

4.1 AESTHETICS

4.1.1 INTRODUCTION

This section provides a description of existing visual conditions in the project area and describes the changes to those conditions that would result from implementation of the Proposed Project. Following an overview of the visual resource setting in **Subsection 4.1.2** and the relevant regulatory setting in **Subsection 4.1.3**, project-related impacts and recommended mitigation measures are presented in **Subsection 4.1.4**.

4.1.2 ENVIRONMENTAL SETTING

Regional Setting

The project site and vicinity are generally characterized by the flat terrain of the Central Valley and the backdrop of the Vaca Mountains. The area surrounding the project site consists of agricultural lands and rural residents associated with farms to the east and south; agricultural lands and residential development to the west; and agricultural lands, the riparian corridor along Old Alamo Creek, and the unincorporated rural community of Elmira to the north and northwest.

Project Site Setting

As described in **Section 3.0**, the existing Easterly Wastewater Treatment Plant (EWWTP) facilities are located on 30-acres of an approximately 183-acre site owned by the City, surrounded by unincorporated Solano County (County). The City property is bordered by Vaca Station Road to the west, Lewis Road to the east, Fry Road to the south, and Old Alamo Creek to the north (**Figure 4.1-1**). The visual characteristics of the northwestern portion of the City property consist of the existing EWWTP facilities, including various treatment structures (generally less than 25 feet in height), holding and treatment basins (at and below grade), a two story administration building, a maintenance building, ornamental landscaping, and open, uncultivated fields. This area generally encompasses the project site. The visual characteristics of the southern area of the City property consist of open, non-native grassland fields which are mowed and disked for fire hazard reduction. Irrigated agricultural lands are located in the northeastern portion of the City property, east of the EWWTP facilities.

Several barriers are present that provide a visual separation between the project site and the existing residential development within unincorporated Elmira to the northwest. To the north just beyond the Solano Irrigation District canal, is a mature riparian corridor located along the banks of Old Alamo Creek, creating a permanent buffer between the project site and a portion of the unincorporated town of Elmira as well as a small rural Solano County school which is located approximately 0.22 miles to the north. An ornamental landscape buffer, consisting of shrubs and eucalyptus trees, is located on the western border of the project site, along Vaca Station Road. This buffer, along with the riparian vegetation associated with Old Alamo Creek, shields views of the EWWTP from the nearby residences located in the Town of Elmira (**Figure 4.1-1, Photo A**).



Figure 4.1-1
Views of the Project Site

The EWWTP can be viewed from three rural residences are located approximately 0.25 miles to the east of the project site along Lewis Road, and three rural residences located within approximately one mile of the project site to the southeast.

Viewshed A – Vaca Station Road

Viewshed A is located along Vaca Station Road approximately 0.25 miles northwest of the existing entrance to the project site (**Figure 4.1-1, Photo A**). The duration of visibility for vehicles traveling along Vaca Station Road would be roughly 30 seconds between the Vaca Station/Fry Road intersection and the EWWTP entrance. An existing landscape buffer is located along the project boundary along the northern section of the roadway adjacent to the EWWTP. When facing southeast, views along Vaca Station Road are of the open field area of the southern portion of the project area.

Viewshed B – Fry Road

Viewshed B is located south of the project site along Fry Road. Views of the project site for westbound and eastbound travelers extend for approximately 3.5 miles of the roadway (**Figure 4.1-1, Photo B**). As viewers approach the Vaca Station Road from the east, the project site becomes partially visible at Dally Road. As viewers pass Vaca Station Road, the project site becomes less visible due to the height of the vegetation between the roadway and the project site. Approaching from the west, the project becomes visible at Leisure Road at the City limits.

Viewshed C – Lewis Road

Viewshed C is located to the east of the project site along Lewis Road (**Figure 4.1-1, Photos C1 and C2**). As viewers approach the project from the south along Lewis Road, the project site becomes partially visible north of Hay Road. A number of rural residences are located along this stretch of Lewis road to the east and southeast of the project site.

Viewshed D – Meridian Road / A Street

Viewshed D is located along Meridian Road/A Street, approximately 0.45 miles west of the project site and just south of the Town of Elmira (**Figure 4.1-1, Photo D**). As viewers approach the project site along Meridian Road from the south, the project site becomes partially visible near the Cypress Lakes Golf Course at approximately 1.3 miles. As viewers enter Elmira from southbound Meridian Road/A Street in the Town of Elmira, the project site becomes less visible due to the height of the existing residential structures and the Riparian growth associated with Old Alamo Creek which occurs between the roadway and the project site at this location.

