# City Of Merced Wastewater Collection System Master Plan

# DRAFT ENVIRONMENTAL IMPACT REPORT

## CHAPTER 3.1 AESTHETICS AND VISUAL RESOURCES

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# 3.1 AESTHETICS AND VISUAL RESOURCES

## 3.1.1 Basis for Analysis

The California Environmental Quality Act (CEQA) Guidelines' Appendix G Environmental Checklist was used during the Notice of Preparation (NOP) scoping process (included in Appendix A) to identify the Program components that have the potential to cause a significant impact. The following potential impacts were determined to warrant further evaluation within this Environmental Impact Report (EIR):

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public Views are those that are experienced from a publicly accessible vantage point). If the Project is in an urbanized area, the potential of the project to conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The remainder of this section describes the regulatory and environmental setting to support the evaluation of the potential impacts and describes the potential impacts to aesthetics and visual resources that may result from implementation of the Program, identifying mitigation for significant impacts, where feasible.

## 3.1.2 Regulatory Framework

This section discusses the federal and state regulations and local policies and objectives relevant to the Program that are related to aesthetics and visual resources.

### 3.1.2.1 Federal and State

There are no federal or state scenic designations within the Program Study Area, thus, no federal or state regulations apply.

### 3.1.2.2 Local

#### Merced Vision 2030 General Plan

The City of Merced (City) Merced Vision 2030 General Plan (2030 General Plan), adopted January 3, 2012 (City of Merced 2012), contains goals and policies that directly or indirectly pertain to aesthetics, light, and glare, including the following:

**Goal Area OS-1: Open Space for the Preservation of Natural Resources.**

- **Policy OS-1.3. Promote the Protection and Enhancement of Designated Scenic Routes.** Historically, the City of Merced has developed along routes and corridors which have come to be part of the City's identity. The City has designated many of these scenic routes for special development review regulation in the past. This practice has served the City well and will be continued into the future.

The 2030 General Plan further designates the following Scenic Corridors within the City's Specific Urban Development Plan/ Sphere of Influence (SUDP/SOI):

- North and South Bear Creek Drive within the City limits
- N Street from 16th Street to the Merced County Courthouse
- 21st Street from the Merced County Courthouse to Glen Avenue
- M Street from Black Rascal Creek to Bellevue Road
- West 28th Street from M Street to G Street
- Lake Road from Yosemite Avenue to Lake Yosemite
- R Street (extended) from Black Rascal Creek to Bellevue Road
- Olive Avenue East of McKee Road
- M Street from 18th Street to Bear Creek
- Campus Parkway
- Bellevue Road from Lake Road to G Street

The 2030 General Plan also includes the following implementation measure to preserve these designated scenic corridors:

- Utility lines should be placed underground wherever feasible.
- Signing should be carefully controlled to insure that it does not detract from the scenic beauty of the corridor. Specific guidelines for signing along these corridors should be established.
- Limit the intrusion of future land uses which may detract from the scenic quality of the corridor.
- Unsightly mechanical and utility structures shall be screened from view by the use of planting, grading, and fencing.
- Heights and setbacks of buildings should be regulated to avoid obstructing important scenic views.
- Every effort should be made to preserve and properly maintain existing stands of trees and other plant materials of outstanding value.
- Structures on private and public properties visible from the corridor should be maintained in good condition (free of trash, weeds, etc.).
- Architectural and landscape design should result in an attractive appearance and a harmonious relationship with the surrounding environment.

Additionally, the 2030 Draft General Plan EIR subsequently describes scenic vistas within the City, which include views of natural features such as topography, water courses, rock outcrops, natural vegetation, and manmade structures (City of Merced 2010).

## 3.1.3 Environmental Setting

Aesthetic resources are those natural resources, landforms, vegetation, and manmade structures in the region and local environment that generate sensory reactions and evaluations by viewers. Potential viewers in the Program Study Area include local residents, roadway users, recreationalists, and commercial users throughout the Program Study Area. These viewer groups are discussed in more detail below.

The Program Study Area is located within the Central Valley of California, just west of the Sierra Nevada Mountain Range near the geographic center of Merced County. The Program Study Area consists of gently rolling terrain, with flatter areas occurring near the southern boundaries. The Program Study Area does not contain any designated scenic vistas; however, the 2030 General Plan EIR does identify general scenic vistas such as water courses and natural vegetation and the 2030 General Plan designates scenic corridors within the City's SUDP/SOI as outlined in Section 3.1.2.2. Land uses within the Program Study Area consist of an urban environment surrounded by low-

density residential development and agricultural areas. As detailed in the Section 2.0, Project Description, major highways that provide regional and local access within the Program Study Area include State Routes (SR) 59, 99, and 140. Additionally, several creeks traverse the Program Study Area, including Bear Creek, Black Rascal Creek, Fahrens Creek, Parkinson Creek, and Cottonwood Creek.

