark with some subdued lighting associated with existing residences and farmstead buildings, marinas, and vehicles on roadways.	Residences and farm buildings, mature ornamental tree groupings and agricultural lands located within proposed canal and bridge right-of-ways and tunnel work areas would be removed to accommodate the proposed forebay and canal. Proposed tunnel work area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. Introduction of a new, large water body with new forebay to northwest of existing forebay. Proposed bridges would be new visually dominant features that would become part of Taylor Lane/SR 4 and Bixler Road. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. The proposed control structures would contribute to the mass, form, and amount of industrial structures that are visually discordant with the area’s existing characteristics.	Proposed canal/canal levee would be visible in vista foreground and middleground views from SR 4	N/A	Negligible	Landscape Sensitivity Level: High Project’s Visual Dominance: Co-dominant Project’s Overall Effect: Very Noticeable

Table 17D-3. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project’s Overall Effect on Viewers
Byron Highway from Clifton Court Road to Lindeman Road (includes cKOPs 101–106)	Foreground to middleground views from Byron Highway, Clifton Court Road, Herdlyn Road, Mountain House Road, Byron-Bethany Road, Lindemann Road, and Kelso Road; CH J4; and Union Pacific Railroad.	Large, flat agricultural areas to north, in close proximity to hulking water conveyance features associated with Clifton Court Forebay, and south of highway. California Aqueduct and Central Valley Project Canal visible from highway. Transmission lines and a raised railroad bed on berm, running parallel to the northeast of the highway, are prominent in the immediate foreground. Some undulating elevated topography is visible in the foreground and Mount Diablo and the Black Hills are visible in the middleground and background. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, roadways, and California Aqueduct infrastructure. The local area is generally dark with lighting associated with residences, boats, trains, vehicles, and forebay facilities.	Loss of large agricultural area to accommodate the proposed forebay. Proposed tunnel work area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. Introduction of a new, large water body with new forebay to northwest of existing forebay. Proposed bridges would be new visually dominant features that would become part of Byron Highway. New canal right-of-way with levee would result in a considerable loss of agricultural land, change in landform, and increase in surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. The proposed control structures would contribute to the mass, form, and amount of industrial structures that are visually discordant with the area’s existing characteristics.	N/A	N/A	Negligible	Landscape Sensitivity Level: Low Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Head of Old River at San Joaquin River (Alternative 2C)	Foreground to background views of surrounding area from Upper Roberts Island and Stewarts Tract.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of San Joaquin and Old Rivers, more angular irrigation and drainage ditches, fluid nature of water, and riverine and riparian vegetation also define the landscape. The view includes an impressive, prominent view of Mount Diablo in background. Human made features in area include levees and roadways. The local area is generally dark with lighting associated with boats traveling on the San Joaquin River and Old River.	The large scale of the proposed operable barrier would span across Old River and alter area’s existing character by introducing a large-scale industrial structure that is visually discordant with the area’s existing characteristics. Operable barrier would have a boat lock to permit continued boat access to the San Joaquin River and Old River. Any tunnel work area associated with construction of the barrier would also alter landforms by creating prominent sunken or elevated features. Short segment of new transmission lines would be visible in the area.	N/A	N/A	Proposed operable barrier would require elevated security lighting	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Source: Data compiled by DHCCP in 2010 and revised by ICF in 2011 and 2012.							

1 **Table 17D-4. Modified Pipeline/Tunnel Alignment Alternative (4 and 4A)**

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
CH E9 and SR 160 from Intake 2 to Intake 3 (includes cKOPs 18–34)	Foreground to middleground views from CH E9, SR 160, and Clarksburg Boat Launch	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structures, sedimentation basins, intake storage and electrical buildings, access roads, cranes, substations, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and cranes would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities. Proposed intake structures, sedimentation basins, storage and electrical buildings, access roads, cranes, substation, fencing and perimeter landscaping would be visually prominent in foreground views from SR 160.	New sources of security light from Intakes 2 and 3. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 2 to Intake 3 (includes cKOPs 18–25)	Foreground to middleground views from River Park Drive and local farm roads and private drives	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and levees of the Sacramento River and angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce structures associated with the intake facility and prominent sunken or elevated landforms would also be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	New sources of security light from Intakes 2 and 3. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-4. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
CH E9 and SR 160 from Intake 3 to Intake 5 (includes cKOPs 19–56)	Foreground to background views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings, depending on traveler’s perspective on this segment of CH E9 and SR 160 that includes row crops, vineyards, and orchards. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough and Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields and the town of Hood on the east side of the Sacramento River. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures, elevated landforms, and water features associated with sedimentation basins would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics. Proposed Intake Work Area would be restored after construction and not affect views from SR 160 and CH E9. Perimeter landscaping would help to slightly reduce the appearance of changes.	Proposed intake structure, sedimentation basins, intake storage and electrical buildings, access roads, cranes, substation, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and cranes would be visually prominent in vista foreground views from CH E9. Proposed Intake Work Area would be restored after construction and not affect views from SR 160 and CH E9. Perimeter landscaping would help to slightly reduce the appearance of changes.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake and work area disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities. Proposed intake structures, sedimentation basins, storage and electrical buildings, access roads, cranes, substation, fencing and perimeter landscaping would be visually prominent in foreground views from SR 160.	Project facilities at Intakes would include new lighting systems used during the course of normal operations in the area of Intakes 3 and 5.New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 3 to Intake 5 (includes cKOP 73, 75, and 81–84)	Foreground to middleground views from Hood Franklin Road, 3 rd Street, 4 th Street, 5 th Street, 8 th Street, Blair Street, Cork Lane, and Sacramento Southern Branch of the Union Pacific Railroad. and local farm roads and private drives	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Orchards and vineyards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and levees of the Sacramento River and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce structures associated with the intake facility would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. Intake Work Area would convert agricultural lands to construction related facilities. These features would be visually discordant with the area’s existing characteristics. Proposed Intake Work Area would be restored after construction and not affect views. Perimeter landscaping would help to slightly reduce the appearance of changes.	Proposed intake structure, intake storage and electrical buildings, access roads, cranes, substations, and transmission lines may be seen in vista middleground views from Lambert and Russell Roads. Perimeter landscaping would help to slightly reduce the appearance of changes.	N/A	Project facilities at Intakes would include new lighting systems used during the course of normal operations in the area of Intakes 3 and 5.Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-4. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment Intake 5 to the proposed shaft site north of Lambert Road (includes cKOPs 81–88) and East-West transmission line alignment option	Foreground to middleground views from Lambert Road, Russell Road, and local farm roads and private drives; and I-5	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Row crops, orchards, and vineyards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences and farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. These features would be visually discordant with the area’s existing characteristics. Perimeter landscaping would help to slightly reduce the appearance of changes.	Proposed intake structure, pumping plant, access roads, and transmission lines may be seen in vista middleground views from Lambert and Russell Roads. Proposed shaft site and transmission lines would be visually prominent in vista foreground views from Lambert Road. Perimeter landscaping would help to slightly reduce the appearance of changes.	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intake 5. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CHE9, SR 160, and River Road from Intake 5 to Russell Road, off of River Road (includes cKOPs 41–61 and 76)	Foreground to middleground views from CHE9, SR 160, and River Road	Highway travelers experience views of large, mature trees and shrubs along roadside, wide meandering waters of the Sacramento River, occasional expansive views of mature ornamental tree groupings, row crops, vineyards, tree orchards, and other agricultural land located on nearby properties. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk and Steamboat Sloughs; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Courtland and Paintersville.	These project features would be visible from these segments of the roadways, but would be located at such a distance that they would not dominate the view. Intake 5 would be visible on approach from SR 160.	No project features would be immediately visible in foreground and middleground	Roadway realignment of State Scenic Highway near intake and introduction of large landform seen on approach to intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance area would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities. Some ornamental vegetation and agricultural land would be removed and/or altered to build proposed permanent access road. Proposed intake structures, sedimentation basins, storage and electrical buildings, access roads, cranes, substation, fencing and perimeter landscaping would be visually prominent in views from SR 160 seen on approach to Intake 5.	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intake 5. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: High Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-4. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from the proposed shaft site north of Lambert Road to Intermediate Forebay (includes cKOPs 81–88, 114–116, and 257)	Foreground to middleground views from Lambert Road, Herzog Road, Russell Road, Dierssen Road, and Twin Cities Road; CH E13 and I-5; and the Stone Lakes National Wildlife Refuge and Cosumnes River Preserve	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Riparian and wetland vegetation covers portions of the Stone Lakes National Wildlife Refuge and Cosumnes River Preserve Areas. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed RTM areas would be new visually prominent elevated landforms introduced to a landscape that is currently predominantly flat. Proposed forebay embankments north of Twin Cities Road would be new visually dominant feature. Mature ornamental tree groupings and agricultural lands located within proposed forebay, RTM, and work areas would be removed. New transmission lines would be visible near by the forebay from Twin Cities Road. These features would be visually discordant with the area's existing characteristics.	Proposed forebay, RTM areas, and transmission lines would be visually prominent in vista foreground views from Twin Cities Road.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Mokelumne River to Potato Slough (includes cKOPs 98, 239, and 258)	Foreground to middleground views from Staten Island levee; West Walnut Grove Road, North Staten Island Road, Gas Wells Road, and SR 12; other nearby roads in the vicinity; Staten Island Sandhill Crane Habitat; and Tower Park Marina Resort, Lighthouse Marina Restaurant and Resort, and Pirates Lair Marina.	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. The curvilinear form and marshy areas associated with the North and South Mokelumne River and Potato Slough and straight and angular irrigation and drainage ditches define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in the area include levees, farmstead residences, transmission lines, communication towers, marina, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, trains, and vehicles on roadways.	Proposed safe haven work areas, concrete batch plants, and fuel stations would be restored after construction and not affect views. Proposed shaft sites would be new visually prominent elevated landforms introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and agricultural lands located within proposed shaft site and RTM areas would be removed. shaft sites and RTM areas would result in a considerable loss of agricultural land and change in landform compared to existing conditions. New interchange along SR 12 would introduced raised transportation structure in flat landscape. New transmission lines would be visible near RTM area from SR 12. These features would be visually discordant with the area's existing characteristics.	Proposed safe haven work areas, concrete batch plants, and fuel stations would be restored after construction and not affect views. Proposed shaft sites, RTM areas, and transmission lines would visible in vista foreground and middleground views from West Walnut Grove Road, North Staten Island Road, Gas Wells Road, and SR 12. New interchange bridge over SR 12 would limit westbound views toward Mount Diablo.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Moderately Noticeable