Viewshed E – Holdener Road

Viewshed E is located to the north of the project site along Holdener Road near the Sierra School of Solano County (**Figure 4.1-1, Photo E**). The existing EWWTP is only partial visible from this location due to the mature riparian vegetation along Old Alamo Creek. Random breaks in the vegetation provide sporadic views of the taller facilities at the existing EWWTP.

Scenic Resources

There is no comprehensive list of specific features that automatically qualify as scenic resources; however, certain characteristics can be identified which contribute to the determination of a scenic resource. The following is a partial list of visual qualities and conditions that if present, may indicate the presence of a scenic resource:

- A tree that displays outstanding features of form or age.
- A landmark tree or a group of distinctive trees accented in a setting as a focus of attention.
- An unusual planting that has historical value.
- A unique, massive rock formation.
- An historic building that is a rare example of its period, style, or design, or which has special architectural features and details of importance.
- A feature specifically identified in applicable planning documents as having a special scenic value.
- A unique focus or a feature integrated with its surroundings or overlapping other scenic elements to form a panorama.
- A vegetative or structural feature that has local, regional, or statewide importance.

There are no features on the project site that include the characteristics of scenic resource described above. The project site is not located within a scenic vista or designated state scenic highway, and no scenic resources are located near the project site. The visual characteristics of the project site and vicinity are limited to existing EWWTP facilities, agricultural fields and rural residences.

The scenic context for the project area would be described as agricultural / rural. Although not specifically identified by the City or County General Plans as a scenic resource, the agricultural context provides rural character appreciated by locals and passersby.

Sensitive Receptors

A sensitive receptor is defined as an individual that is especially sensitive to changes in aesthetic qualities, which could include for example, changes in lighting, shadows, or surrounding visual character. Land uses that serve sensitive receptors, i.e., residential uses and education centers, are located in the vicinity of the project site. The tree line along the northern and western boundary of the project site acts as visual barriers that impede views of the project site from residential uses to the north and west. However, six rural residences along Lewis Road have largely unobstructed view of the existing EWWTP.

Light and Glare

The most notable lighting in the vicinity of the project site is from the existing EWWTP facility, which generates artificial lighting during the night, as operation continues 24 hours per day. Although there are few buildings on the site, there is existing lighting that illuminates processing facilities for security, safety

and task specific needs. Some of areas must be illuminated at all times for security and safety; other lighting areas are shut down when not needed to illuminate work in a specific facility area. Other forms of artificial lighting in the project area are from streetlights in the town of Elmira to the northwest and from the Hay Road land fill to the south.

4.1.3 REGULATORY CONTEXT

Federal

Travis Air Force Base Land Use Compatibility Plan

The project site is located within the jurisdiction of the Travis Air Force Base (AFB) Land Use Compatibility Plan (LUCP). As described in more detail in **Section 4.6.3**, the majority of the project site is located in Zone C while the northwest corner of the site is located within Zone D. EWWTP facilities located in Zone D include the majority of the North Plant, the maintenance building, and approximately half of the existing “west pond” area. The LUCP has prohibited land uses that are “hazards to flight”, which include physical, visual, and electronic forms of interference with the safety of aircraft operations. Specifically, the LUCP states that “glare or distracting lights that could be mistaken for airport lights” should be avoided. As discussed in **Section 4.1.4** below, lighting from the Proposed Project would be downcast, and thus would not interfere with the safety of aircraft operations.

Local

City of Vacaville General Plan 1990

The City of Vacaville General Plan (1990) establishes goals and standards for visual quality. Applicable policies are as follows:

Guiding Policies

- 2.1-G9 Preserve scenic features and the feel of a city surrounded by open space, and preserve view corridors to the hills and other significant natural areas.
- 2.6-G7 Ensure that new development is compatible with the character and scale of existing and planned adjoining land uses.
- 5.1-G3 Require buffer landscaping and multiple use, where feasible, of utility sites and rights-of-ways to harmonize with adjoining areas.
- 5.2-G5 Design public buildings to fit into and complement their ultimate surroundings; buffer public buildings from their surroundings so as to shield unsightly areas from public view.
- 5.2-G6 Provide adequate landscaping for all public buildings and installations.