#### 3.1.3.1 Viewer Groups

##### Residents

Residences occur throughout the Program Study Area, with the largest concentration of residences occurring near the center of the City (i.e., near Main Street). Residence types vary from single-family homes to apartment buildings. In general, residential views can be spilt into two categories: neighborhood views and rural (agricultural) views. Residents who live in single-family-type neighborhoods have views typical of a residential neighborhood including surrounding residences, varied native and ornamental vegetation, roadways with moving vehicular traffic, and the occasional maintenance activities associated with existing utilities such as sewer or power lines. Residences that occur on the outer portions of the Program Study Area have views more typical of an agricultural setting, with flat or gently sloping lands for growing crops, agricultural activities such as movement of tractors or other farm equipment, and general traffic from surrounding roadways. Exposure level is high for residences in both of these settings (neighborhood and rural) because their length of exposure is long, and their positions are fixed. Rural residences could have a slightly higher viewer sensitivity since their views are generally unobstructed by other buildings and the surrounding topography is typically flat, allowing for further viewing distances.

##### Recreational Users

Recreational users vary throughout the Program Study Area depending on location and type of recreational activity. There are several parks throughout the Program Study Area as well as bike paths, trails, tennis courts, ball fields, and general open space for public access. Additionally, Lake Yosemite, located just outside of the Program Study Area north of University of California, Merced (UC Merced), attracts a large number of recreational users throughout the year, particularly from UC Merced. Visitors from UC Merced typically travel by bike from the campus along Lake Road to the lake itself. The use of bikes and bicycle paths has been increasing since the UC Merced Campus became operational, which has increased recreational use of local roadways both within the existing campus and the surrounding community (City of Merced 2010). In the future, as the campus grows in number of students, recreational use within the UC Merced Campus and in the surrounding community is likely to increase.

Recreational views generally consist of native and ornamental vegetation and traffic on local roadways, and could include views of existing bike paths, other pedestrians and recreational users, residences, and the surrounding topography of the area where the recreational activity is taking place. Exposure level for recreational users varies from high to low depending on location of the recreational activity (i.e., in a natural setting versus a human-made area such as a bike path) and movement during recreational activity (i.e., just passing through an area on a bike versus a stationary activity such as picnicking at a local park).

##### Roadway Users

Motorists on roadways within the Program Study Area would have views typical of roadway traffic such as movement of other vehicles, passing signs, buildings, and vegetation, occasional construction work within roadways, and passing pedestrians in crosswalks and sidewalks. These views could range from full exposure to limited exposure

depending on topography of the surrounding landscape and obstacles that could obstruct views. Motorists' exposure when assessing Program impacts would be considered low since their speed and movement allows for only short-duration views of stationary objects.

#### Commercial/Industrial Users

Commercial and industrial businesses are spread throughout the Program Study Area; however, the majority of commercial business activity is concentrated around the center portion of the City, along SR 99 and 59, and industrial businesses are more concentrated near the western portion of the City. Commercial and industrial users consist of the public who are generally only briefly in any one business for any period of time, and commercial and industrial business staff who would be considered a more stationary user since their positions are fixed throughout the day.

### 3.1.3.2 Visual Sensitivity

Viewer sensitivity levels within the Program Study Area would depend on the location of a particular viewer and how fixed their views are. Generally, fixed views that would be closer to construction activities would have a high viewer sensitivity, while temporary or passing views would have a lower viewer sensitivity.

## 3.1.4 Environmental Impacts

This section analyzes the Program's potential to result in significant impacts to aesthetics and visual resources. When a potential impact was determined to be potentially significant, feasible mitigation measures (MMs) were identified to reduce or avoid that impact.

### 3.1.4.1 Impact Analysis

**Impact AES-1 Potential to have a substantial adverse effect on a scenic vista.**

#### Impact AES-1 Analysis
*Program Impacts*

Construction and Operation

The 2030 Draft General Plan EIR defines scenic vistas as expansive views of highly valued landscapes from publicly accessible viewpoints. Scenic vistas include views of natural features such as topography, water courses, rock outcrops, and natural vegetation as well as manmade scenic structures (City of Merced 2010). Given the unrelieved topography of the City and Program Study Area, there are no officially designated scenic vistas and the majority of vistas will be local. Most areas of the Program Study Area have views of the Sierra Nevada and the Coast Range, when air quality permits. Program features are predominately underground, located on the outskirts of the City (generally away from visual receptors), and are not expected to be tall enough to significantly impact the views of the few existing residents within viewing distance.