Table 17D-4. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from Potato Slough to Old River (includes cKOP 254–255)	Foreground to middleground views fromBouldin Island levee, Kettleman Lane, Venice Island Levee, Mandeville Island levee, Bacon Island levee, Bacon Island Road, Woodward Island levee, and Victoria Island levee, the Burlington Northern Santa Fe Railroad, and SR 4.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along levees and roadsides. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways. The curvilinear form and marshy areas of North Mokelumne River, South Mokelumne River, Potato Slough, San Joaquin River, Connection Slough, Middle River, and Old River; and the straight form of Woodward Canal defines the landscape. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, passing trains, and vehicles on roadways.	Proposed safe haven work areas on Venice and Bacon Islands would be restored after construction and not affect views. Raised shaft sites on Mandeville and Bacon Islands would be visible from island roadways. Shaft site north of SR 4 would be visible in foreground views available from SR 4. New transmission lines would be visible along tunnel alignment. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the following locations: Mandeville Island connection to S. Bacon Island Road for Mandeville Island shaft site N. Bacon Island Road connection to shaft site west of Middle River	Raised shaft sites on Mandeville and Bacon Islands would be visible from island roadways. Shaft site north of SR 4 would be visible in vista foreground available from SR 4. New transmission lines would be visible along tunnel alignment in vista views.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Moderately Noticeable

Table 17D-4. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from Woodward Canal to Byron Highway (includes cKOPs 99, 100–112, and 197–200)	Foreground to middleground views from Clifton Court Road, Western Farms Ranch Road, Herdlyn Road, Lindemann Road, Kelso Road, Bruns Road, Byron Hot Springs Road, and Byron Highway/CH J4;; Lazy M Marina, River’s End Marina & Boat Storage, and Kings Island. Background views from the foothills, Bethany Reservoir State Recreation Area, and California Aqueduct Bikeway.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides close proximity to hulking water conveyance features associated with Clifton Court Forebay, and south of highway. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways in some locations. California Aqueduct and Central Valley Project Canal visible from highway. The curvilinear form and marshy areas of Old River and Italian Slough; straight form of Woodward Canal, North Victoria Canal and Victoria Canal; and open water of the Clifton Court Forebay defines the landscape. Angular irrigation and drainage ditches also define the landscape. Some undulating elevated topography is visible in the foreground and Mount Diablo and the Black Hills are visible in the middleground and background. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, roadways, and California Aqueduct infrastructure. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, industrial areas, boats, vehicles on roadways, and forebay facilities. The River’s End Marina & Boat Storage is located at junction of Lindeman Road, Central Valley Project Canal, and Old River and includes some residences and businesses. Lazy M Marina is located at on Italian Slough and is used for boat launching and storing.	Proposed RTM area west of Clifton Court Forebay would considerably alter character of area through introduction of a large new elevated landform to a landscape that is currently predominantly flat. Until perimeter landscaping matures, pumping plant facility would considerably alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen from Clifton Court Road, Old River, and West Canal. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the SR 4 connection to shaft site north of the highway. Expanded Clifton Court Forebay would introduce a large scale water body into view from Lindemann Road. Expanded Clifton Court Forebay would introduce more embankments into view from Byron Highway, North Bruns Way, Bruns Road, and Mountain House Road. Features would not be very visible from north of Camino Diablo Road, including Discovery Bay.	Expanded Clifton Court Forebay would introduce a large scale water body into vista from Lindemann Road. Dark pumping plant buildings and landscaping at Clifton Court Forebay would blend in background vista views available from the foothills, Bethany Reservoir State Recreation Area, and California Aqueduct Bikeway but would be prominent focal point in foreground vista views from Clifton Court Road.	N/A	Project facilities in pumping plant disturbance area would include new lighting systems used during the course of normal operations in the area of the pumping plant. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Low to Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Very Noticeable

Table 17D-4. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
Travelling by boat on waterways surrounding the alternative alignment from Mokelumne River to Clifton Court Forebay	Foreground to middleground views from waterways to island levees	Narrow riparian vegetation strips along levees with occasional islands within the waterways. Riparian vegetation is primarily herbaceous. The curvilinear form and marshy areas rivers and sloughs; and straight cuts and canals defines the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, boats, and vehicles on roadways.	Proposed shaft sites and RTM areas could alter character of area through introduction of a large new elevated landform to a landscape that is currently predominantly flat if visible over island levees. Until perimeter landscaping matures, pumping plant facility could alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen from Old River and West Canal, if visible over island levees.	Proposed shaft sites and RTM areas could alter vistas through introduction of a large new elevated landform to a landscape that is currently predominantly flat if visible over island levees. It is not likely that these features would obscure vistas, but only introduce a raised landform into them. Until perimeter landscaping matures, pumping plant facility could alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen in vista views from Old River and West Canal, if visible over island levees.	N/A	Project facilities in pumping plant disturbance area would include new lighting systems used during the course of normal operations in the area of the pumping plant. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Subordinate Project's Overall Effect: Very Noticeable
Head of Old River at San Joaquin River	Foreground to background views of surrounding area from Upper Roberts Island and Stewarts Tract.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of San Joaquin and Old Rivers, more angular irrigation and drainage ditches, fluid nature of water, and riverine and riparian vegetation also define the landscape. The view includes an impressive, prominent view of Mount Diablo in background. Human made features in area include levees and roadways. The local area is generally dark with lighting associated with boats traveling on the San Joaquin River and Old River.	The large scale of the proposed operable barrier would span across Old River and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would have a boat lock to permit continued boat access to the San Joaquin River and Old River. Any tunnel work area associated with construction of the barrier would also alter landforms by creating prominent sunken or elevated features. Short segment of new transmission lines would be visible in the area.	N/A	N/A	Proposed operable barrier would require elevated security lighting	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Source: Data compiled by ICF in 2013.

1 **Table 17D-5. Separate Corridors Alternative (9)**

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
SR 160 and River Road from cKOP 201 to the edges of Walnut Grove and Locke (includes cKOPs 201–205)	Foreground to middleground views of surrounding area from South River Road, River Road; SR 160 and CH E13; and other nearby roads in the vicinity.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides and near small farmstead buildings. Orchards and row crops are also present. Curvilinear form and wide meandering waters of Sacramento River, contrasted by more irregularly shaped thick vegetation, also defines landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in area include levees, residences, boat slips, communication towers, warehouse/industrial buildings, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles traveling on roadways.	The proposed project features would be visible from SR 160 and River Road and visually discordant with the area's existing agricultural visual character. These features would considerably alter area's existing character by removing orchards and riparian vegetation, creating prominent sunken or elevated landforms from the tunnel work areas, creating a connection channel, and a bridge and the operable barrier. The proposed moderately sized bridge would somewhat alter the area's existing visual character, introducing a structure that would not be visually discordant with the area's existing characteristics, given that moderately sized bridges are common in the area. The operable barrier would be more discordant with the area's visual character. New transmission lines would be visible along River Road.	N/A	Mature ornamental tree groupings and orchard trees would be removed to construct the channel connection, bridge, and operable barrier and would considerably alter existing conditions.	Project facilities would include new lighting systems used during the course of normal operations	Landscape Sensitivity Level: High Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
Locke and Walnut Grove to cKOP 235 (includes cKOPs 206–238)	Foreground to middleground views of surrounding area from South River Road, River Road, Locke Road, Levee Road, Mealer Lane, 2 nd Street, Center Street, 4 th Street, Theater Street, Isleton Road, Andrus Island Road, Walnut Grove-Thornton Road, and Race Track Road; SR 160, CH E13, and CH J11; other nearby roads in the vicinity; Boathouse Marina, Dagmar's Landing, Walnut Grove Marina, Delta Meadows State Park, and the Locke Boarding House.	Rural residential communities and the curvilinear form of the Sacramento River, Georgiana Slough, and Snodgrass Slough; the straight Meadows Slough and Delta Cross Channel; and more angular irrigation and drainage ditches also define the landscape. Views of Walnut Grove and historic town of Locke dominate the landscape. Flat, expansive agricultural terrain and orchards, occasionally dotted with large, mature trees are visible along roadsides and near small farmstead buildings to the south of Locke and Walnut Grove. Human made features in area include levees, flood control features, residences, warehouse/industrial buildings, bridges, marinas, transmission lines, communication towers, and roadways. The local area has nighttime lighting associated with downtown areas of Locke and Walnut Grove, residences, boats, and vehicles traveling on roadways and bridges.	The proposed project features would be visible from SR 160 and from River Road and would be visually discordant with the area's existing rural residential visual character. The operable barrier would not be very discordant with the area's visual character because they would be built where there are existing bridges. The fish screen intakes would considerably alter area's existing character by removing riparian vegetation along the Walnut Grove waterfront, introducing a large-scale industrial structure that would be visually discordant with the area's existing characteristics. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Proposed access road would be visible but not prominent in vista foreground and middleground views. Water levels in the Delta Cross Channel and Georgiana Slough would also be visibly higher. New transmission lines would be visible along River Road.	N/A.	The fish screen intakes and transmission lines would considerably alter views from SR 160 by removing riparian vegetation along the Walnut Grove waterfront, introducing a large-scale industrial structure that would be visually discordant with the area's existing characteristics.	Proposed fish screen and transmission lines would be new visually prominent feature in landscape, with elevated security lighting at and surrounding the facility used during the course of normal operations or in the area of the bridge	Landscape Sensitivity Level: High Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-5. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Terminus of Levee Road just north of the confluence of Delta Cross Channel with Snodgrass Slough (includes cKOP 215)	Foreground to middleground views of surrounding area from Levee Road and River Road; and CH E13.	Characterized by flat levee road, straight Delta Cross Channel terminus, meandering waterway Snodgrass Slough and surrounding marsh and agricultural lands. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Area is generally dark with some subdued lighting associated with existing residences and farmstead buildings. Human made features in area include levees, flood control features, residences, warehouse/industrial buildings, bridges, transmission lines, communication towers, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, the town of Walnut Grove, boats, and vehicles traveling on roadways.	The proposed project features would be visible from Levee Road and would be visually discordant with the area's existing agricultural visual character. These features would considerably alter area's existing character by removing vegetation on undeveloped land and riparian vegetation, creating prominent sunken or elevated landforms from the tunnel work areas, and the operable barrier. The operable barrier would be more discordant with the area's visual character. Proposed access road would be visible but not prominent in foreground and middleground views. Water levels in the Delta Cross Channel would also be visibly higher. New transmission lines would be visible along River Road and east of Snodgrass Slough.	N/A	N/A	Project facilities would include new lighting systems used during the course of normal operations	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Co-dominant Project's Overall Effect: Noticeable
Snodgrass Slough at Mokelumne River just south of Twin Cities Road and I-5 Interchange	Foreground to middleground views of surrounding area from Twin Cities Road; and I-5 and CH E13; Cosumnes River Preserve, Stone Lakes National Wildlife Refuge, and Delta Meadows State Park.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides, riparian areas, and near small farmstead buildings. Agricultural areas include row crops, vineyards, and orchards. The curvilinear form of Snodgrass Slough and Mokelumne River also define landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in area include levees, residences, bridges, transmission lines, communication towers, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles traveling on roadways.	The proposed project features would not be very visible from I-5 or Twin Cities Road. They would be visible from Levee Road and would be visually discordant with the area's existing visual character. The operable barrier would be discordant with the area's visual character because it would be built where there are no such facilities and would limit boat travel ways. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Proposed access road would be visible but not prominent in foreground and middleground views because it uses existing access ways. New transmission lines would be visible in the area.	N/A	N/A	Additional information needed regarding lighting at operable barriers	Landscape Sensitivity Level: Low Project's Visual Dominance: Co-Dominant Project's Overall Effect: Noticeable