City of Vacaville Municipal Code

Chapter 14.09.127.110, Lighting and Glare, establishes the following standards for lighting:

- Lighting shall be shielded and directed so as not to create a hazard or nuisance to other properties or impact traffic on adjacent streets.
- Exterior lighting should be installed to identify building entrances and to promote on-site safety or security.
- Parking lot lighting shall comply with the standards of the Off-Street Parking and Loading Design Guidelines, including, but not limited to the following:
 - Exterior lighting shall be a minimum of one foot candle and a maximum of six foot candles;
 - A photometric plan demonstrating compliance with these lighting standards and a site plan showing the location and design of exterior lighting shall be required as a condition of project approval;
 - Flickering or flashing lights shall not be permitted;
 - A reduction in the minimum lighting or an exception to the maximum lighting standard requirement may be granted by the Director if the applicant or developer can demonstrate to the satisfaction of the Director that the minimum lighting is unnecessary or that additional lighting is needed.

4.1.4 IMPACTS AND MITIGATION MEASURES

Method of Analysis

Impacts to a viewshed are determined by subjective not objective conclusions. While the viewing experience is subjective in nature, the application of the criteria below allows for an objective baseline assessment of the visual environment and subsequent visual impacts of the Proposed Project. The visual experience within each view of the project site is comprised of the following constituent elements:

1. Clarity in Line of Sight—the overall visibility of the object within the viewshed, influenced by such factors as trees, buildings, topography or any other potential visual obstruction.
2. Duration of Visibility—the amount of time the object is exposed to viewers within the viewshed. For example, a passing commuter will experience a shorter period of viewing time than a resident within the viewshed.
3. Proximity of the Viewer—the effects of foreshortening due to the distance of the viewer from the object will influence the dominance of the object in the perspective of the viewer.
4. Number of Viewers—the number of viewers anticipated to experience the visual character of the object.

The primary views of the project site are experienced by viewers traveling along Fry Road and along Lewis Road, Meridian Road, Vaca Station Road and Leisure Town Road. Six rural residences located within a mile of the project site along Lewis Road have largely unobstructed views of the EWWTP. Views of the project site from Holdener Road are sporadic due to the presence of mature riparian vegetation along Old Alamo Creek. Views of the project site near the EWWTP entrance on Vaca Station Road are additionally shielded by the existing landscape buffer.

Thresholds of Significance

Criteria for determining the significance of impacts to visual resources have been developed based on Appendix G of the California Environmental Quality Act's (CEQA) *Guidelines* and relevant agency thresholds. Impacts associated with aesthetics would be considered significant if the Proposed Project would:

- Result in the 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;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views.

Effects Found Not to be Significant

As discussed within the Initial Study for the Proposed Project included within **Appendix B**, the Proposed Project would not impact designated scenic vistas or state scenic highways. Therefore, further discussion of these issue areas is not included within this EIR.

Project Specific Impacts and Mitigation Measures

Impact

4.1-1 The Proposed Project could substantially degrade the existing visual character or quality of the site and its surroundings.

As discussed in **Section 4.1.2**, the area surrounding the project site can be generally characterized as primarily agricultural/rural, with the unincorporated community of Elmira located to the northwest. Although not specifically designated as a scenic resource in the City or County general plans, the rural setting surrounding the project site is considered visually appealing by local residents and travelers along local roadways that may be subject to impact by construction of an urban type facility. The development of the proposed wastewater treatment facilities would involve the addition of new structures and a change to the site, but would not change the general visual character of the project site. The structures associated with the Tertiary Project are, for the most part, to be developed within the area of the existing EWWTP. A summary of the visual changes resulting from the project is included below:

- Additional facilities will be constructed for the filtration process and will consist of a structure located in the existing open area south of the clarifiers and west of the biosolids drying bed at the EWWTP. The filtration structure will cover an approximate 130 x 90 foot area constructed with concrete to a height of approximately 26 feet above grade. The filter building is a roofed area approximately 30 feet wide that will extend down the length of the filter structure and be about 43 to 45 feet above grade. Backwash storage

basins will be located at grade adjacent to the filtration structure. When viewed from a distance, the new filter facilities will be similar in size and mass to the existing headworks and primary treatment structures on the site.