The 2030 General Plan EIR evaluated the change in visual character within the Program Study Area noting that the area will eventually change from open agricultural fields and pastureland to urban development (City of Merced 2010).The 2030 General Plan identifies scenic corridors (identified in Section 3.1.2, Regulatory Framework above) intended to preserve the scenic corridors and resources by promoting the protection and enhancement of scenic routes. Table 3.1-1 outlines the intersection of the scenic corridor with proposed Program and Project features.

## Table 3.1-1 Program Study Area Overlap with Scenic Corridors

| Designated Scenic Corridor | Potential for Program Impacts |
|---|---|
| North and South Bear Creek Drive within the City limits | Along Bear Creek within Existing North and South Merced Service Areas (respectively), outside anticipated Program development locations |
| N Street from 16th Street to the Merced County Courthouse | Within Existing South Merced Service Area, outside anticipated Program development locations |
| 21st Street from the Merced County Courthouse to Glen Avenue | Within Existing South Merced Service Area, outside anticipated Program development locations |
| M Street from Black Rascal Creek to Bellevue Road | Within Existing North Merced Service Area, potentially adjacent to Program development along open space adjacent to M Street. Intersection of M Street and Bellevue Road adjacent to Northern Trunk Sewer Pipeline Alignment. |
| West 28th Street from M Street to G Street | Along Bear Creek within Existing South Merced Service Area, outside anticipated Program development locations |
| Lake Road from Yosemite Avenue to Lake Yosemite | Within Existing North Merced Service Area, potentially adjacent to Program development along open space at Lake Road and E Cardella Road. Intersection of Lake Road and E Cardella Road adjacent to Northern Trunk Sewer Pipeline Alignment. |
| R Street (extended) from Black Rascal Creek to Bellevue Road | Within Existing and Future North Merced Service Area, potentially adjacent to Program development along open space at R Street (extended) and Bellevue Road. Intersection of R Street (extended) and Bellevue Road adjacent to Northern Trunk Sewer Pipeline Alignment. |
| Olive Avenue East of McKee Road | Within Existing North and South Merced Service Areas (respectively), outside anticipated Program development locations |
| M Street from 18th Street to Bear Creek | Within Existing South Merced Service Area, outside anticipated Program development locations |
| Campus Parkway | Within Existing and Future South and North (when extended) Merced Service Area, potentially adjacent to Program development locations. Part of the Southern Trunk Sewer Pipeline Alignment runs through Campus Parkway. |
| Bellevue Road from Lake Road to G Street | Within Future and Existing North Merced Service Area, potentially adjacent to Program development locations. Intersection of E Bellevue Road and G Street adjacent to the G Street Trunk Sewer portion of the Northern Trunk Sewer Pipeline Alignment. |

Impacts to scenic corridors resulting from Program components would occur if construction activities were to take place over prolonged periods of time within these designated corridors or if a permanent above-ground features would obstruct views within these corridors (i.e., placement of pump stations), or if above ground facilities were left unmaintained or in disrepair. The Program and proposed Trunk Sewer Projects would overlap five of the designated scenic corridors:

- M Street from Black Rascal Creek to Bellevue Road,
- Lake Road from Yosemite Avenue to Lake Yosemite,
- R Street (extended) from Black Rascal Creek to Bellevue Road,
- Campus Parkway, and
- Bellevue Road from Lake Road to G Street.

Although there is geographic overlap with the scenic corridors and Program features, trunk and collector sewers would be in the existing and planned roadways in all five of these corridors and would be predominately underground.

While construction activities and vehicles may temporarily disrupt the scenic nature the overall nature and viewscape of the corridor would be preserved and no significant impact would occur. It is possible that pump stations or other above ground future Program components could be identified as necessary within these scenic corridors. These above ground features are compliant with the City's 2030 General Plan guidelines. As described in Section 2.0, Project Description, pump stations and above ground facilities would be enclosed in small buildings (less than 2,000 square feet) or utility boxes (approximately 1 to 5 square feet) which would be screened from view by the use of planting, grading, and fencing if determined to be unsightly. Structures visible from the corridor (and throughout the Program) would be maintained in good condition (free of trash, weeds, etc.) and the architectural and landscape design would be selected in accordance with City design standards similar to existing pump stations and above ground sewer facilities within the City to provide an attractive appearance and a harmonious relationship with the surrounding environment. As a result, above ground Program features would be consistent with the 2030 General Plan guidelines and would result in a less than significant impact to scenic vistas or corridors.