Table 17D-5. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Confluence of Threemile Slough with Sacramento River at Brannan Island State Recreation Area (includes cKOPs 242–253)	Foreground to middleground views of surrounding area from Sherman Island East Levee Road; SR 160; Brannan Island State Recreation Area and Outrigger Marina.	Flat, expansive agricultural terrain dotted with large, mature trees. Recreational land uses present are associated Brennan Island State Recreation Area and Outrigger Marina. Recreational features in close proximity to operable barrier and tunnel work area include the recreational vehicle rally site and campgrounds. View also characterized by curvilinear form of Sacramento River and Threemile Slough, fluid nature of water, and riverine and riparian vegetation. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in area include levees, residences, bridges, transmission lines, communication towers, a marina, park and campground infrastructure, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, boats, and vehicles traveling on roadways.	The large scale of the proposed operable barrier would span across almost the entire view and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would prevent boat access from Threemile Slough to the Sacramento River. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Proposed access road would be visible but not prominent in foreground and middleground views because it slightly modifies existing access ways. Short segment of new transmission lines would be visible in the area.	Proposed operable barrier and tunnel works area would be visually prominent in vista foreground and middleground views	N/A		Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
Confluence of Fisherman's Cut with San Joaquin River	Foreground to middleground views of surrounding area from Twitchell Island Levee, Bradford Island Levee, and Webb Tract Levee.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of San Joaquin River; straight Fisherman's Cut; more angular irrigation and drainage ditches, fluid nature of water, and riverine and riparian vegetation also define the landscape. Several rural or recreational residences with boat slips are located along Fisherman's Cut. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in area include levees, residences, and boat slips. The local area is generally dark with lighting associated with scattered existing residences and boats.	The large scale of the proposed operable barrier would span across Fisherman's Cut and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would prevent boat access to San Joaquin River from the north end of Fisherman's Cut. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features.	N/A	N/A		Landscape Sensitivity Level: Low Project's Visual Dominance: Dominant Project's Overall Effect: Noticeable

Table 17D-5. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Head of Old River confluence with San Joaquin River	Foreground to background views of surrounding area from Upper Roberts Island and Stewarts Tract.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of San Joaquin and Old Rivers, more angular irrigation and drainage ditches, fluid nature of water, and riverine and riparian vegetation also define the landscape. The view includes an impressive, prominent view of Mount Diablo in background. Human made features in area include levees and roadways. The local area is generally dark with lighting associated with boats traveling on the San Joaquin River and Old River.	The large scale of the proposed operable barrier would span across Old River and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would prevent boat access to San Joaquin River from the northeastern end of Old River. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Short segment of new transmission lines would be visible in the area.	N/A	N/A	Proposed operable barrier would require elevated security lighting	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
Confluence of Connection Slough with Middle River	Foreground to middleground views of surrounding area from Mandeville Island Levee, South Bacon Island Levee, and McDonald Island Levee.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of Middle River and Connection Slough, more angular irrigation and drainage ditches, fluid nature of water fluid nature of water, and riverine vegetation. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. The view includes impressive, prominent view of Mount Diablo and other East Bay Hills in background. Human made features in area include levees and roadways. The local area is generally dark with lighting associated with scattered existing residences, boats, and vehicles on roadways.	The large scale of the proposed operable barrier would span across Middle River and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would prevent boat access from Middle River to Connection Slough and Franks Tract State Recreation Area, beyond and to the west. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Proposed access road would be visible but not prominent in foreground and middleground views because it uses an existing access way.	N/A	N/A	Proposed tunnel work area may require security lighting Proposed tunnel work area may require security lighting. Dredging/island removal could involve nighttime activities with construction lighting.	Landscape Sensitivity Level: Low Project's Visual Dominance: Dominant Project's Overall Effect: Noticeable

Table 17D-5. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Middle River at confluence with Empire Cut to SR 4 bridge over Middle River (includes cKOPs 254 and 255)	Foreground to background views of surrounding area from Bacon Island levee, Bacon Island Road, Woodward Island levee, and Victoria Island levee; the Burlington Northern Santa Fe Railroad; Rindge School, Bull Frog Landing Marina, and Union Point Marina.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. Row crops and vineyards are present. View also characterized by curvilinear form of Middle River and Old River, fluid nature of water, and riverine vegetation and linear landscape features such as levees, the railway, Empire Cut, Woodward Canal, North Victoria Canal, Victoria Canal, and North Canal; and the more angular form of Trapper Slough and irrigation and drainage ditches defines the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features from some locations. The view includes impressive, prominent view of Mount Diablo and other East Bay Hills in background. Human made features in area include levees, scattered residences, marinas, a school, transmission lines, and roadways. The local area is generally dark with lighting associated with scattered existing residences, marinas, a school, the ferry at West Bacon Island Road, other boats, and vehicles on roadways.	The large scale of the proposed operable barriers would span across Old River and Woodward Canal and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would prevent boat access from Middle River to Old River, Woodward Canal, and Franks Tract State Recreation Area, beyond and to the west. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Proposed access road would be visible but not prominent in foreground and middleground views because it uses an existing access way. Dredging/island would remove relatively small amount of riverine vegetation and removal or the islands would result in a considerable increase in visible water surface area compared to existing conditions and affect the W. Bacon Island Road ferry. This may affect views from Bullfrog Landing Marina and river-based residences located on nearby islands.	N/A	N/A	Proposed tunnel work area may require security lighting. Dredging/island removal could involve nighttime activities with construction lighting.	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-5. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
From SR 4 following along Victoria Canal to Clifton Court Forebay (includes cKOPs 99 and 100)	Foreground and middleground views of surrounding area from Victoria Island Levee, Roberts Island Levee, South Klein Road, West Klein Road, Bonetti Road, and Coney Island levee; SR 4; and Union Point Marina.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees, and row crops. View also characterized by curvilinear form of Middle River and Old River; straight form of Victoria Canal and North Canal; Angular form of irrigation and drainage ditches; fluid nature of water; and riverine vegetation. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features in some locations. The view includes impressive, prominent view of Mount Diablo and other East Bay Hills in background. Human made features in area include levees, scattered residences, a marina, transmission lines, and roadways. The local area is generally dark with lighting associated with scattered existing residences, scattered industrial facilities, a marina, boats, vehicles on roadways.	The large scale of the proposed operable barriers would span across Middle River and, along with the pumping plant, would alter area's existing character by introducing large-scale industrial structures that are visually discordant with the area's existing characteristics. Operable barrier would prevent boat access from portions of Middle River to the northwest to portions to the southeast, just southeast of the SR 4 bridge. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Proposed access road would be visible but not prominent in foreground and middleground views because it uses an existing access way. Dredging/island would remove relatively small amount of riverine vegetation and removal or the islands would result in a considerable increase in visible water surface area compared to existing conditions. Short segment of new transmission lines would be visible near new canal extension. New canal right-of-way with levee would result in a considerable landform change and increase of surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. Canal fill would result in an increase of land surface over existing conditions.	N/A	N/A	Proposed tunnel work area may require security lighting. Dredging/island removal could involve nighttime activities with construction lighting. Canal/canal levee would involve intensive security lighting elevated 30 feet above the surrounding area	Landscape Sensitivity Level: Low Project's Visual Dominance: Dominant Project's Overall Effect: Noticeable