- A two story addition to the south side of the existing administration building is included in the project to accommodate laboratory and administrative space needs associated with new treatment, testing and reporting requirements.
- Certain visible features at the North Plant, such as the headworks will be removed as part of the project along with associated lighting, improving the visual qualities of that portion of the site.
- Existing lighting at the plant is undergoing evaluation and retrofit work to shield and re-direct fixtures to shine downward and to retrofit switches in some areas to reduce the “always on” lighting and allow for lighting to be switched on in task areas only when needed. New lighting will be shielded to reduce upward glow and spillage off site and will also be designed to allow manual switching in areas where light is only needed when work is being done.
- The proposed project reserves a 70 foot wide buffer area around the entire City-owned property which will be planted with a landscape screen of mixed evergreen plant types expected to achieve a screening height of approximately 70 feet. The staggered layering of plant materials of different heights and widths is intended to reduce gaps and provide screening when viewed from all angles along frontage roadways. There will be gaps in the landscape buffer as needed to accommodate driveways and utility lines.

The perception of a visual impact is subjective, and what one person may perceive as a negative impact another may not find intrusive. The design of the Proposed Project would be subject to local planning policies and regulations. These policies and regulations are intended to ensure aesthetic compatibility of the project with its surroundings. The Proposed Project is subject to Use Permit approval by the Planning Commission and each project design phase is subject to Design Review approval to evaluate aesthetic details and impose requirements, including mitigation measures, to limit adverse aesthetic impacts.

The Proposed Project design includes the extension of perimeter landscaping to encompass the remaining boundaries of the City’s property (**Figure 3-4**). A 70 foot wide planting strip has been set aside and would continue along the plant’s western boundary adjacent to Vaca Station Road, the southern boundary adjacent to Fry Road, and the eastern boundary of the City’s property along Lewis Road. Perimeter landscaping will also be provided along the northeastern boundary of the site. The purpose of the proposed visual barrier is to reduce the visibility of the entire City owned property, including the EWWTP’s buildings and structures, from surrounding residential areas and the dissemination of night-time lighting. The proposed landscape buffer is intended to provide a mix of evergreen plant materials that will achieve a vegetative screen in variable height from 50 to 100 feet. There will be gaps in some areas of the buffer to allow for power lines and

driveway access points. A brief discussion of the anticipated changes to each of the viewsheds described in **Section 4.1.2** is provided below.

Viewshed A: As shown in **Figure 4.1-1, Photo A**, the project site from Viewshed A1 is physically isolated from the Town of Elmira to the northwest by mature vegetation along Old Alamo Creek and within the existing landscape buffer. The mature vegetation along Vaca Station Road, currently shielding views of the project site, would remain in place during the construction and operation of the Proposed Project. Views of the site from this location would be largely unaffected by the Proposed Project.

Viewshed B: As shown in **Figure 4.1-1, Photo B**, the project site from Viewshed B consists of existing open fields and EWWTP treatment structures in the distance. The landscape buffer that would be developed as a result of the Proposed Project would shield the views of the EWWTP, as well as remaining views of the open fields in the foreground.

Viewshed E: The proposed EWWTP expansion on the project site would continue to remain shielded to sensitive receptors due to the existing, mature riparian corridor along Old Alamo Creek. Removal of the many higher profile facilities in the North Plant would further improve views from this location in terms of visible structures and associated lighting. (**Figure 4.1-1, Photo E**).

Viewshed C1 and C2: As shown in **Figure 4.1-1, Photo C1**, the project site from Viewshed C1 consists of existing open fields and agricultural lands in the foreground and EWWTP treatment structures in the distance. The landscape buffer proposed with the Project would screen the views of the EWWTP, as well as views of the remainder of the City owned property. Views directly to the west from Viewshed C2 are across property not owned by the City and would not change as the landscape buffer would not extend along Lewis Road north of the City property. Views from the south west of the City property would be screened by the proposed landscape buffer, It should be noted that additional internal landscaping has been installed as part of a previously approved project to help screen views of the existing plant from the residences along Lewis Road in this area.

Viewshed D: As shown in **Figure 4.1-1, Photo D**, the project site from Viewshed D consists of existing open fields and agricultural areas in the foreground and EWWTP treatment structures in the distance to the east. The landscape buffer included within the Proposed Project would screen the views of the EWWTP, as well as views of the remaining open fields of the City-owned property.

The visual change induced by the project would not degrade the character or quality of the project site and its surroundings as the Proposed Project is an expansion of existing facilities currently in operation on land owned by the City and zoned for public utility purposes. Although the proposed development would create a significant increase in structures on the project site and would obstruct views of open fields and agricultural lands through the development of the landscape

buffer, the Proposed Project would be consistent with the overall goals and policies set forth in the City General Plan (1990). Consistent with the site goals within the City General Plan, the landscape buffer would shield most portions of the existing EWWTP facilities as well as the Proposed Project structures from local sensitive receptors.