The wastewater treatment and reclamation facility (WWTRF) sits on a secluded parcel removed from potential visual receptors and scenic corridors neither construction or operation would not substantially affect scenic corridors in this area and no impact would occur.

Therefore, impacts resulting from the Program would be considered less than significant.

**Level of Significant Prior to Mitigation:** Less than Significant

**Mitigation Required**: None Required

**Level of Significance After Mitigation**: Less than Significant

### *Proposed Project: New Trunk Sewer Infrastructure Impacts*

Construction

Installation of the new trunk sewer infrastructure would occur largely on the outer portions of the Program Study Area and the City's SUDP/SOI limits in existing and planned roadways. Similar to the Program discussion above, scenic vistas within the Project corridors are localized with views of the Sierra Nevada mountains on clear days. Project construction could intermittently and unsubstantially interfere with these localized vistas; however, the impact would be limited to where viewers are located which would be very infrequent along the Project alignments. Additionally, the majority of viewers would be roadway users and would be moving past construction equipment where their views would momentarily be impacted if at all. Thus, the proposed New Trunk Sewer Infrastructure Projects would have a less than significant construction related impact to scenic vistas.

As noted in Table 3.1-1 and described for the Program impacts above, designated scenic corridors that overlap proposed Project components are limited to the intersections of M Street and Bellevue Road, Lake Road and E Cardella Road, R Street (extended) and Bellevue Road, E Bellevue Road and G Street, and along Campus Parkway. Project features in these areas would be almost entirely underground consistent with the 2030 General Plan policy (See Section 3.1.2.2 above). Construction in these areas would be short in duration and would not significantly alter the views within these designated corridors. Therefore, the proposed New Trunk Sewer Infrastructure Projects would have a less than significant construction related impact to scenic vistas.

Operation

Once constructed pipelines would be subsurface and no potential impact to scenic vistas or scenic corridors would occur. Therefore, there would be no operational impacts related to the new trunk sewer infrastructure.

**Level of Significant Prior to Mitigation:** Less than Significant

**Mitigation Required**: None Required

**Level of Significance After Mitigation**: Less than Significant

### *Proposed Project: WWTRF Expansion Impacts*

**Construction and Operation**

The existing WWTRF footprint is located outside all designated scenic corridors, as identified in the 2030 General Plan and has no nearby visual receptors who would experience localized scenic vistas. The expansion to the existing WWTRF would therefore have no impact to scenic vistas and corridors.

**Level of Significance Prior to Mitigation:** No Impact

**Mitigation Required:** None Required

**Level of Significance After Mitigation:** No Impact

## Impact AES-1 Findings

**Level of Significant Prior to Mitigation:** Less than Significant

**Mitigation Required**: None Required

**Level of Significance After Mitigation**: Less than Significant

**Impact AES-2 Potential to damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway.**

## Impact AES-2 Analysis

### *Combined Program/Proposed Project Impacts*

Construction and Operation

According to the California Department of Transportation (Caltrans) list of Eligible and Officially Designated Scenic Routes, there are no officially designated state scenic highways within the Program Study Area, and thus, implementation of the Program would have no potential to damage resources within a scenic highway (Caltrans 2018). The nearest designated scenic highway to the City is Highway 5, which is located approximately 30 miles to the west of the City (Caltrans 2018). As such, no impact would occur, and no mitigation measures would be required.

**Level of Significance Prior to Mitigation:** No Impact

**Mitigation Required:** None Required

**Level of Significance After Mitigation:** No Impact

## Impact AES-2 Findings

**Impact AES-2 Overall Level of Significance Prior to Mitigation:** No Impact

**Impact AES-2 Mitigation Required:** None Required

**Impact AES-2 Overall Level of Significance After Mitigation:** No Impact

| | |
|---|---|
| **Impact AES-3** | **In non-urbanized areas, potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public Views are those that are experienced from a publicly accessible vantage point). If the Project is in an urbanized area, the potential of the project to conflict with applicable zoning and other regulations governing quality.** |

## Impact AES-3 Analysis

### *Program Impacts*

A project is considered to "substantially degrade" the visual character or quality of a site if it would have a strong negative influence on the public's experience and appreciation of the visual environment. As such, visual changes are always considered in the context of a site's or locale's visual sensitivity. Visual changes caused by a project are evaluated in terms of their visual contrast with the area's predominant landscape elements and features, their dominance in views relative to other existing features, and the degree to which they could block or obscure views of aesthetically pleasing landscape elements.

Construction and Operation

The construction impacts, as they relate to aesthetics, would involve views of construction equipment (e.g., trucks, excavation equipment, protective fencing, construction workers) in and around the footprints of the pipelines, pump stations, and WWTRF expansion, and any resulting disruption in the immediate visual environment due to the presence of such equipment. The presence of construction equipment by itself would not result in a significant effect as construction activities of various sorts (including trucks and tractors entering and exiting roadways) are common events, and the presence of construction equipment within the urban and rural areas within the Program Study Area is not unusual.