Table 17D-5. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Southeast corner of Clifton Court Forebay to junction of Lindeman Road, Central Valley Project Canal, and Old River (includes cKOPs 107–111)	Foreground to middleground views of surrounding area from Herdlyn Road, Lindemann Road, Kelso Road, and Byron Highway; SR 4 and CH J4; and River's End Marina.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways in some locations. The curvilinear form and marshy areas of Old River; straight form of Victoria Canal, West Canal, Grant Line Canal, and Fabian and Bell Canal; the angular form of Central Valley Project Canal; and open water of the Clifton Court Forebay defines the landscape. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, industrial areas, boats, and vehicles on roadways. The River's End Marina is located at junction of Lindeman Road, Central Valley Project Canal, and Old River and includes some residences and businesses.	New canal right-of-way with levee would result in a considerable landform change and increase of surface water area compared to existing conditions and would introduce a large industrial scale structure to the area. Canal fill would result in an increase of land surface over existing conditions. The large scale of the proposed canal, control structure crossing the canal, and bridge across Clifton Court Forebay spillway into the new canal would alter area's existing character by introducing large-scale industrial structures that are visually discordant with the area's existing characteristics. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Proposed access road would be visible but not prominent in foreground and middleground views because it uses an existing access way. Island dredging and fill would remove buildings, boat slips, and vegetation to create a landform across the Central Valley Project Canal and Old River that prohibits access to West Canal and the Victoria Canal area. This would affect views from Hammer Island, Rivers End Marina and Storage area, and other river-based residences located nearby. Short segment of new transmission lines would be visible west of new canal extension.	Canal/canal levee south of Clifton Court Forebay would introduce a large feature into vista from Lindemann Road. Spoil/borrow area may be visually prominent from Lindemann Road. Channel realignment at Hammer Island would open vistas available from Lindemann Road.	N/A	Proposed tunnel work area may require security lighting. Dredging/island removal could involve nighttime activities with construction lighting. Canal/canal levee would involve intensive security lighting elevated 30 feet above the surrounding area	Landscape Sensitivity Level: High Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-5. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change to Light and Glare	Project's Overall Effect on Viewers
Byron Highway from Clifton Court Road to Lindeman Road (includes cKOPs 104–106)	Foreground to middleground views of surrounding area from Byron Highway, Clifton Court Road, Herdlyn Road, Mountain House Road, Byron-Bethany Road, Lindemann Road, and Kelso Road; CH J4; and Union Pacific Railroad.	Large, flat agricultural areas to north, in close proximity to hulking water conveyance features associated with Clifton Court Forebay, and south of highway. California Aqueduct and Central Valley Project Canal visible from highway. Transmission lines and a raised railroad bed on berm, running parallel to the northeast of the highway, are prominent in the immediate foreground. Some undulating elevated topography is visible in the foreground and Mount Diablo and the Black Hills are visible in the middleground and background. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, roadways, and California Aqueduct infrastructure. The local area is generally dark with lighting associated with residences, boats, trains, vehicles, and forebay facilities.	Loss of agricultural area to accommodate the proposed canal. Proposed tunnel work area would considerably alter character of area through introduction of a large new sunken or elevated landform to a landscape that is currently predominantly flat. Island dredging and fill would remove buildings, boat slips, and vegetation to create a landform across the Central Valley Project Canal and Old River. Project facilities would considerably alter area's existing character by introducing large-scale industrial structures and new large landforms that are visually discordant with the area's existing characteristics.	N/A	N/A	Dredging/island removal could involve nighttime activities with construction lighting. Canal/canal levee would involve intensive security lighting elevated 30 feet above the surrounding area	Landscape Sensitivity Level: Low Project's Visual Dominance: Dominant Project's Overall Effect: Noticeable
Confluence of Old River with San Joaquin River northwest of I-5 and Lathrop	Foreground to middleground views of surrounding area views from Old River Levees, San Joaquin River Levees, and Cohen Road.	Flat, expansive primarily agricultural terrain including row crops. View also characterized by curvilinear form of San Joaquin and Old Rivers, fluid nature of water, and riverine and riparian vegetation. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in the area include levees, farmstead residences, suburban development, and roadways. The suburban development of Lathrop and scattered residences provide subdued nighttime lighting from the east, otherwise generally dark with lighting associated with boats traveling near confluence of San Joaquin River and Old River.	The large scale of the proposed operable barrier would span across San Joaquin River and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would prevent boat access to San Joaquin River near its confluence with Old River. Tunnel work areas would also alter landforms by creating prominent sunken or elevated features. Proposed access road would be visible but not prominent in foreground and middleground views because it uses an existing access way. Short segment of new transmission lines would be visible in the area.	N/A	N/A	Proposed tunnel work area may require security lighting.	Landscape Sensitivity Level: Low Project's Visual Dominance: Dominant Project's Overall Effect: Noticeable
Source: Data compiled by DHCCP in 2010 and revised by ICF in 2011 and 2012. RTM = reusable tunnel material.							

1 **Table 17D-6. Modified Pipeline/Tunnel Alignment Alternative, Intakes 1–5 (2D)**

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
CH E9 and SR 160 from cKOP 1 to Intake 1 (includes cKOPs 2–7)	Foreground and middleground views from CH E9, SR 160, and Cliff’s Marina	Highway travelers experience views of large, mature trees and shrubs along roadside, wide meandering waters of the Sacramento River, intermittent expansive views of flat, large agricultural areas depending on traveler’s perspective on this segment of CH E9 and SR 160 that includes row crops and orchards. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, nursery, and farmstead buildings.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	N/A	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas and RTM area would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities. Proposed intake structures, sedimentation basins, storage and electrical buildings, access roads, cranes, substation, fencing and perimeter landscaping would be visually prominent in foreground views from SR 160.	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 1 and 2. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: High Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CH E9 and SR 160 from Intake 1 to Intake 2 (includes cKOPs 8–18)	Foreground and middleground views from CH E9 SR 160, and Clarksburg Marina	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Orchards and vineyards are also present. Curvilinear form and wide meandering waters of the Sacramento River, curvilinear form and marshy areas associated with Elk Slough, and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields on one side and toward Sacramento River on the other. Human made features in the area include levees, farmstead residences, railroads, roadways, the Sugar Mill complex, and the town of Clarksburg. Area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Clarksburg.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structures, sedimentation basins, intake storage and electrical buildings, access roads, cranes, substations, and transmission lines would be visually prominent in vista foreground and middleground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 1 and 2. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: High Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-6. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from Intake 1 to Intake 2	Foreground to middleground views from Scribner Road, Sacramento Southern Branch of the Union Pacific Railroad, and local farm roads and private drives	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides and near small farmstead buildings. Orchards and vineyards are also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Clarksburg. Angular irrigation and drainage ditches also define the landscape. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	New sources of security light from Intakes 1 and 2. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
CH E9 and SR 160 from Intake 2 to Intake 3 (includes cKOPs 18–34)	Foreground to middleground views from CH E9, SR 160, and Clarksburg Boat Launch	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structures, sedimentation basins, intake storage and electrical buildings, access roads, cranes, substations, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and cranes would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities. Proposed intake structures, sedimentation basins, storage and electrical buildings, access roads, cranes, substation, fencing and perimeter landscaping would be visually prominent in foreground views from SR 160.	New sources of security light from Intakes 2 and 3. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 2 to Intake 3 (includes cKOPs 18–25)	Foreground to middleground views from River Park Drive and local farm roads and private drives	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and levees of the Sacramento River and angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and prominent sunken or elevated would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	New sources of security light from Intakes 2 and 3. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-6. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
CH E9 and SR 160 from Intake 3 to Intake 4 (includes cKOPs 35–46)	Foreground to background views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings, depending on traveler’s perspective on this segment of CH E9 and SR 160 that includes row crops, vineyards, and orchards. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough and Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Levee roads slope down toward agricultural fields and the town of Hood on the east side of the Sacramento River. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structures, sedimentation basins, intake storage and electrical buildings, access roads, cranes, substations, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and pumping plants would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 3 and 4. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 3 to Intake 4 (includes cKOPs 31–35, 37, and 71–75)	Foreground to middleground views from Hood Franklin Road, 3 rd Street, 4 th Street, 5 th Street, 8 th Street, Blair Street, Cork Lane, and Sacramento Southern Branch of the Union Pacific Railroad. and local farm roads and private drives	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Orchards and vineyards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and levees of the Sacramento River and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, roadways, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. These features would be visually discordant with the area’s existing characteristics.	N/A	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 3 and 4. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-6. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
CH E9 and SR 160 from Intake 4 to Intake 5 (includes cKOPs 37–54)	Foreground to middleground views from CH E9 and SR 160	While travelling along highway, intermittent expansive views of flat, large agricultural areas, including row crops and orchards. Some momentary views of Sacramento River coursing toward horizon. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough and Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within Intake disturbance area and above ground conveyance pipeline area would be removed. These features would be visually discordant with the area’s existing characteristics.	Proposed intake structures, sedimentation basins, intake storage and electrical buildings, access roads, cranes, substations, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed Intake 4 and pumping plant would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intakes 4 and 5. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 2 to the proposed shaft site north of Lambert Road (includes KOP 71-75 and 81–88) and East-West transmission line alignment option	Foreground to middleground views from Hood Franklin Road, 3rd Street, 4th Street, 5th Street, 8th Street, Blair Street, Lambert Road, Russell Road, Sacramento Southern Branch of the Union Pacific Railroad. and local farm roads and private drives; and I-5	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Row crops, orchards, and vineyards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, roadways, transmission lines, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences and farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within intake work areas and above ground conveyance pipeline areas would be removed. These features and changes to existing vegetation would be visually discordant with the area’s existing characteristics. Perimeter landscaping and restoration of work areas would help to slightly reduce the appearance of changes.	RTM spoils areas, and stockpiles; access roads; and transmission lines may be seen in vista middleground views from Lambert and Russell Roads. Proposed shaft site, transmission lines, and RTM areas would be visually prominent in vista foreground views from Lambert Road. Perimeter landscaping would help to slightly reduce the appearance of changes.	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intake 2. New source of glare from sedimentation basins. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Table 17D-6. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from the proposed shaft site north of Lambert Road to Intermediate Forebay (includes cKOPs 81–88, 114–116, and 257)	Foreground to middleground views from Lambert Road, Herzog Road, Russell Road, Dierssen Road, and Twin Cities Road; CH E13 and I-5; and the Stone Lakes National Wildlife Refuge and Cosumnes River Preserve	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area’s background features. Riparian and wetland vegetation covers portions of the Stone Lakes National Wildlife Refuge and Cosumnes River Preserve Areas. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed RTM areas would be new visually prominent elevated landforms introduced to a landscape that is currently predominantly flat. Proposed forebay embankments north of Twin Cities Road would be new visually dominant feature. Mature ornamental tree groupings and agricultural lands located within proposed forebay, RTM, and work areas would be removed. New transmission lines would be visible near by the forebay from Twin Cities Road. These features would be visually discordant with the area’s existing characteristics.	Proposed forebay, RTM areas, and transmission lines would be visually prominent in vista foreground views from Twin Cities Road.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Mokelumne River to Potato Slough (includes cKOPs 98, 239, and 258)	Foreground to middleground views from Staten Island levee; West Walnut Grove Road, North Staten Island Road, Gas Wells Road, and SR 12; other nearby roads in the vicinity; Staten Island Sandhill Crane Habitat; and Tower Park Marina Resort, Lighthouse Marina Restaurant and Resort, and Pirates Lair Marina.	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. The curvilinear form and marshy areas associated with the North and South Mokelumne River and Potato Slough and straight and angular irrigation and drainage ditches define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area’s background features. Human made features in the area include levees, farmstead residences, transmission lines, communication towers, marina, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, trains, and vehicles on roadways.	Proposed safe haven work areas, concrete batch plants, and fuel stations would be restored after construction and not affect views. Proposed shaft sites would be new visually prominent elevated landforms introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and agricultural lands located within proposed shaft site and RTM areas would be removed. shaft sites and RTM areas would result in a considerable loss of agricultural land and change in landform compared to existing conditions. New interchange along SR 12 would introduced raised transportation structure in flat landscape. New transmission lines would be visible near RTM area from SR 12. These features would be visually discordant with the area’s existing characteristics.	Proposed safe haven work areas, concrete batch plants, and fuel stations would be restored after construction and not affect views. Proposed shaft sites, RTM areas, and transmission lines would visible in vista foreground and middleground views from West Walnut Grove Road, North Staten Island Road, Gas Wells Road, and SR 12. New interchange bridge over SR 12 would limit westbound views toward Mount Diablo.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Moderately Noticeable