The new structures proposed with the project would not exceed the height limitation of 70 feet, based on the Commercial Facilities (CF) zoning district regulations. The CF regulations require approval of a conditional use permit to authorize the new facilities and general layout of the project. Design Review approval is required for the design of project components (City of Vacaville, 2008; City of Vacaville, 2009a).

The proposed project does not alter the visual character and visual quality of the site and vicinity because additional facilities will be constructed within the existing footprint of the plant, or at the south end of the existing plant of a similar design and scale to the structures at the existing South Plant. A 70 foot wide landscape buffer will be installed around the entire City property along road frontages providing screening to both new and existing facilities at the EWWTP. The project is designed in compliance with local land use regulations with details of design subject to public hearing and consideration under Use Permit and Design Review actions. In addition, the removal of the older high profile facilities at the North Plant is considered a visual benefit of the project. Therefore, impacts to the visual character and visual quality of the project site would be considered less than significant. **Less than Significant.**

Impact

4.1-2 The proposed construction of EWWTP facilities at the project site could create a new source of substantial light or glare which could adversely affect day or nighttime views.

The project site currently contains existing wastewater treatment facilities, which are currently illuminated for safety, security and to support task areas. The Proposed Project would introduce new sources of light on the property for the same purposes, including site and building lighting. None of the surfaces proposed for the project are reflective or would produce glare. Existing lighting at the plant is undergoing evaluation and retrofit work to shield and re-direct fixtures to shine downward and to retrofit switches in some areas to reduce the “always on” lighting and allow for lighting to be switched on in task areas only when needed. New lighting will be shielded to reduce upward glow and spillage off site and will also be designed to allow manual switching in areas where light is only needed when work is being done.

Higher profile structures at the North Plant will be removed as part of the project, along with associated existing lighting.

The Proposed Project would result in day and nighttime use of the project site that would continue to generate nighttime lighting in the project area. Lighting elements would blend into the environment by day and on-site illuminated parking area lights and structure lighting would be operational at night.

The Proposed Project would construct treatment facilities ranging in height from at-grade for the emergency storage pond to approximately 26 feet for the walls of concrete treatment facilities and up to 45 feet for the partial cover of the new filtration structure. Exterior materials used to construct the proposed facilities are primarily concrete, stucco and steel and will be painted in earthtones to match the existing structures on the site; thereby eliminating the potential for glare and reflectivity.

The potential exists for sensitive receptors, including residences and vehicles traveling on Vaca Station Road, Lewis Road, Meridian Road and Fry Road, to be affected by lighting from off-site light scatter from new lighting resulting from the proposed project. The following mitigation measure will provide for the incorporation of design techniques that will reduce the intensity of new sources of light. After mitigation, potential impacts to day and nighttime views associated with lighting on the project site would be considered less than significant. **Less than Significant with Mitigation.**

Mitigation Measure 4.1-2. Design plans that configure exterior EWWTP light fixtures to emphasize lower intensity light. Lighting shall be directed downward in order to minimize glare on adjacent uses and minimize impacts to night sky views.

Cumulative Impacts

The cumulative context for the evaluation of cumulative impacts associated with aesthetics is the surrounding area within the viewshed of the project site.

Impact

4.1-3 The Proposed Project in combination with cumulative development surrounding the project site, could impact visual resources and create new sources of light and glare.

With the exception of the project site and the surrounding City owned property, all areas in the project vicinity that are designated for agricultural and rural residential uses. Potential cumulative projects in the vicinity of the project site include growth within the City limits of Vacaville according to the build out projections in the City's General Plan, and, in the immediate vicinity, the proposed development of the power plant adjacent and south east of the project site. The power plant will be developed pursuant to the permitting process and regulations of the California Energy Commission (CEC) and subject to separate environmental review under the jurisdiction of the CEC. The Proposed Project would include exterior and interior lighting that are designed not to infringe on adjacent properties or people traveling on roadways (see **Mitigation Measures 4.1-2**). New light sources associated with Proposed Project development would create new sources of light but would not negatively affect the ambient light in the project area due to light reduction strategies that are being implemented at the existing EWWTP plant, the elimination of some lighting with the demolition of North Plant features, due to the proposed landscape screening around the entire City property. Therefore, the project's contribution to new light sources would not be cumulatively considerable. **Less than Significant.**