Construction of Program components would affect local views for residents (i.e., when they leave or enter their properties from public access points), recreationalists, motorists, and commercial users including views of staging areas and construction equipment throughout the Program Study Area. Construction of Program components would include movement and storage of equipment and materials within staging areas, as well as the operation of worker vehicles and construction equipment on the nearby roads. Construction of the Program would include the activities described in Section 2.4 of the Project Description such as vegetation removal, excavation and trenching, pipeline installation, pump station installation, appurtenance installation, grading, backfilling, and site restoration. Temporary visual impacts would occur throughout construction of the Program, with the average project lasting less than 2 years. Any staging areas needed for the Program would be approved and cleared by the City before use as needed during construction. Additionally, stationary construction sites (i.e., staging areas, the pump station site associated with the

Northern Trunk Sewer, and future pump station sites) have the potential to be fenced as needed, which would alter the views of the construction sites from construction activities to fencing materials, however, fencing would be consistent with the 2030 Genal Plan policy described in Impact AES-1 and in Section 3.1.2.2, Regulatory Setting . Construction dust and particulate matter that could be generated from construction of proposed Projects under the Program could be visible but for the regulatory limits on fugitive dust imposed by the local San Joaquin Valley Air Pollution Control District's Fugitive Dust Rule (as analyzed and described in Section 3.3, Air Quality), which would limit generation of dust and particulate matter from construction or stockpiling activities occurring at individual proposed Project sites. Therefore, impacts from staging areas, operation of construction equipment, and dust generated by construction of the Program would result in a less than significant impact to the existing visual character and quality of the area.

Typical views within the Program Study Area for sensitive receptors could be negatively affected by construction activities that would occur during implementation of the Program, particularly in the case of residential viewers who have fixed views from public vantage points (i.e., sidewalks and streets in front of houses) and could encounter construction activities as close as 25 feet from homes during pipeline placement. However, as discussed in Section 3.1.3, Environmental Setting, residential views include occasional construction work and traffic within the region under existing conditions, and views would be intermittent depending on location and obstructions blocking views. Further, construction activities would not be concentrated in any one location within the Program Study Area but would be spread out throughout the Program Study Area. Ultimately, no one neighborhood or residence would be impacted for an extended period of time. Recreational, motorist, and commercial/industrial views of construction activities would be less impacted by visual changes in the environment from construction due to movement throughout the Program area and distance from construction activities. Therefore, construction impacts to residents, as well as recreation, motorists, and commercial and industrial viewers would be less than significant, and the existing visual character and quality of the area would not be substantially affected for these viewer groups.

Once built there is the potential for landscape scarring if non paved sites and paved sites are not returned or restored to existing conditions or better. If not restored the Program and Projects could have a lasting potentially significant impact on visual character that would be noticeable from multiple viewers and vantage points. Any sites disturbed during construction activities, including staging areas, would need to be restored to pre-construction conditions to avoid lasting visual impacts to the visual character. This site restoration would be implemented through MM AES-1, Restoration of Disturbed Areas, which would restore disturbed areas through regrading to allow for historic drainage, repaving of roadways, and seeding of native grasses and other vegetation where necessary to avoid long-term land scarring. This would reduce associated impacts to the long-term visual character of project sites within the Program Study Area to a less than significant level.

Therefore, the overall construction-related impacts resulting from the Program to the existing visual character of the area would be less than significant with MM AES-1 incorporated.

Once constructed, the majority of Program components, including new pipelines, would be located underground and would not be visible to the public. Various appurtenances and pump stations (ranging in size from a few feet for control panels to 100-2,000 square feet of enclosed structures or fenced areas for pump stations) could be located above-ground and could have adverse permanent visual impacts to the surrounding area if the architecture of these features is not designed to match the existing visual character of the area. Therefore, MM AES-2, Guidance for Design and Maintenance of Above Ground Facilities, would be implemented requiring above-ground facilities to be designed to match the existing surroundings (i.e., choosing colors and finishes that would match the existing

buildings and/or surrounding landscape). Implementation of this MM would result in above-ground structures that blend with the surrounding landscape and reduce long-term visual impacts associated with permanent above ground features to a less than significant level.