Table 17D-6. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from Potato Slough to Old River (includes cKOP 254–255)	Foreground to middleground views fromBouldin Island levee, Kettleman Lane, Venice Island Levee, Mandeville Island levee, Bacon Island levee, Bacon Island Road, Woodward Island levee, and Victoria Island levee, the Burlington Northern Santa Fe Railroad, and SR 4.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along levees and roadsides. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways. The curvilinear form and marshy areas of North Mokelumne River, South Mokelumne River, Potato Slough, San Joaquin River, Connection Slough, Middle River, and Old River; and the straight form of Woodward Canal defines the landscape. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, passing trains, and vehicles on roadways.	Proposed safe haven work areas on Venice and Bacon Islands would be restored after construction and not affect views. Raised shaft sites on Mandeville and Bacon Islands would be visible from island roadways. Shaft site north of SR 4 would be visible in foreground views available from SR 4. New transmission lines would be visible along tunnel alignment. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the following locations: Mandeville Island connection to S. Bacon Island Road for Mandeville Island shaft site N. Bacon Island Road connection to shaft site west of Middle River	Raised shaft sites on Mandeville and Bacon Islands would be visible from island roadways. Shaft site north of SR 4 would be visible in vista foreground available from SR 4. New transmission lines would be visible along tunnel alignment in vista views.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Moderately Noticeable

Table 17D-6. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from Woodward Canal to Byron Highway (includes cKOPs 99, 100–112, and 197–200)	Foreground to middleground views from Clifton Court Road, Western Farms Ranch Road, Herdlyn Road, Lindemann Road, Kelso Road, Bruns Road, Byron Hot Springs Road, and Byron Highway/CH J4;; Lazy M Marina, River’s End Marina & Boat Storage, and Kings Island. Background views from the foothills, Bethany Reservoir State Recreation Area, and California Aqueduct Bikeway.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides close proximity to hulking water conveyance features associated with Clifton Court Forebay, and south of highway. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways in some locations. California Aqueduct and Central Valley Project Canal visible from highway. The curvilinear form and marshy areas of Old River and Italian Slough; straight form of Woodward Canal, North Victoria Canal and Victoria Canal; and open water of the Clifton Court Forebay defines the landscape. Angular irrigation and drainage ditches also define the landscape. Some undulating elevated topography is visible in the foreground and Mount Diablo and the Black Hills are visible in the middleground and background. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, roadways, and California Aqueduct infrastructure. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, industrial areas, boats, vehicles on roadways, and forebay facilities. The River’s End Marina & Boat Storage is located at junction of Lindeman Road, Central Valley Project Canal, and Old River and includes some residences and businesses. Lazy M Marina is located at on Italian Slough and is used for boat launching and storing.	Proposed RTM area west of Clifton Court Forebay would considerably alter character of area through introduction of a large new elevated landform to a landscape that is currently predominantly flat. Until perimeter landscaping matures, pumping plant facility would considerably alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen from Clifton Court Road, Old River, and West Canal. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the SR 4 connection to shaft site north of the highway. Expanded Clifton Court Forebay would introduce a large scale water body into view from Lindemann Road. Expanded Clifton Court Forebay would introduce more embankments into view from Byron Highway, North Bruns Way, Bruns Road, and Mountain House Road. Features would not be very visible from north of Camino Diablo Road, including Discovery Bay.	Expanded Clifton Court Forebay would introduce a large scale water body into vista from Lindemann Road. Dark pumping plant buildings and landscaping at Clifton Court Forebay would blend in background vista views available from the foothills, Bethany Reservoir State Recreation Area, and California Aqueduct Bikeway but would be prominent focal point in foreground vista views from Clifton Court Road.	N/A	Project facilities in pumping plant disturbance area would include new lighting systems used during the course of normal operations in the area of the pumping plant. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Low to Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Very Noticeable

Table 17D-6. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
Travelling by boat on waterways surrounding the alternative alignment from Mokelumne River to Clifton Court Forebay	Foreground to middleground views from waterways to island levees	Narrow riparian vegetation strips along levees with occasional islands within the waterways. Riparian vegetation is primarily herbaceous. The curvilinear form and marshy areas rivers and sloughs; and straight cuts and canals defines the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, boats, and vehicles on roadways.	Proposed shaft sites and RTM areas could alter character of area through introduction of a large new elevated landform to a landscape that is currently predominantly flat if visible over island levees. Until perimeter landscaping matures, pumping plant facility could alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen from Old River and West Canal, if visible over island levees.	Proposed shaft sites and RTM areas could alter vistas through introduction of a large new elevated landform to a landscape that is currently predominantly flat if visible over island levees. It is not likely that these features would obscure vistas, but only introduce a raised landform into them. Until perimeter landscaping matures, pumping plant facility could alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen in vista views from Old River and West Canal, if visible over island levees.	N/A	Project facilities in pumping plant disturbance area would include new lighting systems used during the course of normal operations in the area of the pumping plant. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Very Noticeable
Head of Old River at San Joaquin River	Foreground to background views of surrounding area from Upper Roberts Island and Stewarts Tract.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of San Joaquin and Old Rivers, more angular irrigation and drainage ditches, fluid nature of water, and riverine and riparian vegetation also define the landscape. The view includes an impressive, prominent view of Mount Diablo in background. Human made features in area include levees and roadways. The local area is generally dark with lighting associated with boats traveling on the San Joaquin River and Old River.	The large scale of the proposed operable barrier would span across Old River and alter area’s existing character by introducing a large-scale industrial structure that is visually discordant with the area’s existing characteristics. Operable barrier would have a boat lock to permit continued boat access to the San Joaquin River and Old River. Any tunnel work area associated with construction of the barrier would also alter landforms by creating prominent sunken or elevated features. Short segment of new transmission lines would be visible in the area.	N/A	N/A	Proposed operable barrier would require elevated security lighting	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Dominant Project’s Overall Effect: Very Noticeable

Source: Data compiled by ICF in 2015.