**Level of Significance Prior to Mitigation:** Potentially Significant

**Mitigation Required:** MM AES-1 and MM AES-2

**Level of Significance After Mitigation:** Less than Significant

### *Proposed Project: New Trunk Sewer Infrastructure Impacts*

Construction and Operation

Installation of the new Trunk Sewer Infrastructure Projects would result in similar impacts to the existing visual character of the Program Study Area as described for the overall Program above. Since a majority of the new trunk sewer infrastructure would occur on the outer edges of the Program Study Area and the City (i.e., along Thornton Road, East Mission Avenue, and East Bellevue Road), these installations would impact fewer viewer groups due to the existing rural nature and limited number of sensitive receptors of these areas. However, since these new trunk sewers would still involve construction activities that would traverse areas with some viewers (i.e., rural residences located on or near agricultural properties), a potentially significant impact related to degradation of the existing visual character could occur prior to mitigation. Therefore, MM AES-1 would be required for the new trunk sewer infrastructure to prevent long-term visual impacts associated with land scarring from staging areas and pipeline work not within existing or planned roadways. With implementation of MM AES-1, proposed Project sites would be returned to pre-construction conditions, and therefore, would not result in any long-term land scarring or other visual impacts.

Additionally, the new pump station associated with the Northern Trunk Sewer Project would be located in an area adjacent to sensitive receptors, which could result in a permanent change to the visual character of the area. As such, MM AES-2 would be implemented to limit visual impacts of the new pump station associated with the Northern Trunk Sewer by including elements in the design of the structure that would match the existing visual character of the surrounding area. With implementation of MM AES-2, the new pump station associated with the Northern Trunk Sewer would be located within an approximate 2,000-square-foot structure that would look similar to other residences in the area, rather than a municipal service zone or industrial area. Therefore, construction and operational impacts related to the new trunk sewer infrastructure as they relate to the existing visual character would be less than significant within MM AES-1 and MM AES-2 incorporated.

**Level of Significance Prior to Mitigation:** Potentially Significant

**Mitigation Required:** MM AES-1 and MM AES-2

**Level of Significance After Mitigation:** Less than Significant

### *Proposed Project: WWTRF Expansion Impacts*

Construction and Operation

Unlike the Program and new trunk sewer infrastructure discussions above, the WWTRF footprint and surrounding area does not include any nearby sensitive receptors or significant viewer groups that could be affected by changes to the visual character of the site. The existing visual character of the WWTRF footprint includes paved and dirt roadways, irrigated pasture, and maintenance and control buildings supporting operations of the WWTRF. Therefore, any expansions to the WWTRF would be consistent with the existing visual character of this area and would not constitute a significant impact.

**Level of Significance Prior to Mitigation:** Less than Significant

**Mitigation Required:** None Required

**Level of Significance After Mitigation:** Less than Significant

## Impact AES-3 Findings

**Impact AES-3 Overall Level of Significance Prior to Mitigation:** Potentially Significant

**Impact AES-3 Mitigation Required:** MM AES-1 and MM AES-2

**Impact AES-3 Overall Level of Significance After Mitigation:** Less than Significant

**Impact AES-4 Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

## Impact AES-4 Analysis

### *Program Impacts*

Construction

Temporary construction lighting associated with construction staging areas and nightshift work crews would have the potential to create a new source of light, which could temporarily affect views in the area. If not appropriately implemented, this temporary light source could result in lighting that could adversely affect nighttime views in the area for nearby residences, commercial and industrial businesses, motorists, and recreational users, thus resulting in a potentially significant impact prior to mitigation. However, these temporary impacts from construction lighting would be reduced to a less than significant level with the implementation of MM AES-3, Use of Best Management Practices to Minimize Lighting Impacts from Construction and Operation, which would implement protective measures such as selecting warm-toned lights and facing light fixtures in a downward direction to minimize potential impacts from temporary lighting. These measures would reduce nighttime glare from leaving the site and adversely affecting nearby sensitive receptors. Therefore, the Program's potential to create a new source of light or glare during construction would be less than significant with the implementation of MM AES-3.

Operation

Permanent sources of lighting would be limited to new upgrades at the WWTRF (see WWTRF Expansion Impacts below) and for related maintenance or pump station buildings that could occur along pipeline alignments. If new permanent sources of light are situated near a residence or other sensitive receptor that could have prolonged views, this could result in a permanent significant impact prior to mitigation. As such, these new sources of permanent light

would be required to comply with the restrictions identified in MM AES-3, and therefore, operational impacts related to Program lighting would be less than significant with mitigation incorporated.

**Level of Significance Prior to Mitigation:** Potentially Significant

**Mitigation Required:** MM AES-3

**Level of Significance After Mitigation:** Less than Significant

### *Proposed Project: New Trunk Sewer Infrastructure Impacts*

Construction and Operation

Construction and operation of the new trunk sewer infrastructure would include the similar impacts as described for construction and operational lighting for the Program impacts above. The new pump station associated with the Northern Trunk Sewer would include permanent above-ground lighting for security and maintenance purposes. This new lighting source could result in a potentially significant impact prior to mitigation if the lighting from this structure adversely affects (i.e., shines directly toward) nearby sensitive receptors. Specifically, there is a residence located approximately 50 feet across Belcher Avenue from the two properties identified as potential pump station locations. In order to ensure that permanent above-ground lighting impacts are reduced to a less than significant level, MM AES-3 would be implemented. MM AES-3 would include implementation of protective measures such as selecting warm-toned lights and facing light fixtures in a downward direction to minimize potential impacts from temporary lighting. These measures would reduce nighttime glare from leaving the site and adversely affecting nearby sensitive receptors. Additionally, MM AES-3 includes construction-related lighting measures such as identifying when and where lighting is needed, confining and minimizing lighting to the extent necessary to meet safety purposes, selecting warm color temperature bulbs (less than 5,000K), limiting the height of fixtures to minimize the amount of light crossing property lines and overall light levels, and using temporary lighting shields during construction where construction lighting impacts to sensitive receptors cannot be avoided. These measures would ensure that sensitive receptors within any of the New Trunk Sewer Infrastructure Project footprints are not adversely affected by any construction or operational lighting. Therefore, impacts related to substantial lighting and glare associated with the new trunk sewer infrastructure would be less than significant with MM AES-3 incorporated.

**Level of Significance Prior to Mitigation:** Potentially Significant

**Mitigation Required:** MM AES-3

**Level of Significance After Mitigation:** Less than Significant

### *Proposed Project: WWTRF Expansion Impacts*

Construction and Operation

Construction lighting impacts would be similar to those described for the Program above. Operational lighting at the WWTRF would likely include new permanent lighting within the footprint of the existing WWTRF and may result in a significant impact prior to mitigation if this new lighting is not consistent with the existing lighting at the WWTRF or substantially affects nighttime views or operations for the nearby Merced Regional Airport. As such, this permanent lighting could result in a potentially significant impact prior to mitigation. MM AES-3 would be required, which would

include measures to reduce permanent above-ground lighting by installing lights at the lowest allowable height; casting low-angle illumination while minimizing incidental light spill onto adjacent properties or open spaces; choosing light fixtures that direct light downward and that would shield direct lighting from sensitive receptors; using "shut off" controls such as sensors, timers, and motion detectors, etc. where appropriate; and installing light fixtures that have non-glare finishes that would not cause reflective daytime glare. Implementation of MM AES-3 would reduce any potential impacts related to permanent lighting to a less than significant level. Therefore, impacts related to substantial lighting or glare associated with expansions to the WWTRF would be less than significant with mitigation incorporated.

**Level of Significance Prior to Mitigation:** Potentially Significant

**Mitigation Required:** MM AES-3

**Level of Significance After Mitigation:** Less than Significant

### Impact AES-4 Findings

**Impact AES-4 Overall Level of Significance Prior to Mitigation:** Potentially Significant

**Impact AES-4 Mitigation Required:** MM AES-3

**Impact AES-4 Overall Level of Significance After Mitigation:** Less than Significant

## 3.1.5 Aesthetics and Visual Resources Mitigation

### Mitigation Measure AES-1: Restoration of Disturbed Areas

Roads, paths, staging areas, and areas along pipeline alignments that are affected by construction activities shall be restored to pre-construction conditions by the City's chosen contractor. Restoration may include repairing, repaving, re-graveling, or grading disturbed areas. Staging areas and other non-road areas would be revegetated following City standards. The City shall comply with the City's trees, shrubs, and plants ordinance for removal and replacement of any City trees (Merced Municipal Code 14.12). Additionally, construction sites shall be kept neat and free of trash and unnecessary debris throughout construction to prevent unsightly views.

**Mitigation Measure AES-1 Implementation**

**Responsible Party:** The City of Merced and chosen contractor

**Timing:** During construction and prior to certification of completion of construction

**Monitoring and Reporting Program**: The design documents approved for construction shall be required to include notes requiring restoration standards in accordance within this mitigation measure, The Contractor shall be required to prepare and submit a rehabilitation strategy prepared in accordance with this mitigation measure for all staging areas that shall be submitted, approved, and kept on file by the City. The City shall verify implementation of the rehabilitation strategy.

**Standards for Success**: Long-term scarring of sites is avoided, and trees and other native vegetation are avoided where possible and replaced when needed in accordance the Merced Municipal Code 14.12.