1 **Table 17D-7. Modified Pipeline/Tunnel Alignment Alternative, Intake 2 (5A)**

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
CH E9 and SR 160 near Intake 2 (includes cKOPs 11-25)	Foreground to middleground views from CH E9, SR 160	Mature ornamental tree groupings, orchard trees, and other agricultural features. Wooded riparian area located along canal south of Intake 3. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Elk Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. These features would be visually discordant with the area's existing characteristics.	Proposed intake structures, sedimentation basins, intake storage and electrical buildings, access roads, cranes, substations, and transmission lines would be visually prominent in vista foreground and middleground views from SR 160. Proposed intake structures and cranes would be visually prominent in vista foreground views from CH E9.	Roadway realignment of State Scenic Highway near intake. Mature ornamental tree groupings and orchard trees located within Intake disturbance areas would be removed or considerably altered relative to existing conditions, to be replaced by project-related facilities. Proposed intake structures, sedimentation basins, storage and electrical buildings, access roads, cranes, substation, fencing and perimeter landscaping would be visually prominent in foreground views from SR 160.	New sources of security light from Intake 2. New source of glare from sedimentation basins.	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Intake 2 to the proposed shaft site north of Lambert Road (includes KOP 71-75 and 81-88) and East-West transmission line alignment option	Foreground to middleground views from Hood Franklin Road, 3 rd Street, 4 th Street, 5 th Street, 8 th Street, Blair Street, Lambert Road, Russell Road, Sacramento Southern Branch of the Union Pacific Railroad. and local farm roads and private drives; and I-5	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees and bushes along roadsides and near small farmstead buildings. Row crops, orchards, and vineyards also present. Flat terrain, combined with intervening large-form dense vegetation does not permit background views. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, railroads, roadways, transmission lines, and the town of Hood. The local area is generally dark with some subdued lighting associated with existing residences and farmstead buildings, and vehicles on roadways. Higher intensity lighting is present in more developed areas such as Hood.	Proposed intake facilities would introduce large-scale industrial structures and water features associated with sedimentation basins and prominent sunken or elevated landforms from tunnel work and RTM areas would be introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and other agricultural lands located within intake work areas and above ground conveyance pipeline areas would be removed. These features and changes to existing vegetation would be visually discordant with the area's existing characteristics. Perimeter landscaping and restoration of work areas would help to slightly reduce the appearance of changes.	RTM spoils areas, and stockpiles; access roads; and transmission lines may be seen in vista middleground views from Lambert and Russell Roads. Proposed shaft site, transmission lines, and RTM areas would be visually prominent in vista foreground views from Lambert Road. Perimeter landscaping would help to slightly reduce the appearance of changes.	N/A	Project facilities in Intake disturbance area would include new lighting systems used during the course of normal operations in the area of Intake 2. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

Table 17D-7. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from the proposed shaft site north of Lambert Road to Intermediate Forebay (includes cKOPs 81–88, 114–116, and 257)	Foreground to middleground views from Lambert Road, Herzog Road, Russell Road, Dierssen Road, and Twin Cities Road; CH E13 and I-5; and the Stone Lakes National Wildlife Refuge and Cosumnes River Preserve	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. Curvilinear form and wide meandering waters of the Sacramento River; curvilinear form and marshy areas associated with Snodgrass Slough; and more angular irrigation and drainage ditches also define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Riparian and wetland vegetation covers portions of the Stone Lakes National Wildlife Refuge and Cosumnes River Preserve Areas. Human made features in the area include levees, farmstead residences, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, and vehicles on roadways.	Proposed RTM areas would be new visually prominent elevated landforms introduced to a landscape that is currently predominantly flat. Proposed forebay embankments north of Twin Cities Road would be new visually dominant feature. Mature ornamental tree groupings and agricultural lands located within proposed forebay, RTM, and work areas would be removed. New transmission lines would be visible near by the forebay from Twin Cities Road. These features would be visually discordant with the area's existing characteristics.	Proposed forebay, RTM areas, and transmission lines would be visually prominent in vista foreground views from Twin Cities Road.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable
Area surrounding pipeline/tunnel alignment from Mokelumne River to Potato Slough (includes cKOPs 98, 239, and 258)	Foreground to middleground views from Staten Island levee; West Walnut Grove Road, North Staten Island Road, Gas Wells Road, and SR 12; other nearby roads in the vicinity; Staten Island Sandhill Crane Habitat; and Tower Park Marina Resort, Lighthouse Marina Restaurant and Resort, and Pirates Lair Marina.	While travelling along roadways, expansive views of flat, large agricultural areas, including mature ornamental tree groupings, row crops, vineyards, and orchards. The curvilinear form and marshy areas associated with the North and South Mokelumne River and Potato Slough and straight and angular irrigation and drainage ditches define the landscape. Flat terrain, combined with intervening large-form dense vegetation does not permit views of area's background features. Human made features in the area include levees, farmstead residences, transmission lines, communication towers, marina, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, farmstead buildings, trains, and vehicles on roadways.	Proposed safe haven work areas, concrete batch plants, and fuel stations would be restored after construction and not affect views. Proposed shaft sites would be new visually prominent elevated landforms introduced to a landscape that is currently predominantly flat. Mature ornamental tree groupings and agricultural lands located within proposed shaft site and RTM areas would be removed. shaft sites and RTM areas would result in a considerable loss of agricultural land and change in landform compared to existing conditions. New interchange along SR 12 would introduced raised transportation structure in flat landscape. New transmission lines would be visible near RTM area from SR 12. These features would be visually discordant with the area's existing characteristics.	Proposed safe haven work areas, concrete batch plants, and fuel stations would be restored after construction and not affect views. Proposed shaft sites, RTM areas, and transmission lines would visible in vista foreground and middleground views from West Walnut Grove Road, North Staten Island Road, Gas Wells Road, and SR 12. New interchange bridge over SR 12 would limit westbound views toward Mount Diablo.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Moderately Noticeable

Table 17D-7. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from Potato Slough to Old River (includes cKOP 254–255)	Foreground to middleground views fromBouldin Island levee, Kettleman Lane, Venice Island Levee, Mandeville Island levee, Bacon Island levee, Bacon Island Road, Woodward Island levee, and Victoria Island levee, the Burlington Northern Santa Fe Railroad, and SR 4.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along levees and roadsides. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways. The curvilinear form and marshy areas of North Mokelumne River, South Mokelumne River, Potato Slough, San Joaquin River, Connection Slough, Middle River, and Old River; and the straight form of Woodward Canal defines the landscape. Angular irrigation and drainage ditches also define the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, passing trains, and vehicles on roadways.	Proposed safe haven work areas on Venice and Bacon Islands would be restored after construction and not affect views. Raised shaft sites on Mandeville and Bacon Islands would be visible from island roadways. Shaft site north of SR 4 would be visible in foreground views available from SR 4. New transmission lines would be visible along tunnel alignment. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the following locations: Mandeville Island connection to S. Bacon Island Road for Mandeville Island shaft site N. Bacon Island Road connection to shaft site west of Middle River	Raised shaft sites on Mandeville and Bacon Islands would be visible from island roadways. Shaft site north of SR 4 would be visible in vista foreground available from SR 4. New transmission lines would be visible along tunnel alignment in vista views.	N/A	Negligible	Landscape Sensitivity Level: Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Moderately Noticeable

Table 17D-7. Continued

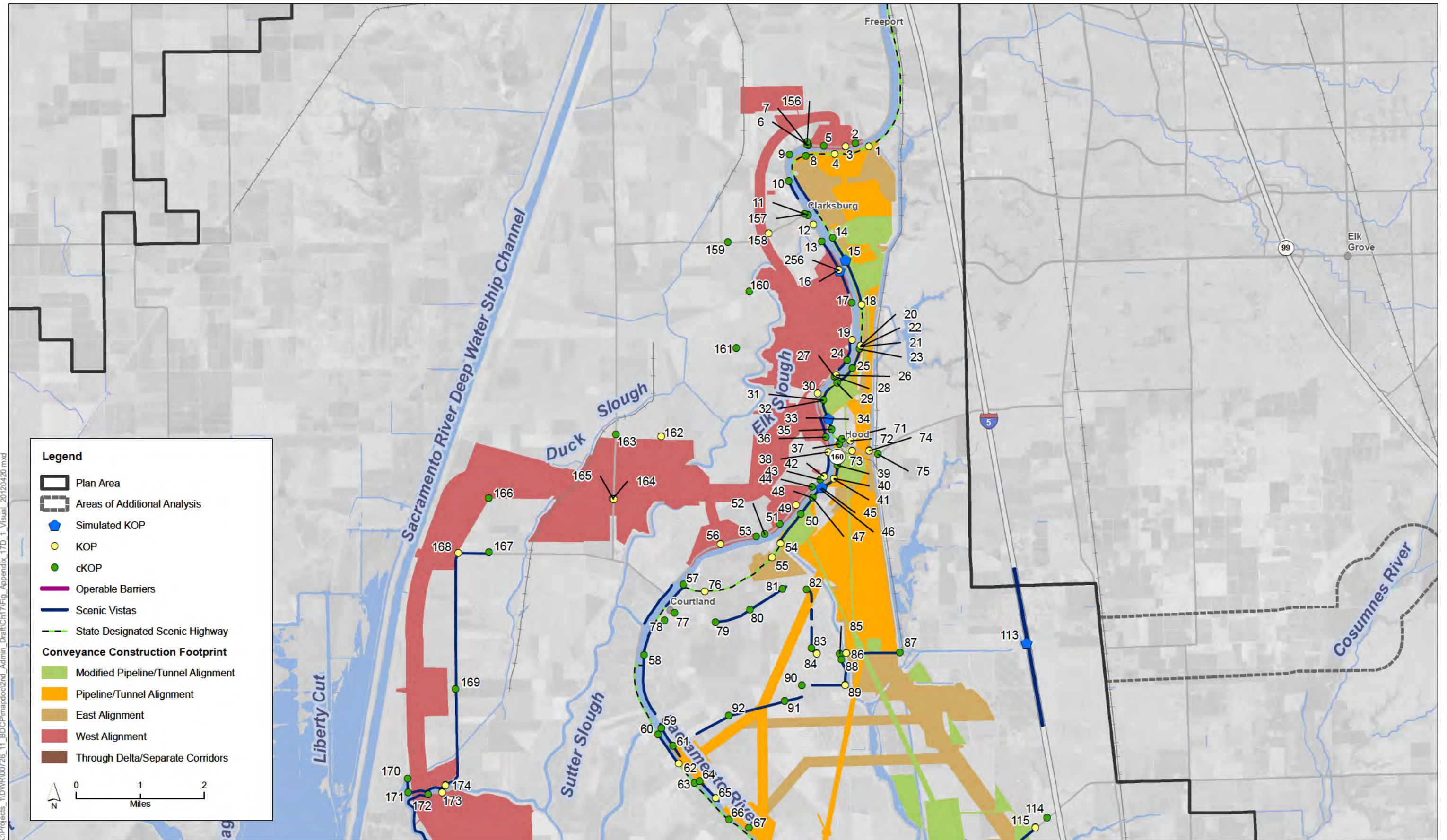
Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project’s Overall Effect on Viewers
Area surrounding pipeline/tunnel alignment from Woodward Canal to Byron Highway (includes cKOPs 99, 100–112, and 197–200)	Foreground to middleground views from Clifton Court Road, Western Farms Ranch Road, Herdlyn Road, Lindemann Road, Kelso Road, Bruns Road, Byron Hot Springs Road, and Byron Highway/CH J4;; Lazy M Marina, River’s End Marina & Boat Storage, and Kings Island. Background views from the foothills, Bethany Reservoir State Recreation Area, and California Aqueduct Bikeway.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees along roadsides close proximity to hulking water conveyance features associated with Clifton Court Forebay, and south of highway. Flat terrain, combined with intervening large-form dense vegetation does not permit background views from roadways in some locations. California Aqueduct and Central Valley Project Canal visible from highway. The curvilinear form and marshy areas of Old River and Italian Slough; straight form of Woodward Canal, North Victoria Canal and Victoria Canal; and open water of the Clifton Court Forebay defines the landscape. Angular irrigation and drainage ditches also define the landscape. Some undulating elevated topography is visible in the foreground and Mount Diablo and the Black Hills are visible in the middleground and background. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, railroads, roadways, and California Aqueduct infrastructure. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, industrial areas, boats, vehicles on roadways, and forebay facilities. The River’s End Marina & Boat Storage is located at junction of Lindeman Road, Central Valley Project Canal, and Old River and includes some residences and businesses. Lazy M Marina is located at on Italian Slough and is used for boat launching and storing.	Proposed RTM area west of Clifton Court Forebay would considerably alter character of area through introduction of a large new elevated landform to a landscape that is currently predominantly flat. Until perimeter landscaping matures, pumping plant facility would considerably alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen from Clifton Court Road, Old River, and West Canal. Proposed permanent access roads would minimally alter area’s visual character due to presence of existing paved and unpaved roads in the area and includes the SR 4 connection to shaft site north of the highway. Expanded Clifton Court Forebay would introduce a large scale water body into view from Lindemann Road. Expanded Clifton Court Forebay would introduce more embankments into view from Byron Highway, North Bruns Way, Bruns Road, and Mountain House Road. Features would not be very visible from north of Camino Diablo Road, including Discovery Bay.	Expanded Clifton Court Forebay would introduce a large scale water body into vista from Lindemann Road. Dark pumping plant buildings and landscaping at Clifton Court Forebay would blend in background vista views available from the foothills, Bethany Reservoir State Recreation Area, and California Aqueduct Bikeway but would be prominent focal point in foreground vista views from Clifton Court Road.	N/A	Project facilities in pumping plant disturbance area would include new lighting systems used during the course of normal operations in the area of the pumping plant. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Low to Moderate Project’s Visual Dominance: Subordinate Project’s Overall Effect: Very Noticeable

Table 17D-7. Continued

Viewing Location	Affected Viewshed	Existing Characteristics	Potential Project Related Change to Visual Quality and Character	Project Related Change to Vista	Project Related Change to a Scenic Roadway	Project Related Change from Light and Glare	Project's Overall Effect on Viewers
Travelling by boat on waterways surrounding the alternative alignment from Mokelumne River to Clifton Court Forebay	Foreground to middleground views from waterways to island levees	Narrow riparian vegetation strips along levees with occasional islands within the waterways. Riparian vegetation is primarily herbaceous. The curvilinear form and marshy areas rivers and sloughs; and straight cuts and canals defines the landscape. Human made features in the area include levees, farmstead residences, communication towers, transmission lines, and roadways. The local area is generally dark with some subdued lighting associated with existing residences, marinas, farmstead buildings, boats, and vehicles on roadways.	Proposed shaft sites and RTM areas could alter character of area through introduction of a large new elevated landform to a landscape that is currently predominantly flat if visible over island levees. Until perimeter landscaping matures, pumping plant facility could alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen from Old River and West Canal, if visible over island levees.	Proposed shaft sites and RTM areas could alter vistas through introduction of a large new elevated landform to a landscape that is currently predominantly flat if visible over island levees. It is not likely that these features would obscure vistas, but only introduce a raised landform into them. Until perimeter landscaping matures, pumping plant facility could alter character of area through introduction of a large new elevated landform and large-scale industrial facilities when seen in vista views from Old River and West Canal, if visible over island levees.	N/A	Project facilities in pumping plant disturbance area would include new lighting systems used during the course of normal operations in the area of the pumping plant. Perimeter landscaping would help to slightly reduce the effects of light and glare.	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Subordinate Project's Overall Effect: Very Noticeable
Head of Old River at San Joaquin River	Foreground to background views of surrounding area from Upper Roberts Island and Stewarts Tract.	Flat, expansive primarily agricultural terrain, occasionally dotted with large, mature trees. View also characterized by curvilinear form of San Joaquin and Old Rivers, more angular irrigation and drainage ditches, fluid nature of water, and riverine and riparian vegetation also define the landscape. The view includes an impressive, prominent view of Mount Diablo in background. Human made features in area include levees and roadways. The local area is generally dark with lighting associated with boats traveling on the San Joaquin River and Old River.	The large scale of the proposed operable barrier would span across Old River and alter area's existing character by introducing a large-scale industrial structure that is visually discordant with the area's existing characteristics. Operable barrier would have a boat lock to permit continued boat access to the San Joaquin River and Old River. Any tunnel work area associated with construction of the barrier would also alter landforms by creating prominent sunken or elevated features. Short segment of new transmission lines would be visible in the area.	N/A	N/A	Proposed operable barrier would require elevated security lighting	Landscape Sensitivity Level: Moderate Project's Visual Dominance: Dominant Project's Overall Effect: Very Noticeable

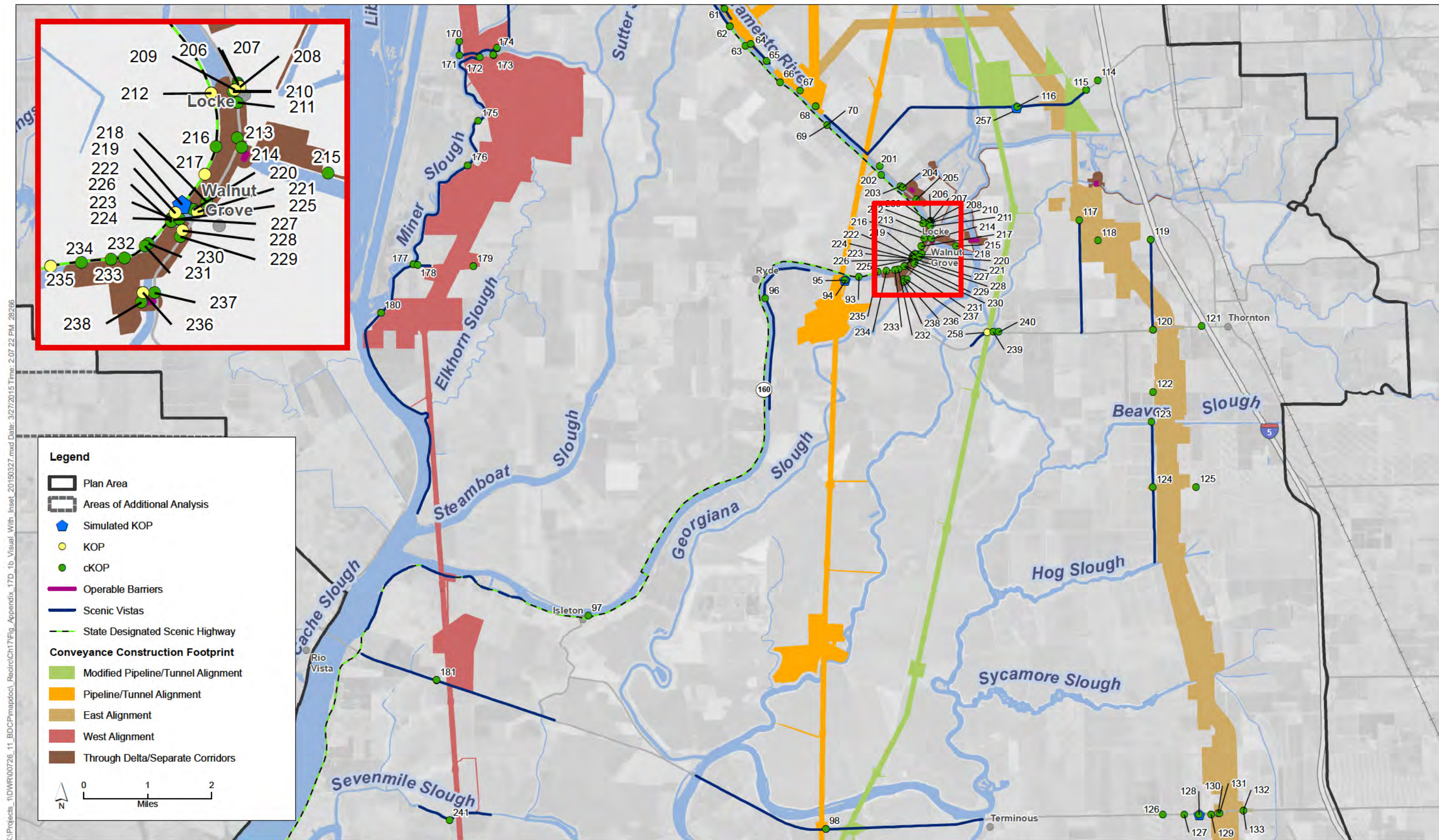
Source: Data compiled by ICF in 2015.