## Mitigation Measure AES-2: Guidance for Design and Maintenance of Above Ground Facilities

As projects are identified and designed under the Program, City Guidance from the Merced Vision 2030 General Plan Implementing Policy 1.3c shall be implemented (City of Merced 2012) in the following way:

- Utility lines, including sewer and supporting electrical lines, should be placed underground wherever feasible;
- Unsightly mechanical and utility structures, such as pump stations and control boxes, shall be architecturally coated consistent with City design standards and/or screened from view by the use of planting, grading, and fencing;
- Buildings shall be designed to ensure heights and setbacks avoid obstructing important scenic views of nearby permanent visual receptors such as residences;
- When selecting sites and alignments stands of trees and other plant materials of outstanding value (natural or economic) shall be preserved and sites and alignments shall be selected with avoidance of tree and vegetation removal factored in;
- Structures on private and public properties should be maintained in good condition (free of trash, weeds, etc.);
- Architectural and landscape design should result in an attractive appearance and a harmonious relationship with the surrounding environment;
- Design above ground structures to blend with the existing facilities and surrounding environment.
- Select colors and finishes that are the same as or complementary to the existing buildings, structures, and vegetation within the surrounding landscape.
- The design plans for the proposed Projects shall indicate these architectural features and will be approved by the City.

**Mitigation Measure AES-2 Implementation**

**Responsible Party:** The City of Merced and chosen contractor

**Timing:** The design documents approved for construction shall include appropriate finishes for any above-ground features in accordance with this mitigation measure. These standards shall be carried through during construction.

**Monitoring and Reporting Program**: The construction drawings and plans issued for construction shall be required to indicate material finishes and color selections, and the City shall be required to verify that the selections have been made in conformance with this mitigation measure. Following construction, City staff shall confirm that the Contractor has performed construction in conformance with the plans through visual verification.

**Standards for Success**: Visual character impacts are avoided or minimized, and permanent features blend with their exiting visual environment.

## Mitigation Measure AES-3: Use of Best Management Practices to Minimize Lighting Impacts from Construction and Operation

The following best management practices (BMPs) shall be implemented and incorporated into design plans approved by an electrical engineer to ensure minimal adverse impacts to nighttime views for adjacent sensitive receptors. These BMPs shall apply to the construction activities, staging areas implemented by the contractor during construction, and any permanent operational lighting. BMPs shall include but are not limited to the following:

**Construction Lighting**

- Identify when and where lighting is needed and confine and minimize lighting to the extent necessary to meet safety purposes.
- To the extent feasible, limit the height of fixtures to minimize the amount of light crossing property lines and overall light levels.
- Select warm color temperature bulbs (less than 5,000kW).
- Use temporary lighting shields during construction where construction lighting impacts to sensitive receptors cannot be avoided.

**Operational Lighting**

- Install lights at the lowest allowable height and cast low-angle illumination while minimizing incidental light spill onto adjacent properties or open spaces.
- Choose light fixtures that direct light downward and that shield direct lighting from sensitive receptors to the maximum extent feasible.
- Select warm color bulbs
- Use "shut off" controls such as sensors, timers, and motion detectors, etc., where appropriate.
- Light fixtures shall have non-glare finishes that do not cause reflective daytime glare.

**Mitigation Measure AES-3 Implementation**

**Responsible Party:** The City of Merced.

**Timing:** All phases including design, construction, and operation.

**Monitoring and Reporting Program**: The design plans shall be approved by a licensed professional electrical engineer, incorporating the requirements of this mitigation measure. The City shall verify that the measure is appropriately reflected within the design plans. The City shall verify that the chosen contractor is implementing construction light reduction measures and that the design plans meet the operational light reduction measures in accordance with this mitigation measure.

**Standards for Success**: Lighting impacts are reduced to a less than significant level for all sensitive receptors adjacent to Project features during both construction and operation.

### 3.1.6 Abbreviations

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| Caltrans | California Department of Transportation |
| CEQA | California Environmental Quality Act |
| City | City of Merced |
| EIR | Environmental Impact Report |
| MMs | Mitigation Measures |
| NOP | Notice of Preparation |
| SR | State Route |
| SUDP/SOI | Specific Urban Development Plan/Sphere of Influence |
| UC Merced | University of California, Merced |
| WWTRF | Wastewater Treatment and Reclamation Facility |
| 2030 General Plan | Merced Vision 2030 General Plan |

### 3.1.7 References

California Department of Transportation (Caltrans). 2018. California Scenic Highway Mapping System- Merced County. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed November 2018.

City of Merced. 2010. Merced Vision 2030 General Plan Draft Program Environmental Impact Report. https://www.cityofmerced.org/civicax/filebank/blobdload.aspx?BlobID=9183. Accessed June 2018.

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