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Sources: Plan Area, ICF 2012; Area of Additional Analysis, ICF 2012; KOP, ICF 2013; Constructability (Rev 10), DHCCP DWR 2012; Constructability (Rev 3b), DHCCP DWR 2012; Constructability (Rev 5a), DHCCP DWR 2015

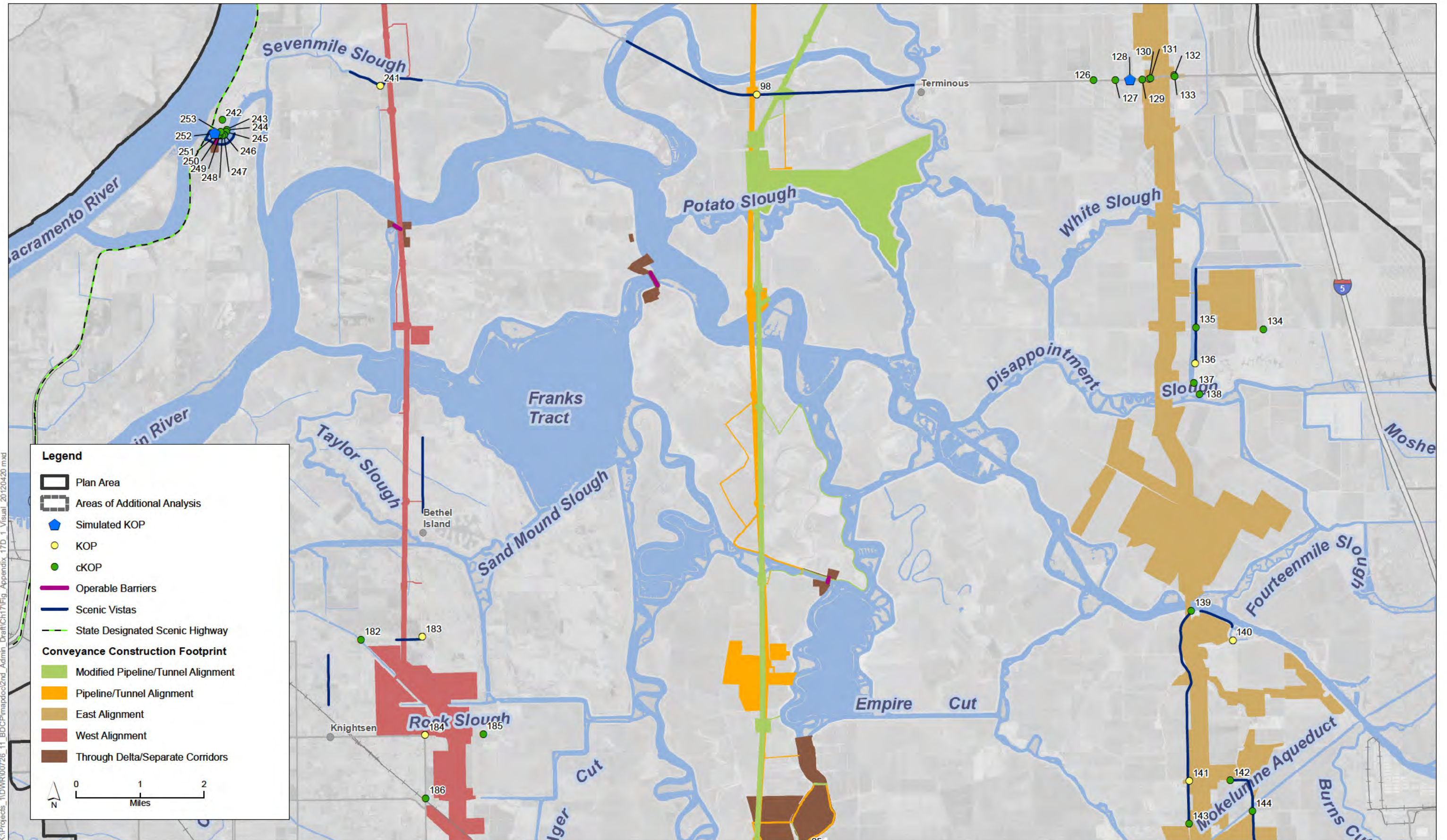
Figure 17D-1a
Key Observation Points and Proposed Photosimulation Locations



Sources: Plan Area, ICF 2012; Area of Additional Analysis, ICF 2012; KOP, ICF 2013; Constructability (Rev 10), DHCCP DWR 2012; Constructability (Rev 3b), DHCCP DWR 2012; Constructability (Rev 5a), DHCCP DWR 2015

Figure 17D-1b
Key Observation Points and Proposed Photosimulation Locations

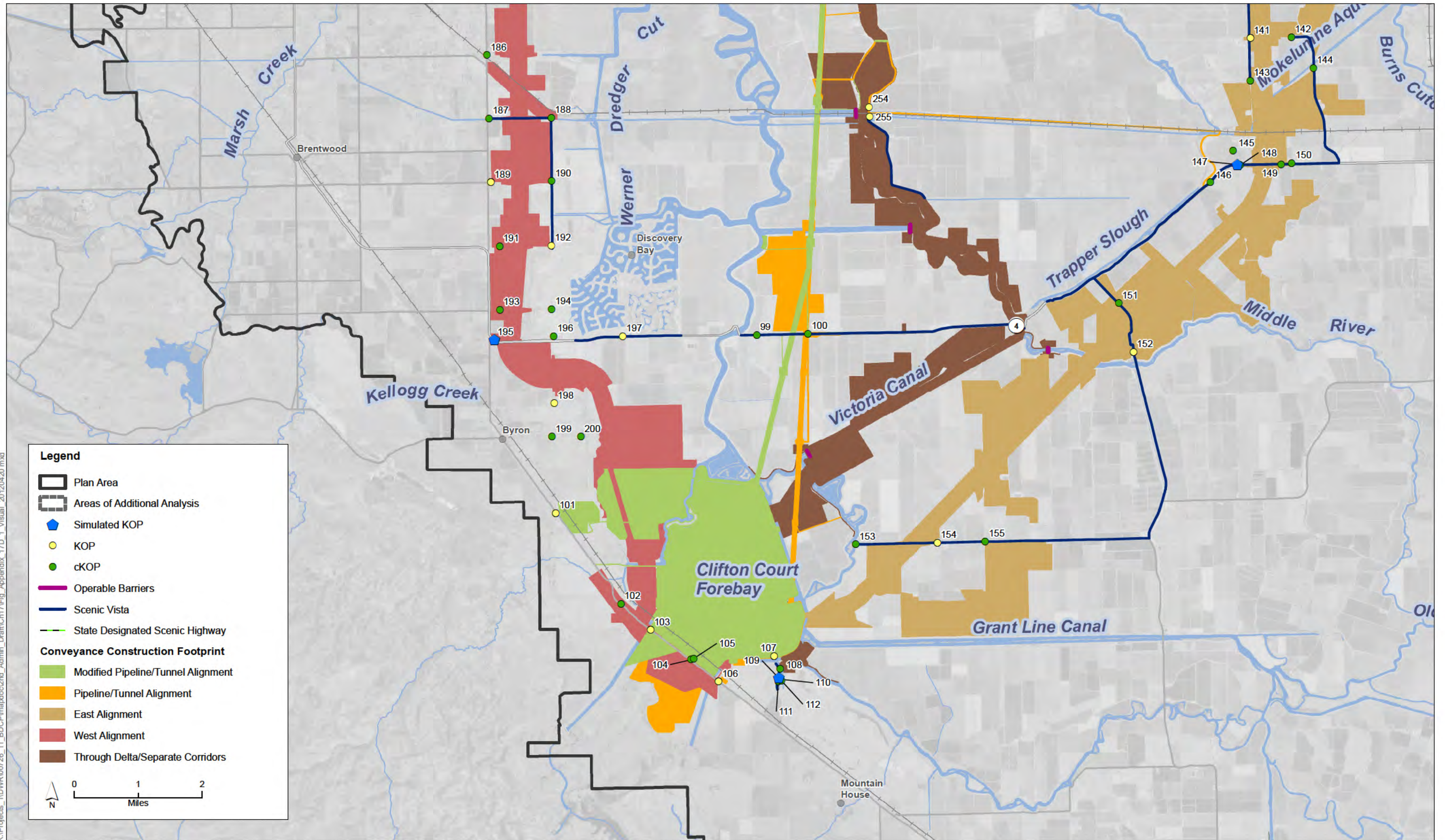
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Sources: Plan Area, ICF 2012; Area of Additional Analysis, ICF 2012; KOP, ICF 2013; Constructability (Rev 10), DHCCP DWR 2012; Constructability (Rev 3b), DHCCP DWR 2012; Constructability (Rev 5a), DHCCP DWR 2015

Figure 17D-1c
Key Observation Points and Proposed Photosimulation Locations

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Sources: Plan Area, ICF 2012; Area of Additional Analysis, ICF 2012; KOP, ICF 2013; Constructability (Rev 10), DHCCP DWR 2012; Constructability (Rev 3b), DHCCP DWR 2012; Constructability (Rev 5a), DHCCP DWR 2015

Figure 17D-1d
Key Observation Points and Proposed Photosimulation Locations